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The Philadelphia Medical Journal

A Weekly Journal Owned and Published by The Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession

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The great dissatisfaction with the Materia Medica supply business has been long and universal. Even the nostrum-makers, the so-called patent-medicine vendors who appeal direct to the public, have not been pleased, because they could not sell quite all the drugs used by the people, because they could not control quite all the drug-stores, because the millions of dollars made were not so many as they desired, because they were scorned by physicians, and lastly because their own remnants of conscience still worried them a little. The manufacturers of secret nostrums who confine themselves to the medical profession have been quite as ill at ease, and for much the same reasons, the contempt of the medical and pharmaceutic professions making the conscience-stings hurt more, even though well-salved with auric preparations. The manufacturers of legitimate or non-secret pharmaceuticals have been also tormented by many temptations, by an undefined and uncertain status, by prejudice and unjust judgments, by legal indecision, etc. The business of the retail pharmacist, moreover, has been nearly ruined. But the most miserable of the sufferers has been the medical profession, for reasons and in ways that are too well known to need setting forth.

The great opportunity has been offered the universal dissatisfaction of uniting grievances and fusing desires with good hopes of realization. Any one who has studied the matter seriously has at once recognized that the remedy for so general a grievance must itself be as general in nature, that the fundamental cause and the lasting cure of the disease is at once national and legal. This conviction has resulted in the appointment of a Commission by the President, whose duty it shall be to recommend to Congress such reforms and laws as shall at last bring to an end the long-standing wrongs and abuses, and to prepare such a revision of the United States patent and trade-mark laws as will finally deliver our country from its condition of medical shame, and line it up with civilized nations of the world. All recognize that it is time the epithet, American, as applied to medicines, shall not be one of degradation. The opportunity thus offered should be most avidly seized, and all lovers of our country and of our profession should unite in such recommendations as will insure not only peace but progress. There is the frankest assurance that the executive and legislative branches of the Government are minded to heed and to accept our advice. If we are so lethargic as not even to give our advice, then, verily, do we love our condition, and must henceforth hold our peace.

The Great Opportunity Neglected.—If we are not misinformed, we are, as a profession, sadly neglecting the offered opportunity and the common duty. We are profoundly convinced that there are few more vital and important matters before us, not only as regards our professional standing and welfare, but also as regards national progress and a genuine civilization of the future, than this of an enlightened and just settlement of the questions relating to the therapeutic agents used legitimately and illegitimately in the treatment of disease. It has become the fashion, this so-called therapeutic nihilism; the rise of surgery, the reactions from quackery and over-drugging, have generated a false contempt of drugs that is as dangerous and pernicious as the former extremes. It plays straight into the hands and pocketbooks of the nostrum-folk. While we are physicians, curers and not preventers of disease, we must dispense, and not dispense with, drugs. Our duty is thus clear, that we must give more and not less intellect, greater, not less discrimination, in clarifying the professional and legal conceptions as to the powers and uses of drugs. The opportunity of the McKinley commission is being neglected by us. The American Pharmaceutical Association is better than we in this respect, as may be seen by the carefully prepared and admirable letter of its committee, to which we give so much space in our present issue. The time is short; it will be a sad oversight if, in this vital matter, we show no sign of a professional conscience and voice.

Patents or Not?—In endeavoring to sound professional opinion upon the questions raised we find two opinions more or less crystallizing out of the cloudy mother-liquor: one that we must recognize neither patents nor trade-marks, because we as a profession cannot give them even the quasi-endorsement of permission. We must simply condemn everything "restricting" the manufacture and sale of the articles of our Materia Medica. The other opinion is one not only of indifference to patents, but to secrets of the most nostrummy sort. If we are observers of facts we

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must immediately acknowledge that as a profession we do not disallow patents, nor can we disallow them. We are not confronted with a theory, but a condition. We cannot, if we bend all our energies to the task, change or annul the laws to-day on the statute-books. The ideal is simply absolutely impracticable; unimpassioned, and thorough discussion of the question in the past has been almost impossible because of the existence of monopolies, because of secrecy as to the composition of drugs sold, and because of the trade-mark abuse. We might as well at once give up our opposition to the patenting of chemicals. We may say the members of our guild should not patent such discoveries, and we trust this may continue our professional attitude, but to say nonprofessional men may not patent them and that we will not prescribe them, is not only *ultra vires*, and absurd, but the rule as to our own prescribing would be at once disobeyed, and should be disobeyed, as it would often be utterly unprofessional.

The trade-mark abuse is the *fons et origo* of all our ills. By this abuse we are either pitched into the ocean of the newspaper nostrum business, or the sea of professionally prescribed secrets. By it the name given an article when first launched is preserved as a generic title, not as the brand-mark, word-mark, or special term, and a perpetual monopoly is secured, the real intent of the patent-law being subverted. The patent-law itself is good; it is the misapplication of it, its abuse, and the popular misunderstanding which work the mischief. Many do not know that the trend of all legal decisions is now clear—every medicinal agent must henceforth have a generic title; the special brand of the manufactured article cannot longer be legally the generic title of it; the special maker may protect himself by his peculiar word-mark, or brand-mark. The generic term should be the one used in general discussion, and in the reading columns of medical journals, the special title or word-mark being used in the advertising pages, and in the prescriptions of physicians who for any reason prefer a certain particular maker's brand. When the chemical name is unwieldy, the committee already appointed by the American Pharmaceutical Association for this purpose (in conjunction with one appointed by physicians) should fix upon a short generic title for the product.

The Patenting of Galenicals; Process-patents, and Product-patents.—The patenting of so-called galenicals, however, is a subject beset with difficulties, chiefly because it is often impossible, it would also frequently be impracticable, to protect capital invested if the working formulas were published. This subject is open for discussion. The suggestion of the American Pharmaceutical Association of a registry of the formulas, by some recognized and trustworthy authority, the same to be published within a specified time, is an ingenious one which may seem to experts a happy solution. To them and to professional discussion must also be left the remaining *questio vexata* of process-patents or product-patents. The Germans follow the first plan, and as we do not, we have the intolerable fact that phenacetin on one side of an American stream is worth 18 cents an ounce, while on the other side it sells for $1.00 an ounce. The chief point is whether, according to existing United States laws, the process-patent will insure sufficient protection to render the patent of enough value to induce the manufacturers to divulge their processes by patenting them. Unless this is secured we in reality force manufacturers who would prefer reputability into a real alliance with, and practice of, the methods of the nostrum-people. We must not forget that the absolute prerequisite of all genuine reform is the end of the secret drug and nostrum business. The American Pharmaceutical Association is on record as favoring patents on processes and not on products.

Independent Order of Physicians and Surgeons.—In order to counteract the evils of quackery, sectarianism, charity-abuse in hospitals and dispensaries, contract medical work, professional overcrowding, the graduation of insufficiently qualified students, etc., etc., Dr. Charles G. Kuhlman, of San Francisco, proposes the organization of The Independent Order of Physicians and Surgeons, and in pursuance of this object he solicits answers to the following questions:

1. Do you believe in counteracting all causes that tend toward destroying the efficiency of the medical profession?
2. Do you believe in counteracting all causes that tend toward the inevitable pauperization of the medical profession?
3. Do you believe in counteracting all causes that tend toward making the members of the medical profession the poorly paid and overworked hirelings and slaves of wealthy corporations and organizations?
4. Do you believe in unlimited general medical competition?
5. Would you be satisfied with your just share of medical patronage and experience under general medical competition?
6. Do you believe in laws that will subject private medical institutions, that secure their patients through cappers and questionable advertisements, to public inspection and regulation?
7. Do you believe in laws that will throw the burden of medical charity equally upon all tax-payers?
8. Do you believe in promoting friendship, harmony and sociability among the members of the medical profession?
9. Do you believe that corporations and organizations have the right to bar the way in life for the young men of this State after they leave richly endowed institutions to practise their profession?
10. Are you broad enough to rise above petty professional differences and prejudices, fostered under conditions over which a disunited profession could have no control, and join the Independent Order of Physicians and Surgeons in a united effort to wrest the profession now and forever from the vulgar grasp of merciless ignorance and commercialism?

A postscript states that—

Regulation of the private life of members or their relations with their patients does not come within the scope of this Order.

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or pathological specimens, or discussions thereon, at any of the meetings, is positively prohibited by the Constitution of the Order.

There will be no membership-fees. The cost of operating the Order will never exceed one dollar per member per annum.

Whatever the merits or the feasibility of the proposed organization, we have serious doubts as to its success.

Alcohol in Asylums for the Insane.—Hugo Hoppe, in the December number of the *Neurologisches Centralblatt*, deprecates the extensive use of alcohol in asylums for the insane that appears to be so common in Germany. He begins by estimating the number of patients who should not, under any circumstances, receive alcohol. These, of course, include, first, the chronic alcoholics which composed 50% of the insane in Berlin in 1893, and even in the country insane-asylums amounted to nearly 30%. This number should, however, be increased considerably by adding to it those patients in whom alcohol has been contributory in connection with other causes to their condition. Second, the insane suffering from epilepsy. These form a proportion of from 8 to 10% of the inmates of the various insane-asylums. Third, the paretic dements, for whom experience has shown alcohol is exceedingly injurious. These compose on the average about 15% of the inmates. A fourth group comprises the idiots and imbeciles, about 13%, and finally, all patients who are maniacal or those suffering from periodic insanity, on an average about 5%. Altogether, reckoning the alcoholics at 25%, which is apparently from his own showing much too low a figure, and deducting 10% from the total on account of possible repetition, Hoppe estimates that some 56% of the male patients and some 36% of the female patients are not suited to the use of alcohol. Even supposing that alcohol were beneficial for the remaining 44% of the men, it is almost impossible to give it to them and deny it to others, providing they dwell together. Various plans have been proposed to overcome this difficulty, the most obvious being the segregation of the alcoholics in a separate building into which alcohol is not allowed to enter, but Hoppe objects to this on the grounds that it is exceedingly disadvantageous to place the alcoholics, in general a degenerate and disagreeable class, together, for they are much easier to manage when distributed among the other patients. Moreover, it is not possible to keep the alcoholics always apart from the other patients, and therefore exclude them from all possibility of obtaining liquor, for during exercise, in the workshops, and in other places, it is necessary for them to come together. There is a curious complaint of the disagreeable results of the various feasts that are celebrated in the asylums. On these occasions, the men are apparently allowed to have considerable quantities of beer, often of the heavier varieties. This produces, as a sequel, all sorts of unpleasant manifestations. Thus, the epileptics usually have attacks immediately afterward. In those suffering from periodic insanity, an attack is frequently precipitated. Turning then to the advantages of beer, as seen by a German, Hoppe admits it has an educational influence, that is to say, by a judicious system of reward or privation, always paid or withdrawn in the form of beer, the patient may be encouraged to work and deterred from idleness and disorder. He suggests, however, that other articles can replace beer, such as tobacco, lemonade, fruit, etc. Finally, he reaches the objection that apparently appeals most strongly to him, that is, the expense attached to the purchase of beer. The figures are extraordinary. In Allenberg, the institution of which he is superintendent, where there are about 750 patients, they consumed in the year 1896, 83,000 liters of brown beer, and 26,000 liters of Bavarian beer, costing nearly $3,000 per year. In a single month, July, 1897, 9,745 liters of brown beer and 2,400 liters of Bavarian beer were drunk, costing $300. Finally, he makes the curious objection to beer that patients who, in their private families are unaccustomed to drinking, or unable to afford considerable quantities of beer, become so accustomed to it on account of the daily ration furnished in these asylums, that after their discharge they insist upon having it at home, often to the detriment of their incomes. The natural conclusion which Hoppe draws is that it is desirable to banish alcohol in any form from the insane-asylums, a conclusion that was reached in America some years ago.

War, Sex, and Humbug.—If the newspapers do him justice, Dr. Schenck, of Vienna, the scientist who claims to have discovered the secret of sex, is somewhat nonplussed by an unexpected result of the late Spanish-American war. According to reports, there has been a large excess of male over female births in the United States in the last two months, and Dr. Schenck has been asked to explain this portentous phenomenon. If it had been due to a comet or an eclipse of the moon, it would not have been so strange; but it passes comprehension how war, which is supposed to destroy men, should, in this instance, be the cause of producing them.

Dr. Schenck, however, is not so nonplussed as to be unable to explain the genesis of so many warlike Yankee babies. He ascribes the increase of male births to the marked enthusiasm invoked by the war; but this enthusiasm (according to Dr. Schenck's theory) must have been in the women, because the subtle influence works crosswise—*i. e.*, an enthusiastic woman (one who made pajamas, for instance, and waved her handkerchief to the departing troops) is more likely to give birth to a boy than is the dejected or indifferent female who was not in favor of the war. This is further proved by a recent East African campaign, in which the warriors made prisoners of unwilling wives, and the ratio of births as a consequence was about one boy to five girls, a result due to the enthusiasm inspiring the men, while their captive wives were sorrowful and dejected.

Again, the enthusiasm of the American woman for the war led her, in Dr. Schenck's opinion, to eat more. Hence her nourishment was so much improved that she naturally gave birth to boy-babies. This, it is to observed, is different from the case of the bees, in which increased and improved nourishment is supposed to give origin to the queen-bee. But then Americans are different from bees in more ways than one. They do not, for instance, have a queen who at the same time is mother to the whole community, and who, consequently, must need a very first-class diet, indeed.

Dr. Schenck thinks that the adoption of his "system" by the American women in very large numbers serves to account for the high male birth-rate. We did not know before that our American women had adopted Dr. Schenk's or anybody else's theories, in order to enable them to have boys; but we are glad to be informed of such an interesting domestic movement in our midst. We think, however, this movement should be regulated, because if it becomes too widespread we may soon have nothing but boys in the United States. This would lead to embarrassing results; and, in fact, foreign wars would probably soon be started to which the ancient Sabine campaign would not be a circumstance.

Dr. Schenck says that he has received numerous approving letters within the last two months as the result of the publication of his "secret." But if this secret leads to the indefinite multiplication of boys as a result of "war and enthusiasm," we regard it as a direct menace both to our domestic and national peace, and cannot too urgently insist upon Dr. Schenck's sending us a prescription for girls.

The Value of Pathologic Experiment.—In an address on this subject, delivered before the Seventh International Medical Congress held in London in 1881, Virchow exposed the weakness of the antivivisection-movement, showing how it was based upon ignorance and fanaticism, and pointing out the great advances that had been made with, and that could not have been made without, the aid of animal experimentation. The same spirit of antagonism had been manifested earlier against dissection, and it was predicted that if the antivivisectionists gained their point the next step would be restriction of this mode of investigation. So appropriate and so opportune did this address appear to Virchow on his return to Berlin after his recent visit to London that he decided to resurrect it, and he has had it republished in pamphlet-form, with the addition of the following postscript:[1]

"When I arrived in London several months ago to deliver the second Huxley Lecture to the students of Charing Cross Hospital Medical School, I found warm invitations to visit Liverpool to attend the opening of the new physiologic and pathologic laboratories, on October 8th. I recalled on this occasion how different were the circumstances under which I participated in the great International Medical Congress in London 17 years previously. At that time the violent agitation of the antivivisectionists, which has not yet subsided, had just begun, and the inciters of the movement pointed to conquests already made in various countries. Even in England it had been possible to arouse public opinion; Parliament had agreed to measures that threatened to bear heavily upon experimental investigation by well-known physicians. Thinking men, therefore, began to make inquiry on the continent, in order to avail themselves of the experiences of other investigators. It thus came about that the president of the International Congress, at that time England's most distinguished surgeon, James Paget, asked me in the name of the committee to make a report, and the great honor was conferred upon me of giving me first place among the reporters.

"I read my report in the second general session, on August 3, 1881, in the presence of the Prince of Wales and the Crown Prince Frederick of Germany. Although the address, in conformity with the rules of the Congress, was delivered in German, it was well received. The worthy and honored president closed the session with the following words:

"'Gentlemen: Although by your repeated and warm applause you have assured Professor Virchow of your thanks for his admirable address, yet I beg you to authorize me to present them to him in the usual manner. I think it is an excellent beginning of this part of the work of our Congress that the first of the general addresses should be given by Professor Virchow, and that we who have so long known him by repute and the study of his works, should see and hear him. His address is, I am sure, one for which, however heartily we may thank him now, we shall often and as heartily thank him in the future; for we shall have it for reading and deliberate study; and the more we study it the more it will prove itself to be an admirable instance of the rare combination of abundant pathologic and historic knowledge, with the power of strong argument and clear statement for which Professor Virchow has always been renowned. We are the more indebted to him because he has come here for only a few days and under heavy pressure of other engagements. Is it, then, your pleasure that the hearty thanks of the meeting be offered to Professor Virchow?'

"Thanks were voted by acclamation.[2]

"I was, however, conscious that a German address in London and before an International Congress, including so many and such various foreign members, could not be completely successful, and I awaited further developments not without anxiety. Fortunately a moderation of sentiment set in in England, while elsewhere and particularly in those continental countries whose people were considered educated and unprejudiced, the agitation of the antivivisectionists became at times perfectly furious. The weaker sex proved itself in this connection the more aggressive.

"It can be said at this time, when it is possible to look back quietly and with increased experience, that the representations as to the number of experimenters and the number of experimental animals were grossly exaggerated. In no single country in the world has experimental investigation become so common as was predicted, or at least stated. Everywhere experimentation was confined more or less to certain institutions and by preference to those of a public character. The complaints were thus directed especially against the universities, the medical schools and the laboratories.

"Restriction naturally does not prevent abuse. Even workers in a public institution, and even the directors may overstep the prescribed limits of liberty. It is known that the greatest dissatisfaction on the part of the public was aroused by the professor of physiology in Florence who conducted his experiments in rooms close to the street and startled passers-by by the cries and shrieks of the animals. From this point the agitation against animal experimentation had its beginning. The suspicion of cruelty to animals spread thence to institutions in which the greatest reserve was exercised in the employment of living animals for experiments or for demonstration in the course of instruction.

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[1] Ueber den Werth des pathologischen Experiments. 8vo, pp. 38. Berlin: August Hirschwald, 1899.

[2] Transact. Intern. Med. Congr., p. 36.

"Since that time experiments upon living animals have undergone great, it may be said enormous, extension. This has taken place since the development of bacteriology. In order to determine the harmfulness or the innocuousness of a microorganism there is no other means than animal experimentation, as there is not for the testing of poisons. The smallest forms of vegetable life, which are to be recognized only with the highest powers of the microscope, produce not rarely the most virulent poisons, although their appearance, their optic, chemic and physical properties do not suffice to disclose their toxicity. This is to be learned only by introducing the microorganisms or their products into the living organism and studying their action. No one can fail to appreciate that the experiment is a necessary part of the investigation.

"Perhaps this knowledge has contributed to convincing most people that animal experimentation is not alone a useful procedure, but the only, and therefore an indispensable, one for the determination of the nature of microparasitic diseases. Investigation has, however, taken another direction, which is worthy of the highest consideration on account of the important results to which it has led. This is the study of antidotes, especially the so-called antitoxins, and the resulting further knowledge concerning immunity to bacterial poisons and concerning the immunization of living animals. It will suffice to recall the experiences with diphtheria and with the diphtheria-serum. Further examples might be cited. Even governments have been compelled to establish institutes for the determination of the value of substances experimentally derived from bacteria for curative and immunization purposes, and subsequently to fix the conditions under which these substances are to be employed.

"I was agreeably surprised to find in England, whose people remained so long in doubt, 17 years after my London address, the decided tendency in favor of experimental methods. The new institute in Liverpool includes within its large and commodious rooms, laboratories, not alone for pathology, but also for physiology. Ample and well-equipped quarters afford working space not only for investigators, but also for students to be instructed in the difficult methods of scientific experimentation. The public manifested its participation in the heartiest manner. The whole city of Liverpool, this large city almost exclusively given up to trade, exhibited a happy interest in this new addition to its educational opportunities. What most impressed the stranger was the fact that the founder was a minister, Rev. Thompson Yates, who has provided ample means for the erection and equipment of the institute. The Thompson Yates laboratories, as they are known, will in future be a source of pride for the city and will be the means of attracting many students and investigators. They will at the same time constitute a definite barrier to the further onslaughts of the antivivisectionists.

"For me it was a source of especial satisfaction to read again my old London address. I could say to myself that it was a good address and that it was so written as to be capable of a wide and useful influence. Perhaps I overestimate its significance, but I may be pardoned the statement that I feel that it should be republished unchanged. It may be that no antivivisection-opponent will be convinced by it, but I am not without hope that it may have an immunizing influence upon many healthy persons. May it also have a good effect upon unbelievers.

"It remains, in conclusion, my duty to thank again that highly esteemed man, who at that time assigned me to so important a duty, and who, in spite of age and bodily infirmity, has not ceased to appreciate the truth. I was fortunate to be able again to grasp the hand of Sir James Paget and to return home with the assurance that his friendship for me remained undiminished."

Suggestions to Writers: No. 19. Tuberculosis—not Consumption, not Phthisis.—Tissue-destruction, breaking down and wasting, whether in lung, in gland, in bone, in skin, in bowel or elsewhere, may result from various causes, sometimes determinable, sometimes not. The process is itself not a distinctive disease or even condition. When, however, we know its origin we may appropriately and correctly employ the specific designation. It is thus more exact and more scientific to speak of syphilis or actinomycosis or anthrax or suppuration or tuberculosis respectively, when the condition is recognized, than to use such a general term as consumption or phthisis for any or all. Further, both of these terms are most commonly used synonymously with tuberculosis, especially of the lungs, and are associated in the lay mind with the notion of progressive aggravation and incurability, and in some quarters the professional mind is not entirely free from the same bias. For the foregoing reasons, we think it would be well if the words consumption and phthisis were expunged from our nomenclature as unnecessary and ambiguous and replaced by the appropriate specific designation, such as tuberculosis, when this is really meant, or other word that describes the disease present in so far as this is determinable.

"A Chiel's Amang Ye Takin' Notes."—There lies before us a blank circular which, after calling upon physicians, the agent (of a pharmaceutic product) is to fill out and forward to the home-office of the manufacturing firm. There are appropriate spaces for answering as to physician's name, school, the number of samples left, etc., and others in which are to be stated whether the "intelligence" is "superior," "fair" or "poor," whether his practice is "large, fair, or small," whether he uses substitutes, or prefers ———, and whether he is "favorable" or not. Thus is history made, and each man is written of in the book of Pharmacologic Fate!

Editor and Reader No. 9: The unknown things for which the Editor is not thanked far outnumber those that are known. In politics the good lawmaker or executive officer does the community as much, often far more, good by killing bad schemes in their inception, by preventing bad laws from being introduced or passed, by refusing to appoint corrupt or worthless subordinates, etc., as by the things, laws, or officials he positively establishes. In pure science or experimental medicine a negative experiment that is soon forgotten is frequently as important as the positive one that becomes woven into the truth that all recognize. Each is necessary to establish a certainty. In a lay journal the labor concerning contributions refused and the "News" ignored takes up the larger portion of editorial time and energy. We believe we do not exaggerate when we say that by far the most of a medical editor's work never positively shows in his journal. The things for which you have most reason to be grateful are precisely those you can have no conception of. It is, for example, a pleasure, but none the less a labor, to answer 20 or 30 inquirers a day who ask concerning matters not at all connected with the Journal. We say it is a pleasure, because the information is difficult for the inquirer to get, easy, generally, for an editor to give, and it is acknowledged that much of the satisfaction of life consists in doing little kindnesses.

But the grumblers and scolders have to be reckoned with also; they who write hastily, with prejudice, misinformation, and ill-will. Job was our Sunday-school teacher's model of patience, but Job never edited a medical journal!

It is also to be noted that the writer of a rejected article never quite forgives the poor editor; and some men are so constituted that they will "lay for that man" for many years. And yet, a journal can print only a finite number of articles, and a very large number, for this or for many other reasons, must necessarily be returned. The return is no proof that the article has not decided merits, and one may write a kind personal letter in explanation, but the hurt, we fear, too often remains.

Perhaps the most of the unrecognized good an editor does consists in the rejection of subtle temptations. We know, for example, of a recent instance in which an order for six thousand dollars' worth of journals accompanied the submission of a reputable manuscript, the order being conditioned upon the acceptance of the manuscript. Not a subscriber would have grumbled or would have been the worse or the wiser if the article (which was printed a month later by a rival journal) had been accepted. We know of an editor who traveled over much of the world and lived at first-class hotels, his expenses being paid by "write-ups" in his journal concerning health-resorts, with deft paragraphs about railroads, steamships, hotels, etc. The reading-notice has a hundred protean disguises, and the expert recognizes the concealed gleam of cunning eyes when the careless see only ingenuous frankness, or, at best, carelessness. The "ethical cranks" are apparently easily laughed out by the "nobody-knows and the nobody-cares" of the indifferentists. Happily, the fact remains, though opinions differ, and the laughers come and go. Thomas Wakely was not of the family of the laughers.

Credit Rabelais, not Franklin.—We have received a number of letters referring to the editorial in our issue of December 24, p. 1313, on *Franklin and the Doctors*, in which Franklin is credited with the expression, "There are more old drunkards than old doctors." Dr. William Lee Howard, one of our correspondents, writes, in part, as follows:—

> "In the December *Century*, in his article, *The Many-sided Franklin*, page 299, Mr. Ford credits Franklin with the original statement that 'There are more old drunkards than old doctors.' In Franklin's day one could probably quote Rabelais, imputing to oneself the originality, with impunity; and it is not altogether improbable that it might be done in Philadelphia to-day; but, however this may be, the aphorism was lifted bodily from Rabelais. In chapter xli, Book I, we find the following: 'O, rot your physicians,' said the monk, 'a hundred devils leap into my body, if there be not more old drunkards than old physicians.' As this remark, credited to Franklin by Mr. Ford in the *Century*, has penetrated the medical press, I thought it necessary to call attention to its correct source: François Rabelais, Physician."

Our Prize Competition has proved successful, so far as the number of contributions offered, beyond our most sanguine expectations. We have received 49 essays representing every chief department of medicine. To decide upon the relative merits and make just awards, will demand much labor and time on the part of the judges, who must, therefore, beg for considerable patient indulgence from contestants. Even a hasty glance has shown that there are many most original and important contributions. The splendid offering illustrates how living and progressive is the science of medicine.

Selected Formulas.

For Infantile Chorea:

Arsenous acid	1½ grains.
Distilled water	3 fluidounces. Mix.

Dose: From one-half to seven teaspoonfuls daily.

—FILATOW.

Nutrient Enema in Carcinoma of the Stomach:

Yolks of eggs	2
Dried peptone	1 to 5 drams.
Wine	4 fluidounces.
Bouillon	8 fluidounces. Mix.

For Chapped Hands:

Menthol	1 part.
Salol	2 parts.
Olive-oil	3 parts.
Lanolin	80 parts. Mix.

Apply twice daily. —RITTERBAND.

For Stomatitis from Smoking:

Salol	1 part.
Spirit of peppermint	50 parts.
Tincture of catechu	2 parts. Mix.

Dose: A teaspoonful in a glass of water, and to be used as a mouth-wash. —*Practitioner.*

For Simple Diarrhea in Young Children:

Chalk-mixture	of each 4 fluidrams. Mix.
Aromatic sirup of rhubarb	
Camphorated tincture of opium	
Mucilage of acacia	

Dose: A teaspoonful after each stool.

—*Western Medical Review.*

For Rhinitis:

Guaiacol	4 parts.
Menthol	2 parts.
Cocain hydrochlorate	1 part.
Camphor	120 parts. Mix.

Use in atomizer to spray the nose and throat every three hours. —PURKITT (*Therapeutic Gazette.*)

Alterative—Four Chlorids:

Arsenic chlorid	1 grain.
Ammonium chlorid	2 drams.
Tincture of iron chlorid	4 fluidrams.
Mercuric chlorid	1½ grains.
Sirup	3 fluidounces.
Water to make	6 fluidounces. Mix.

Dose: One teaspoonful thrice daily.

For Headache:

Sodium bromid	1 dram.
Phenacetin	30 grains.
Caffein citrate	18 grains.
Sodium bicarbonate	1 dram.

Mix and divide into 6 powders.

Dose: One to be taken every 15 minutes until relief is afforded; to be followed by a Seidlitz powder.

—STALLER.

For Hyperchlorhydria:

Sodium sulfate	6 parts.
Potassium sulfate	1 part.
Sodium chlorate	6 parts.
Sodium carbonate	5 parts.
Sodium biborate	2 parts. Mix.

Dose: Half a teaspoonful, dissolved in a half a glass of water, three times a day, before breakfast, and two hours before luncheon and dinner. —BOAS.

Reviews.

Electricity in the Diagnosis and Treatment of Diseases of the Nose, Throat and Ear.

By W. Scheppegrell, A.M., M.D , Ex Vice-President American Laryngological, Rhinological and Otological Society; Vice-President Western Ophthalmologic and Oto-Laryngologic Association; Late Assistant Surgeon to the Eye, Ear, Nose, and Throat Hospital, New Orleans; Vice-President New Orleans Electric Society, etc. With 161 Illustrations. New Orleans, La., New York and London: G. P. Putnam's Sons, 1898.

To one who would master the intricacies of electric technic, its practical workings, and its medical applicability especially in diseases of the nose, throat and ear, Dr. Scheppegrell's work is invaluable. From its inception in the simple primitive cell to the curiously penetrative X-ray imagery, his exposition of the subject, electricity, is lucid, minute, succinct. As an illuminant, motor cauterant, catalytic, in the role of galvanism or faradism, no phase of the subject is neglected. The application of each property or diversion of the current in the treatment of disease is given with a fairness that is judicious, almost judicial, clearly evidencing the practical electric worker as well as the experienced specialist. Too often the average practitioner's electric knowledge extends from the roof upward, and the foundation for the practical working of his electric armamentarium is at the shop where it was purchased, summoned in haste, at pecuniary outlay, whenever the cautery refuses to work or the light to shine. Dr. Scheppegrell gives the solution in each case for these annoying failures of the various electric appliances, with their appropriate remedies. For purposes of diagnosis and treatment, only such methods are commended as have been thoroughly tested and met the requirements successfully. Not to be caught with the glamor of the merely new, his conclusions as to the value of electricity in diagnosticating and treating disease of the upper respiratory tract and ear coincide with those of the thinking working practitioner in these branches of medicine. The book is evenly balanced; no part is slighted. The style is clear and the subject is handled impartially. The publisher has done his part admirably.

The Hygiene of the Voice.

By Thos. F. Rumbold, M.D. With 27 Illustrations. St. Louis, Mo.: Wilt Publishing Company.

This monograph is addressed not so much to the practitioner of medicine as to the student of voice; and yet the former will find in it much that is interesting, and a few things that may not go unchallenged. The advice given to voice-users is practical and sound. Put in a few words, it means simply this: give up your popular home-remedies for the throat and voice because they are generally harmful, and when you have trouble, consult the physician who has made a special study of the conditions that cause the trouble and the remedies that relieve it. The author does well to leave the breathing and the muscular control of voice to the teacher, if his own knowledge of the subject extends no further than his knowledge of the use of the diaphragm. He says that this muscle should do "fully two-thirds of the inspiratory labor." Now the best teachers everywhere know that the diaphragm does no "inspiratory labor" whatever during speech and song, but its function is altogether expiratory in the production of voice.

A new function is also added to the uvula. He says that it rests upon the tongue and prevents "the free edge of the soft palate from being shaken by the force of the air from the larynx" during phonation. The fact is, "The force of the air from the larynx" is not strong enough to shake the palate to any great extent, and if it were, it is difficult to see how the uvula, not being an erectile body, could give much support to the free edge of the palate. It is true, the palate does vibrate in unison with the vocal cords, as do all the other structures near them; and this vibration results in, not an "impairment," but an improvement of the voice. The "incision of an elongated uvula" is spoken of as a means of improving the voice. It is presumed that "excision" is the word intended to be used, although either term is misleading, as are also such phrases as "the removal of the uvula" and "its loss." Of course, only a portion of the uvula is ever removed for the improvement of the voice. A new theory is also advanced with reference to hypertrophied tonsils. "The chronic enlargements are not glandular structures," but "warty substances." In operations for their removal, "the tonsils are not entirely excised, only the growths upon them are removed." The pathologist will hardly accept this theory, but it will be an attractive one to the voice-user for whom, as I have said, the statements are intended. Good advice is given with reference to the care of the voice and throat, and those interested in these subjects will profit by reading the little book.

A Manual of Modern Surgery, General and Operative.

By John Chalmers DaCosta, M.D., Clinical Professor of Surgery, Jefferson Medical College, Philadelphia; Surgeon to the Philadelphia Hospital, etc. With 386 Illustrations. Pp. 911. Philadelphia: W. B. Saunders, 1898. Price, Cloth, $4.00; Half Morocco, $5.00.

In the second edition of this work the author has adhered to the purpose of his first edition to construct a book that would stand between a textbook and compend. This edition, however, has been practically rewritten, many of the original articles have been enlarged and a number of new ones have been added. Among the latter are included those on Surgery of the Liver and Gall-Bladder, the Spleen, the Pancreas, Female Breast, Wounds Inflicted by Modern Projectiles, Electrical Injuries, and the Use of the Rœntgen Rays. All the subjects are treated in a way so clear and concise as to prove unusually attractive, and of great assistance to the student. The essential facts comprising the clinical picture, a brief description of the pathology, and a number of well selected methods of treatment are included in the treatment of each subject. The author has enhanced the value of the work by presenting in the text the views of those whose authority to speak on the particular subject is unquestioned, giving thereby to the reader the results not only of the author's experience, but of many of the leading authors on surgical subjects both here and abroad. In the chapter on hemorrhage may be found a series of fifty rules for procedure in the treatment of primary hemorrhage; these are all exceptionally good, well formulated, covering almost every possible emergency and are worthy of careful perusal by the student or recent graduate. In the treatment of sprains, aspiration of the joints is recommended should the joint contain much blood. It is questionable whether this procedure should be suggested as a routine treatment without any specifications to the student or young practitioner. We should say the modern treatment of sprains tends towards dispensing with, rather than advocating the use of the immovable dressing, as is suggested in the text. The advocates of the method of inducing anesthesia with Schleich's formula would not be inclined to accept the statement that vomiting occurs in about one-half the cases; at least their reports show much more promising results. The chapter on Injuries to the Head and Surgery of the Spine, as well as that on Operations of the Abdomen are deserving of especial recommendation. Whenever any operative procedure is described, and it may be said that the text is replete with a large number of modern operations, the latter are excellently illustrated by well chosen drawings. Exception might be taken to some general statements, such as "in gunshot wounds, if antisepsis is not employed, suppuration is inevitable," "all children are born with flat feet," "there is no pain in chronic torticollis," etc., but in a work covering such a large field, where the necessity for concise statements forbids the perfect elaboration of each subject, such petty criticisms as these are perhaps out of place. On the whole the work is heartily endorsed and should meet with general approbation. It answers admirably the purpose for which it was written, and it is certainly the best work of its kind at the disposal of the student.

Correspondence.

SOME "LEXICOLOGIC" CORRECTIONS AND SUGGESTIONS.

To the Editor of the Philadelphia Medical Journal :—

Referring to the friendly note by Dr. A. Rose in your issue of December 17, p. 1265, I must insist upon being credited with (or accused of?) not *pecilonomy* but *pecilonymy*. This is the English form (Anglo-paronym) of the potential Latin and Greek *poecilonymia*, and ποικιλωνυμία, suggested to me by my colleague, Professor B. I. Wheeler, after the analogy of ποικιλομορφία, variety of form; see "Reference Handbook of the Medical Sciences," viii, p. 517, §16, and "Neural Terms, International and National," *Jour. Comp. Neurology*, December, 1896, vi, p. 222, § 34. Moreover, although ὄνυμα and ὄνομα are dialectic varieties, the former only is known to me in comparable compounds, *e. g.*, ἐπωνυμία, μετωνυμία, συνωνυμία, etc. The representation of the Greek οι and the Latin *oe* by *e* is warranted by *economy*, *œconomia*, and οἰκονομία, and conforms to the doctrine so ably inculcated by yourself.

By-the-way, pecilonymy is again exemplified in your journal on p. 1260. "Suprarenal" occurs in the title of the article and commonly in its body; but Owen's shorter and better "adrenal" is used once. Why not introduce the latter at once in the title, with "suprarenal capsule" as an explanatory synonym, and then use it consistently?

In this connection permit me to suggest that *central* (fissure and region) be used rather than "Rolandic" (as on p. 1286), and *vagus* rather than pneumogastric (as on pp. 1258 and 1275); the fact is, pneumogastric is too long as a term of designation, and too short as a term of impartial description.

Burt G. Wilder.

Ithaca, N. Y., Dec. 19, 1898.

ARSENIC FOR BATH-PRURITUS.

To the Editor of the Philadelphia Medical Journal :—

The following is a copy of a letter received from a physician residing in Connecticut, referring to my article on Bath-Pruritus in your Journal of October 22, in which he gives his method of treatment which proved successful in his own case:

"For many long years I have looked for such an article from some one as I have just read in the October 22 number of the Philadelphia Medical Journal by you on bath-pruritus. I will tell you what will cure it, and relate how I discovered the treatment, asking you to give it full publicity without using my name. For twenty long years I suffered the torments of the damned with this trouble exactly as you have described it. No matter if I bathed every day or only once a week, fresh or salt water, cold or hot, summer or winter, strong soap, mild soap, or no soap, it was always the same. I was in extreme agony for at least three-quarters of an hour. I tried everything; but, as you say, "treatment was disappointing." Ten years ago a small red patch appeared on my face, for which I began taking arsenic. After continuing this remedy for a number of weeks the spot disappeared, and *so did the pruritus*. I have continued the arsenic, one-tenth grain once daily, ever since. I have no trouble whatever now when I bathe, but if I stop the arsenic the old fire and itch and agony all return. I am a dyspeptic, otherwise well. I hope you will try this. I have seen only two other cases in twenty years' practice."

From several letters received from physicians since my article appeared, it would almost seem that the medical profession is especially prone to this disorder.

Very truly yours,
Henry W. Stelwagon.

DR. RICHARD KRETZ, OF VIENNA, ON MALTA FEVER IN THE WEST INDIES.

To the Editor of the Philadelphia Medical Journal :—

It will doubtless be generally conceded that there has hardly been, of recent date, a more important contribution to our knowledge of endemiology and epidemiology than the report, by Drs. John H. Musser and Joseph Sailer, of a case of Malta fever contracted in Porto Rico, published in the Journal of last week. The report not only furnishes an instructive instance of a brilliant diagnosis on the part of the distinguished authors of the paper, but it acquires an especial significance from the fact of establishing beyond peradventure the prevalence in the West Indies of a disease whose existence in that locality, as far as we know, had hitherto been unsuspected. The inference is certainly justified that a percentage of the intermittent, remittent, and continued tropical fevers, which have heretofore been classed as irregular typhoid, irregular malaria, or of unknown nature, are in reality cases of Malta fever,—first recognized in this continent in Philadelphia. It is because, as far as we know, the prevalence of this disease on the Western side of the Atlantic ocean was heretofore unsuspected, that I consider it worth recording that Dr. Richard Kretz, a privat-docent at the Vienna University and prosector to the Franz Josef Hospital in Vienna, in a letter to me, under date of November 22, 1898, suggested the possibility of this disease attacking our troops in Cuba. During the past year and a half, Dr. Kretz and I have exchanged letters upon various matters of personal and scientific interest, and latterly, among other topics, we have been discussing the coincident occurrence of typhoid malarial infection. His suggestion was, that in case of long continued fever among our soldier-sick, if the Grüber-Widal reaction be negative and there be no malaria-plasmodia in the blood, we should consider the possibility of the case being Malta fever. With the idea of permitting the establishment of an exact diagnosis, he offered to supply me with a culture of the micrococcus melitensis, Bruce,—an offer of which I have gladly availed myself. A little more than a year ago, Dr. Kretz had an opportunity of observing, in Vienna, an isolated case of Malta fever, in which the infection had been acquired in Ajaccio, and in which the diagnosis was confirmed by the agglutination-test. A short account of this case will be found in the Journal, vol. i, pp. 46, 56, 274.

It is interesting to find this suggestion of Dr. Kretz so soon verified by the independent observation, recognition, diagnosis, and report of a case by Drs. Musser and Sailer.

Very truly yours,
Aloysius O. J. Kelley.

Philadelphia, January 3, 1899.

A society of gynecology and abdominal surgery has been organized in Bucharest. The officers are: President, Professor Romniceau; vice-president, Professor Demosthen, and secretary, Professor Assaky.

Special Article.

TRADE-MARKS, PATENTS, AND PHARMACEUTIC REFORMS.

Report of the Committee on National Legislation of the American Pharmaceutical Association.

To the Committee of Revision and Publication of the Pharmacopeia of the United States of America.

Dear Sirs:—As you are aware, His Excellency, William McKinley, President of the United States, has appointed a Commission to prepare a revision of the U. S. Patent and Trade-mark Laws; and, as you probably know, the American Pharmaceutical Association referred the last annual report of its Committee on National Legislation to said Commission with the request that the points contained therein relative to this important subject should receive the consideration of Congress.

The Commission referred to recently held a sitting in this city, and the Chairman of the Committee on National Legislation of the American Pharmaceutical Association was invited to be present. At this meeting the subject of patents and trade-marks as they apply to the practice of pharmacy was taken up, and the representatives of the pharmaceutical interests present were listened to with courteous attention. No final conclusions were reached, however, and the subject is still left open to permit this interest to be more fully heard from. The Committee appointed by the President, it is stated, will make their report to Congress relative to the matter of patents and trade-mark laws in January, so that it is necessary to give the subject immediate attention.

Under the circumstances we feel that the matter is of sufficient importance to ask an expression of opinion from the members of the Committee for Revising the U. S. Pharmacopeia; for the questions involved bear directly upon the revision of that work. Not that we suppose your committee will feel itself justified in taking upon itself a work for which it was not organized to perform, but knowing that the members of the Committee have been selected by a congress of physicians and pharmacists, representing every section of the country, because of their peculiar fitness to deal with problems of the class to which this one belongs we are asking the opinion of each member individually.

Therefore, we would call attention to the following classes of medicinal agents and preparations now on the market, as given below, and to the bearing of the patent and trade-mark laws thereon, not to offer a solution of the problems which confront us, but to present in one paper the various views and suggestions which have been offered from time to time, so that they be compared and discussed before Congress takes action upon this most important subject.

Requirements of Science.—Before a medicinal agent can be made official in the United States Pharmacopeia, it must conform to the requirements of science. This statement, we believe, is generally accepted as the rule. Medical science requires that each drug, chemical and preparation of the same, shall bear a name which shall belong to and identify it; shall mean that particular thing, kind and variety of it, and mean nothing else; and that such name shall belong to the common language, so that it may comport with medical and pharmacal nomenclature. It also requires that exact knowledge of the substance shall be published in language sufficiently explicit to permit of its complete recognition. In relation to preparations of drugs and chemicals, complete knowledge of ingredients, percentage-composition, and method of preparation shall be published, so as to permit of their duplication at any time by those who are skilled in the art of pharmacy and chemistry. And to ascertain their true value as therapeutic agents, the results attending their employment in treating the sick must be published and freely discussed in the medical journals. The requirements here defined give rise to the following classification of medicinal agents as offered:—

Class A.—Agents offered for human medication, of which exact composition and the mode of preparation are known to science, so that any person properly skilled in chemistry and pharmacy can duplicate them.

Class B.—Agents offered for human medication in a form not known to science, but whose active ingredients and their quantitative proportions have, according to the statements of the manufacturers, been published with sufficient exactness to enable physicians to prescribe them in a proper manner, but the methods for manufacturing them have not been divulged so that they may be duplicated. This class does not conform to the requirements of medical science, and while many of the articles belonging to the class are valuable medicinal agents, yet, until their working formulas are published, and standards established for their identity and purity, both they and their manufacturers must always remain under the ban of professional disfavor. The name of every medicine appearing in medical literature should represent something which may be duplicated at any time, otherwise their names will be meaningless to future generations, and the science of medicine correspondingly injured. It is therefore absolutely essential that such publication be finally made for the benefit of science if their merits as therapeutic agents are ever to be fixed with sufficient exactitude to give them a permanent place in the materia medica. And the results of their employment in treating the sick must be reported by the medical profession and discussed freely in the medical journals.

Class C.—Secret nostrums advertised to the laity as cures or specifics for disease.

Relation of Patent and Trade-mark Laws to the Above Classes.—The object of the patent-laws as stated by the clause in the Constitution of the United States, upon which they are founded, is to promote progress in science and the useful arts. As stated by Terrell in his treatise on patent-laws:

> "The theory upon which these laws rest is that it is to the interest of the community that persons should be induced to devote their time, energies and resources to original investigation for the furtherance of science, the arts, and manufactures. This was recognized from the earliest periods which can pretend to be described as civilized. It is to the advantage of the whole community that authors and inventors should be rewarded, and no measure of reward can be conceived more just or equitable, and bearing a closer relation to the benefit conferred by the particular individual, than to grant him the sole right to his writing or discovery for a limited period of time."

It is manifest that the prosperity of the United States has been materially promoted by wise patent-laws and their correct interpretation and application by the courts. Progress in science has been accelerated by the reward offered to its citizens to devote themselves to original research with the hope of producing something new and useful, and publishing their discoveries by patenting them. Inducements have been held out to capitalists to invest in aid of those engaged in such beneficent work. Capital has been protected during the working and marketing of inventions until investments have become remunerative. Commerce has received impetus by the multiplication of useful commodities. Civilization has been advanced by the discovery of new arts, and their free use by the public after the expirations of patents.

A patent is a contract between the Government representing the public at large, and the inventor of a new and useful art, machine, manufacture, or composition of matter, by which the former grants the latter, for a limited time, the right to restrain others from copying his invention, in exchange for the publication of full knowledge thereof by proper application for patent, whereby the public may at once learn the true nature of, and practise the invention when the patent expires.

It will be noted that the Committee on National Legislation of the American Pharmaceutical Association has never asked for radical changes in the patent-laws. The reason for this is that we have not considered radical changes either necessary or advisable. The objections that physicians and pharmacists have urged against the patenting of pharmaceutical inventions appear to have been mainly due to an attempt on the part of certain manufacturers to defeat the object of the patent-law by the misuse of the trade-mark-law whereby protection has been secured for secret nostrums, advertised as inventions. By this means progress in science has been frequently hindered, competition prevented unfairly, and a host of alleged new remedies for the cure of disease have been forced upon the public, directly by advertising to the laity in the secular and religious press, or indirectly by first advertising in a conservative manner to the medical profession, and afterward transferring advertisements to the newspapers, and making extravagant claims for them, pretending that such claims have received professional endorsement.

It seems to us, that the protection hitherto afforded the manufacturers of secret nostrums by the misuse of the trade-mark law, has finally been removed by the decision of the United States Supreme Court in the Singer Sewing Machine Case. It therefore becomes necessary to reconsider the whole subject of patents in the light of this decision.

The decision of the Supreme Court reads as follows:

> "The result, then, of the American, the English, and the French doctrine universally upheld is this, that where, during the life of a monopoly created by a patent, a name, whether it be arbitrary or be that of the inventor, has become, by his consent, either express or tacit, the identifying and generic name of the thing patented, this name passes to the public with the cessation of the monopoly which the patent created. Where another avails himself of this public dedication to make the machine and use the generic designation, he can do so in all forms, with the fullest liberty, by affixing such name to the machines, by referring to it in advertisements and by other means, subject, however, to the condition that the name must be so used as not to deprive others of their rights or to deceive the public, and therefore that the name must be accompanied with such indications that the thing manufactured is the work of the one making it, as will unmistakably inform the public of that fact."

The "Proprietary System."—The above decision of the United States Supreme Court, and other decisions which have led up to it, and the logical conclusions which seem to follow, incline our Committee to the opinion that the *so-called* proprietary-medicine system has no longer any legal status whatever. *For a name cannot perform the function of a trade-mark to distinguish between two or more brands of the same article during the life of a monopoly,* whether such monopoly be obtained by patent, by secret composition or process, or by any other means.

In the opinion of the Committee there is every reason to suppose it is now clearly established as a principle that every pharmacist has a perfect right to make and sell any medicinal product or preparation, and deal in it under its currently used name, provided that he knows how to make it, that he does not imitate the labels or trade-marks of another, and is not legally restrained from duplicating the article by the existence of a patent, or by contract with the original manufacturer not to do so. The question of such contract, however, has nothing to do with the discussion of the subject before us.

The Committee feels that it is an absolute necessity to have the points just mentioned fully realized and discussed before the professions of medicine and pharmacy can properly decide whether or not to endorse patents upon medical *products* or *processes* for producing them, resulting from the inventive genius of those engaged in the art of preparing medicine. We are therefore calling special attention to the matter, and beg the privilege of placing in your hands the quotations and decisions which, in addition to the above decision of the Supreme Court, have bearing on the subject.

It is even a question with the Committee whether it would not be well, if we are correct in our position with regard to the abolition of the *so-called* proprietary system, to advocate the extension of the time of the patent on processes from the 17-year limit imposed by the present patent-law, to 25 years—thus increasing the inducement to manufacturers of new and useful chemical and pharmaceutical inventions to publish their working formulas and methods for the benefit of medical science by patenting them.

The quotations and decisions referred to are as follows:—

> "The name of a secret preparation may be used by anyone for goods actually prepared according to the recipe, for they are the goods indicated by the name, whether prepared by the original inventor of the recipe, or his successors in business, or not. Until the secret is discovered or betrayed the goods of the original inventor or his sucessors can be the only goods to which the name is applicable, or which are denoted by it; but when other people can make them, the difficult question of fact arises, whether the name is merely that of the goods themselves, or that of the goods of the kind prepared or sold by the original inventor or his successors in business. This was well put by Fry, J., in the Angostura Bitters Case (Siegert *vs.* Findlater, 7 C. D., p. 813), 'I cannot say,' the learned judge said, 'that Meinhard may not, if he can, make a bitter identical with the plaintiffs', and if he does, I cannot prevent him from selling it as Angostura Bitters.' It is to be observed that the person who produces a new article, and is the sole maker of it, has the greatest difficulty (if it is not an impossibility) in claiming the name of that article as his own, because until somebody else produces the same article, there is nothing to distinguish it from. No distinction can arise from using the name of the class, so long as the class consists of only one species, for then the name of the species and the name of the class will be the same." (The Law of Trade-marks, by D. M. Kerly, M.A., LL.B., published by Sweet & Maxwell, 1894.)

> "There must be some word or sign, or device other than a generic name and words of descriptive quality." (Commissioner's decision, 1881, p. 97.)

> "So the words, 'Night Blooming Cereus' were held to be invalid as a mark, being the proper descriptive appellation of the article." (Phalon *vs.* Wright, 5 Phila., 464.)

> "The same rule defeated the adoption of the words, 'Desiccated Codfish.'" (Harris, Beebe & Co.)

In the case of the "Balm of a Thousand Flowers," Judge Duer, of New York, says:

> "It is only the seductive name that they claim as their exclusive property, and doubtless from the experience in its value in the extension of their sales. This, however, is a species of property which in my opinion is unknown to the law, and that can only be given to one by an infringement of the rights of all. . . . It has been repeatedly held that a trade-mark cannot be obtained in a name where it is the proper name for the article, as in the case of Schnapps, the subject of the controversy in Wolf *vs.* Goulard, or where it has by general use become the proper name of an article which all manufacturers may use, as in the case of Dr. Johnson's Yellow Ointment, Godfrey's Cordial, and Essence of Anchovies."

One well-known legal writer says:

> "The policy that the mere use of a name to designate an article would give to those employing it the exclusive right to designate such article by such name, would be giving a copyright of the most odious kind, without reference to the utility of the application or the length of the title, and one that would be perpetual."

And another writer says:

> "Neither the Trade-mark Law, nor the Copyright Law, nor the Patent Law, affords any such right, or, under the pretense of the

> same, allows any one to throttle trade under the alleged sanction of law."
>
> "No one can claim protection for the exclusive use of a trade-mark or trade-name which would practically give him a monopoly in the sale of any goods other than those produced or made by himself. If he could, the public would be injured rather than protected, for competition would be destroyed. Nor can a generic name or a name merely descriptive of an article of trade, of its qualities, ingredients, or characteristics, be employed as a trade-mark, and the exclusive use of it be entitled to protection." Canal Co. *vs.* Clark, 13 Wall, 323.
>
> "We of course understand that when a name is coined by one who *uses it as a trade-mark* upon a particular article, if that name is originally a lawful trade-mark, its subsequent adoption by the public as a common appellative cannot take away the right already acquired." Celluloid Co. *vs.* Cellointe Co., 32 Fed. Rep., 98.
>
> But "When an article is made that was theretofore unknown, it must be christened with a name by which it can be recognized and dealt in, and the name thus given it becomes public property, and all who deal in the article have a right to designate it by the name by which alone it is recognizable." Leclanche Battery Co. *vs.* Western Elec. Co., 23 Fed. Rep., 227.
>
> "A word which is the name of an article, or indicates its quality, cannot be so appropriated. Every one has the right to manufacture the same article, and to call it by its name or descriptive character." Phalon *vs.* Wright, Am. Tr. Cas., 308.

The Secret-Nostrum Business.—Now in relation to Class C: This class is often called erroneously, "Patent Medicines." On account of the claims which have been made by their manufacturers that they are new and useful inventions, and therefore belong to them (manufacturers) by right of discovery, they are also frequently denominated "Proprietary Medicines." That these medicines are not always inventions in fact is evident from the following quotation taken from a "Petition of the Proprietors of and Dealers in Proprietary Medicines, including the Wholesale and Retail Dealers in Drugs, of the United States," read at the annual meeting of the Proprietary Association of America, St. Louis, October 17-20, 1898:

> The undersigned, representing the industries mentioned, hereby earnestly petition your Honorable House of Representatives and Senate of the United States, that the War Tax upon Proprietary Medicines may be promptly or speedily revoked, for the following potent and valid resons:—
>
> 1. Because it is founded upon entirely erroneous ideas as to the origin and value of these medicines, the general or prevalent idea being that these medicines are mere nostrums, the outcome of ignorance and greed, for gain; and that they are of no value as curatives for disease and are deserving of no legal recognition.
>
> Whereas the real fact is that they, to a very large and almost universal extent, are the best and most successful prescriptions of our most advanced and successful physicians. The story is simple. The physician, and the more eminent he may be the more likely this result is to happen, sends his prescription to his druggist, who carefully prepares and sends it to the patient; this is followed by others and others, all made of the same ingredients and the same proportions and they are largely or even eminently successful. The druggist is alive to this—he knows from his own observation that he has in hand a cure for a certain definite form of disease, and gives it a name and launches it upon the public as a remedy for a certain form of disease.

Protest of The American Pharmaceutical Association.—The American Pharmaceutical Association, as its Constitution shows, stands against the system of business by which the prescriptions of physicians entrusted to pharmacists are unfairly appropriated and launched upon the public as specifics for diseases. It therefore most emphatically protests against the above statements of the secret-nostrum manufacturers as unjust and damaging to the reputation of the pharmaceutical profession. There is in fact no drug which may be truly described as a specific or cure for any disease. Furthermore, the highest medical skill is required to diagnose each disease and recognize its various stages as they develop, and no prescription will answer the requirements of all the different stages of the same disease. When a medicine, whether it be the prescription of a reputable physician or not, is given a name and launched on the public as a *specific* or *cure*, when it is not, the person so doing is guilty of a moral wrong to the community. This principle is everywhere recognized by enlightened communities, and prohibitive or restrictive laws have been passed to control the secret-nostrum business in such countries as France, Germany, Austria-Hungary, Japan, Brazil, Argentina, etc.

The public should have at least the opportunity of knowing the medical ingredients and their percentage-composition of every agent used for the prevention and treatment of disease, so that the people may be protected from the machinations of quackery.

The American Pharmaceutical Association takes exception to the scheme which the so-called proprietary medicine business is employing for the purpose of securing the protection of the courts in carrying on a business which is clearly illicit. While not objecting to the employment of trade-marks or trade-names *when used for the purpose of distinguishing between two or more brands of a well-known medicinal product or preparation appearing upon the market under a general name, which all who have the right to compete in its manufacture may freely employ for designating it,* it does object to the private ownership of the *currently used names* of such products and preparations which by right belong to the common language. The name given to a new thing born into the world belongs to the thing itself as its appellative, and cannot properly belong to the one who christens the thing as his trade-mark. Such private ownership prevents legitimate competition and is a hindrance to progress in the science of medicine and in the art of pharmacy.

But, as admitted by the "Proprietary Association" in the above quotation, the so-called "patent medicines" are usually not new things, and the only invention about them is that of their names. When it is taken into consideration that no one except the manufacturers knows the true composition of these nostrums, the absurdity of claiming that the names given them are trade-marks used for the purpose of distinguishing between two or more *brands* of well-known prescriptions, is apparent.

Again, as the claims made for these nostrums regarding their therapeutic value are not generally justified by the facts, it is evident that their manufacturers, when they make false representations in regard to these prescriptions, cannot come into court with clean hands to defend their alleged trade-marks. The burden of proof must needs fall upon the advertisers of such claims, and as the proof cannot be forthcoming unless the ingredients and percentage-composition of their medicines are made known, there is no good reason for the existence of that class of medicines described as Class C.

Comments on Class B.—It is evident that Class B contains products ranging from those which may be regarded by some as legitimate, although not conforming to the requirements necessary for classing them in Class A, to products and preparations so low in the scale as to make them hardly distinguishable from Class C; and there are a large number of manufacturing houses whose products may be classed with B, that would only be too glad if some plan could be formulated whereby they might be raised higher in the scale, without jeopardizing the business interest of those engaged in their manufacture. In case of patentable inventions when newly introduced, the protection now given by the patent-law enables the manufacturers to publish their trade-secrets and still protect their business interests; and thus by conforming to the requirements of science, they are enabled to raise them from Class B to Class A. There seems, however, to be a determination on the part of the secret-nostrum trade to confuse the issue and make it appear that "patented medicines" and "patent medicines" are synonymous terms. It is partly due to this confusion that the real import of our patent-laws has never been properly understood by physicians and pharmacists. And this confusion has been worse confounded by the so-called proprietary medicine system, for an attempt has been made to convert the trade-mark law into a new kind of patent-law by which secret-nostrum manufacturers have frequently obtained a more stringent protection than true inventors could secure by patenting their inventions. We have thus apparently had two laws diametrically opposing each other, the one granting to inventors of new and useful products seventeen years monopoly in their sale in exchange for the publication of the art of manufacturing them, and the other protecting alleged inventors engaged in the secret-nostrum business in such manner as to permit them to secure legal protection for unlimited monopolies in the manufacture and sale of physicians' prescriptions, misappropriated for the purpose as their manufacturers have inadvertently admitted in the memorial above quoted.

Registration of Formulas Suggested.—It has been suggested that Congress authorize the registration of working formulas by manufacturers of medicinal products and preparations in some department of the Government appropriate for the purpose which may give official endorsement of the claims made in advertisements relative to ingredients and percentage composition. And it has been further suggested that the department referred to be authorized to publish said working formulas after the lapse of a certain number of years to be agreed upon, for the purpose of protecting medical science from the loss of the knowledge of the processes and methods of their manufacture. The department could not be expected to pass upon the therapeutic merits of such products and preparations, for only by the experience of competent observers working for years under different circumstances and environment, and frequently comparing notes, can the true therapeutic merits of any medicinal agent be finally ascertained. By so doing it is argued, the ingredients and percentage-composition of such products could be published at the time of their introduction under auspices guaranteeing their correctness, and standards established for their identity and purity. This would separate from Class B a class of definite products and preparations for medicinal use having the advantage of official endorsement, of not being secret so far as ingredients and percentage-composition are concerned, but not requiring the manufacturers to divulge their trade-secrets in the method of preparing them until a sufficient time had elapsed to make remunerative the capital invested in them. The articles themselves thus being raised to a higher plane, the reputation of those engaged in the manufacture of them would be increased correspondingly. This, in turn, would have a most salutary effect upon medical journalism, for it would give the stamp of verity to advertisements, increase the demand for advertised medicinal agents with physicians, and correspondingly increase the value of the advertising pages to the readers, to the manufacturers, and to the editors and publishers. Then the merits of the agents could be freely discussed by the medical journals, thus promoting progress in the knowledge of their value in the treatment of the sick. It would seem to us that something of this kind should be done to justify physicians in prescribing many of the agents belonging to Class B.

Product-Patents vs. Process-Patents.—By products is not meant natural products, but those resulting from the practice of the chemist's art. Shall we grant patents for them when they are chemical inventions in the meaning of the patent law? The patent law requires that such products shall be the result of processes in which a higher degree of skill is displayed than what is naturally to be expected from skilled chemists in the ordinary practice of chemistry. Theoretically, it appears indeed as if the limiting of patents to processes would best stimulate competition in the devising of new processes. So far as known, however, no method has been suggested whereby under present laws the manufacturers may secure the reward due them for divulging their processes by patenting them, unless the products themselves be also covered by the patents. Unless proper protection be afforded, a patent becomes a farce and comparatively of no value; for it is next to impossible, in most instances, to obtain sufficient evidence of infringement of process-rights, to establish a case in court. Request is therefore made by the Committee for information on this important point, so that justice may be done to the inventors of new and useful medicinal chemic products, so that their business interests may be protected while they are benefiting science by publishing the results of their original investigations and discoveries.

The question of product-patents must be considered in the light of the foregoing. The fact that, as a rule, the products in question are not therapeutic inventions, should also be considered. A patent granting a monopoly to the inventor of a specific or cure for a disease, if such should ever be discovered, would be a very different thing from a patent on a synthetic product employed in the treatment of certain symptoms, while there are numerous other products, patented or unpatented, which may be prescribed and employed for the same purpose. A monopoly of a real cure for consumption or diphtheria, for example, might become a serious hindrance to public welfare; even if it were granted (as patents are) for a limited time in exchange for divulging it. On the other hand, if such a discovery were made and retained as a secret, and monopolized thereby, the menace would even be more serious. The principle, therefore, should be considered, and some method devised whereby, if such discoveries are ever made, sufficient reward of some kind may be offered for their publication, unless the Government, under such circumstances, proposes to exercise the right of eminent domain and confiscate them.

The extant rewards to those engaged in original research should be increased rather than diminished, and such investigations should be rendered thus sufficiently profitable to attract the very best talent of the land, and also to attract capital in aiding and developing research and progress in the field of medical chemical industry. It must be remembered, that in this country we have no great appropriations for the subsidizing of scientific men, so as to enable them to obtain a livelihood while devoting themselves to original research; neither have we a system of pensions whereby they may be supported when they become destitute. Without some method of financial support from the Government either in the form of appropriations or patents, original investigation in chemistry and pharmacy will lag behind, secrecy in the manufacture of medicinal products will become rampant, and the nostrum business will be promoted instead of chemical industry and pharmaceutic practice.

However, if the Government should conclude to limit patents to processes only, the burden of proof should be thrown upon those claiming to have invented new processes for producing the same products. This might be done by compelling the inventors of alleged new processes to divulge them by applying for patents, so that the novelty in each case may be determined by the Patent Office. It is argued with force that it is the original inventor who conducts the expensive research which points out the way. It is he who sows the seed, and unless the new process should show decided novelty, and its inventor should pay a royalty to the original inventor, great hardship would often result, for the harvest would in many instances be reaped by those who have not sown, and the original inventor would have only his trouble for his pains.

There are some who go so far as to advocate legislation, placing the dispensing of medicine under the absolute control of the medical profession, claiming that drugs should not be employed for self-medication, except in the case of a few household remedies to meet emergencies, a list of the same to be selected by the American Medical Association or other national association of physicians. Others advocate that a law should be passed against medical monopolies of all kinds, whether maintained by secrecy or by patent, on the ground that so long as human nature remains as it is, the temptation to misrepresent the merits of the monopolized article will prove irresistible. Others desire a law prohibiting the advertising of medicines either to physicians in medical journals or to the laity in the public press, believing that if advertising medicines were forbidden, all of the other problems above referred to would take care of themselves. But it must always be remembered that we are dealing with facts, not with theories, and the question of practicability must be considered in deciding for or against any plan for improving the present state of affairs which may be suggested.

The Commission to which we have referred, appointed by President McKinley, consists of Francis Forbes, a delegate from the United States to the Conference at Madrid in 1890, under the Convention for the Protection of Industrial Property, concluded at Paris, March 20, 1883, and the Conference at Brussels in 1897, under the same Convention, and a practising lawyer familiar with the patent and trade-mark laws of the world, New York, N. Y.; Judge P. S. Grosscup, United States District Judge for the Northern District of Illinois, sitting at Chicago, who has had a wide experience in the decision of patent and trade-mark cases, and Arthur P. Greeley, who has risen from the position of examiner through all the ranks of the Patent Office, and is especially familiar with the practical side of the question of issuing patents and registration of marks.

Dr. F. E. Stewart, *Chairman*, Orange, N. J.,
A. E. Ebert, Chicago, Ill.,
J. W. Gayle, Frankfort, Ky.,
H. M. Whitney, North Andover, Mass.,
H. P. Hynson, Baltimore, Md.

Students at the Faculty of Medicine, Paris.—The total number of students enrolled is 4,495; the Faculty includes 351 male foreign students, of whom 16 are Swiss, 15 Germans, 60 Roumanians, 67 Ottomans, and 66 Russians; there are also 87 female foreign students, of whom 83 are Russians. The 4,495 students are studying the following subjects: for the degree of M.D., old regulations, 3,261; for the degree of M.D., new regulations, 877; for the *officiat de santé*, 146; as midwives, 94; and as surgeon-dentists, 117.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Dr. John P. Devereux has been appointed an assistant medical inspector in the Bureau of Health.

The Medical Society of New Jersey will hold its 132d annual meeting at Deal Beach, June 27, 28, 29, 1899.

Dr. B. Franklin Stahl has been elected lecturer in dietetics of the sick in the medical department of the University of Pennsylvania.

The Visiting Card Advertiser has amused the physicians of an Eastern city during the past year. Four engraved cards sent every week or two to several thousand physicians, must cost considerable money.

German Hospital, Philadelphia.—For the purpose of founding a memorial bed in the name of the late Peter Schemm, Mrs. Fredericka R. Schemm and Mr. Peter Schemm have recently donated $5,000 to the German Hospital.

Calendar of Meetings of Philadelphia Medical Societies for the week ending January 14, 1899:—

Monday, January 9—College of Physicians. Section on General Medicine.
Tuesday, January 10—Pediatric Society.
Wednesday, January 11—County Medical Society.
Thursday, January 12—Pathological Society.
Friday, January 13—College of Physicians—Section on General Surgery.

The Philadelphia Polyclinic.—The trustees of the Philadelphia Polyclinic have created two new positions; that of Dean of the College Department, to which they have elected Dr. Francis R. Packard, and that of Director of the Laboratories, to which they have elected Dr. Thomas S. Kirkbride, Jr. The object in the appointment of the Dean is to facilitate the arrangement of the students' work and to bring them into closer touch with the management of the institution. The Director of the Laboratories has been appointed to take charge of the reorganization and development of the laboratory-teaching of the institution.

Smallpox in Pennsylvania.—Dr. Benjamin Lee, Secretary of the State Board of Health, has prepared the following figures relating to smallpox cases in the State since December 20: Ball Hill, Bedford County, 1 case. Everett Bedford County, 3 cases. Charlesville, Bedford County, 2 families, numbers not reported. Hopewell, Bedford County, 3 cases. In and near Steeltown, Bedford County, 11 cases. Hustontown, Fulton County, 4 cases. New Grenada, Fulton County, 7 cases. Waterfall, Fulton County, 1 case. East Vincent township, Chester County, 1 case. Pittsburg, Allegheny County, 1 case; removed to Municipal Hospital; origin, Bedford. Homer City, Indiana County, 2 cases. The disease is also reported at Libonia, Franklin County; Warfordsburg and Wells Tannery, Fulton County, but the diagnosis has not yet been confirmed.

Objection to a Charter for a College of Osteopathy.—Attorney-General Henry C. McCormick has filed in Common Pleas Court No. 4 exceptions to the granting of a charter for the Philadelphia College and Infirmary of Osteopathy on behalf of the College and University Council of Pennsylvania. The following reasons are given in support of the exceptions: (1) Because the said application of the proposed Philadelphia College and Infirmary of Osteopathy has not been passed upon by the College and University Council of Pennsylvania, in accordance with the Act of June 26, 1895; nor has such application received the approval of said Council or any official thereof. (2) Because the capital stock of the proposed corporation amounts to only $25,000, and, so far as the said Council is informed, the said proposed institution does not own or possess assets amounting to $500,000 invested in buildings, apparatus, and endowment for the exclusive purpose of promoting instruction, as required by Section 6 of the said Act of June 26, 1895.

Vital Statistics of Philadelphia, for the week ending December 31, 1898:

Total mortality		725
Children under 5 years of age		176
Diseases.	Cases.	Deaths.
Pneumonia 137, congestion of the lungs 7	......	144
Influenza	......	68
Pulmonary tuberculosis 63, laryngeal tuberculosis 1	......	64
Heart-disease 48, neuralgia of the heart 3	......	51
Senility	......	47
Nephritis 26, uremia 11, kidney-disease 2	......	39
Diphtheria 30, membranous croup 8	83	38
Apoplexy 24, paralysis 11	......	35
Marasmus 15, inanition 12, debility 1	......	28
Gastro-enteritis 22, cholera infantum 3, diarrhea 2	......	27
Typhoid fever	125	21
Carcinoma 17, tumor 2	......	19
Convulsions	......	18
Bronchitis	......	17
Cerebritis 15, congestion of the brain 2,	......	17
Casualties 10, burns and scalds 5	......	15
Scarlet fever	32	2
Peritonitis 7, suicide 6, dropsy 5, cyanosis 4, erysipelas 3, hepatic cirrhosis 3, diabetes 3, rheumatism 3, septicemia 3, pertussis 3, abscess 2, parturition 2, drowning 2, dysentery 2, gangrene 2, hernia 2, poisoning 2, alcoholism 1, hemorrhage 1, cystitis 1, laryngitis 1, hepatitis 1, pericarditis 1, pleuritis 1, measles 1.		

The statistics of the Registration-Bureau of the Board of Health for 1898 show that during the year the total number of deaths in Philadelphia was 23,790, a ratio per 1,000 of estimated population of 19.18. Of these, 5,036 occurred in children under one year of age, 2,963 in those between the ages of 1 and 5 years, 799 in those between 5 and 10, 887 in persons between 10 and 20, 2,134 between 20 and 30, 2,134 between 30 and 40, 2,080 between 40 and 50, 2,174 between 50 and 60, 2,276 between 60 and 70, 2,102 between 70 and 80, 1,045 between 80 and 90, 150 between 90 and 100, and 11 between 100 and 110.

A comparison with the causes of death in 1897 shows that there was a decrease last year of 233 in cases of diphtheria, an increase of 202 in pulmonary tuberculosis, a decrease of 241 in pneumonia, an increase of 102 in diseases of the heart, a decrease of 18 in carcinoma, a decrease of 2 in influenza, an increase of 22 in suicides, a decrease of 168 in scarlet fever, and an increase of 238 in typhoid fever. The deaths from typhoid fever were augmented by those of the 73 soldiers who died from the disease in the hospitals.

The principal causes of death during the year were as follows: Apoplexy, 840; nephritis, 463; carcinoma, 670; casualties, 467; cholera infantum, 1,099; pulmonary tuberculosis, 2,590; convulsions, 694; croup, 177; diphtheria, 998; diseases of the heart, 1,398; drowning, 100; homicide, 22; inanition, 592; influenza, 158; inflammation of the brain, 669; bronchitis, 435; pneumonia, 2,482; peritonitis, 264; gastritis and enteritis, 751; marasmus, 815; measles, 234; old age, 958; paralysis, 434; suicide, 165.

In 1897 the deaths numbered 22,735, a ratio of 18.72 per 1,000, which was the lowest death-rate in Philadelphia since 1879, when the ratio was 17.37.

Philadelphia County Medical Society.—At a meeting held December 28, DR. H. M. CHRISTIAN read a paper on the **treatment of retention of urine in cases of enlarged prostate.** He said that this condition occurs in one of two forms: (1) acute complete retention; (2) chronic incomplete retention. The first is generally found in cases in which the hypertrophy is mainly glandular, the retention under such circumstances being due to sudden congestion of the gland, from constipation, exposure, or alcoholic excess. The retention is complete. The second form, chronic incomplete retention, is generally found in cases in which the muscular fibers and connective tissue of the gland are mainly involved, and the gland is large and hard. In such cases retention is not sudden, but is gradual, in consequence of the slowly increasing amount of residual urine and consequent atony of the muscular coat of the bladder, the result being the condition known as "retention with overflow." In such instances there will be found a large swelling in the hypogastric region due to distention of the bladder, and at the same time constant dribbling of urine. There are three essential factors in the successful management of these cases of retention of urine: (1) A proper instrument; (2) a clean instrument; (3) knowledge on the part of the physician of how such an instrument should be used without infecting the bladder, or injuring the deep urethra. The Mercier, or coudé, and the bicoudé or double-elbowed catheters are considered as the only instruments proper for relieving retention due to enlarged prostate. Bearing in mind that in these cases the length of the urethra is increased from one to three inches, it is readily apparent why the ordinary metallic catheter fails to enter the bladder. Elastic, woven instruments cannot be boiled; they must, however, be thoroughly washed in a mixture of green soap and hot water, and kept ready for use in either mercuric-chlorid gauze or in a paraform-box. Before introducing the catheter, the urethra should be washed out with several syringefuls of a solution of silver nitrate gr. j to Oj. Under no circumstances should the bladder be emptied entirely. This rule is imperative, neglect to observe it being often followed by death from general infection of the bladder and the kidneys, with total suppression of urine.

Governor Hastings' Annual Message.—The following extracts from Governor Hastings' annual message presented to the legislature upon its assembling January 3, require no comment:

> The humane and economic care of the different classes of the indigent insane, as well as the proper management of the penal institutions of the State, will, I doubt not, call for additional legislation.
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> The State hospitals contained at the close of 1897 over 1,500 patients in excess of their capacity, and 240 more than during the previous year. The annual increase in the number of indigent insane in all the institutions in the State is about 550 new cases. If they were all to be provided for in State hospitals, considering the increasing number ef new cases, it would require the erection of a new State hospital every three years at a cost of from $2,000,000 to $3,000,000 for each new institution.
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> A large proportion of this overcrowding element in the State hospitals belongs to the class of quiet, chronic insane, which might be suitably provided for in county institutions

at a greatly reduced per capita cost. The "county-care" plan naturally applies to the chronic or quieter, more able-bodied classes of our insane. The latter form the larger proportion of the population in the State hospitals. The withdrawal of these to the county institutions removes the pressure and leaves the acute, curable and relievable insane for the expert medical treatment, active nursing and extra dietary which their several cases demand. This will greatly facilitate the opportunities for better results of treatment.

There is now urgent need of separate hospital-care for indigent epileptics and the epileptic insane. There is no chronic brain-malady, insanity excepted, that renders helpless so large a proportion of our citizens, or that appeals more powerfully to human sympathy. It is surprising to know that there is one epileptic in every thousand persons in this commonwealth. Many of the most dangerous homicidal lunatics in the State institutions are subjects of epileptic mania, or cases in which epilepsy complicates some form of delusionary insanity. In the 5 State hospitals for the insane there are now confined 520 cases of epilepsy in its different forms. Add to these those now in the county-homes and poor-houses and the total exceeds 700. Outside of these institutions there are a large number, indigent and dependent, who, under proper protection and care, might be in some measure relieved and made self-sustaining.

Epileptics have no true place in the hospitals for the insane. If scattered through the hospital community the shocking sights and results of their frequent seizures react most unfavorably upon the non-epileptic patients, whose evidences of mental disorder also react unhappily upon them. If all epileptics were placed together, without opportunity or space for proper classification, they then react unfavorably upon each other. They should be gathered together in an institution specially designed for their care, such as the States of Ohio, New York, Massachusetts and California have provided, or the two private institutions in this State. The State would do well to purchase a farm of about 500 acres in extent, and erect thereon a hospital, on the cottage plan, each cottage to contain a limited number of inmates, suitably classified. The institution should be distinctly industrial, it being advantageous and helpful for many of the patients to have out-door exercise, where they can contribute towards the cost of their own maintenance.

There are about 200 insane convicts in the different State institutions, of which 125 are in the State hospitals, to which they were committed, by orders of Court generally, from the penitentiaries and county jails. There are now 35 in the penitentiaries and jails, and the remainder in certain county almshouses, having departments in which insane are received and treated. The most suitable, convenient and economical plan for the proper segregation of this class would be the erection of a separate, specially constructed and equipped hospital, upon the site and within the guard walls of some one of our State penitentiaries. The necessity for prompt action is constantly present in every institution caring for an insane convict.

Since the opening of the institution for the care of feeble-minded children at Polk, Venango County, ample accommodation has been afforded for such of the feeble-minded as are capable of remedial treatment, but as yet the large number of children known as moral idiots, who require custodial care, is not sufficiently provided for. They are unsafe members of the community, and contribute largely to its criminal classes. They should be accommodated in buildings specially adapted to their care, and separated entirely from the harmless children of this class. For this purpose the Board of Public Charities has recommended the erection of an additional building at Polk. It is also recommended that a similar building be erected at the Ewyn Institution.

We have now come to a point where the people of the State must determine whether the rivers and other public streams shall continue to be used as public sewers, or whether the waters thereof shall be kept pure. Owners of property through which or past which a public stream flows seem to have falsely concluded that the stream itself is a private property, to be dealt with as the owners choose. They use it as a common carrier or depository of all the substances of which they desire to rid themselves. The refuse of mines and of factories invades its shores, and unite with the solid refuse of tanneries and slaughter-houses, the garbage and night-soil of public institutions, factories, villages and towns, the carcases of animals dead of disease, the output of abandoned salt-wells and the washings of vast culm-deposits, which frequently force it from its ancient shores.

As our population increases these conditions become worse, and if they are to be longer permitted, the cities and towns of the State must look elsewhere for their water-supply. There are few of our rivers and larger streams that do not carry the germs of disease, gaining in their unhealthy conditions more and more as they flow onward to the sea. It must be admitted that it is impossible to avoid all degrees and forms of public water contamination, but it has been demonstrated that to a large extent it can be eradicated.

The quarantine for the port of Philadelphia should, in my judgment, receive enlarged powers and facilities, and, if the treasury will warrant it, should have a quarantine boat, to be made of steel, constructed to meet the emergencies of the service, and with a high rate of speed, so as to reduce the detention of traffic to a minimum. You will regard with anxiety the possibility and danger of the entrance into our port of contagious diseases, and, in view of our more intimate relations and increased traffic with the West Indies, will consider whether the experience of the past two years has not demonstrated the fact that it is not safe for a great city to depend upon a quarantine-station 100 miles distant on the sea-coast.

NEW YORK.

Hospital-fund.—Charles Lanier, treasurer of the Saturday and Sunday Hospital-fund, now has in his hands $14,000, which sum has been contributed at the Saturday and Sunday collections in churches and synagogues for hospitals.

Buffalo still maintains her proud preeminence as one of the healthiest cities in the country and the world. The death-rate, as shown by the Health-Commissioner's report, was only 12.15 per thousand in 1898, against 12.42 per thousand in 1897.

Physicians and Horseless Carriages.—Two physicians of Brooklyn have abandoned the horse and buggy and have adopted the horseless carriage. These auto-mobiles can be started, stopped, or backed quickly and accurately by a single movement of the lever.

Medical Union, Buffalo, N. Y.—At the recent annual meeting the following officers were elected: President, Dr. J. C. Thompson; vice-president, Dr. Herman Mynter; secretary and treasurer, Dr. Frederick Preiss; committee, Dr. A. A. Hubbell, Dr. Frederick Preiss, Dr. A. H. Briggs.

The Second Annual Meeting of College-Gymnasium Directors was held on December 30 in the Columbia College Gymnasium. The matter of having physical training recognized more in the curriculum was discussed at length and the sentiment was decidedly in favor of agitating for a higher place in the curriculum. Dr. J. W. Seaver, of Yale; Dr. Watson Savage, of Columbia; and Dr. W. G. Anderson, of Yale, were the prominent speakers.

A Nun as Postmistress and Directress of a Sanitarium for Tuberculous Patients.—According to the *Boston Medical and Surgical Journal*, Sister Polycarpa, of the Order of St. Dominic, who is said to be the only nun in the United States who ever held such an office, has been appointed postmistress at St. Joseph's, Sullivan County. Two years ago the sister was advised by her physician to go to this neighborhood, on account of incipient tuberculous trouble, and while there she devised the plans for the establishment of a sanitarium for tuberculous patients, which was built last summer by the nuns of her order connected with St. Catherine's Hospital in Brooklyn, and over which she now presides.

Meetings of Scientists.—The following scientific societies held their annual conventions in the halls of Columbia University, December 28, 29, and 30:

American Society of Naturalists; American Morphological Society, Association of American Anatomists; American Physiological Society; American Psychological Association; American Folk-Lore Society for Plant Morphology and Physiology; the Anthropological Section of the American Association for the Advancement of Science; American Geological Society, and the American Chemical Society.

Vital Statistics of Greater New York.—According to reports, the death-rate of the old city of New York was, in 1897, 19.53; that of the new city is 19.21. In Manhattan and Bronx, in 1898, the death-rate was 19.70, an increase; and in Brooklyn it was 18.26, also an increase. There were 66,073 deaths in the whole city in 1898. Of the deaths, 36,294 occurred in tenement-houses, and 25,325 of the whole number in children under 5 years of age. Of the causes of death, pulmonary tuberculosis was responsible for 7,619, pneumonia for 7,527, and diarrheal diseases for 4,845. There were 1,461 deaths from diphtheria. The population is now officially estimated at 2,948,830.

New York Surgical Society.—At a meeting held December 28, DR. C. K. BRIDDON presented a case of **ruptured femoral aneurysm** which had been treated by extirpation after provisional ligature of the common femoral artery in Hunter's canal. The discussion was participated in by DRS. EILOT, BROWN, JOHNSON, and MCCOSH.

DR. BROWN presented a case of **nephrectomy for tuberculous kidney.** Drs. Johnson, Coley and McCosh took part in the discussion. DR. HOTCHKISS presented a case of **external esophagotomy** for stricture.

DR. DOWD read a paper on **tuberculous cervical lymphomata,** and showed several cases illustrating the subject of the paper. The discussion was participated in by DRS. JOHNSON, HOTCHKISS, WOOLSEY, BROWN, and DOWD.

New York Academy of Medicine; Section on Laryngology and Rhinology.—At a meeting held December 28, DR. ROBT. C. MYLES exhibited two **new forceps for removal of faucial tonsils.** DR. J. F. MCKERNON presented a case of **operation on the nose for epithelioma** in a man 55 years old. After removal of the growth a new nose was constructed out of the tissue of the face. DR. W. M. LESZYNSKY presented a case of **hysteric aphonia,** and a most unusual case of **hysteric mutism.** The latter patient had been for 4 months unable to utter a sound. Lately there had been associated contraction of muscles of the upper eyelid, so that voluntary opening of the lid was impossible. Also associated with these affections was a strong contraction of the tongue. DR. F. E. HOPKINS, of Springfield, Mass., presented a number of interesting cases, including a case of **probable lymphosarcoma of tonsil** which, after repeated removals, and recurrence, was treated with Coley's lymph, with almost complete disappearance of the growth. DR. HOPKINS reported also a case of **hysteric larynx** characterized by continual piercing cries, in which after all other treatment had failed cure was affected by intubation.

DR. J. E. NEWCOMB read a paper on **nasal insufficiency due to exaggerated prominence of the anterior arch of the cervical vertebra.** He reported 2 cases of his own and 4 cases by Mendel, in which there was a bony growth in the auropharynx. In some of the cases there were associated adenoid growths, and in those in which nasal obstruction was the prominent symptom no solution was offered for the condition, and the statement being made that further than the removal of the adenoid tissue no treatment was possible.

In the *executive session* Dr. Robt. C. Myles was elected chairman, and Dr. T. J. Harris, secretary.

Buffalo Academy of Medicine.—At the regular meeting of the section on obstetrics held recently, DR. S. S. GREENE read a paper on the **treatment of placenta prævia,** in which he called attention to the alarm justly excited in the practitioner's mind by antepartum hemorrhage; to the various classifications, and to the statistics of mortality-rate as reported by Simpson in complete separation of the placenta and by Barnes in incomplete separation of the placenta before extraction by version. He reported 5 cases, all of marginal implantation, all in multipara, and all with vertex-presentations; 4 were at full term, and 1 at 7 months; only 1 terminated fatally; all the children survived. Dr. Greene's procedure is to dilate the cervical canal, if necessary; to give a full dose, 1 fluidram, of a reliable fluid extract of ergot, to rupture the membranes in order to drain the amniotic fluid, and to allow the labor to proceed without interference. He believes the ergot causes powerful contractions, and especially retractions of the uterine muscles, while the drainage allows the retraction to be maintained, thereby stopping the hemorrhage. He contends that the retraction is the main factor in stopping the hemorrhage. In the discussion, DR. VAN PEYMA divided all cases into two classes: those centrally implanted and those not; the former alone, he believes, should be called placenta prævia, and these cases cannot be treated as had been described. The points to consider in any case are: (1) whether occurring in a primipara or a multipara; (2) the condition of the child and the mother, and (3) the amount of hemorrhage that has occurred. Dr. Van Peyma claimed that the textbooks do wrong in not sharply differentiating the treatment of the various classes. He believes in using the hand as a cervical dilator and tampon, and in performing version before extraction, the object of all treatment being the control of hemorrhage and the birth of a living child. DR. SCHROETER considers the giving of ergot before the head is born as bad practice. He believes that sepsis is responsible for many deaths in this class of cases which are charged to hemorrhage, and he recommends the routine use of saline solutions either by the rectum or hypodermically. DR. DWYER reported 2 cases in which the placenta was born first, being found without the body of the uterus upon the first examination.

Dr. BRENNEN presented a unique specimen of **lateral implantation,** being a 5-months fetus enclosed in membranes with placenta attached upon the left half, the vertex presenting.

DR. ROEMMELT presented a **specimen of extra-uterine gestation,** being a perfect fetus of about 5 months, with placenta and clots. A white woman, aged 27, mother of two children, had had no miscarriage, but was always in poor health. Her menstrual history began at 14, with no complaint other than rather a profuse flow. On September 1 she had a severe attack of pain in the left side, followed after intervals of several days by other attacks. On October 10 she discharged a piece of membrane like "canton flannel." At first she had a bloody discharge, lasting 2 weeks; also at times since, but she had been flowing for 4 weeks prior to operation. The discharge had no odor; the cervix was open;

the uterus was large, pushed to right side, flabby and soft; and a large mass was present on the left side of the pelvis. Operation proved the case one of tubal pregnancy, with rupture into the broad ligament.

NEW ENGLAND.

The William H. Thorndike Prize, for 1898, has been awarded by the Faculty of the Harvard Medical School to Dr. Joseph William Courtney, of Boston. The subject of the essay was, "A Critical Study on Traumatic Cerebral Edema: Its Pathology and Surgical Treatment."

Boston Society for Medical Improvement.—At the meeting held January 2, the following was the scientific program: Diverticulum of the esophagus, with extirpation, by Dr. H. M. Richardson; A case of symmetrical gangrene, by Dr. Henry R. Stedman; Remarks on infant-feeding, with special reference to the home-modification of milk, by Dr. C. W. Townsend.

Suffolk District Medical Society.—At a meeting held January 4, the following was the scientific program: The presentation of patients operated upon for foreign bodies in the throat, and some X-ray photographs, by Drs. D. W. Cheever, Abner Post, F. B. Harrington, H. L. Burrell, S. J. Mixter and J. W. Elliot; A case of stricture of the esophagus, by Dr. R. W. Lovett; A case of malignant disease of various abdominal organs, by Dr. G. H. Monks; A case of wound of the thoracic duct during operation, by Dr. F. B. Lund; Remarks on laminectomy, with the presentation of a patient, by Dr. J. C. Munro.

WESTERN STATES.

King County Hospital, Seattle, Washington.—Dr. Horace E. Mirkel has been appointed superintendent to fill the vacancy caused by the resignation of Dr. S. Carman.

The Presbyterian Hospital, Chicago, has been enriched by a contribution of $50,000 from the widow of the late Captain Albert J. Averell. The gift provides for the establishment of 10 memorial beds to the memory of the late officer.

Smallpox on the Pacific Coast.—Smallpox has broken out in the railroad-camps of the Santa Fe Railroad Company in Arizona. It is difficult to obtain positive information, as the railroad-officials are reticient when approached.

Official County Chemist.—Dr. John E. Clark has been appointed official chemist of Wayne County, Mich. His duties will comprise the analysis of materials in cases in which death by poisoning is suspected, and other analyses ordered by the courts.

Seattle (Washington) Anti-Expectoration Ordinance.—The City Council has passed an ordinance prohibiting expectoration on the sidewalks, floors of public buildings, and in street-cars. Offenders are subject to a fine of $5, or two days' confinement in the city jail.

Gift of Books to the University of Cincinnati.—Mr. William A. Proctor, who recently purchased "The Robert Clarke Collection" of over 6,000 volumes, covering a large variety of subjects, and which is estimated to be worth about $100,000, has presented the collection to the University of Cincinnati, of which the Ohio Medical College is the medical department. It is anticipated that this gift will stimulate others to emulate a worthy example.

Chicago Medical Society and Chicago Pathological Society.—At a joint meeting held December 28, the annual address was delivered by Professor William T. Councilman, professor of pathology in the Harvard Medical School. The subject of the address was Inflammatory Processes Illustrated in Acute Inflammation of the Cornea.

Sanitation in Mexico.—The Government is taking a great interest in the sanitation of Vera Cruz, which has again been afflicted with yellow fever this last year. The contracting firm of Weelman, Pearson & Son have been instructed to draw plans for a sewer-system and for water-works. The same firm, under Government orders, is making plans for the sanitation of Merida, the capital of Yucatan, for the purpose of banishing yellow fever. It is the intention of the Government to spend much money, and put into operation the most improved American methods, in order to stamp out fever on the coast of this country.

Christian Science Again.—News of another striking instance of the force of the delusion of so-called "Christian Science" comes from Omaha, where the wife of Judge Eller, of that city, has recently died from the effects of burns produced by a gasoline explosion, while several other members of the same family are reported to be near the point of death from injuries of the same sort. Although the burns of the victims were of the most agonizing nature, they stubbornly refused to accept medical aid, relying wholly on the prayers of two professional "healers," who assured them that there was nothing the matter with them that faith could not cure.

SOUTHERN STATES.

The Pure Food and Drug Congress will meet in Washington, D. C., January 18.

Memphis (Tenn.) Medical Society.—The following officers have been elected for the year 1899: President, B. F. Turner; vice-president, Dr. F. A. Jones; secretary and treasurer, Dr. E. M. Holder; reporter, Dr. R. McKinney.

Meningitis in a School.—An epidemic of meningitis has appeared at the Starkville Agricultural and Mechanical College, a State institution in the northern part of Mississippi. The college contains 200 pupils and the young men, on the advice of General Stephen D. Lee, are departing in large numbers.

Dangerous Filters.—The *Journal of the American Medical Association*, quoting the *Sanitary Record*, states that persons who rely upon domestic filters to purify water for household-use will be interested to learn, on the authority of the State Board of Health of Maryland, that such filters may steadily lose efficiency until they become first-rate culture-beds for bacteria. An example cited is that in the case of a man in Baltimore, who sends the whole water-supply of his house through a large filter, and subsequently puts his drinking-water through one of the small domestic filters common in the market. A test showed that on a day when the city taps were running 510 bacteria to the cu. cm., the large filter was delivering 9,900 bacteria in the same quantity of water. When the large filter was repacked, only 9 bacteria per cm. got through it, but this same water, when passed through the small filter came out with 71 bacteria per cm. A further example cited is from the office of the Baltimore Health-Department, where a filter, supposed to be the best in the market, was in use. The effectiveness of that filter was so short-lived that the precaution was observed of boiling the water after it was filtered.

Tri-State Medical Association of Mississippi, Arkansas, and Tennessee met at Memphis, Tenn., December 20 to 22, 1898, and in the absence of DR. HAPPEL, president, was called to order by DR. J. R. SANFORD, vice-president for Tennessee. DR. I. A. MCSWAIN, of Paris, Tenn., read a paper on **diphtheria and membranous croup.** He held that the two diseases are identical except in location, and spoke of their cause, symptomatology, and diagnosis, giving due importance to the value of bacteriologic investigation. In the treatment, he advocated the employment of antitoxin, hydrogen dioxid locally, and calomel internally. He thought that in general practice, tracheotomy is often more convenient than intubation, if either be required. He spoke of the probable transmission of the disease by domestic animals. DR. J. S. STANLEY, of Mississippi, thought the two diseases different, and opposed the use of antitoxin, which he had never employed. DR. E. P. SALE, of Memphis, preferred a spray of resorcin, 10 grains to an ounce of water, locally. He suggested that "pip" in chickens is probably diphtheria. DR. RICHMOND MCKINNEY, of Memphis, spoke of the value of resorcin locally, and thought that in hospitals the results from intubation were better than those from tracheotomy. DR. WM. KRAUSS, of Memphis, spoke of the pathology of the disease, and suggested that as Dr. Stanley's mortality was about 90%, he had better change his plan of treatment.

DR. W. A. YOUNG, of Idaville, Tenn., read a paper on a **new treatment of fevers.**

DR. FRANK A. JONES, of Memphis, read a paper on the **present status of medicine,** in which he deplored the fact that medicine to-day tended toward the laboratory and away from the bedside. DR. WM. KRAUSS, in the discussion, said that modern surgery, for instance, would be unknown but for laboratory-research, and that the leading clinicians of the world depend more and more upon laboratory-aids.

DR. LOUISE DROUILLARD, of Memphis, read a paper on **phantom-tumors,** which was largely devoted to a consideration of spurious pregnancy and the difficulty of its recognition.

DR. J. L. MINOR, of Memphis, read a paper on **learning to see at 40, first with one eye, later with both.**

DR. E. C. ELLETT, of Memphis, read a paper on **malarial keratitis.** In a series of 15 cases he had found the characteristic appearance as described by Kipp, and in the blood of these patients some form of malarial plasmodium. Dr. Ellett also reported 5 cases of **removal of the ear-ossicles.** In 2 cases suppuration had been arrested, in one diminished, and in one it was unaffected. In one case, in which the operation had been performed for deafness, etc., the result of chronic otorrhea, the hearing had improved twenty-fold.

DR. M. B. HERMAN, of Memphis, read a paper on **multiple hepatic abscesses as a sequel of typhoid fever.**

DR. F. D. SMYTHE, of Memphis, read a report of **operations on strangulated and reducible hernia.** He advocated operations in all cases of hernia, preferring the Halsted operation. In the discussion, participated in by DRS. ALFRED MOORE, MARTIN, ALEXANDER, SALE, GOLTMAN, HEBER, JONES, and G. G. BUFORD, reasonable efforts at reduction of a hernia by taxis, hot and cold applications, posture, opiates, and general anesthesia, were advocated before resort to operation.

DR. W. W. TAYLOR, of Memphis, read a paper on the **surgical treatment of acute infections of the uterus.**

DR. E. A. NEELY, of Memphis, read a paper on **urethral stricture.**.

DR. A. B. OLIVER reported a case of **cholecystectomy** and a case of **amputation of the penis for carcinoma.**

DR. WM. KRAUSS, of Memphis, read a paper on the **diagnostic value of blood-examinations,** which was a resume of the most convenient diagnostic methods as applied to the study of the blood. He spoke of the value of such examinations in inflammatory and infectious diseases, in leukocytosis and leukemia, etc., and of the preference to be given to the morphologic over the numerical differentiation of the leukocytes.

DR. G. B. MALONE, of Memphis, read a paper on **apomorphin in the treatment of eclampsia and other conditions.** He spoke of the gratifying results that had attended its employment in cases of opium-poisoning, asthma, hysteric convulsions, convulsions of children, and puerperal eclampsia. DR. E. H. MARTIN, of Clarksdale, Miss., and L. A. YARBROUGH, of Covington, Tenn., related cases corroborative of the value of the drug.

DR. EDWIN WILLIAMS, of Memphis, read a paper on **full-term pregnancy and two months' abortion in the same woman at two days' interval.** The patient had a bifid uterus, and had menstruated during part of gestation. DR. F. H. MARTIN thought this a case of double pregnancy, and that the development of the second fetus had been arrested by pressure. DR. WILLIAMS thought that a second pregnancy had occurred during the course of the first one, and that the abortion had been the result of the other labor at term.

DR. ALFRED MOORE, of Memphis, read a paper on **practical aseptic midwifery,** in which he advocated that the physician, nurse, patient, and surroundings should be as carefully prepared from an aseptic point of view as for a celiotomy.

DR. A. G. SINCLAIR, of Memphis, read a paper on **operation for squint—some indications and contraindications.**

The president's address was delivered by DR. HAPPEL, of Trenton, Tenn., the title being, **Quo vadis.** He regretted the tendency to depreciate clinical experience for laboratory-methods. He spoke of the tendency of young men to undertake the practice of specialties without thorough preparatory training. He mentioned the evils of numerous medical colleges, of valueless proprietary preparations, the flagrant manner in which the abortionist advertises, etc.

DR. MORRIS J. ALEXANDER, of Tunica, Miss., read a paper on the **theapeutics of quinin.**

DR. E. P. SALE read a paper on the **priority of the use of sodium hyposulphite in malarial diseases,** claiming the priority for Polli, of Milan, and C. F. Pharra, of Alabama.

A discussion on **malarial hematuria** was participated in by DRS. WM. KRAUSS, MOSS, NELSON, ALEXANDER, MALONE, and MARTIN.

DR. E. E. HAYNES read a paper on **when to asepticize in midwifery,** in which he favored the employment of mercuric-bichlorid douches before labor, but not after, unless there arise special indications. DRS. TAYLOR, KRAUSS, and DAUTSCH contended that a proper toilet of the vulva and body of the woman was all that was required.

DR. B. F. TURNER, of Memphis, reported a case of **spontaneous symphysiotomy.** The patient was a dwarf with a contracted pelvis. During attempted delivery with the forceps, the symphysis separated, the soft parts being torn into the bladder. This was repaired after delivery, and the patient made a good recovery. Dr. Edwin Williams reported a successful case of symphysiotomy.

Dr. Richmond McKinney, of Memphis, reported a case of **laryngeal tuberculosis secondary to tuberculous involvement of the lymphatics of the axillary and infraclavicular regions.** Lactic acid was deemed the only treatment likely to be of any avail. Dr. F. D. Smythe spoke of the surgical treatment of the glandular affection. Dr. E. C. Ellett spoke of the value of additional therapeutic agents, such as formol, cupric cataphoresis, and orthoform. Dr. J. F. Hill favored silver nitrate.

Dr. E. M. Holder read a paper on the **treatment of the causes of death in abdominal surgery.** He enumerated the causes of death as acute general septic peritonitis, which is nearly always fatal, but in which irrigation and drainage may accomplish something; hemorrhage, anesthesia-narcosis, embolism, intestinal obstruction from adhesion, injury to viscera, shock, post-operative insanity, the effect of ether on the kidneys and the lungs, and intercurrent diseases. To guard against these, a study of the patient's condition, careful and clean surgery, a careful anesthetist, drainage, and care to avoid exposing the viscera, are necessary. Dr. T. J. Crawford, of Memphis, uses saline injections freely, often leaving the abdomen full of water. He gives water freely up to an hour before operation.

Dr. Henry Posert, of Memphis, reported a review of **34 cases of locomotor ataxia.**

Dr. M. Goltman, of Memphis, reported a case of **gunshot-wound of the chest and cutting of the axillary artery, with spontaneous arrest of hemorrhage, and wounding of the brachial plexus.**

Dr. S. E. Pincus, of Memphis, read a paper on **chronic urethritis.**

Dr. C. R. Shinault, of Helena, Ark., read a paper on **juvenile gonorrhea** and related several illustrative cases.

Dr. E. H. Martin, of Clarksdale, Miss., reported a case of **autohypnosis.**

MISCELLANY.

U. S. Army Sanitarium in Japan.—The Secretary of War has recommended to Surgeon-General Sternberg the establishment of an Army Sanitarium at Nagasaki, Japan, for the use of the United States troops at Manila.

Obituary.—Dr. Scott Owen, aged 36 years, January 3, 1899, at Syracuse, N. Y. He was professor of anatomy in the Syracuse Medical College.—Dr. Charles F. Guillou, formerly a surgeon in the United States Navy, New York City, January 2, 1899, aged 85 years.—Dr. Buford Herrington, of Ellisville, Miss., in Columbia, Tenn., December 21, aged 29 years.—Dr. William F. Roberts, Greensburg, La., December 11, aged 58 years.—Dr. Kemy Battle Batchelor, associate professor of clinical medicine in the Woman's Medical College of Baltimore, Md., January 1.—Dr. John M. Comegys, Dover, Del., December 30, aged 70 years.

Committee on Nomenclature of Materia Medica Titles of the American Pharmaceutical Association.—In accordance with a resolution, adopted at the second General Session of the forty-sixth annual meeting of this Association, recently held, President Dohme has appointed the following Special Committee on Nomenclature of Materia Medica Titles, to cooperate with a similar committee, to be appointed by the Section on Pharmacy, Materia Medica, and Therapeutics of the American Medical Association, as recommended by the Special Committee on National Legislation: Prof. A. B. Lyons, Detroit, Mich., Chairman; Prof. R. G. Eccles, Brooklyn, N. Y.; F. E. Stewart, New York, N. Y.; Prof. L. E. Sayre, Lawrence, Kan.; Prof. O. A. Wall, St. Louis, Mo.

Not Bound to Undergo Serious Operation.—Assuming that the injury complained of in the case of Kehoe against the Allentown & Lehigh Valley Traction Company was the result of a certain accident, the company, which was sued for damages, urged, in defence, that the injury was not of a permanent character, but one that could quickly and permanently be cured by proper medical treatment, namely, by a simple surgical operation, attended with no pain (if anesthetics were used or the patient etherized), and free from serious danger. However, in view of the evidence relating to the subject, the Supreme Court of Pennsylvania declares, October 17, 1898, that there cannot be any doubt of the correctness of the following instructions given the jury: (1) That, if they believed that the surgical operation, necessary to relieve or cure the plaintiff, was a serious or critical operation, necessarily attended with some risk of failure, then the plaintiff was not bound in law to undergo a serious and critical surgical operation, which would necessarily be attended with some risk of failure; and (2), that if they believed that such operation was dangerous and critical, and attended with risk of failure, she was privileged to exercise the liberty of choice, under such circumstances, as to whether suffering and feebleness, resulting from the injury, would be endured, or whether the surgeon's knife should be used.—[*Jour. Amer. Med. Assoc.*]

Suicides and Murders During 1898.—The total number of persons who have committed suicide in the United States during 1898, is 5,920, as compared with 6,000 in 1897. Of this number 4,586 were males and 1,634 females. Among professional men physicians lead the list, 44 having taken their own lives, as compared with 41 in 1897. During the year also 13 persons engaged in the banking business, 8 clergymen, 7 journalists, 6 attorneys, 2 actors, and 2 artists have committed suicide. The causes of suicide were as follows:

Despondency	3,023	Ill-health	288
Unknown	1,500	Domestic infelicity	197
Insanity	438	Disappointed love	196
Liquor	168	Business losses	110

In these cases of suicide, 2,126 persons took poison, 2,037 shot themselves, 786 hanged themselves, 452 cut their throats, 354 drowned themselves, 58 jumped from windows or housetops, 50 threw themselves in front of railroad trains, 26 burned themselves to death, 23 stabbed themselves, 4 starved themselves, and 3 blew themselves up with dynamite.

The total number of murders committed in 1898 shows a gratifying decrease—a phenomenon often witnessed in a war-year—being 7,840 as compared with 9,520 in 1897, 10,652 in 1896, 10,500 in 1895. The causes of these murders may be roughly classified as follows:

Quarrels	3,867	Highwaymen killed	82
Unknown	2,678	Insanity	89
Jealousy	205	Self-defence	33
Liquor	207	Strikes	22
By highwaymen	222	Outrages	5
Infanticide	248	Riots	25
Resisting arrest	147		

Health-Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Supervising Surgeon-General of the U. S. Marine-Hospital Service, during the week ended December 30, 1898:

SMALLPOX—UNITED STATES.

		CASES.	DEATHS.
COLORADO:			
Pueblo	Dec. 10–17	4	1
KANSAS:			
Hillsboro	Dec. 24	9	
	(Reported as imported from Russia.)		
Newton	Dec. 24	2	1
Seneca	Dec. 24	1	
	(A member of the Seventh California Volunteers.)		
KENTUCKY:			
Louisville	Dec. 21	1	
	(Origin not known.)		
NEW YORK:			
New York City	Dec. 24	1	
OKLAHOMA:			
Guthrie	Dec. 17	4	
	(Total to date, 5.)		
PENNSYLVANIA:			
Bradford	Dec. 20	9	
Enid, Fulton County,	Dec. 20, reported present.		
Robertsdale, Huntingdon Co.,	Dec. 20, reported present.		
TENNESSEE:			
Memphis	Dec. 20	1	
NORTH CAROLINA:			
Wilmington	Dec. 24	1	
	(Workman, employed on repairs at Marine-Hospital station; origin of disease unknown.)		
VIRGINIA:			
Norfolk	Dec. 24	7	
	(Unofficially reported that 5 cases were sent to County Pesthouse from the village of Berkeley).		

SMALLPOX—FOREIGN.

BELGIUM:			
Antwerp	Dec. 4–12	3	4
BRAZIL:			
Bahia	Nov. 19–Dec. 3	46	3
Rio de Janeiro	Nov. 4–18	30	11
EQUADOR:			
Guayaquil	Nov. 4–12		1
INDIA:			
Bombay	Nov. 22–29		1
ITALY:			
Rome	Nov. 5–12		1
RUSSIA:			
Moscow	Nov. 25–Dec. 3	13	4

YELLOW FEVER—FOREIGN.

BRAZIL:			
Rio de Janeiro	Nov. 4–18	8	5
MEXICO:			
Vera Cruz	Dec. 8–15		4

PLAGUE.

INDIA:			
Bombay	Nov. 15–22		33
“	Nov. 22–29		43
Madras	Nov. 19-25		1

CHOLERA.

INDIA:			
Calcutta	Nov. 5–12		2
Madras	Nov. 19–25		5

JAPAN:

During the period from Oct. 21 to Nov. 17 there were 9,746 cases of dysentery and 2,856 deaths. The entire Empire now seems to be saturated with the poison of this disease, and its annual recurrence may be fairly anticipated.

Official List of the Changes of Station and Duties of Officers Serving in the Medical Department of the U. S. Army.

Acting Asst. Surgeon R. Fleming Jones is relieved from further duty at headquarters department of Porto Rico and will report at the General Hospital, San Juan, for duty.

Acting Asst. Surgeon James B. Cutter is relieved from duty at the Presidio and will proceed to Honolulu, H. I., for duty in the U. S. Military Hospital at that station.

Captain Isaac P. Ware, A. S., is relieved from temporary duty at the General Hospital, Presidio, and returned to duty in the Post Hospital at that station.

First Lieutenant T. M. Hartsock, A. S., will close up the office of the medical-supply depot at Ponce, P. R., and report at the General Hospital, San Juan, P. R., for duty.

Leave for 15 days, with permission to return to the United States, is granted First Lieutenant T. M. Hartsock.

Hospital-Steward Gus. J. Westerdahl will proceed to West Point for duty.

Major Victor C. Vaughan, division-surgeon, and Major Edward O. Shakespeare, brigade-surgeon, members of the board of medical officers appointed Aug. 18, are assigned to duty in this city for an additional period of three months for the purpose of completing their report.

Leave granted Acting Asst. Surgeon Elmer A. Dean is extended to include Dec. 8.

Acting Asst. Surgeon William W. Vibbert will report at Fort Columbus for duty.

Hospital-Steward Nicolas Lommel is assigned to duty in the chief surgeon's office, department of Santiago.

Acting Asst. Surgeon Louis A. Moloney, is assigned to the General Hospital, Santiago, for duty.

Major William Dolz, brigade-surgeon, will proceed to Holguin, Cuba, reporting to Colonel D. N. Hood, commanding the district of Holguin, for duty.

First Lieutenant Ira A. Shimer, A. S., is assigned to duty at U. S. A. General Hospital, Santiago, Cuba, for duty.

Acting Asst. Surgeon F. W. Fabricius is assigned to duty at the U. S. A. General Hospital, Santiago, Cuba, as pathologist and bacteriologist.

First Lieutenant Ira A. Shimer, in addition to other duties, is assigned to duty as quartermaster and commissary of subsistence at the General Hospital, Santiago.

Acting Asst. Surgeon Juan J. Casenova is permanently assigned to duty on board the steamship "Reina de Los Angeles."

Acting Asst. Surgeon John C. Greenwalt is assigned to the Fifth U. S. Volunteer Infantry for duty.

Acting Asst. Surgeon Frederick Hadra is assigned to the Fifth U. S. Infantry for duty.

Acting Asst. Surgeon James G. McKay is assigned to duty at Morro Castle, Santiago, Cuba.

Acting Asst. Surgeon O. W. Stone is relieved from further duty at Holguin, Cuba, and will proceed to Santiago, Cuba, for duty in charge of the Detention-Hospital.

Major R. G. Ebert, surgeon, will take temporary charge of the office of the chief surgeon of the department in addition to his duties as surgeon at the post of Vancouver Barracks.

Major Edward C. Carter, brigade-surgeon, U. S. V. (Captain and Asst. Surgeon, U. S. A.), will report to Colonel Dallas Bache, A. S. G., president of the examining board, at the Army Medical Museum building, Washington, D. C., for examination for promotion.

Captain James F. Jenkins, C. S., will proceed to Macon, Ga., for temporary duty with the Second Brigade, First Division, First Army Corps.

Captain William F. Lippitt, Jr., A. S., is detailed as a member of the board of medical officers convened by par. 30, S. O. 256, Oct. 29, this office, vice Captain George D. DeShon, A. S., relieved.

The leave granted Acting Asst. Surgeon Jose M. Delyado is extended 10 days. Dec. 28.

Acting Asst. Surgeon James H. McCall will proceed to Fort Monroe for duty in the Josiah Simpson U. S. General Hospital.

Captain James C. Read, C. S., will proceed to New York City and report to Colonel Charles A. Woodruff, A. C. G. S., purchasiny commissary, for duty as an assistant in his office.

Leave granted Major Wm. R. Hall, surgeon, is extended 10 days. Dec. 27.

Major Henry S. Kilbourne, surgeon, medical inspector, army transport service, will proceed to Bath, Me., on business pertaining to that service.

Leave granted Major David C. Peyton, brigade-surgeon, is extended 7 days. Dec. 27.

The medical board appointed by par. 40, S. O. 194, Aug. 13, this office, will consider the question of the best method of sterilizing water for troops in the field and report the result of its investigations on this subject as soon as practicable.

Captain Benjamin Munday, A. S., is directed to report to Brigadier-General Thaddeus H. Stanton, P. M. G., president of the Army retiring board appointed at the War Department for examination.

Acting Asst. Surgeon Charles E. C. Peyton will proceed to Havana, Cuba, and report to the commanding general, Seventh Army Corps, for duty.

Official List of Changes in the Stations and Duties of Officers Serving in the Medical Department of the U. S. Navy.

Medical Inspector M. C. Drennan, detached from duty in connection with the recruiting rendezvous, Chicago, Ill., and ordered to duty at the recruiting rendezvous, Philadelphia, Pa., and to duty as a member of the medical examining board, Philadelphia, Pa.

Assist. Surgeon J. S. Taylor, ordered to the recruiting rendezvous, Chicago, Ill.

Surgeon H. C. Eckstein, retired, detached from duty as a member of the medical examining board, Philadelphia, Pa., and ordered home.

Passed Asst. Surgeon T. Myers, retired, detached from the marine recruiting rendezvous, Philadelphia, Pa., and ordered home.

Official List of the Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the U. S. Marine-Hospital Service for the 7 Days Ended December 29, 1898.

Surgeon W. A. Wheeler to proceed to Cairo, Ill., and assume command of service. Dec. 28, 1898.
Surgeon P. C. Kalloch, upon being relieved by Surgeon W. A. Wheeler, to proceed to Gulf Quarantine-Station and assume command. Dec. 28, 1898.
Past Asst. Surgeon W. P. McIntosh to report to the Director of the Hygienic Laboratory for a course of instruction. Dec. 27, 1898.
Past Asst. Surgeon A. C. Smith, upon being relieved by Surgeon P. C. Kalloch, to proceed to Norfolk, Va., and assume command of service at that port. Dec. 27, 1898.
Past Asst. Surgeon J. M. Eager to report to Director of Hygienic Laboratory for a course of instruction. Dec. 23, 1898
Past Asst. Surgeon J. A. Nydegger granted 4 days leave. Dec. 24, 1898.
Past Asst. Surgeon W. J. S. Stewart to rejoin station, Washington, D. C., immediately. Dec. 29, 1898.
Asst. Surgeon Hill Hastings, upon being relieved, to report to Director of Hygienic Laboratory for a course of instruction. Dec. 27, 1898.
Asst. Surgeon N. C. Russell, upon being relieved by Asst. Surgeon D. E. Robinson, to proceed to Louisville, Ky., for duty and assignment to quarters. Dec. 27, 1898.
Asst. Surgeon W. C. Billings to report to Surgeon J. H. White, Immigration-Depot, New York, N. Y., for duty. Dec. 27, 1878.
Asst. Surgeon J. W. Kerr to report to Medical Officer in command at San Francisco, Cal., for duty and assignment to quarters. Dec. 27, 1898.
Asst. Surgeon D. E. Robinson to report to Medical Officer in command at Chicago, Ill., for duty and assignment to quarters. Dec. 27, 1898.
Asst. Surgeon G. M. Corput to assume command of Egmont Key Detention-Camp. Dec. 27, 1898.
Acting Asst. Surgeon J. W. Stevenson to assume temporary charge of service at Cincinnati, Ohio. Dec. 28, 1898.

To be Assistant Surgeons.

William Chester Billings, of Massachusetts. Dec. 23, 1898.
John Walter Kerr, of Ohio. Dec. 23, 1898.
Dana Elihu Robinson, of Ohio. Dec. 23, 1898.
Gustave Maximilian Corput, of Georgia. Dec. 23, 1898.

Foreign News and Notes.

GREAT BRITAIN.

Charitable Bequests.—Among the bequests to charity devised by the late Baron Ferdinand de Rothschild is the sum of $500,000 to the Evelina Hospital for Children, in London, which was founded in memory of his wife.

Dr. David Wallace, a London physician, an allusion to whose committal for trial on the serious charge of criminal abortion has appeared in our columns, has been acquitted. The prosecution broke down utterly; the only surprising thing is that such a case should ever have got beyond the preliminary enquiry before a magistrate.

London National Sporting Club.—We have alluded to the committal for trial of certain members of the London National Sporting Club, on the charge of manslaughter, they having promoted a glove-fight in which one of the combatants was unfortunately killed. We learn that the grand jury threw out the bill—in other words, the prisoners were discharged as clearly not guilty, without being subjected to trial.

Lingual Chancre from Indirect Contagion.—At a recent meeting of the Clinical Society of London Mr. Campbell Williams read the report of a patient who had acquired a hard chancre of the tongue from using the mouthpiece of a set of bagpipes that had been blown by a syphilitic subject two months previously. The chancre developed 20 or 30 days after presumptive infection, and was followed by the ordinary secondary manifestations. The case is interesting as tending to show that the virus of syphilis may remain active in a dried state for at least two months. Other possible sources of infection were denied by the patient.

Blackmail and Condign Punishment.—Three brothers with the significant name of Chrimes have recently received exemplary sentences at the London Central Criminal Court for the detestable crime of blackmail committed under circumstances of particular interest to medical men. The three brothers advertised a nostrum as an unfailing preventive to conception, or entered into relations with the person who had advertised the nostrum. Thus they obtained the names of all the unfortunate women who had bought the drugs in question for an illicit purpose. To all these people, mostly poor women and many of them servant-girls, they sent a lithographed form, got up more or less to look like an official document, to say that unless £2 were sent to an individual signing himself C. T. Mitchell, Public Official, by return of post, dire consequences would ensue. Many hundreds of women sent money, but a few were courageous enough to inform their husbands or friends of the attempts at extortion that were being made upon them, with the result that the police were quickly on the track of the blackmailers. The two elder brothers, aged 32 and 31 respectively, were sentenced to 12 years penal servitude, and the younger, aged 22, to 7 years penal servitude, while the jury who found the offenders guilty added a rider in the following sense: that the crime could not have been committed had it not been for the laxity of the press in permitting such disgraceful advertisements to be published.

Enormous Donation to the Jenner Institute of Preventive Medicine.—This institution, which, until quite recently, was known as the British Institute of Preventive Medicine, received, two days before Christmas-day, the huge donation of £250,000 from Lord Iveagh. The circumstances under which Lord Iveagh's gift was made redound to his credit and also to that of the fortunate institution upon which his generosity has fallen. His original determination was to hand over a very great sum of money to be spent in such directions as should appear to be of the greatest permanent benefit to the human race. The sum he fixed upon was half a million sterling, and after consideration and taking counsel with responsible advisers, he decided to devote £250,000 towards establishing sanitary buildings on a grand scale in one of the poorest quarters of his native city of Dublin—for Lord Iveagh is a scion of the Guinness family whose porter is famed from pole to pole—and £250,000 towards carrying on the "the highest research work in bacteriology and other forms of biology bearing upon the causes, nature, prevention, and treatment of disease." The words we have quoted are those used by Lord Lister, Chairman of the Council of the Institute, in his grateful acknowledgment through the public press of Lord Iveagh's generosity. This generosity, in the opinion not only of medical men in England, but of enlightened men in every quarter of the globe, has been well directed. To provide the sinews of war with which to fight disease is to be the true benefactor of suffering man.

Three Good Men.—Death was busy just before Christmas in English medical circles. Three men of distinct eminence passed away within a few days of each other, who had nothing whatever in common save that each served the medical profession well according to his widely differing bent. Charles John Hare, M.D., Cantab, F. R. C. P. Lond., consulting physician to University College Hospital, who died on December 15, at Berkeley House, his magnificent London residence, at the ripe age of 81, was a type of the old school of practitioner and the old-fashioned English gentleman. He never attained to a very prominent position in the world of science, and his only literary work entitled "Good Remedies out of Fashion," humorously urged the claim of bleeding and free purgation. But he carried his shrewdness, his broad sympathies, his kindly heart and his handsome person into many homes with successful results that more up-to-date pathologists might well have envied.

The career of Prof. Alfredo Antunes Kanthack, who died on December 22, at the early age of 35, forms a remarkable contrast to that of his brother physician, Dr. Hare. Probably Professor Kanthack could count on his fingers all the private patients that he ever attended, but having regard to his splendid services to preventive medicine he may be said to have passed his brief working-life treating the whole world as his patient. Professor Kanthack was a Brazilian who was educated in Germany, received his medical diplomas in London, became lecturer on pathology and bacteriology at St. Bartholomew's Hospital, and a year before his death was elected to the important post of professor of pathology at Cambridge University. His life was spent in investigation and search after knowledge. He was a member of the Leprosy Commission, in India, in 1890, was an extensive and frequent contributor to all the first-class scientific periodicals in England, and wrote two volumes, one entitled, "A Manual of Practical Morbid Anatomy," and the other entitled, "A Handbook of Practical Bacteriology," which are models of what such treatises should be. The younger school of medicine in England has sustained by Professor Kanthack's premature death a real loss.

The third medical man who passed away during this fatal week was Dr. William Munk, M.D., of Leyden University, and F.R.C.P. Lond., who died on December 21, aged 83. As a physician Dr. Munk was recognized in his younger days as an authority on the treatment of smallpox, while he was also interested in the pathology of pulmonary disease, having been for many years physician to the Royal Infirmary for Asthma, Consumption, and Diseases of the Chest. But in 1857 he was elected Harveian Librarian to the Royal College of Physicians of London, and for the last 40 years of his life he was chiefly known for his literary and antiquarian work. He constituted himself a treasure-house of information concerning the old Fellows of the College which he loved, and in 1861 produced as the result of his researches that highly valuable book of biographical reference, "The Roll of the Royal College of Physicians of London, Compiled from the Annals and other Authentic Sources," to which volume every historian goes if he wants accurate data concerning any English physician of note. Dr. Munk had long suffered from glycosuria, while Dr. Hare was known some months ago to be afflicted with carcinoma of the esophagus, so that the announcements of their deaths caused no surprise; but Professor Kanthack succumbed rather suddenly to multiple abdominal sarcomata, and the news of his early decease excited great surprise as well as great regret.

CONTINENTAL EUROPE.

Bubonic Plague at Delagoa Bay.—It was reported on December 27, that bubonic plague had broken out in the district of Delagoa Bay.

Professor Roentgen, of Würzburg, whom some of our esteemed contemporaries stated had accepted a call to the University of Leipzig, has formally declined the invitation.

Dr. A. Passow has been appointed ordinary professor of otology at the University of Heidelberg.

Obituary.—Dr. Jacques Passé, assistant in the laboratory of physiologic psychology at Sorbonne, Paris. Dr. Passé was well known for his researches on the sense of smell, etc.

"L'Intermediaire des Neurologistes et des Aliénistes," is the title of a new journal published in Paris, by F. Alcan, under the editorial direction of Dr. Paul Sollier. It will be issued in three languages, French, German and English.

The University of Berlin has had more students attending its courses and lectures during the past semester than at any time since its foundation. The total number of students was 6,151, as compared with 5,606 during the previous winter, and 4,648 during the previous summer. Of the total number 1,311 were students of medicine.

"La Société des amis de l'Université," was recently founded in Paris. Its object is to aid in the development of the University of Paris, by the founding of new professorships, assisting the laboratories, establishing scholarships, etc. In connection with the society a bulletin will be issued which will devote particular attention to the wants of the new students.

Diphtheria and Antitoxin.—The *Therapeutic Gazette* quotes the following figures illustrating the beneficial effects of the administration of antitoxin in diphtheria. The first table is that of Kossel, and has regard to Germany; the second is quoted from the *Annuaire Statistique de la Ville de Paris*, and refers to Paris. Attention is directed especially to the remarkable fall in the mortality-rate commencing in 1895, the year of the general introduction of the antitoxin method of treatment.

Year.	Absolute number of deaths from diphtheria in German towns, over 15,000.	Berlin during same period.	Rate per 10,000 living.
1886	12,211	1662	12.4
1887	10,970	1392	10.7
1888	10,142	1195	9.6
1889	11,919	1210	10.8
1890	11,915	1601	10.5
1891	10,484	1006	8.4
1892	12,365	1342	9.7
1893	16,557	1637	13.0
1894	13,790	1416	10.1
1895	7,611	987	5.3
1896	6,262	559	4.3
1897	5,208	546	3.5

Year.	Mortality, absolute number.	Deaths per 1,000 living.
1877	2393	12.1
1878	1995	9.3
1879	1783	8.4
1880	2048	9.4
1881	2214	9.9
1882	2244	10.0
1883	1781	8.4
1884	1928	8.6
1885	1655	7.4
1886	1512	6.7
1887	1585	7.0
1888	1729	7.6
1889	1706	7.5
1890	1668	7.3
1891	1361	5.6
1892	1403	5.8
1893	1266	5.1
1894	1009	4.2
1895	435	1.8
1896	444	1.8
1897	300	1.2

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

December 17, 1898. [No. 1981.]

1. The Present Knowledge of Outbreaks due to Meat-Poisoning. Herbert E. Durham.
2. Disease and Its Treatment, and the Profession of Medicine in the year 1899. Wm. Ewart. (Lecture II.)
3. The Curative Value of Calmette's Antivenomous Serum in the Treatment of Inoculations with the Poisons of Australian Snakes. C. J. Martin.
4. Malaria: Immunity: Absence of Negro Immunity: Variety. As Illustrated by the Incidence of the Disease on Various Races in Sierra Leone. Fred. Smith.
5. Infective Sarcomata in Dogs. G. Bellingham Smith and J. W. Washbourn.
6. The Cold-Bath Treatment of Typhoid. F. E. Hare.
7. Spindle-Celled Sarcoma of Rectum. Excision of Rectum, with Preservation of the Sphincter by Subperiosteal Resection of the Coccyx and part of the Sacrum. Thomas Carwardine.
8. Intestinal Antiseptics in Diabetes. N. E. Norway.
9. Phlegmonous Ulceration of the Mouth Treated with Antistreptococcus Serum. Oliver Smithson.
10. A Case of Serous Catarrh of the Middle Ear Produced by the Administration of Potassium Iodid. Herbert M. Ramsay.
11. A Fatal Case of Hydatidiform Mole. David Ross.
12. A Case of Cirrhosis of the Right Lung, with Remarks. Henry Waldo.

1.—Durham calls attention to the fact that outbreaks of disease due to **meat-poisoning** are dependent upon infections by living bacilli. Only two kinds of bacilli are definitely related to the etiology of such outbreaks, namely, the bacillus enteritidis of Gärtner and the anaerobic bacillus butyricus of van Ermenghem. Of these the former is the more important, the other having been recognized but once. Of 4 outbreaks observed by Durham the bacillus of Gärtner was isolated in one. In the other 3 serum-diagnosis indicated the same bacillus as the cause. In some outbreaks this bacillus has been isolated from the suspected meat, as well as from the organs in the fatal cases. Whenever the source of the illness was traced, the animal supplying the meat was found to be diseased. The cow and the calf are the animals especially liable to furnish the bacillus. The horse, the pig and the goat have occasionally done so. In 2 of the outbreaks observed by Durham, veal and beef were responsible; in the other 2 the origin was not traceable. Parrots sometimes suffer from a disease that is due to a bacillus having the same cultural and morphologic characteristics as Gärtner's bacillus, and they have been found to be the origin of outbreaks, possibly through contact, although the disease is but slightly contagious. Milk is a possible means of communication, but an uncommon one, as the secretion of milk ceases during the illness of the cow. The outbreaks occur at any season of the year. It has been shown that the flesh of an animal experimentally infected with a pure culture of the bacillus will, when kept, give rise to illness. The chief clinical manifestations are an initial rigor, moderate brief fever, great weakness, diarrhea, vomiting which may be intense, herpes labialis, rashes, desquamation of the hands and feet, jaundice, and great thirst. The onset is sudden, and attended with nausea, headache and pain in the joints, limbs and back. Convalescence is slow. The prolonged cases sometimes simulate typhoid fever. The serum-diagnosis will aid in differentiation, but many cultures must be used for the test. In order to prevent the condition, animals should be inspected before being slaughtered, and be examined bacteriologically if any suspicion exists. In the event of an outbreak promptness and thoroughness of investigation should be insisted upon. [s.m.h.]

3.—Martin replies to Calmette's criticism of his conclusions as the result of experimentation with regard to **the curative value of Calmette's anti-venomous serum in the treatment of inoculations with the poisons of Australian snakes.** Further investigation has confirmed the earlier conclusions, namely, that the serum has a slight, but distinct, protective effect against one of the constituents of these venoms, but on account of its present slight antitoxic strength, it is practically valueless as a remedial agent in Australia. [s.m.h.]

4.—As the result of a study of the **incidence of malaria** among various races in Sierra Leone, Smith concludes that there is such a thing as immunity, though only of a relative kind, that the immunity is acquired, that the negro possesses no special immunity, and that there is some ground for believing in the existence of more than one variety of malarial organism. [s.m.h.]

5.—In a previous paper Smith and Washbourn described a series of tumors occurring in the genitals of dogs, which were transmitted from animal to animal as the result of coitus. These tumors originated in the mucous membrane of the vagina and penis and were sarcomatous in structure. In the experiments now related a series of subcutaneous inoculations were made into the abdominal tissues, one or two small fragments of the growth being introduced subcutaneously, by means of a forceps, for an inch or an inch and a half from the cutaneous incision, and the opening being closed with stitches and sealed with collodion and iodoform. Serial inoculations were made and the course taken by the tumors after subcutaneous inoculation, together with the question of immunity, was carefully studied. The following conclusions were reached: (1) the tumors in question are infective, round-celled sarcomas; (2) they can be transplanted from the genitals, where they naturally occur, to the subcutaneous tissue of other dogs; (3) they can be transplanted from subcutaneous tissue to subcutaneous tissue through a series of dogs; (4) after reaching the maximum of growth they may disappear spontaneously, with or without ulceration; (5) they may continue to increase and may cause death by secondary deposits in the viscera; (6) if the tumor should disappear, the animal is then immune to subsequent inoculation. [s.m.h.]

6.—Hare believes that the **cold-bath treatment of typhoid fever** has reduced the case-mortality by 50%, that nearly all the distressing symptoms connected with the pyrexial state, and many of those dependent upon the intestinal lesions are alleviated to an extent not attainable by any other therapeutic measure, that nutrition is maintained and convalescence greatly accelerated, and that in cases that terminate fatally life is prolonged on the average by several days. He thinks the application of this treatment should be routine. The selection of suitable cases is out of the question. [s.m.h.]

7.—**Spindle-cell sarcoma of the rectum** is exceedingly rare. In the case reported by Carwardine the growth was situated on the anterior and left lateral walls 2½ inches above the anus. It was removed by a dorsal mesial incision after resection of the coccyx and part of the sacrum. The patient had been prepared for the operation by daily washings of the bowel through an inguinal colotomy. One important feature of the operation was preservation of the sphincter ani and its mucous membrane. The patient made a good recovery and regained control over his bowel-movements. The coccyx and the sacrum had been removed from beneath the periosteum, and the complete regrowth of the sacrum and partial regrowth of the coccyx constituted a most happy result. [g.b.w.]

8.—Norway reports two cases of **diabetes**; one rather mild case occurring in a man aged 23 years, the other a severe case occurring in a boy aged 18 years, in which treatment with the following formula resulted in rapid cure:

Boric acid	20 grains.
Glycerin	1 fluidram.
Solution of arsenic hydrochlorate	5 minims.
Solution of strychnin hydrochlorate	10 minims.

Water sufficient to make 1 fluidounce.

[s.m.h.]

9.—Smithson reports a case of **phlegmonous ulceration of the mouth** occurring in a lad, aged 16 years, which seemed in the beginning to resemble toothache. There rapidly developed, however, dryness and thickening of the tongue, with bluish black swelling of the lips and gums, an extremely offensive breath, and an elevation of temperature to 103°, accompanied by a pulse of 130. The condition improved somewhat after a few days, only rapidly to grow worse again. There developed sloughing ulcerations on the soft palate to the left side and on the dorsum of the tongue, accompanied by a low septic pneumonia. An injection of 10 cu. cm. of antistreptococcus-serum was followed by rapid improvement within six hours, but a relapse occurred on the succeeding day. Another injection of serum was given, without effect, the patient dying two days later. [S.M.H.]

12.—Waldo reports a case of **cirrhosis of the lung** occurring in a boy, aged 10 years. There was an area of consolidation over the left apex anteriorly, with evidences of consolidation over the greater part of the right lung, and of cavity-formation on this side within the angle of the scapula. Repeated examinations of the sputum failed to disclose the presence of tubercle-bacilli. The most striking physical sign was the extreme displacement of the heart, the apex seeming to be located outside of and an inch below the right nipple, where it had evidently been pulled by the contracting fibrous tissue of the right lung. Cardiac dulness was wanting in the normal area. A systolic murmur was audible at the apex, together with a sharp and distinct second sound. [S.M.H.]

Lancet.

December 17, 1898. [No. 3929.]

1. Disease, its Treatment and the Profession of Medicine in 1899. WILLIAM EWART. Lecture I.
2. The Relation of the Nervous System to Disease and Disorder in the Viscera. ALEXANDER MORISON. Lecture I.
3. The Specific Organism of Vaccinia. A. F. STANLEY KENT.
4. On the Structure of the Semilunar and Flagellate Bodies of Malarial Fever; an Appendix to "The Inoculation-Theory of Malarial Infection." AMICO BIGNAMI, and DR. G. BASTIANELLI.
5. On the Administration of a Certain Mixture of Chloroform and Ether in Gynecologic Operations by means of a Clover's Inhaler without the Bag. W. J. MCCARDIE.
6. On the Prevention and Correction of Short Leg in Hip Disease. ROBERT JONES.
7. A case of Asthma due apparently to Arterial Spasm. JOHN C. THOROWGOOD.
8. Post-partum Hemorrhage Treated by Saline Injection. F. DE JERSEY.
9. Perforated Gastric Ulcer. T. JENNER VERRALL.
10. Exfoliation of the Cochlea. F. FAULDER WHITE.
11. A Case of Gummatous Ulceration of the Scalp becoming Epitheliomatous; Treatment by Scraping. A. E. J. BARKER.
12. A Case of Dislocation of the Knee. F. E. ROW.

2.—Morison points out that the disintegrative changes in the visceral nerve-trunks may be broadly regarded as of an active and a passive kind, the former being due to organic or inorganic poisons, and the latter to slow or rapid solutions of continuity by pressure or grosser traumatism. The organic poisons may be heterintoxicant or autintoxicant. Those of the former kind most frequently operative are alcohol and the infectious and contagious fevers, with the latter some form of cacometabolism, such as diabetes or gout. The most common inorganic poisons are lead, phosphorus, arsenic and mercury. The specific effect that these poisons have upon the peripheral nervous system is to induce a peripheral neuritis, and thus to disturb the nutrition, impede the conductivity and ultimately destroy the continuity of the axis-cylinder of the affected structures. These same changes have been found to apply to the visceral nerves, but with certain modifications which are as yet more or less undeveloped. In determining the relation of an hypertrophied organ to its nerve-supply Morison studied the uterine nerves of a cat during various periods of pregnancy. He found that the increase in size was apparent rather than real. On the other hand, the tortuosity of the uterine nerves, which is extremely marked in the normal uterus, was much diminished in the fully gravid uterus. By this simple expedient the nerve-supply of an organ, intended to vary in size, is adapted to the varying circumstances. Therefore the anatomic relation of the nervous system to a physiologically hypertrophied organ, possessing a considerable range of normal variation, is that there is no essential increase in the proportions of such nerve to such organ, but that anatomic and physiologic changes occur in the nerves, which enable them to adapt themselves to the organ they supply, and in a measure control. There is a special provision in the nervous anatomy of the heart, the same in principle as that met with in the uterus, for allowing the nerves of that organ, which varies so much in size during action, to adapt themselves to such variation. This provision is less marked in the spleen and the kidney.

Knowledge of the pathology of the ganglia and ganglion-cells in the visceral nervous system is, up to the present time, rather limited. In senile degeneration there is a certain diminution in size and number of cells and a well-marked pigmentation which is unassociated with notable disorder of function. When these changes, normal to senility, are found in youthful cells it is highly probable that the latter have been rendered functionally old by disease, and that the change is pathologic. Two kinds of pathologic change have been observed in the cardiac ganglia, the one progressive and consisting of a hyperplasia of connective tissue, and the other retrogressive and consisting of parenchymatous degeneration of new cells. The former occurs in congestion and hypertrophy of the heart; the latter is associated with qualitative blood-changes, such as uremia and pyemia. A ganglionic structure may participate in a general interstitial proliferation such as that met with in granular kidney. Such changes need not, however, place the cell out of action, although its functional activity will probably be subnormal. Atrophy and induration have been noted in the posterior-root ganglia related to territories of skin affected by herpes zoster, and in dorsal tabes an inflammatory process, chiefly affecting the proximal and central portions of the posterior-root ganglion and the posterior root itself, has of late attracted growing attention and interest. These changes have been described as atrophic and affecting the nerve-fibers. There is also some increase in the connective tissue. The question of cell-involvement is undecided [S.M.H.]

3.—Kent concludes, from extensive experimentation, that **the specific organism of vaccinia** is a diplobacillus which contains a virus that occurs in the vesicles of ordinary vaccinia. The organism exhibits special morphologic characters and staining reactions, and has a special distribution in the tissues. By special methods pure cultures may be prepared, and these, when inoculated into susceptible animals, give rise to vesicles that are indistinguishable from those produced by current vaccine-lymph. Animals so inoculated are found subsequently to yield no reaction when revaccinated with active-lymph. Sections from the vesicles thus produced are found to contain the organism in large numbers. These organisms exhibit the same morphologic characters as the organisms originally found in the vesicles of typical vaccinia. [S.M.H.]

4.—Bignami has concluded that malaria may be contracted by inoculation, a fact of which the first experimental proof has now been obtained, as it has been shown that an individual who has never had malarial fever, may, by sleeping in a healthy place where no one had ever taken fever, sicken with malaria of a grave type if bitten by certain species of the mosquito brought in the adult state from a distant locality of highly malarious character. Everything points to the conclusion that inoculation is the only mode by which infection is acquired, as air and water as carriers of infection may be excluded, and because arguments based on analogy all tend in the same direction. At any rate it can be concluded, without danger of dispute, that inoculation is the only mechanism of infection that has been demonstrated experimentally. In a study of **the structure of the semilunar and flagellate bodies of malarial fever** Bignami and Bastianelli found that some of the flagellates originating from crescents, as well as those from the pigmented bodies of tertian fever, present the appearance of a protoplasmic body containing in its mass some filaments or blocks of chromatin. From the protoplasmic body project the flagella, generally 4 in number, made up entirely of a homogeneous substance stained pale blue like the protoplasm. Other flagellate bodies, more numerous than the former, present a pigmented protoplasmic body of spheroidal form in which the particles of chromatin have apparently emigrated to the periphery. From these peripheral chromosomes issue filaments of chromatin, which constitute the principal part of the flagella, usually 4 in number. Finally there are a few flagellates, some flagella of which contain cromatin, while one consists of nothing but protoplasm. These mobile filaments consist of a thread of chromatin-substance surrounded by a thin layer of protoplasm prolonged to both extremities. It would seem that the chromatin-substance tends to occupy the center, while the two extremities consist of protoplasm. There is reason to believe that this continuous peripheral stratum of protoplasm is a constant arrangement. These so-called flagella arise from the nucleus. [S.M.H.]

5.—The anesthetic mixture recommended by McCardie consists of 2 parts of ether and 1 of chloroform by volume administered by means of a Clover's portable regulating inhaler without the rubber bag. The statistics with this anesthetic show only 3 deaths in 14,181 operations. The advantages claimed for the mixture are: Pleasantness to taste and smell, absence of struggling, quiet anesthesia, safety with both cardiac and renal disease, rarity of after-effects of any kind, and avoidance of obnoxious fumes of carbonyl chlorid and hydrochloric acid with less danger of fire from the ether-vapor becoming ignited by gas or other light. [We cannot agree with some of the statements made by McCardie, especially as regards the safety of the mixture. Even his own statistics show a death-rate of 3 in 14,181, or 1 in every 4,727, while the statistics for ether based on almost a million of cases (*Med. News*, Oct., 1892) give only 1 death in every 16,675. [G.B.W.]

6.—Jones believes that for the **prevention and correction of short leg** in hip-disease, the position of abduction is of the utmost importance. For some cases the Thomas splint, with the abduction body-wing, answers every purpose, but when the structures about the joint thicken and glide backward Jones' special abduction splint is of more service. Also good results are often obtained by forcible correction of the deformity, even though the tuberculous process is still in existence. It is not believed that a general systemic affection is likely to be produced by this manipulation. The following rules are given for the prevention of short leg: (1) Abduction of the diseased limb should be maintained; (2) the apparatus to attain this should also govern flexion and adverse pelvic tilting; (3) when arrest of growth threatens, pelvic obliquity should be summoned to assist; and (4) when displacement of the head has occurred immediate reduction should be attempted. For the correction of short leg, with bony ankylosis, it is suggested, (1) that oblique transtrochanteric osteotomy should be performed; (2) that the adductors be divided subcutaneously; (3) that the limb be placed in the position of abduction and kept there until firm union occurs; (4) that after union the splint should be removed and the limb allowed to leave slowly the abducted position; (5) that exercises should be systematically performed, in order to depress the pelvis toward the affected side; (6) that in case of fibrous ankylosis in which no osteotomy has been performed in order to avoid recurrence, the abduction should be maintained for a considerable longer time; and (7) that this treatment should, as much as possible, be carried out in the open air. [G.B.W.]

7.—Thorowgood believes that there are some cases of **asthma** in which the real essence of the seizure lies in a spasmodic contraction of the bloodvessels rather than of the bronchial muscles. He cites a case occurring in a young married woman in which the physical signs were similar to those of so-called spasmodic asthma, differing only in the less marked wheezing and the presence of intense pallor. The inefficacy of ordinary fuming inhalations, with the speedy relaxation of spasm on the administration of vaso-dilators, confirms the theory of origin. [S.M.H.]

8.—The injection of 2 pints of **saline solution** into the rectum of a woman who was pulseless from **postpartum hemorrhage** is interesting in showing how rapidly fluid may be absorbed by the bowel. It was only a few minutes after the injection that the radial pulse returned and the patient regained consciousness, finally making a complete recovery. [G.B.W.]

10.—While removing several polypi from a patient's ear, a piece of bone was found in the forceps. "This proved to be the modiolus of the **cochlea** with part of the osseous spiral lamina," which had evidently been exfoliated. [G.B.W.]

11.—A supposed **gummatous ulcer** developed into an epithelioma. The carcinomatous nature of the formation was demonstrated with the microscope. The patient, a woman, 30 years of age, had a pimple on her forehead, which, in spite of treatment, had existed for 4 years. It had grown into an ulcerating surface 2 inches in diameter, with a foul, sloughing floor. The ulcer was finally cured by thorough curetment. [This cure would make one doubt its epitheliomatous character. G.B.W.]

12.—A forcible blow was struck on the outer side of the lower part of the femur, **dislocating the tibia** outward and slightly backward. The external and greater part of the internal articular surface of the head could be defined through the skin. The patella was dislocated outward along with the tibia. Reduction of the dislocation was effected under ether and it was remarkable how little swelling and bruising developed. [G.B.W.]

New York Medical Journal.

December 31, 1898. [Vol. lxviii, No. 27.]

1. The Relation of Chemistry to Practical Medicine, and Some of the Methods Available in the Daily Work of Physicians. R. H. Chittenden.
2. The Pathology and Treatment of Acute Pneumonia viewed from the Standpoint of Nervous Development. Thomas J. Mays.
3. The Uvula in its Relations to Various Abnormal Conditions. George B. Hope.
4. Tuberculous Meningitis. Henry Waldo Coe.
5. The Bed-Treatment for the Violent Insane at the Sainte-Anne Asylum, Paris. Louise G. Rabinovitch.
6. A Case of Chronic Urticaria of the Larynx. W. Freudenthal.

2.—Mays believes that there is too great a tendency to regard **pneumonia** strictly as a local disease of the lungs, and endeavors to prove (1) that acute pneumonia is largely a developmental disease; (2) that its fundamental element is not so much disease of the lungs as disease of the nerve-supply of those organs; and (3) that its complications and varying manifestations correspond in a great measure with the various developmental changes that occur in the nervous system. Acute-pneumonia, as statistics show, has its age-periods, which are largely governed by an instability or a want of resistance on the part of the nervous system; other diseases arise as complications because the morbid impulses of the pneumonia radiate through and compromise neighboring nerve-tracts. The relative frequency with which these complications arise depends probably on the difference in the biologic ages of the nerve-centers involved; biologically the heart-center is much older than that of respiration. The pathology, physical signs, and symptoms of pneumonia vary at different ages on account of the varying irritability of the nerve-tracts implicated. The greatest number of deaths from pneumonia occur before the age of 5; at this early age the infantile nervous system possesses its greatest impressibility, although the immaturity and greater sensitiveness of the pulmonary epithelium may play a part. The convulsions, the high fever, the rapid pulse, the vomiting, the rapid respiration-rate—all are explicable on the theory that the nerve-centers concerned are unstable, and, being in close proximity, disturbance in one quickly radiates to the others. The respiratory center being biologically younger than the cardiac center, is in greater danger of arrest than the latter. This is evidenced by the numerous cases in which the heart continues to beat after stoppage of respiration. With respect to treatment this fact is of great importance. As pneumonia is primarily a disorder of the respiratory nerve-supply, it is of interest to note that primary lesions of the centers that are in close anatomic affiliation with the respiratory center are liable to engender pneumonia or some other form of lung-disease. Injury of the pneumogastric nerve or of the base of the brain almost invariably leads to pneumonia [Pavloff has shown that if care be taken so that no food enters the larynx and bronchi, animals whose vagi have been cut on both sides do not develop pneumonia]. The treatment of pnemonia concerns itself with meeting two indications: (*a*) to allay nervous irritability, and (*b*) to control pulmonary engorgement and infiltration. Cold in the form of ice-bags, applied to head and chest is Mays' favorite agent to accomplish both. In 376 cases treated with cold the mortality was 16 (4.25%). Strychnin, capsicum, and oxygen are also employed; and morphin or asafetida (in suppository) is given to overcome insomnia. Mays does not deny that pneumonia may have a bacterial cause, but he holds that the microorganisms act through a disintegrating influence on the nervous system. [D.R.]

3.—Cough is probably the most important attendant of an **elongated or malformed uvula,** but there may be even vomiting or laryngeal vertigo as a result of the uvular excitement. If the uvula has been removed too close to the soft palate, disturbances of phonation or partial regurgitation of fluids is likely to occur. In excising this small organ, care must be exercised to preserve the normal outline of the parts left. [G.B.W.]

4.—Tuberculosis of the meninges is almost always confined to the arachnoid or pia. It may occur at any time of life, though it is more common in children. Tubercle of the meninges may exist without causing meningitis, and the tubercle-bacilli have been found when no macroscopic lesions could be seen. The miliary tubercles are most likely to be found at the base of the brain, especially in children. The meningitis of tuberculosis may at times be due to mixed injection, almost any of the ordinary pyogenic organisms being found. The symptoms are those of meningitis beginning with excitation, vomiting, retraction of the head, etc., gradually progressing into paralysis and coma. The disease is almost always fatal, death being the result of intracranial pressure. The only hope lies in surgery, and a few cases of cure following opening of the skull have been reported. [G.B.W.]

5.—Rabinovitch calls attention to Magnan's method of **treating violent insane persons** by putting them in bed and keeping them there. This appears to act favorably upon the patient, first, by making him believe that he is seriously ill and needs rest, and, secondly, by enforcing rest. Segregation of violent patients also is practised, Magnan holding that one patient hearing the shrieks of another realizes, in a way, that the other is insane and not to be imitated. No method of restraint is required, and it has been found that a less number of attendants is necessary. [J. S.]

6.—Urticaria of the larynx is a rare disease, of which but few cases have been reported. Freudenthal reports one in a man, 59 years old, who suffered from attacks of urticaria of the skin. The lingual tonsil was somewhat enlarged, and there was a diffuse redness of the laryngeal epiglottis, with a slightly edematous elevation on its right side. Later herpitiform prominences were occasionally noticed. The condition of the larynx was attended with an itching sensation and persisted only during the attacks of cutaneous urticaria. [G.B.W.]

Medical Record.

December 31, 1898. [Vol. liv, No. 27.]

1. Midwives as Illegal Practitioners. Elbridge T. Gerry.
2. A Case of Aneurysm of the Uterine Artery, Cured by Ligation of the Internal Iliac Artery. Paul F. Mundé.
3. A New Operation for the Radical Cure of Hemorrhoids. H. J. Schiff.
4. Diagnosis and Treatment of Suppurations of the Middle Ear. Max Toplitz.
5. A Practical View of Antitoxin and Diphtheria in Private Practice. Adolph Rupp.
6. Was it a Case of Phlegmonous Gastritis? Vida Z. Baerecke.
7. Renal Calculus; Nephrolithotomy; Recovery. William D. Hamilton.

1.—Gerry discusses the **midwife-evil** as it exists in New York. He believes the remedy simple, viz., the passage of a bill properly drawn, requiring the registration of midwives either generally, or at least in all cities, making it a penal offence for any woman to practise as a midwife without being so registered, and placing the control of the matter in the hands of the local county medical society. The act should provide that all women permitted to practise as midwives should be compelled to serve a definite prescribed course in some maternity-hospital, and receive therefrom a diploma similar to that issued to trained nurses by training schools. They should then be required duly to register in some proper public office under proper provisions and safeguards defined by the county medical societies, which should have the right to apply for the removal of their names from the list at any time for cause shown; and in addition to this there should be a further proviso, forbidding any incorporation of such midwives with other persons for any purpose incidental to, or connected with, their business. [W.K.]

2.—Aneurysm of the uterine artery is a most rare occurrence; indeed the case reported by Mundé is almost unique. Considering the liability of the uterine artery to injury through operative procedures it is remarkable that more cases have not been reported. The patient was originally operated on for a pelvic abscess, which was opened through the vagina. The incision was followed by copious venous hemorrhage. On examination there was found "a softly elastic, strongly pulsating and thrilling tumor of about the size of a hen's egg, projecting into the left vaginal vault, close to the cervix and extending slightly down on the left vaginal wall." An incision was made in the left semilunar line and the internal iliac artery was isolated and tied. Pulsation, all but a slight transmitted movement, entirely stopped in the aneurysm and the patient made a good recovery. In order to doubly insure a cure galvano-puncture was practised twice, with noticeable benefit. At the latest examination the aneurysm had shrunken to half its size and was hard and painless. [G.B.W.]

3.—Schiff reports an **operation for the radical cure of hemorrhoids** that has the following advantages: The patient is well in from 3 to 5 days; it is attended with less pain than are other operations; it is almost as rapid in execution as the clamp-and-cautery operation; it is attended with less danger of secondary hemorrhage. The operation consists in seizing the hemorrhoid with an artery-clamp, and then by an elliptic incision excising it in completely, tying the vessels before severing them. The mucous membrane is stitched over the stump as an incised wound of the skin. [G.B.W.]

4.—Suppurations of the middle ear are divided into 3 pathologic varieties: Acute simple otitis media, acute perforative otitis media, and chronic suppurative otitis media. Acute simple otitis media is attended with inflammation and bulging of the tympanic membrane. Pain with vertigo, headache, dulness, vomiting, etc., may be present, or possibly only a headache or toothache. If rationally treated, this form gets well or it may develop into the perforative variety. In this form the symptoms are more violent, but the clinical picture, until perforation takes place, is about the same as in the simple variety. Chronic purulent otitis media develops from the acute perforative variety, when certain predisposing constitutional diseases exist, or some local influencing trouble is present, or irrational treatment has been instituted. In this chronic disease, multiple perforations of the drum may exist; likewise granulations, cholesteatomatous masses, thick, creamy, putrid pus, necrosis of ossicles and surrounding bone-structures, etc. In the treatment of aural suppuration it is essential to build up the general constitution. Locally, instillations of vapor or water, as hot as can be borne, leeches over the mastoid or on the pinna; if pain is great, paracentesis of the drum, are some of the methods of treatment to be employed. In chronic suppurating cases, irrigations, with mild antiseptic solutions and insufflations of powders, are often useful. If suppuration continues after such treatment, operative procedures are in order. Granulation should be cauterized or removed, deformities of the nasopharynx corrected, ossiculectomy performed, or some similar milder operation be undertaken before performing the more serious operation of opening up the mastoid cells and middle ear. The best method for doing this is a modification of Stacke's operation, and consists in opening the mastoid antrum and chiseling off the upper wall of the meatus, then removing the bone between these two places, and transplanting the mucous membrane of the meatus into this cavity. [G.B.W.]

5.—Rupp has used **antitoxin** in 24 cases of **diphtheria,** and draws the following conclusions from his experience: (1) The remedy had no well-marked favorable effect on the general or clinical course of the disease—it neither shortened nor lessened its severity; (2) in the croupous cases it exerted no beneficial or inhibitory influence on the progress of the croup. The operations in these cases, and not the antitoxin, saved the children; (3) in none of the cases did the antitoxin seem to cause the pseudomembrane in the throat to disappear sooner than would have been the case had no antitoxin been used. In all of the cases the antitoxin was injected not earlier than the third day, and not later than the fourth day. Antitoxin, then, it is finally concluded, is not a specific in the treatment of diphtheria. It was forced upon the profession by scientists who did not know and by public clamor. [An experience with 24 cases is insufficient to justify the conclusion that antitoxin is not a specific in diphtheria. The consensus of opinion among those who have used antitoxin most largely is that this agent is of the greatest value in the treatment of diphtheria. D.R.]

Medical News.

December 31, 1898. [Vol. lxxiii, No. 27.]

1. Gouty and Rheumatic Affections of the Ear. Seymour Oppenheimer.
2. The Treatment of Hysteria. Darwin R. Stockley.
3. The Local Medical Society; A Plea for Its Better Support. George L. Richards.
4. Myotonia Congenita (Thomsen's Disease); Report of a Typical Case. George J. Preston.

1.—Gout and rheumatism may affect **the ear** either as an individual disease or as a complication of some other pathologic condition. The external canal and the auricle are most commonly attacked, next the tympanic membrane and cavity and rarely the internal ear and auditory nerve. The reason that gout and rheumatism attack the external ear most frequently is because here is to be found a larger proportion of cartilage and fibrous tissue, which structures are seats of predilection for these diseases in other portions of the body. Both gouty and rheumatic involvement of the ear occur most often late in life, though hereditary gout may sometimes give rise to ear-symptoms shortly after birth, more frequently at the age of puberty and later. Among a few of the diseases caused by gout and rheumatism may be mentioned: Obstinate eczema of the external auditory canal; deposits of urates producing at times inflammation and even furuncle; both serous and sclerotic otitis media; acute myringitis; temporary congestion of the manubrial plexus; otitis media if neglected may progress to such a degree as to destroy the ossicles and surrounding bony structures, or it may produce mastoid disease. Beside this more acute condition there may be slow progressive changes in the tympanic cavity, changes in the vestibule and cochlea, which may be indirectly caused by gout and rheumatism, are often found to be the result of arteriosclerosis. Rheumatic paralysis of the auditory nerve has been reported. [G.B.W.]

4.—Preston reports a case of **congenital myotonia** in a man of 21 years, in whom the symptoms of the affection had been present since birth. No other member of the family suffered from the disease. [D.R.]

Boston Medical and Surgical Journal.

December 29, 1898. [Vol. cxxxix, No. 26.]

1. The Arthritis of Cerebrospinal Fever. William Osler.
2. Reform in Medical Education. President's Address before the Society of American Naturalists. H. P. Bowditch.
3. The Teaching of Physiology in Medical Schools. W. T. Porter.
4. Hysterical Neurasthenia. Morton Prince.
5. A Case of Gonorrheal Arthritis, Treated by Free Incision and Irrigation of the Knee-Joint. John Homans.

1.—Osler reports two cases of **cerebrospinal fever** with **arthritis.** One was a fatal case, and occurred in a man aged 24 years. The onset of the illness was abrupt, and accompanied by a chill. There were marked fever, delirium, stiffness of the neck, enlargement of the spleen, multiple arthritis, and patchy erythema of the skin, with purpura. Lumbar puncture demonstrated the presence of the diplococcus intracellularis in the meningeal exudate. For the first time the same organism was demonstrated also in the blood. It was found further in pus from the knee-joint. The autopsy revealed purulent cerebrospinal meningitis, extensive collapsed areas of pneumonia at the bases of both lungs, and purulent arthritis. The feature of the case, upon which special stress is laid, is the widespread diffusion of the diplococcus intracellularis throughout the body. The second patient was a sailor, aged 25 years, whose illness began with pain in the right ankle, which became red and swollen. The left ankle and the right hip then became successively involved, and there was considerable fever, but no headache. There was some redness and tenderness of the left wrist. The continuation of the fever, with the joint-symptoms, suggested the possibility of typhoid fever, or acute rheumatism. On the fifth and sixth days, the development of pain in the back and hips, retraction of the head, with stiffness of the muscles of the neck and moderate delirium aroused suspicion At this time the joint-symptoms had entirely disappeared. On the eleventh day the patient was unable to move his legs, and there was complete anesthesia as high as the level of the navel, above which there was a band of hyperesthesia. All of the reflexes were absent from the legs; the rectal reflex was present. Lumbar puncture was performed in the evening of this day and 2 drams of thick, creamy, brown-tinted pus removed. Numerous diplococci, appearing much like the diplococcus intracellularis, were demonstrated. Cultures, however, revealed only the staphylococcus pyogenes aureus. After the lumbar puncture, the lower part of the cord was exposed, and a thick, purulent pus drained away, coming chiefly from the lower part. The region of the cord appeared hyperemic. A small catheter was passed under the dura, the membranes were irrigated with normal salt-solution, with which much pus escaped. The condition of the patient slightly improved. No cultures were made from the inflamed ankle-joints. The onset of the arthritis was early in both cases. The first case throws an important light upon the nature of the infectious arthritides. The joint-lesions of cerebrospinal fever have been looked upon as a secondary effect of the inflammation of the cerebrospinal meninges. The first case demonstrates that they may occur as the direct effect of a widespread diplococcus-septicemia. [S.M.H.]

4.—Prince believes that severe hysteria without stigmata is very common, and that **hysteric neurasthenia** is one of the commonest varieties of this disease and includes a very large part of the cases that ordinarily go under the name of neurasthenia. It is important to appreciate these facts for the successful treatment of many so-called cases of neurasthenia. Hysteric neurasthenia is defined as a pseudoneurasthenia and the following are given as the different types: (1) Habit-neuroses, in which the symptoms mostly represent the persistence of manifestations of previous disease long since subsided; (2) Neuroses from pure autosuggestion; this would include certain types of photoneuroses; (3) intoxications as from gout, uremia, improper metabolism, etc.; (4) hysteric neurasthenia. A series of illustrative cases is related, which, while resembling somewhat true neurasthenia, made rapid improvement and recovery under psychic methods of treatment. [S.M.H.]

5.—Homans reports a case of **gonorrheal arthritis** occurring in a man aged 25 years. The joint-condition began 3 weeks after the urethritis was contracted, the left knee being the only joint involved. The swelling became extremely large and the pain severe, after about 2 weeks, an incision 2 inches long was made over the outer edge of the patella, the capsule of the knee-joint was reached by dissection, and 10 ounces of thin, brownish, sero-purulent fluid were evacuated. The cavity was explored with the finger, and several fibrinous flakes turned out; it was then thoroughly flushed with normal salt-solution. Sterile wicks were passed through and the cavity again washed out. After the second douching the wound was closed and a dry dressing, with compression was applied and the limb placed on a ham-splint. The patient was dismissed cured in 17 days. [S.M.H.]

Journal of the American Medical Association.

December 31, 1898. [Vol. xxxi, No. 27.]

1. Hygiene and Dietetics in Diabetes Mellitus. Francis E. Carroll.
2. Importance of Physiology and Dietetics to the Surgeon. Chas. G. Plummer.

3. Physiatrics, or Nature's Therapy. C. F. Ulrich.
4. Hygienic Management of Children. A. E. Miller.
5. Manganese in the Treatment of Dysmenorrhea. Charles O'Donovan.
6. Some Expressions of Abortive Attempts at Instrumental Abortion. Frank A. Stahl.
7. Irregularities of the Dental Arch. Eugene S. Talbot.
8. A Method of Handling Alveolar Pyorrhea. Geo. T. Carpenter.
9. The Mechanism of Man—Its Ego and Cosmos. Samuel Knox Crawford.
10. Cardiation. Ephraim Cutter.

2.—See this Journal, Vol. ii, p. 15.
3.— " " " Vol. ii, p. 14.
4.—It is a humiliating fact that more care is used in breeding horses and cows than in propagating the human species. The **care of children** should begin with the progenitors. Having a good child to begin with, its management involves attention to food, healthful surroundings, good example of right living, etc. Starchy foods should not be given for the first 6 months, and meats not until after the first year. Pure air and sunshine are important factors in preserving the health of the child. Dosing with cordials, essences, whiskey, brandy, etc., is harmful and may lead to the establishment of the drink-habit later in life. The child should not be sent to school before the sixth year. Kindergarten exercises may begin earlier. [d.r.]

5.—O'Donovan believes that the majority of cases of **dysmenorrhea** occur in anemic young women who require iron, and frequently under its influence regain their proper condition of blood and need no other medicine; but there are many cases in which iron is not indicated. The patient has excellent general health and a rich, florid color of the skin, and yet the return of each menstrual period means a new season of agony to a woman who is apparently in perfect health. O'Donovan has obtained excellent results from the use of manganese, generally used alone, but sometimes with viburnum. Manganese is offered in various forms, but administered in 2-grain doses by itself, or in combination with iron or other adjuvants, about an hour after each meal, the black oxid has been found the most satisfactory. [w.k.]

6.—Stahl reports a case of uninterrupted **intra-uterine pregnancy,** notwithstanding repeated and severe attempts to induce abortion, with infection from traumatism dating probably from the application of a button-hook, increased by the chill of a rainstorm, repeated active probings and various treatments. Infection gave rise to unilateral, purulent deciduitis, metritis, salpingitis, and cellulitis of the left side. It is remarkable that pregnancy should have continued without interruption, the gestation-sac having escaped the internal injuries, apparently preventing extension of the inflammatory process. The uterus was emptied later to relieve the patient. [w.k.]

7.—In the light of modern science it seems absurd to classify **irregularities of the dental arch** according to the temperaments of individuals, or to the nationalities of the various races. A few of the primitive races, like the Negro, the Chinese, the Latin, etc., retain certain characteristics, but all possess square, round and narrow jaws. A more proper division of the irregularities of the dental arch would be, (1) *constitutional* and (2) *local.* (1) Because arrest and excessive development of the maxillary bones may be caused by inherited predisposition or by constitutional disease between birth and the sixth year. Here the V and saddle arches and the hatchet-face are common; (2) because irregularities of the teeth may be the result of undue influence of adjoining or occluding teeth. In the constitutional variety there is always arrest of development, with shortening of the jaws. The irregularities of the teeth are purely mechanical, depending entirely on the jaw on one hand and the teeth on the other. [g.b.w.]

8.—In the treatment of **alveolar pyorrhea** it is essential that all exciting agents, such as foreign bodies, ill-fitting plates and crowns, should be removed. Then the pocket is to be packed with cotton moistened with from an 8 to a 10% solution of cocain. Next all deposits should be scrupulously scraped away and the cavity syringed out with an antiseptic solution, as hydrogen dioxid. The gums should then be painted with tincture of iodid and the loose teeth secured with bands and ligatures. All teeth with two-thirds of their sockets destroyed should be removed. Antiseptic and prophylactic care of the teeth should continue indefinitely after the foregoing treatment. [g.b.w.]

Journal of Experimental Medicine.

March, 1898. [Vol. iii, No. 2.]

1. Experimental Thyroidism. R. H. Cunningham.
2. The Physiological Effects of Extracts of the Hypophysis Cerebri and Infundibular Body. W. H. Howell.

1.—Cunningham gives, together with the review of the observations of other investigators, a detailed description of numerous and remarkably accurate experiments in which nothing was taken for granted, the statements of previous observers being invariably confirmed before they were accepted. The conclusions arrived at are as follows: Absolutely fresh thyroid gland is not poisonous, and, therefore, the marked symptoms observed on the ingestion of various thyroid preparations must be due to poison developed in the tissue after death. Moreover, as the ingestion of substances derived from other tissues (thymus, muscle, etc.) produces symptoms strikingly similar to those observed in "thyroid intoxication," the latter condition can no longer be looked upon as due to a specific derivative of the thyroid gland; and, as various tissues yield substances that on intravenous or subcutaneous injection produce symptoms similar to those induced by injections of derivatives of fresh thyroid, there is no reason to believe that these symptoms represent the physiologic action of the hypothetic internal secretion of the tissue from which the preparations are derived; nor in view of these facts can it be concluded that the resemblance of some of the symptoms of "thyroid intoxication" to those of exophthalmic goiter is a justification for the view that the disease is due to over-secretion of the thyroid gland. On the other hand, there is positive evidence that the fresh thyroid (likewise the thymus) yields extractives capable of relieving the symptoms of the acute cachexia and of prolonging for a short time—not more than 3 weeks—the life of **totally thyroidless** young dogs. Longer survival proved in all cases to be explained by the presence of accessory thyroids, discoverable often only on microscopic examination. The character of the food given to thyroidless dogs has little influence in hastening or retarding the appearance of the cachexia; milk-diet has not the marked favorable influence claimed for it. Monkeys with partially removed thyroids showed increased susceptibility to those ingredients of meat that are poisonous to rabbits; and hence it may be assumed as probable that also in man derangement of thyroid function lessens the resistance of the organism to meat-poisons—this is confirmed by clinical observation. Finally, from the experimental standpoint the symptoms of exophthalmic goiter can be as "plausibly explained by the hypothesis of partially **deficient** thyroid activity as by the hypothesis of augmentation of thyroid function. [t.s.k.]

2.—Howell's experiments upon dogs show that extracts of the posterior lobe of the **hypophysis** produce on intravascular injection marked rise in blood-pressure, associated with slowing of the pulse. As the active substance is apparently neutralized in some way in the body the influence upon the circulation is only temporary, although more prolonged than that of adrenal extracts. Its action is probably peripheral upon the vessels. Extracts of the hypophysis proper (anterior lobe) caused no characteristic change in respiration or circulation, and the posterior lobe, better called the infundibular body, is therefore to be looked upon as entirely separate in function, as well as in its development and anatomic structure. [t.s.k.]

January, 1899. [Vol. iii, No. 1.]

1. Fibrinous Exudates and Fibrinoid Degeneration. H. R. Gaylord.
2. The Fate of the Giant-Cells in Healing Tuberculous Tissue, as Observed in a Case of Healing Tuberculous Meningitis. Ludvig Hektoen.
3. A Case of Pseudo Lupus Vulgaris Caused by a Blastomyces. T. Casper Gilchrist and William Royal Stokes.
4. On the Hemocytozoa of Birds. Eugene L. Opie.

5. Notes on the Pathological Changes in the Organs of Birds Infected with Hemocytozoa. W. G. MacCallum.
6. On the Hematozoan Infections of Birds. W. G. MacCallum.
7. Preliminary Observations on a Case of Physiological Albuminuria. Torald Sollmann and E. C. McComb.

1.—Gaylord reviews the discussion (revived by Grawitz in 1892) as to the **origin of fibrin,** whether by exudation from the vessels or by connective-tissue degeneration, and describes original experiments undertaken in Orth's laboratory for the purpose of refuting the observation of Grawitz and Neumann, claimed by them to prove that fibrin in acute, as well as in chronic, inflammation, is a product of tissue-degeneration. Particles of fibrin or small quantities of coagulable fluids were introduced into the pleural cavities of rabbits, in order to produce by experiment the conditions that must exist if fibrin is simply a coagulated exudate. The animals were killed after the lapse of a longer or shorter interval; and the autopsies and microscopic examinations demonstrated (1) the fibrin particle adherent to the serous membrane; (2) the pleural epithelium intact under the fibrin until organization commenced; (3) the rapid and extensive proliferation of the pleural epithelium in spaces between the pleura and the fibrin-mass and over the surface of the latter; (4) the absence of degeneration in the pleural connective tissue; (5) the organization of the fibrin in the ordinary manner by proliferation into it of the underlying pleural connective tissue. The experiments thus reproduced the very pictures that had been claimed to prove for the fibrin a connective-tissue origin, here absolutely excluded. In regard to fibrin in chronic inflammation (tuberculosis) the question is more difficult, for although a connective-tissue origin is not positively excluded, neither is it proved. The presence of fibrin beneath the elastic layer of the serous membrane would, if demonstrated, indicate the possibility of a true fibrinoid *degeneration.* [T.S.K.]

2.—In spite of the enormous literature relating to the source and formation of **giant-cells,** but little attention has been given to their fate in lesions that heal instead of undergoing the usual cheesy degeneration. A case of tuberculous meningitis of long duration finally terminated by death, due to an intercurrent pneumonia, afforded the evidence from which Hektoen concludes that "inhaling non-degenerated tuberculous tissue the multinucleated giant-cells may, in part, disintegrate and undergo absorption, in part form viable small cells; that both these changes may and usually do affect the small cell, but that in one class of cells—presumably, the older or the more exhausted—the retrogressive process is predominant, while in a second class of cells—presumably, the young and vigorous—the progressive changes are the more marked." Especially striking is the presence in a single individual of elements capable of undergoing changes independent of one another. The continued existence of many of the nuclei as separate active cells, after the breaking-up of the giant-cell, shows the latter to be a living defensive agent, and not simply a "necrobiotic element doomed to destruction from its very inception," as claimed by Baumgarten, Weigert, etc. [T.S.K.]

3.—Gilchrist and Stokes report a case of **pseudo-lupus vulgaris** in which excised portions of the diseased skin showed the presence of budding blastomycetes in granulation-tissue, associated in places with almost typical tubercles. The organisms in the tissue are described as spherical unicellular bodies, varying from 10 to 20 μ in diameter, and consisting of a doubly contoured membrane that encloses a finely granular protoplasm, with sometimes a vacuole. Pure cultures were grown on ordinary media (best on potato and beer-wort-agar) and gave rise (on intravenous inoculation in animals to tumor-like nodes in the lungs, and in one case to local suppuration). The organism, which does not ferment sugar, and which in cultures produces a mycelium, may be either a blastomyces or an oïdium, but according to the usual custom it is best classified as the former and is therefore called blastomyces dermatitidis, and the disease, blastomycetic dermatitis. Careful microscopic-examination of all skin-lesions is necessary in order to exclude a blastodermic origin. In unstained specimens soaked in liquor potassæ the organisms stand out as doubly contoured refractile bodies. [T.S.K.]

4.—Opie describes **malarial organisms** of various forms found in the blood-corpuscles of birds. He concludes that the existence of two distinct species is probable although not definitely proved. [T.S.K.]

5 and **6.**—MacCallum's study of the **hematozoan-infections of birds** has added still another proof of the value of comparative research in medical science. He noted that the flagella of the Halteridium type of malarial organism, after breaking loose, seek out and unite with certain forms of the organism, which on extrusion from the corpuscle lie passive in the blood-serum. The product of this union is a motile organism apparently more resistant than the other forms, and which, there is reason to believe, may, by its escape through the intestine, reach the outer world. The repeated observation of the foregoing process and its close analogy to what occurs in the life-history of so many species of lower plants and animals leaves no doubt as to its nature; the flagellum is the male element, the passive form the female, and their union the act of fertilization. The same thing has since been observed in several cases of human malaria of the estivo-autumnal type. Thus, at last, the function of the much-discussed flagellum has been discovered, and, most fitly, by a Johns Hopkins student. The pathologic changes closely resemble those observed in human beings and consist chiefly in the deposit of pigment in the liver and spleen and in smaller quantities in other organs. Foci of hyaline degeneration and of necrosis were observed *in connection with pigment deposits.* [T.S.K.]

American Journal of the Medical Sciences.

December, 1898. [Vol. cxvi, No. 6.]

1. The Comparative Anatomy and Embryology of Vertebrates as Aids in the Teaching of Human Anatomy in the Medical Course. George S. Huntington.
2. On Nephritis of Malarial Origin. William Sydney Thayer.
3. The Renal Form of Enteric Fever. J. C. Wilson.
4. The Medico-Legal Aspects of Hypnotism. Sydney Kuh.
5. Some Nervous and Mental Manifestations occurring in connection with Nasal Disease. Walter A. Wells.
6. Experimental Studies on the Preparation and Effects of Antitoxins for Tuberculosis. E. L. Trudeau and E. R. Baldwin.

1.—Huntington believes that medical students should be initiated into the important principles of **comparative anatomy and embryology** of the vertebrates as a means of furthering their studies in human anatomy, and he has introduced this branch of science into the curriculum of Columbia College. He has abandoned didactic lectures in anatomy as commonly understood, and teaches by demonstrations and laboratory-instruction. In expounding any particular subject, for example the lungs, the phylogenetic and ontogenetic development of the organ is explained and various representative vertebrates are employed to illustrate the evolution of the lung from the swim-bladder of the fish to the complicated organ of mammalia; the physiologic homology between the gills of the fish and the lung is pointed out. The same plan is pursued in studying other organs and systems of the body. Special practical courses are offered in comparative anatomy and they have been popular with medical students. [D.R.]

2.—Thayer concludes as follows an exhaustive article on **nephritis of malarial origin:** (1) In 758 cases of malarial fever, albuminuria occurred in 46.4%; tube-casts were found in 17.5%; (2) albuminuria is much more frequent in estivo-autumnal infections than in other forms, occurring in 58.3% of these instances, against 38.6% in the regular intermittent fevers; (3) acute nephritis is not an unusual complication of malarial fever, having occurred in 2.7% of the cases treated in the wards of the Johns Hopkins Hospital, and in between 1 and 2% of all cases seen at the institution; (4) the frequency of acute nephritis in estivo-autumnal fever is much greater than in the regularly intermittent fevers, having been observed in 4.7% of the cases treated in the wards, and in 2.3% of all the cases seen; (5) the frequency of albuminuria and nephritis in malarial fever, while somewhat below that observed in the more severe acute infections, such as typhoid fever, scarlet fever, and diphtheria, is yet considerable; (6) there is reason to believe that malarial infection, especially in the more tropical countries, may play an appreciable part in the etiology of chronic renal disease. [D.R.]

3.—After describing a case of so-called pneumotyphoid and two of typhoid fever presenting in the earlier stages marked cerebrospinal symptoms [the abstracter also has briefly reported cases like the last under the name of the meningeal form of typhoid fever] Wilson details the history of an interesting case of **enteric fever** in a lad, aged 19, in whom the symptoms were primarily those of **acute nephritis.** There were no abdominal symptoms, no rose-spots, no enlargement of the spleen. The blood, however, yielded a positive reaction to Widal's test, and for a number of days blood was present in the stools. The temperature declined for a few days and then mounted again. The patient became delirious; albumin, which had been absent for a time, reappeared in the urine, together with granular casts and leukocytes and erythrocytes; eventually diarrhea, tympany, and rose-spots appeared, and the course became that of an ordinary case of typhoid fever, ending in the patient's recovery. Attention is called to the importance of recognizing those cases of typhoid fever in which the kidney, for a time, bears the brunt of the attack, and renal symptoms predominate. There are two clinical dangers arising from non-recognition of the nature of the disease: (1) The danger of the administration of improper diet, and (2) that of the improper use of purgatives. Even of greater importance, however, is the danger of communication of the disease that attends an error in diagnosis. From the standpoint of preventive medicine, the failure to recognize a case of enteric fever is attended with risks to the community, enormously greater than any danger that may affect the interests of the individual patient. The agglutination-test is of the utmost importance in finally settling the diagnosis in doubtful cases. Its value, however, is greatly impaired by the fact that in a certain proportion of the cases the power of arresting the motility of the typhoid bacilli and of causing agglutination does not show itself until the disease has made considerable progress. It is a good rule then to treat all doubtful cases in which for a time the differential diagnosis between subacute or acute nephritis and enteric fever cannot be made, as acute cases of enteric fever. [D.R.]

4.—It is generally conceded that **hypnotism** is a pathologic and not a physiologic condition. When resorted to too frequently, it is liable to bring on mental deterioration. It may lead to chronic headache and hysteria; it may induce an outbreak of insanity; in a few cases it has been directly or indirectly responsible for the death of the patient. The question whether the physician is justified in using a remedy that presents so many dangers to life in cases of diseases that are so little dangerous, as are hysteria and neurasthenia, Kuh answers emphatically in the negative. His experience has been that **suggestion** in the waking state is almost equally efficient. Hypnotism should be used as a therapeutic agent only when other methods of treatment and suggestion have failed. The question, Can the hypnotized fall victim to crime? has been answered affirmatively by those whose experiments were made in the laboratory, but forensically cases confirming this assertion are exceedingly rare. That the hypnotized can be used as a tool in the service of crime has been positively stated by those who have made experiments in the laboratory. From practical life, however, Huh could find only one case in substantiation. The reasons why hypnotism is so rarely used for criminal purposes are that:—(1) Not every person can be hypnotized even when willing; (2) Not all suggestions are acceptable to the hypnotized and those that are particularly distasteful to him or foreign to his habits and character are often rejected. Thus, Richet has published the following rather amusing example: One of his subjects who allowed himself to be metamorphosed without difficulty into an officer, a sailor, etc., refused on the contrary, with tears in his eyes, to be changed into a priest, a refusal that the character and habits of the subject and the environment in which he had lived sufficiently explained. There is in the majority of cases no blind absolute obedience. The hypnotized may awake at any moment during the proceedings, and this is particularly liable to occur when his suspicions are aroused by anything that is going on around him, or if an inconvenient suggestion be given just before the time arrives at which the suggestion is to be executed. (4) Complete loss of memory for what has been going on during hypnosis is not by any means a rule lacking exceptions. (5) Finally, if all of these difficulties have been overcome, the way in which the criminal act would be executed would immediately suggest the existence of hypnotic influence. It would be an automaton that commits the crime, unconscious of antecedent and surrounding circumstances and uninfluenced by the presence of witnesses, or by any unforeseen event. The tool being supposedly devoid of all reasoning power in this state it would be necessary to give such suggestions as would cover all possible contingencies that might arise during the commission of the crime; otherwise the deed would necessarily be done in a clumsy and impulsive manner. These are the principal reasons why hypnotism is so rarely used by the criminal classes. As to the responsibility of the hypnotized, if the possibility that the person was caused to commit the crime by hypnotism is acknowledged, then such a person must be considered irresponsible for his action, for hypnotism is a pathologic state in which the will-power of the subject is affected to a greater or less extent. [D.R.]

5.—Wells deals exhaustively with the important subject of the **nervous and mental disturbances occurring in connection with nasal disease.** The disturbances are of two kinds—(*a*) the reflex, and (*b*) those dependent on the usual obstruction—and it is important to differentiate these two. After an historic survey of the development of the subject, the means of distinguishing the reflex from the obstructive effects are pointed out. A symptom known to be of nasal origin is judged to be reflex in nature (1) if associated with a nasal lesion without stenosis, or with a stenosis not permanent; (2) if accompanied by known reflex phenomena; (3) if it disappears with the removal of the lesion, especially when obstruction still persists; (4) if it be of paroxysmal character; (5) if there be a definite area of hyperesthesia; (6) if the symptom when absent reappears upon contact with the probe; (7) if the symptom, when present, disappears on the use of cocain. On the other hand, the evidence is in favor of a stenosis as the cause of the symptom in question (1) if associated always with obstruction, and that of a marked degree; (2) if the obstructive lesion is of a permanent kind, as from hypertrophy; (3) if the patient suffers from effects of stenosis, such as anemia and malnutrition which could well account for the symptom; (4) if the symptoms disappear only upon the return of normal nasal respiration; (5) when the symptom can be best explained upon the hypothesis of an obstruction; (6) when the special reflex tests fail, *i. e.*, the probe-test and the cocain-test. A number of illustrative cases are described. The reflex symptoms noted were migraine, headache, neuralgias, dizziness, petit mal, flushes, and spasmodic muscular. The results of stenosis are mental symptoms: despondency, loss of memory, incapacity to concentrate the attention (aprosexia), want of energy and ambition, suicidal tendency, avoidance of company, apprehension of disaster, drowsiness and unconquerable desire to sleep during the day, nightmare and "daymare," so-called. These various psychic phenomena are probably dependent on the influence of the impoverished and pathologically altered blood and the stagnation of lymph in the cerebral lymph-space by reason of the obstructive lesion in the nose. The melancholic cast was the most striking and constant feature in Wells' cases. Incidentally an explanation is given of the sigh accompanying sadness, grief, and other depressed mental states. Physiologically considered, the sigh is but an extraordinary respiratory effort to compensate for a deficient supply of oxygen to the lungs, which must attend nasal stenosis. [D.R.]

Scottish Medical Journal.

November, 1898. [Vol. iii, No. 5.]

1. Contribution to the Question of the Origin of the Facial Nerve. ALEXANDER BRUCE.
2. Notes of Four Cases of Cesarean Section. ROBERT JARDINE.
3. Total Hysterectomy During Pregnancy for Rapidly Growing Fibro-Myomata. N. T. BREWIS.
4. Visual Aphasia and Amnesia Verbalis. C. MACVICAR.
5. The Power of Nature in Disease. J. WALLACE ANDERSON.

1.—It is a well-established clinical fact that the muscles supplied by the **facial nerve** are not all affected to an equal degree by lesions involving either the facial nucleus in the pons or the path connecting this with its center in the cortex cerebri; while in complete peripheral or infranuclear paralysis of the nerve all the facial muscles are paralyzed equally, under the other two conditions mentioned the muscles of the upper face escape. In hemiplegia they may be paralyzed partially and transiently, but almost without exception this condition, when it occurs, soon passes off. This fact is to be explained on Broadbent's hypothesis that movements which are habitually associated bilaterally are innervated equally from both sides of the cerebrum. In the case of nuclear lesions of the facial nerve, however, another explanation must be sought for the escape of the upper face-muscles from paralysis. In chronic bulbar palsy and amyotrophic lateral sclerosis, it is the exception for the muscles of the eyelids and forehead to be involved. It is obvious from this that the facial fibers are not all innervated from the same nucleus. It has been assumed by some that the orbicularis oris is innervated by fibers from the hypoglossal nucleus. Bruce, however, does not think that there is any close relationship between the movements of the tongue and those of the lips, though the contrary is often asserted. Analysis of the postmortem examinations in amyotrophic lateral sclerosis shows that of 21 cases in only 2 was the facial nucleus intact, in only 3 was the posterior longitudinal fasciculus said to be atrophied in proportion to the atrophy of the hypoglossal nucleus, and in none of these were atrophied fibers traced into the facial nerve. For the purpose of ascertaining whether the facial nerve was related to the posterior longitudinal fasciculus or reticular formation, Bruce examined a large number of sections derived from the medulla and pons of the cat, rabbit, calf, human fetus, and human adult, and from a case of amyotrophic lateral sclerosis. No communication was traceable with one or the other of these tracts on the same side, but at the end of the knee or loop of the facial nerve, a well-marked bundle of fibers was seen to cross the mesial plain and enter the posterior longitudinal fasciculus of the opposite side; no connection with the hypoglossal nucleus was demonstrated. No evidence was found pointing to the origin of fibers for the orbicularis oris from the hypoglossal nucleus. The crossed root of the facial nerve does not arise, as some hold, from the opposite facial nucleus, but can be traced in an upward direction through the posterior longitudinal fasciculus toward a nucleus at a higher level than the facial nucleus, and this crossed root is probably concerned in the innervation of the upper face-muscles. [D.R.]

2.—Jardine reports four cases of **Cesarean section,** in one of which the patient had a septic vaginitis, and albumin, pus, and casts were present in the urine at the time of operation. The true conjugate was found to be only 1⅝ inch. The patient died of sepsis 4 days after the operation. On microscopic examination of the exudation from the peritoneal cavity, the bacillus coli communis was found. In another case, a quartipara, aged 27, died from suppression of urine on the sixth day. A careful postmortem examination showed nothing in the kidney to account for the suppression. Jardine believes that, in making the uterine incision in Cesarean section, the Cameron method of pressing a slightly curved pessary firmly on the uterus, and cutting inside of it, is the best. An elastic ligature, in his opinion, does more harm than good. He prefers the longitudinal incision, beginning at the fundus and extending downward for about 4 inches, and he uses silk for suture-material. Catgut will last long enough, but the difficulty is in rendering it thoroughly aseptic. [W.K.]

3.—Brewis reports a case of **total hysterectomy during pregnancy for rapidly growing fibromyomas.** The patient, aged 29 years, had been married 16 months, and at the time of operation was 4 months pregnant. Three subperitoneal fibroids were present, 2 growing low down from the left side of the uterus, and 1 large one attached to the fundus by a pedicle. The large tumor attached to the fundus was removed first; the patient was then placed in the Trendelenburg position, both broad ligaments were tied and divided down to a point below the round ligaments; the peritoneum on the anterior aspect of the uterus was divided from side to side about an inch above the reflection of the bladder; a similar incision was made posteriorly; the anterior flap, together with the bladder, was pushed well down in front, and the posterior flap was reflected as far down as the vaginal roof; the uterus was removed and clamp forceps passed from below was placed on the base of each broad ligament. Gauze was packed in the vagina and between the clamps, and the anterior and posterior flaps of the peritoneum were stitched together. The patient made an easy and uninterrupted recovery. The most noteworthy feature in the case was the rapid growth of the tumor. [W.K.]

4.—MacVicar reports the case of a man of 26, who, while in a neighbor's house, had been violently pushed, the head striking forcibly against the edge of a dresser. The injury was over the right parietal eminence. For 2 or 3 days afterward the man showed the ordinary symptoms of concussion. Later it was found that he could not recognize letters or figures, nor name most things at sight, though he could point out anything named, and a name being suggested, he repudiated the wrong one on every occasion. Spontaneous writing was confined to his own name, which he wrote quickly. He could neither write from dictation nor read aloud. He could copy, but could not transfer printed into written, nor written into printed characters. The field of vision was normal in both eyes. No hemianopsia was present. Gradually the patient improved; reading aloud became possible as well as writing of simple words from dictation. Not until the man was able to read aloud was there any sign of understanding any written question. He could read aloud a few combinations of figures, such as 100 and 1897, and write 1897 down in well-formed figures, but he could not recognize individual figures at sight, nor put them down from dictation. This suggests the possibility of there being a distinct group of cells the function of which is to store combinations of figures which might be called the visual figure-combination center as distinct from the visual figure-center. Four divisions of the visual nerve-center might be made: (*a*) One for letters, (*b*) one for numerals, (*c*) one for words, (*d*) one for combinations of figures. One would naturally expect only two subdivisions: (*a*) A center for letters and numerals, (*b*) a center for words and figure-combinations; but Hinshelwood has noted that there are cases in which the visual memory for letters is entirely lost, while that for figures is intact, or in which the visual word-memory only was affected. If there be a subdivision into four from the facts in the case reported, namely, that the visual figure-memories and visual letter-memories were entirely lost, while the visual word and the visual figure-combination memories were only partially lost, it is possible that the former groups of cells are adjacent and that the latter also are adjacent. A test of letter-blindness without word-blindness and of figure-blindness without figure combination-blindness is that the patient can read aloud and write from dictation a word or figure-combination correctly, while he fails to do the same with regard to the individual letters or figures. It is thought that the lesion was in the naming center in the posterior portion of the temporo-sphenoidal convolution, and was probably a hemorrhage. It took the visual word-center 14 days to recover the control over words and 9 days to recover that over numerals. [D.R.]

Münchener medicinische Wochenschrift.

November 1, 1898. [45. Jahrg., No. 44.]

1. Typical Osteomalacia in Childhood. F. Siegert.
2. A Round Pessary Imbedded into the Vagina. J. Frank.
3. A Case of Hysteria, with a Fatal Result Through Swallowing a Needle. F. A. Philippi.
4. The Treatment of Laryngospasm. K. Hugel.
5. Exophthalmic Goiter. C. Schwerdt.

1.—The existence of **osteomalacia** in childhood is denied by most authorities. Rehn and von Recklinghausen have contended that the disease exists, and now Siegert reports a case in which the diagnosis was confirmed at autopsy by von Recklinghausen himself. The patient suffered from chronic polyserositis, with deforming perihepatitis (Zuckergussleber of Curschmann). The osteomalacia developed at the 15th year. Three other cases are reported in literature—all were characterized by abnormal softening of the bones. It is important to recognize osteomalacia and differentiate it from rickets on account of the treatment, phosphorus being almost a specific in osteomalacia and of no value in rachitis. [D.R.]

2.—Frank reports the case of a woman, 65 years of age, who had worn a **ring-pessary** for 5 years because of prolapse. It had not been removed for 2 years and there had been no irrigation or other precautions taken. Upon examination the pessary was found to have grown into the vagina. The adhesions were broken up with the finger and the ring was divided with a fine saw and removed with blunt forceps. [W.K.]

3.—Philippi relates a case of an **hysterical woman** who brought about her **death by swallowing needles.** The patient said she saw one needle pass out with the bowel movements, while another was extracted from a periproctitic abscess, and an abscess developed in the right side of the abdomen, from which a third needle was finally taken. A fourth needle was extracted from an abscess over the region of the spleen and a fifth from an abscess in the left hypochondrium. The patient finally became exhausted and died from inanition. This case is of especial interest in that it shows how great may be the wanderings of foreign bodies through the human system. [G.B.W.]

4.—Hugel calls attention to a point hitherto generally overlooked in connection with **laryngospasm** of childhood, namely the existence of an elongated uvula, which he believes is present in many cases. He reports 6 examples, in one of which the patient, a 13-months-old boy, died. The only lesion at autopsy was an abnormally long uvula. In the other 5 cases the uvula was shortened by operation, with the result that the attacks ceased either entirely or became rare and mild. [D.R.]

5.—In a lengthy article, Schwerdt develops a theory of the nature of exophthalmic goiter and allied affections. The disorder named stands in close relationship with myxedema, scleroderma, and enteroptosis. Enteroptosis is considered a constitutional disease, dependent on congenital or acquired irritable weakness of the nervous system. In nature and origin, enteroptosis coincides with neurasthenia. The chief features of enteroptosis are diminished tone of the abdominal walls, and, in consequence, reduction of the intra-abdominal pressure. As a result, the vegetative organs are in a state of motor depression; they take up less readily the nutritive materials and yield more slowly the waste-products to the renal pelvis, the urinary bladder, and the lower intestine. Over-stretching of the contracted elements results, leading eventually to atony. This last is most marked in the small intestine, but it affects no less the gall-bladder, the pelvis of the kidney, the urinary bladder, and the arteries and lymph-vessels of the abdominal cavity. The subjective symptoms are a variable appetite—at times excessive hunger, at others anorexia—with emaciation, diminution in the amount of urine, and constipation. Abnormal sensations are frequent. At times there is a sudden development of symptoms dependent on intestinal autointoxication, and the system then helps itself by absolute refusal of food, profuse diarrhea, uncontrollable vomiting, and persistent sweats; finally, the nervous system becomes completely exhausted, anuria sets in, defecation is impossible, and vomiting no longer occurs. There is complete vegetative and psychic bankruptcy. Partial recovery usually ensues after some time. These symptoms, it is believed, suggest the *formes frustes* of Esophthalmic goiter. The connection between the two is made clear when the lymph-flow is studied. The chyle is conveyed from the abdominal cavity through the thoracic duct; not by the aspiration of the thorax, but through the movements of the diaphragm, which set into motion a sort of suction or forcepump mechanism, which is made possible by the presence of valves in the lymph-vessels. In general atony there is a disturbance in this mechanism. The chyle-lymph is not conveyed readily along the thoracic duct, and seeks collateral pathways, which it finds in the subcutaneous lymph-stream. The result is, that the abdominal lymph is mixed with the general lymph; gravitation to the lower extremities is at first prevented by the closure of the valves. The thoracic duct may become gradually obliterated, and at the same time the entrance of the lymph into the blood-stream through other channels becomes more difficult. The result is stasis in the lumbar, subclavian, and jugular plexuses, and also in the valveless vessels of the jugular trunk, that is in the face and neck. The lymph-stasis finds its most favorable conditions in the orbit; hence the exophthalmos. The abdominal lymph, having entered new channels, must be forced onward by the heart, and this demand leads to slight dilatation of the left ventricle, with subsequent compensatory hypertrophy, both constant symptoms of exophthalmic goiter. The tachycardia is also dependent on the same cause, although there may be an additional factor. The goiter is explained in the following way: There is in enteroptosis an autointoxication of intestinal origin. The intestinal toxin enters the blood and it is the duty of the thyroid gland to neutralize it by means of an antitoxin. The chyle lymph, which, as already stated, enters the blood through the collateral channels of the subcutaneous tissue, also acts as an irritant and a stimulus to the thyroid gland; but, eventually, through increased activity of the subcutaneous lymph-glands it is partly purified, the lymph-glands thus relieving the thyroid or dome of its work. The latter gland, however, is no longer capable of returning to its normal state and remains hypertrophied and forms antitoxin in excess; thus the thyrogenic element of esophthalmic goiter is supplied. Hand-in-hand with the stasis dependent on physical causes, obstacles to the lymph-flow arise from chemic changes. At first, as noted, the lymph-glands endeavor to purify the lymph, and the thyroid gland forms its antitoxin in excess. Should the thyroid now return to normal or, as is more likely, become atrophied after its physiologic hyperactivity, the intestinal toxin would again accumulate and the abnormal chyle-lymph would continue to flow through the collateral channels. Inflammatory changes would occur in the lymph-vessels and extend to the perivascular tissues, and could finally produce the characteristic picture of myxedema, a disease that is characterized anatomically by inflammatory sclerosis of the connective tissues. Scleroderma can also be explained on general disturbances of the lymph-flow. Schwerdt cites from the literature a few observations that favor his hypothesis. In scleroderma, Pepper had found the lymph-glands hard and enlarged, and containing dark pigments. In a case of Heller's the thoracic duct was converted into a thick cord. Several writers have ascribed scleroderma to a lymph-stasis. Such stasis can also occur in exophthalmic goiter, as is evidenced by the intermittent edema that is sometimes observed. [The theories here expounded are complicated and are not based on many objective data, and seem rather to obscure than to clarify the subject. Furthermore, enteroptosis occurs frequently without exophthalmic goiter, and the latter is surely found in persons who have no symptoms that point to displacement of the abdominal viscera. D.R.]

November 8, 1898. [45. Jahrg., No. 45.]

1. The Present Status of the Serum-Therapy of Tetanus. F. Köhler.
2. The Cause of Artificial Immunity and the Cure of Infectious Diseases. Rudolf Emmerich and Oscar Löw.
3. Empyema of the Antrum in Young Children Resembling Tuberculosis of the Upper Jaw. Georg Avellis.
4. Spastic Pseudoparesis. L Hoeflmayr.
5. The Significance and Necessity of Necropsies. Schwaab.
6. Plague-Pneumonia. C. Schilling.

2.—Emmerich and Löw give the following resume of their researches on **artificial immunity:** (1) In many bacterial cultures growth ceases despite the presence of abundant nutritive material because of the development of an enzyme formed by the bacteria themselves, which dissolves them. (2) Bacteriolytic enzymes exist that dissolve not only the bacteria proper, but also other species. (3) As these bacteriolytic enzymes are capable of dissolving pathogenic bacteria in the body, it is possible by their means to cure infectious diseases. Thus, anthrax-infection, fatal in 30 hours, can be counteracted through the enzyme of the bacillus pyocyaneus; 1 cu. cm. of the same enzyme-solution dissolves millions of diphtheria-bacilli, typhoid-bacilli, and cholera-bacilli *in vitro*, so that the pyocyaneus-enzyme may be useful in the treatment of these diseases. The enzyme also dissolves the plague-bacillus. (4) The bacteriolytic-enzymes are soon destroyed in the body, wherefore, though it is possible to cure infectious diseases with them, it is not possible to immunize against them. Emmerich and Löw have, however, succeeded in combining the enzyme with an animal proteid into a complex and more stable molecule, by which they were able to immunize rabbits against anthrax and guinea-pigs against diphtheria. Probably the active principle of antitoxin is nothing more than a combination of an enzyme with an animal proteid. Agglutination is the first stage of the solution of bacteria through the enzyme-compound. The difference in the behavior of antitoxic serum toward specific pathogenic bacteria *in vitro* and in the animal body depends on the presence or absence of gaseous oxygen. If this is excluded *in vitro*, the specific bacteria are not alone agglutinated but are killed and dissolved. [D.R.]

3.—In a combative article Avellis takes d'Arcy Power and others to task for describing **empyema of the antrum in young infants.** He says that such a thing is impossible, as at that age there is practically no antrum as yet, and that those whom he criticises have mistaken **tuberculosis of the superior maxilla** for empyema. In some cases the condition may be an acute osteomyelitis of the superior maxilla, which might give rise to symptoms similar to those of empyema of the antrum. [D.R.]

4.—Fürstner and, later, Nonne have described a peculiar neurosis as pseudospastic-paresis, of which a typical instance has come under the observation of Hoeflmayr, who prefers the designation **spastic pseudoparesis.** The patient, a man, 54 years old, a telegraph-operator, had always led an exemplary life and had never had syphilis. His illness began with weakness and trembling in the left arm. The right arm also became weak, and he could not eat unassisted, nor could he wash or dress himself. The legs became affected, and he could not walk without support. The muscles of the neck and face also appeared as if paralyzed. The respiratory muscles were intact, as were also those of deglutition. The power of writing was not lost. The general appearance and nutrition were good. All the tendon-reflexes were exaggerated. The lower extremities were slightly flexed and in a condition of spasticity. There was no muscular atrophy. The tremor was confined to the left arm entirely; it was practically constant, ceasing only under great mental excitement. Sensation was normal, but various neurasthenic symptoms were present. The patient was convinced that he had an incurable spinal affection. All the symptoms disappeared in deep sleep. Various forms of treatment were tried, but the best results were obtained by means of graduated gymnastic exercises, under which the man improved greatly. Hypnotization proved of no permanent value. The case is interesting etiologically, in the absence of any trauma, as in the majority of instances previously reported the condition followed injury. Hoeflmayr agrees with Krafft-Ebing that the disease is entirely a psychic disturbance of the nature of inhibition of centrifugal impulses. The tremor is probably also of psychic origin. [D.R.]

November 15, 1898. [45. Jahrg., No. 46.]

1. Moral Idiocy. A. Cramer.
2. Impermeable Stricture of the Esophagus from Corrosion. L. Roemheld.
3. The Use of Clay as an Antiseptic and as a Material for Antiseptic Dressings. Julius Stumpf.
4. Calomel-Injections for Lupus Vulgaris. Bernstein.
5. An Electric Hot-Air Apparatus. E. Lindemann.
6. The Treatment of Pleuritis with Effusion at Wernarz Springs. Brückner.
7. The Present Status of the Serum Treatment of Tetanus. F. Köhler.

1.—Cramer's article is largely of local interest, dealing as it does with the medico-legal aspects of **moral idiocy** as they present themselves in the German courts. Forensically, moral idiocy is to be considered present only when the underlying cause can be shown. The mere demonstration of the existence of ethical and moral perversity is not sufficient proof of the disease. [D.R.]

2.—Roemheld reports the case of a boy, who, at the age of 3½ years, swallowed an unknown quantity of caustic soda. A severe inflammation followed and led to an **impermeable stricture of the esophagus** just above the cardia. The introduction of bougies by way of the mouth was impossible on account of the obstreperousness of the child and the irritation set up by the bougies. It was therefore decided to perform gastrostomy and practise retrograde dilatation. This succeeded perfectly, and at the end of 1½ years the gastric fistula could be closed; but even before that it became possible to introduce the bougies by way of the mouth. Roemheld has collected the other cases of retrograde dilatation in children contained in the literature. There are but few, apparently only 5, in which it was possible finally to close the gastric fistula. [D.R.]

3.—Stumph claims to have obtained most excellent results in the use of **argilla as an aseptic and antiseptic wound-dressing.** The first case in which he used it was one of large ulcers of the leg in which the tibia was exposed, and which had resisted all treatment for a long time. The ulcer was dusted every day or two with dry, powdered clay, and it healed with remarkable rapidity. Argilla applied to sutured wounds is most satisfactory; stitch-abcesses, reddened wound-edges are prevented, and the whole appearance of the wound is ideal. Equally good results are to be expected from its use in open wounds, whether freshly made or granulating. Argilla probably acts chiefly by absorbing moisture, thus keeping the wound dry and preventing the growth of bacteria, which need water in order to grow and develop. It should, therefore, be used in excessive quantities, and it is best to sterilize it at high temperature (dry heat) before using it. [G B W.]

4.—Calomel-injections have lately been quite generally employed for **lupus vulgaris.** Bernstein collects the reported cases and finds that in 37 positive, and in 10 negative results were obtained. In a marked case of his own, one of lupus of the face, the injections were followed by a practical cure. The dose at each injection—6 were given at intervals of 8 days—was 1 cu. cm. of an emulsion of calomel 1, and olive-oil 10. It is believed that calomel-injections are also of diagnostic value in distinguishing lupus vulgaris from syphilis. [D.R.]

5.—Lindemann has devised an apparatus which he calls the **electrotherm,** which resembles Tallerman's apparatus only in its object, namely, to cure joint-affections. The advantages of electric heating are that the air is absolutely dry and pure, that the temperature can be regulated even by the patient himself, that danger of fire, as well as of burning of the skin is absent. The apparatus also has a device by which the limb can be observed throughout the treatment. [D.R.]

6.—In three cases of **exudative pleurisy of rheumatic origin** in which all other treatment had failed, Brückner secured prompt removal of the fluid by the administration of Wernarz water, an acid water from Bad Brückenau, containing alkaline earths. [D.R.]

7.—From a study of the statistics of the serum-treatment of tetanus Köhler concludes as follows: (1) The statistics of cases treated with serum (96) show more favorable results than were obtained before the serum-treatment. (2) No absolute method of administration of the serum can be laid down; in 31 cases in which the treatment was instituted within two days after the manifestation of the symptoms, the mortality was 64.5%. (3) In some cases the serum is immediately active; in others it has no influence at all; in the majority beneficial results are developed gradually without accessory effects. (4) The injections should be given early and in large doses and should be frequently repeated. (5) The longer the incubation-period, the better the chances for success. (6) Even cases of puerperal tetanus, which were so unfavorable before the serum-treatment, are influenced by the latter, but to what extent cannot be definitely stated at present. [D.R.]

Wiener klinische Wochenschrift.

November 17, 1898. [11. Jahrg., No. 46.]

1. The Spread of Tuberculosis. Alexander R. V. Weismayr.
2. Gastrotomy for the Removal of Foreign Bodies from the Stomach. Robert Hecht.
3. A Contribution to the Knowledge of Symmetrical Gangrene. Josef Hausner.

1.—Although Cornet's famous experiments seemed to have shown that **tuberculosis spreads** through dried sputum. Flügge believes that this method of dissemination is of small consequence, and that the disease spreads through the agency of minute droplets of fluid containing bacilli ejected during coughing, sneezing, crying, etc. Weismayr repeated Flügge's investigations in an endeavor to answer the following questions: (1) Are germs expelled from the mouth during coughing and other forced expiratory movements, and if so how far, and how long do they remain suspended? (2) Are the bacteria derived only from the mouth or also from the lower air-passages. (3) What relation exists in the tuberculous between the number of tubercle-bacilli in the sputum and that in the oral cavity or in the larynx. (4) Are tubercle-bacilli scattered in any appreciable number during coughing; can this scattering of germs containing droplets be prevented, if so how? To answer the first two questions a culture of micrococcus prodigiosus was spread over the interior of the mouth. Gelatin-plates were exposed in various places and the individual coughed forcibly several times. On the plates that were perpendicular to the direction of coughing-impulse at a distance of 20, 30, and 35 cm. an enormous number of bacilli was discovered, although no particles visible to the naked eye had been coughed out. Even plates that were at a distance of 4 m. from the coughing individual showed cultures of the micrococcus prodigiosus. Beyond this distance, if the air of the room was not set into motion, germs could not be obtained on the plates, even if the latter were allowed to remain exposed for a half hour. If the air was agitated by walking, etc., germs could be found even on plates exposed 1 m. behind the individual. Loud talking, crying and singing scattered the germs to a much shorter distance than coughing. During the dropping of the sputum in spitting from a height a number of bacteria became separated and scattered through the room; but such a dissemination did not occur when the cuspidor or receptacle was placed only a few centimeters from the mouth. Plates exposed to the breath exhaled in ordinary expiration never yielded any colonies of the micrococcus; hence it may be concluded that the breath of the tuberculous patient is not harmful. As to the length of time germs remain floating, it was found that at the end of a half hour practically all had settled to the floor. Experiments showed that bacteria are expelled, during coughing, in nearly as large numbers from the larynx, and probably from the trachea, as from the mouth. Examination of the saliva of tuberculous individuals showed that the bacilli were few in number, even when they swarmed in the sputum. Most difficult and tedious was the investigation of the question whether the tuberculous patient coughs out tubercle-bacilli; but it was found that bacilli were actually expelled in coughing, but their number was small and they were always attached to minute particles of fluid; it is extremely likely, moreover, that they came from the saliva and not directly from the lower air-passages. These various facts point to important methods of prophylaxis. The teeth and mouth of tuberculous persons should be frequently cleansed and disinfected; the sputum should not be expelled over a great distance. The receptacle should, in institutions, be attached to the wall at the level of the chest. Better still is the pocket-cuspidor, which can be held close to the mouth. Floor-cuspidors should be abolished altogether. In addition to preventing the scattering of the bacilli in coughing, etc., care should still be exercised to prevent the drying and pulverization of the sputum. [D.R.]

2.—Hecht reports a case in which he performed **gastrotomy for the removal of 3 needles** that the patient had swallowed 2 days before. When the stomach was explored at the operation, but 2 of the 3 needles were found, with their points firmly imbedded in the wall of the stomach. The wisdom of operating in this case was confirmed by the fact that the needles had already begun to penetrate the stomach-wall, and might have produced a perforation that would ultimately have proved fatal. [C.H.F.]

3.—Hausner reports the case of a patient who had been treated some time previously for a rather severe infection of the forearm, and had since suffered from attacks of collapse, with marked precordial oppression, and was of a decidedly neuropathic type. Investigation disclosed the existence of **symmetric gangrene in the lower extremities.** The case was studied with scrupulous care to determine precisely its etiology. Such causes as myelitis, syringomyelia, and multiple neuritis, and such conditions as diabetes, syphilis, ergotism, nephritis, and chronic alcoholism were all excluded as having any etiologic bearing. There remain, therefore, but two conditions to be considered, spontaneous gangrene, and Raynaud's disease. It would seem that the case presented a condition midway between the two, and that a differential diagnosis could not be established with any certainty. There are certain conditions that correspond with the picture of spontaneous gangrene, namely the advanced age of the patient, with attending endarteritis, and the history of previous wandering joint-pains. As opposed to this view, however, are the sudden appearance of the gangrene, the absence of any evidence of arteriosclerosis, and the symmetric manifestations of the disease. These, coupled with the nervous disposition of the patient, and with the previous history of an attack in which cardiac palpitation, sleeplessness, and some psychic disturbances were prominent symptoms, point to the case being one rather of symmetric gangrene or Raynaud's disease. [C.H.F.]

Deutsche medicinische Wochenschrift.

November 24, 1898. [24. Jahrg., No. 47.]

1. Remarks about Trachoma and Epidemic Eye-Diseases and their Prevention. H. Schmidt-Rimpler.
2. The Immunity of Hedgehogs. Erich Harnack.
3. A Therapeutic Preparation from the Embryonic Blood-Forming Organs of Pigs. C. S. Engel.
4. Experiments in Immunization Against the Poison of Bites and Scratches. Siegel.

2.—Harnack and his pupils seem to have proved that the **hedgehog is resistant to certain animal poisons** that are found in insects, amphibians, and reptiles, and also to cyanogen-compounds. This resistance is, without doubt, closely connected with the food of the animal, and recalls the fact that rabbits can eat belladonna leaves, and goats hemlock with impunity. The resistance of the hedgehog does not seem to depend upon the destruction of the animal poisons in its organism. [D.R.]

3.—The obscurity surrounding existing notions of the mode of action of the iron-preparations in the system is dependent on the fact that neither the new formation of the blood nor its regeneration is well understood. One class of investigators believes that the red cells arise from the white by the taking up of hemoglobin; another predicates a separate origin for the erythrocytes and leukocytes; while a third group of hematologists believes that nucleated red corpuscles do not arise from the white through the incorporation of hemoglobin, but that, on the contrary, the nucleated red cells are of the greatest importance both for the formation of erythrocytes and leukocytes. Engel classes himself with the third group. He believes that the nucleated blood-corpuscles in mammals and birds contain hemoglobin, and he has strengthened this theory by studying the blood of avian and mammalian embryos, especially that of the embryo of the hog. In order to determine whether a preparation of embryonic hemoglobin containing nucleated erythrocytes could be used therapeutically in anemias to stimulate blood-regeneration, Engel obtained the blood-forming organs of hog-embryos and administered them dried, powdered, and mixed with milk-sugar to a series of patients suffering from various forms of anemia. The specific gravity of the blood, which was low in most of the cases, became increased, and the number of leukocytes also increased rapidly, but the regeneration of the hemoglobin was much slower, though it could be hastened by adding iron to the treatment. No definite statement as to the value of the preparation, which will be introduced into commerce under the name of **sanguinoform,** can, however, as yet be made. [D.R.]

Centralblatt für innere Medicin.

December 3, 1898. [19. Jahrg., No. 48.]

1. A Family Affected with Cerebellar Ataxia. K. Classen.

1.—Classen reports three interesting cases of a peculiar **ataxic affection** occurring in advanced age in members of a certain family, and he gives two family-trees, showing the extent to which this hereditary degenerative nervous tendency had affected the other members. The first patient, a wheelwright, 70 years of age, had a peculiar staggering gait, resembling that of intoxication, although he was unquestionably non-alcoholic. It was impossible for him to be entirely quiet at any time, and even when resting there would be twitching, first of one limb and then of another. When speaking, all the muscles of the face seemed to be active, and words were imperfectly articulated and emitted somewhat explosively. The man could control the movements of the eyeballs, and there was no nystagmus. He did not complain of dizziness, and the station was steady. The reflexes were exaggerated; the muscles were well developed; and there was slight kyphosis of the upper dorsal vertebræ. Intelligence was slightly diminished. The sphincter ani was not perfectly continent. The symptoms had been present for 5 years, and were advancing with extreme slowness. Two cousins were subsequently found to be suffering from a somewhat similar disease. One, a cabinet-maker, 56 years of age, had noticed trembling of the hands and arms for two years. His disposition was somewhat dull and depressed. Speech was not disturbed. His gait was apparently normal. The reflexes were increased. Station was steady. There was slight loss of power in the arms and slight nystagmus. A third cousin presented practically the same symptoms as the first patient. There was disturbance of speech, twitching of the facial muscles, irregular movements of the arms, and disturbance of gait, and the spinal column was slightly curved. There was marked nystagmus. The sphincters were not disturbed. Intelligence appeared to be fairly normal. Classen excludes multiple sclerosis by reason of the absence of spastic symptoms, of the fact that the tremor did not become more pronounced upon voluntary movement, and of the difference in the character of the speech-disturbance; and believes that the disorder must belong to the ataxias of hereditary type. Huntington's chorea is excluded chiefly by reason of the absence of cerebral symptoms and Friedreich's ataxia by exaggeration of the reflexes and absence of static ataxia. A diagnosis is reached of hereditary cerebellar ataxia (Londe), which is characterized by its family character, imperfectly coordinate movements, and the fact that the lesion is essentially an atrophic condition of the cerebellum. In regard to the family-history of the cases, the grandmother, from whom the diseases appeared to arise, died at the age of 93 years, and probably presented characteristic symptoms. Of 6 children only one was perfectly normal and had normal children. In the third generation, there were, besides the three patients already described, several other children with disturbance of speech, deviations of the spinal column, and impairment of intelligence. The offspring of two brothers of the original grandmother also exhibited signs of degeneration; the majority being imbeciles or idiots. The disease appears to be known in the neighborhood, and is spoken of as "fliegende Gicht." [J.S.]

Archiv für Verdauungs-Krankheiten.

October 29, 1898. [Bd. 4, Heft 3.]

1. Pepsin in Diseases of the Stomach. FRANZ GINTL.
2. The Reduced Products that may be Separated from Albumin. JOHN SEEMANN.
3. Experimental Studies Concerning Necrosis of the Fatty Tissue of the Pancreas. ARTHUR KATZ and FERDINAND WINKLER.
4. Hypertrophic Stenosis of the Pylorus. J. BOAS.
5. A Case of Stenosis of the Duodenum Cured by Gastroenterostomy. P. M. REWIDZOFF.

1.—After reviewing the various methods of quantitative determination of the amount of **pepsin in the gastric contents,** Gintl decides that Oppler's method is unquestionably the most exact, but that it is so difficult as to be of little value in clinical work. Hammerschlag's method, in which a different amount of albumin is added to the gastric contents, the mixture digested for one hour, and then the amount of undigested albumin determined by the Esbach method, the amount digested being then readily calculated, is the most useful method for clinical purposes. The objections of importance that may be urged against the latter method, are that it pays no attention to the amount of albumin that was originally present in the gastric contents, and that the results are likely to be too low. The latter fact, Gintl explains by saying that he has found in many of his experiments, particularly with gastric contents that digest well, that there is a marked cloudiness of the whole mixture after the use of the Esbach reagent and this cloudiness is, he believes, due to partly or completely hydrated proteids that form a precipitate with the Esbach reagent. Usually this precipitate does not settle to the bottom, but remains suspended; in case, however, a considerable amount of undigested albumin is present, this must, when precipitated, carry down the previously mentioned particles of digested proteids that cause the cloudiness, and will, therefore, make the action of the pepsin seem distinctly less than it is. Still, after the use of Hammerschlag's method in 83 cases, Gintl decides that it is sufficiently exact for clinical purposes, and from studying these cases he reaches the conclusion that the normal amount of peptic digestion, as determined by this method, varies between 85% and 96%. A decrease in peptic digestion does not necessarily occur when there is decrease in the amount of HCl present, and peptic digestion may be even near the normal when the HCl is entirely absent. In cases of carcinoma, the pepsin varies; and in cases in which the malignant disease has developed upon the basis of an ulcer, the pepsin, like the HCl, may show no deviation from the normal amount. In other cases, it is usually much decreased, but cases of hypochylia and achylia also show marked decrease in peptic digestion or its entire absence, so that this absence is not a pathognomonic sign of carcinoma of the stomach. Contrary to Oppler's results, Gintl finds that hyperchlorhydria is not associated with increase of peptic digestion beyond the normal, but that it remains at about the normal point. This difference in results is, he believes, due to the fact that in Oppler's method, the HCl, being taken in larger amounts in making the test than it is in Hammerschlag's method, may of itself increase the amount of digestion. This he uses as an argument in favor of Hammerschlag's method. [It would seem more rational, however, to believe that an increase in the secretion of HCl may be accompanied by an increase in the secretion of pepsin.] A further argument that Gintl uses in favor of Hammerschlag's method is that with it digestion goes on for only one hour, which, instead of being an objection, is an advantage, because it brings out much more clearly the differences in the degree of digestion following the action of various gastric contents. [D.L.E.]

2.—Seemann reviews at length the previous attempts at the production of **carbohydrates from proteids,** and then describes the method that he has himself used. He first endeavored to free the albumin from mucoid substances and then he treated these substances separately. As a result, he obtained from both crystals that by chemic, polarimetric, and crystallographic tests seemed to be glucosamin hydrochlorate. He appeared, therefore, to have obtained a carbohydrate from the pure proteid, as well as from the mucoid; but he questions his own results, as the percentage of reducing substances that he obtained from the albumin was but 9, while the mucoid yielded 35. This leads to the suspicion that a considerable quantity of the mucoid substance may have remained after the proteids were supposedly freed from them and that they furnished the reducing substances. [D.L.E.]

3.—Katz and Winkler give an extended review of the previous attempts to produce **fat-necrosis** similar to that which occurs in the human body with injury or acute disease of the pancreas, and then describe their own method of experimentation. This consists in tying off and cutting the ducts of the gland, applying separate ligatures around the whole gland, leaving the vessels as far as possible uninjured. Investigations were made upon 51 dogs, and it was found that the dogs soon died in a peculiar comatose condition, after wandering about previously with an uncertain gait and responding but little to excitation of any kind. In a few cases, there was sugar in the urine, but this disappeared after a short time. After death, marked fat-necrosis was found with a notable tendency to hemorrhage in the pancreas. The gland showed numerous spots of various size, which were bright red or yellowish white in color, and were usually surrounded by hemorrhagic areas. These areas of necrosis were particularly marked in the immediate neighborhood of the ligatures, namely in those positions where the action of the pancreatic juice would have been most pronounced, and they were always marked beneath the ends of ligatures that were lying upon the gland. Fat-necrosis was also seen in some of the tissues in the neighborhood of the pancreas. A notable discovery was almost constant atrophy of the spleen. From these observations it is concluded that the action of the pancreatic secretion is necessary to the development of fat-necrosis and that the hemorrhages seem to be of great importance in its production, probably through lowering the resistance of the tissues in which the hemorrhages occur, and thus allowing the fat-splitting ferment to act more rapidly and completely. A complete description of the histologic changes in the gland following the operative procedures is given, and it is stated that the examinations showed that it was not so much a multiple fat-necrosis of the tissues as a necrosis of the fatty tissues of the pancreas. Attempts to find bacteria in the tissues were unsuccessful. Examination of the blood after the operation showed that there was a hyperleukocytosis, which, from control-tests, was not believed to be due to narcosis or to the opening of the abdominal cavity; probably it was the result of destruction of innumerable cell-nuclei observable in the histologic examination of the glands. This would allow at once of the collection of a considerable amount of nuclein in the blood, and would give rise to leukocytosis. The marked atrophy of the spleen recalls the fact that in the embryo the spleen and pancreas have the same situation and both arise from the intestinal canal. It seems probable from previous experiments that the spleen produces a ferment that is necessary for the completion of the proteid digestion that is started by the pancreatic secretion. From the changes in the spleen that occurred in these experiments, it is thought probable that these two organs tend to show a distinct relation in their pathologic process. [D.L.E.]

5.—Rewidzoff reports the case of a man, 48 years old, who presented marked dyspeptic symptoms, severe pain in the epigastrium, marked constipation and vomiting, the vomitus on several occasions containing considerable quantities of blood. Later there was dilatation of the stomach, visible peristalsis, and evidently obstruction to the outlet from the stomach. The vomitus often contained bile, and it is particularly noted that the contents obtained through a tube practically always contained bile. This led to the diagnosis of probable **stricture of the duodenum** below the entrance of the choledoch duct. Operation proved the correctness of this diagnosis, gastro-enterostomy was performed, and the patient recovered practically entire health. Rewidzoff states that in his opinion the diagnosis of stricture of the duodenum below the entrance of the choledoch duct is aided much more by discovering bile in the contents obtained through the tube than by the same discovery in the vomitus, as bile may be found in the latter frequently as the result of the violent retching that occurs with severe vomiting. [D.L.E.]

Zeitschrift für klinische Medicin.

[Band 36, Heft 1 u. 2.]

1. Studies by Nissl's Method of the Nerve-cells of Sucklings with Gastro-intestinal Affections, and of one case of Unilateral Convulsions. Erich Müller and Manecatide.
2. Crepitation Occurring with Exudate in the Pleural Cavity. W. Janowski.
3. Changes in the effects of Amyl Nitrite after Saturation with Carbon Dioxid. Ferdinand Winkler.
4. Hutchinson's Teeth. Th. Dentz.
5. Phosphorus-metabolism in Sucklings. Arthur Keller.
6. The Estimation of HCl in the Gastric Contents. H. Leo.
7. The Results of Lumbar Puncture in Chronic Hydrocephalus in Adults, and in Serous Meningitis. F. Brasch.
8. Uncommon Terminations and Complications of Genuine Fibrinous Pneumonia. Hans Sello.
9. The Effect of Reflex Irritation of Poisoned Cardiac Nerves. Ferdinand Winkler.
10. The Manner in which Certain Substances Reduce the Excretion of Sugar. Paul Friederich Richter.
11. A Contribution to Abdominal Diagnosis. Alfred Fuchs.

1.—The **central nervous organs** from 5 cases of **gastro-enteric disorder** with fever were examined, and from 2 further cases that ran their course without fever. In all, changes were found in the nerve-cells; in some cases much more marked than in others. There seemed to be three grades of alteration. In the first the Nissl bodies were irregularly arranged, and their contour diffuse and they were somewhat enlarged. In the second grade, there was beginning solution, while the bodies seemed smaller and paler and were fewer in number, and the cell was somewhat swollen. In the most severe grade of the affection, the Nissl-bodies had vanished to a greater extent and in their place there were either uniformly stained blue masses or, more commonly, simply fine fibrils, and within their network an unstained or pale-blue substance. The solution was sometimes partial and segmentary, without any regular arrangement, sometimes limited to one side of the cell, or to the perinuclear portions of the cells, but frequently it was homogeneous through the whole cell-body. With the most marked grades of changes in the Nissl bodies, the cell-outlines were not so sharp, and the processes were either entirely absent or were abnormally short. Changes in the nuclei were in general absent, excepting that frequently the nuclei were found near the periphery. Sometimes they were swollen or seemed excessively deeply stained, and in those cells that exhibited marked changes in the cell-body, the nuclei were found stained imperfectly or diffusely. In rare cases, the nuclei had disappeared, with the exception of a pale, diffusely stained nucleolus. The nucleoli were often displaced, large and deeply stained. Two cases that were the subjects of probable congenital syphilis showed especially marked changes. In the spinal cord, the lesions were most marked in the dorsal region. The changes that have been described are those that have been previously found in animals as the result of intoxications or infections. There was no appearance of any type of change that was characteristic of these gastro-intestinal infections. The changes are not those that have been described as the result of fever, and further, the changes found in the cases without fever did not differ from those in the cases that ran a febrile course. The child that died with unilateral convulsions was examined to see if the two sides of the brain or spinal cord exhibited variations in their lesions. In the spinal cord, absolutely no difference was to be seen, while in the brain the differences were slight, and were probably caused by the coexistence of tuberculous meningitis. [D.L.E.]

2.—As the result of a study of 9 cases in which a **slight pleural effusion** was accompanied by **crepitation** in the lower portions of the lung on the affected side, Janowski has been led to believe that this phenomenon is of great importance in diagnosis. In cases of large effusion, it is of little significance because the usual signs are then so outspoken that a careful examination will practically always enable one to make the diagnosis, but it is of special importance in cases in which other signs are almost absent, consisting at the most in slight dulness, perhaps a little decrease in fremitus, and, possibly a little weakness of the vesicular breathing. Under these conditions, one will hear on careful auscultation over the lower portion of the lung a fine crepitation that is present with inspiration only, and consists of small, somewhat moist rales that differ from the rale of beginning pneumonia in being moist, and from crepitatio redux in that all of the rales seem of the same size and are extremely fine; in resolving pneumonia they are larger and more liquid. Careful search for this peculiar crepitation has enabled Janowski to make the diagnosis in a number of otherwise obscure cases. This rale can be differentiated from that occurring with edema of the lung, even when the two occur together, and attention to the character of the rale will be sufficient to determine whether it is due to simple edema of the lung or to a slight pleural effusion, or whether these two are present together. The production of the rale is explained by the separation during inspiration of the walls of the pulmonary made to adhere from pressure on the lung by the small amount of fluid in the pleural cavity. [D.L.E.]

3.—Winkler **saturated amyl nitrite with carbon dioxid**, in order, by introducing a certain amount of carbon dioxid into the blood, to prevent the formation of methemoglobin by checking excessive combination of oxygen with hemoglobin. An investigation into the effects of this combination upon animals showed that, in comparison with pure amyl nitrite, which causes a constant lessening of the power of the heart, the combined substances produced only a preliminary weakening of the heart; the organ soon returning to its normal condition, and finally showing increased power. The blood of animals killed with this new substance contained no methemoglobin and was a bright red. The diaphragm was not depressed. There was only a slight amount of edema of the lungs in a few cases. The heart, after poisoning with pure amyl nitrite, shows extreme dilatation of the right ventricle, while the left ventricle is much contracted. In poisoning with the carbon-dioxid compound, the cardiac contractions were stronger and more effective, and upon death the left ventricle was found larger than the right, although both were dilated. Investigation into the effects of the combination on a normal person showed that the blood-pressure was less reduced than by pure amyl nitrite, and the severe headache, and feeling of fulness in the head, that often result from the use of amyl nitrite, did not follow upon the use of this carbonated amyl nitrite. [D.L E.]

4.—Dentz offers the suggestion that **Hutchinson's teeth** are an evidence of reduction in the number of the teeth. In support of this view he notes the fact that in man the incisors have already been reduced from 3 to 2 on each side; he also cites a number of cases in which Hutchinson's teeth were present, with absence of one incisor or of its reduction in size to such a degree as to indicate that it was on the way toward disappearance; and he points to the fact that various stages of apparent reduction are found in different members of the same family. Dentz has found Hutchinson's teeth in individuals that certainly presented no sign of congenital syphilis, but he suggests that their frequent occurrence in syphilis may possibly be due to the fact that the disturbances of nutrition that are always present in congenital syphilis give an impulse to reduction. [D.L.E.]

5.—Keller reviews the work that has previously been done upon the amount of **phosphorus in human and cow's milk,** and the combinations in which this substance is present in both. He draws especial attention to the importance of phosphorus in the nutrition of infants, and particularly to the importance of the combinations in which it is present, as these so largely influence absorption and assimilation. His own experiments consisted in determining the amount of phosphates excreted in the urine of children suffering from disease of the gastro-intestinal tract, as he was unable to obtain healthy children for such experimental work. His results show that there was a much larger amount of phosphorus excreted by children that were on artificial milk-mixtures, than by those that were taking mother's milk. This might be due to the phosphorus contained in the cow's milk, but not wholly so, as nitrogen-determinations made at the same time showed that in those children taking mother's milk, the proportion of phosphoric acid to nitrogen was about 1 to 7, while to the children on cow's milk the proportion was about 1 to 2.3. In other words, the phosphoric acid was present in the urine of breast-infants in less than half the proportionate amount in which it is found in mother's milk, while with infants on cow's milk about the same proportion between phosphoric acid and nitrogen was observed in the urine and in the milk itself. The phosphorus-excretion was always found less when skimmed milk was given than when the children were put upon cream. The same infants were also fed upon breast-milk, and then upon cow's milk, the amount taken in both instances being determined, and it was found that while taking cow's milk, the excretion of phosphoric acid was much greater than when upon mother's milk, and this difference was much more marked than was the difference in the amount of phosphorus contained in the nourishment. The explanation for such variations in the amount is either that there is less of the phosphorus in mother's milk absorbed, while more of it passes out in the feces, or that the phosphorus of mother's milk is better assimilated by the tissues. Which of these is the correct explanation must be left to further investigation. [D.L E.]

6.—After a critical study of Sjöqvist's method for the **determination of HCl in the gastric contents,** Leo condemns it as unsatisfactory, both upon previously mentioned grounds, and because he has proved by digestion-experiments that Sjöqvist's answers to previous criticisms are not adequate. In this communication Leo deals particularly with the question of phosphates, which is the most important of all in the error it causes in the method. He demonstrates that Sjöqvist's statements, based upon theoretic grounds, that a certain amount of dissociation occurs when solutions of HCl and acid potassium phosphate are mixed, resulting in reduction of the amonnt of HCl, are not accurate, and that, therefore, arguments based upon such theoretic considerations cannot be used in favor of the method. [D.L.E.]

7.—Brasch reports that he was unable to obtain favorable results from lumbar puncture in cases of tuberculous meningitis and large brain-tumors, or in those of marked anemia with headaches and other severe cerebral symptoms. Lumbar puncture was at one time used in the clinic for cerebral hemorrhage, but without any favorable results, and its use was discontinued because of the fear of doing harm. A number of cases are reported in which lumbar puncture had remarkably good effects; including 2 of chronic internal hydrocephalus. The first of these occurred in a man, 48 years old, in whom the disease began slowly with headache, rigidity of the neck, and vertigo. Marked choked disc had developed. Three lumbar punctures were made, and each was followed by improvement, and the patient being entirely free of symptoms and capable of doing hard work 2½ years afterward. The lumbar punctures are believed to have been second in value to the treatment with iodids and mercury. The second case occurred in a man, 29 years old, who had severe convulsive attacks and had become blind. The convulsions ceased after lumbar puncture, and entire recovery gradually ensued. The remaining cases were instances of meningitis. The first was one of chronic sero-purulent form. The fluid obtained by puncture contained a considerable number of leukocytes and cells that exhibited fatty degeneration. There had been 6 attacks of loss of consciousness with convulsions, and the disease had been chiefly marked by gradually increasing pains in the head and back. Five punctures were made and improvement followed each one, while entire recovery was finally obtained under antisyphilitic treatment. In a case of chronic serous meningitis that began with syncope followed by pains in the head and back, and vomiting, and then by unconsciousness, rigidity of the neck, and twitching, removal of 120 cu. cm. of fluid by lumbar puncture was followed by return of consciousness with gradual recovery of the patient. In a case of subacute serous meningitis, in which for 4 weeks there had been stupidity, slow pulse, stiffness of the neck, and rigidity of the extremities, lumbar puncture was followed by marked improvement, which persisted. In a case of acute serous meningitis that came on with fever, pain in the head and neck, rigidity of the neck, and some stupor, the temperature falling by crisis, while the distress continued, lumbar puncture was followed at once by relief, and soon by recovery. In spite of the good results in these cases, Brasch notes that favorable effects must not be expected always, because the fluid in the brain may be shut off by closure of the foramen of Magendie, or by adhesions of the membranes of the cord high up. [D.L.E.]

8.—Sello has studied 750 undoubted cases of genuine **fibrinous pneumonia** that have been treated in the Berlin City Hospital in the 7 years between 1890 and 1897. Abscess-formation was indicated by persistence of the fever, late absorption of the exudate, and the peculiar character of the sputum, which became greater in amount, thick and homogeneous and contained particles of lung-tissue. There were in all 11 cases of abscess-formation following pneumonia; that is, this complication occurred in 1.5% of the cases, 9 of which were in men, and 2 in women. In 5 cases, the pneumonia was complicated by empyema. Gangrene is to be suspected when fever continues, and the sputum becomes thick and dark, and after a short time has a foul odor; a peculiar chocolate-color, which is seen even before the odor is noticed, is highly significant. Three cases of the 750 presented outspoken gangrene. Induration of the lung occurred in 16 cases, that is, in 2.1%. It was indicated by a continuance of the fever and of the dulness, and the slowly progressive retraction of the diseased side of the thorax. There were 15 instances in which pneumonia and tuberculosis were present in combination, but in none of these were there evidences that the tuberculosis was caused by the pneumonia; the tuberculous lesions being in all cases evidently older than the pneumonia. Serous pleurisy was present in 8.7% of the cases; empyema in 4.5%, and this became putrid in 4 cases. Bacteriologic examination of the pus from the empyema in 26 cases disclosed the presence of pneumococci in 19 instances, 4 times in conjunction with streptococci. In the other cases streptococci and staphylococci were found. Fourteen cases were fatal. In 3 instances purulent mediastinitis complicated the pneumonia, and in all these cases pneumococci were found. Purulent pericarditis occurred in 7 cases, and these also yielded pneumococci. Bacteriologic examination of the blood was made in 48 cases, and yielded negative results in 36; in 27 of the latter recovery ensued while in 9 death. Twelve cases yielded positive results, and of these 12, but 2 patients recovered. Of the 9 fatal cases in which the blood-examination yielded negative information, 4 were instances of double pneumonia and of the other 5 cases, 3 were apex-pneumonias, 4 of the 5 patients being alcoholics, and the fifth an aged woman. Endocarditis was seen 6 times as a complication. In 4 cases it was of verrucose form. In 5 cases cultures were made from the exudate upon the valves, and in 3 of these pneumococci were found in pure culture. Acute nephritis was observed in 6 cases also. Meningitis occurred in 5 cases, and in each case the pneumococcus was found in the exudate. [D.L.E.]

9.—Winkler has studied the effects of **electric stimulation of the sciatic nerve after poisoning the heart with muscarin, amyl nitrite, and sodium nitrite.** The pulse became slow after the administration of muscarin. Stimulation of the sciatic in normal animals causes the cardiac power to increase over 360%. In the animal poisoned with muscarin, the increase was but 146%, so that the reaction was of the same character as the normal, excepting that it was weaker. After poisoning with sodium nitrite, stimulation of the sciatic, instead of causing an increase of arterial pressure, caused the blood-pressure to sink. The most marked difference in effects was noted, however, after the use of amyl nitrite. Here stimulation of the sciatic caused constant weakening of the heart-power; hence the difference between the effect after muscarin and that after amyl nitrite, is that in the first case conditions are of normal character although the heart is weaker, while after amyl nitrite the stimulation simply causes the heart to become insufficient at once. The pulse in amyl-nitrite poisoning is rapid, and stimulation of the sciatic caused no particular change subsequently. After sodium-nitrite poisoning the pulse becomes much more rapid upon stimulation of the sciatic; and with muscarin-poisoning, in which there is marked slowing of the pulse, stimulation of the sciatic caused the frequency of the pulse to increase rapidly. Therefore, stimulation of the sciatic really helps to overcome muscarin-poisoning. [D.L.E.]

10.—Richter refers to a previous paper in which he reported having found that preparations of caffein cause an increased formation of sugar in the liver by producing a more rapid saccharification of the glycogen that is collected there, in that way producing hyperglycemia, and finally glycosuria. He has used these preparations to thus produce glycosuria and to determine the method by which certain drugs control it. Glycerin was tried first, and its effect was found to be slight. In most cases, in spite of the administration of glycerin, sugar was found in the urine after the use of diuretin and the administration of carbohydrates, glycerin alone formed glycogen, as was seen by the occurrence of glycosuria after its administration without carbohydrates, and the subsequent injection of diuretin. Opium was next investigated; and with its use the glycosuria was almost absolutely controlled, the administration of a moderate amount of carbohydrates and subsequent injections of diuretin causing no glycosuria; the polyuria also became much less. Only in case an excessive quantity of carbohydrates was ingested, and in starvation was opium unable to prevent glycosuria. It is therefore believed that opium controls glycosuria by restraining saccharification of the liver glycogen, and this was demonstrated by finding that the livers of animals experimented upon contained a large quantity of glycogen if opium were given, while if opium were not given, injections of diuretin caused a loss of the greater part of the liver glycogen. Antipyrin was found to be similar to opium in its effects, though the results were not quite so marked. Alkalies were next tried, and, though they had some effect, it was not of importance. Finally, it was found that syzygium jambolanum had absolutely no effect in decreasing sugar excretion. [D.L.E.]

11.—Fuchs recommends for **abdominal diagnosis** the administration of an enema to clear out the bowel, and then the injection of about 1 liter of a solution of sodium chlorid, from 8 to 10%. By this method the bowel is rendered much more accessible to examination, as one may then by inspection often determine the situation of the bowel, while palpation and palpatory percussion are much more easily practised, and percussion yields much more satisfactory results. These advantages are attributed not alone to the partial filling of the bowel with fluid, but also to the fact that the previous enema has caused an increase in peristalsis, and that the subsequent injection of salt-solution causes the peristalsis to continue to a sufficient degree to render the intestinal walls somewhat rigid, and, therefore, much more readily examined. This method also makes neighboring organs more readily susceptible of examination. The liver becomes more easily palpable, though it is elevated somewhat; and the kidneys, owing to the pressure of the colon, become palpable in the loin. Splenic dulness becomes much better marked out, and the position of the lower border of the stomach is more readily determined. Fuchs considers Gersung's symptom one of considerable value, but he believes it can be more readily and more certainly brought out by the injection of about 500 cu. cm. of warm oil. Palpation over a doubtful tumor in the sigmoid will then yield a striking and characteristic sensation, if it is fecal, owing to the sensation of crepitation and sudden rebound of the wall of the bowel produced by the temporary adherence of the wall to the fecal mass and its sudden elastic release when pressure ceases. [D.L.E.]

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1. Alcohol in Insane Asylums. Hugo Hoppe.
2. Contribution to the Knowledge of Bernhardt's Disturbance of Sensation. Miecislaus von Nartowski.

1.—See editorial columns.

2.—von Nartowski reports 5 cases of Bernhardt's disease, that is, a peculiar disturbance of sensation in the region supplied by the external cutaneous nerve of the thigh. The first, a man of 51 years, had suffered for 26 years with a disagreeable tingling, numbness, and tickling in the anterior surface of the right thigh. The second, a man of 45, had had a similar disturbance for 8 years in the left thigh. The third, a woman of 63, had these sensory disturbances in both thighs, particularly the anterior surface. The fourth patient, a man of 53, had had the symptoms for 15 years following an attack of pneumonia. The pains were occasionally felt in the legs. Finally, the fifth case was a man in whom the disturbances had commenced 8 years before, after a series of cold douches. In all patients there was a marked diminution of electro-cutaneous sensibility, and more or less blunting of the touch, pain, and temperature-senses. Two cases were apparently due to exposure to cold. Two followed infectious diseases, and one was apparently the result of prolonged standing. Four cases were much improved and one cured, the treatment consisting chiefly of massage, faradic electricity, and occasionally drugs, such as potassium iodid. [J.S.]

Fracture of the Spine.—J. B. Bullitt (*Louisville Journal of Surgery and Medicine*, December, 1898) reports the case of a lad 16 year old, who fell from a traveling crane a distance of 15 feet, striking a rail with his back. A good sized hematoma and deformity were noticed in the region of the 12th dorsal and 1st lumbar vertebræ. There was a depression between the 2 very prominent spinous processes, but no paralysis of the lower extremities. An incision was made over the hematoma, the muscles and ligaments attached to the vertebra were found lacerated and torn loose and a finger could be entered through the opening inside the spinal canal; the cord appeared not to be at all depressed, however. Clots were washed out and the deformity was corrected by pressure over the prominent vertebra. The wound was loosely packed with iodiform gauze and partially closed with silkworm-gut sutures a plaster-of-Paris turtle-back was applied and the patient put in bed. Recovery was uneventful, and the patient was discharged wearing a steel brace about 3½ months afrer the injury. He was able to walk without difficulty and soon after left off his brace. [M.B.T.

Original Articles.

ACUTE LEUKEMIA.[1]

BY M. H. FUSSELL, M.D., J. H. JOPSON, M.D.,
AND
A. E. TAYLOR, M.D.,
of Philadelphia.

SINCE Virchow[2] first described the changes that occur in the blood in cases of leukemia, this disease has generally been looked upon as essentially chronic in nature; a year usually elapses before all the typical symptoms that mark the disease occur, and at least another year passes before the case ends in death. In 1857 Friedreich[3] described a case in which the disease lasted but six weeks from the beginning of the symptoms until death. From that time until 1888 there were reported in the literature many cases, with a uniform symptom-complex and with uniform postmortem lesions. These cases were collected in the now classic article by Wilhelm Ebstein,[4] entitled "Acute Leukämie und Pseudoleukämie." In the 10 years that have elapsed since Ebstein's article was written there have appeared in the literature about three times as many such cases as were reported in the 30 previous years, Frænkel[5] alone having published extracts of 11 cases. In 1897 Theodor[6] reported a case, together with abstracts of 44 other cases that had been reported up to that time. By a careful search of the literature we have been enabled both to add to this list and to correct it. Some of the cases published by Ebstein and included in Theodor's list were evidently instances of leukocytosis occurring in the course of other diseases. This error was made by Ebstein because it was not so well understood at the time he wrote as it is at present that marked leukocytosis may occur without the existence of the disease leukemia.

The following cases are reported as throwing additional light on the question of acute leukemia:

CASE I.—(M. H. F.) (Case 39 of the series.) Mrs. G. M., a married Englishwoman, 37 years old, had six healthy children living. Her father had died of pulmonary tuberculosis, her mother was living and well. Four brothers and three sisters were living and well; none had died. When young the woman had had a tuberculous knee. She was the wife of a drunkard, and as such had led a slave's life, but otherwise she had suffered no unusual hardships. At the time of onset of her illness she was nursing an eight-months' old child. She was perfectly well (one of us having attended her in her last two labors) until six weeks before she again came under observation. At that time she became weak, without pain, dyspnea, palpitation of the heart, or headache, complaining simply of loss of appetite and weakness. She went to bed with fever and diarrhea two and a-half weeks before death. She then had a temperature of 101° in the morning and 103° in the evening, which ranged between these points until death. When first seen, she was not unusually pale. Her urine contained albumin and tube-casts. During the last week of life the albumin and casts grew less, but the patient became very rapidly anemic, with much dyspnea, increasing and severe edema, nausea, and repeated epistaxis.

On physical examination made six weeks after the first symptoms had appeared, and two and a-half weeks after the first visit to her home the area of heart-dulness was found normal, while soft systolic murmurs were audible at the base and in the vessels of the neck. The lungs were resonant throughout, with no abnormal signs. The liver-dulness began at the fourth rib and extended to the level of the umbilicus in the nipple-line. The lower edge of the liver could be felt in the abdomen, four fingers'-breadths below the ribs, extending from the nipple-line around to the loin. The spleen could not be felt below the ribs; its dulness extended from the posterior axillary line to the nipple-line and from the seventh rib to the costal margin. The abdomen was distended; the skin free from eruption. There was a slight spinal curvature to the right. The left knee was fixed and presented old healed sinuses. The submaxillary glands were enlarged, also the inguinal glands to a slight degree. The axillary glands could not be felt. Examination of the blood showed the hemoglobin-estimation to be 32%, the number of red corpuscles 1,184,000, and of white corpuscles 241,333 per cu. mm. Two days later there was much dyspnea. The red blood-corpuscles numbered 1,273,400; the white corpuscles 362,500; the hemoglobin estimation was 32%. The temperature was normal for the first time in two weeks. There were two bullæ each the size of a pinhead, one upon the tip of the nose, the other upon the upper lip. The woman sank rapidly and died of asthenia.

The autopsy was performed 18 hours after death. On the tip of the nose was a small gangrenous spot, and others were present over the abdomen. The lungs were crepitant, except at the apex of the left lung, which was infiltrated with a disseminated, apparently non-tuberculous infiltration. There was a similar deposit in the apex of the left lower lobe, but none in the right lung. The thymus was not enlarged and was apparently healthy. The heart was normal and both cavities were filled with huge chicken-fat clots. The spleen was rather soft, measuring 6 x 4½ x 2 inches and was of a dull purplish color. The liver extended far below the edge of the ribs but weighed only 4½ pounds. The apparent enlargement was due to an extension of the right lobe, the gall-bladder being seen in the middle of this lobe instead of at the edge. The gall-bladder was empty. The portal vein contained a large white clot. Along the line of the ileum Peyer's patches were much enlarged, with hard, raised, everted edges, and their centers ulcerated. Both kidneys were enlarged, pale and the seat of parenchymatous inflammation. The bone-marrow of the sternum, ribs and tibiæ appeared *normal in color and consistence.*

This case is remarkable from both a clinical and a gross pathologic view. No one seeing the case, with continued fever for two weeks, distended abdomen, diarrhea and nose-bleed, would have considered it anything but one of typhoid fever. It was only when the remarkably rapid anemia developed that a blood-count was made, showing the real nature of the case, and this was done rather as a routine matter than from a thought of any blood-dyscrasia.

This examination showed the number of red cells to be 1,273,000; the number of leukocytes, 362,000 per cu. mm, and the hemoglobin-estimation, 32%. There was moderate poikilocytosis. The oligochromemia was not marked. There were 2,100 nucleated red cells per cu. mm., nearly all normoblasts. A differential count of the leukocytes showed the following proportions: Polynuclear cells, 11% = 39,820; eosinophilic cells, 0.09% = 325; lymphocytes, 79.37% = 287,320; myelocytes, 5.54% = 20,055; degenerated cells, 4.00% = 14,480 per cu. mm.

This case illustrates the point to which Frænkel has only recently assented, that the increase in the leukocytes need not be confined to the lymphocytes. The eosinophiles alone were absolutely normal in numbers.

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[1] Read before the Association of American Physicians, Washington May 5, 1898.

[2] *Archiv f. path. Anat.*, Vol. v, 1853.

[3] *Archiv. f. path. Anat.*, Vol. xii, 1857.

[4] *Deutsches Archiv. f. klin. Med.*, 1888–89, Vol. xliv.

[5] *Deutsche med. Woch.*, 1895, and *Verhandl. des Cong. f. inn. Med.*, 1897.

[6] *Arch. f. Kinderheilkunde*, 1897, Vol. xxii, p. 47.

The polymorphonuclear cells presented some degree of that polymorphism which is a characteristic of leukemia. The myelocytes were easily differentiated from the large lymphocytes by the presence of neutrophilic granulations. The lymphocytes were of widely varying size; the nuclei were usually pale and sometimes irregular; in some of the cells no protoplasm could be made out; none of these cells had granulations. The degenerated cells did not present their nuclear changes when treated by the ordinary methods; fixation by heat followed by immersion in a solution of picric acid was necessary to bring them out.

On microscopic examination of the tissues, the leukemic infiltrations were found widespread, but not massive. In the spleen and lymph-glands the regular arrangement of trabeculæ, the reticulated tissue and the lymph-cells were distorted, and in areas the lymph-channels seemed dilated. The spleen presented an excess of pigment. Hemorrhages were rare in the tissues. In the kidneys were seen the most extensive infiltrations. In the cortex particularly were large collections surrounding both the glomeruli and the tubules, and often penetrating the glomeruli. There was some arteritis. The renal cells were degenerated. In the liver the infiltrations were both interlobular and perivascular. The hepatic cells were less degenerated than the renal. In a few places the infiltrations could be seen penetrating the wall of a vein, thus agreeing with the findings of Benda; but in none of these situations were there any hemorrhages. The pancreas and adrenal bodies both exhibited moderate infiltration, with parenchymatous degeneration. The lungs were generally infiltrated. In areas, however, there was a consolidation, composed partly of leukemic infiltration and partly of an exudate that reacted to the stains for fibrin and presented colonies of thick bacilli, whose nature could not be determined. The heart presented only slight infiltrations, and its muscle exhibited less degeneration than was to have been expected. In the alimentary tract there was more or less degeneration of the epithelium. In the small intestine were many ulcers, which were seen to be seated upon the summits of extensive lymphatic nodules, at the bases of which the infiltration extended into the submucosa. The lymphatic cells likewise formed columns between the epithelial cells, and were seen here and there in the other coats of the intestine. The retroperitoneal glands were not in the least necrotic, and looked like the other enlarged glands of the body. The bone-marrow of the ribs, sternum and tibiæ presented lymphatic overgrowth, without any hyperplasia of the red cell-elements; in fact red corpuscles were abnormally scarce in this marrow. The lymphatic cells were not uniform in appearance, but only a few of them contained neutrophilic granulations (as noted in the smear specimens of the fresh marrow). The infiltrations appeared to be made up of cells that in general resembled closely the large lymphocytes. In some situations karyokinetic figures and many degenerated cells could be seen, and in all the viscera except the lymph-glands mononuclear cells with neutrophilic granulations (myelocytes) were visible, although in small numbers.

CASE II.—(J. H. J.) (Case 56 of the series.) N. K., a white girl, 14 years old, with a negative family-history, was first seen July 14, 1898. She had been complaining for a few weeks of pains in the knees, especially the left. Examination showed no organic joint-disease, and except marked nervousness, amounting at times to hysteria, there were no general symptoms. The pains complained of were ascribed to hysterical mimicry, as the patient had been much in company of a sick child-friend suffering from dropsy. There was no anemia noticed at this time, and physical examination yielded negative results. Menstruation was regular. The patient was seen occasionally during July. The nervous manifestations continued, and the child was taken first to the seashore and later to the country. While in the country in the early part of August she became quite ill and a physician was called in. At this time she began to have what, from the accounts given, were intermittent febrile attacks. On August 24th, she was seen again, and marked anemia was then apparent. The appetite was poor. There was a history of brief attacks of fever, but the nervous symptoms were less marked. A diagnosis of chlorosis was made and the child was ordered iron in the form of Blaud's pill. When seen August 28th, after an afternoon in the park, she was languid and disinclined to move about, although no great loss of strength had been observed until that date—an important point in view of the subsequent rapid course of the disease; her temperature was 103.5.° There were painful enlargements of the submaxillary lymphatic glands on the right and of the sublingual on the left side. These had not been present 4 days previously. The girl had also expectorated blood since the last visit. An examination of the throat showed entire absence of inflammation, but several spots of clotted blood were seen on the gums and pharynx. The exact site of the bleeding could not be determined. The patient appeared intensely anemic. She was ordered to bed, placed upon a liquid diet and stimulating treatment and the iron continued. Hot applications to the neck caused the painful swelling of the glands to subside within about 12 hours. The temperature gradually declined, reaching 99.5° in a few days. Physical examination at that time disclosed a systolic murmur at the apex of the heart and venous pulsations in the neck. There were a few petechial spots on the skin, which had been observed for some days. There were no abdominal symptoms. The urine was normal. The expectoration of blood from the mouth continued in small amounts; but there was no epistaxis. The nervous excitation returned as the patient's strength failed. On September 3d the blood was examined. The patient became partially comatose toward evening and died the same day, 6 days from the time she had taken to her bed. Owing to the absence of an early blood-examination the exact date of the onset of the disease cannot be fixed, but granting that it dated from the time she first came under observation, when there were no special signs of any blood-disease, the duration was not over two months.

The examination of the blood showed the number of erythrocytes to be 800,000 and the number of leukocytes, 134,000 per cu. mm. Poikilocytosis was moderate. The color was moderately reduced. There were 4,615 nucleated red cells in each cu. mm., all normoblasts. A differential count of the leukocytes disclosed the following proportion: polymorphous neutrophilic cells, 1.52% = 2,035; nongranulated mononuclear cells, 5.48% = 7,345; lymphocytes, 88.84% = 119,045; degenerated cells, 4.16% = 5,775 per cu. mm. Many of the larger mononuclear cells were clumped together, almost agglutinated. The neutrophilic granulations in the polynuclear cells were abnormally sparse.

The number of polynuclear leukocytes is probably never under 3,000 per cu. mm. under normal conditions. In this case they were absolutely reduced, thus corresponding to the condition that Frænkel found in his cases. The foregoing estimation was based upon a differential count of 5,000 cells, and in that number not one eosinophilic granule was seen.[7] The degenerated cells seemed to be largely mononuclear. These changes were first well described by Gumprecht. They have since been found in all varieties of leukemia. They are not, however, peculiar to this disease. The tremendous excess of the lymphocytes is better illustrated by the number than by the percentage. The size of these cells varied from that of the normal small lymphocyte up to one larger than the large mononuclear cell, 15 μ. The polymorphism, while not pronounced, was very evident.

The autopsy was performed 20 hours after death. Emaciation was not marked. The tissues generally seemed quite bloodless. The lungs appeared normal, except for some edema and hypostatic congestion. The heart-muscle was pale, and there were hemorrhages into it and underneath its serous coats. The liver was large, pale and appeared fatty. The spleen was somewhat enlarged, hard, but not fibrous, and presented areas of hemorrhage. The kidneys were large, pale and anemic. The adrenal bodies appeared normal. The retroperitoneal and the thoracic lymph-glands were moderately enlarged. The spinal cord was removed, but presented no signs of disease; the brain could not be removed. The stomach and intestines presented few changes; the follicles seemed slightly prominent; but there were no macroscopic ulcerations. No lymphomata were apparent in the organs. The marrow of the ribs and sternum was found soft, less fatty and more cellular than normal, but not splenified.

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[7] In a few slides studied later, however, there were a number.

On microscopic examination of the tissues there was found universal lymphatic infiltration, not marked in degree and rarely localized in nodes. In the heart-muscle the leukocytes lay between the muscle-fibers and along the fibrous tissue; the muscle-cells were granular, their striations obscured, and here and there were areas of opacity suggestive of hyaline degeneration. The liver was extensively infiltrated; in a few places the infiltration of the capillary walls described by Benda was visible; the hepatic cells were moderately degenerated; the nuclei stained indistinctly and occasionally presented abnormal formations in the nuclear chromatin. The kidneys were less extensively infiltrated. The collections seemed most marked in the cortex. The renal cells were markedly degenerated; in some instances the glomeruli had become filled with leukocytes. In the adrenal bodies the infiltration was mostly in the peripheral layer. The cord presented few infiltrations. Treatment with Nissl's stain and by Weigert's method by Dr. Joseph Sailer disclosed no alterations. The lymph-glands presented cellular hypertrophy. The regular reticulated arrangement of the trabeculæ was altered, the cellular overgrowth seeming to have broken all boundaries. The same statement applies to the spleen, which was not abnormally pigmented. In all these situations the cells were of the same general character as those in the blood. After applying the triple stain to the organs the great scarcity of polynuclear cells was surprising, there being very few even in the spleen. We have never seen tissues so free from granulations. The bonemarrow examined was not markedly pyoid; there were areas of cellular overgrowth in which myelocytes were seen side by side with lymphocytes; the red cells were sparse, notably so. With reference to the hemorrhages, they are seen, as a general thing, in infiltrated areas, but we have never been able to determine the break in the vessel, if such existed. In the alimentary tract the infiltration was moderate. The epithelium was degenerated, and in a few places were small erosions, really superficial ulcers.

The accompanying table includes all the cases of acute leukemia that we have been able to find published up to May, 1898, including our own two, and comprising a total of 56 undoubted cases occurring in man, and one marked case occurring in a calf. The table includes also cases that have been published as acute pseudoleukemia. These have been included because of their complete identity with the symptom-complex of acute leukemia. There are scattered through the literature notes of several additional cases mentioned in discussions, but as details are not given, they are not included.

An analysis of the table shows the following facts: [8]

Cause: This is unknown. Bacteriologic and experimental studies have, unfortunately, so far been without success, except that in a number of cases streptococci have been found, which probably were coincidental or indicative of terminal infection.

Predisposing causes: No cause can be given for this most distressing malady. The patients came from all ranks of life. In several cases an injury received a longer or shorter time before the beginning of the disease was looked upon as the predisposing cause, but it occurred too infrequently to be of any moment. In one case, a most suggestive one (No. 21), the patient had just previously nursed a leukemic patient and had examined his blood and urine. This is the only case in the series, however, in which contagion could be suggested.

Age: 9 cases occurred below the age of 10 years; 13 cases occurred between the ages of 10 and 20 years; 10 cases occurred between the ages of 20 and 30 years; 7 cases occurred between the ages of 30 and 40 years; 5 cases occurred over the age of 40 years.

The youngest subject was 2½ years old, the oldest 71 years. The greatest number of cases occurred between the ages of 10 and 30 years.

Sex: 33 cases occurred in males; 12 cases occurred in females. In 2 the sex was not mentioned. Frænkel's group includes both males and females.

Duration: The cases lasted, from the beginning of the first symptom until death, from 3½ until 63 days, the average duration being approximately 39 days. In one of Frænkel's cases the duration was about 4 months, but all the symptoms of the acute disease were present.

Symptoms: Hemorrhage occurred in 39 cases. This was usually in the form of petechiæ, though free subcutaneous bleeding was sometimes observed. Nosebleed and hemorrhages from the mouth and other mucous membranes were common.

Lymphatic enlargement occurred in 47 cases. Usually this symptom was noted during life, but occasionally it was not discovered until the autopsy.

Enlargement of the spleen occurred in 40 cases. It was seldom great, but in some cases the organ enlarged rapidly while the patient was under observation.

Pains over the bones was quite a frequent symptom. It was most marked over the sternum and the bones of the legs.

Digestive disturbances: There was frequently diarrhea and vomiting; sometimes bloody stools and hematemesis. The mouth and pharynx were frequently the seat of ulceration, sometimes of gangrenous lesions; and the gums were often soft and bleeding.

Exudation upon the tonsils occurred frequently enough to make it a notable symptom. The membrane was diphtheritic in appearance. As most of the cases were observed before the discovery of the Klebs-Löffler bacillus this organism was not especially sought for, but no organism resembling it was described.

Temperature: In 31 cases there was a rise of temperature. In some of the cases, notably the two reported in this communication, fever was a very marked symptom—in the first case resembling closely typhoid fever. In other cases the temperature varied greatly, and in some it was septic in type.

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[8] The analysis does not include Frænkel's cases published in the *Deutsche medicinische Wochenschrift* for 1895.

Circulation and cardiac symptoms: There were no cardiac disturbances, apart from those due to the increasing and rapidly fatal anemia.

Respiratory symptom: Bronchial catarrh was quite a constant symptom, but it seemed to have no especial diagnostic value.

Renal symptoms: There was an increase of uric acid in the urine of most of the cases examined for it. Nephritis rarely occurred. Hematuria was present in several cases, as a part of the blood-dyscrasia.

Nervous symptoms: In several cases there was hemiplegia due to cerebral hemorrhage. In other cases the symptoms were those belonging to any exhausting disease.

Changes in the blood: In the earlier cases the sole alteration noted was a marked increase in the number of leukocytes. Our present nomenclature was not then employed, but from the descriptions given in most of the earlier cases, the mononuclear cells were those most notably increased. The later cases have naturally been better studied. As a rule, the red cells were markedly reduced, usually below 3,500,000, often below 2,000,000, occasionally below 1,000,000 per cu. mm. The alterations in the red cells have not been as marked as in chronic leukemia and pernicious anemia of like corpuscular reduction. Poikilocytosis has not been marked, as a rule; microcytes have not been especially commented upon; macrocytes have not been conspicuous. Nucleated red cells have been rare, in contrast to chronic leukemia; while gigantoblasts have been but rarely noted. It seems that the bone-marrow does not undergo the compensatory erythrocytic hypertrophy seen in the more chronic anemias. The number of blood-placques seems to have attracted no attention.

The leukocytosis is usually moderate, often being below 100,000 and but once up to 500,000 per cu. mm. In a notable number of cases the excess disappeared just before death. The cases have been essentially lymphatic in type, and usually pure. Marked variation in the size and shape of the lymphocytes has usually been noted, these cells being usually larger than red cells, intensely, or feebly, or unevenly stained; the protoplasm has commonly been described as small in amount and ungranulated; the nuclear chromatin has most often been described as similar to that of the large mononuclear cell, the large lymphocyte. We believe that Frænkel has demonstrated these cells to be very large lymphocytes, and that the differences between them and the myelocytes are unmistakable. While this has been the usual type, it has not been the sole type, as originally claimed by Frænkel, who maintained that acute leukemia always presented the one striking blood-picture, which was alone diagnostic. Frænkel has recently receded from this position, and now admits that the blood-picture may be varied. Usually the polynuclear cells are not increased, or have indeed been decreased, in a few cases they have been notably increased. The eosinophilic cells have usually been reported as very scanty; rarely they have been increased. In a few cases typical myelocytes have been present, in three cases only to any great extent. In the later reports mention has several times been made of degenerations in the white cells, affecting chiefly the nuclei. Frænkel and Benda[9], who have done the most careful work in acute leukemia, conceive the disease to be the result of an abnormal activity of the lymphatic tissue, not only in the lymph-glands, but universally throughout the body, and especially in the bone-marrow. The blood-picture of acute leukemia may occur in chronic leukemia (case of Grawitz), but the pathologic conditions in the tissues in acute cases do not coincide with those seen in chronic lymphatic leukemia.

Morbid anatomy: The pathologic conditions have been well studied only within the last few years. The lymph-glands, spleen, bone-marrow, liver, kidneys and alimentary tract seem constantly affected. In none of the cases have any of these tissues been shown by careful study to have been free from alterations. The changes may be grouped into three divisions—lymphatic, hemorrhagic and parenchymatous.

The lymphatic enlargements and infiltration are not massive as a rule. In the alimentary tract, however, they have often been extensive, in consideration of the duration of the disease. The hyperplasia is composed of cells of the same nature as the lymphocytes of varying size and form noted in the blood. The spleen and glands are usually not hard or fibrous; the color is often hemorrhagic. In the mouth, and in the intestines, these collections frequently cause ulceration; this is probably not a specific process; the tissue is of low vitality and infective agents are close at hand, so that the ulceration should be viewed as a secondary result dependent upon location. It is rare to find large lymphomata in the organs. Narrow strands of lymphocytes lie between the renal tubules, the hepatic lobules, the epithelial columns of the adrenal bodies, the acini of the pancreas, the muscle-fibers of the heart; under the sera small collections may be found, and these may be noted in all parts of the body. Infiltration into the nervous tissues has been seldom described, but it has occurred in both the central and peripheral systems. Retinitis has been very unusual. In the well-studied cases, the bone-marrow has always been found affected; it seems clear that in Benda's cases, both hyperplasia of marrow-elements and depositions from the circulation occurred in the marrow. In the two cases herein reported the marrow examined did not present such marked alterations as Benda has described, but as so little of the marrow was studied no negative conclusions can be based upon it.

Benda has noted two points of advance in our knowledge. One is that the lymphatic "germ-centers" of Flemming are much enlarged, their normal circum-

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[9] *Verhandl. d. Cong. f. innere Med.*, xv, 1897.

No. of Case.	Observer.	Age and Sex.	Duration.	Symptoms.	Blood.	Autopsy.
1	Friedreich, *Arch. f. path. Anat.*, 1857, Vol. 12, p. 37.	46 years. Female.	6 weeks.	Conjunctival hemorrhages. Bleeding from genitals. Spleen enlarged. Glands slightly swollen. Diarrhea after 6 weeks, with loss of appetite. Enlargement of liver. Ulcer on left side of mouth. Anemia, weakness, edema of the feet, severe bronchitis, temperature never elevated.	Not noted.	Leukemic condition of large intestine, stomach, liver and kidneys. Infiltration of abdominal glands. Marked ulceration of small intestine, which resembled typhoid lesions in Peyer's patches and solitary follicles.
2	Martin, *St. Barth. Hosp. Reports*, Sept., 1865, 1, p. 268.	6½ years. Male.	10 weeks.	Glands and spleen enlarged. Stomatitis, with ulcers. Petechiæ general. Gastric irritability. Delirium. Excess of uric acid in urine.	Large excess of leukocytes.	Enlarged spleen 6x2½ inches. Lymph-glands enlarged. Internal hemorrhages.
3.	Immermann, *Deutsches Arch. f. klin. Med.*, 1874, 13, p. 276.	17 years. Female.	6 weeks.	Hemorrhage from mouth. Petechiæ over general surface. Swelling of glands. Spleen enlarged, 14 x 19 cm. Considerable vomiting. Rales in the lungs. Heart-beat from 126 to 132. Pulsation in jugular vein. Temperature between 37° and 40° C. Great tenderness over bones.	Increase of leukocytes to 1 to 20; mostly small with a small amount of protoplasm. Blood was fluid and bright red. Post mortem the blood was thin and resembled that of leukemia.	Much hemorrhage into right retina. Petechiæ in skin. Hyperplasia of tonsils. Spleen 15x12x2.5 cm., with wrinkled capsule. Enlargement and pigmentation of solitary follicles and Peyer's patches. Myocarditis. Hyperplasia of bone-marrow.
4	Kelsch, *Arch. de phys. norm. et path.*, 1875, Vol. 7, p. 492.	28 years. Male.	6 weeks.	Hemorrhages from lungs and kidneys, nose-bleed; numerous petechiæ over body. Enlargement of all superficial glands. Pulse feeble. Mucous rales in lungs. Bloody urine. Temperature elevated.	1,000,000 erythrocytes, 14,000 leukocytes.	Hemorrhages under skin. Enormous mass of lymphatic tissue in mediastinum. Peyer's patches and solitary follicles enlarged and infiltrated. Lungs normal. Heart; hemorrhages in surface. Myocarditis. Kidneys contained microscopic lymphatic tumors. Bone-marrow showed leukemic infiltration. Spleen weighed 350 gm., with enlargement of Malpighian bodies.
5	Löwenstein, *Deut. Arch. f. klin. Medicin*, 1876, 18, p. 120.	59 years. Male.	3 weeks.	Hemorrhages not mentioned. Lymph-glands markedly enlarged. Numerous tumors in different parts of body. Gastric symptoms in beginning. Some bronchitis. Heart weak. Urine contained much albumin. Temperature from 38° to 39° C. Hemiplegia.	Not examined during life. Post mortem blood from crural vein showed red and white cells to be of equal number.	Hemorrhage into brain. Glands markedly swollen. Spleen 17x12x7 cm. Leukemic infiltration of intestine. Lungs edematous. Myocarditis. Kidneys infiltrated with lymphatic cells. Bone-marrow of a yellow-gray color.
6	B. Küssner, *Berlin. klin. Woch.*, 1876, No. 9, p. 109.	46 years. Female.	16 days.	Petechiæ all over body. Bleeding from hemorrhoids. Ecchymosis in gums. Redness of palate. Some nose-bleed. Enlarged parotid. Splenic region painful; spleen could be felt. Lungs and heart normal. Urine contained small amount of albumin. Temperature 40° C.	Leukocytes increased; mostly large and polynuclear, with many transitional forms.	Hemorrhage into lungs. Spleen 10 x 20 x 5 cm. Excrescences on surface. Follicles not very prominent. Bone-marrow a yellowish green.
7	Ponfick, *Arch. f. path. Anat.*, 1876, Bd. 67, p. 369.	19 years. Male.	5 weeks.	No hemorrhage noted. Glands rapidly enlarged. Spleen enlarged 3 weeks after beginning; liver also. Swelling of tonsils. Gangrene of lips. High fever. Temperature 40° C.	Leukocytes increased, 1 white to 2 red cells.	Spleen enlarged, 20x8x5 cm.; follicles enlarged. Enlargement of follicles of tongue and tonsils. Some liquid in pleural cavity. Myocarditis. Leukemic nodes in both kidneys. Hemorrhagic pseudo-membranous colitis. Leukemic liver. Marked hyperplasia of bone-marrow.
8	Keating, *Amer. Jour. of Obstetrics*, 1886.	4½ years. Male.	9 weeks.	Petechiæ all over body. Epistaxis. Enlargement of cervical glands, which gradually increased. Rapidly increasing anemia. Enlargement of spleen. High fever.	Three hours after withdrawal: erythrocytes not changed; leukocytes greatly increased in number —from 50 to 60 in each field (No. 7 Hartnack), variable in size, many small, not more than one-third size of larger form; resemble the small colorless cells that Virchow has noted as present in lymphatic leukemia.	No autopsy.
9	Litten, *Berliner klin. Woch.*, 1877, No. 19, p. 256.	Adult. Female.	5 weeks.	Severe anemia. Hemorrhage into retina. The glands not enlarged; neither were spleen or liver. Marked vomiting. Weak heart. Was nursing a child.	At first, erythrocytes diminished and leukocytes only slightly increased. Leukocytes large, without a nucleus. (?) Later the leukocytes rapidly increased. One white to 15 red. At this time the leukocytes were round, moderately large, and contained large nuclei, with only a small amount of granular protoplasm; some were polynuclear. Before death 1 white to 4 red.	Hemorrhage in retina. Liver anemic; oherwise normal. Glands not enlarged. Myocarditis. Leukemic nodes in kidneys. Spleen 12x8x3; grayish red; enlarged follicles. Bone-marrow greenish yellow; soft, with large leukemic nodes.
10	J. Englisch, *Jahresbericht über die Leistungen und Forschungen in der gesammten Medicin*, 1877, 12, 2 Bd., p. 255.	24 years. Male.	12 days.	Eight days after working in cold water patient was seized with pain in ankle. No hemorrhage. At first, spleen, liver and glands normal. Incision made over painful spot in tibia showed thickened periosteum. Death occurred four days afterward, preceded by fever, enlargement of spleen and cerebral symptoms.	The relation of white to red cells 1 to 3.	Basilar meningitis. Endocarditis; pericarditis. Enlargement of liver and spleen, with lymphoid infiltration. Hyperplasia of marrow of all bones.
11	C. Zumpe, *Arch. der Heilk.*, 1878, Bd. 19, p. 473.	15¾ years.	7 weeks.	Family history of tuberculosis. Patient always well. Began with weakness. In beginning, spleen not large. Hemorrhage. Petechiæ in tongue and neck; nose-bleed. Glands and tonsils large. Spleen began to enlarge in a few days; soon reached 9.5 x 18 cm.; extended 3 fingers' breadth below the ribs. Loss of appetite. Heart and lungs comparatively normal. Bloody urine. Moderately high fever.	Increase of leukocytes; red to white 1 to 1. Whites same size as red.	Petechiæ over skin. Spleen three-fingers' breadth below ribs. Bloody serous fluid in pleural cavity. Heart soft. Liver contained lymphatic nodes. Kidney contained lymphatic nodes. Glands not swollen and microscopically not changed, except that follicles were filled with round cells.

NO. OF CASE.	OBSERVER.	AGE AND SEX.	DURATION.	SYMPTOMS.	BLOOD.	AUTOPSY.
12	A. Frænkel, *Ztschr. f. klin. Med.*, 1881, Bd. 3, p. 405.	18 years. Male.	20 days.	Patient always well, except subject to nose-bleed. Began with nose-bleed, which could not be controlled. On examination, enlargement of lymph-glands all over body. Spleen could be felt 2 cm. below ribs. Heart and lungs negative. Temperature normal. Paralysis of left face, arm and neck.	Marked increase of leukocytes; white about size of red, and with large nucleus; large mononuclear very infrequent.	Enlargement of glands all over body. Spleen about twice normal size, with enlarged follicles. Peyer's patches swollen; ulcers in cecum. Hemorrhage into brain. Degeneration of bone-marrow.
13	Gaucher, *Progrès Méd.*, 1881, 23, p. 445.	38 years. Male.	9 weeks.	Syphilitic skin-disease. Disease began with symptoms of influenza. Hemorrhages all over skin. Epistaxis. Enlarged glands all over body. Spleen extended to umbilicus. Liver not enlarged. Dulness at base of left lung. Considerable diarrhea. Much elevation of temperature. On eighth day of observation spleen reached umbilicus.	One white to 16 red. Just before death the erythrocytes numbered 2,800,000.	Old pericarditis. Spleen enlarged and sclerosed. Peyer's patches not hypertrophic. Some enlargement of mesenteric glands. Lungs: lymph-nodes. Lymphomata in front of mediastinum.
14	Wadham, *Lancet*, Jan. 26, 1884, p. 158.	5½ years. Male.	8 weeks.	Good family-history. Had a severe fright. Began with pain, cough, constipation, sleeplessness. Hemorrhage not observed. Glands of neck enlarged. Tonsils enlarged. Spleen could not be felt. Gums soft. Temperature between 100° and 102° F.	Blood before death contained 3 white to 1 red. (?)	Petechiæ in all organs. None on surface of body. Mesenteric glands enlarged. Liver pale, studded with whitish nodules. Spleen contained infarcts of yellowish color. Hemorrhage in retina.
15	J. H. Musser, *Trans. Phila. Co. Med. Soc.*, Sept. 28, 1887.	11 years. Male.	5 weeks.	Began with fever, swelling in parotid region, and enlargement of all glands. Very anemic. Splenic dulness markedly increased. Herpes on face. Blood stained, mucous expectoration.	3,700,000 red; white to red, 1 to 40. Just before death red 2,100,000; white to red, 1 to 40.	No autopsy.
16	Wilhelm Ebstein, *Deut. Arch. f. klin. Med.*, 1888-89, 44, p. 343.	23 years. Male.	4 weeks.	Headache and loss of appetite. Hemorrhages all over skin; nose-bleed. mucous membrane of mouth pale. Spleen enlarged. Lymph-cells enlarged. Temperature between 37° and 38° C. Bloody stool. Bleeding from gums.	3,273,000 red, 163,650 white.	Swelling of all glands. Enlargement of spleen. Lymphadenoma in kidneys. Necrosis of epiglottis. Swelling of follicles of intestine.
17	Mosler, *Arch. f. Path. Anat.*, 1888, Bd. 114, p. 461. (Reported as a case of pseudoleukemia.)	14 years. Male.	8 weeks.	Enlargement of glands in both axillæ and in neck. No increase in size of spleen or liver. Temperature 38° C. Injections of arsenic were given; followed by enlargement of spleen, fever, exudation on tonsils. Petechiæ over body. Hematemesis. Bloody urine. Death.	At first there was no increase of white cells; but later there was.	No autopsy.
18	Westphal, *Münchener med. Woch.*, 1890, No. 1.	16 years. Male.	4 weeks.	A fall one year before; was never strong afterward. Hemorrhages into retina. Rapid anemia. Petechiæ over skin and in mouth, Swelling of glands. Splenic tumor. Gangrenous exudation on tonsils. Death from puncture of spleen.	Red 816,000, white 24,000; hemoglobin 45%. White cells mostly small. No eosinophiles.	Some hemorrhage into brain. Hemorrhages over body. Lymph-glands enlarged. Spleen enlarged. Liver filled with small cells. Infiltrations of bone-marrow.
19	Hans Leyden, Inaug. Dissertation, *Beitrag zur Lehre von der acuten Leukämie*, Berlin, 1890.	25 years. Male.	41 days.	Headache, chills, pains in legs, back, and splenic region. Anemia. Glands enlarged. Spleen enlarged and painful: enlarged very rapidly. Edema. Temperature between 38° and 39° C.	At first, red 2,200,000, white 400,000. Large number of mononuclear and polynuclear cells. Then red 1,450,000, white 500,000. Later, red 1,130,000, white 360,000.	Large spleen; 2270 gm.; 32x16x9 cm.; old infarcts, soft and brown. Peyer's patches and solitary follicles hyperplastic. Pleural effusion. Dark-red marrow. Lymph-glands enlarged. Microscopically, infiltration of all tissues.
20	Obrastzow, *Deut. med. Woch.*, 1890, Vol. 16, p. 450.	17 years. Male.	4 weeks.	Nose-bleed; petechiæ. Mucous membranes pale. Enlargement of glands. Spleen rapidly enlarged. Temperature between 38° and 40° C.	At first examination, white cells slightly increased. Second examination, marked increase of white cells; small, finely granular, containing round nuclei. White to red 1 to 7. Hemoglobin, 30%.	Bloody serum in pleural cavity, ecchymosis in peritoneum. Lymphomata in various parts of chest-wall. All glands enlarged. Leukemic infiltration of liver. Spleen enlarged.
21	*Ibid.*	32 years. Male.	12 days.	Petechiæ all over body. Patient had nursed a case of acute leukemia and became sick about a month afterward. Swelling of gums. Enlargement of glands and rapid enlargement of spleen. Temperature between 37° and 38.5° C.	Whites increased; finely granular, containing round nuclei. White to red, 1 to 9.	No autopsy.
22	Hinterberger, *Deutsches Archiv f. klin. Med.*, 1891–2, Bd. 48, p. 324.	30 years. Female.	3 weeks.	Always well. Cutaneous hemorrhages all over body. Enlargement of spleen. Swelling of glands. Swelling of gums. Temperature between 38° and 39.5° C.	White to red, 1 to 7.	Liver enlarged. Solitary follicles and Peyer's patches enlarged.
23	Fuchs, Inaug. Dissertation, *Acute und Chronische Leukämie*, 1891.	18 years. Male.	7 weeks.	Measles previously. Edema. Fever. Petechiæ. Nose-bleed. Swelling of glands. Coma. Spleen moderately enlarged.	At first no change in blood; 1 white to 50 red before death.	Stomach dilated. Blood in peritoneum. Liver large, fluid in pleural cavity. Internal ecchymosis. Spleen 18x12.5x4 cm.; dark. Follicles and Peyer's patches enlarged. Mesenteric glands enlarged.
24	Gnttmaun, *Berl. klin. Woch.*, 1891, Vol. 28.	21 years. Male.	2 weeks.	Both tonsils removed for adenoids. Petechiæ all over body. Nose-bleed; bleeding from mouth. Liver enlarged; spleen enlarged. No fever.	White to red, 1 to 1.4. Only a few polynuclear and eosinophile cells.	Large subcutaneous hemorrhages. Hemorrhage in brain. Thymus much enlarged. Spleen three times as large as normal. Bone-marrow dark red.
25	Wertheim, *Zeitschrift f. Heilkunde*, 1891, Bd. 12, S. 282, Fall 7.	15 years. Female.	6 weeks.	Always well. Cough and shortness of breath. Petechiæ over skin. Hemoptysis. Lymph-glands not enlarged. Spleen could not be felt. No pain in bones. Temperature 38.8° C.	Marked increase in white cells.	Spleen weighed 500 gm. Swelling of glands. Exudation on tonsils. Infiltration of epiglottis.
26	Litten, *Verhandlungen des Congress f. innere Med.*, 1892, p. 165.	. . . . . .	3½ days.	Bronchial catarrh. On first day spleen not enlarged. On second could be felt. Hemorrhage in retina. Bleeding from ear. Second day of disease, spleen larger. Petechiæ.	White 1 to red 9. Whites were large, with large nuclei, and appeared to be undergoing fatty degeneration.	No autopsy.
	Traversa, *Riforma Medica*, 1893, Vol. 3, No. 3, p. 26. (Reported as pseudoleukemia.)	71 years. Male.	10 weeks.	Enlarged inguinal glands. Irregular fever. Tonsils enlarged; spleen enlarged. Diarrhea. Ecchymosis.	White 24,800, red 4,827,000. Later, red 3,218,000, white 53,600, hemoglobin 40%, Streptococci in blood.	Lymph-glands and spleen enlarged, purpuræ over body.

No. of Case.	Observer.	Age and Sex.	Duration.	Symptoms.	Blood.	Autopsy.
28	Elchhorst, *Arch. f. path. Anat.*, 1892, Bd. 130, p. 367.	8 years. Male.	14 days.	Always well. Vomiting of blood, rapid failure of strength. Bleeding from mucous membrane of mouth. Enlargement of liver. Spleen extended almost to navel. Lungs normal. Urine normal. Temperature 38.5° C.	Red corpuscles 1,000,000; white cells 88,000; hemoglobin 25%. No nucleated red. White cells about size of red; contain from 2 to 4 nuclei. No eosinophile cells found.	Spleen 15 x 18.5 x 3.5 cm.; capsule smooth; trabeculæ prominent. Lymph-glands in hilus of spleen enlarged; also about pancreas. Ulcers in stomach. Mesenteric glands enlarged. Hydrothorax. Fatty degeneration of heart. No disease of bone-marrow.
29	Nobel, *Deutsche Medizinal Zeitung*, 1892, No. 100, p. 1176.	40 years. ?	10 days.	Hemorrhage in skin. Gangrenous stomatitis. Softening of gums. Swelling of glands. Spleen and liver enlarged. Temperature from 37.2° C. to 39.2° C. Urine contained uric acid and albumin.	White to red, 1 to 20. Increase of myelocytes, with mitosis. Nucleated red.	Spleen much enlarged. Liver much enlarged. Leukemic infiltration of kidneys. Lymphoid degeneration of bone-marrow.
30	*Ibid.*	30 years. Female.	21 days.	Hemorrhage. Stomatitis. Clinical picture of purpura hæmorrhægica.	White to red, 1 to 50. Increase of myelocytes, with mitosis. Nucleated red.	Same as No. 29. Also lymphatic change in thymus.
31	Greiwe, *Berlin. klin. Woch.*, 1892, Bd. 29, p. 825.	28 years. Male.	11 days.	No hereditary disease. Had a fall a short time before disease began. Sudden hemorrhage from nose. Subcutaneous hemorrhages. Gums soft, swollen and bleeding. Lymph-glands enlarged. Spleen enlarged.	Increase of large mononuclear cells, with a few small polynuclear and eosinophile cells.	Bloody fluid in pericardium. Infiltration of liver with small cells. Spleen soft and enlarged. Bone-marrow pale.
32	Dreschfeld, *British Med. Jour.*, 1892, Part 1, p. 893. (Reported as pseudoleukemia.)	23 years. Male.	6 weeks.	Always well. Spleen slightly enlarged. Lymphatic mass under sternum. Fever.	White, 1 to 40; small, mononuclear; a few eosinophile cells; a few large mononuclear cells.	Infiltrations of spleen, kidneys, and liver. No change in bone.
33	Hilbert, *Deutsche med. Woch.*, 1893, Vol. 19, p. 875. Also Kirstein in inaugural thesis.	37 years. Female.	7 weeks.	Pain in abdomen. Anorexia. Cough. Pregnant 8 months. Bleeding from gums. Petechiæ all over body. Bronchial catarrh. Retinitis (leukemic). Temperature 38° C. Infiltration and ulceration of gums. Glands enlarged. Spleen and liver not enlarged. Died after giving birth to dead child.	Increase of white cells one week before death; a few nucleated red. Pale mononuclear leukocytes in great number; polynuclear cells; a few eosinophile cells.	Swelling of Peyer's patches and solitary follicles. Ulceration in large intestine. Spleen and glands only slightly enlarged. Lymphatic bone-marrow (both red and white). Hemorrhage in organs.
34	Hintze, *Deutsches Arch. f. klin. Med.*, 1894, Bd. 53, p. 377.	16 years. Male.	7 weeks.	Petechiæ all over body. Pain in ankles. Sweats. Spleen rapidly enlarged. General glandular swelling. Mucous membrane of mouth as in scurvy. Toward death spleen and liver decreased in size.	Increase of white cells; mostly large, mononuclear, with small amount of protoplasm; few with indented or multiple nuclei; few eosinophile cells.	Lymphatics enlarged. Spleen enlarged, smooth, and infiltrated; dark red. Liver and kidneys enlarged. Peyer's patches not enlarged. Sternal marrow normal. Cocci in organs. Cells in liver, kidney, and glands.
35	Ebstein, *Deutsche med. Woch.*, July, 1894. (Reported as traumatic leukemia.)	36 years. Male.	6 weeks.	Well before an injury. Hemorrhage under skin and from anus. Swelling of inguinal and cervical glands. Spleen markedly enlarged.	Marked increase of white cells.	No autopsy.
36	Seelig, *Deutsches Arch. f. klin. Med.*, 1895, Vol. 54, p. 537.	11 years. Male.	3 weeks.	Scarlet fever accompanied by nephritis. Frequent examination showed only nephritis. Suddenly petechiæ, swelling of gums. Pain in bones. Glands enlarged; spleen enlarged.	Marked increase of white cells. Large myelocytes with mitosis; a few lymphocytes and fewer polynuclear cells. Post mortem the blood contained small single lymphocytes with one nucleus, while the myelocytes were few.	Ecchymoses in pleura. Enlarged lymph-follicles in stomach. Peyer's patches and solitary follicles enlarged. Lymphatic infarcts in kidneys. Glands enlarged. Spleen enlarged.
37	Muller, *Jahrbuch f. Kinderheilkunde*, 1895, Bd. 43, Heft 1, p. 130–148.	4 years. Male.	4 weeks.	Inflammation of brain 9 months before. Well since. Restless; nose-bleed; no tenderness over bones. Enlargement of glands; spleen greatly enlarged; small tumors in skin. Bloody stools. Diphtheric exudation in throat. Temperature 40.8° C.	White to red, 1 to 13; hemoglobin 45%. Organisms in blood resembling those in exudate in throat. First group; mononuclear white most numerous, larger than red; then a large cell, with irregular nucleus. Second group: small lymphocytes size of red, with nuclei rich in chromatin. Third group: Ehrlich's polynuclear forms scarce, a few eosinophile cells. 1011 in first group, 143 in second group, 30 in third group.	Petechiæ over body. Myocarditis. Spleen enlarged, dark and red. Diphtheritic exudation in intestine.
38	*Ibid.*	4 years. Male.	4 weeks.	Patient had measles. Pain over body. Petechiæ and large subcutaneous hemorrhages. Lymph-glands enlarged; spleen swollen. Temperature 38.4° C.	White to red, 1 to 11½, 1 to 12, 1 to 11; 951 large mononuclear; 171 lymphocytes; reds normal.	No autopsy.
39	Fussell and Taylor, *Univ. Med. Mag.*, 1895-96, p. 957. (Preliminary report.)	37 years. Female.	6 weeks.	Always perfectly well. Nursing at this time. Severe nose-bleed. Swelling of submaxillary glands. Splenic dulness increased; spleen could be felt. Liver felt below edge of ribs. Diarrhea, fever, nephritis. Case resembled one of typhoid fever.	Red 1,184,000, white 241,333. Red corpuscles pale; a few nucleated red. Differential count of leukocytes; in full report above. Large mononuclear were pale, with large nuclei, and often situated near margin of cells; resembled Frænkel cells. The other leukocytes were as small as lymphocytes and had no appearance of having come from the marrow.	Gangrenous spot on nose. Spleen soft, 6x4½x2 inches, of a dull-purplish color. Peyer's patches enlarged and ulcerated, with everted edges.
40 to 48 inclusive.	A. Frænkel, *Deutsche med. Woch.*, 1895, Vol. 31, p. 639.	13 to 34 yrs. Both sexes.	20 days to 16 weeks.	Cases began with feeling of weakness in previously healthy individuals. Edema; anemia. Hemorrhage from mucous membrane and in skin. Parenchymatous hemorrhage into organs. Glands enlarged. Spleen swollen and in most a palpable tumor. Delirium; stupor. Did not observe typhoid state. Temperature usually elevated.	Condition of blood allows a diagnosis to be made on this one point alone. There is a characteristic increase of mononuclear elements. They belong to the category of lymphocytes. They vary in size from that of a red cell to one double its size; contain a large round or oval nucleus poor in chromatin. They do not contain eosinophile granulation. There is an actual reduction of the polynuclear cells. In two cases the white cells disappeared before death.	The greatest number of the cells are found in the lymph-glands; are found in all tissues, but are most numerous in the lymph-glands.

NO. OF CASE.	OBSERVER.	AGE AND SEX.	DURATION.	SYMPTOMS.	BLOOD.	AUTOPSY.
49	Robins and Argne, *Montreal Med. Jour.*, 1896-97, Vol. 25. (Reported as pseudoleukemia.)	19 years. Male.	8 weeks.	Weak; dull; pale; loss of flesh. Hemorrhages over body. Bronchial glands enlarged. Spleen felt. Temperature between 102.5° and 106° F. Liver palpable. Loss of appetite.	Varied. At first white normal; then rose to 66,000; then fell almost to normal. Almost all lymphocytes.	No autopsy.
50	Goldschmidt, *Münchener med. Woch.*, 1896, No. 30.	2½ years. Male.	2 months.	Tonsils red and swollen. Swelling of glands. Slight enlargement of spleen. Liver enlarged. Urine contained albumin. Edema of face.	Exquisite picture of leukemic blood.	Swelling of glands. Spleen 20x14x4; bluish-red color.
51	Theodor, *Arch. f. Kinderheilkunde*, 1897, Bd. 22, p. 47.	4 years. Male.	7 weeks.	Always well until fall from horse. Fall followed by bleeding from nose. Hemorrhages all over body. All glands enlarged. Spleen enlarged. Temperature 38° C.	White 1, red 9. Almost all small cells, with nuclei colored intensely blue and with a small amount of protoplasm (lymphocytes). A few large mononuclear cells, with a large slightly colored nuclei. Only a few polynuclear and eosinophile cells. Red about normal.	No autopsy.
52	Herrick, *Jour. Amer. Med. Assoc.*, 1897, Vol. 29, No. 11, p. 171.	27 years. Male.	8 weeks.	Excessive user of alcohol. Enlargement of glands on body. Anemia. Ulcer in mouth. Gums bleeding. Fever.	Red cells vary but little. Numerous nucleated red cells. White cells mostly correspond in every particular to common small lymphocytes; 98 large mononuclear forms, 9 polynuclear; 2 eosinophile cells; 23 large mononuclear, with a wide rim of protoplasm.	No autopsy.
53	Frænkel, *Verhandlungen des Cong. f. inn. Med.*, 1897, 15.	31 years. Male.	8 weeks.	No previous history. Many petecchiæ. No retinal hemorrhage. Exudation in throat. Enlargement of glands, spleen and liver. Paralysis of right side of face. Fever.	Red 2,945,840, white 31,250, hemoglobin 55%. White almost all lymphocytes, mononuclear, double the size of reds; also small lymphocytes; no neutrophiles; polynuclear almost all disappeared; a few eosinophile; a few nucleated red.	Hemorrhage in stomach and intestines. Enlargement of Peyer's patches and solitary follicles. Tumor under sternum. Both tonsils much swollen. Maxillary and cervical glands swollen. Spleen 12x19. Bone-marrow red. Hemorrhage in sheath of facial nerve.
54	Thomson and Ewing, *Med. Rec.*, 1898, Vol. 53, p. 333.	21 years. Female.	8 weeks.	Weak for 7 months. Sore throat. Arm swollen, red and painful 3 weeks. Pains in limbs. Glands not enlarged. One ecchymosis. Spleen just palpable.	Red 1,290,000, white under 155,000; lymphocytes 33%, myelocytes 12%, polynuclear 5.5%.	Ecchymoses in stomach. Deposits in liver, marrow, spleen, and glands. Spleen moderately enlarged. No lymph-changes in alimentary tract.
55	Stair, *Jour. Amer. Med. Assoc.*, 1885, 4, p. 586.	20 years. Male.	7 weeks.	Spleen and glands enlarged rapidly. Epistaxis.	Red 1 to 30 white. White 1 to 30 red cells.	No autopsy.
56	J. H. Jopson, Not previously published.	14 years. Female.	7 weeks.	Pains in knees. Nervous. Feverish at intervals. Temperature 103.5° F. Swelling of submaxillary and sublingual glands. Expectoration of blood. Anemia. Urine normal. Glands decreased. Petechiæ. Delirium and coma.	800,000 red, 135,000 white. (See detailed report above.)	Tissues bloodless. Hemorrhages in organs Leukemic infiltration. Myocarditis. Liver large, leukemic infiltration. Spleen large, hard, simple hyperplasia. Kidneys, leukemic infiltration, with nephritis. Intestines, ulcerations in ileum, in solitary follicles. Bone-marrow, lymphoid infiltration.
57	Wolft, *Thierarzt. Woch.*, 1892.	Calf.	. . . . .	Swelling of all glands, especially in parotid region. Giving appearance as though head were set in a mass. Failure of strength. Enlargement of liver and spleen.	During life 1 white to 13 red. After death 1 white to 11 red. Lymphocytes 93%, polynuclear cells 2%, eosinophile ¼%, cells with large single nucleus 5%. The lymphocytes were large white cells, with large round of oval nuclei.	Swelling of Peyer's patches and necrotic areas in cecum.

scription by resting tissue is lost, and the normal relations of the sinuses and lymph-channels are altered; he believes those modifications explain, not only the lymphatic hyperplasia, but partly also the flooding of the blood-stream and the character of the circulating lymphocytes. The second point concerns the infiltrations of the vascular tissues. Benda states that in the lymphatic tissues the walls of the smaller blood-channels are often entirely broken through and that the excessive leukocytes are thus allowed a free passage into the blood. Thrombosis does not occur, and he believes that the larger part of the excess in the blood is due to the venous infection.

The hemorrhages are constant in the tissues, into the skin and the viscera, from the mucosa—especially of the alimentary tract, into the serous membranes, into the muscles, including the heart; and not infrequently into the nervous tissues. They are usually small in extent, but they may be large, and have caused death when located in the central nervous system. From the mucosa the bleeding has usually been more free. It is rare in any other disease to see hemorrhages into the lymph-glands; they are common here. Hemorrhages occur in the marrow, and could easily be mistaken for splenification. Coagulation in these hemorrhages is the exception, not the rule. Benda believes the infiltration of the walls of the bloodvessels to be the probable cause of the hemorrhage.

The parenchymatous alterations are those commonly seen in the febrile infections. Cloudy swelling, hyaline and moderate fatty degeneration comprise the most important changes.

In a number of cases the presence of streptococci has been demonstrated. We are not yet in a position to discuss the possible relation of bacteria to the disease, but we must emphasize its infectious appearance.

Diagnosis: The occurrence of a rapidly increasing anemia, with its accompanying symptoms, petechiæ over the body, or hemorrhages from the mucous membranes, with enlargement of the lymph-glands, fever and a moderately enlarged spleen and liver, accompanied by a decrease in the blood of the red cells and an increase of the white cells of mononuclear form, make the diagnosis conclusive. The one essential element is the leukemic increase of the white cells in the blood of a subject not previously leukemic.

Hemorrhage may occur in scorbutus, purpura, and pernicious anemia, but increase of leukocytes, beyond that following hemorrhage, does not occur in these conditions. Indeed, many cases of acute leukemia are first considered to be instances of the so-called hemorrhagic disorders, but the blood-count will, of course, make the diagnosis clear.

Enlargement of the lymph-glands and spleen may occur in Hodgkin's disease, tuberculosis, syphilis, and sepsis, but the mononuclear leukocytes are not present in such increased numbers in these diseases, except in rare cases of pseudoleukemia. In sepsis and in osteomyelitis the leukocytosis is often extreme, but the white cells are not of the same character, being polymorphonuclear in type. Chloroma and generalized sarcomatosis may, however, approximate the blood-picture. Care, of course, must be taken not to confound the sudden fatal ending of cases of chronic leukemia with cases of acute leukemia. It is well known that leukemia may remain latent for a long while, giving rise to no symptoms except the blood-condition. That objection may, of course, be raised to many of the cases in this series, but in many others there was no change in the blood at the very beginning, and this developed afterward. Then, too, careful questioning of the patient will usually develop a history of gradually failing health, if leukemia has really existed before. As most of such cases are of the lymphatic type the enlarged glands in the great majority of cases would have been discovered before the onset of the acute symptoms.

The relations between acute leukemia and acute pseudoleukemia will not here be discussed, except to call attention to the very close relation or identity of the two diseases. Every symptom present in acute leukemia may be present in cases of acute pseudoleukemia, save the increase of the white cells in the blood. It would seem as though the cases were surely the same except that for some unknown reason the leukocytes that are abundant in the diseased tissues are not in the circulation in the cases of so-called pseudoleukemia.

All *treatment* has thus far been useless. Every case has progressed to a fatal termination unmodified by the various forms of treatment employed.

An Egyptian Journal of Hygiene.—The *British Medical Journal* states that it may not be generally known that Egypt is fortunate in the possession of a monthly journal of its own devoted to hygiene. It is entitled *Tahib el Aila*, and is written in Arabic in a style likely to be understood by the people. It is intended to diffuse a knowledge of the principles of sanitary science among the native population, and especially among the poorer classes. The teaching which it contains is in conformity with the hygienic precepts of the Koran. *Tahib el Aila* is edited by Dr. Eid, of Cairo, who is also the proprietor. It has been in existence for three years, and has subscribers in all Arabic-speaking countries, such as Syria, Morocco, etc., but its largest circulation is naturally in Egypt.

THE ILLEGAL AND THE IRREGULAR PRACTITIONER. THEIR RELATION TO THE MEDICAL PROFESSION AND THE COMMONWEALTH, AND SOME OF THE CAUSES THAT EXPLAIN THEIR EXISTENCE AND PROSPERITY.[1]

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There is no subject, perhaps, to which one may turn that presents so many intricate and singular features as that of the illegal or irregular practice of the healing art. It has been said that "the practice of medicine is as old as history itself, but the science of medicine is scarcely fifty years old." It may be added that the charlatan is older than either, and that, although the sciences have unfolded many of the mysteries of vital phenomena, and widespread educational advance over the entire civilized world has enlightened the masses, still, it cannot be denied, that, with all the revolutionizing influences, following in the wake of these changes, the demand for the empiric or the mountebank has not in the least diminished; nay, if we read aright the signs of the times, the eager avidity and ceaseless craving of communities for novelties, for new systems and creeds, for mysterious remedies and nostrums totally devoid of any warrant of scientific value, we must be convinced that education has rather given quackery deeper root and wider growth. Nor can it be said that the spread of the religious spirit, and the greater adherence to dogmatic creeds, have in any special manner lessened its growth or augmented the faith of the people in scientific medicine.

During the last quarter of the nineteenth century, a period of America's greatest intellectual, scientific and industrial activity, sectarian medicine has made extraordinary progress; its most notable conquests being among the cultivated and aristocratic members of society.

The history of medicine, the constitution of the human mind, the well-known skepticism of many of our most eminent authorities in the efficacy of medicines, will largely account for this lack of faith and vacillating attitude of the people. The celebrated Rokitansky declared that great advance in medical science lay rather in the direction of the prevention of disease and the study of its processes than by subduing it by any specific remedies; and the late lamented Carl Heitzman, his distinguished pupil, declared to me that, after an experience of fifty years, he was aware of no radical advance in the therapy of systemic maladies. Great Britain, after nearly a century of vaccination, through a late Act of Parliament, practically confesses it a failure; blood-letting and mercury, the sovereign remedies for inflammatory conditions, have been denounced as worse than useless; and organotherapy and serotherapy, whatever merit they may possess, are, after all, but a refined imitation of the crude remedies of the Persian magi, who administered roasted lumbricoids as a vermifuge, the juice of the weasel's lung as an expectorant, and a maiden's urine mixed with cider as a diuretic.

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[1] Read at meeting of The Medical League of New York, Nov. 17, 1898.

How May Illegal Practice be Suppressed?—The question of how illegal practice may be checked and the growth of irregular practice curtailed is a serious concern for a body of medical practitioners of the proportions of the one subsisting in the Greater New York, which embraces more than 5,000 members. Evidently our means of accomplishing anything in this direction is chiefly through two sources; the first is through agitation, organization, and unity of action in the profession itself; and secondly, through an appeal to the people through legislation and a rigorous enforcement of the laws.

When we come to seriously deal with this problem, however, we are confronted at every turn by the most formidable obstacles. In the beginning, one of the greatest difficulties is to define what an illegal practitioner is; for, with the law severely interpreted, there are at least in the Greater New York to-day more than 10,000 persons dealing with the physical infirmities of man without legal sanction; as, for example, counter-prescribing apothecaries, midwives, herbalists, faith-healers, chiropodists, masseurs, oculists, and others. If we include the advertising quacks, the number will be much augmented. Assuming, however, a ready stamp for the counterfeit article, have we the united strength in our profession, the unswerving loyalty and steadfast reliance on each other, sufficient and certain to crush quackery out of existence? Truth and candor force us to confess that we have not. Cohesive resistance in our profession is about as great as in a rope of sand. The medical profession can practically unite on nothing; the great diversity of its interests, the fierce competition for existence, with the general absence of ethical considerations, largely an outcome of recent and far-reaching changes, render mutual cooperation or an unbroken organization quite out of the question.

The abolition of the time-honored preceptor, the enormous expansion of the field of surgery, and through this often reducing to weeks the course of an infirmity that might run through years; the subdivision of practice into specialties, and the growth of post-graduate instruction, have fostered and developed the hospital and dispensary evil, and struck a crippling blow at legitimate medicine. Added to this, we have now to deal with an intelligent and wide-awake public, vastly less intemperance, improved sanitation, self-prescribing and domestic medication, in consequence of which the average physician's clientele has become reduced fully 75%.

If midwifery were in the hands of women, where Nature intended it, and were it not for the derangements of health incident to the growth of the body, physiologic conditions and senility, the penalties imposed on the dissipated and immoral, a physician would, indeed, be seldom needed.

Excluding the number of cases of illness treated in the eleemosynary institutions of New York, and by the quacks, it would be no exaggeration to affirm that the remainder could be very conveniently attended by 500 physicians.

The sharp competition and fierce battle for existence have so hardened the finer instincts that often, by force of circumstances, the physician is compelled to not only reject, but actually resist, all offers of organized effort, much against his inclination and better judgment. Nevertheless, without organization and the authority to enforce penalties, the profession is powerless in its efforts to suppress illegal practice. As a final resort, and appreciating its helplessness of late years, there is a growing tendency to appeal to legislation, or invoke the aid of the law.

In general, legislators and politicians have regarded with suspicion any movement on the part of physicians having in view greater protection for their profession; assuming that while their aim is ostensibly to protect the public, their ulterior purpose is to create a medical monopoly, and with a despotic hand crush out of existence all of the heterodox class. Moreover, the principles of our government are opposed to any special legislation that by any possible construction may be regarded as in the interest of any class whatever. Unions, guilds, and protective organizations the State will charter; but the moment these unite their forces, to, in any manner interfere with the rights or liberties of a citizen their course is declared felonious, and their action is suppressed, even by the force of arms, if necessary.

It is true that the State may raise the standard required of matriculants or graduates in medicine; but if it does, it is always ready, on easy manipulation, to amend or repeal all laws bearing on practice, or invite and legalize the most notorious forms of quackery.

Thus, we note in various States that have stringent regulations for practice, osteopathy has received governmental sanction, with the right to turn loose on the public any number of its disciples. In Great Britain, while no one is permitted to employ a university title illegally, yet there is essentially no restriction on any one who wishes to practise the healing art. Over and again Parliament has declined to create any law that might interfere with the freedom of the subject in choosing his own medical attendant; and more: not long since a very strong government plainly intimated that if the council of the British Medical Association continued to prosecute illegal practitioners with the vigor it then so conspicuously displayed, it might be found expedient to repeal all medical laws then in force.

Our own State Legislature is always ready to put any bill through that aims at raising the standard of medical education, provided only that such a bill is in the hands of an adroit, well-equipped lobbyist. This is done because it is well known that however drastic a law may be in its effects, its permanent enforcement is impossible without popular support. It is therefore obvious, if we would reduce the resources, and, it might be added, the demand for illegal practitioners, the conditions required of the matriculant in medicine and the medical graduate must not be made more exacting in this State and elsewhere, or they will become practically prohibitory in their operation against all, except the favored few, the sons of thrifty or wealthy parents. The medical profession has permitted the teaching bodies to annihilate the preceptor, and now it is reaping the reward of its indifference. Let the people of this State once suspect that recent medical laws may cripple or paralyze individual effort, or lead to the creation of a silk-stocking medical aristocracy, and every vestige of legislation bearing on medical practice will be promptly blotted from the statute-book.

Failing to derive any hope or encouragement from the Legislature, a portion of the profession has invoked the executive arm of the Government to suppress illegal practice. In New York City the district attorney's office has been appealed to, but, so far, except for statutory infraction of the laws governing practice, our prosecuting officers or our police-department have, under all governments, stubbornly refused to enforce penalties, except in a few cases. A former member of the district attorney's office, in response to an inquiry from myself, declared that the present attitude would be maintained, unless a demand were made from the community at large to prosecute charlatans or illegal prescribers. He admitted that the laws governing medical practice were daily violated, but he declared that unless citizens loudly protested against this, and forced the law-department to prosecute, the district attorney would probably give no notice to demands or protests of medical societies, which, he alleged, were more concerned about their own interests than the physical welfare of citizens.

A considerable sum is annually expended by the Council of the British Medical Association in its prosecution of medical delinquents; and in New York City a large appropriation is annually granted by the County Medical Society to defray expenses incurred in securing evidence against, and convicting, illegal practitioners or quacks; but there is scarcely any parallel between the aims and powers of the British Medical Council and those of the New York County Medical Society. In England the scope of the Council's powers is now limited to disciplining or expelling one who is a registered, legal practitioner. There, it has the power to deprive one of his title, but it cannot prevent him from practising his profession. There is no authority invested in it, to in any manner interfere with any phase of quackery by those who are not registered physicians. No such power has ever been delegated to a medical body by any legislature in the United States. Our medical corporations may expel a member, but that expulsion, not as in Great Britain, in no manner whatever impairs the legal status of the cast-out.

What, then, are the purpose and objects in view, when a medical society appropriates money and secures counsel to prosecute illegal practitioners? Evidently, (1) primarily to provide funds to have the laws enforced, and (2) to clear the field of illegitimate competition. Now, right here is where the issue is drawn, and a great diversity of opinion exists in the ranks of the profession. In approaching this phase of the subject the first question that suggests itself is, is it any part of the functions of the medical profession to play the role of public detective or prosecutor, or to press for the enforcement of any law indifferently regarded by the Government?

Have the results of such an expenditure of money in any manner been commensurate with the outlay? Have the incomes of physicians augmented with the increase of these prosecutions? And, finally, in all candor and truth, may we not inquire if it is not a matter of fact that since those prosecutions began the quack is more in evidence than ever? Has the sale of patent medicines, of "uterine stimulants," vigor-regenerators, pile-remedies, hernia-cures, etc., in the least diminished? Was newspaper advertising and prescribing ever more general or broadcast?

Those of us in practice here, before these prosecutions commenced, know well that every one of these questions must be answered in the negative. We might, however, allege that one reason why greater success did not attend these medical prosecutions was because of want of funds; that the sporadic efforts possible with a small outlay were of little consequence, compared to what might have been realized had the profession come forward and unitedly contributed toward a fund of ample magnitude to crush quackery with one blow.

Our law department and Legislature have been content to permit us, in this one county of the State, to keep up a little chase after charlatans; but once let this take the form of a powerful combination, there is but little doubt now, as in the past, government intervention would put on the curb and nullify everything in this direction. Our experience in the past warrants the conviction that there is no good grounds for hoping or expecting the suppression of the quack or illegal practitioner through State intervention in any form. This being conceded, we are driven back on our own resources, and here the battle must be fought; for, if effective, loyal, and aggressive organization cannot be realized, all is lost; disintegration and chaos must follow.

The *American Medico-Surgical Bulletin* calls attention to the quack as an advertiser in the following editorial:

"The Bulwarks of Quackery.

"Any unbiased analysis of the success of quackery in all its protean forms will reveal the fact that ignorance, fear, and self-interest are the forces that keep it alive. Only so far as the growth of civilization is a growth in intelligence among the masses does it in any degree check the career of the charlatan.

"Why cannot something be done toward getting rid of quacks? The one answer to this is, that too many people are financially interested in the maintenance of quackery. When vested interests are opposed, honor, honesty, truth, and progress must step aside. Quacks are liberal advertisers and always have been so. Newspapers and magazines lead the public mind. As long as this condition lasts the masses are not likely to learn the truth very soon. But for the influence of the newspapers it would be an easy matter to force education upon all who attempt to treat the sick. Once educated, and they would themselves lose faith in their present methods and use better ones. Once get rid of the present baneful influence of the press, and it will work a revolution of more importance to the life and health of the race than anything that has happened for centuries. There is but one way to bring about such a change. Medical men must take into their hands the education of editors. If the average newspaper-editors, and particularly those who edit religious papers, could be shown how positively immoral their present course is, a start would at once be made toward better things. Until they are taught, there can be no hope for the masses.

"When so able a writer and thinker as the editor of the Washington, D. C., *Times* can make no better a defence of the quack than he did in his issue of October 26th, under the heading of 'The Practice of Medicine,' it is evident that the task would not be so great as it at first might appear. He seems to think that the credulity of the masses in medical matters is itself a proof of the inefficiency of the medical profession. He tells us:

"'It is surely unbecoming in medical journals to ridicule the credulity of the masses of mankind in the light of the many fallacies that have ruled the profession and in the light of its present uncertainties in therapeutics. What the profession has learned of value is that most of its dogmas were fraudulent. Any man who should attempt to cure disease in this day by the methods of the regular profession of only a century ago would be condemned as a quack more mischievous than all the army of 'healers' who have found some use for a discovery of which they exaggerate the importance as much as the profession undervalues it. In spite of its greater knowledge of physiology and psychology, the medical profession neglects the virtues of moral treatment and thus opens the way to persons who magnify them. It makes large claims to exclusive authority in healing, because of studies that have as little apparent influence in the treatment of disease as the knowledge of microbes.'"

It should not, however, be overlooked that, with rare exceptions, all our medical journals, both great and small, float quack advertisements of nostrums, specifics, and secret, proprietary, patent medicines. The publishers justify their course by the statement that without them their journals could neither prosper nor survive.

The *Memphis Lancet* for November, 1898, while bewailing the present depraved level of the American press and endorsing the recent movement, the outgrowth of which has been the organization of "The American Society for Press-reform, and the Direction in which Press-reform is Needed," says:

"We are sure all will agree that the aim of such an organization is highly commendable, although we are compelled to admit that the accomplishment of that aim will probably never be attained while the daily papers pride themselves on publishing 'all the news,' and will probably bring their combined influence to bear against the passage of any law to curtail their liberty in this respect. But there are other practices to which they are addicted, and which, to our mind, are a greater evil than the publication of the details of crimes, criticism of officials, and the betrayal of State secrets. The greatest of these is the unbridled freedom with which they print advertisements of means for the prevention of conception, advertisements of abortionists and remedies intended to induce abortions, and remedies for the cure of venereal diseases, 'lost manhood,' etc., expressed in such unmistakable terms that 'he who runs may read.' Could anything be more villainous? We wonder if the owners and managers of these papers are conscious of their enormity. We wonder if our legislators ever take their minds from a contemplation of their chances for re-election long enough to realize that such practices are an offense against decency; that the fulfilment of the promises made in these offers are crimes against the State, and the papers which give publicity to these people and these agents are 'accessories before the act.'

"But such things are, and have been, and will be, till the moral sense of the community rises to a plane which it now does not know. The financial return to the paper which published these advertisements is probably not five dollars an edition, and yet for this 'Judas coin' the owners and managers prostitute their souls, insult their patrons, and fling defiance in the face of the State.

"We doubt if the publication of these facts will deter a single paper from accepting such advertisements, or influence a single person to withdraw his patronage from such as do. So long as the law does not forbid it, so long as 'lovely woman stoops to folly,' and is willing to pay to be shielded from its consequences, so long as these people are prosperous enough to pay for space in the paper, just so long will these outrageous advertisements continue to appear."

The Philadelphia Medical Journal, the fearless and avowed champion of legitimate medicine, in a wail of despair, declares that

"When a medical school acts as a diploma-mill; when bogus diplomas are offered for sale in numerous public advertisements; when nepotism and yellow journalism try to scapegoat their sins on medical men; when newspaper-doctors exploit their own fame in the daily papers; when the laws of our country are dictated or disobeyed by multimillionaire nostrum-syndicates—what does the medical profession do? Nothing!"

Chancellor McCracken, of the New York University, in a recent issue of the *New York Herald*, openly charges the Cornell Medical College with violating the laws of the State, in "under-cutting" or clipping off one year of the curriculum of its students, in order to swell the number in attendance.

Conclusions.

Those who led in the agitation, some sixteen years ago, which dissundered the compact, peaceful, and powerful unity of the regular medical profession of this county, State and nation, have a serious responsibility to answer for.

The Medical League was organized for the purpose of suppressing evils and advancing the material prospects of its members. To realize the fruition of these aims its *first* step must be directed once more toward healing the breach that divides us; as our late war with Spain, though costly in blood and treasure, in once more uniting under one flag the North and the South, has been one of the most fortunate events in the history of our nation. Never since the disastrous dissension in the medical ranks of New York occurred, have our brethren come together and cooperated in a common cause, until the Medical League launched the dispensary-bill. It is my earnest hope and prayer that its efforts in once more welding us together may be crowned with triumph, and that the time is not far distant when but *one* Medical Society of New York County will exist; when all our grievances are satisfied and we may once more press forward, strong, united and defiant.

When that day dawns the sunshine of hope will inspire us with renewed energy, with fresh resources and fertile expedients. United, the medical 5000 have but to make their needs known to have them satisfied; feared and respected by political parties, it will possess the power that, if judiciously wielded, will compel respect and reasonable protection.

Though one whose experience has forced him to be somewhat skeptical of the integrity or loyalty of many in our ranks, it is my firm conviction that the great heart of the profession is still in the right place; and that it has but to shake the scales from its eyes, to perceive that stability, influence or prosperity is only possible by common honesty, professional integrity and unbroken unity.

When that millennium has arrived, when mutual confidence is restored, and the evils that now gnaw at the vitals of the profession are eradicated, rejuvenated, and mighty, in the execution of its sacred mission, the cankerous, parasitic fungus of quackery will waste and perish. In a clarified atmosphere our unbroken hosts will move on unhindered, and, if we leave no other heritage than a regenerated, invulnerable union, our lives will not have been spent in vain, and those who succeed us will be our debtors.

VERTIGO, ESPECIALLY AS RELATED TO NASAL DISEASES.[1]

By OTTO J. STEIN, M.D.,
of Chicago.
Professor of Diseases of the Nose and Throat in the Post-Graduate Medical School and Hospital.

The discussion of the subject under consideration, if it is to be of an impartial nature, and at the same time, with the aim of presenting the matter in as true a light as our present knowledge will allow, is beset with several difficulties; and it is not the ambitious aim of this paper to clear away all the doubts and suspicions that are bound to cling in the minds of some as to the conclusive cause of this form of vertigo; but its aim is to impress upon the mind of the physician the importance of careful analysis of a single symptom, and the value of recognizing nasal disease as a causative factor in some of the various forms of vertigo.

As it has been a matter of teaching and understanding in the past by many, and especially the aurist, that vertigo is necessarily of aural origin, and in an attempt to bring the matter before you in as comprehensive a sense as possible, I will first cite the history of a case of nasal vertigo.

Mr. F., a tailor, aged 49 years, was referred to my clinic at the Post-Graduate Medical School, August 1, 1897, for vertigo that had been troubling him since May of the same year. For three months prior to his being seen by me, he had consulted some of our most able and careful men in the profession, who found various disturbances as the cause of the existing vertigo. For a time he was under treatment for his liver, then for his kidneys, then for his nervous system, but all to no avail. The vertigo continued and increased, in spite of the excellent services he had employed. When I first saw the patient he was having from one to three attacks of vertigo a day. At this time there was distinct tinnitus, but of faint and distant buzzing character, which seemed more prominent shortly before the attacks. The severity of the attacks was such that the man declared, invariably, on the appearance of an attack, that he had to reach out for something to grasp, in order to prevent himself from falling. On this account he was incapacitated for all work. He recounts having actually fallen but once, and that was while riding a bicycle. Dizziness came over him, and he fell from his wheel.

Vomiting and paresis were at no time present. The man claims to have never lost consciousness. He has often been dazed, but he always knew what transpired. The sensations experienced during the attacks varied. Once the patient felt as if the ceiling were coming down on him; more often as if he were inverted. There was no distinct sensation of turning in any particular direction, or of falling to one side or the other. The nature of the disturbance seemed to be more objective than subjective. On account of the repeated occurrence and the increase in severity of the attacks, the man became markedly depressed and alarmed, although he did not seem to be of a particularly neurotic temperament. In this respect his family-history was also good. He was not disposed to any illnesses, and had always been well and strong. In all habits the patient is quite moderate. Otherwise he presented physically no appearance that might have made one think there was a more remote cause at work, excepting perhaps his color, which was dark, and of a somewhat icteroid hue. On this account he was referred to Dr. Arthur R. Edwards for examination, who reported negatively on the case. He was also referred to Dr. Casey Wood's service at the Post-Graduate School, on account of his eyes. The examination showed nothing of importance.

On inspection of the nares, one saw a general hypertrophic rhinitis, enormously exaggerated in the condition of the middle turbinal on the right side, which pressed against the septum. The latter was somewhat deflected to the left, causing its anterior end to appear much swollen and congested. The naso-pharynx was the seat of a severe catarrhal inflammation, kept alive by the pent-up secretions behind the stenosed nasal fossa. The oro-pharynx and the naso-pharynx were extremely hypersensitive, and made post-rhinoscopy difficult, even under 10 and 20% spray solutions of cocain. The mucous membrane of both nares was also hyperesthetic. Examination with a probe would, at certain spots, elicit a spasmodic cough, and at times, a sense of giddiness. To this symptom I direct particular attention.

Hearing with the right ear was good, without subjective symptoms. The left ear did not perceive the sound of a 60-inch watch further than 12 inches. The drumhead presented a rather flaccid, but at the same time, slightly retracted appearance. This was fully demonstrated with the aid of the pneumatic speculum. There seemed to be signs of cicatrices present, and by forced inflation a slight hissing sound was detected, although a perforation could not be seen. The left Eustachian tube was, as a rule, difficult of inflation, but this was always possible. Local treatment, with iodids and bromids internally, for a short time, apparently gave but little relief.

Turbinotomy of the right middle turbinal, and subsequent cauterizations of the inferior turbinal, resulted in a remarkably rapid cessation of the vertigo. The aural catarrh continued unchanged. The tinnitus, which has been quite severe of late, responds now most readily to the bromids. Hearing is unchanged; if anything, there is a slight decline. The nares, when last seen, were free from any trouble, and with no sign of the vertigo from the time of operation, about a year ago.

As to the diagnosis in this case, the absence of concomitant symptoms pointing to organic disease of the central nervous system; to functional disease of the nervous system, as reflex epilepsy; to cardiovascular disease; to ocular disturbance; or to toxemia from alcohol, tobacco or decomposition in the gastro-intestinal canal, excludes each of these conditions as a probable causative factor. The presence of aural symptoms forces us to consider disease of the ear as a possible etiologic agency. Vertigo due to aural causes does not differ from vertigo due to many other causes; but the treatment employed in relieving aural vertigo, *i. e.*, iodids, bromids, inflation of the middle ear, etc., had no appreciable effect on the vertigo under consideration, while the operative procedure on the nose, as described, brought about almost immediate relief. Besides, the aural catarrh, as first found, remained, and still remains about the same. Finally, the sense of giddiness produced at times by probing on the side of the lesion should remove any doubt as to the nature of this case of vertigo.

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[1] Read before the Chicago Medical Society, October 12, 1898.

A resume of the subject of vertigo in general is probably essential to a more comprehensive understanding of the matter in hand. In attempting this we are confronted with several different theories as to its mode of production. The older theory that the inner ear is the seat of the organ of equilibration, so thoroughly engrafted upon our minds from the long list of experiments carried out upon this organ of hearing in both human beings and animals, from the time of Flourens and Goltz to the present, is the one generally accepted as furnishing convincing evidence as to the cause of this intricate phenomenon. It will be but a reiteration of our physiology to explain the mode in which this condition of vertigo is supposed to occur, but it is essential to refresh our minds a bit upon the method of its occurrence, in order to more fully appreciate the entire subject. The inner ear consists of three parts, the three semicircular canals, the cochlea and the vestibule, the last of which lies between the former two. A membranous portion filled with a fluid called endolymph is anchored in a similar fluid called perilymph within these bony parts. These lymph-like fluids are renewed by means of a duct passing from the vestibule to, or in the neighborhood of, an epicerebral lymph-cavity. Its nerve is the auditory, composed, according to Duval and Laborde, of both motor and sensory fibers, and it arises both from the floor of the fourth ventricle and the crus cerebelli. The nerve enters the internal auditory meatus in company with the facial nerve, and within the ear it divides into vestibular and cochlear branches. The vestibular branches enter the vestibule on its inner wall through several sieve-like openings, distributing its terminal filaments to the ampullæ of the semicircular canals and to the sacculus and utriculus. The ampullar branches are said to contain the motor fibers. In explanation of the theory promulgated by Goltz and others, that the semicircular canals form a special organ of sense, serving to maintain the equilibrium of the head, and indirectly that of the whole body, we are told that an impulse, like that produced by the current-flow of the endolymph within its membranous canal, and resulting from every movement of the head and body, is given to the terminal nerves in the vestibule, and sent by way of the auditory nerve to the center of equilibrium, residing in the median lobe of the cerebellum, and thus we are made cognizant of our position in space. This is known as "sense of equilibrium." If this impulse is increased in any way, causing irritation, the "sense of equilibrium" becomes disturbed, and we have resulting a condition called vertigo. The symptoms frequently accompanying vertigo, such as nausea, vomiting, palor, slow breathing, weak pulse, etc., are explained by what is known as the "overflow-theory." The excess of nervous energy resulting from the over-irritation is conveyed to the contiguous centers that control the symptoms named.

This, then, in substance, is the mode of production of vertigo, as believed in by the disciples of Flourens and Goltz. Now, we know that direct stimulation of the cerebellum, as by intracranial tumors, cerebral hemorrhage, inflammatory products, etc., produces similar disturbances in equilibrium and locomotion to those recited as resulting from irritation emanating at or about the terminal filaments of the auditory nerve. In the same way like symptoms may be produced by an involvement of any part of the auditory nerve from its origin to its endings. Further, from a recent report by H. A. Alderton,[2] of Brooklyn, N. Y., we learn of vertigo produced by simple stimulation of the membrane of the middle ear by means of a cotton-carrying probe. Furthermore, and in direct opposition to the theory already set forth, both Politzer and Lucae report cases in which there was congenital absence of the semicircular canals, or in which these were filled with blood, without disturbance of equilibrium or vertigo. Steiner and Sewall, in experiments on the shark, which has an auditory apparatus similar to that of human beings, found removal of the semicircular canals unattended with disturbances in equilibrium. Similar experiments on frogs and lizards verify this observation. M. A. Goldstein, of St. Louis, presented at the recent annual meeting of the Western Ophthalmological and Otolaryngological Association a specimen of exfoliation of the cochlea and semicircular canals from a negro boy of 7 years, who presented no disturbances in equilibrium or coördination. Among nearly 50 cases of necrosis of the labyrinth recorded by Bezold, only 12 showed any symptoms of vertigo.

From these more recent and careful experiments, and from the clinical cases mentioned, one is seemingly justified in questioning the theory laid down by Flourens and Goltz, that the labyrinth is the organ of equilibration, which regulates all our movements in space.

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[2] Annals of Ophthalm., Rhinol., and Laryng., February, 1898, p. 14.

That the earlier experiments resulted in vertigo after each and every operation upon the inner ear is now attributed to the lack of care exercised in carrying out the experiments, and to injury to the brain, either direct or indirect, by traction on the auditory nerve. Experiments carefully carried out, with this precaution in view, do not admit of the existence of a vertigo as an accompaniment.

The question that the auditory apparatus is a dual organ, and that disturbance of the function of the one is maintained by that of the other, might be brought up as argument; but this would not explain the cause of the vertigo in cases in which it really existed. It would explain only its absence, but not its presence.

The reflex theory is the one supported by many as the true explanation of this phenomenon. Under this head it is more easy to explain and understand the various forms of vertigo that constantly come to our notice. It is, however, not the purpose of this paper to discuss vertigo in all its forms, but simply in its relationship to nasal disease. A simple reflex phenomenon consists of an impulse conveyed by a sensory nerve-fiber to a central nervous cell or mechanism, and thence reflected by a motor fiber to some motor organ. In the nose the trigeminus, or fifth cranial nerve, is the principal sensory nerve involved, supplying, as it does, the anterior part of the septum and inferior turbinals and meatuses. Other sensory nerves in these parts are branches from Meckel's ganglion and from the Vidian, these supplying the superior posterior part of the septum, and the superior and middle turbinals and meatuses.

John MacKenzie and Sandman have, by extensive experimentation, located certain areas in the nose, which, upon irritation, were peculiarly susceptible in the production of reflexes. The observers locate such areas at the anterior and posterior ends of the middle and inferior turbinals and the corresponding parts on the septum. Lennox Browne, in discussing the subject of "sensitive areas," says:

> "References have been made to sensitive areas on the inner surface of the inferior turbinals, as demonstrated by J. MacKenzie and Hack. This is too narrow a view, to regard this region as the only sensitive one. Sajous describes three other ones; on the outer wall of the fossæ, in front of the middle turbinal, and two on that body—anterior and posterior ends. My own experience points to the fact that on the septum, and especially over spurs and projections caused by deflections, there are 'sensitive areas,' and that the situations thereof vary greatly. Some authors hold that there are separate 'sensitive areas' corresponding to the acts of lacrimation and sneezing, and in addition to an 'asthma-zone' and a 'cough-zone.'"

In my opinion the nostrils are not ordinarily endowed with any special sensitive spots; but when such a condition is manifest, there exists a hypersensitive condition due to a morbid state of the nervous supply of that part, and its location may be at almost any place in the nostril. MacKenzie, in his article on "Pathological Nasal Reflex"[3] advanced the theory of erectile-tissue engorgement, or hypertrophy, as a condition necessary to the production of the nasal reflex. Burnett, Hofmann, Bosworth, Frænkel and others, maintain that it is not necessary for such a previous condition of the erectile tissue of these specially sensitive areas to exist before a reflex is elicited. In their defence they cite cases of atrophic rhinitis in which reflex cough, asthma, etc., existed. Some writers, like Heymann and Rossbach, maintain that a neurotic predisposition is necessary for the exhibition of a nasal reflex. This probably is the view held by most neurologists. That there is such a thing as a nasal reflex cannot be disputed, as we have most conclusive evidence of its existence in some physiologic conditions, such as the movements of the alæ nasi, the flow of normal secretion on stimulation, sneezing, etc.

Pathologically, we have a host of troubles following nasal irritation, among which may be mentioned spasmodic asthma from polypi, tic douloureux from a nasal spur, headache, aphonia, chorea, salivation, cough, neuralgic pains affecting the arm and shoulder, twitching of facial muscles, functional heart-affections, esophageal spasm, exophthalmic goiter, hay-fever, nocturnal incontinence, various sexual disturbances, ocular affections, stammering, vertigo, etc. Vertigo from nasal irritation has been reported by quite a number of authors. Joal reports 9 cases; Hack 4; Frænkel 2; Heryng 3; Schmaltz and Massei also report cases. As to the exact mode of production, there is much speculation and division of opinion. That it is a reflex neurosis seems to be the consensus of opinion, but as to the nature of the neurosis opinions differ. Of the reflex nasal neuroses, we have to consider sensory, motor, secretory, vasomotor, and trophic varieties.

The sensory, secretory, and trophic varieties can, I think, be dismissed without further consideration. Our morbid condition, then, resolves itself into motor and vasomotor. It might be of purely motor form. The irritant is received at the hypersensitive station in the nose, whence the impulse is sent along some branch of the trigeminus, or of Meckel's ganglion, and, by connection with branches of the sympathetic, reaches the vertiginous center, or centers, for some authorities are of the opinion that there exist a series of centers that are concerned in the production of vertigo. More likely, however, we have to do with a combination of both motor and vasomotor forms. The impulse sent along the afferent trigeminal nerve is reflected along a vasomotor nerve, producing an alteration in blood-pressure in that region of the brain presiding over equilibrium and coördination. This alteration in blood-pressure acts in turn as an irritant to the center, with resulting disturbance of its function.

Moldenhauer, in considering congestive reflex headache, thinks it due to a disturbance of the circulation at the base of the brain, through the medium of the ethmoidal arteries and veins. Bosworth, drawing deductions from this, thinks that nasal vertigo may be likewise explained. Similar views are held by Joal, Frænkel, Heryng, and others.

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[3] *New York Medical Journal*, 1887.

The theory that an increase in certain blood-elements, as the eosinophiles, which takes place in various conditions that are often attributed to nasal reflex neuroses, has been suggested by some writers as a possible solution of the pathology of reflex neuroses of the nose. Neusser and his pupils, Weiss and Klein, have probably paid more attention to this subject than any others, and their experiments and findings in this direction are worthy of future consideration.

CLIMATOLOGY OF NUDITY: PARTIAL AND COMPLETE.

By WILLIAM DUFFIELD ROBINSON, M.D.,
of Philadelphia.

THE following article is presented as a preliminary to what I hope later to offer in greater detail, giving results of observations and experiments as yet incomplete. Accessible literature on the subject is meager, and, from its antiquity, is untrustworthy. I restrict the present contribution to the results of light on the nude human body, reserving for a later study the effects of the absence of artificial covering of the skin. Loose generalized observations have been made of the influence of residence in localities where the volume and intensity of light were most dissimilar. In these extremes the effect of the action of light on humanity was readily recognized. How it acted has not been recorded. Whether through its influence on air and microscopic and macroscopic animal and vegetable life, or by direct action on man through his skin or visual organs, is not shown. I could find no record showing that blind persons suffering from incipient tubercular disease or other deviation from health were not as favorably impressed by sunlight as those possessed of sight. There have been sufficient semi-scientific and unscientific observations to indicate the importance of a more complete elucidation of the action of light on medical as well as on purely scientific lines. That it is a factor of potent influence in profoundly impressing man in his development from infancy to maturity, and in health and disease, has been shown by safe deductions, by analogy, from the study of vegetable and lower forms of animal life. Some effort has been made to learn whether the action of light on man was through visual impressions or by its effect in inducing structural and chemical changes in the skin, its capillaries or blood, or by changing the conditions of environment by the action of light on the air and its contained microorganisms. To what extent the respiratory power of the skin may be influenced by exposure to full sunlight is not known. The destroying and inhibiting effect of light on the growth of microorganisms is proved to be enormous. In infectious diseases, when the germs are known to circulate in the blood, may it not be that the penetration of light into the blood, when it is so expansively exposed as in the cutaneous circulation, is potent in curative result? If such effects are possible on germs in the blood-current, may these effects not be caused by the assistance of light in destroying toxins and developing antitoxins as much as by direct impression on the organisms? As a negative support to the theory of the power of light over microorganisms in the blood, it is observed among negroes and Indians when exposed to tubercular infection, that their resistance is feeble, and the progress of the disease is rapid and deadly. Their pigmented skins enormously prevent light-penetration. Many substances have the property of storing up light, to be slowly emitted later. The possibility of some of the constituents of the blood having this power should be considered. The tremendous influence of light on the *vegetable* kingdom, distinct from differences of temperature, needs only reference. Like studies have been made of lower *animal* life, as in frogs, from hatching, through the evolution to the completion of their adult development, eliminating heat as a factor by control-experiments. It has been shown that without light almost no spores could be hatched. Life, evolution, and development were either restricted, entirely checked, or greatly modified.

The study of man removed from light or exposed to its greatest intensity gives opportunity for valuable deductions. Virchow has said: "Where light is not, the doctor will be found." Sir David Brewster: "That light is the life-blood of nature." Heat has been named Nature's Nervous System. Pliny has written: "Enter sunlight, depart disease." Hippocrates has said: "Old people are much younger than their age in summer and double their age in winter."

Just here I would tersely note an applicable observation. In the Eastern State Penitentiary of Pennsylvania the average population has been about one thousand. This prison has a separate cellular system. Each individual convict, after first entering his cell, practically never leaves it until the end of his sentence, an average period of over 2½ years. The cells for fifty years were very poorly lighted, having only a narrow, slot-like window in the ceiling. The solid doors were kept constantly closed; good, even temperature and ventilation were maintained, the latter by ventilators at the floors of the cells and the suction process through the corridor into which the ventilators opened. Reliable analyses of the air were made, which showed it to be of good quality and the same in the cells as in the corridors. For fifty years over 60% of deaths occurring were from lung tuberculosis. At the end of that period the light into the corridors was largely increased, the cell-windows greatly enlarged, and all cell-doors kept constantly open. All tubercular, markedly anemic and strumous convicts were given one hour's daily sun-bath in the large open yards between the corridors. The convict clothing is very light, undyed and of open texture, admitting large volumes of light to the skin. For the ten years following this change the deaths from pulmonary tuberculosis were reduced to less than one-third the previous record, and the total deaths from all causes to less than one-half.

The racial characteristics of those peoples whose nude bodies are exposed to light from infancy are: universal vigor, well-developed bodies, and great resistance to injurious effects of climatic changes; also, the absence of physical deformity, so frequently of tubercular origin. As observed in von Ziemssen's *System of Therapeutics* (volume on *Climatology*), "New arrivals in regions or countries very deficient in light show depression of spirits and failure of mental energy, anemia, loss of appetite, gastric disturbances, turbid urine, and a species of nervous tire and unrest, with a condition akin to homesickness. These symptoms last long—many individuals never acclimating. The development of a peculiar intermittent type of fever has been noticed."

Which are the rays of light that are bactericidal is not proved. In this connection the blue-light agitation of General Pleasanton, some twenty-five years ago, and the studies of the wonders of the X-rays, of recent discovery, are noted.

Tubercle-bacilli inhaled, lodged and nurtured in the lungs show a more virulent activity than when their abode is in the skin or external glands. The latter parts receive blood and fluids that have just been exposed to light in greatly increased volume over that penetrating to the lung. Nothing in medicine or surgery controls tuberculosis of the peritoneum so effectually as exposing this membrane to the action of the air and sunlight—a fact accidentally discovered.

The pigment-deposit called "tan," which is caused by the sun's rays, may perform a function in man analogous to chlorophyll in vegetable life. The susceptibility to tan of those parts exposed in nudity, as the hands and face, in those suffering from Addison's disease, glandular and other forms of tuberculosis, if they be subjected to the sun's light, is most noticeable. As nature's efforts are all toward cure, the reason for this phenomenon should be correctly understood.

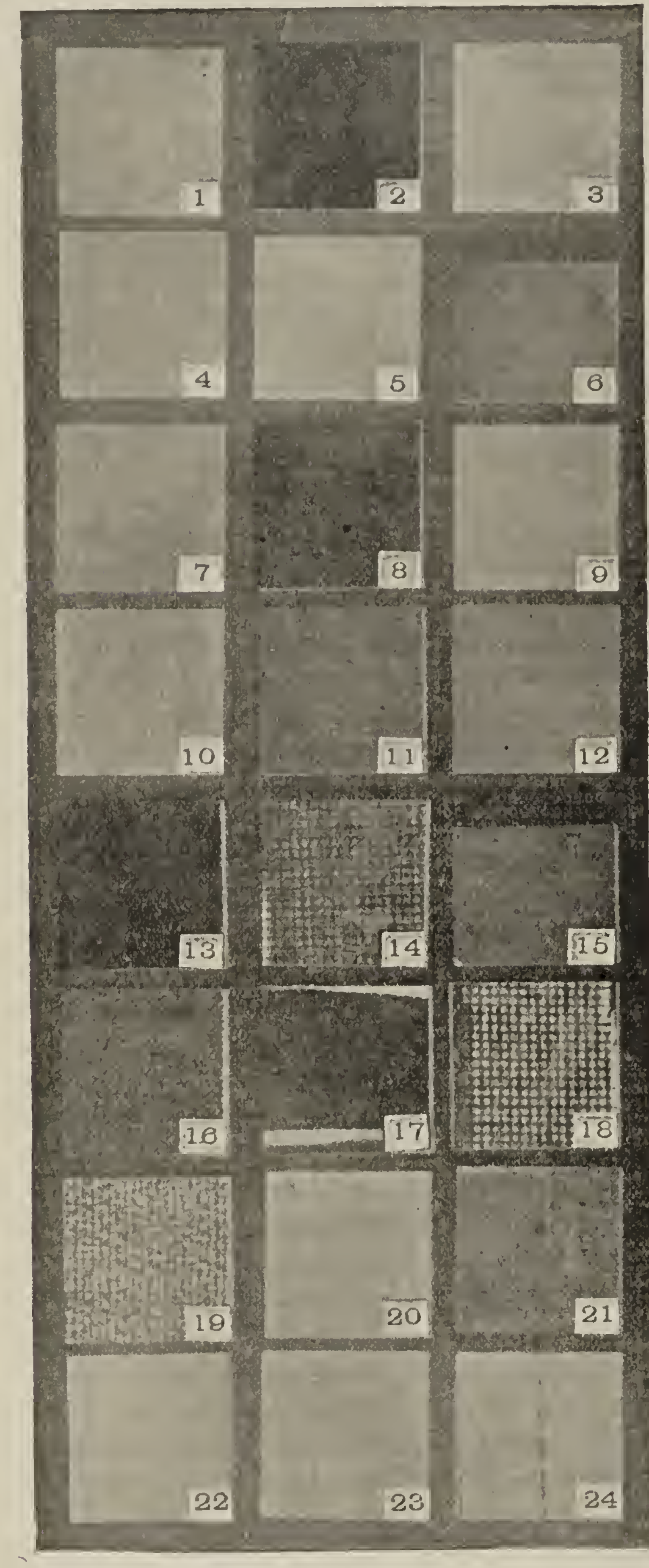
The power of light to determine chemical reaction is unquestionably shown everywhere throughout nature. It is well illustrated in photographic work, and in the care that must be taken to exclude it in order to preserve successfully many chemicals and drugs. This suggests the thought of the deprivation of light's action on the blood being a partial causative influence in the increased percentage of rickety, soft-boned negro children reared in their miserably lighted courtway city dwellings. It is stated that the more highly vitalized tissues degenerate into much lower grades in the absence of light. Advantage of this fact is taken by poultry-men in confining fowls which are more muscular and less fat than is desirable in totally dark coops for some weeks before they are killed, in order that their flesh may soften.

Tubercular disease is very much less prevalent among the outdoor dwellers than among those living in artificially lighted rooms and other ill-lighted places indoors, no matter how well ventilated and heated. It has been suggested that the establishment of pulmonary tuberculosis is dependent on the presence within the lungs of feebly vitalized, loosely-coherent tissues, which represent the lack of perfect balance between the upbuilding and breaking-down characteristics of normal tissue-metamorphosis. Exposing the skin of such subjects to the influence of copious sunbaths may prove an efficient assistance in adjusting such lack of balance, and by such adjustment eradicating the possibility of the formation of such low-grade tissue. The time required for the entire blood of the body to pass through the capillary cutaneous circulation of the face, neck, and hands, the parts always uncovered, is not known; but, doubtless, from what we know of the circulation of the blood, it is but a short time. The importance of sunlight in the successful treatment of tubercular subjects is becoming more and more generally recognized. Many recent writers among our best observers place it as of scarcely less importance than air and altitude. Even though houses or sanitaria be thoroughly ventilated with outside air, tubercular patients must be in the fullest unshaded outside light in order to secure the best results.

In the field of dermatology the use of light as a therapeutic agent gives promise of great value. I have known a long-standing case of eczema universalis permanently cured by the sufferer exposing himself, nude, to an hour's sun-bath under a large window on all sunny days during July and August. All other conditions remained the same; all previous treatment had totally failed. The result must be accredited either to the action of light or to autosuggestion.

The treatment of neurasthenia and its more advanced expression, melancholia, together with many other nervous maladies, has become largely the study and correct application of the best methods of nutrition. In these subjects blood-impoverishment in corpuscular value, hemoglobin, and in volume, is the constant rule. The skin is emaciated and without tone or power to resist successfully the baneful effects of exterior impressions, like climate changes and drafts. As noted, similar symptoms result from environment under insufficient sunlight, which fact at once suggests the application of copious body sun-baths as a part of the treatment promising valuable results. Suggestive therapeutics, as at least the handmaid of other means and methods, now seems of proved value. The use of sunlight as a means to an end under this heading should prove of service.

The absolute increase of light at the seashore and in mountain altitudes, as compared with other localities, is doubtless an important factor in restoring health. Observers have stated that light is about 8,000 times as intense at the seaside, and little less at high mountain-tops, as in the average dwelling-room of city homes. This is as much light in five minutes in either of the localities mentioned as obtains in an entire day in the ordinary city dwelling. The thinnest and most feebly developed skin of all animals, birds and fish, is found on those parts of their bodies least exposed to light. Lazy Nature takes advantage of man's artifice to secure temporary comfort in modifying her processes of evolution. The more uninterruptedly man supplants by use of clothing the functions of the skin, the more feebly and imperfectly will the skin be developed.



DESCRIPTION OF PLATE.

Effect of Sun's Rays on Sensitized Paper After Passing Through the Following Media. 30 Minutes' Exposure.

1. Checked red and white silk used for ladies' shirt waists. 2. Fine black grosgrain silk. 3. Fine white flannel used for children's underwear. 4. White muslin, good quality. 5. White and red lawn. 6. Blue serge for suiting. 7. White silk, cotton back. 8. Black serge for suiting. 9. Dark blue crêpe. 10. Brown and white woolen cloth for men's winter suiting. 11. Black woolen cloth, loosely woven, for men's winter suiting. 12. Heavy linen crash for men's suiting. 13. Light-brown cloth, medium weight, for men's suiting. 14. Very light weight small, light and dark-blue check for men's summer suiting. 15. Dark-brown and black woolen cloth for men's winter suiting. 16. Blue serge, light weight, for summer suiting. 17. Black serge, light weight. 18. Thin, open woven, basket cloth, light colored, for men's suiting. 19. Black grenadine, woven very open, for summer dress-goods. 20. White challis for women's summer dress-goods. 21. White linen duck, fine quality, close woven. 22. Light weight blue cashmere, women's dress-goods. 23. Thin white flannel. 24. Ladies' white striped dress-goods.

Enough points have been touched on, but I would yet ask attention to the extent of light-penetration to the skin through the various kinds of clothing usually investing the human body. As a demonstration of this, I have placed between the sun's rays and pieces of sensitized photographic paper small pieces of various textures used as clothing, and have noted on each the result after thirty minutes' exposure. By these photographic exhibits it is seen to what degree the dye of clothing controls the permeability of light to the skin, the thickness of the clothing not being nearly so important a factor as might be supposed. This may explain why some neurologists find great advantage in having their patients carefully eschew all dyed underclothing, and why they favor all other clothing being of a light color.

I shall make similar studies with the X-rays.

For further consideration are left inquiries as to the effect of skin-covering on the development or enfeeblement of the skin, the transmission of heat, and the control of the functions of the skin in health and disease. Any one possessed of data bearing on any of the many phases of this subject of skin-covering and nudity who will supply the same to the author will be greatly thanked, and will have due credit given him for such assistance in elucidating this subject in as great detail as may be possible.

Sarcoma of the Skull.—W. K. Hatch (*Indian Medical Gazette*, November, 1898) reports the case of a man, aged 30, who had had a swelling in the left temporal region as long as he could remember. The tumor began to grow and became painful and hard following a blow 3 months previous to admission. It was conical and about the size of a small mango, the skin was tightly stretched over its surface, not adherent to the scalp and slightly reddened. The scalp and temporal fascia were dissected off and the underlying muscle was found to be invaded in all directions, as was also the bone. Bone, muscle and the surfaces of the dura connected with the bone were removed as far as the disease extended. The brain itself seemed healthy. The patient made a good recovery from the operation, but a return was noticed in about 2 months, and the patient was removed from the hospital as unsuitable for further intervention. Microscopical examination showed the growth to be small round-celled sarcoma. [M.B.T.]

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A Monthly Supplement to the Philadelphia Medical Journal.—During the past year it has been a source of constant regret to us that we were compelled, by lack of space, to decline such a large number of fine original articles offered. This growing pressure has been the principal reason for the increase in the number of our pages. Starting at 36 we have felt compelled, by the offering of material, and authorized by the growing subscription-list, to increase the number of pages of the Journal, until 56 has long been the minimum, with an occasional issue still larger. We are thus giving a greater number of thousand words per cent than is given by any medical journal in the world. But even this has not given much relief. And now, added to the high-water of the main stream, comes the tributary in flood of the prize-competition. These splendid essays must be published! It is utterly impossible to supply more pages in the regular issue of the Journal unless some printer will give us composition for nothing, or some mill will present us with the paper we require, or some rich physician should have a little pride in his profession—things not soon likely to happen. There is nothing left to do but to issue a monthly supplement. Of this we shall commence the publication as soon as the judges of the prize-competition have made their report. Twelve numbers of the Monthly Supplement of the Philadelphia Medical Journal will be issued in 1899, of 60 pages each, at a subscription price of $1.00 a year. Single numbers will be sold at ten cents each. The matter of the supplement will be original articles. Until the essays winning prizes have been printed, each number of the supplement will contain one or more of the prize-essays, the other papers being the overflow of the Journal contributions, published in the supplement by the consent of the authors. We shall thus offer our subscribers for one dollar a total of 720 double-column pages (of the same size and style as in the Journal), the literary results of the clinical experience and scientific study of the best members of the profession. We advise and urge every subscriber to the Journal not to fail to become also a subscriber to the supplement. It is an opportunity such as has not hitherto been offered the profession. Orders should be forwarded early, that the limited editions we shall print may not be exhausted, as was the case with the Journal in the first issues, leaving the volume incomplete.

The Journal of the American Medical Association, we trust, will find an editor fitted to guide it wisely and rapidly to the position it is destined finally to assume. We appreciate fully the delicacy of the task of a friendly journal in saying even a word of sympathy, but wish to do so in order to assure those in whose hands the trust is placed that they have that sympathy, and that it is sincere. The Association is a center of gravity certain to bring within the sphere of its influence and attraction the somewhat heterogeneous and obstinate elements of our American profession. Or, if the metaphor may be changed, it is the initial point of crystallization in the turbid mother-liquor from which lines of formative effort must radiate in the progress towards that professional unity which must precede the reforms in legislation, hygiene, social economy and professional progress finally to be conquered. Only this unity can make those reforms possible toward which we grope and for which we long. The right man in charge of the Association's journal will do much in a quiet but most effective way towards bringing about this unity, but it is almost needless to say that he must not be of a politician-type of character. The work so ably carried on by Dr. Hamilton needs an unselfishness, a loyalty to ethical and professional ideals that is not easy to find, but which, with the trustees, as at present determined, we have no doubt they will find. Much depends on them in this their most serious duty. Many thousands are watching them. A better type of professional journalism is demanded by a tremendously improved medical education in the United States, by an awakened professional conscience, and by a widely aroused determination of all true physicians that chaos and disgrace must give way to progress and an enlightened *esprit de corps.*

The Selfishness of Riches and Age.—Recently in a small city of the United States the local medical profession found itself face to face with a condition demanding common action and some money, in order to save the reputation of the profession and of the city itself from clear misfortune. There were several millionaire physicians in this little city, crowned with the honors and wielding the power of successful lives. But if the work all acknowledged must be done had depended either upon the influence or upon the money-contributions of these elder rich men, it would never have been carried out. The "leaders" did not lead, they didn't even follow; the bagatelle of money asked of them, and which would have been willingly spent on a party or in securing some trifling personal honor, had to be got of poor physicians and of laymen, and the energy required to do the work was also found, after much hunting, in the same places.

This experience *mutatis mutandis* in one town has too often been that of many other American communities. Professional pride and unity,—where are they? There are perhaps a thousand physicians in the United States with incomes of from $15,000 to $50,000, some even running to much higher figures, and yet when the Association of Medical Librarians asks for $1,000 to carry out a work of the greatest professional use, the highest professional need, the most crying professional charity, only two or three poor men are found willing to contribute $100 each!

And just as long as this characteristic continues, just so long will the nostrum syndicates fatten upon the people, just so long will the death-rate continue absurdly high, just so long will the newspapers and the legislatures of the land be the slaves of quackery, just so long will the medical profession be snubbed and scorned by the world, and by other professions whose *esprit de corps* is not an "esprit de corpse."

The Advertisement of Abortifacient Agents.—In convicting recently three culprits of blackmail in connection with the advertisement and sale of agents for the induction of abortion, a London jury gave expression to the following sensible criticism:

> "The jury feel that such a vile plot, even with all the ingenuity displayed in it, could only have been possible by the acceptance of such immoral advertisements by a section of the press—religious and secular—well knowing their nature. The jury further express their earnest conviction that means should be found to suppress such advertisements and the institutions from which they emanate, as they consider them direct incentives to ignorant and evil-minded women to commit crime."

We believe the offenders, after selling their wares, threatened to expose their patron-victims unless silenced by an additional blackmail-fee.

We agree with the jury that the press referred to must be cognizant of the base uses to which it is put, and we wish it might rise in its strength and aid in crushing an evil that it at present shows a disposition to abet. We commend to this same press a perusal of the series of articles of critical and analytic inquiry on quacks and abortion at present in course of publication by our London cotemporary, the *Lancet*.

The Professional Responsibility for the Optician's Impertinence.—A writer in the *Lancet-Clinic* says he has never known physicians to send patients to the opticians for refraction. We are delighted to learn that the profession of Cincinnati is so sensible and ethical, but as men everywhere are much alike—"some being only a little more so"—we cannot help a slight doubt if not concerning the accuracy of the personal experience in question, at least of its generalization. Certainly the disgrace is more or less rampant in the East. Physicians here do too frequently recommend their patients to go to the optician for glasses. To be sure the foolish adviser is not even shrewd, because even stupid patients soon learn that the advice is silly and that their confidence in the doctor is misplaced. There is another way in which the profession is responsible for the prescribing optician: Strange as it may seem there are not a few oculists who will allow (must we say, *advise?*) their patients to take their prescriptions to the prescribing optician. This is a combination of folly and carelessness that should speedily end. Let the maligning and the ascription of wrong motives be as intolerant and intolerable as it may, the line should be drawn: No prescriptions to the Eyes-Examined-Free fellows!

"The Beautiful Certificate."—We have received a number of copies of letters, circulars, facsimiles of engraved certificates, etc., emanating from an institution in the West, all of which seem to point to the great advantage of becoming a member of the staff of the hospital in question. One is puzzled to understand why the hospital should want thousands of non-resident "staves," and why the thousands should so earnestly desire to be thus hooped, or whooped up. Each bundle of this literature contains a proof of the certificate of Nicolas (sic) Senn, M.D., of Chicago, and the following copy of a letter:

Dr. N. Senn,
532 Dearborn Avenue,
Chicago.

Dec. 12, 1898.

My Dear Doctor Probert:—I thank you and the members of the Staff of St. Luke's Hospital for the appointment and the beautiful certificate which has reached me. I fully appreciate your kindness and will cherish your action with gratitude. I hope I shall in some way be able to serve the Hospital and the members of the Staff. Very sincerely Yours,

(Signed) N. Senn.

The following letter from Dr. Senn has just been received:

Jan. 7.

Dear Doctor:—The card you sent me is one of many I have received lately. The hospital sent me, without my knowledge or consent, a framed certificate which I returned accompanied by the positive request never to use my name in connection with the institution. Very truly, yours,

N. Senn.

The Treatment of Diphtheria with Antitoxin.—The statistics of the mortality of diphtheria as influenced by the antitoxin-treatment are instructive. Besides the proof they afford as to the value of the treatment, they illustrate an old statistical truth that "figures are great liars," only when used in too limited and unintelligent a way. Draw the figures from a sufficiently large number of facts, and there are no such convincing truth-tellers as figures. The character of the results obtained in the treatment of diphtheria with antitoxin has in no instance been left in doubt when large numbers of cases have been dealt with and the analyses have been made in a judicial and dispassionate manner. While the report of the collective investigation undertaken by the Pediatric Society and the Society of Russian Physicians of St. Petersburg, as made by Rauchfuss at the Twelfth International Medical Congress, and covering the years 1895 and 1896, and 1897 up to April 1, is in agreement with other like reports, it seems worth quoting, if only to emphasize the unanimity of the results. The investigation shows that among 44,631 cases of diphtheria treated with antitoxin throughout Russia, there were 6,522 deaths (14.6%); while among 6,507 treated without antitoxin there were 2,219 deaths (34.1%). The two groups of cases were treated cotemporaneously, the second class arising in consequence of a temporary want of antitoxin at different times, and of objection on the part of parents. In individual provinces the mortality has fallen to from one-half to one-third since the introduction of antitoxin.

The "Ophthalmotrician," according to the by-laws of the "Optical Society of the State of Pennsylvania," is the third and crowning grade of membership and honor of the prescribing optician. The coinage of the word is illuminating. When a wealthy tobacconist wished a motto for the coat-of-arms on his carriage a delightful wag suggested *Quid rides* as the most appropriate. The ophthalmotrician does not wait for the wag and dubs himself with as perfect taste. But with somewhat deficient etymologic knowledge! When ignorance and effrontery strut down street together they cannot help advertising their pedigrees. The ophthalmotrician, of course, must be a *trician* of the eye. We have looked in vain for a definition of the term *trician.* There are three possibilities: 1. It might, in a stupid sort of way, be derived from *θρίξ*, a hair, and allude to hair, *Anglicé*, wool, pulled over the eyes. It seems too quizzical. 2. We have the Latin *tricæ*, meaning trifles, trumpery, nonsense, etc., and allied to the Sanscrit *trkvan*, meaning a thief. This might do, but more probable is, 3. The middle English *trichen* (whence we derive our excellent word *trick*), meaning to deceive, cozen, or trick. This, on the whole, seems quite accurate. If we are in error we beg the Optical Society of the State of Pennsylvania (secretary, C. A. Longstreth, 228 Market Street, Philadelphia) to enlighten our philologic darkness, as soon as possible, because it is a matter of grave import, according to the circular sent out by the society, with double cap headings and frightening exclamation points,—"Lookout! Danger Ahead!!"

Professor A. A. Kanthack.—Medical science has sustained a serious loss in the painfully sudden death of Professor A. A. Kanthack, of Cambridge University, at the early age of thirty-seven. Already Kanthack had established himself as the leading pathologist in Great Britain by the breadth and depth of his knowledge, his critical methods of investigation, his capacity in training others in research, and his tireless energy. In his time, one of the most well-known football-players in the North of England, he wore out a splendid constitution by overwork. His early training was received at Hamburg; his medical studies were begun in Liverpool where his father was a merchant, and were continued at St. Bartholomew's Hospital. After graduation he proceeded to Berlin, where he became one of Virchow's favorite pupils. Under Virchow he worked more especially upon certain points in the pathology of the larynx. Returning to England, he was appointed Pathologist to the Royal Infirmary at Liverpool, and soon was elected to the Studentship in Pathology at Cambridge when this was vacated by Dr. Adami. The most important work done by him at this period was the remarkable series of observations made, in conjunction with Hardy, upon the forms and functions of leukocytes, published before the Royal Society, in the *Journal of Physiology* and the *Manchester Medical Chronicle.* While holding this post he proceeded to India as a member of the Commission upon Leprosy appointed by the British Government, and with his confreres he drew up a very guarded report upon the modes of infection, spread and prevention of the disease. Here he became interested in Madura foot (mycetoma pedis), and showed that the causative organism was closely allied to the actinomyces. Appointed later Pathologist to St. Bartholomew's Hospital he immediately made his influence felt there, and established pathological examinations, in connection with hospital cases, upon such a basis as had never before been known in London. At the same time, despite the miserable inadequacy of the laboratory accommodations, men crowded to work under him. In 1896, during the illness of Professor Roy, he undertook the additional duties of Deputy Professor at Cambridge, and for a year did double work. Appointed full professor upon Roy's death, he worked, if possible, harder than ever, and men were being rapidly attracted to his laboratory from this continent as well as from the British colonies, when a rapidly fatal malignant disease of the intestines arrested him in full activity.

Kanthack's strength, as a teacher and investigator, lay in the fact that he was equally proficient as a morbid anatomist, a clinical pathologist, and a bacteriologist, his weakness—if, in these days of much theorizing, it was weakness—in a manner of approaching subjects, so judicial, that at times it seemed to lead to hypercriticism and a fear of arriving at any but general conclusions. Perhaps the best example at once of his wide knowledge and his guarded manner is to be seen in his article upon Immunity, in the first volume of Clifford Allbutt's *System of Medicine.*

Again the Didactic Lecture.—Interest in the question of the usefulness of the didactic lecture is rapidly increasing. The gentle war is on, and we purpose to discuss the arguments offered in support of the didactic lecture as the important element in medical instruction.

A recent writer quotes the following from Ziemssen: "How it is in reality when lectures are displaced by private studies in general, I will willingly leave unexplained," and comments, saying, "This last sentence would seem to dispose, at least, of the displacement of lectures by private studies." We do not understand how leaving a thing unexplained can dispose of it, nor are we willing to admit that the fiat of even a German professor is final. German professors are sometimes wrong, and their American colleagues occasionally right. The real question, however, is not the didactic lecture versus private study, but the lecture versus recitations and actual personal teaching to small groups of men in the presence of the thing studied. In truth, private study takes a high place in the average American school. Most of the drilling of students is done by quiz-masters who have no official recognition by the medical schools. The same gentleman says that for bedside instruction "it is for the most part necessary that the student should be close at hand in small sections." We have meditated on this remarkable statement and have decided that the typewriter must be to blame for it. The effect upon the patient of being confronted by a student in sections would surely be bad, and the student would probably not be in a suitable frame of mind to receive instruction. Another count against bedside-teaching is that specimens and diagrams can not be exhibited in the presence of the patient. Is it impossible to remove the patient when morbid anatomy is being discussed? Hospital patients are not as a rule so fat they cannot be moved, and diagrams are usually harmless. Another gentleman argues by epithets, and settles the question by calling us pessimists. We accept the name with joy, for does not everyone know that every advance has been made by your lean and hungry and discontented pessimist, and not by your fat and flabby optimist. Optimism is good for the digestion, but bad for the wits. It is the mud in which the wheels of progress stick. The optimist is always asking, What is the use of disturbing things in this most beautiful world of ours?

An esteemed correspondent argues for the didactic lecture, because one of his own cost nearly $1,000 for models, pictures, and specimens, and very few less than $50. One of his pictures is exhibited each year to 400 or 500 men, thereby multiplying its teaching value a hundred-fold. He forgets that in the lecture-room the majority of his audience probably does not see it, can not see it, sees only what from the benches looks like an impressionistic smear. Now, whatever rank impressionism may have in art it is not worth much in science. Would it not be better if the professor could have during his hour a small group of men around him who could actually see that picture and ask him questions? Our correspondent believes firmly in personal instruction, for he says, "The course includes attendance upon a woman in pregnancy and in labor in the University Maternity, with an individual drill in palpation, pelvimetry, and urinalysis; a course in an outpatient clinic in which the advanced student takes care of normal cases on his own responsibility, clinical conferences, clinics and didactic lectures." He does not say one word about what is a fact, namely, that the greater number of his students are drilled by recitations held by unofficial quiz-masters, without whose aid not 50% of the gentlemen who now pass his examinations would pass. His lectures are brilliant, interesting, and profound, but they leave much undone, or why, even with his really exceptionally good lectures, do quiz-masters exist, and why the struggle to become a quiz-master?—a struggle as terrific among the youngsters as that for professorships among the grownups.

He also says that "no book is flexible enough to accommodate itself to the advance of medicine throughout the world from week to week." We knew that medicine was advancing, but we did not know it was going at such breakneck speed. Why, at the rate of 52$\frac{1}{7}$ discoveries each year, obstetrics will soon be a completed art! As a matter of fact professors as a rule do not, as does the gentleman we quote, rewrite their lectures each year, nor spend $1,000 in the preparation of a single lecture. Some of them are like that nice old gentleman of many years ago, who, on being asked why he had given the same introductory lecture for thirty years, said in simplicity and innocence, "I see new beauties in it every year."

The truth is this, one cannot dole out medical learning in wholesale lots. It can only be done at retail, and the best way to do it is by direct personal contact between student and teacher, and this can only be when the teacher has to do with small groups of students, and a vital part of teaching is the actual studying of patients, diseases, specimens, reactions, etc., under skilled guidance.

To teach medicine is too frequently purely a matter of money. No medical school dependent upon its students for financial support can give the best instruction. If it is a successful school in the vulgar meaning of the word it will have too many students; if a struggler, it can not draw the best men to its staff. Now, American medical schools are with very few exceptions dependent upon the students. So anxious are they to get students that faculties and boards of management have gone mad over athletics, and the football-field is used as a magnet to attract scholars. In decadent Rome gladiatorial sports were used to amuse a fickle populace; we shrewder Yankees use a minor show to help fill the coffers of our educational institutions. (We have no quarrel with rational athletics, but that is another story.) By increasing the number of teachers, by decreasing the number of students, by giving much more practical instruction, by informal recitations with running comments and explanations by the teacher in the place of the didactic lecture, the student of the future will be better trained by far than his predecessor is to-day.

We fear it may be that our critics are a little inclined to think of the specially good, the exceptional didactic lecture, such as is given in a few institutions, and that the average lecture, such as has been the rule in the past, or is too frequently the rule at present, is forgotten. We write, of course, only for the general medical public, and of the lecture as given in the hundred colleges of the land. Is it not true that this lecture fails in many important respects? Is it supplemented by the requisite amount of instruction at the bedside, by recitations, in the laboratory, etc., etc.? Does every didactic lecturer spend a thousand dollars in illustrations of one, or even of all his lectures? Does he as a rule keep up with the progress of medical science as well as the books? Should the didactic lecture be the chief, or only a subordinate method of giving and getting knowledge? Doubtless the plan of largely displacing the didactic lecture by better methods of instruction would require great changes in the use of hospitals, of hospital-patients, revolutions in habits, increase in the number of instructors, etc., but we believe the changes would result in better-equipped physicians, and great strides forward in medical science and art.

Suggestions to Writers: No. 20. Exophthalmic Goiter.—Let us intermediate between those who would say Basedow's disease and those who would say Graves' disease, at the same time considering those who would say Parry's disease, and agree for the present upon exophthalmic goiter as the designation for the well-known symptom-complex, until perhaps we have learned all there is to know about the disorder, or there is reason for substituting another name.

Editor and Reader: No. 10. Subscription Dependent upon Acceptance of Article.—It is far more common than we wish that the perplexed editor is made to see that subscription to and friendliness for his journal does in fact often depend upon his acceptance of an article offered for publication. There can be little doubt that this fact explains the appearance in medical journals of many poor or mediocre papers, letters, and news-items. The editor is in truth a kind-hearted man, who shrinks from offending by declining the proffered contribution. Thus the subscription becomes a sort of bribe, if that is not too harsh a word, which authorial vanity offers to editorial judgment. I may be disguised or slurred over, but when brought into the open the fact is of that nature. Cancellation of order, non-renewal—this, alas, often follows non-acceptance of a contribution. It is a somewhat painful topic, and we do not wish to dwell upon it too much. There is one other phase of the subject that may be glanced at before dropping it altogether, and that is the pursuit of publicity on the part of cranks, or hobby-riders. Some of these faddists are doubtless sincere, but that only adds to the editor's worriment. There are a dozen or two men in the country, known by sad experience to every editor, who in season and out of season persist with wonderful, almost pathologic, pertinacity in playing upon one string of the professional fiddle, *i. e.*, writing letters and articles upon one subject so frequently and so monotonously that not only are editors and readers weary, but the aim of the writer is prevented and his cause killed by over-insistence. It becomes a variety of *idée fixe*, that reveals want of balanced judgment, and lack of broadness of intellectual equipment and interest. In dealing with these writers, it is almost needless to say that the conscientious editor must recognize two duties as superior to the interests of his subscription-list, and above the kindness felt toward the individual contributor:—These two duties are, of course, to the great body of his readers, and to the progress of medical science. Individualism must be sacrificed to the common, and the professional good. The editor whose judgment is habitually governed by the reverse of this rule is an editorial and professional sinner; he will finally, and should more speedily, become an editorial failure.

Every subscriber to this Journal is requested to send us the names and addresses of at least two physician-friends who are not subscribers. This is one practical way to aid us. In addition to this we trust you will write these friends a personal request to examine the sample copies we shall send to them, with a view of subscribing. We believe that we are giving more and better medical literature for the money than can be had elsewhere. If this is so it is your friend's misfortune if he fails to become a reader of our Journal.

The Treatment of Diabetes with Thyroid Gland.—In a clinical lecture William Murrell (*Medical Press and Circular*, December 14, 1898) relates a case of diabetes mellitus treated with thyroid gland. The trouble was attributed to a nervous disturbance giving rise to vasomotor paralysis, increasing the blood-supply to liver, kidneys, etc. The patient averaged in 24 hours 112 ounces of urine, containing 5,848 grains of sugar. Treatment was begun with 32 grains of fresh thyroid every day, and this was gradually lessened to 12 grains in the same time. The dose was again increased to 12 grains every 3 hours. The reduction in the amount of sugar was immediate, a fall of 4,688 grains in the daily amount of sugar having been obtained without restriction of the diet. The diet was then restricted to milk, beef-tea, fish, and a little toast, with an increase of 2,260 grains in the amount of sugar. The quantity of urine under the purely thyroid treatment fell from an average of 112 ounces per day to an average of 85 ounces, and increased under the restricted diet to 129 ounces. Murrell states that the effect of thyroid feeding is transitory, and its administration must be maintained. Pavy's theory that glycogen is converted into fat may give a clue to the efficacy of thyroid in the case reported. It is concluded that the treatment will be found most efficacious in those cases of glycosuria occurring in elderly persons in whom obesity is a prominent feature.

Reviews.

Transactions of the Medical Society of New Jersey, 1898. 8vo, pp. 483. L. J. Hardham, Printer, Newark, N. J., 1898.

The Medical Society of New Jersey is to be commended for the prompt publication of its volume of *Transactions*. Too often the papers read before medical organizations are permitted to languish in the hands of a secretary, or a publication committee, or mayhap a printer, until they have lost their freshness and sometimes their interest. The present volume contains, in addition to the customary list of officers, members, etc., minutes, reports, obituaries, etc., some 19 essays, addresses, and clinical contributions of varying degrees of merit, most of which have received reference in our report of the meeting of the Society at the time. Though 132 years old, the Medical Society of New Jersey displays an activity and vigor that are both creditable and commendable.

A Practical Handbook on the Muscular Anomalies of the Eye. By Howard A. Hansell, A.M., M.D., and Wendell Reber, M.D. 28 illustrations and 1 plate. 182 pages. Philadelphia: P. Blakiston's Son & Co., 1899. Price, $1.50.

This is an excellent little manual. It is, as it aims to be, a straightforward, simple and concise epitome for beginners in ophthalmic work, of the results of the experience of the authors pertaining to the subject. We know of no book which compares with it, especially in giving the results of the most recent American workers. Each reader who has had experience may differ from the authors in a few minor details, but there is throughout the volume an evidently sincere attempt to be judicial, and to bring every measure to the test of clinical experience and its effects upon the patients. One or two such lesser points that we have queried are the following: We do not think it best or safe to advise the patient (p. 93) to hold the prism loose in the hand in prism-gymnastics. We have several esophorics of more than 10 D. (p. 98) who are contented and symptomless with glasses alone. We have had a great many patients (p. 109) in whom *proper* prism-gymnastics have reduced or extinguished the exophoria for distance. We think (p. 123-124) a mydriatic in patients above 45, and even up to 55, is often necessary for the diagnosis of errors of refraction, and that in watched cases, properly applied, etc., it is not at all dangerous.

Wie ist die Fürsorge für Gemüths-Kranke von Ærzten und Laien zu fördern? [How is the Care of the Insane to be Improved on the Part of the Physicians and the Laity?] Psychiatric questions discussed by Prof. Dr. C. Fürstner, Director of Psychiatric Clinic of the University of Strassburg i. E. 8vo, pp. 64. Berlin: S. Karger, 1899. Price, 1 Mark (25 cents).

It is obvious that the prognosis in cases of insanity is the more favorable the earlier treatment at competent hands is instituted. While from a number of points of view it would be more desirable to conduct the treatment outside of a hospital, institutional care is attended with advantages that must not be underestimated. In this little brochure Fürstner discusses conditions that have an important bearing on these matters. He points out how the laity is coming to appreciate that insanity is disease just as much as other conditions with more tangible anatomic lesions; and he makes a plea for the better instruction of students in this department of medicine. He favors a distinction between hospitals for the acute insane especially, in the city, with a dispensary service, as a special institution or as a department of a general hospital, and hospitals for the subchronic and chronic insane, in the country. It is suggested that some of the existing restrictions upon the reception of acutely insane patients could be safely and advantageously removed, and that the matter of dismissal should be burdened with as few difficulties as possible. Some discriminations should be exercised in the matter of visits and visitors to the insane. Partially or wholly recovered patients should, after dismissal, be continued under care and observation. Considerable attention is devoted to the subject of nursing the insane and the employment of women-nurses is commended wherever possible. The pamphlet concludes with some considerations upon the question of responsibility from a medico-legal aspect.

A System of Medicine, by Many Writers. Edited by Thos. Clifford Allbutt. Vol. V. New York: The Macmillan Co., 1898.

The present volume includes discussions of Diseases of the Lungs, Pleura, the Blood, and Circulatory System. The articles on Bronchitis and Bronchiectasis are contributed by Dr. Wm. Ewart. They are excellent expositions of the subjects. We cannot entirely agree with the propriety of retaining the name Plastic Bronchitis, and we might make similar objections to other matters of minor importance. In general the articles are highly satisfactory. The discussion of Pneumonia is entrusted to Dr. P. H. Pye-Smith; this article seems to us too short, and in some parts too lacking in detailed information for a work of the size of this system, and we fail to find references to certain points of interest, such as for example the relation of leukocytosis to the prognosis of the disease. A curious statement, which strikes us in reading the article, is this: "We must observe that even the diplococcus of Talamon and Fränkel does not fulfil Koch's three tests of a pathogenetic organism; as they are fulfilled for example in anthrax, relapsing fever, and tuberculosis." Perhaps the relapsing fever has slipped in by accident. The article on Phthisis, by Dr. Percy Kidd, is very satisfactory. Those on Pneumonoconiosis, by Dr. J. T. Arlidge; on Aspergillosis, by Dr. Ralston; on Emphysema, by Dr. Fowler; on Asthma and Hay-Fever, by Dr. Goodheart; and on Syphilis of the Lungs, by Dr. Fowler, complete this section. We cannot agree entirely with Dr. Goodheart in considering asthma and hay fever as identical at the basis, and are surprised that the author does not lay more stress upon nasal treatment. Dr. Fowler's article on Syphilis of the Lungs is very interesting, but the introduction of copious descriptions of cases detracts from the merit of the article so far as the general reader is concerned. The section on Diseases of the Pleura is introduced by Dr. Samuel West with an article on Intrapleural Tensions, and is completed by Drs. Gee, Herringham, and Fowler, in a very satisfactory manner. The section on Diseases of the Circulatory System includes discussion of the pathology of the blood, and of the blood diseases, as well as diseases of the heart. The introductory chapter on the General Features of the Blood, by Prof. Michael Foster, and the article on the Clinical Examination of the Blood, by Dr. Copeman, are most excellent in their scope and general tone. Dr. Copeman's article is full and up to date. We cannot quite agree that there is necessity for the introduction of the technic of the Widal method in this place. This belongs more properly to the section on typhoid fever. Prof. Allbutt himself contributes the articles on Chlorosis; Dr. Coupland that on Pernicious Anemia; Dr. Samuel West that on Splenic Anemia. The other articles are by equally competent authorities. An interesting section, and one most satisfactorily treated, is the article by Dr. Dickinson on Dropsy. The Diseases of the Heart are discussed by Drs. F. T. Roberts, Allbutt, Dreschfeld, Powell, Sansom, and others.

Altogether this volume is a most satisfactory number of the System. It is even better balanced than previous volumes in its several parts, and, though minor points might be criticised, as a whole the book is representative of the best in modern medicine.

Pneumothorax.—W. F. Hamilton (*Montreal Medical Journal*, December, 1898) cites a series of 12 cases of pneumothorax, from which he concludes that there is a nonperforative form, and that it is often latent. He also thinks that when pneumothorax occurs in the course of pulmonary tuberculosis it has a retarding effect upon the disease, but in advanced cases when fluid is present the prognosis is grave. Recovery from a total pneumothorax may take place, however, without any sign of fluid.

Correspondence.

THE FIRST AMERICAN CASE OF MALTA FEVER.

To the Editor of The Philadelphia Medical Journal :—

Sir :—When we reported a case of Malta fever in the issue of the Journal for December 31, we were under the impression that it was the first case that had been recognized on the western side of the Atlantic Ocean. A communication received by one of us from Passed Assistant Surgeon J. J. Kinyoun, M.H.S., proves that we were mistaken in this idea. The portion of the letter relating to this point is as follows :

> "I have long suspected that among the unclassified fevers of the South and Caribbean littoral, Malta fever existed. So strong was my belief that I procured a culture from Dr. Sims Woodhead of London, and gave the organism to Dr. Andrade-Penny of Venezuela, who, in conjunction with Dr. B. Mosquera, applied the serum-reaction to cases of fever in Caracas, and demonstrated that the fever exists in that country. The communication will be found published in the *Gaceta de Caracas*, etc., July 15, 1898."

This communication would seem to show that Malta fever is quite widely distributed along the coast and in the islands of the Gulf of Mexico. It also shows that, so far as we are able to discover, the credit for being the first to suspect the existence of Malta fever in America properly belongs to Surgeon Kinyoun. The communication of Dr. Kelly, in the Journal for last week, also indicates that others have been impressed with the reasonableness of the occurence of Malta fever on this side of the Atlantic. The date of Dr. Kretz's letter, November 22, corresponds pretty closely with the time when a diagnosis of our case was first suspected. The delay in reporting it was due to the necessity of first obtaining a culture of the micrococcus melitensis.

Very truly yours,
J. H. Musser,
Joseph Sailer.

Philadelphia, Jan. 7, 1899.

FECAL IMPACTION OBSTRUCTING AN OTHERWISE NORMAL LABOR.

To the Editor of the Philadelphia Medical Journal :—

On December 26 I was hurriedly called 10 miles in the country to see a lady in a complicated labor, instructions being sent to bring necessary instruments for operation. Mrs. E., aged 17, a primipara, was seized with labor-pains on the night of December 24, and these continued regularly until my arrival at 10 p.m. of December 26. There had been in attendance a midwife and a quack doctor, who contended that all was well until, finally, on the evening of the 26th he decided that he was dealing with a "cross-birth, with the knee coming foremost," and that "nothing more could be done, but to cut it away ;" hence my instructions to bring instruments. Upon my arrival the following condition was found: The heart-beats were 120 and weak, and the pulse compressible. There was extreme pallor and an anxious expression, and strength was almost completely exhausted. On digital examination the rectum was found to be greatly distended and impacted with a fecal tumor as large, seemingly, as an ordinary child's head. It was with difficulty that I could press my fingers around the mass and determine the presentation, which was of the vertex, and in the first position. The cervix could not be felt, having been completely dilated possibly for 24 hours, as the patient gave a history of having had severe pains for the previous 36 hours. At this time the pains were of an expulsive character. The tumor in the rectum claimed my immediate attention, and was broken up with my finger and the nozzle of a syringe and removed by irrigation. Labor progressed normally and was concluded at 12 p.m. by the delivery of a 10½-pound girl-baby. I am of the opinion that the patient would have died within 12 hours had not timely aid been given.

Respectfully,
J. M. Postelle, M.D.

Ducktown, Tenn.

AN UNUSUAL CASE OF BILATERAL COLLES' FRACTURE.

To the Editor of the Philadelphia Medical Journal :—

The following case presents nothing new in the way of surgery, but is of interest in two respects : (1) on account of a bilateral Colles' break existing in one person, especially one so young ; (2) the absolutely typical condition found in both arms, namely, a breaking off of the lower end of the radius, about 1½ inches above the wrist-joint.

Stella M., a school-girl, aged 11, fell from a cherry-tree to the ground, a distance of about 6 feet, alighting directly upon the palms of both hands with the entire weight of the body. Her home being quite some distance from any surgical aid, she was placed upon a trolley-car and taken to the city proper, where she was met, and conveyed to the city hospital by our ambulance. Immediately upon being admitted it was found imperative to anesthetize her, Schleich's mixture for anesthesia, solution No. 1, being used. [I may state that we have now used this mixture in upward of about 150 cases and we have yet to find a bad result, or even a disagreeable feature connected with its use.] After complete anesthesia was brought about, examination revealed the following conditions: A peculiar distortion of both wrists or what is termed the characteristic silver-fork deformity, a fracture of the lower end of the radius about 1½ inches from the wrist, with complete tearing and rupturing of the internal lateral ligament, also a chipping off of the styloid process of both ulnas, this no doubt accounting for the marked abduction of both hands.

The case is of some interest from the fact that among a large number of Colles' fractures treated here, of which we have from 2 to 6 cases most of the time, we have had none similar to this, *i. e.*, with the right and left wrists involved together. The deformity, especially of the right wrist, was most exaggerated, and it appeared at first as though even the carpal bones were crushed and displaced.

The question as to the correct treatment of Colles' fracture has been the subject of so much discussion, and so many suggestions have been offered, and methods of reduction advocated, that I do not propose to advocate anything, especially after the able papers by Dr. John B. Roberts, on treatment of fractures of the radius ; but it will suffice to say that under anesthesia the fragments were approximated with difficulty, a Bond splint was applied in each case, the wrists being previously strapped with adhesive strips, applied firmly and evenly. A small strip of cardboard was placed on each side and a compress of lint on the anterior surface of the right wrist ; then the splint was bandaged firmly. The left wrist was similarly treated, save that no cardboard or compress was used. There was little disturbance, and no swelling of any account. The dressings were removed in 10 days, and there was practically no deformity. The splints were reapplied and allowed to remain for 10 days more. No dressing was used afterward, save adhesive plaster. Recovery was rapid and uneventful, with perfect use of both joints, and no appreciable deformity.

I report this case on account of its interest, and also to show my faith in adhesive plasters in the treatment of fracture of the lower end of the radius, and especially when the tendency to separation is marked.

Respectfully,
Thomas Cushing Jones, M.D.,
Assistant Surgeon, State Hospital.
Hazleton, Pa.

THE ABUSE OF QUININ.

To the Editor of the Philadelphia Medical Journal :—

If you will grant me permission I would be glad, particularly at this season, to say a few words in regard to what I think I may properly term the quinin-fad which has taken so firm a hold upon many of us. Not only do people well and ill carry quinin-pills in their pockets and eat them for every suspected ailment, or as a preventive of something that might come upon them, but many of our own profession use the drug almost as thoughtlessly. If we must give something—which the patient, of course, expects—and there is no indication for any drug, it is the too common practice to give quinin, because, in the words of some, " It will do no harm ;" or, again, if some drug or drugs are needed we often give quinin when it does no good, but on the contrary positively does harm, instead of considering the case before us carefully and giving something else that would meet the requirements. Let us take a case of "grip." Here we have pyrexia, to a greater or less degree, with its attendant symptoms, *deficient elimination of water*, with simultaneous excessive destruction of tissues. Hence, the secretions and excretions are, as a rule, diminished in quantity, as well as altered in quality, from which result some prominent symptoms ; as (*a*) dryness and roughness of the skin ; (*b*) derangement of the alimentary canal. The salivary, gastric, and intestinal secretions are deficient. Nausea and vomiting are not infrequent; (*c*) changes in the urine. This is much diminished in quantity, high-colored, very acid, with a strong odor and of high specific gravity. It also generally contains an excess of organic nitrogenous constituents, especially urea and uric acid, a much larger quantity of these substances being excreted than in health. The blood is altered in composition, the white corpuscles being increased in number. At the same time we have severe aching and shooting pains about the chest and neck, but perhaps more severe in the head, back, and legs, together with general restlessness. There may be pain along the Eustachian tube, with noises in the ears and some deafness. Now, what of the foregoing symptoms or conditions will we be able to remedy with the drug under discussion? Pyrexia? Quinin in large doses will lower the temperature (1) by depressing the heart and arterial tension ; (2) by suspension of the oxidizing power of the blood and (3) by inhibition of the white corpuscles. In each of these ways the drug-action is added to the action of the disease-poison—whatever that may be—of which nature is trying to rid the system. Instead of assisting nature in her effort (which has been proved to be the only rational aim in the practice of medicine) we double the already too heavy burden. Deficient elimination of water? Bruce says that quinin diminishes perspiration. We know that we cannot combat the nausea and vomiting by its exhibition, for in large doses it interferes with digestion. The urine? This we have seen contains an excess of urea and uric acid, nature's effort again to rid the system of waste or poisonous products. Quinin diminishes excretion of urea and uric acid, and probably also carbon dioxid (CO^2). The blood is altered in composition, the white corpuscles being increased in number. Again, nature's effort in antagonizing the disease-poison is seen in the increase of the white cells, which act as phagocytes, but here again our friend under consideration comes in to antagonize the antagonists. Quinin paralyzes the leukocytes and reduces their number, Bruce says, to one-fourth.

In many febrile diseases the blood is dark and tarry. Quinin binds the oxygen more firmly to the hemoglobin, so that oxygenation is less easy and less active.

To quote again our London authority, Bruce says: " We may conclude that the effect of quinin in the body is to check metabolism by interfering with oxygenation of protoplasm generally," or, in other words, that it is a protoplasmic poison. In regard to the restlessness and severe pain that certainly require attention if any symptom does, we are powerless with this weapon, for I believe no analgesic power is ascribed to quinin, but, on the contrary, it causes headache by its action as a cerebral stimulant and congestant, and its effect of causing noises in the ears and deafness is well known.

Hare says that even a small amount injected into the jugular vein of a dog, so that it goes in concentrated form to the heart, will cause cardiac paralysis. I am decidedly of the opinion, judging from observation, that many of the enfeebled or crippled hearts seen following "grip" have resulted, not from the disease alone, but from the action of quinin (the cumulative action we may perhaps properly call it, for the drug is eliminated from the body but slowly) added to the disease-poison which it had been given to counteract or antagonize, but which it really assisted in its ruinous work.

Respectfully,
A. S. Dolloff, M.D.
15 Washington Street, Beverly, Mass.

POSTHUMOUS DIPLOPIA.

There was a young doctor of Cork,
Who used to eat corn-meal and pork,
But now he cuts muscles,
And hurries and hustles,
And eats pie with a gold-plated fork.

He looks quite euphoric and wise,
Makes big mon. by the traffic he plies ;
He cures epilepsy,
The piles and dyspepsy,
By carpenter work—on the eyes.

But when all is over and done,
The devil will have his own fun !
He'll make him see double—
Two cauldrons a-bubble—
Two hells where there is but one !

P. O. Redston.

The Treatment of Typhoid Fever Without Drugs.—W. E. Scriber (*Physician and Surgeon*, December, 1898) reports a series of typical cases of typhoid fever successfully treated without medicine. Absolute rest, limited quantities of a strictly liquid diet, and ice-compresses over the abdomen and to the back of the neck, heat to the feet, plenty of cool water to drink, were the sole agents employed, even when delirium, hemorrhage, etc., were present. Every case thus treated recovered.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending January 21, 1899:—

Tuesday, January 17—College of Physicians. Section on Ophthalmology.

Wednesday, January 18—County Medical Society. Business Meeting.

Thursday, January 19—College of Physicians. Section on Gynecology.

The Pennsylvania Hospital will be enriched by a bequest of $100,000, which will in time revert to it in accordance with the terms of the will of the late L. Taylor Dickson.

St. Timothy's Hospital, Philadelphia.—For the purpose of founding a memorial bed to the memory of their father, the late Uriah Schofield, Miss Jennie Schofield and Mrs. John Dearnley have contributed $5,000 to St. Timothy's Hospital.

Pennsylvania State Medical Society.—Dr. S. S. Towler, chairman of the Committee on Scientific Business, of the State Society, requests that members wishing assignments on the Scientific Program for the next meeting will please address him, care House of Representatives, Harrisburg, until further notice.

A new floating quarantine-station has been ordered by the United States Government. It will be somewhat similar to the *Protector,* and will be provided with all appliances for the disinfecting of persons, clothing, and refuse. It will be provided with machinery sufficient to permit it to accomplish short journeys, but when going long journeys it will be towed. It is expected to cost about $50,000.

Vital Statistics of Philadelphia, for the week ending January 7, 1898:

Total mortality.. 713
Children under 5 years of age............... 185

Diseases.	Cases.	Deaths.
Pneumonia 160, congestion of the lungs 6	......	166
Pulmonary tuberculosis 72, intestinal tuberculosis 2	......	74
Influenza	......	55
Nephritis 34, uremia 8, kidney-disease 1	......	43
Heart-disease 37, fatty degeneration of the heart 3	......	40
Marasmus 19, inanition 14, debility 3	......	36
Apoplexy 21, paralysis 11	......	32
Senility	......	31
Diphtheria 23, membranous croup 4	100	27
Typhoid fever	180	24
Convulsions 23, epilepsy 1	......	24
Bronchitis	......	19
Cerebritis 15, congestion of the brain 3,	......	18
Gastroenteritis 9, cholera infantum 5..	.....	14
Carcinoma	......	13
Casualties 5, burns and scalds 5	......	10
Scarlet fever	32	5
Cyanosis 6, dropsy 5, pericarditis 5, septicemia 5, gangrene 5, diabetes 4, rheumatism 3, suicide 3, teething 3, abscess 2, alcoholism 2, diarrhea 2, dysentery 2, intestinal obstruction 2, poisoning 2, carbuncle 1, hepatic cirrhosis 1, hepatic congestion 1, drowning 1, intermittent fever 1, malaria fever 1, peritonitis 1, appendicitis 1, jaundice 1, pertussis 1.		

Lehigh Valley (Pa.) Medical Association.—The Winter meeting will be held in Bethlehem, Pa., January 20.

Charitable Bequests.—By the will of the late Colonel Daniel Morris, of Atlantic City, N. J., the following charitable bequests are devised: To Bishop McFaul, $40,000 to found a home for the aged; to the Hopewell Protectory, $25,000; at Philadelphia—To the Little Sisters of the Poor, $10,000; St. Mary's Hospital, $5,000; St. Agnes' Hospital, $5,000; St. Vincent's Orphan Asylum, $3,000; St. Joseph's Home for Boys, $5,000; House of the Good Shepherd, $3,000; Catholic Home for Orphan Girls, $3,000; St. Vincent de Paul Societies, $3,000; Villanova College, to found a scholarship of the priesthood, $5,000; at Paschalville, Pa.—St. Vincent's Maternity Home, $3,000; at Tacony—St. Vincent's Orphan Asylum, $3,000; at Trenton—St. Francis' Hospital, $5,000; to the Bishop of Trenton, to found a scholarship, $5,000; at Beverly—St. Joseph's Home for the Aged, $10,000; at New Brunswick—St. Mary's Orphan Asylum, $5,000.

NEW YORK.

Calendar of New York Society Meetings for the week ending January 21, 1899:—

Monday, January 16—County Association, at Academy of Medicine, Manhattan.

King's County Society, at 102 Court Street, Brooklyn Borough.

Wednesday, January 18—Medico-Legal Society, at Hotel Marlborough, Manhattan.

Thursday, January 19—Academy of Medicine.

Friday, January 20—Academy of Medicine. Section on Orthopedic Surgery.

Brooklyn Medical Society, at Gates Ave. and Broadway, Brooklyn.

The name of the New York Cancer Hospital has been changed to the *General Memorial Home.*

The Presbyterian Hospital, of New York, receives a legacy of $5,000 by the will of the late Caroline C. Macy.

Special Attorneys to State Hospitals have been abolished by Governor Roosevelt, and six lawyers who have been drawing $10,000 a year from the State for doing nothing will lose their sinecures.

The Alumni Association of the Kings County Hospital will hold its sixth annual dinner on Monday evening, February 9, at the Union League Club. Dr. J. T. Duryea is president, and Dr. J. R. Stivers, secretary.

Fracture of the skull caused by falling on the sidewalk is of such unusual occurrence as to occasion comment. A man died in Hudson Street Hospital last week who had met with such an accident, as autopsy proved.

Eleven Hours for Drug-Clerks.—The measure to make it a misdemeanor to keep drug-clerks in New York City at work over 11 hours a day will be pressed to passage again this year. It was vetoed by Mayor Van Wyck last spring, his reason being that it conferred too much power on the Board of Health.

The Buffalo (N. Y.) Academy of Medicine; Section on Medicine.—At a meeting held January 10, the following was the scientific program: Autointoxication, by Dr. A. W. Hurd; Membranous enteritis as found in nervous diseases and insanity, by Dr. H. A. Wood; The relation between physical and mental diseases, by Dr. H. P. Frost; A few notes on paresis, by Dr. H. Kuhlman; Notes of cases, by Dr. C. J. Patterson.

The Brooks Memorial Hospital (at Dunkirk, N. Y.) will be open to the general public on January 23. The Young Men's Association has attractively fitted up the building formerly known as the Brooks homestead, and one of the finest hospitals in Western New York will be found here.

The Waring Fund has been collected. It amounts to over $100,000, and was subscribed by 1,791 persons. It will be invested and the income be given to the widow and daughter of the late Colonel George Waring. At their death it will revert to Columbia University to found a professorship to be known as the Waring professorship.

A death due to broken heart was revealed by autopsy performed by Coroner's Physician O'Hanlan. The organ was split in two sections, as completely as if a knife had been used to divide it. Dr. O'Hanlan said that among 3,000 autopsies, he remembered only 3 such cases. The cardiac walls were weak, and Dr. O'Hanlan thinks some sudden shock caused the rupture.

New York Neurological Society.—At a meeting held January 3, Dr. L. Steiglitz presented a patient suffering from **cerebellar ataxia** with slight right hemiplegia, increased knee-jerks, nystagmus and weakness of the vesical sphincter. The disease had been developing for 10 years. There was no choked disc. The most probable diagnosis was **multiple sclerosis.** Dr. W. H. Haynes demonstrated an apparatus that he had devised for measuring the knee-jerks. Dr. Chas. K. Mills, of Philadelphia, read a paper entitled **some points of special interest in the study of the deep reflexes of the lower extremities.** He discussed the following subjects: Ankle-clonus, with an absence of the knee-jerks (including the report of a case, with autopsy and microscopic examination); the significance of ankle-clonus in the diagnosis of hysteria from organic disease; patellar clonus; tendo-Achillis jerk in tabetics. Dr. L. A. Conner read a paper entitled **a contribution to the study of cerebrospinal meningitis.**

Vital Statistics of New York for week ended December 31:

Deaths.	Total.	Males.	Females.	Under 1 Year.	1 Year and under 2.	2 and under 5.	Under 5 Years.	5–15.	15–25.	25–45.	45–65.	65 and over.
Total, all causes	1,560	788	772	235	68	67	370	57	91	347	361	334
Diphtheria	25	7	18	3	2	9	14	9	1	. .	1	. .
Croup	11	4	7	1	3	4	8	2	. .	1	. .	. .
Malarial fevers	3	1	2	. .	1	.	1	. .	. .	. .	2	. .
Measles	9	4	5	3	4	2	9	. .	. .	. .	. .	. .
Scarlet fever	11	8	3	. .	1	6	7	4	. .	. .	. .	. .
Smallpox	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Typhoid fever	9	4	5	. .	. .	. .	.	2	5	1	1	. .
Typhus fever	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .
Whooping-cough	5	1	4	1	4	. .	5	. .	. .	. .	. .	. .
Diarrheal diseases	9	5	4	3	4		7	. .	. .	.	1	1
Pulmonary tuberculosis	173	95	78	1	. .	2	3	3	28	95	34	10
Other tuberculous diseases	30	19	11	5	5	5	15	5	4	4	1	1
Diseases of the nervous system	114	62	52	16	4	4	24	7	2	17	29	35
Heart-diseases	123	61	62	2	. .	1	3	2	10	20	46	42
Bronchitis	77	46	31	39	7	2	48	. .	2	3	7	17
Pneumonia	325	157	168	54	24	19	97	7	12	76	67	66
Other diseases of the respiratory organs	40	21	19	3	1	1	5	1	. .	6	14	14
Diseases of the digestive system	63	39	24	15	4	3	22	4	3	11	14	9
Diseases of the urinary system	127	73	54	2	. .	. .	2	1	4	28	51	41
Congenital debility	59	33	26	59	. .	. .	59	. .	. .	. .		.
Old age	33	11	22	. .	. .	. .	. .	.	. .	. .	. .	33
Suicides	15	9	6	. .	. .	. .	. .	. .	3	6	5	1
Other violent deaths	39	25	14	2	1	3	6	4	2	12	13	2
All other causes	260	103	157	26	3	6	35	6	15	67	75	62

The Cartwright Prize of the Alumni Association of the College of Physicians and Surgeons, the medical department of Columbia University, New York, will be awarded at the commencement-exercises of the college this year. The prize, which is awarded biennially, amounts to $500, and is open for universal competition. An essay, in order to be held worthy of the prize, must contain the original investigations of the author. Essays submitted in competition must be sent to Dr. George C. Freeborn, secretary of the Alumni Association of the College of Physicians and Surgeons, No. 437 West 59th Street, New York, on or before April 1, 1899. They must be marked with a device or motto, and be accompanied by a sealed envelop similarly marked, containing the name and address of the author. The prize will not be awarded for any essay that is the work of more than one author, or which is at the same time submitted for another prize. Each competitor is required to send with his essay a statement that these requirements have been complied with.

The Medical Society of the County of Erie (Buffalo, N. Y.) held its 78th annual meeting January 10, 1899. Dr. Lucien Howe presiding. The attendance was unusually large. The retiring president took for the subject of his valedictory address, "Why and how systematic examinations should be made of the eyes of school-children." This address was a scientific contribution of acknowledged merit and produced a spirited discussion. President Howe stated that an examination of over 1,000 pupils of public schools revealed the fact that the vision of the pupil suffered in proportion as the age of the child advanced. The causes for this were principally due to unscientifically arranged school-rooms, poor light, or light coming from the wrong direction, and seats unadapted to the requirements of the child. He recommended that the eyes of children be tested at least once annually, and if found defective a notice be sent to the parents calling their attention to the fact and asking them to consult with their family physician relative to a proper oculist and treatment. These preliminary tests could easily be made by the teachers, but a medical inspector should be appointed to make the examinations of those found in any way defective. He recommended the abolishment of towels in schools, as these served to communicate disease. Superintendent Emerson, of the Public School Department, said it had long seemed to him, that if 1,200 teachers were employed to look after the mental requirements of the 70,000 pupils, there ought to be at least one medical inspector to attend to the physical side. He had recommended that a row of adjustable seats be placed in each school-room, inasmuch as pupils are graded according to their mental and not their physical qualifications, but this had always been denied him by the city authorities. Health-Commissioner Wende considered it essential that the Health Department be consulted in the selection of sites for and the erection of new school-buildings. An expensive school had been recently built by the side of a factory, which created a nuisance, and seriously interfered with the welfare of the school. A committee, consisting of Drs. Hubbell, Wende, Clark, Cott, and W. W. Potter, was appointed to consider this question. Later a report was submitted and adopted, to the effect that the school-authorities be requested to have the teachers examine the eyes of all pupils once annually, after a prescribed manner, and that the city authorities be requested to appoint a medical inspector of schools, who shall look to the sanitary as well as general physical condition of schools and pupils. The board of censors submitted its annual report, from which it appeared that quacks and illegal practitioners had received considerable attention and that the moral effect upon this class was good. Other papers presented were "A new form of Atomizer," by Dr. G. F. Cott; "Some points in the diagnosis of Ovarian Cyst," by Dr. C. E. Congdon; "Ocular Hygiene in the school-room," by Dr. B. F. Rogers. The following were elected to membership: Drs. John H. Grant, J. C. Clemesha, Emily Lustig, A. L. Weil, Mary Clayton, James W. Charters, Christ. A. Weinbach and Charles R. Borzilleri. The society has about 380 members. The annual election of officers resulted as ollows: President, Dr. J. B. Coakley; vice-president, Dr. E. H. Ballou; secretary, Dr. Franklin G. Gram; treasurer, Dr. Edward Clark; censors, Drs. J. B. Coakley, I. W. Potter, T. F. Dwyer, C. E. Congdon, and F. E. Fronczak.

Buffalo Academy of Medicine ; Surgical Section.—At the last meeting Dr. George Knowles Swinburne presented a study of **protargol in acute gonorrhea,** wherein were analyzed a series of 78 cases presenting during August and September, 1898. The only cases reported upon were acute, and they were treated once daily, with the complete disappearance of the gonococcus in from 3 to 4 days and a cure, as understood by the usual beer-test, in a maximum average time of 4 weeks. The steps in the treatment consist: (1) in gradually flushing the urethra from the meatus back with a solution of potassium permanganate 1 to from 3,000 to 5,000, at a temperature of from 110° to 120° F., after which (2) a 2% solution of protargol is made to gently distend the urethra and is retained about 10 minutes. For posterior urethral involvement, Dr. Swinburne introduces the protargal by means of a hollow metal catheter-syringe; he condemns the flushing of the bladder for posterior urethral disease; he believes he avoids producing posterior infection in flushing anterior involvement by the gradual advancement of the flushed area inch by inch. In cases in which flushing is impossible, as in hypospadiacs, he uses, by way of the stomach, a capsule containing methylene-blue and boric acid, after which he injects the protargol by an appropriate syringe. The first treatment is nearly always immediately followed by a period of faintness; hence, he always insists upon the patient reclining at that time, or he even administers the protargol in a recumbent position. He finds that protargol causes a burning sensation of greater or less intensity, but that it causes no irritation. Dr. Swinburne called especial attention to the urethral follicles and their influence in prolonging the disease and even in masking a cure. He said that he had never seen what is called the mucous stage. He related the histories of a few cases taken at random from his series. Upon the whole he is very favorably impressed with the action of protargol in acute cases, but his experience with chronic cases is not favorable. In the discussion Dr. S. Y. Howell commended the irrigation-method advised by Dr. Swinburne. Dr. N. G. Russell had used irrigation by means of a catheter rather than the gravity distention-apparatus and believed he got as good results; he also used protargol as an irrigation with excellent results in acute cases. Dr. Hertwig believes the drug useful in fresh cases, as does Dr. E. E. Smith also.

Dr. A. E. Diehl read a paper upon **burns, scalds and frost-bites,** in which he made a careful classification and insisted that in reporting cases and the means of treatment, the class in which the case fell should be accurately stated. He reviewed the theories extant regarding death from burns, mentioning shock and intoxication especially; and he called attention to the fact that death was often secondary by reason of the complications often resulting, *i. e.*, pneumonia, intestinal ulceration with perforation and peritonitis. He described the treatment of the different classes, condemned dry treatment, and recommended ichthyol and resorcin in moist treatment. He would meet constitutional indications, using opium with great care. In the discussion Dr. Chauncy Smith advised a continuous full bath of normal salt-solution in appropriate cases; he spoke of his experience as satisfactory in the immediate treatment of burns by chloroforming the patient and scrubbing the burned surface, thereby removing the toxins produced by the burning, and thus preventing the subsequent intoxication. Dr. Thornbury called attention to Dr. Lusk's experiments with the use of dried epidermis in skin-transplantation. Dr. E. E. Smith agreed that burns should be carefully classified in reporting treatment, called attention to the fact that death may occur from drugging for pain, and emphasized the advantages of moist dressings.

By request Dr. Pattison, of the New York State Hospital, presented a specimen of **ruptured heart** in a woman aged 72. The rent was about 1½ inches long, and was situated near the left border of the left ventricle. No history pointing to the cause could be obtained.

New York Academy of Medicine.—At the annual meeting held January 5, the annual reports of the officers and committees were read, the most interesting of which was that of the chairman of the library committee. During the year the New York Hospital presented its library to the Academy, thus making the Academy library larger than any medical library in the country, except that of Washington. It now contains upwards of 70,360 volumes.

The retiring president, Dr. E. G. Janeway, made a farewell address, in which he reviewed the importance of the medical library to the public as well as to the profession. He thought civic pride should induce the people of New York to make their medical library the largest in the world. He suggested issuing an appeal to the public for funds to complete the endowment-fund of the library. He then mentioned the need of a laboratory in connection with the Academy. This has been his pet project for a number of years. He showed that it would in no way interfere with the work done at the college-laboratories, and at the same time it would prove a boon to the scientific men who abound in New York. He reviewed his labors in the direction of regulating expert testimony, so that it would cease being the laughing-stock of the community. The most violent opposition that he encountered was from the legal profession itself. Until it were won over, nothing could be done to abate the evil, and he did not think it could be won over in this century.

Dr. W. H. Thomson, the president-elect, read his inaugural address. He began by defining the Academy of Medicine, its scope and limitations. He presented a word-picture of the time when he was a young practitioner and the Academy was in its infancy. That was before the rise of specialists. The meetings then were crowded and one subject was discussed for three meetings in succession. Since then the rise of specialists has necessitated dividing the meetings of the Academy into sections. He advocated a return to the old system. He then reviewed briefly three great subjects that have received professional attention of late. The first was immunity, the second the etiology of edema, the third the pathology of chill. He then went on to say that experimental medicine is destined to succeed clinical observation and postmortem examination. In New York there is no place adapted and intended for independent, original research in the line of experimental medicine. What the Academy needs is a research institute connected with it, wherein the scientist can conduct his experiments as the basis of great contributions to the progress of medicine, thereby removing the stigma of hopeless mediocrity now attached to the American profession.

Dr. Abram Jacobi made a presentation-address, eulogizing the name and fame of Dr. Jos. D. Bryant and formally presenting to the Academy Dr. Bryant's portrait made in oil.

Brooklyn Gynecological Society.—At a stated meeting held last week, Dr. Geo. McNaughton presented a specimen of **ectopic gestation** removed from a patient. The tumor had not been dissected, and there was some doubt as to whether it was a tubal pregnancy or not. The tumor was the size of an orange, and upon being opened, a fetus 2 in. long was found in a cavity (presumably a dilated tube) filled with sanguinolent fluid.

Dr. A. O. Gordon read a paper entitled **appendicitis complicating pregnancy.** He cited several cases reported in the literature, and concluded with a case of his own, in which he operated 2 days after the onset of the attack, removing the appendix. The woman is now well and carrying her child in utero. In most of the cases cited, the fetus was expelled either before or after the operation. The death of the fetus was attributed to either the high temperature or involvement of the uterus in the septic process. In some of the cases the mother as well as the fetus died. In the discussion Dr. Chas. Jewett said that he had doubts whether pregnancy was an etiologic factor in the production of appendicitis. In a paper he had read recently Dr. Marx had taken that ground. Another cause of appendicitis occurring during pregnancy that he had stated was that the appendix sometimes hung down and was pinched between the gravid uterus and the pelvic brim. This also is doubtful. The probable cause of the abortions was the high temperature and not the septic inflammation of the uterus. The prognosis of appendicitis in pregnancy was death of one-third of the mothers and one-half of the children. One-third of the cases result in abortion. The longer the duration of appendicitis, the greater the danger. The more advanced the pregnancy the worse the prognosis. The danger is greatest at term, then the contraction of the uterus is liable to cause rupture of the abscess. Immediate operation is always indicated when the diagnosis is reasonably sure. Dr. McNaughton made the suggestion that the abortions might possibly be due to a reflex effect on the uterus, in consequence of which it contracted and expelled its contents. Dr. Chase did not think pregnancy a contributory cause of appendicitis. He thought no time should be lost before operating. Dr. Grant Baldwin thought that the increased blood-supply of the pelvic viscera during pregnancy ought to militate against the occurrence of appendicitis. He narrated a case in a woman 6 months pregnant in which he operated 3 weeks after the attack, removing a large appendicular abscess. The patient died on the tenth day, of pneumonia.

Dr. Chas. Jewett related a case of **uremic coma** occurring in a woman of 23 years, pregnant and at term. Convulsions developed and coma ensued. She did not void urine from the time she was first seen until she died, with the exception of ℥iij drawn with a catheter. The child was dead and was extracted with forceps. The woman's temperature went up steadily afterward. She was treated with hot-air baths and cupping over the kidneys without result. Colonic flushing with normal salt-solution was tried, without effect. In the discussion Dr. Skene said that he doubted whether colonic flushing was any safer than, or even as good as intravenous injections. He was not enthusiastic over its reputed great advantages, and was in doubt as to how much value could be placed upon it. Dr. McNaughton saw a case recently in which the reinforcement of the blood with saline solution was effected, but preliminary to the injection of the solution into the veins, a quantity of blood was abstracted. The patient recovered. Dr. Jewett said it was rational to suppose better results would follow the abstraction first of the toxic blood, but in practice venesection was disappointing. The procedure was not now held in favor. He knew of a case in which ʒxvj of blood were abstracted, which was followed by injection of saline solution and the patient died.

NEW ENGLAND.

Massachusetts School for the Feeble-Minded.—According to the *Boston Medical and Surgical Journal*, the State of Massachusetts has purchased a farm of 1,660 acres in Baldwinville, Mass., which is to be used as an addition to the School for the Feeble-Minded, at Waltham. The adult inmates of the school who are able to perform physical labor will be given useful employment on this farm, an object that has long been aimed at by Dr. Walter E. Fernald, the superintendent of the school. The completion of the work upon the present property left a large number of inmates without useful employment, and the wisdom of the State in providing employment for them is shown by the fact that they have, by performing the rough work on the present school-grounds in Waltham, saved the State a large sum of money.

Thurber Medical Association, Milford, Mass.—At a meeting held January 5, the matter of changing the present local association into a branch of the State society was discussed, and a generally favorable opinion expressed. Further consideration was deferred until the next meeting.

Dr. M. W. Knight exhibited a patient, an Italian woman, upon whom he performed **Cesarean section** in December, 1897. The pelvis, though not deformed, was so small as to render instrumental delivery impossible, and the woman had had repeated convulsions. The wound healed perfectly, and the woman is now again pregnant, at about the close of the third month. Dr. Knight proposes to bring on premature labor, and upon recovery he believes it will be advisable to remove both ovaries, in order to prevent further conception.

CHICAGO AND WESTERN STATES.

Dr. S. E. Josephi, of Portland, Oregon, has been elected a State senator.

The Tri-State Medical Society of Iowa, Illinois, and Missouri will convene in Quincy, Ill., during the early part of April.

Society for the Prevention of Tuberculosis in Chicago.—A meeting of representative medical men was called for January 6, with a view of forming such a society.

Chicago Pathological Society.—At a meeting held January 9, Dr. I. B. Diamond reported a case of **amebic dysentery** and presented some microscopic sections. Dr. M. Herzog reported a case of **sarcoma of the mesentery.** Dr. T. R. Crowder reported a case of **tuberculosis of the cecum.**

"The St. Paul (Minn.) Medical Journal" is the title of a new publication, to be issued monthly by the Ramsey County Medical Society, under the editorial supervision of Dr. Burnside Foster. It will endeavor to fill a want that it believes to exist at least in that part of the country where it has its home, and any pecuniary profit that may arise from its continuation will be devoted to the building up of the Ramsey County Medical Society Library.

San Francisco (Cal.) County Medical Society.—The following are the officers elected at the recent annual meeting: President, Dr. George W. Davis; first vice-president, Dr. E. E. Kelly; second vice-president, Dr. S. J. Hunkin; recording secretary, Dr. George H. Evans; assistant recording secretary, Dr. W. F. Barbat; corresponding secretary, Dr. L. M. F. Wanzer; treasurer, Dr. Philip King Brown; librarian and curator, Dr. D. W. Montgomery.

The Cleveland (Ohio) Medical Library Association held its annual meeting December 12, at which the following officers were elected for the ensuing year: President, Dr. H. E. Handerson; vice-president, Dr. J. A. Stevens; secretary, Dr. J. C. Wood; treasurer, Dr. A. F. House; librarian, Dr. C. A. Hamann; trustees for three years, Drs. H. E. Handerson, E. F. Cushing, W. H. Humiston, H. J. Lee, J. B. McGee, J. A. Stevens, H. H. Baxter, J. E. Cook, H. C. Brainard, W. W. Holliday, W. T. Corlett, William Lincoln, A. F. Baldinger, M. A. Canfield, and A. Peskind.

Chicago Medical Society.—At a meeting held January 4, 1899, Dr. Homer M. Thomas read a paper on **the mechanism of nebulization in the treatment of pulmonary tuberculosis.** He referred to the general interest that is being taken in the subject of nebulization, and particularly in its application to the treatment of pulmonary troubles. Nebulization is one of the oldest procedures in treatment known to medicine. It can be traced back to the time of Hippocrates, who was the first to devise an apparatus for the purpose of inhalation. The evolution of nebulization has been greatly enhanced by the production of an oily menstruum, particularly the oils of the coal-tar products, which, as vehicles, may be used in combination with the stronger basic oils for inhalation. A difficulty that has appeared to lie in the way of this treatment has been the imperfect construction, and hence inefficient action, of various nebulizing instruments. Dr. Thomas described in detail a nebulizer that he had devised for his own use, and that has proved eminently satisfactory. The latest addition to the facilities in Cook County for treating disease has been the erection of a hospital for tuberculous patients at Dunning. One of the measures used in treatment is nebulization of the essential oils, as oil of cinnamon, oil of wintergreen, oil of pine needles, Merck's oil of cloves, oil of eucalyptol, beechwood-creosote, and thymol. The compressed-air mechanism in the new hospital is probably the most complete of any in this part of the country. Extreme care has been used in providing absolutely pure air for the application of this treatment there. The air first enters the building from the highest ridge of the roof; it is filtered through three screens of increasing fineness, passes into an antiseptic chamber, into which are placed antiseptic nebulæ; from this chamber it passes into a water-bath, the water of which is filtered and chemically pure, and the water drops down through the compressed air as it passes through for the purpose of separating from it any possible impurities that may have escaped the former methods of purification and antisepsis. It is then carried from the water-bath into a large tank of 150-gallons capacity, is stored at a pressure of 45 to 50 pounds to the square inch, passes through another antiseptic chamber, and is then ready to be piped throughout the building. The capacity of the hospital is about 380 patients, and with the present piping arrangement, it will be possible to nebulize at the bedside probably 50 or 60 patients special nebulæ, as may seem needed for each case. In addition, there exist rooms large enough to accommodate 10 or 15 patients at a time, in which the air is supersaturated with antiseptic nebulæ. In these rooms the patients gather for from 15 to 30 or 40 minutes, and breathe this highly charged antiseptic air. By this means, it is hoped, with the efficient mechanical appliances there in operation, to greatly assist in the amelioration and possible extinction of pulmonary tuberculosis.

Dr. Fenton B. Turck read a paper on **motor insufficiency of the stomach**, and the subject was formally discussed from the standpoints of pathology, bacteriology and chemistry by Drs. Evans, Gehrmann, and Wesener respectively. Dr. Turck said that the motor power of the stomach is by far its most important function, not only because the food cannot be absorbed until it reaches the intestines, but also because peptic digestion is enormously retarded if the churning process of the stomach ceases. This was conclusively shown by means of artificial peptic digestion-experiments in rotating rubber bags. The contents of the thicker and less flexible bags were digested much more rapidly than the contents of the thinner and more flexible bags. The latter in revolving would disturb the contents less. In addition to the lack of nutrition and final starvation caused by motor insufficiency, this also gives rise to serious vasomotor disturbances of the splanchnic area, first because uninterrupted dilatation and distention of the stomach of dogs lead to collapse, and as the stagnation of the food-contents gives rise to gases, it is quite possible that these, together with the stomach-contents, will produce similar results. The food-remnants may themselves act as irritants, especially such remnants as adhere to the stomach-walls. In stagnant food-remnants there are unquestionably formed toxic substances through the action of the numerous bacteria that infest the stomach, and Dr. Turck's experiments have indeed shown that such stagnant stomach-contents are far more toxic than the normal ones. The toxins so formed make probably a powerful factor in the production of the vasomotor disturbances that accompany motor insufficiency. In connection with the etiology of simple motor insufficiency, Dr. Turck emphasized the fact that all the causes are operative by over-taxing the stomach-muscles, without allowing them sufficient periods of rest. In accordance with the laws that govern all muscle-contraction, this must sooner or later result in fatigue. Fatigue inevitably leads to retention, and long-continued retention as inevitably to permanent weakening of the muscles and to dilatation. Such weakening of the stomach-muscles was produced in dogs by introducing permanent loads in the form of silk bags filled with shot. From an etiologic point of view, cases of motor insufficiency may be divided into two classes: (1) Such as are due to some mechanical obstruction, and in which the motor insufficiency is secondary to the obstruction. These, whether malignant or benign, demand the earliest possible surgical intervention, and on the part of the physician call for an early diagnosis. (2) Those in which the gastric myasthenia and dilatation are the primary conditions. Motor insufficiency often follows other general and acute diseases because of the weakening of the stomach-muscles and the tendency to disregard the proper dietetics during convalescence. The early gastric symptoms in cases of tuberculosis are not due to disturbances of secretion, because hyperacidity and hypoacidity and other anomalies of secretion are not constant factors, as is the lack of motor power of the stomach, and when this motor power is restored, the nutrition of the patient is increased and the general condition shows marked improvement. The fact was therefore emphasized that in the treatment of tuberculous patients due regard must be paid to the improvement of the gastric motility. Dr. Turck has also had occasion to investigate the gastric condition in various forms of diabetes, and has found that nearly all such patients have this lack of motor power. This is true even in cases in which there is seemingly no gastric symptoms. Special attention should be given to this fact in the treatment of diabetic patients. Dr. Turck called attention to some aids in the diagnosis of motor insufficiency of the stomach. Leube's method, as most commonly used, is the examination of the stomach-contents in the morning, after an evening-meal, and if food is found, the conclusion is reached that motor insufficiency exists. Even when the pylorus is patulous and the bulk of the food passes into the intestines, remnants of food may remain adherent to the stomach-walls. This condition is not revealed, even by lavage, but the food-detritus is readily removed by the use of the gyromele, and thus a condition of motor insufficiency, otherwise unobserved, may be detected. It is often necessary to determine the location, size and capacity of the stomach, as well as the character of the stomach-walls, as displacement and prolapse, dilatation or distention are so frequently associated with motor insufficiency. The distention of the stomach with air (Ruenberg's method), or the introduction of water (Diho's method), followed by percussion, are the methods most commonly used. To facilitate the procedure and to overcome the many obstacles that often defeat the most skilled diagnostician, Dr. Turck has devised a method consisting in the use of a thin rubber bag firmly attached to a double tube. One end of the double tube reaches to the bottom of the bag, the other only to the opening. The bag fits closely around the tube and does not materially increase its size, but when fully distended it has a capacity of from 1,500 to 2,000 cu. cm. The bag and double stomach-tube are introduced into the stomach, and water in fractional quantities is forced into the bag within the stomach until the liter of water is introduced. The area of dulness that is found each time that one-quarter liter is added is marked with a pencil upon the abdominal wall. If air is now forced into the bag, the upper portion of the stomach, the fundus and the lesser curvature are similarly determined by percussing the tympanitic area. If next, the small tube that leads to the upper portion of the bag containing air is connected with a manometer, any movements of the stomach will be indicated by the rise and fall in the mercury. The water may be siphoned off, and the diagnosis confirmed by retracing the steps. Thus the location, size, capacity, and motor power of the stomach may be accurately determined. A more direct and rapid method of determining the location, size and condition of the stomach consists in the use of the gyromele, which traverses the entire circumference of the stomach, the lateral as well as the vertical extent, including the greater and lesser curvatures. By palpating the revolving cable upon the abdominal wall, the gastric outline can be accurately determined. By using cables of different degrees of flexibility, the degree of distensibility of the stomach can be accurately determined. From its distensibility the motor power can be quite accurately estimated in cases in which there is no pyloric obstruction, as had been repeatedly found by experiments. The pyloric obstruction is discovered in the process of sounding the stomach, pylorus, and duodenum.

SOUTHERN STATES.

The Gulf Coast Medical Society was recently organized by the election of the following officers: President, Dr. J. K. McLeod, of Moss Point; first vice-president, Dr. J. J. Washington, of Pass Christian; second vice-president, Dr. R. J. Turner, of Bay St. Louis; secretary, Dr. O. L. Bailey, of Ocean Springs.

Richmond Academy of Medicine and Surgery.—The following officers were elected at the annual meeting held December 13th: President, Dr. Ernest C. Levy; vice-presidents, Drs. John Dunn, D. J. Coleman, and J. W. Henson; secretary and recorder, Dr. Mark W. Peyser; assistant secretary, Dr. W. H. Parker; treasurer, Dr. J. Travis Taylor; librarian, Dr. M. E. Nuchols.

Tri-State Medical Association of Mississippi, Arkansas, and Tennessee elected the following officers at the meeting held at Memphis, December 20 to 22, 1898: President, Dr. E. H. Martin, of Clarksdale, Miss.; vice-presidents, Dr. Morris J. Alexander, of Tunica, Miss., Dr. C. R. Shinault, of Helena, Ark., and Dr. J. P. Young, of Ripley, Tenn.; secretary, Dr. Richmond McKinney, of Memphis, Tenn.; treasurer, Dr. Marcus Haase, of Memphis.

The Southern Surgical and Gynecological Association elected the following officers at its recent meeting: President, Dr. Joseph Taber Johnson, of Washington, D. C.; vice-presidents, Drs. W. L. Robinson, of Danville, Va., and F. W. Parham, of New Orleans; secretary, Dr. W. E. B. Davis, of Birmingham; treasurer, Dr. A. M. Cartledge, of Louisville. Dr. L. McL. Tiffany, of Baltimore, Md., was re-elected to the council. The next meeting will be held at New Orleans.

Medical Department of the University of Kentucky.—On December 31st the following, formerly professors in the Kentucky School of Medicine, were elected to the following chairs in the medical department of the University of Kentucky: Dr. J. B. Marvin, professor of the principles and practice of medicine and clinical medicine; Dr. J. M. Halloway, professor of surgery and clinical surgery; Dr. C. W. Kelly, professor of anatomy; Dr. S. E. Woody, professor of chemistry and diseases of children. On January 1st, the University celebrated the one hundredth anniversary of its foundation; it was originally the Transylvania University. The annual session of the medical department was inaugurated January 2, 1899.

Vital Statistics of Washington, D.C.—According to the *Maryland Medical Journal* the annual report of Dr. Woodward, the health-officer, shows that during the year there were 5,415 deaths in the District. Of the decedents, 2,973 were white and 2,442 were colored, the rate being 15.53 per 1,000 for whites and 27.51 for colored, a total of 19.32 for entire population—the lowest death-rate ever recorded in the District. It is gratifying to note the decrease in number of deaths from diarrheal diseases. The death-rate for 1895–96 was 2.78; 1896–97, 2.00; 1897–98, 1.75. The death-rate from tubercular diseases was 3.42, the number of deaths being 959. There were 432 cases of scarlet fever. Of all cases, 2.9% died

—of the white 2.7%, and of the colored 5.9%. The number of cases of diphtheria was 700, of which 494 were among the whites, and of these 67 died, showing a morbidity rate of 2.52 per 1,000, and a percentage of fatal cases amounting to 13.5. Among the colored there were 206 cases, with 64 deaths, the percentage of fatal cases being 32.1, the mortality of all cases, then, being 18.17%. There were 4,909 births, 2,737 white and 1,972 colored. Of the children born, 2,444 were males and 2,265 females; 614 were illegitimate, 96 white and 518 colored. Twins were born in 54 cases, 32 white and 22 colored.

The Sale and Use of Morphin, Chloral, and Cocain.—At the meeting of the Tri-State Medical Association of Mississippi, Arkansas, and Tennessee, the following resolutions were passed:

Resolved, That it is the sense of the Tri-State Medical Association of Mississippi, Arkansas, and Tennessee, that no one should be allowed to sell the various preparations of opium, chloral, and cocain except upon the written prescription of a registered physician of the States represented in this Association; that a committee of 9 be appointed, 3 from each State, to present this question to their respective State Legislatures and press its passage, and that this committee report back to this Association the result of its labors.

Resolved, That it is the sense of this Association that any physician who habitually takes cocain or opium in any form is utterly unfit for the duties of his profession, and this habit should by law revoke his license.

Memphis (Tenn.) Medical Society.—At a meeting held January 3, Dr. M. Goltman presented the body of a negro baby, the subject of **enteroptosis.** The child was born without any abdominal wall over the central portion of the abdomen. The intestines protruded, covered only by mesentery. At one place a gangrenous knuckle of bowel protruded through an opening in the mesentery. The intestines were not attached to the spine, except where the duodenum passed under the peritoneum. An operation was performed on the seventh day, but it was impossible to cover the protruding mass. The child was practically dead at one time from the anesthetic, but it was revived by the energetic use of artificial respiration and alternate hot and cold douches. It died 3 days after the operation. At the autopsy the abdomen was found full of blood from the wound of the falciform ligament. During life the child had taken nourishment and the bowels had moved regularly.

Dr. E. C. Ellett presented a specimen exhibiting the early stages of **tuberculous laryngitis.** The laryngeal inflammation was, as it usually is, secondary to pulmonary tuberculosis. The specimen showed marked infiltration, especially over the arytenoids, where it produced the characteristic pear-shaped enlargement. There was no ulceration. In reply to a question Dr. Ellett said that in the painful (ulcerative) stage of this affection orthoform is of great value, as it produces local anesthesia lasting several hours.

Dr. B. F. Turner delivered the **President's Address,** in which he spoke of the objects of a medical society, which he considered the conferring of professional standing and the exchange of experience and information. There is beside a social side to the medical society. Dr. Turner discussed some points in connection with the circulatory anatomy of the kidneys. Dr. B. G. Henning opened the discussion on **influenza.** He said that since the disease first appeared in the United States in 1747 more than 100 epidemics have been observed. In 1889 it traveled from Russia to New York in three months. Influenza is an acute infectious epidemic disease characterized by high temperature, pains in the head and back and marked prostration. The specific germ was discovered by Pfeiffer in 1892, in the sputum and nasal secretions. The disease spreads along lines of travel and with great rapidity. There seem to be two forms, influenza vera, occurring in epidemics and due to Pfeiffer's germ, and influenza nostras, occurring sporadically as a catarrhal fever without a specific (germ) cause. There is no specific treatment. The salicylates and quinin have little or no influence. Dover's powder, caffein and phenacetin yield the best results. After the temperature subsides, strychnin in tonic doses is the best remedy. Of first importance during the attack is to keep the patient in a room of an even temperature of 70°.

CANADA.

The College of Physicians and Surgeons of the Yukon Territory, Canada, was recently organized by the election of the following officers: President, Dr. E. D. Dunn; vice-president, Dr. R. R. Macfarlane; registrar, Dr. A. F. Edwards. These with Drs. J. W. Good and H. H. Hurdman constitute the council. Bona-fide practitioners of medicine are eligible to membership upon presenting proper credentials, passing an examination, and the payment of $100. The following have been appointed to conduct the examinations: In surgery, Drs. J. W. Good and E. L. Barrett; in medicine, Drs. R. R. Macfarlane and E. G. Scoot; in midwifery and gynecology, Drs. E. P. Thompson and W. G. Hepworth; in medical jurisprudence and sanitary science, Drs. J. A. Sutherland and W. Z. Richardson.

MISCELLANY.

"Soon Graduated Home."—The *N. Y. Sun,* of January 9, 1899, contains the following advertisement: "Doctors, dentists, pharmacists, lawyers, undergraduates practising; soon graduated home. Box 590, Chicago."

American Neurological Association.—At a meeting of the Council held in Philadelphia, January 5, it was decided to hold the next meeting of the Association at Atlantic City on June 14, 15 and 16. The officers for the year are Dr. J. Hendrie Lloyd, of Philadelphia, president; Dr. Henry Hun, of Albany, N. Y., and Dr. F. R. Fry, of St. Louis, Mo., vice-presidents; Dr. F. C. Dercum, of Philadelphia and Dr. G. L. Walton, of Boston, councilors; and Dr. G. M. Hammond, of New York, secretary and treasurer.

Obituary.—Dr. Arthur E. Bate, a graduate of Jefferson Medical College, class of 1891, Philadelphia, January 5, aged 46 years.—Dr. William S. Frick, a graduate of Jefferson Medical College, class of 1848, Philadelphia, January 7, aged 72 years.—Dr. Evert Van Epps, Schenectady, N. Y., January 7, aged 50 years.—Dr. William A. Varian, Kingsbridge, N. Y., December 23.—Dr. James Ford, Wabash, Ind., December 30.—Dr. I. F. Graves, Nashua, N. H., December 15, aged 32 years.—Dr. Vernon L. Todd, Kansas City, Kan., December 22, aged 31 years.—Dr. Martin C. Kelly, Mt. Clemens, Mich., December 23.—Dr. William Schorse, Milwaukee, Wis., December 11.—Dr. E. H. Hyatt, Delaware, Ohio, December 24, aged 71 years.—Dr. James E. Whirford, Baltimore, Md., December 20, aged 50 years.—Dr. William Mayer, Cleveland, Ohio, December 21, aged 78 years.—Dr. William G. Brownson, Noroton Heights, Conn., January 3, aged 69 years.—Dr. Thomas H. O'Connor, of Clinton, Mass., at Nice, France, January 1, aged 51 years.—Dr. T. William Birkey, Philadelphia, January 10, aged 68 years.—Dr. Horace Burr, Wilmington, Del., January 10, aged 88 years.—Dr. Charles H. Richards, Dover, Del., January 10, aged 72 years.—Dr.

Horace Burr, of New Castle, Del. He was a graduate of the Medical Department of Yale College, 1842. Born December 13, 1817, at Haddam, Conn., died January 10, 1899.—Dr. C. H. Richards, of Georgetown, Del., born November 22, 1827; graduate University of Pennsylvania, 1851; died January 10, 1899.

Health-Reports.—The following cases of smallpox, yellow fever, and cholera have been reported to the Supervising Surgeon-General of the U. S. Marine-Hospital Service, during the week ended January 7, 1899.

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
Michigan:	Detroit,	Jan. 1	4	
Minnesota:	Minneapolis	Dec. 8	1	
Oklahoma:	Chandler	Dec. 30	1	
"	Daggett	Dec. 30	1	
"	Parkland	Dec. 30	1	
"	Sax & Fox Agency,	Dec. 30	1	
"	Stroud	Dec. 30	1	
Pennsylvania:	Ball Hill	Dec. 31	1	
"	Charlesville	Dec. 31	Smallpox suspected.	
"	East Vincent Twns	Dec. 31	1	
"	Everett	Dec. 31	3	
"	Homer City	Dec. 31	2	
"	Hopewell	Dec. 31	4	
"	Hustontown	Dec. 31	7	
"	New Granada	Dec. 31	1	
"	Pittsburg	Dec. 31	1	
"	Steelton	Dec. 31	11	
"	Waterfall	Dec. 31	1	
Virginia:	Alexandria	Jan. 4	3	
"	Newport News	Dec. 31	4	
"	Norfolk	Dec. 31	10	
Wyoming:	Rock Springs,	Dec. 24	1	

SMALLPOX—FOREIGN.

			Cases.	Deaths.
Africa:	Lorenzo Marques.			
"	Delagoa Bay	May 1-31		5
"	"	June 1-30		4
"	"	July 1-31		14
Brazil.	Rio de Janeiro	Nov. 11-25,	38	14
England:	Liverpool	Dec. 3-10	1	1
India:	Madras	Nov. 26-Dec. 2		1
Japan;	Awomori Ken	Nov. 18-Dec. 8	53	13
"	Hiogo Ken	Nov. 18-Dec. 8	1	
"	Kanagawa Ken	Nov. 18-Dec. 8	1	
"	Nagasaki Ken	Nov. 18-Dec. 8	1	
Russia:	Moscow	Dec. 3-10	17	3
"	Odessa	Dec, 2-17	6	1
"	Warsaw	Nov. 26-Dec. 17		15
Turkey:	Constantinople	Dec. 12-19		14
"	Smyrna	Dec. 4-11		2

YELLOW FEVER—FOREIGN.

			Cases.	Deaths.
Brazil:	Rio de Janeiro	Nov. 19-25	4	2
Columbia:	Barranquilla	Dec. 2-9	1	1
Cuba:	Habana,	Dec. 15-29		4
Mexico:	Vera Cruz	Dec. 15-22		9
"	"	Dec. 22-29		3

CHOLERA.

			Cases.	Deaths.
India:	Madras	Nov. 26		2

Examination for Assistant Surgeonships in the U. S. Marine-Hospital Service.—A board of officers will be convened at the U. S. Marine Hospital, Chicago, Ill., February 14, 1899, for the purpose of examining candidates for admission to the grade of Assistant Surgeon in the U. S. Marine Hospital service.

Candidates must be between 21 and 30 years of age, graduates of a respectable medical college, and must furnish testimonials from responsible persons as to character.

The following is the usual order of the examination: 1. Physical. 2. Written. 3. Oral. 4. Clinical.

In addition to the physical examination candidates are required to certify that they believe themselves free from any ailment that would disqualify for service in any climate.

The examinations are chiefly in writing, and begin with a short autobiography by the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery, and hygiene.

The oral examination includes subjects of preliminary education, history, literature, and natural sciences.

The clinical examination is conducted at a hospital, and when practicable candidates are required to perform surgical operations on the cadaver.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order as vacancies occur.

Upon appointment the young officers are as a rule first assigned to duty at one of the large marine hospitals, as at Boston, New York, New Orleans, Chicago or San Francisco.

After 5 years' service, Assistant Surgeons are entitled to examinations for promotions to the grade of Passed Assistant Surgeon.

Promotion to the grade of Surgeon is made according to seniority, and after due examination as vacancies occur in that grade. Assistant Surgeons receive $1,600, Passed Assistant Surgeons $2,000, and Surgeons $2,500 a year. When quarters are not provided commutation at the rate of $30, $40 or $50 a month, according to grade, is allowed.

All grades above that of Assistant Surgeon receive longevity pay, 10% in addition to the regular salary for every five years of service up to 40% after 20 years of service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses. For further information, or for invitation to appear before the board of examiners, inquiries should be addressed to Dr. Walter Wyman, Supervising Surgeon-General of U. S. Marine-Hospital Service, Washington, D. C.

Official List of Changes of Station and Duties of Officers Serving in the Medical Department of the U. S. Army.

Acting Asst. Surgeon S. P. Agostini is relieved from further duty at the medical supply depot, Santiago, Cuba. He will proceed without delay to San Luis, Cuba, for duty.

Acting Asst. Surgeon Samuel P. Cotrell is assigned to the Fourth U. S. Volunteer Infantry. He will proceed without delay to Manzanillo, Cuba, for duty.

Acting Asst. Surgeon E. F. Horr is relieved from further duty with the Fifth U. S. Volunteer Infantry. He will proceed to Manzanillo, Cuba, for duty.

Acting Asst. Surgeon O. W. Stone is relieved from further duty at the Detention Hospital, Santiago, Cuba. He will proceed to San Luis, Cuba, for duty.

Major Seaton Norman, surgeon, Third U. S. Volunteer Infantry, will return to his proper station at Guantanamo, Cuba.

Acting Asst. Surgeon Volney McR. Schowalter is relieved from duty at Fort Morgan, and will proceed to his home at Point Clear, Ala., for annulment of his contract.

Colonel Charles R. Greenleaf, A. S. G., will proceed to Greenville, S. C., and to other places on business pertaining to the inspection of the medical department at those places. The officers of the Army at the places to be visited will render every facility necessary to enable Colonel Greenleaf to effect the object of his inspections.

Major Charles R. Parke, brigade-surgeon, is relieved from further duty with the Third Brigade, Second Division, Second Army Corps.

Leave for two months is granted Major Charles R. Parke, brigade-surgeon. Dec. 30.

Leave heretofore granted Acting Asst. Surgeon Henry P. de Forest is extended one month on account of sickness. Dec. 30

First Lieutenant James R. Church, A. S., will proceed to Santiago, Cuba, for duty.

First Lieutenant Eugene H. Hartnett, A. S., and Acting Asst. Surgeon Carl H. Anderson, will report at Fort Monroe for duty.

First Lieutenant Samuel M. Waterhouse, A. S., is relieved from temporary duty at Fort Logan H. Roots, and will proceed to Fort McPherson for duty.

Acting Asst. Surgeon Edward W. Pinkham is relieved from further duty at the Josiah Simpson U. S. General Hospital, Fort Monroe, and will proceed to Columbus Barracks to accompany the Seventeenth Infantry to Manila, P. I.

Acting Asst. Surgeon Harry Street is relieved from further duty at the U. S. General Hospital, Ponce, P. R., and will proceed to Baltimore, Md., for annulment of his contract.

Acting Asst. Surgeons John P. Darling and F. F. Bowman, will report for examination as to their professional qualifications.

Major Ezra Woodruff, surgeon, is in addition to other duties, assigned to duty pertaining to the distribution and supervision of men in hospitals in New York City and vicinity, relieving Major D. M. Appel, surgeon, ordered to Savannah, Ga.

Acting Asst. Surgeon Arthur R. Jarrett, now temporarily at Fort Hamilton, will return to Fort Slocum for duty.

Major Henry P. Birmingham, brigade-surgeon, is relieved from further duty in the Department of Porto Rico, and will proceed to Fort Douglas for duty.

Major Wm. P. Kendall, brigade-surgeon, when he shall have closed the Division Hospital at Camp Poland, Knoxville, Tenn., and disposed of the property pertaining thereto, will proceed to Savannah, Ga., and report at the U. S. General Hospital for duty.

Major Donald Maclean, chief surgeon, is honorably discharged, to take effect Feb. 28.

Major James C. Merrill, surgeon, is detailed as a member of the retiring board convened by par. 10, S. O., 306, Dec. 29, this office, vice Captain Edward L. Munson, A. S., relieved.

Captain Richard W. Johnson, A. S., will report to Colonel Dallas Bache, A. S. G., president of the examining board at the Army Medical Museum Building, Washington, D. C., for examination for promotion.

Acting Asst. Surgeon Juan J. Casanova is relieved from further duty at Santiago, and will proceed to Cienfuegos, Cuba, for duty.

The following changes in the stations of officers are ordered:

First Lieutenant Guy C. M. Godfrey, A. S., now on duty at Huntsville, Ala., is relieved from further station at Fort Delaware, Del.

Major Peter R. Egan, brigade-surgeon, now on duty at Ponce, P. R., is relieved from further station at Fort Hamilton.

Major Wm. C. Gorgas, surgeon, now on duty at Havana, Cuba, is relieved from further station as attending surgeon in New York City.

First Lieutenant James M. Kennedy, A. S., now on duty with the Seventh Army Corps, is relieved from further station at Fort Washington.

Major William B. Davis, surgeon, now on duty commanding U. S. General Hospital, Fort Myer, is relieved from further station at Fort Brady.

Lieutenant Colonel Robert M. O'Reilly, chief surgeon, now on duty at Havana, Cuba, is relieved from further station at Fort Wayne.

Captain Benjamin Munday, A. S., now at Richmond, Va., is relieved from further station at Fort Wayne.

Major Charles E. Woodruff, brigade-surgeon, now on duty at Manila, P. I., is relieved from further station at Jackson Barracks.

Major Paul Clendenin, brigade-surgeon, now on duty at Havana, Cuba, is relieved from further station at Key West, Fla.

Captain Robert S. Woodson, A. S., now on duty at Holquin, Cuba, is relieved from further station at Fort McPherson.

Major John L. Phillips, brigade-surgeon, is relieved from further station at Alcatraz Island.

Major Wm. H. Daly, chief surgeon, is honorably discharged to take effect Jan. 18.

Acting Asst. Surgeon Christopher C. Collins will proceed from Lynchburg, Va., to San Juan, P. R., via New York City, for assignment to duty.

Acting Asst. Surgeon D. T. Lainé will report to Major-General John R. Brooke, commanding division of Cuba, for assignment to duty.

Official List of Changes of Station and Duties of Officers Serving in the Medical Department of the U. S. Navy.

Surgeon J. R. Waggener, detached from the Mare Island Navy Yard and ordered to Washington, D. C., in charge of an insane patient; thence home to wait orders.

Surgeon D. O. Lewis, ordered to the Mare Island Navy Yard. Jan. 16.

Passed Asst. Surgeon A. Farenholt, detached from the "Charleston" and ordered to the Naval Hospital, Cavite, P. I.

Asst. Surgeon E. V. Armstrong, detached from the "Scorpion" and ordered to the "Charleston," by steamer of Jan. 17.

Asst. Surgeon E. M. Blackwell, order of Dec. 19, detaching from the "Vulcan" and ordering to the "Franklin" revoked; detached from the "Vulcan" and ordered to the "Vixen."

Official List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the U. S. Marine-Hospital Service for the 7 Days Ended January 5, 1899.

Passed Asst. Surgeon W. J. Pettus to proceed to Norfolk and Newport News, Virginia, for special temporary duty. Jan. 3, 1899.

Passed Asst. Surgeon J. C. Perry, relieved from duty at Port Townsend, Washington, to take effect upon the arrival of Passed Asst. Surgeon C. H. Gardner, and to retain command of the Port Townsend Quarantine-Station. Jan. 3, 1899.

Passed Asst. Surgeon W. J. S. Stewart to proceed to Alexandria, Virginia, and Hancock, Maryland, for special temporary duty. Dec. 31, 1898. Relieved from duty at Bureau and directed to proceed to Vineyard Haven, Mass., and assume command of Service. Jan. 3, 1899.

Passed Asst. Surgeon C. H. Gardner, upon being relieved from duty at Baltimore, Maryland, to proceed to Port Townsend, Washington, and assume command of Service. Jan. 3, 1899.

Asst. Surgeon S. R. Tabb, upon being relieved from duty at Vineyard Haven, Mass., and upon expiration of leave of absence granted by Bureau letter of November 29, 1898, to proceed to Baltimore, Maryland, and report to Medical Officer in command for duty and assignment to quarters. Jan. 3.

Hospital Steward B. E. Holzendorf granted two days extension of leave of absence. Dec. 30, 1898.

Appointments:

Chas. G. Charlton, of South Dakota, to be junior hospital-steward. Dec. 30, 1898.

Frank A. Southard, of Indiana, to be junior hospital-steward. Dec. 30, 1898.

John Purifoy, Jr., of Alabama, to be junior hospital-steward. Dec. 30, 1898.

Foreign News and Notes.

GREAT BRITAIN.

The Jenner Institute of Preventive Medicine is the title by which the British Institute of Preventive Medicine will in future be known. The Jenner memorial committee some time ago decided to convey to the Institute any funds that might be obtained, and the Council determined to alter the name of the Institute so as to perpetuate the memory of Jenner and his work. The legal formalities have now been completed.

The London County Council and the Water-supply of London.—The bill to empower the London County Council to acquire the undertakings of the London water companies has been duly deposited for introduction into Parliament next session. The preamble of the bill justifies the action of the Council by stating that the more recent companies were founded under Parliamentary sanction *expressly to compete with the older companies*, and so keep the price of water down for the people; but that they have now combined with bodies which should be their rivals *to establish a monopoly*. This combination, effected by mutual arrangements between the companies, whereby only one company supplies any given area, has never received Parliamentary sanction, and, in the opinion of the London County Council, constitutes an abuse that must be done away with.

Inebriate Reformatories in England.—A new Inebriate Act came into force in Great Britain on January 1, 1899, and the Home Secretary has issued a code of regulation for the management and discipline of the certified Inebriate Reformatories created under the Act. Conspicuous among these regulations is one that provides that every officer of a reformatory shall himself or herself be a total abstainer from intoxicating liquors, while "the great object of reclaiming the inmates is always to be kept in view." Daily visits are to be made at these reformatories by the medical officers, without whose sanction no punishments, either dietary or otherwise, are to be inflicted upon the patients. The establishment of these reformatories is hailed by many medical men as a distinct legislative advance, enabling the community for the first time to treat its drunkards intelligently.

A Case of Plague in an English Port.—The steamship *Golconda*, belonging to the British India Company, arrived at Plymouth in Christmas week and was found to have on board of her a man suffering from a mild attack of bubonic plague. The man was at once detained in hospital, but the ship was allowed to proceed to London where she was met by Dr. Collingridge, the medical officer of the port of London, and Dr. Bulstrode, of the Local Government Board. The usual processes of thorough disinfection were carried out, and no other cases were discovered among the crew or passengers, although a syphilitic subject with glandular enlargement was exalted into a victim of bubonic plague by some enterprising lay journalist, and "paragraphed" as such. Seeing that the *Golconda*, starting from Calcutta, which is just now perfectly free from plague, called at no infected port between Ceylon and Marseilles, it was at first sight difficult to understand the origin of the infection in the undoubted case of plague put ashore at Plymouth, but close inquiry showed that a passenger who had recently been down with the plague was on board and it is supposed that he brought some infected clothes with him.

The medical death-roll in England during 1898 has been a heavy one. Preeminent among those who have died comes Sir William Jenner, whose power of work, honesty of purpose, and dignity of character, made of him for many years the foremost physician in his country. Sir Richard Quain, wisest of family physicians and most genial and witty of hosts, was a far more popular man, though he did not enjoy the same professional status. But his editorial work on his "Dictionary" and his official work in the presidential chair of the General Medical Council will keep his memory green. Mr. Ernest Hart, the editor of the *British Medical Journal*, was an acute thinker, a fearless controversialist and a first-class journalist. We have said at some length in the Journal what we think of his claims to the gratitude of his countrymen for his strenuous work in behalf of their public health. Dr. Charles West founded the first hospital in London for children, and wrote the first good English book on pediatrics. Dr. K. N. Bahadhurji was a Parsee who obtained high medical distinction at London University, and returning to Bombay died there of overwork in connection with the plague epidemic. He was the leader of a movement, with which it is impossible not to sympathize, for throwing open some of the civil appointments in India, now necessarily filled by officers of the medical staff of the Indian army, to men like himself who have good medical degrees and also a claim of birth upon the country. Of Professor Kanthack, Dr. C. J. Hare, and Dr. William Munk, who all died at Christmas time, we have recently spoken. The names we have enumerated, which do not exhaust the list of well-known persons, show that the medical profession in England has suffered more than usually from deaths during the past twelvemonth.

An extraordinary story of personation was engaging the attention of the West Ham Police Court—West Ham is an enormous suburb of Eastern London—during the closing days of last year. The details of the case are sad reading for members of an honorable profession. Briefly, a poor woman engaged a "Dr. E. J. Nugent" to attend her at her confinement. "Dr. Nugent" so misconducted the case that the woman died of inversion of the uterus. He then gave a death-certificate signed E. J. Nugent, L. R. C. S. I. (Licentiate of the Royal College of Surgeons of Ireland), stating that death had occurred from hemorrhage and exhaustion. His treatment of the case had, however, in the opinion of some of the neighbors been so unskillful and inhumane that the coroner for the district ordered an inquiry, with the result that the jury returned a verdict of manslaughter. On the charge of manslaughter he was brought before the magistrate at West Ham, when a further charge of corrupt perjury was added by the Crown to the indictment. In support of this second charge a woman named Aramanda Nugent gave evidence to the effect that she was the wife of Mr. E. J. Nugent, L.R.C.S.I., who was in Australia, and had been there for nearly four years. She recognized the prisoner as a man named Rowland, to whom, she alleged, her husband had given the documents in attestation of his diplomas on leaving the country with the understanding that Rowland should allow his (Nugent's) wife 3s. 6d a week. This allowance Mrs. Nugent swore she had been receiving from the prisoner ever since. On this evidence, which was supported in different directions by several witnesses, the man "Nugent" was remanded in custody, bail being fixed at a high figure. For medical men in England the most interesting part of this story is that which shows how easy it may be for an unqualified medical man to pose as a duly registered practitioner, supposing Mrs. Nugent's evidence to be true. The General Medical Council, who have charge of the official register, were actually warned some time back that the man calling himself "E. J. Nugent" could not possibly be the person he stated himself to be, but the Registrar does not seem to have considered the matter worth inquiring into, or within his jurisdiction.

CONTINENTAL EUROPE.

The Military Medical Academy of St. Petersburg celebrated its centennial anniversary, December 30, 1898.

The German Society for the Establishment of Lung Sanatoria met in annual convention in Berlin, January 9.

University of Heidelberg.—Dr. Ernest Mehner, privat-docent at the University of Strassburg, has been appointed professor of anatomy.

Faculty of Medicine of Nancy.—Dr. Weiss, professor of surgical pathology, has been appointed professor of clinical surgery to succeed the late Professor Heydenreich.

Faculty of Medicine of Bologna.—Dr. Guilo Valenti, extraordinary professor at the Faculty of Medicine at Cantania, has been appointed ordinary professor of anatomy.

Faculty of Medicine of Liege.—Dr. Troisfontaines has been appointed extraordinary professor of surgical pathology and Dr. Henrijean, professor of pharmacodynamics.

Faculty of Medicine of Geneva.—Dr. G. F. Novaro, professor at the Faculty of Medicine at Bologna, has been appointed professor of clinical surgery to succeed the late Professor Caselli.

A monument to commemorate the late Dr. Henri Feulard, who perished during the fire at the Charity Bazaar in Paris, in 1897, was recently erected in the Hospital St. Louis, in Paris.

"Zeitschrift für Augenheilkunde" is the title of a new journal to be issued shortly, under the editorial supervision of Professor Kuhnt, of Königsberg, and Professor von Michel, of Würzburg.

"Journal de Physiologie et de Pathologie Générale" is the title of a new publication to be issued in Paris, by Drs. Bouchard and Chauveau, and an editorial committee composed of Drs. J. Courmont, E. Gley, and P. Teissier.

A Medical Congress of Hygiene is to be held at Como, in Italy, during the present year, in connection with which there will be a solemn commemoration of Volta. Professor Baccelli, Minister of Public Instruction, has been named honorary president of the organizing committee, which also includes the names of Professor Bizzozero, Senator of Italy, and Professor Golgi. An exhibition of Hygiene will be held in connection with the Congress.

A convalescent-home for the soldiers of the German Guards regiments is to be erected in Bisenthal, near Berlin. This will be the fourth military convalescent-home in Prussia, their establishment dating back no further than 1895. In these houses soldiers dismissed from hospital are not only comfortably lodged and well fed, but when their strength begins to return are gradually accustomed to drill and other military exercises until quite fit once more for barrack-life and its daily routine.

Mushroom-juice as an Antidote against Serpent-Venom.—At a recent meeting of the Académie des Sciences de Paris, Phisalix detailed the results of some experiments that he had undertaken to determine the value of mushroom-juice as an antidote against serpent-venom. He had been led to investigate this juice by the fact of its containing a considerable quantity of tyresin, which is the chemical nucleus of all albuminous bodies when extracted from the juices of serpents, and which possesses a great power against their venom. It was found that mushroom-juice is in reality of decided value as an antidote to these venoms. If the juice of the ordinary hotbed mushroom be extracted by pressure or maceration in water, and be injected into a guinea-pig, the animal is rendered immune to serpent-venom. The juice itself, however, has toxic properties varying in accordance with the size of the dose, 25 cu. cm. being fatal to a rabbit, which dies of intravascular coagulation. Filtering and boiling the juice diminish but do not destroy its toxicity.

An International Congress on Tuberculosis and the methods for combating it will be held in Berlin from May 23 to 27. The Imperial Chancellor, Prince Hohenlohe, will preside, and will be supported by an influential committee, headed by the Duke of Ratibor and Professor von Leyden. Five divisions of the subject have been agreed on: (1) Propagation, (2) Etiology, (3) Prophylaxis, (4) Therapeutics, (5) Sanatoria. Each of these questions will be introduced by a short and concise address, so as to leave ample time for free discussion and debate. Membership of the Congress is not to be confined to any particular class; any person interested in that terrible scourge of all nations, tuberculosis, can become a member by simply taking a ticket at the office of the Central Committee for Lung Sanatoria. As in the case of the Leprosy Conference a couple of years ago, foreign governments will be officially informed of the proposed Congress and requested to send delegates.—[*British Med. Jour.*]

Tuberculosis of the Thoracic Duct.—According to the *Lancet*, at a recent meeting of the Reale Academia di Medicina of Turin, Dr. Pio Foà, Professor of Pathologic Anatomy in the University, drew attention to tuberculosis of the thoracic duct. Whence the tuberculosis had its point of departure was not, he said, very clear. Some of the abdominal ganglia around the celiac trunk were found to be caseous. The tuberculosis seems to have gained access to the cisterna chyli (reservoir of Pecquet) and to all the thoracic duct, which was, nevertheless, quite permeable. The duct in some portions was extremely dilated and had its parietes greatly thickened and was the seat of an eruption of nodules large and small. There was further a miliary (granular) tuberculosis confined to the two lungs, but as the intromission of bacilli into the blood from the thoracic duct was probably affected at intervals, there followed an eruption of nodules in the lung at different stages of development. There were, in fact, chronic granulations and recent granulations, as well as many sub-granulations of quite recent standing. The patient died in consequence of profuse and uncontrollable epistaxis.

Suit for Malpractice.—According to the *Lancet*, a trial is about to be heard in which the facts possibly are not new, but, it is believed, are to be submitted to a legal tribunal for the first time. Two years ago a patient was attended in her confinement by her usual medical attendant, but not recovering in a normal way she underwent an operation performed by a young surgeon who had been a pupil of Péan. The operation seemed to do no good and the patient still kept her bed. Despite the entreaties of the surgeon that she should have a second operation, she would never consent, and 15 months after the first operation she went into the Hospital of St. Louis, where celiotomy was performed by Dr. Marchand. In the course of this operation a Hegar's dilator (bougie) made of metal was discovered which had been overlooked by the first operator. Questioned on the matter the young surgeon admitted the facts and added that that was just the reason why he had urged the second operation—namely, to get rid of the dilator. The patient, who is now quite well, has commenced proceedings against her medical attendants for malpractice.

Longevity in Spain.—The *British Medical Journal* states that according to Dr. F. Olóriz, professor of descriptive anatomy in the Medical Faculty of Madrid, it may be estimated that the proportion of centenarians at the present day for the Peninsula and adjacent islands is 25 per million. The ratio in 1857 was 12, in 1860 13.97, and in 1877 29.87. In the census of 1887 the proportion had fallen to 23.39. On the whole, however, the proportion of centenarians to population in Spain has notably increased during the last century; while the total population has not quite doubled, the proportion of centenarians has trebled. Extreme longevity is exceptional in the central regions of the Peninsula; it increases toward the maritime regions, especially in the south, and it reaches its maximum on the two sides of the Straits of Gibraltar. Professor Olóriz is careful to guard against drawing positive conclusions as to the effect of climate in the production of extreme longevity, but he thinks it probable that the sea-coast, with slight variations of temperature, is more favorable thereto than inland and variable climates. From his investigations he thinks himself warranted in stating that centenarianism is in Spain relatively more common in women than in men, in celibates than in the married, and in the illiterate than in persons of education.

MISCELLANY.

A Chinese Medical Journal.—The Hong Kong correspondent of the *British Medical Journal* writes that the first number of a new magazine with the title *A Monthly Journal of Medicine, Surgery, and Hygiene* has just appeared. It is edited by Wan Tün Mo, a diplomat of the Imperial Medical College, Tientsin, and Resident-Surgeon Alice Memorial Hospital, Hong Kong. The publication of this journal marks an epoch in the history of Western medical science in China. Slowly but surely the more enlightened Chinese are becoming convinced of the superiority of Western methods of medicine, surgery, and hygiene. In the first issue the scope and object of the magazine are set forth in the following passage:

> "The journal is published solely for advancement of medical science, and all contributions to its pages must be in strict harmony with the great facts on which true

medical science is based with special reference to the facts of anatomy, physiology, botany, chemistry. Each issue is to consist of six sections: (1) Leading articles and translated selections from recognized authorities in medical world; (2) special cases and treatment; (3) to deal with new methods; (4) to give instruction in first principles of anatomy and physiology; (5) notes on laws of health, food, sanitation; (6) miscellaneous, including news of special interest to students of medicine. Western doctors in China will be asked to report cases of special interest. Illustrated "plates and diagrams will be used."

Recrudescence of Psittacosis.—On p. 11, Vol. II, of the Journal, is a note of an epidemic of psittacosis that developed in Paris. There occurred 70 cases, of which 34 proved fatal. According to the *Lancet*, an epidemic of infective pneumonia broke out some time subsequently in Genoa, Italy. It numbered 14 victims, and was traced by the Board of Hygiene to parrots kept as domestic pets. Cases of an identical form of pneumonia, ascribed to the same source, had also occurred in Florence, and the Genoese Town Council, acting on the advice of its medical referee, issued a circular prohibiting the keeping of parrots in private houses. Since then there has been no recurrence of the epidemic in that quarter, but the traffic in these domestic pets—a considerable one between South America and the ports of the Mediterranean—continues and, diverted from Genoa by the municipal veto, has found markets farther inland. In the Julian Venetia, in the province of Udine, there has been a serious outbreak of infective pneumonia, and in one house in Beano (commune of Rivolto) 3 inmates fell victims to the disease, and 2 of them are dead. On investigation, it was found that under the same roof 2 parrots, harbored as domestic pets, had died shortly before from the pulmonary disorder, and that they had formed part of a consignment of these birds lately imported from South America. Dr. Rovere, of the Sanitary Office, on becoming aware of the facts, had an inquiry instituted, and the provincial medical officer, in his report, fully confirmed the identity of the disease with that previously manifested at Genoa and Florence. Rigorous measures were accordingly enforced to prohibit the keeping of parrots by private individuals in the commune. The whole subject acquires a special significance in view of the growing conviction that mankind runs far more risks to health and life from contact with the lower animals than till lately was suspected.

Acute Experimental Diphtheric Intoxication.—Moulinier, *Journal de Médecine de Bordeaux*, October 9, 1898, in a paper on this subject, reaches the following conclusions: (1) In acute experimental diphtheric intoxication, the principal lesion detected at autopsy is a congestion of all the organs supplied by the general circulation, accompanied by a considerable fall of arterial pressure. (2) The excitability of the vasomotor nervous system is demonstrated, as in the normal state, by the ordinary excitation of the sensory nerves. (*a*) Paralysis of these centers cannot be thought to be due to the decreased arterial tension and vascular congestion; as the latter phenomenon is a passive one. (*b*) The decreased arterial tension should be considered to be due to a diminution in the normal ventricular contraction. An attentive study of the tracings in these cases shows that the ventricular wave becomes progressively weakened until the pulse is absolutely filiform. (3) The functional examination of the pneumogastric nerve shows that the diphtheria-toxin produces a dissociation of the centripetal sensory filaments of this nerve and of the centrifugal inhibitory cardiac branches. The excitability of the first group of fibers is demonstrated by the fact that the ordinary low excitation of the sensory nerves increases the arterial pressure. The excitability of the centrifugal cardiac fibers is diminished, as is shown by the increased electric stimulation necessary to irritate them. [J.M.S.]

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

December 24, 1898. [No. 1981.]

1. Asthma and Its Treatment. Sidney Martin.
2. A Contribution to the Clinical Study of the Gastric Juice. J. Michell Clarke.
3. A Demonstration of Intragastric Instruments. Fenton B. Turck, Ewald, G. Herschell, A. Symons Eccles, and Einhorn.
4. On Menstruation and Ovulation in Monkeys and in the Human Female. Walter Heape.
5. Axis-Traction with Ordinary Forceps. John F. Le Page.
6. Dystocia due to Antepartum Hourglass Contraction of Uterus; Cesarean Section. Courtenay C. Weeks.
7. Disease and its Treatment, and the Profession of Medicine in the Year 1899. Wm. Ewart.
8. The Value of Venesection. Edward Picton Phillips.
9. Suppurative Otitis Media Complicated by Hyperplasia of the Meatus. F. Faulder White.
10. Acquired Tongue-Tie. Arthur Powell.
11. Death Under Chloroform. William Gordon.

1.—Spasmodic asthma is a disease essentially due to some nervous changes; its partial heredity, its occurrence largely in neurotic individuals and in families subject to migraine, as well as the characteristic attacks of the disease bring it into relation with nerve-storms, such as epilepsy. The attacks may be started by varying conditions—hay-asthma is traceable to the inhalation of the pollen of grasses and flowers; sometimes the attacks are excited by indigestion of food—the so-called peptic asthma—the attacks of which usually occur an hour or two after the largest meal of the day. Asthmatic attacks may also be initiated by disease of the lungs, e.g., bronchitis; by infectious diseases, such as pneumonia and influenza; by chronic affections of the nose and throat, although this is not so important a factor as is sometimes stated. In some cases (summer-asthma), the attacks occur for years only in the summer, disappearing in October or November, to recur the following year. As to the pathogenesis, Martin believes the cause of asthma to be a spasm of the fine bronchioles, those that are about to join the alveoli. It is not likely than an irritant acting on the bronchi is alone sufficient—the condition of the respiratory center must be taken into account. In hay-asthma, in the so-called cat-asthma, in asthma due to disease of the nasopharynx, and in other forms, the respiratory center is affected reflexly. In the treatment two forms of asthma must be recognized: The primary spasmodic form uncomplicated by bronchitis and that associated with this affection. For the treatment of the attack sedatives are required—morphin, hypodermically (gr. $\frac{1}{6}$ – $\frac{1}{4}$), chloral, or chloroform may be used. Inhalation of niter-fumes gives relief. At Brompton Hospital the following is employed: Anise and niter, of each 1 part; stramonium-leaves, 2 parts, and 5 grains of tobacco to the ounce; one teaspoonful is burnt on a plate and the fumes are inhaled. Cigarets made of similar ingredients sometimes give relief when the powder fails. A pill containing from $\frac{1}{6}$ to $\frac{1}{4}$ grain of morphin and $\frac{1}{60}$ grain of atropin sulphate, given at bedtime occasionally, is effective. Hyde Salter recommends tincture of lobelia in repeated small doses before the attack is expected. The treatment of the general condition consists in the administration of potassium iodid and arsenic. The Brompton Hospital iodid-mixture contains $\frac{1}{4}$ gr. of extract of stramonium, 2 gr. of extract of licorice, 3 gr. of potassium iodid, and 5 minims of chloric ether. Some patients cannot tolerate the stramonium. Arsenic may be given alone or in a mixture with the potassium iodid. If any peripheral irritation exists it must be remedied by proper measures. Diet is important in asthma; the meals ought to consist only of digestible food, and that in moderate quantity; no heavy late meals being allowed. Alkalies after meals often give great relief in peptic asthma. Codliver-oil is often useful in asthma. Some asthmatics never find relief from any measures; in children, however, under 10 years of age, at a time when a large number of cases arise, much can be done by dietetic regimen and by a proper mode of life, avoiding any "hot-house" treatment. [D.R.]

2.—Clarke reports the case of a man, 42 years old, who had suffered for 7 years from violent attacks of vomiting at irregular, but increasingly frequent intervals. The attacks lasted for about half a day at first and later for 2 or 3 days. The vomited material resembled coffee-grounds. The attacks were not accompanied by pain, but by an indescribable sensation of epigastric discomfort. Upon one occasion there had been hematemesis to the extent of nearly 3 pints of blood. There were no local signs of ulcer, dilatation, or malignant growth. The knee-jerks were absent, and Argyll Robertson pupils were present. The patient had, however, no ataxia and no affection of the bladder. He had slight girdle-pain, and, when questioned, stated that for more than a year he had felt severe lightning-pains in the extremities. Between the attacks the man exhibited a marked degree of hyperchlorhydria, while during the attack, HCl disappeared entirely from the gastric contents, and a large quantity of lactic acid was present. This absence of HCl during the attacks is quite contrary to the usual experience. The occurrence of hematemesis makes it seem probable that there was ulceration of the stomach, in addition to the apparent tabetic crises, though hematemesis may occur in tabes without actual ulceration. A second case was one of neurasthenia in a lad of 19, whose circulation was particularly weak and who had gastric distress with absence of free HCl. Stomachics and general treatment, particularly Schott exercises and baths, caused the general health to become almost normal, and a small amount of free HCl to appear in the stomach-contents. [D.L.E.]

4.—"Although absolutely regular menstruation throughout the year is not definitely proved for all species of monkeys, still it is quite certain some of them menstruate during the non-breeding period, and this is a fact to be noted, for it would appear to be a connecting link between the lower mammals, who come on 'heat' only at breeding times, and the human female, who is, generally speaking, capable of breeding at all times. This relationship is brought still closer by the facts that some women, of peoples that live very far north, do not regularly menstruate during the winter months, and that a special breeding-season among human beings is not only suggested by the customs of widely-separated peoples, but is actually observed by some of them." [W.K.]

5.—LePage describes his method of employing **axis-traction** by converting any ordinary long forceps into an axis-traction forceps. By the attachment of his tractor the head can be moved into any position, and traction be made in any direction with ease and precision. [W.K.]

6.—Weeks reports a case of **Cesarean section** for the removal of a dead child, forceps and craniotomy having been resorted to without success. The cause of the dystocia was hour-glass contraction of the uterus. The diagnosis was made by: (1) the definite palpation of the constriction around the neck of the child corresponding with a sulcus felt abdominally; (2) the insuperable difficulty experienced in attempting delivery; (3) the absence of signs of tonic contraction of the uterus until long after the constriction was felt. Eighty-four hours after the operation sudden collapse occurred and the patient died. [W K.]

11.—Gordon reports a case in which **death from chloroform** was so sudden and unexpected that all efforts at resuscitation were absolutely of no avail. The patient had taken the anesthetic once before, with no untoward symptoms, and was free from any disease of heart or lungs. The anesthetic had been given for 4 minutes, 1¼ drams being used, when, without warning, the patient turned livid and died. Pulse and breathing stopped simultaneously. [G.B.W.]

Lancet.

December 24, 1898. [No. 3930.]

1. Disease, its Treatment and the Profession of Medicine in 1899. William Ewart.
2. The Relation of the Nervous System to Disease and Disorder in the Viscera. Alexander Morison.
3. The Work of the General Medical Council. Victor Horsley.
4. Interstitial Herniæ and their Treatment. W. McAdam Eccles.
5. An Inquiry into the Production of Blood-Plasma—its Vital Properties and Mode of Nourishing the Tissue. Thomas Glover Lyon.
6. A Case of Spina Bifida Occulta. P. MacLulich.
7. A Case of Tumor of the Esophagus; Tracheotomy; Necropsy. E. Wharmby Battle.
8. Symptoms of Poisoning from a Small Dose of Cannabis Indica. Antony Roche.
9. The Rôle of Syphilis in the Etiology of Simple Ulcer of the Stomach. W. A. Mackay.
10. Note on a Case of Acute Inversion of the Uterus. C. Haslewood.
11. Two Cases of Whooping-Cough Treated by Aural Medication. S. Glanville Morris.
12. A Case of Pancreatic Cyst Treated by Incision and Drainage; Recovery. Ernest B. Randall.
13. A Case of Obstructed Labor; Porro's Operation; Recovery. Lawford Knaggs.

2.—Morison believes that the cardiac ganglia of the vagal system consists of large clusters of cells, many of which are found in the apex of the heart. He does not believe that the muscle is capable of rhythmic contraction unaided by nervous influence. He has also been able to demonstrate vasomotor nerves surrounding the intracranial vessels, thus showing that their activity is also subject to nervous influence. In the uterus and in the heart-muscle, the nerve-fibers show a coiled or wavy arrangement indicating their adaptability to conditions of dilatation and contraction. Pain is apparently caused as the result of over-distention of the nerve-fibers. The nerves in the pia mater end in the plexuses, as do the nerves of the other serous membranes, and it is, therefore, permissible to conclude that painful conditions are the result of processes similar to those in the pleura and the peritoneum. Of course the reaction to pain depends largely upon the character of the individual. [J.S.]

4.—"By the term **interstitial hernia** is meant an inguinal hernia, a part or whole of the sac of which lies within the abdominal wall." There are 3 forms: (1) the sac lying between the internal and external oblique muscles of the abdominal wall; (2) the sac lying between the external oblique and the superficial fascia; and (3) the sac lying between the peritoneum and the transversalis. The first is the most common. The causes of interstitial hernia included undescended testicle blocking up a partially patent inguinal canal, a small process of peritoneum following down the round ligament for a short distance only, a badly shaped or improperly fitting truss, and misdirected taxis. The first variety of interstitial herniæ is recognized by a flat oval tumor directed from the inguinal canal toward the spine of the ilium, by hardening of the muscles overlying it, by impulse on coughing, and by the other general signs of hernia. The second variety is diagnosed by a tumor, as in the first, only it is much more pronounced and not so flat. There is no hardening of the muscles and the tumor tends to become pendulous, sometimes simulating femoral hernia. The third variety presents no swelling and is rarely diagnosed except at an operation or after death. Sometimes when there exists a scrotal hernia in conjunction with this variety of interstitial, taxis employed to reduce the scrotal portion may, instead of replacing it in the abdominal cavity, only push it into the bifurcation of the sac extending between the transversalis and the peritoneum. In treating interstitial hernia, trusses afford most unsatisfactory results, though they may be tried in the first and second varieties when operation is for some reason or other contraindicated. If, in operating, there is an undescended testicle to deal with, it should be placed in the subserous tissue if a child; if a man and the organ is small it should be removed, and the sac be treated as in ordinary hernia. If the hernia is strangulated, operation is necessitated and should be carried out as in other strangulated hernias. [G.B.W.]

5.—Lyon says much that is new and, we fear, of doubtful value; that which is of value is not new, despite his belief to the contrary. He summarizes his theories in the following general statements: (1) Blood-plasma consists of minute particles (plasmacules), varying in composition within small limits, which consist of bioplasm in vital relation with formed material, water and salt. These plasmacules glide freely over one another, forming a fluid. (2) They possess definite vital properties—viz, vital molecular inertia, vital contact attraction, and the power of zoosmosis. (3) They are formed by a budding off from or liquefaction of the outer part of the cells of the retiform tissue of the intestines which have assimilated a part of the digested food-stuffs. (4) They are renewed by the cells of the lymphatic glands and the white corpuscles. (5) The formed material is passed from the plasma in contact with the vessel-walls by a vital molecular force (zoosmosis) into the tissues. (6) It is possible that platelets are aggregations of the bioplasm of blood-plasma. It is needless to say that Lyon has never seen the plasmacules, though he believes the platelets are an evidence that there is a living substance in the plasma—they take staining materials that usually stain living parts of tissues. It is scarcely necessary to quote his other arguments. [D.R.]

6.—The essential feature of **spina bifida occulta** is the presence of all conditions necessary to spina bifida, except that the site is marked by a depression instead of a tumor, in which the skin, membranes and cords are all blended together. The points of interest in the case reported by MacLulich are: (1) The nonunion of the laminæ of practically the whole vertebral column; (2) the external depression before the postmortem examination extended only from the fourth dorsal to the second lumbar; (3) the presence of a fistulous opening reaching into the central canal of the cord; and (4) the absence of other deformities. [G.B.W.]

8.—Roche reports a case of mild **poisoning** following a small dose of tincture of cannabis indica, occurring in a woman aged 33 years, who was ordered a mixture containing 10 grains of strontium bromid and 10 minims of tincture of cannabis indica in each dose, for the relief of an attack of migraine. Within a few minutes of the second dose, which was taken 4 hours after the first, the patient had an inclination to jump down stairs. In order to avoid doing this she went to bed. She was in an excited and joyous state, perfectly conscious, but altogether unable to control her joyous feelings. Her eyes were brilliant, her pupils slightly dilated, but reactive to light. Her pulse was full and soft. She had a creeping sensation in her arms and legs. She was given some strong black coffee, and within a short time was quite recovered. [S.M.H.]

9.—Mackay records incompletely two cases, the details of which would have been interesting. In both cases severe hematemesis occurred, and was entirely relieved by the administration of antisyphilitic treatment. Hematemesis does not, however, establish the diagnosis of gastric ulcer, though this is known to be a rare lesion of syphilis. [D.L.E.]

10.—Haslewood reports a case of **inversion of the uterus** resulting from the manipulations of a midwife. Ether-anesthesia was necessary before the uterus could be replaced. Recovery was uneventful. [W.K.]

11.—Morris reports 2 cases of **pertussis** successfully treated by syringing the ears, night and morning, with lukewarm boric lotion, and the application to the meatus and the tympanum of a paint consisting of 23 gr. of cocain hydrochlorate, 4 drams of glycerin, and 20 minims of a solution of mercuric chlorid and water to 1 ounce. [S.M.H.]

12.—Randall reports a case of **pancreatic cyst** occurring in a boy, aged 14 years, who had suffered 3 months previously from abdominal pain, feverishness and nausea for a fortnight. Since then he had been entirely well until 2 days before admission to hospital, when he was seized with abdominal pain, vomiting, and slight diarrhea. On the day of admission the vomiting and diarrhea ceased, but the abdominal pain continued. There was a well-marked prominence in the epigastric and upper part of the umbilical region, with general slight abdominal tenderness. On palpation, a tense, elastic, fluctuating and immovable tumor was found that seemed situated immediately behind the abdominal wall. Thrill and pulsation were felt over the mass synchronous with the cardiac impulse, but the pulsation was not expansile. The transverse diameter was 7½ in., the vertical diameter 5½ in. The spleen was not palpable; the liver was normal in size. An exploring needle was introduced into the tumor, and chocolate-colored pus was withdrawn, which, examined microscopically, was found to contain leukocytes, a few red blood-cells and crystals resembling tyrosin. There were no hooklets. On account of the rapid weakening of the patient an incision was made, and the cyst found adherent to the anterior abdominal wall. A trocar and cannula were thrust in and some fluid withdrawn into a sterile vessel. The wall was then incised, and 16 ounces of the pus withdrawn. The cavity extended in the direction of both loins and back over the aorta and spine in the region of the pancreas. Neither diverticula nor bands were discovered. The cyst-wall was sutured to the abdominal wall and the cavity drained with 4 strips of mercuric-cyanid gauze. The patient made a rapid, uneventful recovery. The fluid withdrawn was found to consist of blood-stained pus, with a few crystals resembling tyrosin. It did not turn starch into sugar nor emulsify fat. Inoculations on gelatin and agar were sterile. No hooklets were seen. Microscopic sections of the cyst-wall consisted partly of fibrous tissue in several stages of growth, and partly of glandular tissue showing tubular alveoli lined with cubical epithelium and a scanty amount of interalveolar tissue. The glandular tissue strongly resembled that of the pancreas, and the absence of amylolytic or emulsifying action in the fluid was accounted for by the free suppuration. [S.M.H.]

13.—The indications for **celiohysterectomy** in the case reported by Knaggs were extreme contraction of the pelvis, the antero-posterior diameter at the brim being 1½ inches; the presence of two fibroids; and death of the fetus, with an intensely septic condition of the uterine contents. The septic uterus was amputated and the pedicle fixed at the lower angle of the abdominal wound. The subsequent course of the case was complicated by tympanites, vomiting, and delusions, but recovery ultimately occurred. [W.K.]

New York Medical Journal.

January 7, 1899. [Vol. lxix, No. 1.]

1. On Hemosporidia in American Reptilea and Batrachians. GUSTAV LANGMANN.
2. Papilloma of Nasal Septum. BEAMAN DOUGLASS.
3. A Substitute for the Murphy Button. LOUIS Y. GENELLA.
4. Diagnosis and Treatment of the More Common Bladder Affections in Women by Means of Kelly's Method. HIRAM N. VINEBERG.
5. Sarcoma of the Nasal Septum. J. PAYSON CLARK.
6. Treatment of Pneumonia. SIMON BARUCH.
7. Spasmodic Closure of the Glottis in the Adult. HAMILTON STILLSON.
8. Thyreotomy in Papilloma of the Larnyx in Adults. T. MELVILLE HARDIE.
9. External Carbolic-acid Poisoning treated with Sodium Sulphate Solution. BERNARD WEISS.

1.—Langmann's praiseworthy studies show that the blood of many American reptiles and batrachians contains animal parasites—**hemosporidia**—both extracorpuscular and intracorpuscular forms. The parasites were most common in the moccasin-snake, but were found in other ophidians, in turtles, and in many frogs. Infection of the animals seems to occur chiefly through the digestive tract, and is most frequent in the aquatic species. The parasites resemble those known as occurring in other cold-blooded animals, and are probably allied to the drepanidium ranarum of Ray Lankester. Nothing definite is known as to the pathogenicity of the hemosporidia, but they are often so numerous as to make the assumption of a deleterious influence reasonable. Inoculation from animal to animal of the same or a different species was not successful; nor could the life-history of the parasite be traced. The article is accompanied by a series of good illustrations. [D.R.]

2.—Douglass reports a case of **true papilloma of the nose** and presents four photomicrographic views of substance of the tumor. It has the same structure as that of papilloma of the vocal band and is distinct from the so called Hopmann's polyp, which is really the ordinary polypoid process of mucous membrane folded and convoluted and furrowed, because of pressure, in consequence of the limited space in which it has to grow. The specimen under discussion showed microscopically a much-thickened epithelial layer, composed of large squamous cells, becoming smaller and more compact as they approach the interstitial tissue. This was made up of fibrous connective tissue with long spindle-cells and a few bloodvessels. A papillar arrangement prevailed. There were no glands.

3.—Genella describes a **substitute for Murphy's button,** easily made, applied, and sterilized. The instrument consists of but two blades of a forceps, both of the same size and structure, except that one is female and the other male, for disarticulation and sterilization. The blades, $\frac{1}{8}$ inch in diameter, present incomplete circles, with an inner diameter of $\frac{3}{4}$ inch, and a $\frac{1}{8}$ inch opening. When fixed in position the instrument is locked and fixed or clapsed as any artery-forceps. In using it the abdomen is opened and the diseased or injured portion of intestine is removed. Then, about $\frac{1}{3}$ inch from the cut margin opposite the mesenteric attachment, a puncture is made with an ordinary aspirating needle, enlarging the opening to $\frac{1}{5}$ inch. Either the male or female blade is taken, with the handle down, the end of the incomplete circular end of the blade inserted into the opening and the incomplete circular blade placed inside of the gut. The same procedure is followed with the other blade in the other end of the gut. The ends of the gut are invaginated upon the ring of the forceps, which is then locked and clasped. All around gut a row of Lembert sutures is inserted and tied. The forceps is unclasped until it no longer holds and by a circular movement the blades are released. Stitching up fenestrums in the mesentery and the puncture holes completes the operation. The points to be careful of, are not to pinch the gut, and not to open the blades too wide when removing.

4.—Vineberg has used the **cystocope** fully 500 times, employing Kelly's method, and has never seen any appreciable harm done the urethra. Ordinarily the size used was No. 10; rarely was No. 12 necessary. He describes the technic employed for bladder-operations. It is now known positively that the vast majority of cases of "irritable bladder" are due to a localized hyperemia of the bladder, usually involving the trigone. This may be found in association with the most varied pelvic affections, or it may be seen, as it frequently is, independent of any other disease. A few applications of a 5% or 10% solution of silver nitrate directly to the red patches almost invariably effects a cure. In cases of vesical tuberculosis great care should be exercised to exclude renal tuberculosis, for in the majority of cases the bladder becomes secondarily infected from a lesion of the kidney. [W K.]

5.—Clark reports a case of **nasal sarcoma,** illustrating the extreme malignancy of the round-celled variety. The first growth was removed by a cold wire snare. The recurrent growth was operated upon eight months later, and the subsequent growth was more rapid. Seven months afterward the whole septum of the nose was removed, but the growth again appeared and soon involved the left orbit and also the scar of operation, in a cauliflower fashion. Death ensued. It is concluded that in cases of this nature, when there is recurrence after an operation with the snare or the curet, no further attempt should be made to operate in this manner, but immediate recourse should be had to radical measures.

6.—Baruch analyzes the recent literature on the **treatment of pneumonia** with special reference to the importance of **vasomotor involvement.** He concludes from observations that cold applications have enormous therapeutic value. The application of cold water to the skin produces a contraction of the cutaneous vessels, which is followed by tonic dilatation during reaction, causing the blood-pressure to rise and improving the cardiac action. He declares against the full bath and uses the wet chest-compress as sufficiently efficacious, milder and less disturbing.

7.—Stillson reports a case of **spasmodic closure of the glottis,** a rare affection, in this instance apparently due to nasal complications. The attacks occurred only during sleep, and seemed purely reflex, being attended with permanent impairment of mobility of the abductors. Operations removing an existing hypertrophy of the left lower turbinate and a septal spur, followed by local dressings with cocain and astringents, resulted in recovery.

9.—Weiss reports a case of **carbolic-acid poisoning** from the use of a vaginal douche. Large eschars formed wherever the solution had touched. Syringing with a warm solution of sodium sulphate, a dram to the pint, produced relief in 10 minutes and absolute freedom from pain in a half-hour. Complete recovery was reported within 24 hours. Attention is called to the fact that carbolic acid, so-called, is not really an acid, and hence alkaline solutions are of no avail. Sodium sulphate forms with the carbolic acid sodium sulphocarbolate, which is soothing in effect and prevents further damage. Attention is also called to the habit of carelessly prescribing this powerful agent.

Medical Record.

January 7, 1899. [Vol. lv, No. 1.]

1. Experiments upon Leprosy with the Toxins of Erysipelas. Henry Dwight Chapin.
2. A Fallacious Test for Albumin in the Urine, with Remarks on the Best Tests. Ogden C. Ludlow.
3. Present Status of Opinion upon the Use of Quinin in Malaria. H. A. Hare.
4. The Efficacy of Guaiacol in the Treatment of Epididymitis. J. Clifford Perry.
5. The Relative Importance of Flies and Water-supply in Spreading Disease. M. A. Veeder.
6. Importance of Early Diagnosis. John C. Morfit.
7. Traumatic Appendicitis. M. B. Sullivan.
8. Diphtheria of Unusual Course. J. D. Austin.
9. Removal of the Entire Bowel below the Splenic Flexure of the Colon. John T. Pyle.
10. Hemorrhage as a Symptom of Urethral Stricture. L. E. Norfleet.

1.—See this Journal, Vol. ii, p. 1382.

2.—See this Journal, Vol. ii, p. 1383.

3.—Hare believes that the medical profession is by no means united on the use of **quinin in malaria,** many of large experience believing that the drug is contra-indicated in malarial hematuria. He has shown, experimentally, that in normal animals, quinin causes congestion of the kidneys, and as malaria causes similar disturbances, it is possible that the drug may at times act injuriously. In hemoglobinuria, occurring with the paroxysm, quinin is probably useful for the purpose of stopping future attacks. In severe forms of malaria, with jaundice and an hemorrhagic tendency, quinin is sometimes necessary to combat the disease, but it is desirable, even in this case, to see that other drugs are used first. [J.S.]

4.—Perry has treated 20 cases of **epididymitis** by the local application of **guaiacol,** 1 cu. cm. of the drug being painted over the cord, and 1 cu. cm. dissolved in 2 cu. cm. of glycerin over the inflamed testicle. It is usually necessary to renew the application every day for several days. Pain is usually relieved in from 20 to 30 minutes, and remains absent for 6 or 8 hours. The tenderness usually disappears on the following day. The swelling is rapidly reduced, and the edema is rapidly absorbed. Of 20 cases, 1 was aborted, 4 were cured in 3 days, 4 in 4 days, 3 in 5 days, 5 in 6 days, and 3 in 7 days. [J S]

5.—Veeder calls attention to the great importance of **flies as conveyors of typhoid infection,** particularly in military camps. He believes that in such cases, the true nature of the transmission may be recognized by the fact that the cases occur in isolated groups in the camps. The only efficient method of combating the difficulty is by disinfecting the feces of all typhoid patients immediately. Veeder believes that malaria may be almost entirely escaped if the soldiers refrain from touching water that has not been boiled. [J.S.]

6.—Morfit urges the importance of **early diagnosis,** and suggests that specialists should not restrict their examinations of the patient to their own limited field. On the other hand, it is sometimes necessary to have a case examined by a specialist for the purpose of discovering the cause of an existing difficulty. [J.S.]

7.—Sullivan reports the case of a girl, 15 years of age, who received a severe injury in the right iliac region. No operation was performed, but the patient was treated with hypodermics of morphin, salines, and the local application of cold. [J.S.]

8.—Austin reports the case of a girl, 5$\frac{1}{2}$ years of age, who had sore throat, with enlargement of the glands at the angle of the lower jaw. There was slight fever, but the condition disappeared by the next morning. The same afternoon, her younger brother also had a chill and high fever, but no particular sore throat. The girl was brought home, and an exudate found upon her tonsils, but it disappeared promptly. She had, however, two relapses, accompanied by a croupy cough, and, finally, after a patch of membrane had appeared upon the pharynx, it was decided to administer antitoxin. 2,000 units were injected twice, and the other children, one of whom had also developed a sore throat, were given small doses. All recovered. The facilities for making a bacteriologic diagnosis were unfortunately not at hand. [J S.]

9.—Pyle **removed the entire bowel below the splenic flexure of the colon** for a carcinoma involving the lower third of the rectum. The operation was performed in two sittings, an artificial anus being established at the first. The divided end of the lower segment was closed with catgut sutures, the mesocolon and mesorectum divided between ligatures and the released lower segment dropped into the pelvis. The final step of the operation was not carried out until convalescence from the first was thoroughly established. The method adopted for removal of the lower segment avoided entering the peritoneal cavity. A circular incision was made, bounded by the tuber ischii, the coccyx, and a line running transversely through the vulva; the growth was dissected out and the gut seized and drawn down, all attachments being loosened by the fingers. The peritoneal cavity was shut off by a ligature thrown around the invaginated peritoneum. [C.H.F.]

Medical News.

January 7, 1899. [Vol. lxxiv, No. 1.]

1. Treatment of Acute Lobar Pneumonia. MORRIS MANGES.
2. The Rationale of Balneo- and Mechano-Therapeutics (Schott treatment) in Chronic Heart-diseases. ALBERT ABRAMS.
3. Neurons; their Relations to Therapeutics, Medical and Mechanical. DOUGLAS GRAHAM.
4. The Diagnosis of Trichinosis by means of the great increase of the Eosinophiles in the Blood. Report of Fourth Case. THOMAS R. BROWN.
5. The Garrisoning of Our Tropical Possessions. The Meteorological and Telluric Conditions of Cuba and Puerto Rico. SENECA EGBERT.

1.—In considering the **treatment of acute lobar pneumonia** Manges feels justified in expecting the production of a pneumococcus-antitoxin. Until this is realized it is well to remember that not every case demands treatment. Those patients suffering from a not too severe infection and showing proper reaction, by the system, to the infection require nothing more than observation and proper nursing. There is no specific treatment. When treatment is required it should be directed against the toxemia, with the object of maintaining life, supporting the heart, controlling undue fever, relieving suffering, and controlling complications. The first demand will be met by careful nursing and diet, with especial effort to prevent undue distention of the stomach with gas from improperly digested food. The drugs best suited to support the heart are strychnin, caffein, and nitro-glycerin. The hypodermic injection of camphor in sweet-almond oil or hypodermoclysis may be practised to tide the heart over the crisis; the application of an ice-bag to the precordium is useful to this end. The true indication for the need of controlling the hyperpyrexia is the patient's general condition. The use of large, flat ice-bags are best suited to this purpose, 2 or 3 being applied to the affected area. Cold baths, cold sponging and cold packs may sometimes be resorted to. To relieve the suffering caused by pleuritic stitches and depressing cough, hypodermic injections of morphin, the application of the Paquelin cautery, and the internal administration of heroin in doses of from gr. $\frac{1}{12}$ to gr. $\frac{1}{6}$ every 4 hours are recommended. Insomnia may be prevented by the timely use of morphin or chloral combined with a cardiac tonic. Oxygen is useful in tiding patients over sudden attacks of dyspnea and cyanosis. Complications, as pleurisy with effusion, empyema, pericarditis, and endocarditis, should be treated as under ordinary conditions. Effusions should be removed before there is any interference with the excursion of the lung. [S M H.]

2.—In a consideration of **the rationale of balneo-therapeutics and mechano-therapeutics in chronic heart-diseases** Abrams reaches the following conclusions: (1) lung-dilatation follows the exercise and the bathing of the Schott method, the dilated lung acting as an excretory channel for the overburdened heart; (2) the occurrence of lung-dilatation is dependent on cutaneous irritation provoked by the exercise and the baths; (3) the degree of lung-dilatation may be increased by more powerful cutaneous irritation; (4) a decrease in the volume of the heart likewise ensues after the Schott treatment; (5) this reduction in cardiac volume is likewise provoked by cutaneous irritation, which is one of the real factors involved in the Schott treatment; (6) vigorous cutaneous friction by means of a wire brush, such as is employed in the application of the faradic current, will accomplish almost as much as the baths and exercise of the Schott treatment. At the same time it is simpler and more expeditious, as well as inexpensive. [S.M.H.]

3.—Graham believes that the theory that neurons act by contiguity and not by continuity will probably revolutionize current methods of treatment. It is not improbable that the action of all medicines and the different effects of the same medicine when taken in smaller or larger doses may be partly explained by their producing an ultimate chemico-mechanical effect on the nerve-cells in the different parts of the body. It is also supposable that the action of the different poisons on the nervous system, whether generated in the body of the cell or introduced from outside, may in great part be explained in the same way. The effects of tonics, stimulants, and sedatives, whether of a chemic or mechanic, electric, thermal or dynamic nature, upon central or peripheral neurons, are probably similar, simultaneous, and parallel to what they are upon voluntary and involuntary muscle-fibers. Hence, the state of the muscles is most likely a good barometer of what is going on at the other end of the nerves that supply them in the brain or spinal cord. [S.M.H.]

4.—Brown reports an additional case of **trichinosis** diagnosticated by means of the **great increase of eosinophiles in the blood.** The patient was a boy, aged 13 years, who complained of headache and pain in the legs. For a week he had complained of pain in the calf-muscles of both legs, which had never been great. There had been no pain in the other muscles of the body. The legs had never been swollen. The eyelids had been slightly puffy. Examination of the blood showed 48% of eosinophiles, on the basis of which a diagnosis of trichinosis was made. Closer questioning revealed the fact that the boy had eaten raw sausage and cooked ham a few weeks previously. A small piece of muscle removed from the left gastrocnemious muscle examined microscopically after hardening revealed the presence of young, non-encapsulated trichinæ in some of the muscle-fibers, about them a fresh, active myositis with many eosinophiles among the cells present, and various degenerative changes in the muscle-fibers and cells. Marked swelling and proliferation of the nuclei, longitudinal and transverse splitting of the fibers, etc. The patient was discharged perfectly well after 3 weeks. At the date of the last count, more than 3 months after the complete disappearance of all other symptoms, a slight eosinophilic increase was still present. Brown inclines to the belief that the cells are probably derived from the polymorphonuclear neutrophiles, which normally constitute from 65 to 80% of all the white cells of the blood, and that this transition takes place in the affected muscles. [S.M.H.]

Boston Medical and Surgical Journal.

January 5, 1899. [Vol. cxl, No. 1.]

1. Three Cases of General Paralysis preceded by Optic Atrophy. PHILIP COOMBS KNAPP.
2. With the Hospital-ship *Bay State* in Puerto Rico. E. A. CROCKETT.
3. Two Cases of Sudden Death in Infants. OLIVER H. HOWE.
4. An Unusual Cephalhematoma. W. P. COUES.

1.—Knapp has been led by the comparative rarity of **optic atrophy as a precursor of general paralysis** to report 3 cases. In the first case, which occurred in a man aged 37 years, tabes preceded the paralysis, and the condition of atrophy must therefore be attributed to this condition rather than to the paralysis. The man had had syphilis. The first symptom of illness noted was sudden loss of vision.

The left pupil was dilated and the knee-jerk absent. Vision soon returned, but the pupil remained dilated. There was some diplopia and central vision only was retained. In 4 or 5 months the vision failed again, this time completely. Subsequent to this the man developed the characteristic symptoms of tabes, and later all the phenomena of general paralysis. The patient died a little over 6 years after the occurrence of the ocular symptoms. The autopsy showed the optic nerves to be grayish in color and about one-half the normal size. Microscopic examination of the cerebrum disclosed the usual changes of general paralysis—proliferation of neuroglia, abnormal vascularity, and a tortuous condition of the bloodvessels—strongly marked. In the spinal cord there was advanced degeneration of the entire posterior columns in their whole length. In the second case the atrophy appeared as the initial symptom of general paralysis, without any evidence of coexisting or preceding tabes. The patient was a man aged 36 years. The first symptoms noted were a sensation like the pricking of needles in the right side of the face, accompanied by a sudden clouding over of the eyes; a great deal of vertigo. The man saw black spots and bright flashes before his eyes. Examination of the eyes made at this time showed a peripheral limitation of the visual field for form and a still more marked limitation for color. No change was detected in the eye-grounds. The general health continued good, but vision grew slowly worse until sight was lost. Following this the man gradually developed symptoms of general paralysis. Death took place 9 years after the beginning of the ocular symptoms. The head only was examined at the autopsy. There was intense congestion of all the superficial cerebral vessels, the meninges were adherent to the cortex in the region of the centers for the leg and the face, and there was a gelatinous-looking substance beneath the dura covering the entire surface of each hemisphere, which was shortly absorbed when exposed to the air. There was an apparent general atrophy of the cortex. No microscopic examination was made, nor was the cord examined. The diagnosis was based on the clinical history, which excluded the possibility of tabes. The contraction of the visual field before the appearance of visible changes in the discs, especially in the light of recently reported cases in which such condition existed and which were considered as of some significance as a symptom of paralysis. The third case occurred in a man aged 45 years, with a history of syphilis. He first noticed blurring when he tried to read, worse in the left eye. Vision failed rapidly; at the end of 6 months the man could no longer recognize people. On examination the upper part of the field was apparently cut off and contracted. The discs were bluish. In the right eye was a narrow partial zone and some little pigmentary change below the center of the macula. There was some cortical opacity of the right lens downward and inward. About the time that the eyes began to fail the man noticed that the legs commenced to grow weak, and from this time he gradually developed the typical symptoms of general paralysis. Examination of the eyes made at a later period showed a typical gray atrophy of the optic nerve. The knee-jerk was absent, but the gait was tottering rather than ataxic. In the absence of ataxia, the few symptoms of sensory disturbance and the ability to stand with the eyes shut opposed the diagnosis of tabes. [s.m.h.]

3.—Howe reports 2 cases of **sudden death in infants.** The first was a female infant aged 3 months, having a slight bronchitis. The child spent a restless night until 3.30 a.m., when it fell asleep. The mother went to sleep at the same time. On awaking at 5.30, she found the child dead, with its face buried in the pillow. Death was supposed to have been caused by suffocation, favored by the obstructed condition of the bronchial tubes. The second case was in a male child aged 3 months. The bed was placed against the wall. Father, mother and child slept in the same bed, the child next to the wall. The infant was found dead in bed in the morning. There were areas of ecchymoses on the right side of the abdomen and chest and the right thigh and leg. The autopsy disclosed numerous punctate hemorrhages on the surface and in the substance of both lungs, also over the surface of the heart, aorta, and right kidney. The hemorrhages were more marked in the organs of the right side of the body. Death was supposed to have been caused by the pressure of the mother's body. [s.m.h.]

4.—Coues reports an **unusual cephalhematoma,** which was situated on the forehead slightly to the left of the median line. It was a doughy, elastic swelling, the size of a closed fist. There was much ecchymosis about it and also around the right eye. Under the swelling there could be felt indistinctly a bony ring. The condition gradually disappeared, but the child died at the end of 5 weeks of gastroenteritis. [s.m.h.]

Journal of the American Medical Association.

January 7, 1899. [Vol. xxxii, No. 1.]

1. Esculapius on the Field of Battle. N. Senn.
2. The Secrets of Hospital-Patients. Edmund Andrews.
3. Gall-Stones in Common Duct. J. B. Eagleson.
4. Essential Oils and Other Agents. A. H. Peck.
5. Otitis Media, with Triple Personality. A. J. Erwin.
6. A Case of Mastoiditis. Albert E. Bulson, Jr.
7. Tooth-Forms in Relation to Jaw-Movements. Alton H. Thompson.
8. Management of Pulpless Teeth. J. Taft.
9. Temporo-Maxillary Articulation. William Knight.
10. Only a Baby-Tooth. W. H. Hall.
11. Some Facial Deformities; Prevention. A. E. Baldwin.

7.—Thompson calls attention to the relation of the various movements of the jaws to the development of the different forms of teeth. The evolution of the latter can be easily explained by the variation of the quantity or quality of the food-supply that exists throughout the animal kingdom. [c.h.f.]

8.—In speaking of the **management of pulpless teeth,** Taft emphasizes the following points: When the tooth-pulp is to be destroyed, irritating or poisonous agents should be avoided. Anesthesia may be induced by cocain or cataphoresis. The removal of débris and offensive matter from the tooth that is to be conserved should be most thorough; the utmost cleanliness and purity should be observed in every step of the work. Excavation in the canal is practised for the purpose of enlarging the tooth-cavity, and making it more accessible, particularly when decomposition is taking place, especially in the contents of the dentine canals. [c.h.f.]

9.—Any cause capable of producing disease or injury in the other articulations will act with equal force upon the **temporo maxillary articulation.** Trauma, the infectious fevers, tuberculosis, rheumatism, and gout are among the affections that may lead to partial or complete ankylosis. Rheumatic and gouty affections are much more likely to produce pain, stiffening and impairment of movement, than to lead to complete ankylosis. Neurosis of the lower jaw may extend from any part of the bone to the articulation and seriously interfere with its mobility. The tendency to rapid and complete involvement of an injured joint in children should be constantly borne in mind. Acute arthritis in children is not a rare condition, and is a suppurative one from the outset, calling for early evacuation of pus. In the acute stages too much stress cannot be laid upon the decided benefits to be obtained by local abstraction of blood, either by leeches, the artificial leech, or the lancet. In the subacute and chronic cases in which ankylosis has not taken place, good results may be hoped for from the prolonged use of counter-irritants, absorbents, and mechanical devices. Among the latter may be especially mentioned the device of Dr. Goodwillie, of New York, which is an admirable one, and based upon sound surgical principles. Complete ankylosis, if fibrous, may be relieved by dividing the fibrous bands with a tenotome; bony ankylosis can only be relieved by resection of the condyle or by Esmarch's operation. [c.h.f.]

Archives of Pediatrics.

December, 1898. [Vol. xv, No. 12.]

1. Melanosis Lenticularis Progressiva. T. M. Rotch.
2. Sarcoma of the Kidney in an Infant Nine Months Old. Frank Spooner Churchill.
3. Two Cases of Prolonged Pneumonia. Floyd M. Crandall.
4. Latero-Pharyngeal Abscess in an Infant Six Weeks Old; Operation; Recovery. Francis Huber.

5. Case of Ankylosis of the Knee. William L. Rodman.
6. Bilateral Anophthalmos. S. S. Guerrant.
7. Rise, Progress, and Present Needs of Pediatrics. J. P. Crozer Griffith.

1.—Rotch describes two cases of **progressive lenticular melanosis** occurring in sisters. The first child was 7 years old at the time of observation. At the age of 3 months small freckles appeared on her face and arms, which gradually grew larger and softer, in some places fleshy and in others horny. The child was fairly well developed and nourished. The eruption occurred on the face, neck, clavicular and supraspinous regions, especially on the extensor surfaces of the arms and legs. It consisted of brownish non-elevated muscles, varying in size from a pinhead to a split pea. There were numerous white, horny growths, some with broad and some with constricted bases. On the face were several soft, red masses which bled easily. Some of them were covered with a thick, black crust. The skin was atrophied in places between the lesions. There was ectropion of both lower lids, and the eyelashes were wanting. There was no other abnormity. The child was treated with the mixed toxin of streptococcus erysipelatus and bacillus prodigiosus. The dose was gradually increased to 13 drops and the condition steadily improved. When the toxins were omitted for a period of two days there was a rapid relapse, with the development of new lesions. The improvement recurred on resuming the treatment. Exposure to sunshine increased the lesions. After a week's exposure, seclusion in a darkened room was followed by marked improvement. The system seemed eventually to become habituated to the toxins, after which they lost their effect. The general health was little impaired by the disease. In the other sister, aged 6 years, the lesions appeared at the age of 5 months. Her general health was good. The lesions corresponded with those in the other child. This girl had ectropion in both eyes and a large, soft, reddish growth at the outer canthus of each eye. She was in an earlier stage of the disease. The effect of various-colored lights was tried, the child being placed in a large box, into which the light was admitted through panes, first of red glass, without improvement, and later of green glass, also without improvement. Treatment with the combined toxins was then instituted, but without effect. Microscopic examination showed the lesions to be typical epidermoid carcinoma. There is no known curative treatment, most patients succumbing to marasmus in from 10 to 20 years. [s.m.h.]

3.—Churchill reports a case of **sarcoma of the kidney** occurring in a male infant aged 9 months. The tumor was noticed about the third month of life, on the left side of the abdomen. It gradually increased in size, and for 3 weeks with special rapidity. There was marked emaciation, anorexia, some vomiting, constipation, and insomnia, with pronounced pallor. The child weighed but 16 pounds 5 ounces. There was marked distention of the superficial veins of the abdomen. The abdominal prominence occupied the whole of the left side, extending from the left hypochondriac region diagonally downward to the right of the iliac region. The mass was comparatively regular in outline, in general firm and hard, with a few fluctuating areas, apparently tender to the touch. The percussion-note was flat and the mass did not move on respiration. There was slight enlargement of the left inguinal glands. The blood-examination showed 3,104,000 red corpuscles, 11,104 whites, 25% of hemoglobin. The urine contained much albumin, with one or two normal renal cells, considerable normal blood, and many large and small round cells showing fatty degeneration, one or two compound granule-cells, one quite extensive patch of round-cell epithelium, a few leukocytes, and a few fine granular casts. A diagnosis of sarcoma of the kidney was made and an operation advised and carried out. After the incision it was found that the ascending colon had been carried anteriorly, toward the median line and across the anterior surface of the tumor from above downward. The tumor filled the concavity of the diaphragm above, extending to the pelvis below and considerably to the right of the median line. The spermatic and perirenal veins were much enlarged. The renal vein and its branches spread out over the anterior surface of the tumor. The child died a few hours after the operation. The right kidney was not diseased and there were no metastatic growths in the abdominal cavity. The tumor weighed over 3 pounds and was egg-shaped; its diameters were 15.5 and 10.5 cm. It had a fibrous capsule. On one side of the largest equator of the growth there were situated the remains of the kidney, forming a flat mass more or less circular in outline, and about 5 cm. in diameter, and only a few millimeters thick. On section the tumor was found divided into numerous compartments or cystic spaces which gave rise to a honeycombed appearance. These compartments contained bloody, colloid and myxoid material. In the central axis of the tumor was a mass of tissue several centimeters long and about 1 cm. thick, which seemed macroscopically to be composed of striated muscle-fibers. On microscopic examination the new-growths proved to be an angiosarcoma of the mixed-cell type, with advanced secondary regenerative changes. It had evidently started from the vessels and its origin was somewhere in the pelvis of the kidney. In growing, it apparently compressed the parenchyma and caused it to undergo pressure-atrophy. The central mass referred to, which had the appearance of muscle-fibers, was found to be made up of a number of degenerated nucleated round and spindle cells embedded in the stroma of fibrinous material, the fibers of which were arranged in more or less distinctly parallel bundles or groups. [s.m.h.]

3.—Crandall reports two cases of **prolonged pneumonia.** The first occurred in a boy, aged 12 months, in the fourth week of an attack of whooping-cough. The onset was sudden. The case pursued a slow but typical course, the general condition of the child gradually improving, and the temperature becoming practically normal on the nineteenth day. A day later, coincidently with an extension of the pneumonic process, there was an abrupt rise in temperature. On the twenty-sixth and twenty-seventh days there was another rise coincidently with further extension of the disease. Gradual improvement occurred after this, but the consolidation remained much the same. The temperature never returned entirely to normal. On the thirty-sixth day, the temperature again ascended to 103°, with evidences of consolidation in a new area. The process extended, and the child weakened, and died on the forty-third day. The paroxysms of pertussis had subsided 3 or 4 weeks before death, which resulted from exhaustion. The second case occurred in a girl, aged 20 months, who, while eating popcorn, suddenly choked, coughed violently, and became cyanotic. The symptoms were relieved in a few minutes, and the child seemed quite normal. Two days later she was found to have considerable bronchitis, with a temperature of 102°. On the following day the temperature ascended to 104°, and physical examination revealed the presence of pneumonia. The child passed through a prolonged characteristic attack of broncho-pneumonia. The temperature did not reach normal until the twenty-third day. The consolidation involved all of the middle portion of the right lung. It was slow in resolving. On the thirtieth day the temperature became elevated, and the child developed the classic symptoms of influenza. The signs of consolidation rapidly developed in the original seat of disease. This slowly extended until the entire right lung was involved. The fever continued without remission for 31 days. The condition of the child during the last two weeks of this period was quite surprising. Although much emaciated she was bright and happy. She could be kept recumbent only with difficulty. During this second attack there was paroxysmal and distressing cough, which was not whooping-cough, although it gradually became more paroxysmal and difficult, and was evidently beginning to sap the child's strength. On the thirty-first day of this attack and the sixtieth day of the illness, after a prolonged and extremely violent attack, a large mass of thick, green, malodorous mucus was expectorated, in the center of which was embedded a dark patch, which proved to be the central hard portion of a piece of popcorn. The temperature began to fall immediately, and reached normal within 3 days. The general condition also at once improved. Signs of resolution were soon evident, but the process was slow. At the end of a year there was still some dulness on percussion over the right side of the chest, but the respiratory signs were quite normal throughout. [s.m.h.]

4.—Huber reports a case of **latero-pharyngeal abscess** in a pale, puny infant aged 6 weeks. A few enlarged glands could be made out on the right side of the neck along the anterior aspect of the sternomastoid. There was a mild nasal catarrh, apparently no trouble in deglutition, and no fever, or embarrassment in respiration. The mouth was slightly open; the tongue showed a tendency to fall back in the mouth; there was a nasal twang to the cry. There was no history or evidence of syphilis or tuberculosis. There was a slight suggestion of rickets. The muscles were flabby and the child was weak. In examining the throat, as a matter of routine, a large fluctuating swelling was found in the posterior pharyngeal wall laterally and to the right. Exploratory puncture disclosed the presence of pus. A grooved director was introduced and some of the pus allowed to escape to relieve tension. The opening was then further enlarged by means of a pair of dressing-forceps. Nasal injections of normal salt-solution were ordered, with hourly doses of iron chlorid. The abscess-cavity contracted and healed in less than a week. The large cervical glands became normal. [S.M.H.]

5.—Rodman reports a case of suppurative synovitis of the left knee occurring in a girl aged 8 years, which was lanced, and at the end of a year there was **bony ankylosis.** An incision into the joint showed that the patella was tightly adherent to the lower end of the femur and the upper end of the tibia. The patella was removed, together with a small portion of the lower end of the femur and the upper end of the tibia. The limb was brought down into a slightly flexed position, in order to make it possible to walk more readily. [S.M.N.H.]

6.—Guerrant reports the case of a primipara at full term who gave birth to a male child with **congenital absence of both eyes.** There was no trace of globe in either socket. The orbital fissures were about ¼ inch in length. The lashes were small and poorly developed. There was no orbital abnormity and the forehead was not high. In other ways the child was normally developed. At the age of 4 months the child was well-grown and in good condition. He took no notice of sounds. There was no known cause for the condition. [S.M.H.]

Neurologisches Centralblatt.

December 15, 1898. [17. Jahrg., No. 24.]

1. Epileptic and Epileptoid Attacks in the Form of States of Fear. von Bechterew.
2. A Case of Hysteric Hemiplegia. Guttman.

1.—von Bechterew mentions a case in which the patient compared his feeling to that of a person experiencing an earthquake for the first time. The attacks occurred in the midst of conversation, during sleep, or when completely alone. In another case a feeling of anxiety formed the aura of the epileptic attack, and when the attacks disappeared under therapeutic measures, the aura remained. von Bechterew states that this condition is not unusual in epilepsy. It may occur either as an aura or as a substitute for the fit; it is rarely associated with loss of consciousness or vertigo, and it is most resistant to treatment. Occasionally these attacks of anxiety occur in paretic dementia. In any event they may be distinguished from the states of anxiety occurring in neurasthenia by the absence of any external cause for their development. [J.S.]

2.—Guttmann reports the case of a shepherd's wife, 62 years of age, who, 2 years before coming under observation, fell down a flight of 10 stairs without serious injury. A year later, she was suddenly awakened, by a noisy child and seemed much frightened. For 2 or 3 minutes she was unable to speak, and did not recover for a quarter of an hour. The same afternoon, she observed a slowly increasing weakness in the left arm, that, several days later, involved also the left leg. This weakness gradually increased, then remaining constant for some months. On examination the extremities of the left side were found somewhat smaller than those of the right side. The power was about the same, excepting that the grasp of the left hand, when both hands were active, was slightly less. Tactile sensibility was unimpaired. The perception of pin-pricks, however, was exceedingly variable. The reflexes were present. There was slight tremor of the fingers of the left hand during movement, but no contracture. The electric reactions of the muscles were normal. All the cranial nerves were apparently normal. Speech was unaffected. There was slight loss of the power of calculation, and there were a few symptoms of senile dementia. Guttmann excludes an intracranial lesion, (1) because of the temporary aphasia in connection with paralysis of the left side; (2) from the fact that apoplectic aphasias do not disappear in a short time; (3) on account of the peculiar development of the hemiplegia, which required months to become complete, and even then was not associated with a flaccid paralysis; (4) because of the absence of facial involvement; (5) by reason of the mild spasms of the muscles; and finally, on account of the peculiar character of the diminution in sensibility. A diagnosis of **hysteric hemiplegia** appears, therefore, to be justified, particularly as the condition improved considerably under the employment of electric treatment. [J.S.]

Beiträge zur pathologischen Anatomie und zur allgemeinen Pathologie.

[Band 24, Heft 1.]

1. Experimental Investigation upon the Action of the Ethereal Extract of Male Fern upon the Blood. C. Georgiewsky.
2. Splenomegaly with Cirrhosis of the Liver. G. Banti.
3. A Contribution to the Knowledge of Tumors Arising from Transposed Cells of the Adrenal Capsules. Bruno Weiss.
4. The Causes that Determine the Direction of Growth of the Peripheral Nerves in Regeneration. J. Forssmann.
5. Experimental Studies upon the Independent Existence of Human Epidermal Cells Outside the Organism. J. Wentscher.
6. Contributions to the Doctrine of Plasma-cells. E. Krompecher.
7. Reply to the Remarks of Ribbert Concerning My Investigations upon the Histogenesis of Squamous Epithelioma. G. Hauser.

1.—In view of the uncertainty concerning the action of **male fern,** Georgiewsky undertook a study of its influence upon the blood and tissues of rabbits. For this purpose the animals were subjected to preliminary examination for several days, in order to determine for each the normal number of red cells, the proportion of hemoglobin, and the weight of the body. The drug was administered through a sound passed into the esophagus. As soon as the animal died, the autopsy was performed, and fragments of the liver, spleen, bone-marrow, kidneys, and occasionally of the heart and central nervous system were placed in various hardening fluids and subsequently sectioned, the important point being the determination of the presence or absence of deposits of iron-pigment. Some of the sections were stained in ammonium sulphid and some in potassium ferrocyanid and subsequently treated with dilute hydrochloric acid. Altogether, 8 experiments were performed, some of the animals being poisoned acutely with large doses, and others gradually with frequent small doses. In the acute cases, the animals frequently died, and examination of their bodies failed to reveal any change that accounted for death. In the more chronic cases, considerable change in the constitution of the blood was not infrequently observed. This usually consisted in a diminution in the number of red cells and in the proportion of hemoglobin, which is all the more remarkable when it is considered that the animals lost a considerable portion of liquid, and that the blood was, therefore, somewhat thickened. Morphologic changes were not present. The glandular organs, the lungs, the heart, and the nervous system were apparently normal. The liver, the spleen, the bone-marrow, and occasionally the kidneys often contained a considerable excess of iron-pigment. Georgiewsky expresses himself as convinced that the liver is the organ in which the red cells are destroyed, and that the pigment deposited in it is subsequently conveyed by the circulation to the other organs. In his own observations, the granules of hemosiderim appeared in the liver invariably one or two days earlier than in the spleen. The accumulation of the pigment in the liver does not appear to indicate that the liver-cells are incapable of getting rid of it, particularly on account of its extensive metastasis. Icterus did not occur in any case, and there was no reason to believe that, aside from the increased activity of the liver-cells caused by their participation in the destruction of the erythrocytes, there was any injurious influence exerted upon the organ. [J.S.]

2.—Banti gives now a more complete description of the disease described by him in 1894. The etiology is obscure. The disorder develops in young persons and during early adult life apparently without any relation to infectious processes, and it never appears to be epidemic. Its course may be divided into three stages, the anemic, the transitional, and the ascitic. The first symptom is the enlargement of the spleen, which occurs very gradually; the patient or the physician discovering it only accidentally. Later, anemia develops. This is at first mild, but afterward it becomes profound. The blood shows the characteristics of secondary anemia, with the exception of an absence of nucleated red cells, and of alteration in the proportion of the different varieties of leukocytes. Albuminuria is exceedingly uncommon. During this stage there is no ascites and the alimentary functions are well performed. Fever and chills may occur at times. The anemic stage lasts from 3 to 10 years. It is followed by the transitional stage, characterized by diminution in the quantity of urine, which contains an excess of urates, and occasionally biliary pigment. This stage lasts several months. The ascitic stage is characterized by the appearance of liquid in the peritoneal cavity. The liver decreases in size, while the spleen remains as before. There is icterus, although the feces are dark. In one case, an apparently chylous ascites was present. Death occurs in from 5 to 7 months after the first appearance of this stage. Pathologically, the only changes are found in the abdominal organs. The spleen weighs from 1 to 1½ kilograms. Its surface is smooth, the capsule occasionally thickened, the consistence firm and the color dark brown. The liver is small, granular, and hard. The partal vein is distended. The other organs are usually normal. Microscopically, some of the malpighian bodies of the spleen show transformation of their central portion into a firm hyaline mass, which may contain a few clefts. Sometimes these bodies contain in their interior peculiar cells somewhat irregular in form, with more or less chromatin, and varying in size from 3μ to 8μ. At the periphery, the alveoli of the malpighian corpuscles are usually distended and contain a considerable number of cells. The lesions appear to begin about the arteries, and consist of proliferation of the peri-arterial connective tissue. In earlier cases, large flakes of hyaline material may be found in the malpighian bodies, sometimes 80μ in diameter. The splenic pulp shows almost complete absence of red blood-corpuscles. The veins are not distended, but the walls of some of them are covered with a thick layer of cells that resemble epithelium, and often giant-cells are present. The trabeculæ of the pulp are somewhat thickened, apparently, in distinct relation to the duration of the disease. In the liver the microscopic characteristics are those of interlobular cirrhosis. Cultures from the blood and splenic pulp of living persons and from the spleen removed either by the surgeon or from the dead body, yielded absolutely negative results. Treatment is unavailing, although some improvement has followed the administration of arsenic. The disease is to be distinguished from splenic anemia, which it closely resembles, by the cirrhosis of the liver, and, indeed, Banti admits that it is possibly only an advanced stage of this disease. As the etiology of neither is known, it is at present impossible to distinguish them. However, in splenic anemia, cirrhosis of the liver does not occur and the lymph-glands are occasionally enlarged. The anemia is possibly due to the elaboration in the spleen of toxic substances, thus accounting for the isolated endophlebitis found. However, the cirrhosis of the liver cannot be looked upon as a secondary infection, for the gastro-intestinal tract remains normal throughout. It is probable, therefore, that the liver-disease is produced by toxic substances developed in the spleen. As the spleen appears to be the source of all the trouble, Banti strongly urges splenectomy, which should be performed before the stage of ascites. [J.S.]

3.—Weiss reports two cases of **malignant tumor arising from adrenal tissue.** The first occurred in a girl, 27 years of age, who, 2½ years before death, noticed increase in the size of her abdomen, associated with more or less prostration. An operation was performed and a large tumor observed on the left side of the abdomen, which appeared to be so adherent that it was impossible to remove it. A fragment was examined microscopically and diagnosticated as a benign adrenal tumor. The patient exhibited considerable improvement, but as the tumor increased in size, she submitted to another operation, in which the mass was entirely enucleated. Death occurred in the course of a few days from peritonitis. At the autopsy both adrenal bodies were found in normal position, but the left was slightly the smaller. The left kidney was absent, having been removed at the operation. The tumor presented many areas in which the structure corresponded closely with that of the normal adrenal body. The groups of cells, known as adrenal glomeruli, were much larger than normal, and there was a considerable tendency to fatty degeneration. The same structure existed in a small nodule found in the iliopsoas muscle. Macroscopically, the tumor presented the peculiar yellowish appearance characteristic of adrenal tumor. The most important deviation from the normal type was the fact that the mantel of cells surrounding the bloodvessels was thicker than normal and those at the periphery were more or less degenerated. The tumor, in spite of its slow course, was manifestly malignant, on account of the metastasis. The second patient was a girl, 17 years old, who for 10 weeks before death had amenorrhea and severe pain in the abdomen. A firm and not sensitive tumor was noticed at this time, arising apparently from the small pelvis. Operation was performed, and the tumor was found to arise from the left ovary and to be densely adherent. Only a part could be removed. There was excessive hemorrhage, and the patient died 2 days later. The tumor was distinctly encapsulated and consisted of two parts. The larger was composed of a soft viscid material. The smaller contained distinct Graafian follicles and represented an enlarged ovary. Microscopically, the chief tumor consisted of a plexus of bloodvessels, around which were grouped epithelial cells that showed a tendency to fatty degeneration. Between these cell-mantels were areas filled with hyaline-like, round masses that resembled somewhat the cavities of glands. Many of the tumor-cells exhibited karyokinetic figures. The smaller portion of the tumor consisted of the altered ovary, which contained groups of epithelial cells different in arrangement from those in the tumor, but morphologically similar. Glycogenic infiltration was found only in the main tumor. None of the follicles in the ovary showed hyperplasia. The diagnosis of adrenal tumor was made on account of the tendency to fatty metamorphosis, and the differentiation from the ovarian tumor was made partly from its structure and partly from the existence between the two of a connective-tissue capsule. Weiss regards the hyaline-like masses between the groups of cells as representing degenerated cells, and does not believe that any true glandular structure exists. Further proof of the nature of the tumor is the production of glycogen. As the ovary and the pelvic lymph-glands were already invaded, the tumor was unquestionably rapidly and intensely malignant. [J.S.]

4.—Being dissatisfied with the present theories concerning the nature of the influences that determine the **direction in which regenerating nerve-fibers grow,** Forssmann undertook to decide this question by means of carefully devised experiments. A nerve in the limb of a rabbit, usually the anterior tibial or the sciatic, was exposed and resected, and then the ends placed in a small straw and fastened with a thread. The wound was closed, and, in 40 cases, primary union was invariably obtained. At the end of two months or longer the animal was killed, the preparation hardened in Müller's fluid, and sections cut and stained by the Weigert-Pal method. In some experiments, varied considerably in detail, 6 mm. were resected from the sciatic nerve, the upper and lower ends placed in the straw tube, and fastened. A thread passed obliquely from one end of the tube to the other. Two months later, microscopic examination showed abundant development of new fibers from the central stump, some passing outside the straw and losing themselves in the surrounding tissues, others following the thread between the two ends to the peripheral stump and surrounded by connective tissue composed of fibroblasts. In other experiments, simple section was made of the nerve, the upper portion inserted in the straw, the lower portion carried outside, and another piece of nerve placed between the two ends. At the end of two months many of the new fibers were found either in the straw or in the surrounding tissues, but the majority turned into the bent end of the transplanted nerve and followed it to the peripheral portion. The object of the straw in both sets of experiments was to furnish an easy path for the regenerating fibers. In the second, the transplanted fragment of nerve was inserted for the purpose of serving as another route. As the nerve-fibers selected this route by preference, Forssmann concludes that other than merely mechanical forces are involved in the determination of the direction of the growth of the fibers. A third experiment consisted in simply fastening the ends of the resected nerve in the straw tube by transverse threads. Sections showed the presence of new nerve-fibers several millimeters above the end of the straw, some of which passed out along the transverse threads. A few passed along the inner side of the tube becoming fewer as they descended, and finally forming a small bundle in the center. Those that reached the lower portion entered the nerve, but they were few in number, and myelinated fibers were only found beneath the lower end of the straw. A fourth experiment was of the same nature, excepting that a thread connected the two ends. The great majority of new fibers in this case followed the thread and entered the peripheral portion, which contained a large number of nerve-fibers. Vanlair's theory that around the uniting thread there is a clear space in which the fibers can grow readily can evidently not be applied in the present instance, because the surrounding tissue was of such a porous nature that it would have furnished an easy path for the nerve-fibers had mechanical influence alone been active. A fifth experiment consisted simply in cutting away the peripheral portion of the nerve, and fastening the central portion in the upper end of the straw, a thread being carried downward from the nerve. Many fibers arose from the nerve and passed outside the straw, while others remained inside, a portion accompanying the central thread, but soon leaving it. A sixth experiment was essentially similar to the second, except that from the central end a long thread extended through the tube. Microscopically, a number of regenerating nerves were found in the interior of the straw, but they soon disappeared. The majority of the new fibers passed into the inserted fragment of nerve, and along this to the peripheral stump. A second series of experiments similar to those described, yielded practically parallel results. After critically discussing his experiments, Forssmann concludes that, in addition to the mechanical agencies directing the course of the nerve-fibers, such as the tube, the clefts in the tissue, and the tendency of the fibers to grow downward, a far more important influence is operative. This appeared most distinctly in those cases in which the peripheral portion of the nerve was united with the central portion, either by a thread, or by an inserted fragment from the nerve of some other animal. That the mere direct influence of the thread is not important is illustrated by the experiment in which it was omitted and the fibers, nevertheless, grew downward, and by the fifth and sixth experiments, in which, although the thread was present, the fibers did not follow it. What this attractive agency is it is of course difficult to decide, but Forssmann, after thinking of various possibilities, concludes that it must be the material substance of the nerve-fiber, probably some substance derived from this in the course of the degenerative changes. He, therefore, removed the brain from a rabbit, titrated it, and filled a tube with the emulsion of brain-substance. This he inserted between the two ends of the nerve, the central end entering the tube from the side. A similar tube was enclosed in the tissues in order to guard against any error that might arise from mistaking the degenerated tissue of the brain for regenerated nerve-substance. It was found that in the center of this mass, a group of nerve-fibers passed down toward the other nerve. A similar experiment, without, however, brain-substance in the tube, yielded negative results. As in ordinary regenerating changes the new nerve-fibers enter the old sheaths of Schwann in the peripheral end and grow along them, it is concluded that it is not degenerating nervous substance of itself, but nervous substance degenerating in a peculiar way that exerts the attractive influence upon the nerve-fibers, and this attractive influence is called neurotropism. As, however, this neurotropism is capable of acting over relatively considerable distances, as for example 6 mm. for this modification, the term chemotropism is suggested. [J.S.]

5.—Wentscher has performed a number of experiments with Thiersch's skin-grafts in order to determine how long the epidermal cells are capable of maintaining their vitality when detached from the human body. The grafts were removed under aseptic precautions, and then either preserved in a 0.6% salt-solution in flasks plugged with cotton, or else allowed to dry in empty flasks. In the latter case, it was necessary before transplantation to moisten the parchment-like strips of skin. The grafts were then placed upon the granulating surface of ulcers. The results were as follows: Of the preparations preserved in liquid, 14 grew, 17 failed to grow, and 2 were doubtful. Of the preparations allowed to dry, 7 grew, 16 failed to grow, and 4 were doubtful; in the 7 positive results, microscopic examination of fragments removed at various periods up to 35 days after transplantation showed that karyokinetic figures are usually found at the end of a week in great numbers, and are associated with a proliferation of the epithelium, forming papillæ that dip into the granulations, and in some respects resemble tumor-formation, the proliferation being most marked about the roots of the hairs. In those fragments in which the epidermis was not desquamated, a few large mitotic figures could be found in the lowermost layer during the first days after transplantation. The dried preparations were always shrunken. Shortly after transplantation, however, the cells of the rete begin to swell, and this continues to increase, while at the same time leukocytes penetrate among the cells. Wentscher admits the justification of Marchand's objection to his results that perhaps the fragments of epithelium found by him on the surface of the ulcers were after all nothing but portions that had remained in the midst of the ulcerated tissue, but he has himself failed to find these in ordinary leg-ulcers, and he believes that their existence is so infrequent that it may be disregarded. An interesting observation was the presence of fat-droplets in the cells of the cutis, even in those undergoing mitotic division. This fat-metamorphosis appeared some time after the first day, but it was impossible to decide exactly when. In order to test the resistance of epidermal cells, grafts were exposed to temperatures below zero for periods as long as 14 hours, and were still capable of growth. Another graft was exposed to a temperature of 50° C., and still maintained its vitality. Various antiseptics, however, such as mercuric chlorid, carbolic acid, boric acid, etc., killed the cells in less than an hour. In one instance, however, some growth occurred after exposure for 1¾ hours to a 5% lysol-solution. [J.S.]

6.—Krompecher accepts Marschalko's description of the **plasma cells,** which is as follows: They are infiltration-cells whose protoplasm appears distinctly stained by methylene-blue, without granules, or at most with small clumps in its substance, with the almost invariably excentric nucleus, surrounded by a light perinuclear zone. The nucleus is usually round or oval, contains a delicate chromatin-net, and from 5 to 8 peripherally placed, large, dark chromatin-granules. Hodara has described as pseudoplasm cells, certain bodies with deeply-stained protoplasm and a somewhat irregular nucleus. Krompecher accepts the possibility of the origin of the plasma cells from the lymphocytes, but, as a result of his own investigations, he also believes that a still larger form than that usually described may arise from the multinuclear leukocytes. These cells, derived from the blood-cells, are to be distinguished from pathologic plasma-cells chiefly by the round vesicular character of the nucleus and the partial disintegration of the protoplasm. This type of cell occurs chiefly in infectious processes. In some plasma-cells found in tumors, Krompecher was able to detect fuchsin, and occasionally basophilic granulations. The nuclei, particularly in tuberculous foci, often exhibit the various phases of karyorrhexis. The plasma-cells appear in many cases to be epithelioid cells, for all stages of transition between these two forms may be detected. In addition, they sometimes appear to undergo transformation into connective tissue. Many of them are spindle-shaped, and possess long processes similar to fibroblasts. Krompecher summarizes the reasons for his belief that plasma-cells may become connective tissue as follows: In some places spindle-shaped plasma-cells, with long processes, are the only ones found in the midst of the collagen-fibers. Connective-tissue cells rarely contain mitotic figures, and often exhibit the peculiar basophilic staining of the protoplasm characteristic of plasma-cells. In other words, the presence of plasma-cells indicates progressive rather than a retrogressive activity. [J.S.]

Archiv für experimentelle Pathologie und Pharmakologie.

[Band 41, Heft 1, 1898.]

1. Concerning the Effect of Certain Narcotic Substances on the Gases of the Blood, on Blood-alkalinity, and the Red Corpuscles. Thomas.
2. The Effect of Experimental Biliary Stasis on the Glycogen-content of the Liver and the Musculature. v. Reusz.
3. The Fate of Hemoglobin in the Organism. Schurig.
4. The Formation of Urea from Oxaminic Acid in the Animal Body. Schwarz.
5. A Contribution to the Theory of the Effects of Salts—the General Effects of Salts. Münzer.

1.—Thomas has shown that after the administration of **alcohol** a rabbit would succumb to a dose of cholera-germs one-sixth the size of that required to kill an unintoxicated animal. This effect was explained by the difference in blood-serum between the alcoholized and non-alcoholized animals, the bactericidal action of the blood of the first being markedly diminished. Thomas now attempts to discover what factors in the blood are affected, and by their change diminish the bactericidal activity. The effect of ether and chloroform was also studied with this end in view. The results are summarized as follows: (1) In acute alcoholic intoxication the CO_2, as well as the alkalinity, is greatly reduced in consequence of the increase of volatile fatty acids, which, for the time being, displace the CO_2 of the blood. The decrease in the red corpuscles cannot be considered causative, as it is not constant. (2) The effects of chronic alcoholism on the blood appear only after several months. The alkalinity remains normal, but the CO_2 and the oxygen diminish. (3) Subcutaneous injections of ether, as well as of morphin and chloral, diminish the oxygen of the blood. The CO_2 and the alkalinity remain practically unchanged. After the inhalation of ether CO_2 increases, oxygen diminishes, the alkalinity is unchanged, while the number of red corpuscles is almost doubled. This is to be explained on the ground that the blood becomes venous and inspissated from an insufficient supply of oxygen. (4) Chloroform seems to reduce the alkalinity of the blood. [J.S.]

2.—Legg has stated that if the common bile-duct be ligated in cats, Bernard's diabetic puncture is without effect. Külz and Frerichs had found in animals similarly treated a marked reduction in the glycogen of the liver, and concluded that ligation of the common duct impaired the power of the liver to form and store glycogen. These experimental effects are, however, in contrast with the clinical fact that in cases of obstructive icterus it is difficult to produce alimentary glycosuria. In an endeavor to clear up these contradictions, v. Rensz has made a number of experiments on dogs and rabbits. The latter bear ligation of the duct very poorly. Glycosuria occurred in every case after subcutaneous injection of grape-sugar. The formation and storing of glycogen in the liver after ligation of the duct were not greatly influenced. The glycogen-content of the musculature corresponded in general with that of the liver. After ligation of the separate branches of the common duct in the dog the glycogen-content of the icteric liver was only slightly below and in one case it was even above that of the normal parts. In rabbits with ligated common duct diabetic puncture was effective, although the glycosuria was slight. [J.S.]

3.—**Hemoglobin,** circulating in the blood, is partly excreted by the kidneys, and partly sustains certain modifications. Some of it is converted into bilirubin. The quantity thus used and that excreted by the kidneys do not, however, count for all the hemoglobin that may be introduced experimentally into animals. As the result of a study for the purpose of tracing the fate of the hemoglobin thus injected into the subcutaneous tissue, Schurig concludes: (1) That part of the hemoglobin is transformed *in situ* into iron-compounds. After three days, these compounds are found in part free, in part in cells and interstitial tissue. Later, they are carried to various organs. (2) The remaining much larger part enters the circulation as hemoglobin. A portion is directly converted in the liver into bilirubin, while another portion is transformed into iron-compounds by the spleen and bone-marrow and the cortex of the kidney. If more hemoglobin is injected, the spleen and bone-marrow give up their iron to the circulation, and it is deposited in the liver and the renal cortex. (3) If still larger quantities of hemoglobin are introduced, the organs mentioned are no longer able to dispose of it, and it appears, unchanged, first in the bile (hemoglobinocholia), and then in the urine (hemoglobinuria). [J.S.]

5.—Münzer discusses the **general effects of salts,** which, it seems, are independent of their chemic composition. Among the salts studied were sodium chlorid, nitrate, iodid, sulphate, phosphate, bicarbonate, acetate, tartrate, and butyrate; in addition dextrose was investigated also. The general effects of all these are similar and may be stated as follows: (1) Lowering of the blood-pressure; (2) respiration, at first not altered, becomes markedly slow and labored; (3) the changes in the pulse are slight and consist in slowing of the rate; (4) the diuretic action is, to a certain degree, proportional to the concentration of the solution used. The reflexes are exaggerated; there is fibrillary twitching of the muscles, and tremor. Of the salts used sodium phosphate had the greatest toxic action. The curious fact was developed that increased diuresis is not associated with anhydremia. It was shown that the introduction of concentrated solution into the blood causes a marked efflux of water from the tissues into the blood. This leads to a desiccation of the tissues, even at a time when the water of of the blood is still at a normal height. [J.S.]

Revue de Médecine.

November, 1898. [No. 11.]

1. Study of a Ptomain extracted from an Hydatid Cyst of the Liver, cured by Electropuncture. Boinet and Chazovlière.
2. The Effects of Typhoid Toxin in the Dog. Lepine and Lyonnet.
3. Study of a Special Form of Amyotrophic Tabes. Chrétien and Thomas.

1.—As long as the **hydatid vesicles** possess vitality the liquid of the cysts is clear, transparent, and scarcely toxic. If, however, there is a regressive change in the hydatids, especially under the influence of puncture and electrolysis, toxic products are formed, and in some cases a ptomain, which Boinet and Chazovlière have isolated and studied. The case is reported of a patient with a cyst that had been aspirated; the clear fluid removed possessed scarcely any toxicity. The liquid reaccumulated; electrolysis was practised, and 10 days later the liquid was again removed by puncture. Complete healing took place, but the man died subsequently from pulmonary tuberculosis. The fluid obtained at the second puncture was sirupy, yellowish-brown, and highly toxic, in consequence of the presence of a crystallizable ptomain. [D.R.]

2.—Lépine and Lyonnet have studied the effects of **typhoid toxin** on dogs and have arrived at the following conclusions: (1) Dogs present great individual differences in their resistance to the action of the typhoid toxin; (2) removal of the spleen, if done immediately before the injection of the toxin, does not seem to exert any noteworthy influence; (3) if the spleen is artificially heated for the purpose of augmenting its vitality, the dogs will survive a dose that otherwise would be fatal; (4) if dogs succumb rapidly to an injection of toxin their temperature is but slightly elevated or even sinks; if, on the other hand, they resist, a rapid and even considerable rise in temperature is often observed; (5) as regards leukocytosis, it may be said that if the dog succumbs rapidly, the leukocytes undergo marked diminution; if the animal succumbs slowly, the leukocytes do not diminish, but increase slowly; and if the dog resists, the white cells are augmented, sometimes within a few hours after the injection, sometimes not until the following day. [D.R.]

3.—**Muscular atrophies** are not rare in **tabes dorsalis,** 20% of the cases, according to Déjerine, presenting these symptoms: The lower extremities are usually attacked, generally in an irregular manner; the onset is slow and insidious, and the condition may, for a long time, be confounded with simple emaciation. In rare instances the atrophy is found in the preataxic stage. It is generally accompanied by the ordinary symptoms of tabes, which render its diagnosis easy. Chrétien and Thomas report 2 cases of muscular atrophy in tabes, which differ considerably from each other. The first was one of tabes of rapid and insidious onset, without fulgurant pains or incoordination, with muscular atrophy predominating in the legs and occurring early as the principal symptom of the disease. But for the pupillary signs of tabes, the underlying disease would have been entirely overlooked. At the autopsy, sclerosis of the posterior columns, alteration of the cells of the anterior horns of the lumbosacral region and peripheral neuritis of the intramuscular nerves were found, together with atrophy of muscle-fibers, and relative integrity of the nerve-trunks. In the second case, the classic signs of tabes had existed, and in addition atrophy of the lower limbs and some wasting of the muscles of the shoulders. After death, there were found sclerosis of the posterior columns, mild changes in the cells of the anterior horns, and peripheral and radicular neuritis. Without denying the possibility that amyotrophy may be nothing more than an association of tabes with progressive spinal muscular atrophy, it is thought that the first case at least presents special features. The following conclusions are recorded: (1) Clinically, there is a special form of tabes, with amyotrophy, which does not resemble any hitherto described form. By reason of the predominance of muscular atrophy, the name of amyotrophic tabes is proposed for this condition. (2) While some of the cellular changes in the anterior horns may be considered secondary to peripheral neuritis, others are undoubtedly primary. (3) This primary alteration of the motor cells of the anterior horns is, no doubt, a factor in the pathogenesis of the particular form of amyotrophy described. [D.R.]

December, 1898. [No. 12.]

1. Congenital Predisposition to Sexual Perversion and the Agents Developing It. Ch. Féré.
2. Idiopathic Pulmonary Congestion. Carrière.
3. Decrease of Salivary Secretion Through Alteration of the Glands, and its Importance in Diabetes Mellitus. Jardet and Nivière.
4. The Influence of the Respiratory and Peristaltic Movements on Intestinal Absorption. H. J. Hamburger.

1.—Féré insists upon the importance of a **congenital predisposition in the causation of perversions,** and while he admits that accidental circumstances play an important role in the determination of the character that the perversion assumes, he believes that usually, when an accidental exciting cause alone seems to have given rise to the condition, there is probably a congenital predisposition. He states that every one is subjected repeatedly to the same causes that give rise to perversions in some individuals, or to precisely similar and quite as active causes, but that perversions arise only in those who are predisposed, and in whom the causes, therefore, become active. Féré reports a number of cases of perversion in which he was able to trace a distinct abnormal tendency in early infancy and childhood, even before actual perversions were manifest; and although the perversion seemed to follow a cause that was purely accidental and acquired, nevertheless, the history of these cases shows that the cause acted upon abnormally receptive individuals. As to the treatment of this condition, he says that anything that tends to cure it is allowable, whatever it may be; but that heterosexuality is abnormal in these individuals and not physiologic, and that the substitution of heterosexuality for homosexuality does not fulfil a physiologic function. He closes by saying that the ideal to be achieved in these anomalies is not to give pleasure from normal functions, but to lead the subjects to become continent. [D.L.E.]

2.—Carrière describes the fever-course of **idiopathic pulmonary congestion** as beginning with a sudden rise, having a continuous course with moderate variations, and ending with a sudden fall on the fourth or the fifth day, the decline coinciding with a general decrease of symptoms. The blood shows some decrease of the red cells with an increase of the leukocytes up to 20,000 or more. At the time of defervescence there is marked eosinophilia. The heart during the disease seems normal, except that the sounds are abnormally exaggerated in the back, and the organ is slightly displaced downward and to the left. The liver is usually enlarged distinctly, while the spleen shows no abnormity. The urine is much diminished until the period of defervescence, when there is an actual polyuric crisis. The urea is usually increased, the uric acid somewhat decreased. The phosphates and chlorids are diminished during the course of the fever, but become abundant at the time of defervescence. Small quantities of albumin were found in 4 of the 16 cases. The urinary toxicity was diminished in the course of the disease, and markedly increased at the time of defervescence. The crisis of the disease is usually almost as sudden as the onset, and the outcome is practically always in recovery. The differentiation from intercostal neuralgia is made readily by noting the absence of tender spots, the presence of fever, and of signs of pulmonary involvement, and the latter signs distinguish congestion also from pleurodynia. Acute bronchitis does not resemble it, having a slower onset, usually without chill, and without pain in the side, and it does not subside with a striking crisis. Acute pneumonia resembles congestion greatly, but it has a much more severe onset, though the pain in the side is usually less intense than in Woillez' disease, and pneumonia is commonly attended with less dyspnea in the early stages. The expectoration of pneumonia is viscid and not gummy, as in Woillez' disease, and in the latter the crepitant rale is rare. Acute pleurisy is differentiated by finding evidences of pleurisy with a subsequent effusion, while in Woillez' disease there are rales, gelatinous expectoration, and while there is some dulness, this does not give rise to a feeling of marked resistance to the finger upon percussion. One case died on the sixteenth day, and on postmortem examination the lungs were found enlarged, heavier than normal, and in parts partially infiltrated, though these parts did not sink readily in water. Microscopic examination showed that the partially infiltrated areas were chiefly filled with red blood-cells, with also some desquamated epithelial cells, and a large number of leukocytes, mostly mononuclear, though there were some polymorphonuclear. A great number of leukocytes showed eosinophile granulations; almost all the others were Mastzellen. The treatment of the condition consists largely in the use of purgatives, counter-irritation over the painful area, and, if the individual is strong, abstraction of blood. [D.L.E.]

3.—Jardet and Nivière note that individuals of arithritic temperament are especially prone to **diabetes.** They further state that these individuals are especially subject to chronic inflammatory buccopharyngeal troubles, and that the salivary secretion is frequently decreased. The existence of an apparently conjugal diabetes they attribute to the contagion of these mouth affections, and they seem inclined to attribute a large number of cases of diabetes to imperfect secretion of saliva and consequent imperfect digestion of starches. Upon this basis, they have treated a number of cases resistant to other methods of treatment by exercises of the upper extremities, with a view to increasing respiration, and more especially by massage of the salivary glands, and by instructing the patients to masticate their food thoroughly. The results in the cases reported were entirely satisfactory, and several individuals seemed to have been practically cured of their glycosuria by the increased salivary action. [Diabetes is certainly less a difficulty in the digestion of starches, than an abnormity in their assimilation after they have undergone digestion. If the view offered, that decrease of salivary secretion is responsible for diabetes, were true, why should not all cases of xerostomia have grave diabetes? D L.E.]

4.—Hamburger has tied off portions of the intestine, and filled them with isotonic solution of salt, the coil of intestine then being returned to the abdomen, and the intra-intestinal pressure varied by inflation of air, and the pressure determined with exactness. It was found that increase of the intra-intestinal pressure favors absorption to a remarkable degree, while if there is no pressure, or it is negative, absorption ceases entirely. An interesting table is given that shows that often the intra-intestinal pressure was varied from — 1 cm. up to + 23 cm., the absorption within 4 minutes varied correspondingly from 0 cu. cm. of sodium-chlorid solution to 2.9 cu. cm. It is therefore evident that intra-intestinal pressure is of great importance in producing absorption, and the conditions of importance in the production of the intra-intestinal pressure are believed to be three, —respiratory movements, peristaltic movements, and the weight of the overlying portions of the digestive tract. [D.L.E.]

Original Articles.

THREE CASES OF HYSTERIC HEMIPARESIS OR HEMIPLEGIA; ONE WITH RIGIDITY OF THE PUPIL.[1]

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It is probable that we include under the term hysteria different forms of neurosis and psychosis, but it is better to be guilty of this fault than to make artificial distinctions that do not add to the clearness of our conceptions. The man who first describes a definite group of symptoms as a distinct disease is a benefactor, inasmuch as he makes diagnosis more accurate and treatment more efficient, but the endeavor to be original, to describe what no other man has done, often blinds us to the close relation that exists among many types of disease. He who shows a similarity between morbid processes accomplishes a work of no less value than he who points out dividing lines. We must wait until scientific investigations give us more positive grounds than at present exist before we venture to classify accurately the great group of abnormal manifestations now known under the head of hysteria.

We call hysteria that peculiar *functional* disturbance of the nervous system which simulates closely organic disease, but which on careful examination usually reveals some atypical features, features that our knowledge of anatomy and physiology tells us cannot be due to an organic affection. We recognize a symptom-complex that is as characteristic of hysteria as is that of any other disease, but we are in constant danger of overlooking the monosymptomatic forms of hysteria. The onset, development and duration of the process, even in these forms, is often unlike what we see in organic disease.

Scarcely any diagnosis of nervous affections is more important than that of hysteria, and, I might add, scarcely any, in certain cases at least, is more difficult. I do not believe that hysteria is much more common in the female than in the male, for we see as severe manifestations of the disorder in the one sex as in the other.

It is sometimes stated that organic changes occur in the spinal cord after a hysteric contracture has existed for years, but I have never heard of any authentic case of this kind. Probably no one would class under hysteria any manifestation for which a *primary* organic cause could be demonstrated. It is, of course, true that in old, hysteric contracture there are changes in the muscles and ligaments, but these are such as occur whenever a joint is kept at rest for a long time.

I am able to report three cases of hysteric paresis or paralysis of the hemiplegic type, which have recently come under my observation. Some time ago I exhibited before the Philadelphia Neurological Society[2] a case from the clinic of Dr. S. Weir Mitchell, which called forth a great diversity of opinion. I stated at that time that the man's condition then resembled more that of organic than of hysteric hemiplegia, but that if due consideration were paid to the history of the development of the paralysis, as given by this intelligent patient, the case presented rather the features of hysteria than of organic trouble. We can diagnosticate a disease only by a careful consideration of all the facts. I could not, of course, exclude the possibility of a secondary degeneration of the pyramidal tract from a focal lesion, but I could not reconcile the diagnosis of such a lesion with the man's history. The case well demonstrated the great difficulty in distinguishing between certain forms of hysteria and organic disease. After further consideration I must confess that the diagnosis in this case seems to me most difficult.

At the time of presentation the existence of ankle-clonus gave rise to an animated discussion, and it was held by some of those present that ankle-clonus does not occur in hysteria. This opinion I believe to be incorrect, for ankle-clonus is similar to patellar clonus and indicates an exaggerated reflex, though it seems to be less common in hysteria than is increased knee-jerk. Patellar clonus, however, is not always present in hysteria with exaggeration of the patellar reflex, and when detected it seems to be due to a greater degree of reflex activity. v. Bechterew believes in the existence of ankle-clonus in hysteria.

Later a somewhat similar case to mine was reported by Dr. Charles W. Burr[3] to the Philadelphia Neurological Society, and the discussion was resumed.

In the three cases that I now report the diagnosis seems more positive:—

Case I.—The patient came to me for the first time on November 2, 1897, at the Polyclinic Hospital, complaining of weakness and numbness in the left extremities. He was a man of 48 years, a brakeman, and drank and smoked to excess. A few days before coming to the clinic, while on top of a freight-car that formed part of a moving train, and after an exposure of 5½ hours in a severe storm, he suddenly became partially paralyzed in the left leg, and experienced a "numb, dead feeling" in this limb. He supported himself for half an hour on the right leg, and to some extent on the left, until the weakness disappeared. In about half an hour he had another attack, which lasted about as long as the first; and after a short intermission he had a third attack, which involved the left arm as well. The numbness was then felt in the left side of the face.

When I saw the man he was decidedly weaker in the left extremities than in the right, but the facial muscles were not paretic. The left extremities and left side of the face were hypesthetic, and a hysterogenic zone was found beneath the left breast and just above the inguinal region. The pharyngeal and nasal reflexes were much less distinct on the left side than on the right.

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[1] This paper was read in part before the Section on General Medicine of the College of Physicians of Philadelphia, and the patient with rigidity of the pupil was shown before the Philadelphia Neurological Society.

[2] *Journal of Nervous and Mental Disease*, 1897.

[3] Medicine, Oct., 1897.

Under treatment with strong electric currents producing as much pain as could well be borne the weakness in large measure disappeared, and the sensation of numbness became limited to the left side of the lips and gums, the palm of the left hand, the flexor aspect of the left forearm, and the inner side of the left foot. The knee-jerks became normal and no cardiac murmur could be detected.

It has been my experience that evidences of hysteria are not uncommon in alcoholic patients and that in these, weakness of an upper limb, probably of an hysteric nature, may simulate pressure-palsy. This fact is of some importance, inasmuch as true pressure-palsy most frequently occurs when a person is under the influence of alcohol.

Case II.—The patient, a Russian Jewess, 36 years old, had been complaining since the birth of her sixth child 6 years ago. She had had no miscarriage. A week after the birth of this child she fell from a wagon upon the left side of the body, but was not injured. No complaint was made for about 2 months after this fall. Then, however, she began to suffer from pain in the left side of the back, in the lumbar region, and also in the left inguinal region. The onset of the weakness in the left leg was gradual, and it was not until about four years later that the left arm was gradually paralyzed. No palsy of the face had been noted and speech had not been affected.

When the patient first came to the clinic for nervous diseases at the Polyclinic Hospital I found the heart-sounds normal. The grasp of the left hand was feeble, that of the right good. Voluntary movement in the left lower limb was slight, and the entire limb was dragged from the hip in such a way that the foot was not raised from the ground. Hypoesthesia was marked in the left upper limb as high as the elbow (hypoesthesia in glove-form) and also in the left lower limb. Left inguinal tenderness was also present. No contracture was observed and the knee-jerks were present, but not exaggerated. The nasal, scleral and pharyngeal reflexes were preserved.

The points of interest in this case and on which the diagnosis must depend are:—

(1) A fall from a wagon which caused no symptoms for two months.

(2) Gradually developing weakness of the left lower limb, antedating the gradually developing weakness of the left upper limb by a period of about four years.

(3) Absence of all contracture in an almost complete paralysis of the limbs of one side, lasting for six years in one limb and about two years in the other.

(4) Absence of exaggeration of the knee-jerks. Exaggerated patellar reflex is found in both hysteric and organic hemiplegia, but a patellar reflex so nearly normal as in this case is more indicative of hysteria than of organic hemiplegia of six years' duration and of this completeness. Paralysis of this intensity resulting from a cerebral lesion and lasting six years would probably be associated with exaggerated reflexes.

(5) Presence of hypesthesia six years after the beginning of the paralysis in the lower limb. It is well known that when anesthesia does occur in organic hemiplegia it is usually of a transitory character. I have seen a patient with hemiplegia presented by Ballet at the Hôpital St. Antoine, Paris, in whom disturbed sensation had persisted about a year and a half. Many facts lead to the belief that sensation of each side of the body is even better represented in both cerebral hemispheres than is motion. Of course, one can never be certain that loss of sensation in organic hemiplegia is not hysterical in nature.

(6) Presence of left inguinal tenderness.

(7) A gait that was more like that of hysteria than that of organic hemiplegia. While the leg is at times dragged, instead of swung, in organic hemiplegia, the inability to lift the sole of the foot from the ground in this case is most suggestive of hysteria. The scythe-gait, if I may so express it, is so common in organic hemiplegia that we always look for it, though we do not always find it. The explanation for the swinging of the leg is simple. Considerable evidence exists showing that most muscles of the body have a bilateral cortical representation, but that this representation is more perfect for the muscles of the two sides of the body that are commonly employed together. It is probably for this reason that we do not find persisting paralysis of the muscles of the chest, eyeballs, etc., after a unilateral cerebral lesion. Cerebral paralysis is usually more marked in the distal than in the proximal part of the limbs and is greater in the muscles that move the knee-joint than in those that move the hip-joint. The limb is, therefore, swung from the hip, but the paralyzed limb in extension is too long to permit it to be brought forward in a straight line. The knee cannot be flexed or the foot bent upward in bringing the limb directly forward, and the limb is therefore swung outward. In one case of hysteric hemiplegia my attention was called to the possible hysteric nature of the paralysis by the fact that the movements of the fingers were far more perfect than those of the shoulder. Further examination showed the case to be undoubtedly one of hysteria.

(8) The gradual development of monoplegia in a woman at the age of thirty without heart-disease or signs of syphilis.

(9) Absence of involvement of the face. This is, of course, not conclusive, but it is the common condition in hysteric hemiplegia.

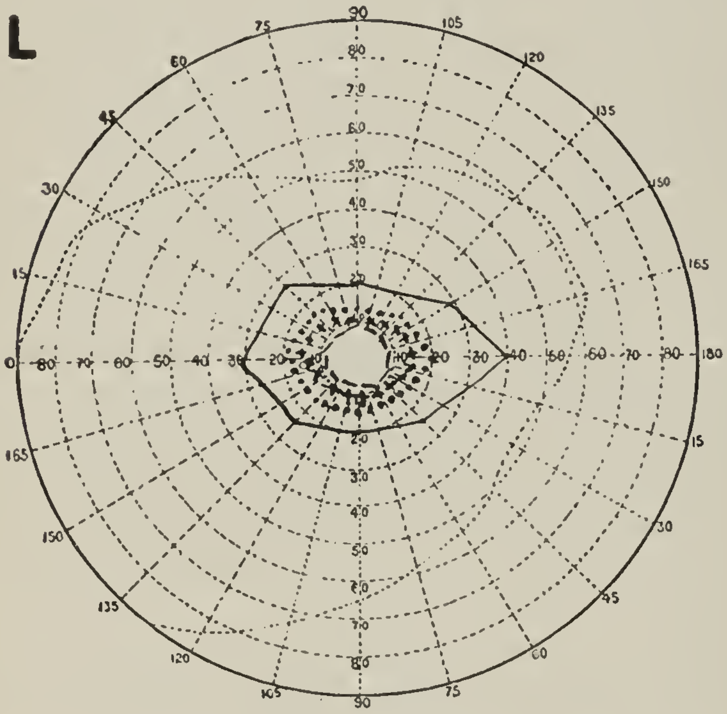
(10) Some improvement in the weakness of the left arm under the application of the electric current.

Case III.—This interesting patient was brought to me by Dr. Charlotte West from the clinic of Dr. S. Solis-Cohen, and to the latter I am indebted for the opportunity of studying the woman's condition.

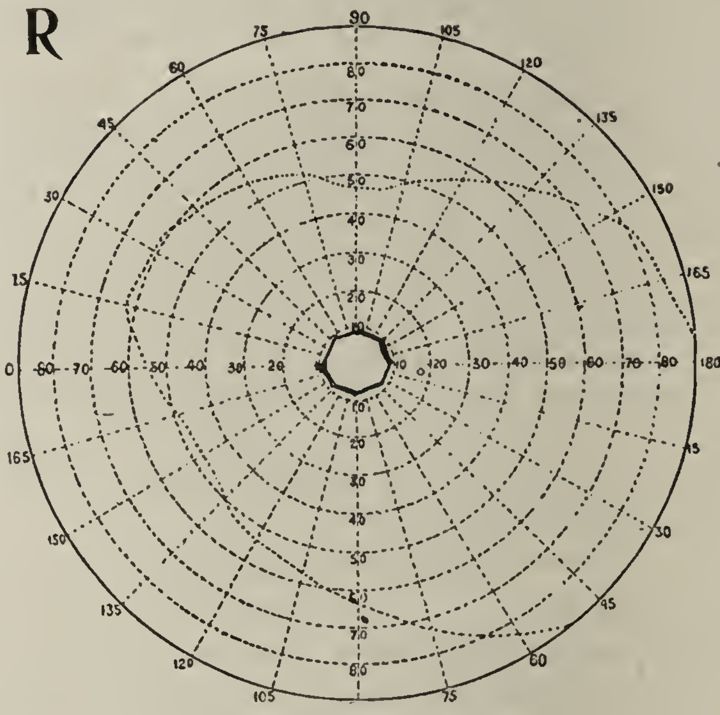
The patient, a woman of 28 years, was working in a mill when a fire broke out. She was obliged to slide down a rope from the fifth story, and in doing so she fell from the second story to the ground. She did not appear to have hurt herself, for she walked shortly after the accident. Three weeks later twitching of the muscles was noted in the left hand and arm, and later in the left leg. These involuntary movements were observed in all parts of the body and were somewhat choreiform in character. The patient had had chorea at the age of 12 years. Both of her parents had died of paralysis, and her father and brother were said each to have had three strokes of paralysis. Some months previous to my examination the woman had noticed that she was anesthetic and weak on the right side, and that she dropped articles from the right hand. When examined, anesthesia, to all ordinary means of testing, was complete on the entire right side of her body. A pin could be driven into her flesh as far as the head without causing pain. The pharyngeal, scleral and nasal reflexes on the right side were greatly diminished, and the back of the pharynx, or the inside of the nostril, or the conjunctiva over the sclera could be touched without producing the ordinary manifestations of discomfort, but the corneal reflex was preserved though diminished in intensity. Tenderness on pressure was found below the left breast and in the left inguinal region. The knee-jerks were greatly exaggerated and a peculiar phenomenon was at times noted. When the patellar tendon was struck the leg flew promptly forward to a certain distance, and after a momentary arrest it passed still further forward, and the muscles were thrown into tonic contraction. Ankle-clonus could not be obtained because the muscles on the anterior part of the leg passed into rigid contraction when the foot was bent upward, and held the foot in this position for a moment. This is the phenomenon described as paradoxic contraction. The reflexes in the upper extremities were greatly exaggerated, and tapping the tendon of the biceps muscle caused flexion of the fingers. The patient was decidedly weak in the limbs of the right side. The visual fields were greatly contracted.

This patient was under the care of Dr. C. W. Burr, in 1895. At that time the anesthesia varied frequently in location. The red field was the largest in the left eye, and the blue in the right eye, the white field being the smallest in both eyes. A diagnosis of hysteric chorea was made by Dr. Burr.

Test-objects, 1½ cm. diameter.



.... Red. + + + Blue. - - - Green. — White.
Date—February 17, 1898.



— White.
Date—February 17, 1898.

The diagnosis of hysteria seems well founded in this case, and the right hemiparesis and the general tremor will also, probably, be regarded as hysteric. The intensity of the anesthesia, involving even the mucous membranes, shows that we have among us as marked forms of hysteria as exist among any other people, but they seem to be less common than on the Continent of Europe.

The ocular conditions in this patient are of the greatest interest. She was sent to Dr. de Schweinitz's clinic for an examination of her eyes, but as it was too late in the day the fields could not be taken at that time. Dr. W. M. Sweet kindly examined them for me a day or two later, as I wished a report to present with the case. He stated on January 10, 1898, that the movements of the eyeballs were normal in all directions. The right pupil was round, 6 mm. in diameter, did not react to light, but reacted feebly in accommodation. The left pupil reacted normally to light, consensually, and in accommodation. The right side of the body was anesthetic, and the rigidity of the pupil to light, and the excessive limitation of the visual field were, therefore, on the anesthetic side. Both optic discs were pallid, especially toward the temporal halves, but otherwise, media and fundus of both eyes were normal. The fields showed marked contraction.

Dr. C. A. Veasey saw the patient on January 13, 1898, and not knowing that her eyes had been examined, reported that the vision of the right eye equalled $\frac{6}{30}$; that of the left, $\frac{6}{22}$. Accommodation was preserved in each eye, though somewhat weak in the right. The pupils were unequal in size, the right being 5 mm. in diameter, fixed and not reacting to light, in convergence or accommodation. The consensual reaction was also lost. The left pupil was 2.5 mm. in diameter, and all the reactions were preserved. Ophthalmoscopic examination revealed no gross lesion of the fundi.

The accompanying diagrams represent the visual fields as studied by Dr. Veasey on February 17, 1898. Complete reversal of the red and blue fields was noticed in the left eye, in addition to the marked concentric contraction for both form and color. In the right eye the form-field was exceedingly small, and colors could only be detected on the spot of fixation; reversal, therefore, could not be determined. Dr. Veasey stated that it was remarkable that so small a field should accompany such good vision.

On April 6, 1898, Dr. Veasey wrote: "At the time of my first examination of M., she was able to read with the right eye the type known as Jaeger 6 p. at 7″ in front of the eye; yet in doing so there was no change in the size of the pupil from what it was when looking into the distance. In other words, there was no reaction of the pupil in accommodation, although accommodation was preserved, and this curious phenomenon was pointed out to the clinical assistants and the members of the class present at the time of examination.

"Curiously enough I had an opportunity to make another examination of her eyes to-day [the patient had not been seen for some time] and despite my greatest efforts I failed to get any accommodation in the right eye, though in other respects the eyes were in the same condition."

On June 1, 1898, Dr. Veasey sent me the following note:

"In reply to your letter of yesterday, asking for some explanation as to why the pupil of M. did not react, while accommodation was not entirely abolished, I think the explanation can be best made by accepting the theory that now seems to be a fact, that there is a separate center for the three motions, accommodation, convergence, and pupillary contraction, and that these motions are not dependent upon each other, but are coeffects of one and the same cause. This suggestion, I believe, was first made by Aubert.

Later, Henson and Völckers demonstrated the fact that in dogs in the posterior part of the floor of the third ventricle there were centers for branches to the ciliary muscle, the sphincter of the pupil and the internal rectus, lying quite close together. A case reported later by Eales, in which there was paralysis of convergence and accommodation associated with pupillary *contraction*, proved beyond doubt the existence of a similar independent action in man. The fact, also, that sometimes in paralysis of accommodation following diphtheria the pupil remains quite active shows that the motions are not dependent upon each other. The observation that M.'s pupil failed to react to the stimulus of light or in accommodation, while the latter function was only partially impaired, can be explained by the existence of some disturbance of the pupil-contracting center, or of the nerve-fibers, sufficiently severe to produce paralysis of the pupillary sphincter, but which at the time of the first few examinations had involved the accommodation-center or fibers, to an extent sufficient only to produce paresis rather than paralysis of accommodation. This is probably the case, inasmuch as the examinations made by myself at a much later date proved that the paresis of accommodation had been succeeded by complete paralysis. The nature of this disturbance, of course, can be determined only after the discovery of the pathologic cause of hysteria."

On June 3, 1898, I received the following from Dr. Veasey:

"Your question as to whether I could explain M.'s inability to read when the pupil was rigid on the supposition that the ciliary muscle was paralyzed may be answered in the affirmative. If you ask, however, whether it is necessary to have some defect of accommodation with a rigid pupil, I say no. In M.'s case I believe that at the time of my first examination, there was present slight paresis of accommodation, that afterward became complete paralysis. My reason for this belief is that she could read the medium-size type of the test-card, Jaeger 6, with slight difficulty, but as soon as a 2 D. convex lens was placed before the eye she read the smallest type, Jaeger 1, with comparative ease. At my next examination a stronger lens was required to enable her to read Jaeger 1, and at a still later examination complete paralysis of the muscle was found to exist. She has an actual hypermetropia of about 1.50 D. which was taken into consideration in making the tests. It is, therefore, quite evident that the disease gradually progressed from an iridoplegia, with slight paresis of accommodation, at the time of the first examination, to the present condition of ophthalmoplegia interna. The fields of vision remain unchanged."

I have quoted quite freely from Dr. Veasey's letters, as his statements are of much interest.

Under treatment with static electricity the anesthesia of the right side of the body disappeared and the patient was able to feel the point of a pin. This result was obtained by suggestion and unfortunately was not permanent. I have not been able to put this patient in the hypnotic state.

Being encouraged by the success of the suggestive treatment employed for the removal of the anesthesia I was led to believe that if a form of suggestion could be used for the restoration of function in the iris the reactions of the iris might become normal, at least for a time. I, therefore, requested Dr. Veasey to give her glasses, and to use for the right eye ordinary glass, which could not in any way affect organic disturbance of vision. I believed the case to be one of hysteric rigidity of the pupil, and comparable to the spasms or paralyses that are well known in hysteria. I have seen hysteric ptosis in the clinic of Prof. Dejerine at the Salpêtrière, and other cases are on record.

An ordinary plain glass was given to the patient and she was told that her sight in the right eye would return and that her pupil would become small if she would wear her glasses constantly.

After wearing her spectacles for a week or two she returned to the clinic, with her right pupil still somewhat larger than the left, but considerably smaller than it had been and reacting promptly to light and in accommodation. She could read Jaeger 1 with her left eye closed and the right open, and could distinguish blue and red with her right eye alone. She took no nux vomica or strychnin during the period she wore her glasses. She felt so much better that she wanted to work again, and did attempt to do so without success. Dr. Veasey confirmed my observations on the right pupil and called the attention of the students to the experiment and its remarkable success.

The woman returned to my clinic about two weeks later with her former condition of pupillary rigidity. She has never been very susceptible to suggestion, and had now concluded that her glasses would not benefit her. Unfortunately Dr. Veasey had not been able to take the visual fields during the time the iris reacted, and when they were obtained they were found to be as contracted as when first studied.

In October, 1898, the patient's condition was similar to what it had been during many months. She could not read at short distance or distinguish colors with both eyes open, or with the left eye closed and the right open, but she had good vision with the left eye open and the right closed. Although her scleral conjunctiva was insensitive, and irritation of it did not cause closure of the eyelids, it did produce a flow of tears from the right eye. This is to me an interesting observation, and would seem to indicate that one form of reflex action was present and the other absent.

On December 1, 1898, Dr. Veasey wrote:

"Within the past two weeks I have had the opportunity of making certain observations on M's eyes that are of interest. An attempt was made one day to contract the pupil with a strong solution of eserin sulphate, but without success, although six instillations of a solution of the strength of two grains to the ounce were made at five-minute intervals. There had been no effect on the pupil at the expiration of 1½ hours. The attempt was made to-day to produce further dilatation of the pupil by making four instillations of a solution of scopolamine hydrobromate, of the strength of one grain to the ounce, but there was no appreciable effect at the expiration of one hour. Cocain made the pupil about ½ to 1 mm. wider, owing to its action on the bloodvessels.

"Before using the eserin M.'s vision was tested and was found to be for O.D.$\frac{6}{30}$ and for O.S.$\frac{6}{15}$. By Harlan's test, that is by placing a very weak glass in front of O.D., and a glass so strong in front of O.S. that it was impossible to see through it, she read with O.D.$\frac{6}{15}$, the same as with the other eye, though tested with another card so that the possibility of remembering the letters was eliminated. In addition, I told her before using the eserin-solution that it would sting, but always produced immediate amelioration of the field of vision; and when I examined her field about 1½ hours after the first instillation of eserin, it was found markedly improved, and when taken again to-day was found to be better than that of the other eye with no reversal of the color-fields."

It may be said that this patient possibly used a mydriatic and practised deception. To this I would reply that she has been under our constant observation for about twelve months; that with the exception of the period during which she first wore glasses, her right iris has always been rigid and the left normal; that a mydriatic could hardly produce the rigidity of the sphincter iridis with action of the ciliary muscle observed at Dr. Veasey's first examination; that had the dilatation been due to a mydriatic the repeated instillations of a strong solution of eserin would have produced temporary contraction; that the rigid pupil is on the side of greatest contraction in the visual fields and of hemianesthesia. So far as I know the simple experiment employed in the use of an ordinary glass has never previously been attempted in any of the rare cases of hysteric pupillary rigidity. I believe the pupillary condition in this case is probably one of hysteria, and that it would be wiser not to attempt any explanation on an organic basis until we know more of the nature of hysteria. I am indebted to Drs. Hansell and Eshner for the reference to an exceedingly interesting case of hysterical rigidity of the pupil reported by Harlan[4] fourteen years ago. The rigidity of the pupil in this case could be overcome by the use of an imitation magnet.

Much difference of opinion exists in regard to the occurrence of hysteric pupillary rigidity. Sänger[5] doubts its existence. Siemerling[6] leaves it an open question. A. Westphal[7] describes a case of grave hysteria in which the pupils were almost constantly myotic and about the size of a pin's head. They did not react to light or in convergence. When the patient's attention was not directed to the attempts made the pupils were less contracted, and one was a little larger than the other. On rare occasions a distinct reaction to light was seen after repeated trials when the illumination of the eyes was accomplished suddenly and the patient was not forewarned of the attempt to be made. Westphal believed that the sphincter iridis was in spasm, and that this spasm relaxed when the patient was not observant. He reports another case of hysteria with a similar condition of the pupils and spasm of certain of the external muscles of the eyeballs. Hysteric hippus of short duration was also observed. The convergence of the eyeballs was overcome by suggestion. For a time paradoxic reaction of the pupils (dilatation in light, contraction in darkness) was observed.

Westphal describes two women with hysteria in whom he was able to observe the condition of the pupils during the convulsive attacks. The pupils were dilated and did not react to light, even in focal illumination. At other times, in the absence of convulsions the pupils reacted to light and in convergence.

Westphal speaks in a footnote of a third case of rigidity of the pupils observed by him during hysteric convulsions. In one of these cases epileptic attacks were noted later, and he refers to the possibility of some relation existing between the hysteric attacks with rigidity of the pupils and epilepsy.

According to Westphal, therefore, cases of hysteria occur in which rigidity of the pupils may be noticed during the convulsive attack, after the attack, or independently of the attack; and his cases, in connection with those of Karplus, show that the condition of the pupils during a convulsive attack cannot be depended upon to distinguish epilepsy from hysteria.

Hitzig[8] reports a case of hysteria in a man, with pain in the eyes, limitation of the visual fields, amblyopia, convergent strabismus, complete ptosis, and contraction and rigidity of the pupil to light. These anomalies were removed by suggestion.

Karplus employed a blepharostat and protected the cornea by occasionally dropping normal salt-solution upon it, and was, in this way, able to study the reaction of the pupil to light in hysteric attacks. He produced an attack in an hysteric girl. During the convulsions the pupils were enlarged and rigid, while during the periods of relaxation they were of medium size and reacted. In some attacks the pupils were not rigid when the convulsions were slight. Karplus[9] was able to observe rigidity of the pupils in other patients in hysteric convulsions. Krafft-Ebing and Bernheimer were convinced of the correctness of these statements. Later Karplus published further observations on this subject.

Nonne and Beselin[10] have been able to collect a few cases from the literature in which the pupils were affected in hysteria, and they report two cases of their own, in one of which dilatation of one pupil, with scarcely perceptible reaction to light and in convergence and with paralysis of accommodation, was noted. In the second case mydriasis, paralysis of the sphincter iridis to light-reaction, and in accommodation and convergence, were noted in each eye. In both cases the long duration of the dilatation of the pupil and of the paralysis of accommodation, the possibility of contracture of an antagonizing muscle in the latter condition being excluded, seemed to them to favor the diagnosis of paralysis of the sphincter iridis rather than of contracture.

Dr. Veasey has called my attention to an interesting case of alternating and intermitting hysterical mydriasis reported by Jacovides.[11]

SOME PRACTICAL CONSIDERATIONS CONCERNING PNEUMOTHORAX, BASED ON A BRIEF REPORT OF CASES.

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Case I.—Mrs. H., aged 35 years, was seen in consultation on September 13, 1898. Her past history was negative up to the time of the present attack, especially as to any acute or chronic affection of the chest. Her general condition was excellent and the patient appeared to be in almost perfect health. About 9 years ago, while walking up a hill, she suddenly became short of breath. There was no pain, and the dyspnea was not excessive, although it has continued ever since—almost unnoticeable when she is quiet, but troubling her moderately on exertion, and especially during the winter whenever she "catches cold." These attacks of winter-cough, evidently bronchitis, have become quite regular of late years, and the accompanying dyspnea is what led her to request an examination of the chest. This was made at my office. There was almost complete absence of respiration over the whole left side of the chest, front and back. The mediastinum was 1 inch to the right of the median line, and the precordial area still further to the right. Succussion and other signs of fluid were absent. The right lung presented no abnormity.

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[4] *Transactions of the Amer. Ophth. Soc.*, 1884, p. 649.

[5] *Monatsschrift f. Psychiatrie und Neurologie*, Vol. iii, No. 5, p. 439,

[6] *Berliner klin. Wochenschrift* 1896, p. 976.

[7] *Berliner klin. Wochenschrift*, 1897, pp. 1024, 1052.

[8] *Berliner klin. Wochenschrift*, 1897, p. 133.

[9] *Wiener klin. Wochenschrift*, No. 52, 1896, p. 1228; *Jahrbücher f. Psychiatrie*, 1898, abstract in *Neurologisches Centralblatt*, 1898.

[10] Nonne and Beselin: *Festschrift zur Feier des achtzigjährigen Stiftungsfestes des ärztlichen Vereins zu Hamburg.* Leipzig, 1896.

[11] *Archives d'Ophthalmologie*, October, 1898, p. 645.

This would appear to have been an instance of so-called accidental pneumothorax, such as sometimes occurs, for example, in an otherwise healthy individual from rupture of an emphysematous vesicle. The extraordinary feature of the case is its chronicity—the fact that the intrapleural air has never been absorbed. An "accidental" pneumothorax is, as a rule, particularly benignant; resulting pleurisy is not common, and often within a few days there is complete restitution to normal. I am unable to offer any plausible explanation of the course that this case has pursued.

It is an interesting question whether the compressed lung is still capable of expansion, and whether, therefore, anything could be hoped from an attempt to aspirate the retained air. Bäumler has emphasized the fact that at least a number of years may elapse before such an attempt is to be considered hopeless. We shall certainly make the experiment in the present case if the patient will permit, for it is evident that under present conditions life would be greatly imperilled by any acute affection of the other lung.

Case II.—Mr. D., aged 70 years, was seen in consultation December 18, 1895. He came to Colorado about 6 years previously for pulmonary tuberculosis. Up to the present attack cough had been slight and the general condition fairly good. About 48 hours before coming under observation the patient had been suddenly seized with a severe pain in the left side, accompanied by great dyspnea. At the time I saw him he was breathing with great difficulty, about 40 times to the minute, was markedly cyanosed, and gave the impression of being in imminent danger.

On physical examination it was found that the left side of the chest moved but little, if at all, on respiration. It was slightly tympanitic throughout, and respiration, though vesicular and distinct, was faint. The left pleural cavity was enormously distended, the mediastinum being displaced over three inches to the right of the median line, and the diaphragm nearly to the margin of the ribs. Precordial dulness was wholly outside the right parasternal line.

Immediate puncture was advised, with the insertion of a cannula à démeure. This was done at once in the seventh intercostal space, and the relief afforded was remarkable and instantaneous. This was objective as well as subjective, as not only did the patient express himself as wonderfully helped, but the respirations at once dropped to about 28. It was also noticeable that the character of respiration had changed; whereas expiration had been prolonged like that of asthma, it now was easy and natural. The tube was left in place for several days, and recovery from the pneumothorax was afterward complete.

It is not often, as in this instance, that great relief is afforded by simple puncture of the chest. This can, of course, only happen when the perforation is valvular. Intrapleural pressure, instead of merely atmospheric, then becomes distinctly positive; and the excess of air that is forced through the perforation partly by respiration and more especially by cough may produce enormous distention of the affected pleural cavity. The production of an open pneumothorax by means of a cannula à démeure relieves this hyperdistention, and also prevents further accumulation in excess over simple atmospheric pressure. It is evident that the cannula must remain in place until the perforation has become at least temporarily sealed. It is always difficult to recognize with certainty such hyperdistention. Dyspnea may be excessive, even when the perforation is freely open. Excessive displacement of the mediastinum, two inches or more to the right or left of the median line, is an important indication. Less reliable, though suggestive, are absolute respiratory immobility of the affected side, effacement of the intercostal spaces, and a decidedly tympanitic note on percussion. The latter I find to be quite exceptional in the average case of general pneumothorax; as a rule, the note is exaggerated non-tympanitic, and I believe that marked tympany is usually evidence of some excess of pressure above the simple atmospheric.

At all events the foregoing history shows that in any case attended with severe dyspnea, whether or not the opening seems to be valvular, immediate puncture with a good-sized needle should be tried; and, if relief is afforded, the needle should be left in place for several days.

Case III.—Mr. P., aged 25 years, came under my care December 18, 1896. Two days before, he had had a rigor, followed by severe pain in the left side. There was abundant rusty sputum and signs of consolidation throughout the lower lobe of the left lung.

Until the night of the 21st, the case followed the course of a light pneumonia; the temperature averaged about 102°, the pulse 110, while the tongue was moist and the general condition excellent. There was no thought of danger or of other than a favorable outcome.

Suddenly, on the night of the 21st, there was an attack of great pain in the affected side, with extreme dyspnea. In the morning I found the patient in great distress, moaning and crying with pain, gasping for breath, and with a marked degree of cyanosis. The pulse was 125, the respirations 50. There was now tympanitic resonance over the upper two-thirds of the left lung anteriorly, with flatness over the lower third. Everywhere over the whole front there was a distinct amphoric tinkle with each respiration. The heart was to the right of the median line, though it was difficult to accurately define it by percussion, because of the noisy respiration.

On the morning of the 23d, exploratory puncture was made in the seventh interspace in the left axilla, and fetid pus was withdrawn. The chest was at once incised; a large amount of pus escaped, and the cavity was thoroughly irrigated with 1 to 3,000 mercuric-chlorid solution. In spite of this the patient, however, rapidly failed, and died on the same day, at 11 p.m. There was no autopsy.

There are two possible interpretations of this extremely unusual case: A gangrenous pleurisy alone may have developed on the fifth day of the pneumonia; or it may have been preceded by a pneumothorax. I favor decidedly the latter view, as it is difficult otherwise to account for the suddenness and intensity of the pain and dyspnea, as well as for the abrupt displacement of the heart to the right of the median line. A pneumothorax as a complication of acute pneumonia is an exceedingly rare occurrence; and it seemed to me that even such a doubtful case was worthy of record.

Case IV.—Chas. B., aged 30 years, consulted me at my office on August 23, 1898, for "pleursy-pains" in the right side which had been troubling him for several weeks. He had not been confined to bed, and dyspnea had been slight. There was no tuberculous history. On physical examination the patient was found somewhat delicate in appearance and a little pale. The temperature was slightly elevated. The right side of the chest contained a moderate pleuritic effusion, bounded behind by the "S" curve, and in front by a line corresponding to the fourth interspace, The heart was slightly displaced (½ inch) toward the left.

On account of the rather large size of the effusion and the uncertainty as to its duration it was thought best to aspirate; and on the same day two pints of slightly cloudy serum were withdrawn. The posterior line of flatness dropped at once to a "convex" curve, *i. e.*, a curved line extending from about the fifth dorsal vertebra outward and downward to reach the base in the axilla.

On September 3d, although the patient had been constantly improving in general condition, it was thought that the effusion had again slightly increased, though still "convex"; and the aspirating needle was again introduced. To my astonishment, although I convinced myself that the apparatus (a Potain) was in perfect order, and exploratory puncture had just obtained a perfectly clear fluid, I could get nothing. I then tried again in a little different place (both near the angle of the scapula), this time unfortunately using a needle without "safety"-attachment, *i. e.*, an arrangement with a stopcock designed to prevent any possible entrance of air. This was also unsuccessful, even after the repeated introduction of a sterilized wire plunger; and finally, after experimenting for half an hour, I desisted from the attempt.

On the following night there was considerable pain; and the next day, the 4th, the temperature was 102° at 12 M., and 103.2° at 8 P.M., with a rather bad pulse of over 130. On the 5th the condition was still worse, notably a tendency to stupor, which was suggestive of grave infection. I had been surprised the day before to find the posterior flatness much diminished, and I was now certain that I detected a decidedly tympanitic note over the site of former flatness. On the following day this tympany was even more marked; indeed there was now no flatness at all at the right base behind. I inserted an exploratory needle. In the upright posture I got nothing; in the recumbent, with the back slightly projecting over the edge of the bed, fetid pus flowed freely from the needle.

Without entering into details, as my purpose here is to note certain features of pneumothorax, I will simply add that on the same day I resected a rib, and that now, after three weeks, the patient has almost fully recovered.

This case emphasized in a most striking and disagreeable way a fact that has long been recognized in the books, but which, I fancy, is frequently lost sight of in practice. I refer to the possibility of encountering a high degree of negative pressure in the attempt to aspirate a pleuritic effusion. In a practice of some 15 years, with many cases of paracentesis, this is the first time that I have met with an effusion that I could not aspirate with an ordinary Potain apparatus. There can be no doubt that in this case the suction-force of the latter was insufficient; the negative pressure of the effusion was stronger than that of the bottle; and although air may not have entered the chest directly from the bottle, it was unquestionably sucked in during the attempts to remove the supposed obstruction from the unprotected needle. This resulted in the immediate production of a pneumohydrothorax and subsequent putrid infection of the exudate.

It is thus evident that this danger is no merely theoretic one. As long as the current tends outward, which is undoubtedly true of the great majority of operated cases, there is but little chance of infection; the moment negative tension becomes great this danger is imminent. Whenever, therefore, an effusion is small, it would seem to be imperative to use some form of apparatus that absolutely prevents the inward aspiration of air; such as the stopcock attachment which is supplied with every good instrument.

The case also demonstrates another point of physical diagnosis. An amount of fluid considerable enough to produce marked posterior flatness in simple effusion may cause little or none in pneumothorax. In the foregoing case why did the flat area behind become tympanitic in the upright posture as soon as pneumothorax intervened? Certainly not because of any reabsorption; the time was too short, and the conditions even more unfavorable than before. We can only suppose that with the establishment of intrapleural atmospheric pressure the lung collapsed as far as adhesions would permit; the fluid, instead of being banked up, so to speak, around the lung, dropped to a hydrostatic level, and thus resonance now appeared where there had formerly been flatness. Of course, some flatness would still remain at the extreme base, but difficult of detection because of the neighborhood of the liver.

Case V.—E. T., aged 27 years, salesman, entered the Arapahoe County Hospital, April 9, 1898. He had come to Colorado 9 years before in good health. For the preceding year he had been running down, and more recently he had begun to cough slightly, in January having 3 or 4 small hemoptyses. The man came to the hospital because of slight dyspnea and malaise; but he had continued at work up to the last. He had had no pain, and was unable to tell exactly when his very moderate dyspnea began. Physical examination showed a fairly well-nourished individual, with a pulse of 112, a temperature of 102.5°, and respirations of 30. The patient did not appear to be very ill. On percussion of the chest no difference was noticeable between the two sides anteriorly. The heart, however, was found one inch to the left of its normal position. The upper border of the liver was in the seventh space in the mammillary line, and its lower border 2 inches below the margin of the ribs. Auscultation showed greatly diminished respiration, vesicular in quality, throughout the right side anteriorly and posteriorly. The left lung exhibited no abnormity. After 5 days, on the 14th, two or three inches of flatness appeared for the first time at the base of the right lung posteriorly; and on the 18th the fluid had so rapidly increased that in the recumbent posture it reached to the level of the anterior axillary line. Hitherto it had been impossible to obtain succussion; and even now the most violent and prolonged shaking was fruitless. The patient, however, understanding what was desired, remarked that for the preceding day or two he himself had noticed a swashing whenever he turned upon his left side. Following this suggestion I placed my ear to the chest and asked him to turn; and it was now easy to hear the most astonishing and prolonged rush of fluid. It was precisely like water flowing over a dam, and in fact the pleuritic fluid did probably thus produce a miniature waterfall over the obstructing lung. Exploratory puncture yielded clear serum.

From this time on the fluid continued to increase, though more slowly, and on the 21st the heart and mediastinum had moved ¾ inch farther toward the left. As exploratory puncture had yielded clear serum, and as there was no evidence of increased discomfort, it was thought best not to interfere; and it was not until May 13th, 5 weeks after entrance into the hospital, that two pints of fluid were slowly withdrawn. A week later the mediastinum was in its normal position: and the temperature, which had hitherto reached a daily height of 101° or 102°, soon fell to normal. On June 13th, the patient was dismissed, in excellent condition.

The foregoing history represents a fairly typical case of pneumothorax followed by pleuritic effusion. It illustrates, however, two or three important points: First, the method referred to of eliciting succussion. I have never seen it mentioned and I have since tried it successfully in other cases. Quite likely it is only available with large effusions, when it is no longer needed for diagnosis.

In the second place, the case shows how insidiously a pneumothorax may develop—without anything of the sudden severe pain and dyspnea that are usually so pronounced. Such an onset may lead one astray in diagnosis—rather because attention is not directed to the chest than for lack of plain physical signs. I have to confess that in the present case, finding a patient with indefinite history of malaise, with considerable fever, thickly coated tongue, and palpable spleen, I suspected typhoid fever; and it was only after two days that a careful examination of the chest disclosed the true condition. It must, however, be admitted that such a mode of onset is quite exceptional.

Finally, the case serves to emphasize an important rule: Except in the presence of manifest danger—the indicatio vitalis—a case of pneumohydrothorax should not be interfered with—by aspiration, namely—until from 4 to 6 weeks have elapsed after the date of perforation; and then only a small amount of fluid should be withdrawn at one time. The following case illustrates what I think to have been defective management in this respect:

Case VI.—W. R., aged 29 years, a barber, entered the Arapahoe County Hospital on January 28, 1898, with a history of pulmonary tuberculosis of nine months' duration, for which he had come to Colorado six months before. He had improved considerably and was able to work until 10 days previously, when during a coughing-spell he was suddenly seized with severe pain in the right side, "so that he could scarcely walk." He also at once became short of breath, although he thought this was worse about two hours later.

On physical examination the patient was found to be quite well nourished, and he appeared but moderately ill. His pulse was 112, temperature 103.4°, respirations 30. The left lung presented no abnormity. Over the whole of the right side of the chest anteriorly there was slightly exaggerated resonance and almost entire absence of respiration. The mediastinum was 1½ inches to the left of the middle line, and the left margin of the precordia was the same distance outside the nipple-line. The lower border of the liver was 1½ inches below the ribs. Examination of the right side of the chest posteriorly in the erect posture disclosed the presence of fluid, to the height of about 3 inches, and succussion was easily elicited. There was nowhere any amphoric character of transmitted sounds. Exploratory puncture yielded clear fluid.

On February 10th the effusion had increased to such an extent that, in the recumbent posture, the level of the fluid was half-way between the anterior axillary and mammillary lines. The mediastinum was now enormously displaced, reaching within an inch of the left nipple-line, while the apex of the heart was in the left axilla. The lower border of the liver was almost at the level of the umbilicus. In spite of this extreme distention of the right side of the thorax the general condition was fairly good; the pulse and respiration were the same as at entrance and there was but slight cyanosis. Considering, however, the extreme degree of cardiac displacement, and the complaint of one or two recent attacks of dizziness and blackness before the eyes, it was thought best to aspirate a moderate quantity, and, accordingly, 32 ounces of clear serum were removed.

Immediately following this aspiration the mediastinum moved an inch toward the right; and 3 days later, on the 14th, it was only 1½ inches to the left of the middle line. 32 ounces were again withdrawn. On the 19th the mediastinum was at the left sternal border, and on the 24th for the first time in its normal position. 11 days later, however, on March 7th, since the fluid had again risen to the level of the 3d rib in the erect posture, and the mediastinum was again 1½ inches to the left of the middle line, 48 ounces were removed instead of 32 as before. About 30 hours later sudden pain was felt on the right side anteriorly, accompanied by a slight chill, but without increased dyspnea; and examination on the following day showed the mediastinum again almost at the left mammillary line and the cardiac apex in the left axilla. Manifestly, either the old perforation had reopened or a new one had formed.

From this time on to May 1st, at the close of my term of service, there was again a gradual movement of the mediastinum toward the middle line, and a slow improvement in the general condition. After April 1st the temperature was never above 100° and from the middle of April on it was practically normal. The quantity of fluid, however, again gradually increased, and when, in May, aspiration was again practised by my successor, the effusion was found to be purulent.

On August 28th this patient called upon me at my office. He had been at work for 2 weeks, without fever, and had gained several pounds in weight. He was feeling quite strong and well, though not wholly free from dyspnea on exertion. On examining his chest, I found as before no abnormity of the left lung. The right lung was compressed, and the right pleural cavity more than half full of pus, which moved freely about on change of position. Radical operation was not advised.

This case seems to me exceedingly instructive in two particulars:—I am convinced, although of course the possibility of a non sequitur must be admitted, that the aspiration of 3 pints on March 13th caused the old perforation to reopen; and I think, furthermore, that this second perforation was the source of the purulent infection of the exudate—a really serious train of consequences. It is true that nearly two months had elapsed from the date of the original perforation, and that the latter may be presumed to have healed as firmly as it ever would; but it was quite unnecessary to remove 3 pints at one time, and thus, by increasing the intrathoracic negative pressure, to bring suddenly so great a strain upon an impaired lung. Too much caution cannot be exercised in cases like this, and in the future I shall never go beyond 2 pints at a single sitting; I am not certain but that the daily removal of a single pint would be even better.

A second point of great interest and importance in this case is the proper management of the purulent effusion. Here was a tuberculous individual with his chest half full of pus, and yet without fever, and steadily gaining both flesh and strength. Without going deeply into a question that is too broad for the limits of the present paper, it will be sufficient to simply state here the reasons for letting this particular case alone: First, the exudate was doing him no harm. There was no septic absorption; fever was absent, the general condition was steadily improving, and there was not enough dyspnea to keep him from work. Any increase in the dyspnea could be guarded against by watching the effusion and aspirating when necessary. Similar conditions are known to have gone on for 10, 15, and even 20 years, without impairment of the general health. Secondly, the results of operation in tuberculous cases are, on the whole, discouraging. It is true that many empyemas in tuberculous individuals do well, and recover rapidly after operation; of this I could myself give several instances. But when the pleural affection is almost certainly tuberculous, and when, as in a pneumo-pyothorax, the pus-cavity is large and the lung markedly compressed, the chances of a long-continued, exhausting suppuration, and of secondary saprophytic infection, are very great. Lastly it is always questionable in such a case whether the manifest quiescence of the pulmonary tuberculosis may not be due in part to the mechanical compression of the lung. Many authorities could be cited who favor this view, but it is sufficient here merely to refer to this possibility. It is certain that after radical operation in some cases of tuberculous empyema there is, even with the most perfect drainage, a sudden recrudescence of hectic fever, which is followed by rapid decline and death. I am convinced that in no field of operation is individualization more necessary than in the management of empyema in tuberculous subjects.

Case VII.—Wm. L., aged 29 years, artist, entered the Arapahoe County Hospital July 12, 1898, with a tuberculous history of 1 year's duration, for which he had come to Colorado 7 months previously. He had lost much flesh, but was able to keep about. On the morning of July 11th, he was suddenly seized during a coughing-spell with great dyspnea, so that for 9 hours he was unable to lie down. There was no pain, resulting cough, or any disagreeable sensation in the chest. The man thought the whole difficulty was in his throat. He was up and about on the following day until he came to the hospital.

On physical examination on July 13th, I found the pulse 120, the temperature 102°, the respirations 32. The patient was emaciated and cachectic. Over the whole left half of the chest in front and behind there was exaggerated non-tympanitic resonance, which extended in front 1½ inches to the right of the median line. Still further to the right was a small area of precordial dulness. Respiratory murmur was plainly heard over the left side of the chest, but it was quite distant, and slightly amphoric in quality. There was no succussion. The right lung presented marked signs of tuberculosis at its apex.

The subsequent history of this case was uneventful up to the time of death on August 19th, with this exception: An almost daily search for signs of fluid was unsuccessful to the very last, and it can only be inferred that in fact no effusion developed. The evening-temperature had maintained an average of about 102° throughout; but the general condition had remained unchanged since entrance, and death was unexpected. On the night of the 19th the patient was again suddenly taken with violent dyspnea and extreme cyanosis, to which he rapidly succumbed—possibly a pneumothorax of the opposite side. Unfortunately there was no autopsy.

The only peculiarity in this case was the absence of secondary pleurisy. This is quite unusual in the tuberculous form; in 35 cases Weil observed it only twice.

Case VIII.—Charles T., aged 79 years, entered the Arapahoe County Hospital August 3, 1898, having on the night before been stabbed in the second right intercostal space in front. On entrance, his pulse was 88, his temperature 100.8°, his respirations 24. He had spat no blood.

The appearance of the patient on physical examination, made on the following day, was that of a man in fair general condition for his age and but moderately ill. The heart and the mediastinum were displaced about 1 inch to the left. The right side of the chest in front was hyperresonant, with much diminished respiration; and there was fluid in the chest reaching, in the recumbent posture, to the horizontal level of the anterior axillary line. On the 5th the attending surgeon aspirated a pint of pure blood; and two days later I found the heart in about normal position, with fairly good respiration over the whole right side of the chest in front, and a line of effusion that, crossing the middle of the back, descended obliquely to the base in the anterior axillary line. This effusion was now immovable, showing that already, at the end of 5 days, the air had been nearly or quite absorbed. I may here add that the external wound had healed by first intention.

Meanwhile the temperature had gradually fallen to normal; and it remained there until the 13th, the chest-condition showing no change. On this date fever suddenly appeared, the temperature rising rapidly to 102°, which continued to be the average evening-temperature for the following ten days. This was undoubtedly the result of an acute pleurisy; for on the 17th I found that the fluid had markedly increased, the line of effusion now corresponding with the third rib in front. After aspiration of 24 ounces of bloody serum the anterior line of effusion fell at once to the fifth rib.

This patient has since steadily improved and is now up and about, with still a small amount of fluid in the chest.

Two points are illustrated by this case: One has already been alluded to—the astonishing rapidity with which air is usually absorbed by the healthy pleural membrane. Five days only had elapsed before the absolute immobility of the accompanying fluid showed that absorption of the air was nearly or quite complete.

Another question raised by this case is as to the conditions under which it is justifiable to aspirate in hemothorax. Here a pint of blood was removed on the third day, with apparently only benefit. Much depends on the source of the hemorrhage—whether pulmonary or intercostal. When the former is probable, as when the wound is deep or there is hemoptysis, it would seem that great caution is demanded. While such a wound may be presumed to close much more quickly than a tuberculous perforation, and it would certainly be unnecessary caution to wait the 4 or 5 weeks demanded in a tuberculous pneumothorax, at least some opportunity should be afforded the wound to heal. In the absence of any vital indication for paracentesis, perhaps a week might be considered a safe minimum of delay. The development of immobility of the effused blood, showing rapid absorption of air and partial expansion of the lung, would be a valuable indication as to the safety of aspiration.

If the source of the hemorrhage is intercostal the danger of paracentesis would still be considerable. Here also the sudden increase of negative intrapleural pressure would certainly favor the displacement of the clot, but in no such degree as when there is the additional factor of pulmonary expansion. One would certainly prefer to wait at least 3 days, and longer if possible. In my judgment the first aspiration in the foregoing case was inadvisable, because unnecessary. However, the result was good, and the risk in such cases may perhaps be regarded as comparatively small.

Fifty Contributions.—One article delayed in transit by the Custom-house regulations, brings the total number of essays sent in the Prize-Competition of the Philadelphia Medical Journal to 50.

MALIGNANT TRANSFORMATION OF DERMOID CYSTS OF THE OVARY.[1]

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I am to begin to-day the lectures on surgical pathology, the knowledge of which is so important for everyone who intends to practise surgery. I have explained the plan of these lectures to you, and, as has been my custom in previous years, I shall devote the inaugural lecture to the study of some point in surgical pathology, and I have selected the subject of malignant transformation of dermoid cysts of the ovary for the present occasion.

Before taking up the study of malignant transformation arising in ovarian dermoids, it appears to me that it is quite essential to first consider in a few words the histology of these cysts before they have undergone any pathologic change. From the study of their structure we will be able to deduce a number of conclusions that will permit us to understand how and why such cysts undergo malignant transformation.

In the study of their pathologic anatomy, dermoid cysts may be divided into two groups. The first comprises *simple dermoid cysts*, also termed fetal neoplasms of the epithelium or epidermoids, while the second includes the *compound dermoid cysts*, or fetal meso-epidermic formations.

Simple dermoid cysts are usually small, unilocular or bilocular productions, of varying contents, being sometimes composed of sebaceous matter, while at others they consist of a serous or oily fluid. In some few instances the fluid is perfectly transparent, or the contents may form a calcareous mass. The structure of the walls of these cysts is most important. In thickness they vary from 1 to 3 mm., but they may attain as much as 5 or 6 mm. in some cases. They are composed of several distinct layers, which, passing from the outside to the interior of the cyst, are as follows: A strong fibrous layer; an adipose layer, which will be found more or less well developed in various cases; a dermic layer, in every way analogous to that of the cutis; and, lastly, an epidermic layer, which undergoes keratogenic evolution. This last only differs from the same structure in the skin by the relatively small size of its cell-elements and the slight development of the keratogenic layer. The dermis is separated from the epidermis by a straight or somewhat undulating basement-membrane. No papillæ are present, or if by chance there are a few, they are large and covered by tufts of hair. This want of papillæ, as well as the presence of a straitly outlined basement-membrane, is not a different structure from the external integuments, as in many parts of the cutis the basement-membrane is quite flat.

Like any cutaneous layer, dermoid cysts present hair-follicles, which are usually supported by a single large papilla, as well as numerous well-developed sebaceous glands and sudoriparous glands in smaller number. Simple dermoid cysts, such as those just described, are usually seated in the subcutaneous cellular tissue and, so far as I am aware, malignant transformation does not occur in them.

Dermoid cysts of the ovary belong in most instances to the second group, namely compound dermoids. They present all the histologic elements found in simple cysts, but in the former we find teeth, either free in the cavity of the production, or implanted in its fibrous walls, or even in a plaque of bone. The shape of the teeth varies, simulating at times the incisors, they may at others be more like molars. They may be present in great numbers, as many as 300 having been found in one cyst.

Besides teeth, shapeless bits of bone may be found, or on the contrary, bones shaped like those of the skeleton may be present, as well as cartilage, unstriped muscle-fibers, nerve-cells and fibers, etc.; but all these structures are simply accessory and do not have the same vitality as the dermoid and epidermoid tissues forming the cyst itself.

Many are the theories that have been put forth to explain the presence of these cysts within the body. It was formerly thought that they were the result of an extrauterine pregnancy, but as dermoids are found in children and in virgins, this opinion cannot be upheld. Lefert explained their presence by his well-known theory of *plastic heterotopia* as follows: Simple or compound cysts may be found in the most complex organs or any part of the body that normally does not contain any of the histologic elements composing the cyst. It is needless for me say that this theory, as well as the preceding one, is only of historic interest.

Duval and Répin explained the genesis of dermoids by a partly enogenic development of the ovum. They contended that there is a special type of degeneration of the ovum, which, when the cyst is a muco-dermoid, is associated with consecutive proliferation of the epithelium of the ovisac. This theory does not, however, explain the presence of these cysts in other regions of the body or exterior to the ovary. Some authorities believe that dermoids are due to diplogenesis from fetal inclusion, but the number of teeth sometimes present in the cyst weakens this theory.

This brings me to the more scientific theories of inclusion. Some writers believe that the external integument becomes pinched in during embryonal life, and the part thus caught can be compared to a glove-finger turned inside out; the external aspect becomes internal, and we know that it is in the inside of the cyst that the cells undergo their evolution and desquamation. Verneuil attributed the formation of some dermoid cysts to a faulty closing of the bronchial arches.

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[1] The Inaugural Lecture in the Course on Surgical Pathology, delivered on November 29, 1898.

The nodal-cell theory of Bard has the great advantage over the others that it explains not only the presence of cysts situated in any part of the body, but also their compound structure. According to this well-known pathologist of Lyons, embryonal cells, or, as he terms them, nodal-cells, are always present in the midst of our tissues, and they can split up and give rise to the various types of tissue, the germs of which they contain, such as muscle, epithelium, etc.

Cohnheim believes that there are numerous embryonal tissues contained within the structures of the body that were not utilized at the time of development, and that these can give rise to all types of neoplasms, both simple and compound. If we state, however, the actual knowledge that we possess regarding ovarian dermoids, I would say that they are *congenital neoplasms having an uncertain pathogenesis*, and that *the theory of inclusion is probably the correct one;* these cysts are more or less aged embryonal debris, according to the complexity of the tissues entering into their structure.

From what has been said it will now be possible to better understand the pathology of dermoid cysts. I said "the pathology" because in reality a dermoid may be properly considered as an *abnormal organ*, made up of *perfectly normal tissues*, identical with the skin, capable of giving rise to all pathologic productions that the cutaneous surface may be the site of. For example, the internal lining of a dermoid may be the seat of cysts, keratogenic productions, such as horns or nails, verruca, etc., sometimes presenting a high degree of development.

Like the skin, the walls of dermoids may undergo malignant transformation in the form of carcinoma, epithelioma or sarcoma, and I might even say that these cysts have a greater tendency to malignant changes than the cutis itself. Now, in all the theories that have been given regarding dermoids, there is the belief that they arise from embryonal debris, and general pathology teaches that any change in position or normal structure of an organ or part of an organ creates a tendency to neoplastic formation, and that any kind of embryonal debris is a most excellent nidus for the development and growth of a tumor. A dermoid cyst is generally considered a benign neoplasm, and it is a well-known fact that a benign growth often takes on a malignant transformation.

The appearance of a malignant neoplasm in a nonmalignant growth is perhaps more frequent in occurrence than in normal structures, but nevertheless such a condition is not common. A tissue that is the seat of great physiologic proliferation is more prone to the development of a malignant growth than is a less active tissue. There is always a more intense renewal of cells in a nonmalignant neoplasm than in its corresponding normal tissue, and for this reason alone a benign growth should be often the starting-point of malignant transformation.

Now in point of fact malignant transformation in dermoid cysts of the ovary is not a common occurrence, although it would appear that this should be so; and when it does take place only a few vegetations are present on the internal lining of the cyst at the beginning, or only a simple thickening of the cyst-wall will be present, so that if the interior of a cyst is not carefully examined after removal, a malignant change may easily pass unnoticed.

As I have before remarked, I am not aware that any case of malignant transformation has been reported in other dermoid cysts than those arising in the ovary, and the only manner by which we can perhaps explain this change in them particularly, is that the ovary is the seat of a hyperemia due to menstruation, the puerperal state, or an inflammatory process, be it chronic or acute, and thus involves the cyst. The extra amount of blood present results in an active physiologic proliferation and a rapid renewal of the cells, so that the tissues of the tumor are quite likely to undergo considerable cell-development.

Dermoid cysts in other parts of the body are usually small, hardly ever larger than a good-sized walnut, while their evolution is slow and latent, and the entire process is far from active. All these circumstances detract from any tendency that they may have to malignant change.

When one or several carcinomatous nodules are joined in the wall of a dermoid, the question arises as to whether the cyst has undergone malignant transformation. Now, as has already been said, a dermoid cyst is an abnormal organ, and, strictly speaking, the malignant neoplasm is not a transformation of the cyst, but is *a new growth occurring in a tumor.* The malignant transformation is always epitheliomatous or sarcomatous.

During the first part of the evolution of the malignant growth, which we shall call the period of generalization, the neoplasm develops from Malphigi's epithelium, and then extends to the other layers composing the walls of the cyst. In other words a carcinomatous nodule arises in the internal layers and is similar to a cancroid of the cutis. The nodule has great difficulty in developing toward the external layers of the cyst-wall, because the fibrous envelop acts as a barrier for some time; but, finally, this also becomes infiltrated by the malignant cell-proliferation, and then carcinomatous vegetations appear on the outer surface of the cyst.

The second stage consists in the generalization of the neoplasm, and follows the same laws that govern a cutaneous cancroid. Carcinoma gives rise to metastasis in distant organs, while a cancroid remains localized in the lymphatics, distant metastasis only playing a secondary part. Extension and dissemination of the neoplasm take place by grafting; the peritoneum becoming the seat of the disease by a direct graft of the neoplasm at the point of contact, the parietal peritoneum, occasionally the intestine, being the first involved.

Extension of the growth is consequently entirely local, and takes place only by direct contact, while distant metastases by the lymphatics or bloodvessels are indeed quite rare. Malignant transformation of an ovarian cyst that has given rise to a generalized metastasis will not be diagnosticated during life, because, in a subject presenting numerous carcinomatous foci, it is most difficult to discover their starting-point.

Sarcoma arises in the connective-tissue elements that make up the dermic layer and capsule of a dermoid cyst. Now, a cancroid at its beginning will have a tendency to invade the interior of the cyst, while a sarcomatous deposit that is undergoing its evolution will rapidly invade the fibrous layer of the cyst and extend outside of it. When a sarcoma has arrived at this point, it may give rise to local generalization by continuity, or it may produce metastasis throughout the entire organism. You must not confound foci of generalization of dermoid cysts, as has been pointed out by Bard. The carcinomatous tissue forming the foci of malignant metastasis only presents a single type of cell identical with those composing the primary growth grafted on the dermoids, while the foci of generalization of simple dermoid cysts are made up of multiple tissues, the same as those composing the primary neoplasm; in other words their structure is a compound one. The foci are not the result of a true metastasis, for the primary cyst does not give rise to the others by rupture, and cases are recorded in which the necropsy demonstrated that the primary ovarian cyst was absolutely intact, its walls being perfectly solid and showing no trace of fissure or rupture.

The initial cell comes from a single nodule cell, which multiplies before it divides in two, and it may happen that the cells, born from this multiplication, are carried through the economy in the form of emboli to various parts. In most instances the symmetric organs of the adult are derived from the division of a primarily single focus, and, consequently, if we find cysts of the peritoneum or other abdominal organs having the same structure as that of a dermoid cyst present in the ovary of the subject, they should be considered as being derived from the same origin, that is to say from the same nodule cell; but, as the agglomeration of cells becomes divided and separated into masses from the growth and development of the organs and tissues in which they are implanted, we may have a number present in one individual, but this fact does not in any way detract from their benign nature.

Theoretically, it is quite evident that in a case of a compound dermoid cyst any one of its tissues may undergo malignant transformation, but in reality the epidermic and the dermic structures alone take on this change in the form of carcinoma or sarcoma. These two tissues only produce this pathologic change, because they alone are possessed of a real vitality, the others being simply accessory and associated with the fundamental tissue of the cyst, and pathology teaches us that it is only those tissues having a vitality that are usually subject to these monstrosities of cell-development constituting neoplasms in general. Atrophied tissues have a low degree of vitality, and are consequently little adapted for the development of malignant changes.

A dermoid cyst being alone capable of giving rise to a pavement-cell epithelioma, if the malignant neoplasm found is such, it may be concluded that it has arisen in a dermoid cyst. On the other hand, when in the course of a celiotomy you find a growth composed of a dermoid and a mucoid cyst, along with sarcomatous tissue, as has occurred, it is only by the site of the sarcomatous foci that it can be stated without being affirmative, which is the starting-point of the neoplasm, because both mucoid and dermoid cysts can give rise to sarcomatous transformation.

There is another variety of growth that is quite interesting that I would add to the list of primary malignant transformation, and that is endothelioma. Histologically this type of neoplasm is an intermediary of epithelioma and sarcoma. It arises from either the lymphatic capillaries or the bloodvessels, and in the cases thus far reported the starting-point of this neoplasm was from the lymphatic vessels or the bloodvessels entering into the cyst; but, as the latter form an integral part of a dermoid, it is probable that the tumor developed from them.

As to the prognosis of a dermoid that has undergone malignant transformation, it naturally differs with the extent of development of the process at the time of the operation, as well as the type of tissue.

If a dermoid is removed while the epithelioma is still at its first period, that is to say when the malignant transformation is as yet confined to the internal aspect of the cyst, or even with a few secondary nodules in its walls that have not come in contact with the peritoneum, the prognosis is not very serious, because the malignant elements are still encapsulated and separated from the rest of the peritoneal cavity. The small size of the pedicle is also a good point in the prognosis. By removal of the entire cyst, all danger is practically done away with, and the patient will most likely never have a recurrence.

If, on opening the abdomen, carcinomatous growths are found projecting from the cyst, without adhesions or foci of metastasis, the removal of the entire mass may still save the patient; but it is quite evident that the prognosis is far from being as good as in the preceding case, for it is more than possible that a few carcinomatous cells have become detached, and later on will give rise to a secondary growth, although at the time of operation the peritoneum may appear quite normal.

Of course it is hardly necessary to say that if at the operation numerous secondary deposits are present in the mesentery, intestine, or peritoneum, it is better to at once close the incision, as a fatal issue is not far distant.

What I have said of carcinoma applies equally well to sarcoma, the only difference being that in cases of the latter neoformation its elements are on the exterior of the cyst almost from the beginning and that consequently the prognosis depends upon the presence or absence of metastatic foci within the abdominal cavity.

Sarco-endothelioma are highly malignant; their development is rapid; cachexia appears at an early date; and recurrence is sure to soon appear. It is evident that the importance of a careful microscopic examination of every dermoid cyst is great, if we wish to be certain as to our prognosis, and this should never be neglected.

Let us now consider the diagnosis of malignant transformation of dermoid cysts, excluding those cases in which the entire economy has already become the seat of numerous metastatic foci. For that matter, it is quite useless and even impossible to make a diagnosis of the seat of the primary growth in such a case. What I wish to more particularly consider is whether or not an exact diagnosis is possible when the malignant transformation of the cyst is still in the first period of its evolution; and the first problem that comes up is whether a differential diagnosis between a mucoid and a dermoid cyst can be made, and in reply to this I would say that in many instances it can.

Dermoids may be differentiated from mucoid cysts by their size, which varies from that of a lemon to a grape-fruit, while mucoid cysts are generally large, although this is not so in every case. The evolution of dermoid cysts is slow and insidious, and they may be present for years without giving rise to any symptoms. One patient, a woman of about 45 years, upon whom I operated a short time ago for a dermoid the size of an orange, had given birth to 11 children at term without any trouble arising in consequence of the tumor. A dermoid remains in a latent state until puberty and then will probably begin to develop, on account of the greater activity of nutrition that takes place when the menses occur, pain being the first and usually the only symptom to attract attention.

Usually a mucoid cyst will give rise only to symptoms of compression, with nervous or vascular disturbances, such as abdominal or lumbar pain, hemorrhage, edema, constipation, intestinal occlusion or difficulty in respiration when they are of some size. Dermoids are painful in most instances, the pain being superficial and rather acute, extending toward the groin and thigh. Slight pressure over the growth will produce a disagreeable sensation, similar to that found in hysteric coxalgia, and if the integument is pinched much pain will be complained of by the patient. This is due to a hyperesthesia of the skin.

Mucoid cysts fluctuate, dermoids only partially, giving the sensation of doughiness to the exploring finger. Some dermoids will be found to fluctuate in certain parts, while at other points the feel is that of a solid neoplasm, in correspondence with the thicker portions of the cyst.

Generally speaking, it is not the fact of finding the foregoing symptoms that will make the diagnosis of a dermoid, but their coexistence is the important point. When the following three symptoms are all present, viz., a small, round tumor of slow evolution and with the characteristic pain, a diagnosis of a dermoid of the ovary is pretty certain to be correct.

Now, when a dermoid undergoes malignant transformation, it rapidly increases in size, and at the same time severe pain appears, shooting down the thigh corresponding to the side in which the cyst is located.

The pain is caused by sudden compression of the rapidly growing cyst, but I would not venture to assert that a rapid and sudden increase in size of the cyst, accompanied by severe pain, is absolutely characteristic of malignant transformation of a dermoid. This should only lead one to *suspect* that such a change is taking place. The age of the patient is also an indication that should be taken seriously into consideration, but there are cases in which malignant transformation has occurred in subjects under 25 years of age. Ascites is infrequent.

The general health of the patient will not be troubled until the malignant neoplasm has extended beyond the cyst and has invaded the abdominal cavity and its viscera. When this has taken place we have all the symptoms of a generalization, viz., anorexia, cachexia, and loss of flesh.

In closing I would say that when the diagnosis of a dermoid cyst has been made, removal of the growth by celiotomy is indicated, because its presence is always a danger to the patient, not only from the possibility of malignant transformation, but also from that of septic infection or rupture of the cyst, two important complications that may occur at any time.

ON THE SCOPE AND IMPORT OF THE BLOOD-TESTS BY MEANS OF ANILINE COLORS.

By L. BREMER, M.D.,

of St. Louis.

From what I have seen in print and heard in conversation about the practicability of the blood-test in diabetes and glycosuria, I conclude that some erroneous notions prevail in the minds of some of those who have repeated my experiments. I have stated elsewhere that in my hands the blood-test for diabetes has been more reliable than the sugar-tests usually resorted to. This does not mean that the blood-test is destined or intended by me to supersede the urinary sugar-tests. The practitioner will probably, for all time to come, prefer the latter, and rightly so. Not every patient is willing to have his finger or the lobe of his ear pricked, for there are many who look askance at such a procedure, especially in times like ours, when morbid fears, and particularly the dread of bodily pain, reign supreme in the minds of the average individual. There are, however, cases, as everybody of moderate experience with matters diabetic knows, in which the chemic urinary tests for sugar, including even the most reliable of all, the phenylhydrazin-test, yield ambiguous results. Here the blood-examination will remove doubt and settle the matter definitely. The following cases that have occurred in my practice will illustrate the usefulness of the test:

Case I.—After having treated a young woman for a number of months for what I supposed to be hysteria, presenting rather vague and indefinite symptoms (general nervousness, tumultuous belching, polyuria), I examine her blood and find that it yields the diabetes-reaction. Examinations of the urine previously made had yielded negative results in every instance. Diabetes or glycosuria had never been thought of. The urine is once more examined for sugar, and I find that it contains $1\frac{1}{2}\%$. I know that hysteria and glycosuria often complicate exophthalmic goiter, and the somewhat bulging eyeballs, a slight enlargement of the thyroid gland, and a hitherto misinterpreted tachycardia, establish the diagnosis of the true character of the disease, which, up to the time of the blood-examination, had not been recognized. It was masked exophthalmic goiter (forme fruste) attended with glycosuria; hysteria was an accompaniment.[1]

Case II.—A woman, 45 years of age, presents a variety of nervous symptoms corresponding, on the whole, to the symptom-complex of neurasthenia. Her blood shows the diabetic reaction, but the ordinary chemic tests (Trommer's and Nylander's) fail to demonstrate the presence of sugar in the urine. In the course of time I learn that the patient has a perforating ulcer of the foot of several years' standing, for which she is being treated by a surgeon, and that she is, by the advice of another physician, on antidiabetic diet (the word "diabetes" had never been mentioned to her), having been warned that the ulcer would get worse on discontinuing the restricted diet. In order to make sure of the diagnosis, I ordered her to return to an ordinary diet, with the result that two days later her urine contained 2% of sugar. This, then, was a case of diabetes, apparently of a mild type, without polyuria (diabetes decipiens). Dieting caused the sugar to disappear from the urine.

In both of these cases, examination of the blood led to the detection of the main disease in the latter, even at a time when the symptom considered indispensable for the establishment of the diagnosis of diabetes, glycosuria, was absent. Examples like these, which I could multiply, explain the divergence of results between my investigations and the experiences of other observers who state that the blood-reaction claimed by me to be pathognomonic of diabetes is encountered in other than diabetic conditions. Thus it may be contended that it is found in hysteria, exophthalmic goiter, traumatic neuroses, brain-diseases of various kinds, tabes, etc. This is true, but it is likewise true that the blood-reaction can be demonstrated in cases that are complicated with diabetes or glycosuria, and that whenever the presence of glucose in the urine cannot be demonstrated, it either will soon make its appearance, or it is only temporarily absent.

The value of having the blood-test for diabetes and glycosuria does not lie in an addition to the already long list of reagents for glucose, but in the fact that diabetes may be recognized or suspected when the urine-examinations prove negative or ambiguous. To say that the blood-test is positive in all cases of diabetes, in which glucose has disappeared from the urine, would be tantamount to declaring the absolute incurability of diabetes, a proposition that would find few indorsers in the present state of knowledge. It is, however, a fact, that both in the preglycosuric and postglycosuric state of diabetes (whatever that name may imply) the test has been found to yield positive results in a number of instances, not only by me, but by other observers. When a diabetic gets well, permanently or temporarily, the reaction disappears, as a rule, after the glycosuria has ceased, sometimes synchronously with this event. I therefore look upon the blood-test in diabetes, not as a substitute for the urinary sugar-test, but as an addition to the diagnostic armamentarium of an obscure disease. Whether it will be of lasting practical value, more extended investigation and experimentation has to demonstrate.

My experience with hematologists has led to rather curious revelations, and I have time and again been astonished at the absence of even the rudiments of an adequate technic in persons claiming to be experts in hematology. Thus a man may be a thorough microscopist, but a poor hematologist. There are many sources of error in this kind of work, and it will not depend so much on *how many* failed or succeeded in obtaining the positive results, but *who* failed or succeeded. I would particularly call attention to the necessity of working with freshly prepared solutions. Congo-red solutions are especially liable to deteriorate and yield doubtful results on standing or after being used for a number of experiments. Again, the strength of the solutions has to be strictly adhered to, acid violet, for instance, requiring $\frac{1}{4}$ or $\frac{1}{6}\%$ solution. In the heating process, too, certain precautions have to be taken, that I have explained elsewhere. How easily erroneous conclusions may be drawn in questions of this kind, is well illustrated by an occurrence in the course of my own experience. In an earlier publication on the subject, I stated that in a case of grave diabetes in a young person, the blood-test failed after it had given uniform results in about 50 cases examined by me. I found afterward that the negative and contradictory outcome of the tests in this case was due to the fact that there was a disturbing factor in my laboratory and that my reagents and the course of experimentation had been tampered with. After the restoration of normal conditions, the results were in this case as they had been in all the preceding ones and those that have since come under my observation.

The number of cases examined by me for the purpose of verification or refutation is more than 200. I know of no other disease in which the blood shows the same behavior towards the aniline colors recommended by me for the test. Leukemia, it is true, approaches it when the neutral eosin-methylene-blue compound is used, but this is only the case when certain kinds of methylene-blue are used, not all being equally serviceable. With the later reagents adopted and recommended by me, the tests have proved unequivocal. I may mention at this place that the majority of investigators who have repeated my experiments of a microscopic demonstration, have used in addition to the congo-red, which is the most reliable of the dyes, methylene-blue instead of methyl-blue, which is quite a different substance. I am astonished that some have had satisfactory results with mythelene-blue, as in my hands it has been far from useful for the purpose. The employment of this dye for the macroscopic test (in one tempo) is due to a mistake in the reading of the proof of one of my articles by which methyl-blue, which is a rarely used dye by medical men, was changed into the more familiar methylene-blue. Unfortunately the misprint, though corrected by me, has found its way into several text-books (Von Noorden, Naunyn, Williamson).

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[1] As is well known, there are cases in which it is difficult to say whether diabetes or exophthalmic goiter is the primary disease. Again, the question arises in this connection, Where is the dividing-line between diabetes and glycosuria?

I see from the foreign journals that quite a literature has sprung into existence on the subject of testing diabetic blood by means of aniline dyes. So far as I have been able to judge from the abstracts of the papers referred to, my observations have, on the whole, been verified. There are discrepancies, however. I may quote, for instance, passages culled from two different books. In the *American Year-Book of Medicine and Surgery* for 1898, p. 98, I read :

> "There is nothing to substantiate the view of Bremer that diabetes is based upon disease of the red blood-corpuscles. We [Pepper and Stengel] have also obtained this reaction in normal blood that had been carelessly fixed."

Von Noorden's observations (Die Zuckerkrankheit, etc., 1898) do not quite tally with those of the investigators just mentioned, for on page 105 he says :—

> "The correctness of the observation has been corroborated for the majority of cases [of grave and mild diabetes]. In 7 grave cases of diabetes that I recently examined, the reaction was without exception, very distinct. In 7 patients suffering from mild diabetes, it failed three times; 4 times the reaction was obtained. Among these there were 3 cases in which for a considerable time, not a trace of sugar had been excreted."

Other investigators corroborate my findings fully and absolutely.

There was a time when the ordinary chemic tests of diabetic urine yielded very discrepant results, even in experienced hands. They still do sometimes. The aniline blood-test will share the fate of the urine tests. For the present, I maintain my original proposition, viz., that in all cases of true diabetes, the specific blood-reaction can be demonstrated; and that sometimes the blood-test will be positive when no trace of sugar is found in the urine. In some cases the blood-test shows a normal reaction on the disappearance of the sugar from the urine.

In conclusion, I might state that I did not start out originally to discover the blood-test for diabetes. It was an observation that I made while studying the blood of neurasthenia and hysteria in the hope of finding differential characteristics, morphologic or chemic. I was struck by the peculiar tint the erythrocytes of some individuals assumed, differing from the ordinary type. I then discovered that such patients had invariably sugar in the urine.

THE NEUROPATHIC ORIGIN OF STUTTERING.

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THE etiology of stuttering has received considerable attention, but it is only in recent years that this subject has been treated on a rational and scientific basis, and even at this date there are still many points on which investigators are by no means unanimous.

No class of unfortunates has suffered more from the superstition and barbaric methods of former years than those affected with spasmodic speech-defects. Instead of considering the irregular and spasmodic movements of the tongue, lips and other parts of the mechanism of speech as the result of some nervous defect, these parts themselves were considered at fault, and many heroic surgical methods for their correction were resorted to. In recent years, however, this subject has received the attention of scientific investigators, who have devoted much time to its study, and, as a proof that the etiology is better understood, the results have been, on the whole, of a most encouraging character from methods of treatment based on such an etiology.

In October, 1885, Denmark showed its appreciation of the importance of this subject by the establishment of a public institute for the treatment of speech-defects. Holger Mygind,[1] of Copenhagen, has made a careful analysis of cases of stutterers treated at this institute, with regard to the influence of sex, age, heredity, and the effect of physical and moral influences, and has obtained instructive results. Among 200 cases of stutterers, 171, or 85%, were of the male sex. While it is well known that boys suffer more frequently from this form of speech-defect than girls, still the proportion given is probably somewhat too high, and is explained by the fact that parents would be more likely to send boys to such institutes for the correction of the defect, as stuttering interferes materially with their success in securing employment. Girls, on the other hand, usually remain at home, and parents more frequently depend in their cases upon the somewhat forlorn hope that they will outgrow this evil. This probably also explains the great discrepancy in the reports of the ratio of stutterers in the male and female sexes. Coën, of Vienna, who has had a large experience in this connection, places the number of girls affected at only 1.5% of all cases, while Wyneken, Hunt[2] and Klencke estimate it at 12.25, 12.5 and 34.4% respectively. From an examination of the children of the public schools of Bremen Winckler[3] found 283 cases who stuttered among a total of 12,087 boys, while of 11,575 girls, 134 were similarly affected. Of this total of 417 cases suffering from spasmodic speech-defects, it will be seen that 30% were in girls and 70% in boys.

As regards the age at which the defect developed in 200 cases at the Danish institute, it was found that in

33	cases	stuttering	developed	in the	second	year,
20	"	"	"	"	third	"
31	"	"	"	"	fourth	"
29	"	"	"	"	fifth	"
25	"	"	"	"	sixth	"
15	"	"	"	"	seventh	"
19	"	"	"	"	eighth	"
17	"	"	"	after the	eighth	"
while in						
11	"	this point could not be determined.				

This table demonstrates that 189, or 94%, of the cases developed before the eighth year of life.

The heredity of spasmodic speech-defects has been the subject of much controversy. Of 200 cases at the Danish institute, 85, or 42%, had relatives who stuttered, or who had suffered from this defect. This is a much higher ratio than that obtained by Gutzmann[4] in a report by whom of 589 cases, only 28.6% had relatives with this form of speech-defect. The influence that heredity plays in such cases is still *sub judice.* Many believe that this factor is slight, and that the children of stutterers develop the defect more from imitation, or what may be called a *contagium morale*, than from any hereditary taint. Mygind, however, believes that heredity has a definite influence, not directly, but as a predisposing factor, especially when there have been neurotic antecedents.

As demonstrating the influence of the neuroses upon spasmodic speech-defect, statistics show that 2.6% of the pupils who visited the institute had relatives who suffered from mental disease, this being 13 times the ordinary ratio in Denmark, where only 0.2% of the population suffer from mental disease. Idiocy was not found to be more common than the average, but epilepsy and other convulsive diseases were found to exist in the relatives of 16% of the cases. Chorea was not prominent, but neurasthenia, hysteria and migraine were above the average. Only 3 pupils had relatives who were afflicted with deafmutism.

While the influence of diseases of the upper respiratory passages is generally admitted to be an important factor in nonspasmodic defects of speech, it has been usually considered of little importance in cases of stuttering. Of the Danish cases, 42, or 21%, had suffered from chronic hypertrophic rhinitis, 78, or 39%, from adenoid vegetations in the nasopharynx, 2 from atrophic rhinitis, 1 from nasal polypi, 8 from atrophic rhinopharyngitis, 32 from chronic pharyngitis, and 23 from hypertrophy of the faucial tonsils. While these conditions are not infrequent in children, still these statistics show a higher percentage than the average, with especial reference to adenoid vegetations, which must certainly be considered as a strong predisposing factor of speech-defects. In fact, it must be admitted that any condition that makes speech more difficult is not only a predisposing factor in the development of such defects, but must interfere seriously with overcoming them, unless the pathologic condition of the vocal apparatus is first corrected. While, therefore, Gutzmann,[5] Mygind,[1] Solis-Cohen,[6] Makuen[7] and others admit the negative effect of the removal of adenoids in such cases, they also concede that the after-treatment is markedly facilitated by restoring the vocal apparatus to a normal condition.

An excitable and susceptible temperament has been considered by Gutzmann[5] and other investigators as strongly developed in the large majority of stutterers, but this opinion is not supported by the statistics of the Danish institute. Many of the pupils were of a quiet disposition, and not a few were even phlegmatic and indolent. Dulness of hearing was marked in 14 stutterers, or 7%, although probably present to a less degree in other pupils. The intelligence was below the normal in 10% of the cases examined.

The development of stuttering was found to be the result of association with others who stuttered in 13% of the cases. This corresponds closely with the statistics of Gutzmann, who found this to be the cause in 11.6% of 300 cases. In the same manner that children so easily develop peculiarities of speech and acquire the accents of those around them, they may also acquire spasmodic speech-defects, and this is an important consideration in the prophylaxis.

Stuttering developed after infectious diseases, such as measles, scarlet fever, whooping-cough, diphtheria and mumps, in 9 of the Danish cases, this being less than in the statistics of Gutzmann, who attributed the defect to these diseases in 13.6%.

A remarkable circumstance observed in these cases by Mygind, and also noted by Gutzmann, was the relative frequency of mirror-script (Spiegelschrift). The latter found this present in 2% of his cases, while Mygind found not less than 11% who could write backward with the left hand. As this faculty has been found a characteristic symptom in certain nervous diseases, it is interesting as indicating the relationship between stuttering and other psychopathic conditions. Gutzmann considers it as especially indicative of an unfavorable prognosis.

The family-history of the pupils of the Danish institute showed a relatively large number of children in the families of those who stuttered. In 188 cases, the parents had an average of 6.4 children.

A number of French authors have considered stuttering a stigma of a degenerative neuropathy. From a study of cases at the Danish institute, Mygind also believes that stuttering must be considered one of the neuroses, with an etiologic relationship with the so-called degeneration-neuropathies, including epilepsy, hysteria, neurasthenia, chorea, and also certain forms of mental disease. The theory is supported by the striking frequency of the various forms of these diseases among the relatives of stutterers. Certain points of similarity also present themselves in such cases. Most of the neuropathies belong to a particular sex or to a certain period of life, epilepsy, hysteria, and chorea being more frequent in the female, and neurasthenia in the male; hysteria and neurasthenia in the adult, and chorea in childhood. As in the hereditary forms of the neuropathies, there are well-marked functional disturbances of the nervous system, while the pathologic and anatomic causes are unknown.

While the view of Mygind as to the neuroses as an etiologic factor in stuttering has a logical foundation, it must be admitted that every case cannot be considered as an expression of a neuropathic family-disposition or degeneration. In a considerable number of stuttering patients, no such condition can be demonstrated. The relationship, however, is sufficiently strong to warrant investigation.

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SOME NEW SUGGESTIONS IN X-RAY PHOTOGRAPHY.

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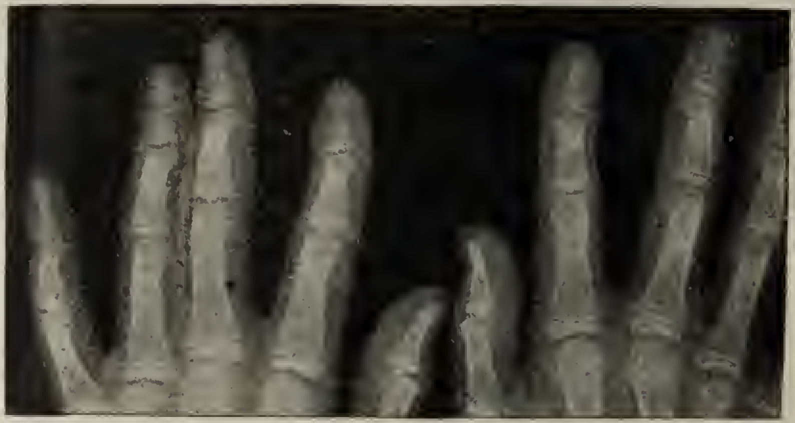
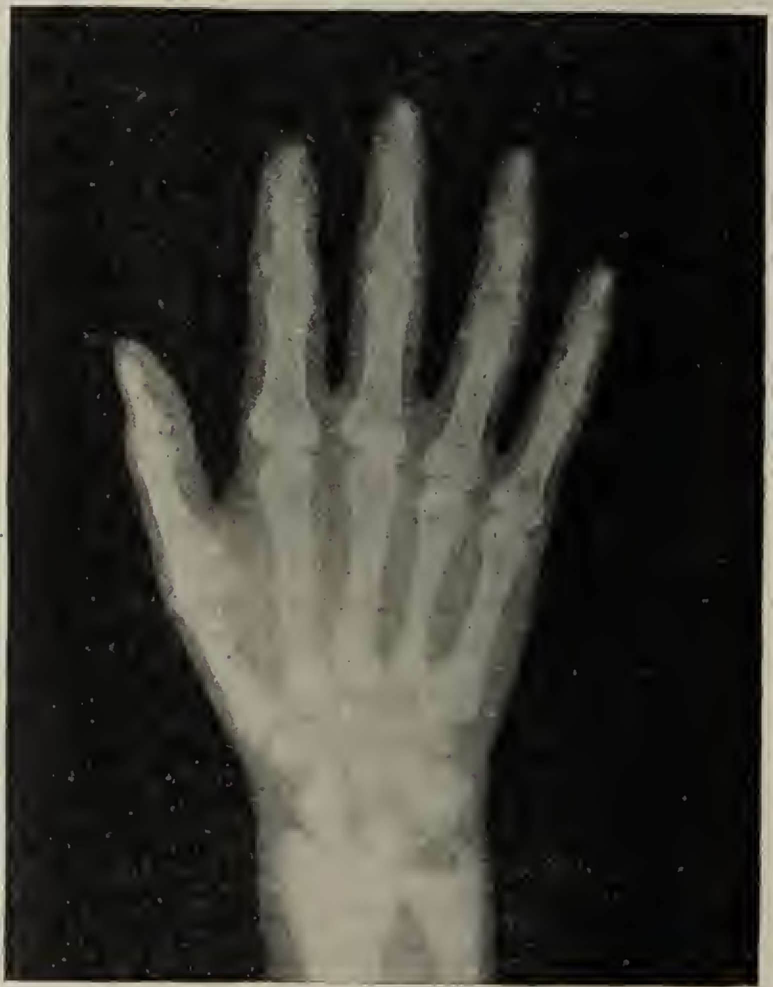
The apparatus that I use was devised with the cooperation of Dr. Samuel Sheldon, an expert electrician of this city, shortly after X-rays became known in this country. A comparatively high-voltage street-current is passed through an electrolytic condenser of five elements placed in series, with a resistance of sufficient magnitude to furnish 6 ampères. The terminals of the condenser are attached to the terminals of the primary of an induction-coil. The voltage on the primary of the coil is 10 volts, rising slightly. The current at the time of contact of the vibrating break is more than 6 ampères, and rises gradually to a maximum. The X-ray tube is attached to the secondary of the coil, and its maximum effect is attained when the current on the primary of the coil has reached a maximum.

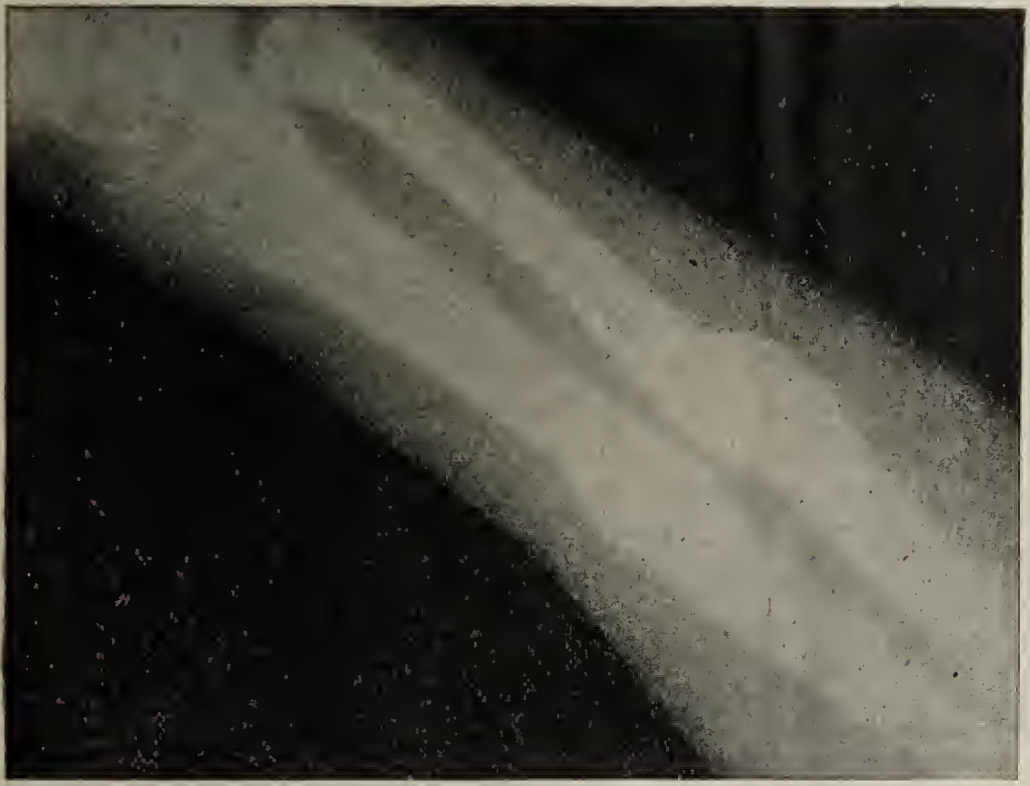
The danger from long exposures led me to make some experiments to determine if radiographs could not be obtained in a shorter time. The result of my work has shown that greater detail can be secured, that in fact skin, nails, muscles, and all soft tissues obstruct these rays, and their shadows can be recorded. I have taken a radiograph of the hand and wrist, and had it mounted and ready for examination in 12 minutes. My method is as follows:


Hands.—Epiphyses of fingers.

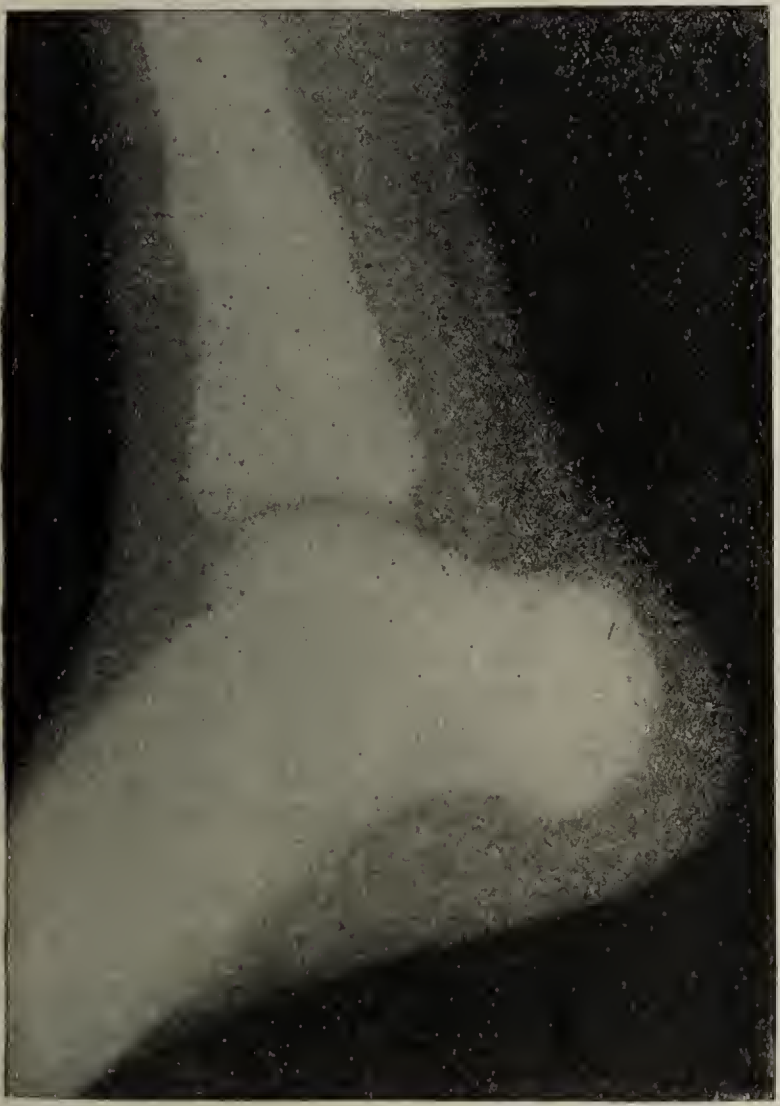
A sheet of very sensitive bromid-paper of any size is placed in a black envelop, and this is placed in an orange envelop. This combination of envelops must be absolutely non-actinic, and the bromid-paper must be handled in a dark room. The two envelops are then placed in close contact to the part to be depicted. The bromid-paper is flexible, and can be made to conform to irregularities of surface. The tube is placed at a distance of from 8 to 15 inches. The paper is developed just like a dry plate, and mounted wet. This paper gives a direct positive. Several impressions can be made at the same time. It gives the shadows in black


Hand showing finger-nails.

and white, with more detail than any dry plate, and it responds much more quickly, from 10 seconds to 1 minute being the time required for a hand or wrist.



Old fracture of both bones of forearm, showing relation of fragments.



Necrosis of tibia.

Sir G. G. Stokes, in an article on the nature of the Rœntgen rays that was published in the early part of last year, expresses the fullest conviction that the kathodic rays are no mere process going on in the ether, but that the propulsion of molecules is the very essence of the phenomenon; only it is to be remembered that the molecules are not to be thought of as acting merely dynamically, by virtue of their mass and velocity; they are carriers of electricity, and it is mainly to this circumstance that at least some of their effects are due. He states that "the absence or almost complete absence of diffraction or interference of the X-rays to which the kathodic rays give birth leads to one of two alternatives; either that they are of excessively short wave-lengths, or that they are non-periodic or very slightly periodic; the X-rays on the last supposition being regarded as a vast succession of independent pulses analogous to the 'hedge-fire' of a regiment of soldiers. Each electrically charged molecule on arrival at the target gives rise to an independent pulse." This theory seems to do away with any hope of placing something in the path of the rays to prevent their injurious effects upon the tissues. We must look to the sensitive film for rapidity, and bromid-paper in my experience takes the lead here, as well as in facility of handling.

The photographs herewith presented illustrate the results that may be obtained by the method.

A BRIEF NOTE ON A CASE OF REFLEX-IRRITATION (URTICARIA AND EYE-STRAIN).[1]

By CHARLES A. OLIVER, A.M., M.D.,

One of the Attending Surgeons to the Wills' Eye Hospital; one of the Ophthalmic Surgeons to the Philadelphia Hospital, etc.

The following well-observed clinical history of a most interesting and rare type of reflex-irritation occurring in the practice of one of my friends, Dr. George R. Rohrer, of Lancaster, Pa., and which formed the subject of a brief correspondence and a series of experimental studies, is here, with permission, given in full detail without a word of comment, in the hope of bringing forward other experiences of a similar or more peculiar nature. On April 4, 1897, I received the following note from Dr. Rohrer:

"Dear Dr. Oliver:—I have been compelled to postpone sending you the facts in reference to the case of urticaria, which I told you was cured by proper glasses. I now give you the history as near as I possibly can, in order that you may be able to make note of it in your intended publication.

"On August 21, 1892, M. E. I., an apparently healthy widow, aged 47, applied to me for glasses. She made the remark that for distance she saw very well, but for close work she had had difficulty. On estimating her vision, I found that the sight of the right eye equaled $\frac{20}{\text{xl.}}$ while that of the left was reduced to $\frac{20}{\text{cxxx.}}$ The ophthalmoscope showed an astigmatic condition. I explained to her what was necessary, and a thorough testing of the eyes under a mydriatic gave me the following results: O. D .+ S. 2.50 D. ○ + C. O. 75 D. ax. 70°, V.= $\frac{20}{\text{xxx;}}$ and O. S.–S. 150 D. ○ –C. 1.75 D. ax. 180°,

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[1] Read at the meeting, December, 1898, of the Section on Ophthalmology of the College of Physicians of Philadelphia.

V.= $\frac{20}{\text{xiv.}}$ Close work required the addition of + S. 1.50 D. lenses. I procured a pair of glasses with the above distance-correction combined with segments of + S. 150 D. Upon handing them to the patient, I told her 'to wear them constantly.' In a few weeks' time, she returned, and said, 'Doctor, the glasses have cured my hives.' My curiosity being aroused by this most peculiar voluntary assertion, I asked her to tell me about her case, when she gave me the following account: 'For more than 35 years I have been constantly troubled with hives. When in my "teens," I remember having taken medicine for one year's time without intermission before any relief was obtained, this lasting for about three or four months' time. The condition then became as bad as ever.' "

Doctor Rohrer's letter goes on to say,

"She has had attacks so pronounced that her body has been covered with the urticarial eruption, these exacerbations lasting for weeks at a time. She remembers that when a girl of 18 or 19, she did not go out of the house, unless absolutely necessary, for six months, as her physician had said she 'would catch cold and die if she went out while her body was covered with hives.' Personally, she always noticed that it made but little difference if she went out of the house or if she remained in-doors, except that when she was exposed to the cold for any undue period of time, the eruption became worse, relief being then best obtained when she immediately placed herself near a hot stove. She was certain that foods never had any effect upon her. Dr. M. L. Herr, of Lancaster, who has treated the patient for this affection for 10 or 12 years—she having always resided in the same locality—has told me that the sight of the woman coming into his office had a similar effect upon him as a red flag would upon a bull. In fact, he did not know what to prescribe or what excuse to offer, having exhausted all of his resources."

Dr. Rohrer continues as follows:

"I interviewed Mrs I. some months after she secured the glasses, and she informed me that since she had worn them constantly, she had been free from the eruption and had not taken any special hygienic precautions, and had not used any medicine. In her efforts to prove the efficiency of the glasses, she had frequently found that upon leaving them off for even a half an hour at a time, hives would appear upon her body, while on the contrary, the eruption would pass away in a little while after the glasses were resumed. Another fact that she noticed, was that before wearing the glasses, she always felt cold, but since their use she was as warm and as comfortable as were the other members of her family under similar circumstances."

This strange and interesting account from an intelligent and healthy woman of cool, calm judgment, coupled with the most carefully noted clinical history made by two competent observers, aroused my curiosity to such an extent, that I addressed a letter to Dr. Rohrer asking him if he would institute a number of ocular studies with and without her lenses both before and after the ingestion of full meals that were either limited to foods that are ordinarily productive of urticarious conditions or to those that are free from such complications, and report to me the results. As a consequence of this inquiry, I, some weeks later, received the following note:

"I sent word to Mrs. I., the patient referred to in your letter. She came to my office this afternoon, and I find the following: Her general health is good, physical examination failing to reveal any gross organic lesion. Food has no effect whatever. For more than a year past, she has been having hives, and they are becoming worse. For the same period of time, she has noticed that when she sews or reads, it has become necessary to contract her brows in order to see better through the bifocal portion of her glasses.

"In consequence, and believing that the return of the urticaria might be due to a want of proper strengths in the segments, as she had not changed her glasses since August of 1892, I told her that she must have the lenses altered."

Upon the receipt of this note, I determined, as here seemed an excellent opportunity to render the results more certain, to personally make a series of scientific tests of the then present conditions as well as to most critically review both the family and the personal histories of the case. On the 24th of April, 1897, I went to Lancaster, and made an extended and most extensive inquiry into every relevant detail that I considered necessary, with the result that the history that had been obtained by Dr. Rohrer remained exactly as it had been given to me. Thus assured that I had before me a case that was worthy of careful clinical study, I remained until the next day, in order to personally supervise and individually conduct a regular and methodical examination. This I did in every detail, paying particular attention to extraocular muscle-equilibrium, ciliary muscle-play, and the various actions of the irides. My findings were most satisfactory, and as I suspected, I soon determined the presence of a marked heterophoria and an under-corrected presbyopia, with an exposed antimetropia and astigmatism. Feeling that the optical constants had changed and the dynamic portions of the eyes had so altered as to give rise to an aberration in muscle-equilibrium with consequent faulty muscle-action, I requested Dr. Rohrer to carefully reestimate the error of refraction and to correct the disturbed muscle-balance, just as I had done. I informed him that I desired this particularly for binocular vision for both near and far, in order to reduce the dioptric media and the muscular apparatus of the two eyes in combination, to as near normality of action as possible. For this purpose I gave him a copy of all my data, both objective and subjective, as a basis; this he did.

On the first of July of the same year, I received a most instructive note from Dr. Rohrer. In it, he stated:

"In getting Mrs. I. her new glasses several weeks ago, I made a mistake of 20° in the cylinder-axis of the right lens—placing it at 90° instead of 70°. She put her new glasses on in my office, and on her way home said to her daughter, "things do not appear right; they seem very strange." In a day or so, she became covered with hives, and then put her old glasses on, when in three or four days' time, the hives almost disappeared. I of course corrected the lens, since which time I have not heard any complaint. It may also be of interest for you to know that when she first received her 1892 glasses, it took at least three days' time for the eruption to disappear."

Getting this unsolicited and valuable information, made me keep close watch upon the case for a year's time; indigestible foods and a number of medicaments have been employed without avail; once the lenses were secretly reversed, producing a most violent attack of nettlerash; and exposures of various kinds have been unsuccessfully tried; until after this long interval, and with the refraction and muscle-balance kept fixed, it has been unreservedly forced upon me, that the expressions of general vasomotor disturbances were in absolute relationship with the ocular fault; thus resolving the solution of this most interesting etiologic problem into both ametropic and heterophoric asthenopia, giving rise to sufficient disturbance to produce urticarial manifestations: a remote though indirectly related clinical expression of a coarse and markedly disturbing character arising from a disorder of apparently minor type that necessitated the most careful special search for its recognition; a gross effect produced by a seemingly trivial cause; a true reflex; an acute and evanescent urticaria in a cnidosic subject appearing during eye-strain.

A CASE OF ANNULAR SEPARATION OF THE CERVIX DURING LABOR.

By JULIUS SACHS, M.D.,
of New York City.

Lacerations of the cervix extending so far as the internal os, are of daily occurrence during labor, but to find in the vagina an amputated cervix two inches wide and twelve inches in circumference, is an occurrence of extreme rarity. A month ago I was called hurriedly by a medical friend to see a primipara in labor. On arriving I was told by my friend that the head was impacted in a narrow pelvis. He had applied the forceps three times successively, under chloroform-narcosis, without being able to extract the head. He asked me to help him, as he was discouraged and tired out. Before applying the forceps I thought it would be advisable to examine and to ascertain the position of the head, and also the condition of the pelvis. Washing my hands thoroughly, I introduced my fingers in the vagina, and, to my astonishment, felt a lump of soft tissue. After taking it from the vagina, I convinced myself that it was an amputated cervix in its entire length, still hanging to the uterus by half an inch. I cut off this last point of attachment. The bleeding was inconsiderable. After ascertaining the position of the head, and the condition of the pelvis, I applied the forceps, and extracted a living child. The placenta in this case was attached, but was removed at once, the uterus washed out with a hot solution of mercuric chlorid 1 : 5000, and the vagina packed with iodoform-gauze. I ordered emptying of the bladder twice a day with a catheter, to avoid infection, and this was repeated each day until the ninth. The patient made an uneventful recovery, and on the tenth day she was out of bed.

Now arises the question, what was the cause of the complete amputation of the cervix in this case? Considering that the physician in attendance was an experienced and careful obstetrician, I am inclined to believe that the amputation of the cervix was due on the one hand to pressure of the occiput against the symphysis pubis, and on the other hand to the pulling down of the head with the forceps.

Barnes (*Obstet. Med. and Surgery*) refers to a case reported by Gervis, in which the ring-form detachment was not complete. It was replaced without sutures, as the patient was very much prostrated, and the ring reunited. A similar case is reported by Dr. Keller, in Vol. I, *Trans. Phila. Patholog. Society*. Duparcque mentions a case in which the anterior lip was detached. The accident results primarily from an unyielding cervix and strong uterine contractions.

THE USE OF ICHTHYOL IN GYNECOLOGY.[1]

By CLARA T. DERCUM, M.D.,
of Philadelphia.
Instructor in Therapeutics in the Woman's Medical College of Pennsylvania.

Ichthyol is obtained from a bituminous mineral found in the Tyrol, and is abundantly present in the fossilized remains of fishes and other marine animals. By dry distillation it yields an oil containing about 10% of sulphur in chemic combination, which by special treatment with sulphuric acid is converted into a sulphonate. By neutralizing this sulphonate with alkalies the corresponding salts are produced, of which the principal ones are ammonium sulpho-ichthyolate and sodium sulpho-ichthyolate. The latter is a semi-solid substance, while the ammonium-salt is of a sirupy consistency. Both salts are of a reddish-brown color and have a bituminous odor and taste. They are soluble in alcohol, water, and ether, and mix well with glycerin, vaselin, lanolin, oils and fats of all kinds. When simply ichthyol is written for in the prescription the ammonium salt is dispensed. The favorable action in the diseases in which it is used is attributed to the presence of the sulphur in chemic combination.

Ichthyol is used externally and internally for its alterative action, its contractile effect upon vascular tissue, its antiphlogistic properties, and its antiparasiticide qualities. Internally, it has also a regulating influence on the bowels and promotes nutrition, increasing the body-weight by retarding tissue-waste, as has been abundantly shown by experiments on animals. It therefore favors the building up of the albuminoid constituents of the organism and retards their decomposition. Experiment has shown also that ichthyol produces no deleterious effects upon the organism, even in doses as large as 300 grains, the only inconvenience being a simple diarrhea, the slight eructations that occur when the drug is first taken soon passing off.

Owing to its peculiar properties ichthyol is extensively used by dermatologists and gynecologists. This paper will confine itself to a consideration of its use in gynecologic work. It has been the experience of gynecologists that when the drug has been persistently used in chronic tubo-ovarian troubles it has proved effectual in ameliorating the distressing symptoms in a large number of cases, thus assisting the organism, in conjunction with other hygienic and medical measures, to a return to health. However, when the inflammation has been severe in character no treatment whatever will avail in restoring the tubes and ovaries to the condition in which they were prior to the attack, for there will always be present, to some degree, the results of inflammation in the form of thickening and adhesions, although the symptoms may have disappeared. Nevertheless, ichthyol, in connection with other measures, often assists materially in breaking up and thinning these adhesions and in relieving tenderness; it also diminishes leukorrhea, and heals erosions and ulcers of the cervix uteri.

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[1] Read before the Alumnæ Medical Society, December 6, 1897.

Following are brief reports of two cases persistently treated with this drug:

J. W., 31 years old, married 5 years, aborted the first year of her marriage at two months. Menstruation began at 12 years of age. The patient had a severe fall when 14 years old, striking her head and back. As a result of this accident she was confined to bed for several weeks, suffering from general shock; and during this period and for a long time afterward she was troubled with frequent micturition, but no pelvic examination was ever made. Later, her menses, which previously had been painless, caused a great deal of suffering, the severest pains being felt in the rectum. This pain was attributed to hemorrhoids, and for this supposed condition she was treated for years until she came under my care in January, 1896, when a physical examination failed to detect its presence. The uterus was found low in the pelvis, only half a finger's length from the vulva, completely retroverted and the fundus bound with firm adhesions to the rectum, while from the os a thick glairy mucus was oozing. The left ovary was bound by strong adhesions to the corresponding side of the uterus just above its junction to the vaginal wall; the tube made part of a circle which could be easily outlined. The right tube and ovary appeared to be free. When the condition was explained to the patient she signified her willingness to submit to anything that would increase her chances of becoming pregnant, and she agreed to submit to a section to have the adhesions freed if more conservative treatment were of no avail. She was put to bed for two months, and daily in the knee-chest position with the aid of a Sims speculum the whole vaginal wall was freely painted with equal parts of ichthyol and glycerin and efforts were made to replace the uterus by firm and gentle pressure against the fundus with a uterine repositor. The whole vagina was then packed with pledgets of lamb's wool soaked in ichthyol 1 part and glycerin 9 parts, which were removed on the following day, and after a vaginal douche of a gallon of water as hot as could be borne the same treatment was recommenced. During these two months the woman remained in the Sims position day and night, only varying it by assuming the knee-chest position three or four times daily, which, after considerable practice, she could retain for a period of ten minutes. Her bowels were kept soluble by means of Epsom salt. When she was permitted to get up the uterus was still adherent to the rectum, but the adhesions did not seem quite so firm. During the period in bed the patient had taken internally 2 grains of ichthyol three times a day, and the abdomen had been daily rubbed with an ointment containing 2 drams each of ichthyol and olive-oil to the ounce of petrolatum. This treatment was still further pursued for two or three months. A small soft-rubber Albert Smith pessary was now introduced and worn with comfort; it also made continued pressure on the fundus of the uterus. The menses were now almost painless, but the same local condition continued for about four months, when finally the adhesions of the uterus to the rectum gave way and the uterus was replaced in its normal position and retained there by a well fitting reinforcement-pessary, and the patient was allowed to take any amount of exercise she pleased. Curetment of the uterus was now advised, with the idea of stimulating the uterus and getting rid of the glairy mucous discharge coming from the cervix, but it was deferred. However, the condition remedied itself after the uterus was kept in its normal position, by the improvement in the circulation, and occasionally Battey's solution was applied to the uterine canal by means of a little absorbent cotton on a very fine nose-applicator through a patulous os. This patient gained over 30 pounds in weight during treatment. Fifteen months after treatment had been instituted she became pregnant and is at the present writing well advanced into the eighth month of pregnancy. At the beginning of this condition there was a great deal of pain on the left side, due no doubt to the dragging of the adhesions of the then still-adherent ovary. At present, however, the pain has completely ceased, probably in consequence of the fact that the ovary is released from its anchorage. The obstinate constipation from which she had suffered for years also became markedly improved.

F. S., 20 years old, married at 18 years of age, but never pregnant, was first examined on December 21, 1896, when the following condition was noted: The uterus was slightly retroverted and the os eroded, with a purulent discharge oozing from it. The whole vaginal roof felt hard and resistant to the touch, and tubes and ovaries were both enlarged and exquisitely painful. The pain in the ovarian region was constant and intense and aggravated by walking. The bowels were firmly packed, and had only been moved for some time under the influence of drugs. This patient refused to go to bed, but rested a great deal. The treatment pursued was the same as detailed in the previous case. There was no improvement during the first few weeks, and the advisability of an operation was considered. After about six weeks of persistent treatment, however, the condition began gradually to yield, so that in about six months the patient was comparatively well, having gained considerably in weight. She has never felt better in her life. The leukorrheal discharge has ceased entirely, and the constipation, which was most obstinate, has also been relieved completely. The headaches, which were severe and constant and confined to the vertex, have also disappeared. The woman has, however, not become pregnant; nor do I expect her to, as her trouble was probably gonorrheal.

Both of these cases yielded only after persistent treatment. They were selected to show what can occasionally be accomplished by well-directed efforts. Operation had been considered in both, in the first for the breaking up of adhesions, and in the second for the removal of the appendages.

Note.—Since the reading of this paper Case I has been delivered of a healthy child.

GLYCERINATED VACCINE-LYMPH.

By DAVID RALPH BOWEN, M.D.,

of Wellsburg, N. Y.

Improvements in products whose value has long been recognized, yet whose utilization is attended, very often, by unpleasant results, sometimes even by sad, untoward results, are always doubly welcome. Such an improvement we have in vaccine-virus preserved in glycerin, or "glycerinated-lymph." The product is superior in every particular to the old forms of virus, crusts, points, quills, etc. It produces a normal vesicle in a large proportion of cases. With proper technic it rarely or never causes the extensive cellulitis, or even abscess and necrosis, so prevalent when other forms of vaccine were used. Again, we must recognize that the success of any attempt to vaccinate all of a given number of persons must ever depend more upon the tact of the physician than upon the power of the legislator.

The admirable cleanliness of the glycerinated vaccine in sealed tubes, the small area of scarification, the results—"just what the doctor said would occur"—are so apparent to the laity that half the objection is gone. The greater permanence of this product and the generous methods of its marketing enable any physician to be always ready to vaccinate.

The following 62 cases are tabulated with brief notes because they illustrate the foregoing facts :—

No.	VACCINATION.	VACCINE.	RESULTS.	NOTES.
1	First.	Dry points.	Failed.	Took variola 5 days later.
2	"	"	"	Used glycerinated lymph (G. L.)
3	"	"	"	Took variola from No. 1, the attack being much modified by successful use of G. L.
4	"	"	"	G. L. failed also.
5	Once 22 yrs. ago.	"	"	Used G. L. successfully.
6	" 31 "	"	"	" " "
7	" 18 "	"	"	G. L. failed also.
8	" 16 "	"	Succeeded.	
9	" 24 "	"	Failed.	
10	First.	"	"	Used G. L. successfully.
11	"	"	Succeeded.	
12	"	"	Failed.	" " "
13	"	"	"	" " "
14	"	"	"	" " "
15	"	G. L.	Succeeded.	Normal vesicle.
16	"	Dry point.	"	A sore arm ; ulceration ; irregular scar.
17	"	G. L.	"	Normal vesicle.
18	Once 40 yrs. ago.	"	Failed.	
19	First.	"	Succeeded.	" "
20	"	"	"	" "
21	Once 32 yrs. ago.	"	"	" "
22	First.	"	"	" "
23	"	"	"	" "
24	"	"	"	" "
25	"	"	"	" "
26	"	"	"	" "
27	"	"	Failed.	No revaccination.
28	"	"	"	Revaccinated successfully with G. L.
29	"	"	Succeeded.	Normal vesicle.
30	"	"	"	" "
31	"	"	"	" "
32	"	"	"	" "
33	6 previous failures with pnts.	"	"	Scarified, extra large surface ; allowed 45 min. for absorption ; result energetic.
34	First.	"	"	Normal vesicle.
35	"	"	"	" "
36	One previous effort failed 20 yrs. ago.	"	"	" "
37	2 previous efforts successful.	"	Failed.	
38	First.	"	Succeeded.	" "
39	"	"	"	" "
40	3 previous failures with pnts.	"	"	" "
41	First.	"	"	" "
42	"	"	"	" "
43	"	"	"	" "
44	"	"	"	" "
45	"	"	"	" "
46	"	"	"	" "
47	"	"	"	" "
48	Once 8 yrs. ago.	"	Failed.	Revaccinated successfully.
49	First.	"	Succeeded.	Normal vesicle.
50	"	"	"	" "
51	"	"	"	" "
52	"	"	"	" "
53	"	"	"	" "
54	Once 40 yrs. ago.	"	"	" "
55	First.	"	"	" "
56	"	"	Failed.	Revaccinated successfully.
57	"	"	Succeeded.	Normal vesicle.
58	"	"	"	" "
59	"	"	"	" "
60	"	"	"	" "
61	"	"	"	" "
62	"	"	"	" "

These vaccinations were performed in October, 1898. The list would have been longer but for my misfortune in having to attend two cases of smallpox, and then came an active demonstration of the fact that no disease to which our Northern States are liable, produces the terrible unreasoning dread that smallpox does; not even diphtheria approaches it. Who attends the patient finds himself shunned and his other occupation for the time gone and he will never be lax as regards vaccination again, if only for personal reasons.

My change from using dry vaccine was thoroughly justified by the results obtained. I may say that the points were procured from one of the most reputable producers in the country and were used within from 48 to 60 hours after shipment from the plant. The claim is not made by any means that points are invariably so unreliable as in this case, but the fact that this occurred in the time of a threatened epidemic justifies the statement. My technic was invariably to first scrub the arm with ethereal antiseptic soap, followed by sterilized water and, in case of points, scarifying an area about $\frac{3}{8}$ in. square, applying the moistened point and allowing virus and serum to dry, and dressing with scorched lint held in place with adhesive strips. This was removed before the vesicle formed. When glycerinated-lymph is used a much smaller scarification should be made; $\frac{1}{8}$ inch square is usually sufficient, and in infants a mere scratch is enough. To scarify a larger surface is to increase the dose of vaccine absorbed, and to increase the liability to septic infection.

Glycerinated-lymph does not dry, of course, and plenty of time should be allowed for it to be absorbed; 30 minutes was the time usually allowed, though the producers say that from 10 to 20 minutes is enough. The scorched lint was then applied, as already stated.

Case 48 was in a man, 20 years of age, who was vaccinated (successfully he thinks) 8 years ago, but who showed no scar.

Case 18 was in the father of Nos. 1 and 3. The fact that he did not contract smallpox from them is perhaps additional evidence that revaccination was superfluous.

Cases 4 and 27 were undoubtedly primary. Why they failed I cannot yet determine. Case 4 had after failure with points a capillary engorgement at the scar, somewhat elevated and apparently like an ordinary nevus or birth-mark. This also occurred after one of the failures noted in Case 40 and in a case from the practice of another physician recently seen by me. This case was also one of dry-point vaccination. I am unable to account for this phenomenon, which was, however, in the 3 cases, easily dispersed by solid silver nitrate.

It must be remembered that, granting the vaccine-material to be all that is desired, there are still three sources of failure to produce the desired vesicle.

(1) The person may possess a natural immunity. This is probably a rare occurrence. Cases 33 and 40 illustrate a fairly common error in this regard. Again, in the country we find quite frequently persons who have contracted cowpox directly by milking infected cows. Undoubtedly others have suffered similarly without recognizing the disease and have in turn become supposed vaccine-immunes.

(2) There is undoubtedly a relative immunity, as a result of which, a larger scarification, longer absorption, etc., may be required. There is no better rule than to "cut and try," using a small scarification always at first. It is better to have an occasional failure than that all should have unnecessarily sore arms and resulting large scars.

(3) Perhaps the most common cause of failure is too deep a scarification, in consequence of which the exuding blood and serum prevent the absorption of the lymph in the given time. In this event the dressing absorbs the lymph and no result is obtained.

Finally, I believe it to be the duty of physicians to endeavor to vaccinate all those who depend upon them for medical advice, and, so far as possible, to remove any popular prejudice against vaccination regardless of financial return or lack of it. To this end I invariably say to those vaccinated, "Nothing is likely to go wrong with this arm if it is properly cared for. If it does not do well I wish to see it at once and will care for it without further charge." This nearly always prevents meddling at home. It is better that I should give away a little time, than to allow the possibility of easily preventable mishaps.

SALPINGO-OÖPHORECTOMY, FOLLOWED BY TYPHOID FEVER, WITH A FATAL TERMINATION.

By FRANK E. SIMPSON, M.D.,
of Chicago.

The following case is believed to be of interest because it presents an unusual and somewhat puzzling complication following abdominal section.

D. L., a married woman, 22 years old, an American by birth, was admitted to Cook County Hospital, on September 5, 1897, with a history of an illness of two weeks' duration, characterized by a sudden onset of sharp, continuous pain, subject to exacerbation, in the right inguinal region. After lasting one week the pain gradually subsided, but a few days before admission to the hospital, the patient was again seized with pain of the same character, referred to the right side of the abdomen, but localized especially just below the right costo-chondral arch. There had been no vomiting; the bowels were constipated; and the only other symptom of moment was some loss of weight in the 2 or 3 weeks just prior to admission. There was no history of previous similar attacks. The family-history was negative. The woman had had smallpox in early life. Her menses had always been regular, and of normal character. She had been pregnant twice, her first labor occurring 5 years, and her second pregnancy ending in abortion, 3 years before the present illness.

On examination the woman was found to be mentally clear, but rather lethargic. The general nourishment was poor, the tongue moist, with an irregular, heavy, white coating. The lungs, heart and urine presented no abnormity, but there was considerable tenderness on pressure over the right side of the abdomen, especially in the right hypochondriac region. The abdominal muscles were not markedly rigid. Pelvic examination disclosed a muco-purulent vaginal discharge, which the patient stated had been fairly constant for a year, a slight cervical tear, a retroposed and adherent uterus, and a greatly enlarged oviduct on the right side. The pulse was 100; the temperature 100.4°; the respiration 24. Five days after admission, the temperature, which had never been above 100.6°, was normal and remained so for two weeks, except on three occasions, when it ran up to 103°, 104° (this time accompanied by a severe chill), and 102°, respectively, dropping to normal, however, in a few hours.

The woman was kept under observation for about 2½ weeks, during which time her condition improved and the pain in the abdomen lessened, though it never entirely ceased. Her symptoms were not unnaturally attributed to the distended and adherent oviduct and the diagnosis of pyosalpinx having been made, operation was advised. On opening the abdomen, the right tube and ovary were found firmly bound down by adhesions on the posterior aspect of the broad ligament to the intestines and to each other, and the uterus was firmly welded by its posterior surface to the entire mass. The adhesions were broken up, the right tube and ovary amputated in the usual manner, and the uterus stitched to the anterior abdominal wall. On account of considerable oozing, a gauze-drain was used and removed 24 hours later. The diseased tube and ovary formed together a mass about the size of a Messina orange; the walls of the tube were enormously thickened and were distended with turbid serum.

The patient was returned from the operation in good condition at 4 o'clock, and at 8 o'clock the same evening, her pulse was 128, her temperature 100.4°, her respirations 32. At 8 o'clock the next evening the pulse was 120, the temperature 101.8°, the respirations 28. Forty-eight hours after the operation the pulse was 116, the temperature 102°, the respirations 28. At the end of 72 hours the pulse was 110, the temperature 101.6°, the respirations 28. The bowels had responded well to enemas from the first and there were no symptoms referable to the peritoneum, but the patient *looked* ill. The pulse in the next four days persistently ranged from 96 to 110, the temperature from 100.2° to 103.4°, being highest in the evening. On the seventh day, the abdominal wound was carefully opened and a cautious exploration for pus was made with the finger. None was found, but a gauze drain was carried to the stump of the amputated tube and the wound was subsequently dressed and drainage provided.

The blood was repeatedly examined for malarial organisms, but in vain. Widal's test yielded negative results. The patient was treated symptomatically, with sponge-baths for the temperature, a milk-diet, and later strychnin and whisky. Cough developed about three weeks after the operation; the sputum became bloody, and moist rales were heard over the chest. Nervous symptoms appeared, and the patient grew rapidly weaker. Two hemorrhages from the bowels on successive days occurred at the beginning of the fourth week after the operation, and a diagnosis of probable typhoid fever was made. The pulse had ranged during this time between 96 and 120, rarely going higher, and the temperature had varied from 101° or 102° in the morning to 103° or 104° in the evening. There was no diarrhea and no tympanites at any time. Careful attempts had been made to palpate the spleen, but it was never thought to be enlarged. Rose-spots were never observed, but I am not sure that they were not at some time present and escaped notice, because of the abdominal dressing.

Death took place 25 days after the operation. Postmortem examination revealed, as the principal lesion, sloughing and ulceration of Peyer's patches and of the lymph-follicles (of the colon as well as the small bowel), characteristic of typhoid fever. There was also present a moderately extensive bronchopneumonia. The abdominal wound was clean.

The question of the time of infection and the cause of the development of the disease immediately after the operation is an interesting one. That the infection did not occur after the patient entered the hospital may, I think, be reasonably affirmed. The water-supply and the milk-supply of the ward is unimpeachable; the patient was not brought in contact with, nor in proximity to other cases of typhoid fever, and there is strong negative evidence in the fact that no other patients in the ward were affected, though subjected to practically identical conditions. The sudden and immediate onset of the disease after the operation would seem to almost justify us in assuming that the two bear the relation of effect and cause. Either the trauma incident to the manipulation of the intestines during the operation lighted up an entirely new infection, the germs of which had lain dormant for at least nearly three weeks, or we had unintentionally rekindled a smoldering fire; that is, the pre-operative symptoms that were not unnaturally attributed to a pyosalpinx, were, in part at least, due to typhoid infection, and we had probably brought on the relapse by operating in the interval. I am indebted to Drs. Davis, Cook, and Morf for assistance at the operation, which had, unfortunately, such a sad sequel, and to Dr. Hektoen for the postmortem report.

THE NEGATIVE RESULTS OBTAINED FROM THE INVESTIGATION OF THREE DEATHS ALLEGED TO HAVE BEEN DUE TO RABIES.

By HENRY W. CATTELL, A.M., M.D.,
of Philadelphia.
Senior Coroner's Physician.

DURING the year 1897 three deaths were reported to the Coroner's office of Philadelphia as having been due to rabies. In each case before the official investigation could be completed, some of the Philadelphia newspapers, under large and prominent headlines, published long accounts of them as genuine cases of hydrophobia. A thorough study of the cases by the approved methods of the day was made, and the deaths were all found not to have been due to rabies. In order to allay, so far as possible, the deep-seated popular dread of the disease, though not denying its existence, Coroner Ashbridge at the hearings called attention to the fact that during his 17-years' service in the Coroner's office not one of the many cases of hydrophobia so reported in the papers and investigated by those connected with the office had proved to be such upon careful inquiry.

The clinical histories and a short statement of the postmortem findings of the three cases referred to will first be given, and I shall then reply briefly to the editorial entitled "Spinal Meningitis vs. Hydrophobia" that appeared in the PHILADELPHIA MEDICAL JOURNAL for August 27th. As the diagnosis of hydrophobia was made in each case from the clinical symptoms by the attending physician, I refrain from mentioning the names of those treating them, and am thus unable to thank the attending physicians or the resident physicians who have kindly furnished me with the clinical histories published herewith.

CASE I.—P. T., 69 years old, was admitted to a hospital on October 8, 1897, and died there the next day. Four days before admission he had been seized suddenly with pharyngeal spasm and was unable to swallow. He had been feeling unwell for several days previously. The spasm of the pharyngeal muscles continued on attempts to swallow. The expression was one of fright, and the man complained of dryness of the throat and a feeling as if he were being suffocated with sulphur. On admission the man was rational, and complained of great thirst and dryness of the mouth and throat. Examination of the throat revealed a dry, glistening, and inflamed mucous membrane. Attempts to swallow water were unsuccessful, and sometimes water forced into the mouth would run down the side of the face. The man remained in this condition all day, being unable to swallow anything, but frequently asking for water. Toward evening he began to grow restless and talk and shout, the dryness of his throat rendering his words almost unintelligible. The restlessness grew worse, and toward 9 P.M. violent delirium set in, preceded by a calm in which the patient seemed to be asleep. The delirium was so wild and maniacal that the man had to be strapped to his bed. The expression of his face was a marked feature: The eyes appeared to stand out of the patient's head, and the whole facial expression was one of abject terror. A lucid interval of perhaps half an hour would intervene; then another attack of delirium would begin. During one of the periods of consciousness the man told his name, and, on being questioned, stated that he had been bitten by a dog a year before. He was apparently rational when he made this statement. The great thirst and fear of water continued through the night, food and stimulants being given by the rectum. Attempts were made with morphin, hyoscin, and chloral to quiet the man, but without much effect. Morning found him very weak, still delirious, and dying. He continued in this condition until about 3 P.M., when he died, having been in the hospital about 24 hours.

The urine was dark and cloudy, the specific gravity 1028, and the reaction alkaline. It contained a quantity of albumin and some dark and light granular casts, and a few pus-cells were found.

In regard to the patient's previous history, he had apparently been in good health; no venereal history could be obtained; he drank beer in small quantities.

The autopsy was performed by my assistant, Dr. Thomas J. Morton, who handed me portions of the brain and cord and the kidneys for further study. The nervous tissue was sent to the Director of the Laboratory of Hygiene, Dr. A. C. Abbott, who reported at the inquest that inoculations of rabbits with the material yielded negative results.

The surface of the kidney was granular, and both here and on the cut surface numerous cystic formations were to be seen, some of the cysts being of large size. The capsule was adherent and surrounded by a mass of fat. There was slight yellowing of the cortex, which was notably diminished in size. A distinct uremic odor was observed. Under the microscope chronic changes in the framework of the kidney were seen, with recent and marked degeneration of the epithelial cells. In other words, the changes in the kidneys were such as are seen in cases of chronic interstitial nephritis ending fatally with uremic symptoms.

CASE II.—C. H., 16 years old, was bitten by a dog at Atlantic City, on September 18, 1897, and was admitted to a hospital October 28th, where he died three days later. His family-history was negative. He was of nervous temperament, but had never had convulsions or attacks of unconsciousness. Several scars on the right hand and fingers showed where he had been bitten by a dog "supposedly mad," but as is usual in such cases no confirmatory evidence could be obtained. No ill-effect had been experienced until two days before admission, when the lad felt in the cicatrices shooting pains that radiated up the arm. These continued the next day, with pains also in the back and head.

On admission the young man was found to be poorly developed, but fairly well nourished. He seemed stupid; his speech was slow and scanning. Three scars were seen upon the right hand; they were apparently healthy; there was no redness or swelling of surrounding tissues. The tongue was coated; the eyes somewhat congested; the pulse 88, full and strong; the temperature 100° F.; the face somewhat flushed. Physical examination yielded negative information. On the next day the patient seemed slightly worse. He still complained of headache and backache. He slept most of the time, and seemed to be irritated when aroused. The pupils were equal. Speech was more hesitating, and there was slight increase in the flow of saliva. Respiration was somewhat increased in frequency and noise. The temperature was 102.8° F. On the third day the lad's condition was decidedly worse. He slept constantly except when aroused; he then complained of pain in his head and back. The secretion of saliva was markedly increased, white and tenacious, and its flow was accompanied and preceded by a short, hacking cough. Spasmodic twitchings of the muscles of the extremities were observed. The temperature was now 103° F. On the fourth and last day these symptoms were exaggerated, with additional delirium. The saliva became so tenacious that respiration was greatly interfered with; the breath-sounds were loud and gurgling; cough was almost constant. Early in the morning the temperature began to fall, gradually dropping to 98° F. The face was cyanosed. Death took place at 5 P.M., from asphyxia. The treatment consisted of potassium bromid gr. xx every fourth hour; deodorized tincture of opium, gtt. xx every sixth hour; and during the first two days chloral, gr. xv every sixth hour, and extract of physostigma, gr. $\frac{1}{8}$ every third hour. Quinin, magnesium sulphate, and calomel were also administered. On the last day a hot vapor-bath was given every eighth hour. The lad was stimulated with whisky, 2 fluidrams every hour, and he received liquid diet. The urine passed on October 29th was of pale amber color and acid-reaction, with a specific gravity of 1018, and it contained a slightly cloudy sediment, which under the microscope was found to contain leukocytes, cocci, and a few epithelial cells. Chemical examination yielded negative results.

On postmortem examination the brain was found to be congested, with no sign of a purulent deposit. The right lung was bound down by old adhesions, and the heart was somewhat hypertrophied. There were a few areas of fatty degeneration in the liver, and slight parenchymatous nephritis. There was some irritation of the alimentary tract and tenacious mucus was found in the glottis, while the epiglottis was slightly reddened. The only cause of death revealed by the postmortem examination was the congestion of the brain, which was of such a character as I have seen so often in the feeble-minded children at Elwyn, who die from epilepsy, or in those who succumb after a fatal dose of a narcotic. The changes in the kidney were not sufficient to cause uremia, though the possibility of the arrest of an internal secretion should be thought of. The laboratory-experiments by Dr. Abbott yielded negative results.

The decision that this case was not one of hydrophobia rests, therefore, with a competent bacteriologist, this being the only one of the three cases in which from the postmortem findings the symptoms might be suspected as having been due to rabies.

CASE III.[1]—"A case of true hydrophobia, which is a decided rarity, ended on Thursday in the death of the victim after three days' illness. The case was not the disease which is commonly called hydrophobia, but was the malady to which the term is applied in its strict sense. The literal meaning of hydrophobia is the fear of water, the word being taken from two Greek roots, hudor, meaning water, and phobos, meaning fear. As the word implies, the essential feature of the disease is a singular and unconquerable dread of water.

"The case was that of Rudolph Schramm, a machinist employed at Cramp's shipyard, who resided at 762 Swanson Street. He was 23 years of age and unmarried. About six weeks ago Schramm was bitten by a dog.[2] He had the wound cauterized at the Pennsylvania Hospital, and thought nothing more of it until a few days since, when he found difficulty in breathing and went to Dr. P. for treatment. The physician did not at once understand the nature of the case. Schramm said he had no pain, but simply found difficulty in respiration. He frequently choked and gasped, and could not swallow. While talking with him about the case the doctor had occasion to turn on the water at the faucet in the corner of the room, and at the sight of it Schramm went into a convulsion. When he recovered, he returned home and went to bed. On Wednesday he had still more trouble in breathing and the sight of water almost drove him frantic. A single drop placed where he could see it would cause him to grasp his throat with both hands and gasp for breath, after which he would go into convulsions. His condition was so much worse on Thursday that the physician was sent for. He administered chloral and bromids, without bringing sleep, and finally resorted to morphin, which seemed to help Schramm somewhat. On Thursday afternoon Schramm went into violent convulsions to which hydrophobia-patients are liable from simply thinking about water, and his epiglottis closed. He was practically suffocating, when the doctor, although unprepared for such an emergency, performed an operation of quick tracheotomy, using his stethoscope as a tube:

"Eight strong men living in the locality were then called in and in turn worked with Schramm under the doctor's instructions, using the same means that are employed in resuscitating nearly drowned persons. Schramm breathed much easier, and lived for two hours.

"Dr. P., when called upon yesterday in reference to the case, said that according to Osler there were only 63 cases of true hydrophobia on record. He believes this to have been such a case. The malady is a most terrible one. In some cases the patient lives for a week after the attack begins, and, although burning with fever, is unable to drink any water, the very thought of it driving him half mad."

The post-mortem revealed marked edema of the lungs and throat induced by chronic nephritis and cardiac failure. The brain was edematous and showed the presence of a number of cysts of the *cysticercus cellulosæ*, in good state of preservation. While a few of the smaller ones were embedded in the brain-substance near the cortex, the majority were found in the sulci in the neighborhood of the larger bloodvessels derived from the anterior, middle, and posterior cerebral arteries, thus showing a wide area of distribution. None was discovered in the ventricles. The man was a German, both by birth and in his manner of living.

In this case there was no proof that the dog that did the biting was mad, but, as the attending physician, even though present at the autopsy, still felt that his patient had suffered from hydrophobia, the specimens of nervous tissue in proper condition for inoculation-experiments were sent to Dr. W. M. L. Coplin, of Jefferson Medical College, for further study. In his report to the Coroner, under date of October 6, 1897, Dr. Coplin says: "The examination of the specimens in the case of R. Schramm does not show any evidence of hydrophobia."

Human rabies is an exceedingly rare disease, the existence of which is no more to be doubted than that of other affections, such as typhus and yellow fever, which physicians may not personally have seen. If there is no such thing as hydrophobia, how do Pasteur Institutes *of the better class* find means of existence? Germany, long opposed to this method of treatment, as it originated in France, has this year opened under the supervision of Koch's Institute at Berlin, a department for the treatment of hydrophobia by the French method.

The writer of the editorial, "Spinal Meningitis *vs.* Hydrophobia," bases his criticism on the Coroner's physician who made the autopsy on the boy Sayers on a report published in the *Philadelphia Press.* This is certainly not going to an official source for one's information. The postmortem in this case was made by Dr. Thomas J. Morton, who, after microscopic and bacteriologic investigation—there was a purulent cerebral lepto-meningitis—pronounced the case to be one of acute meningitis from natural causes. Even the words *cerebro-spinal* do not appear on Dr. Morton's official report or in the verdict of the Coroner's jury, which was given in conformity with the Doctor's opinion. This verdict of "Acute meningitis from natural causes," which was duly entered upon the docket-book of the Coroner's office immediately after the inquest of August 22, 1898, will be shown the writer of the editorial any time he chooses, by calling at Room 604, City Hall, any week-day between the hours of 9 A.M and 4 P.M.

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[1] The clinical symptoms in this case are quoted from the *Philadelphia Inquirer* for August 14, 1897. Though somewhat colored by the reporter, they are much the same as related to me by the attendant physician. Printed in large headlines on the front page was the announcement: "Died in Agony of Hydrophobia. One of the rare cases which are noted in medical annals. Strangled to death. The mere sight or even thought of water threw the patient into terrible convulsions."

[2] The dog bit him while he was giving it a bath. The dog was disposed of shortly afterward for killing one of the patient's chickens.

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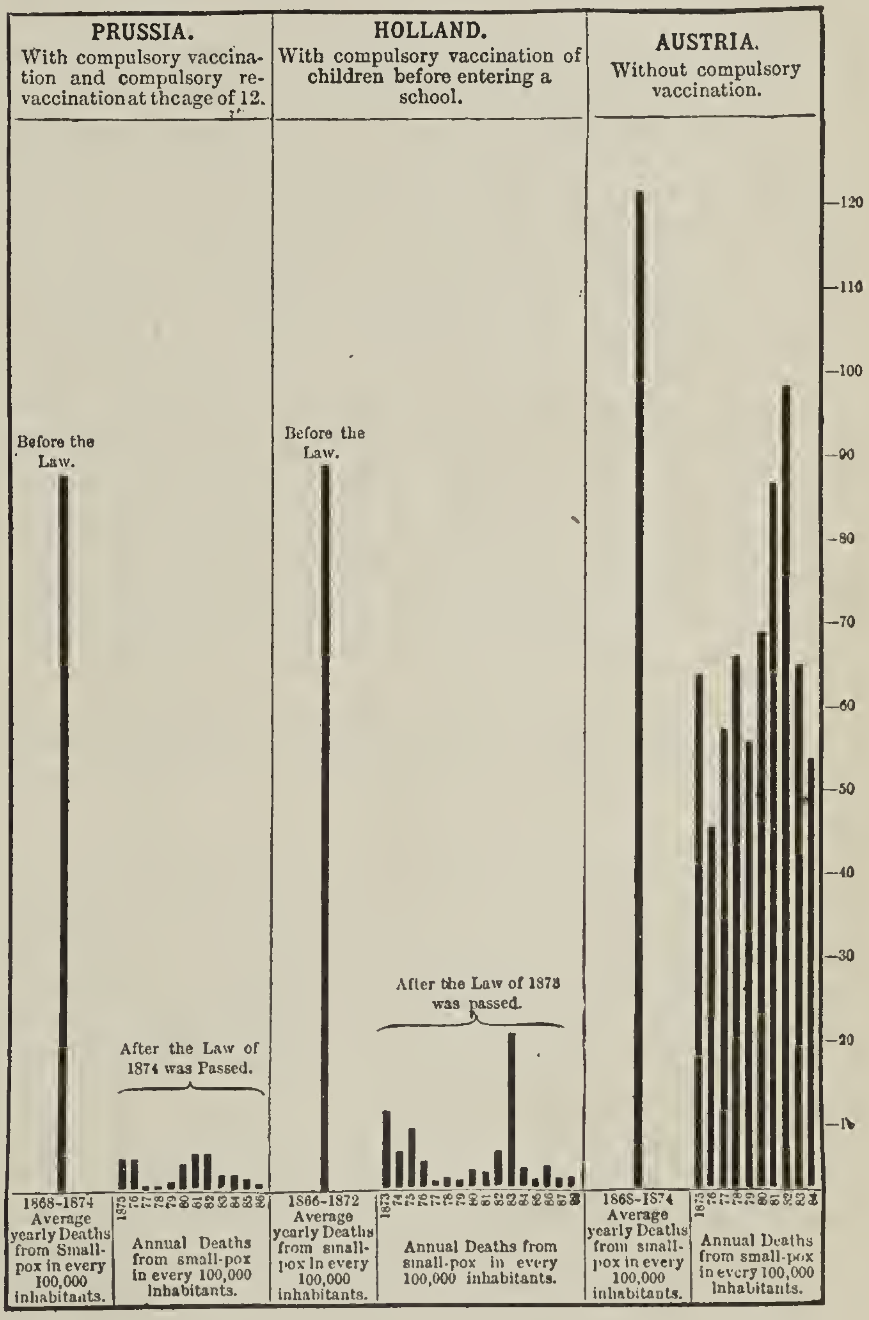
Overcrowding in the Public Schools.—One would suppose that having adopted given principles and established certain institutions it would be a matter of pride and zeal to foster and maintain them in the highest possible degree of development. Of the stability, not less than the utility of our public-school system, there is no shadow of doubt, and it is therefore a matter of surprise that in two such large and important cities as New York and Philadelphia there should be complaint of insufficient accommodation for all of those who wish to attend. The former city is about to absolve herself of reproach in this connection by issuing bonds to the amount of more than seven and a half million dollars for the purchase of additional schoolhouses and sites. In the city of Philadelphia, on the other hand, it is proposed to appropriate the totally inadequate sum of $700,000 for the same purpose, although there are 25,000 children whose school-needs are to be met. From some statistics collected by the Superintendent of Public Schools it appears that of 133,825 children in attendance 8,235 are taught in rented buildings and 6,109 only for half time, while 1,895 belong to two different classes that receive instructions in the same room. In commenting upon this aspect of affairs the Committee of Accommodations of the Association of School Directors points out not only that the renting of school-buildings is extravagant, but that such buildings are often poorly ventilated and otherwise unsuited for school-purposes. It is conservatively contended, from both hygienic and educational considerations, that the maximum number of pupils in a class should not exceed 45, and that it is most unwise to squeeze two classes in a single room. The statistics show that the average increase in the school-population in Philadelphia for the last six years has been 5,000; and scarcely a smaller number is being sent to school through compulsory-attendance legislation; there were, however, during the year 1898 some 12,000 children between the ages of 8 and 13 years not attending school. The remedy for these several evils consists in the appropriation of money sufficient to provide accommodation for all children not yet provided for, in whole or in part, assuring also suitable allowance and adequate provision for the average annual increase. The need is an urgent one and should not go unheeded. There are certain economies that are most expensive, and certain expenses that are most economical.

The value of vaccination has been disputed by the ignorant, without knowledge, and by the ignorant with knowledge. One is ignorant with all the knowledge in the world if his knowledge is made the blind tool of his prejudice. Of such are Tebb, and Wallace, and quite a number of other unscientific scientists. The essence of the contention of these men is that the lessening and almost extinction of smallpox consequent upon compulsory vaccination is a case *post hoc*, the true *propter hoc* being found in the general sanitary and hygienic progress. If this were admissible it would be necessary to show why typhoid, *e. g.*, has not decreased as has smallpox. But this cannot be done. It would also be necessary to show why the general hygienic progress has failed to lessen smallpox in countries with-



out compulsory vaccination in the same way as in countries with the preventive measure in full force. The statistics show that the eradication of the disease is precisely in proportion to the thoroughness of vaccination and revaccination. In our issue of December 17, 1898, we adduced a convincing proof of this fact. We give still another to-day. Our esteemed contemporary, *The Practitioner*, reproduces from the *Melbourne Argus* an object-lesson which is so effective that we are constrained to repeat it for the benefit of a number of recent inquirers who have written us.

An Injustice to the Medical Corps of the Army.—At the very time when the English medical profession, after years of effort, has obtained justice for its members in the army as regards rank and pay, our democratic America proposes to enact measures perpetuating to some extent the old-world indignities. We call especial attention to the letter of Dr. Kober, the president of the Medical Association of the District of Columbia, to Hon. Joseph R. Hawley, chairman of the Committee on Military Affairs of the Senate. It seems a strange but ancient injustice that the men who save should have less honor than those who destroy human lives. Why this distinction is made against the medical department is a psychologic puzzle. If we had a united profession which should bring its influence to bear upon legislators and administrative officers we are certain the indignity would not be long permitted. Dr. Kober writes us that letters concerning the proposed legislation may be addressed either to Hon. Joseph R. Hawley, Redfield Proctor, John A. T. Hull, or to Senators and Representatives of the States of the writers. The professional influence should be exercised.

The German Way.—We copy the following from the *Deutsche medicinische Wochenschrift* of December 1, 1898:

> "The Board of Health of Karlsruhe publishes the following announcement: 'A Doctor Hofbrückl in Munich, Bavaria-ring No. 33, styling himself a specialist for lung-diseases, recommends through advertisements in the press of Baden his long tried method for the cure of lung-disease in its early stages. Treatment can be obtained by mail if the symptoms are accurately described. Every one consulting Dr. Hofbrückl receives in addition to a few general directions as to diet, a bottle of a reddish fluorescent fluid. This fluid on chemic examination proved to be a reddish-colored, watery solution of creosote. On account of the illegal sale of this remedy, which can be obtained only from pharmacies, Dr. Hofbrückl was fined by the Royal Courts of Munich 100 marks, or ten days imprisonment. Dr. Hofbrückl charges for his creosote-solution, including advice, 8 mk. 85 pf. ($2.20), while the price of the drug is from 80 pf. to 1 mk. (20-25 cents). We call attention to the fact that the administration of creosote and similar preparations in pulmonary diseases is not a method peculiar to Dr. Hofbrückl nor invented by him, but is, on the other hand, for many years already in vogue in medical practice. We have also frequently pointed out that the custom of consultation by mail exclusively, because of its tendency to lead to error, is never employed by conscientious physicians. The public is therefore warned against consulting Dr. Hofbrückl.'"

It must be granted that *Salus populi suprema lex* is realized more strongly in Germany than anywhere else in the world.

Neglect of vaccination by physicians is an error which, judging from numerous reports, is becoming altogether too common. Some physicians, it is said, even advise questioning patients that there is no danger, and that revaccination and the vaccination of children may be postponed until the epidemic of smallpox is in progress. There is a double danger in this: The community is encouraged in an indifference to which it is already too prone, and made to indulge a belief in a serious error. When the prophylactic measure is so easily carried out and so harmless it is too dangerous to run the serious risk of exposure. One case of the real disease is more to be avoided than a thousand of the preventive measure, and no one can tell what day the exposure may occur, as is shown by daily experience, taking the whole country in view. Moreover, the advice of negligence encourages the people to disbelieve in the efficacy of vaccination as a real preventive, and stimulates the foolish prejudices of the antivaccination heretics. The indifference of the physician readily becomes opposition when translated into the popular language. What the profession care so little about must be a fad rather than a necessity. We think every practitioner should hold it a social as well as a professional obligation to urge his patients not to neglect a duty, the value of which the world has learned by bitter experience.

The Need of Additional Accommodations in Pennsylvania for the Insane.—As Governor Hastings has forcibly pointed out in his annual message, there is urgent need for added accommodations in the State of Pennsylvania for the insane. The heaviest demand comes from the chronic insane, and it is important to appreciate in its true and full significance the necessity for rigid separation of violent, acute, and hopeful cases from the quiet, chronic, and incurable ones. The former will require treatment analogous to that given to other forms of acute illness; while for the latter it will be wise, from both a therapeutic and hygienic point of view, to provide opportunity for physical activity, and especially in the open air. Nineteen years have elapsed since the opening of the last hospital in Pennsylvania, at Warren, for the accommodation of all classes of the insane, although the number of cases of insanity has steadily increased. As a consequence there is overcrowding, as well as inability to care properly for all of the cases. It is the duty of the State to provide for its indigent and chronic insane, while it is, besides, a true economy to restore to health and usefulness the curable victims of the acute disease. For hygienic and humanitarian, not less than for utilitarian reasons, it is the urgent duty of the Legislature to make early, ample, and adequate provision for a class of the community that most needs protection and is least able to help itself.

The Hospital Optician.—In order to do away with some things criticisable in reference to the supply of spectacles the managers of a large special hospital for diseases of the eye some time ago instituted a method seemingly the most ludicrous that could be devised. The patient that has been tested for glasses receives, not a prescription, but a slip of paper with a number on it. He has to take this ten blocks away to an optician who has secured a monoply of this work, gives his order and has the necessary measurements made. Upon a designated day he has to return to the hospital, receive his unadjusted and necessarily ill-fitting glasses, and pay for them. The optician has to get the prescriptions at the hospital, make the glasses, return them to the hospital, and then make still another trip for his money. This is a method of doing the mere business part of the affair worthy of a lot of little children playing housekeeping. But when by this flash-light illumination one gets a glimpse into the minds of the laymen who without professional advice and with charming naivete thus exposed their ideas of eye-strain and its cure, one first laughs heartily, and then ——— ! Nothing could be more admirably contrived to bring the hospital into disrepute, to make the optician's calling a farce, to disgust the conscientious physician, and to make ophthalmology the butt of ridicule of the bamboozled patients. Why should the prescribing refractionist take any pains to diagnose astigmatism accurately when there is to be no skilled adjustment of the spectacles? A misplaced astigmatic lens is worse, as we all know, than no lens at all. The result is that, instead of accurate work stimulated by the desire to afford the best teaching facilities, manifest optical defects are the only ones corrected, and the teaching-function of the hospital as regards refraction is utterly abrogated. Physicians under these sorry circumstances will soon learn to send their patients to other hospitals and dispensaries. The public, also, by this bouffe procedure, loses confidence in the doctor, the optician, and the hospital, and, more than all, unlearns the lessons as to the influence of eye-strain on the general health which for 25 years we have been so tirelessly teaching. Those who retain their faith or who have good advisers learn soon to shun the hospital that is managed by such medieval methods. We allude to it again, not in the hope of remedying the particular case illustrated, but to prevent the innocent elsewhere from any possible experiment of the kind.

Hygienic education by coercion has evidently been renounced by the English medical and legislative professions. The failure to carry out by legal compulsion the logical results of science as to vaccination is a sad lesson as to the reasonableness of large masses of individuals. The great majority of those who voted for the "conscience clause" in the last English Vaccination-Act, did so squarely against their own consciences. There must, therefore, have been insuperable difficulties in the execution of a proper law, or they would not have acted as they did. Upon this cue the National Association for the Prevention of Tuberculosis has made it clear that the policy of coercion has been utterly abandoned in the war against this disease. The people can not be compelled to protect themselves or their descendants from the scourge, however clear and effective may be the measures that would insure such protection. It is an old maxim that you cannot make men moral by Act of Parliament. The new maxim is now added, neither can you save their lives and health by Act of Parliament. Undoubtedly much may be said for this side of the question, and yet we are by no means convinced that it is true. It may be true as to morals, but we do not think it is so as to medicine. In every government approximating stability and civilization there are numberless legislative and governmental acts which prove that the scientific wisdom of the few must compel the sluggishness and end the insanitation of the many. Hardly any sanitary reform can be carried out except by governmental coercion, and when the vast majority of experts in the subject are agreed as to the advisability of compulsion, government should act in accordance with their advice. The minority of cranks and of the rebellious will always exist, and it is subversive of all justice that the minority should rule, especially when that minority is composed almost exclusively of the ignorant. In the case of tuberculosis, compulsion is by no means so advisable or necessary as in that of vaccination. One who is not convinced of the value and necessity of vaccination is beyond argument. He will never be reached by reason nor by a thousand conscience-clauses. The law should deal with his contumacy, and on the simple ground of the welfare of the whole people. In a case of this kind the claims of individual freedom and conscience—reaching as they do over upon and abrogating the freedom and conscience of others—must be at once thrown out of the count. They should be as resolutely disallowed as the freedom and right of killing another. The antivaccinator is a murderer, irresponsible perhaps, but all the more to be dealt with by the public because of his irresponsibility.

Municipal Gymnasiums.—The mayor of Boston is an advocate of the establishment of a public gymnasium in every ward in that city. The project has not met with as much favor as in the case of public baths, because, apparently, councilmen and the public at large have not yet opened their eyes to the fact that the expenditure of public money in a gymnasium may be a good municipal investment. The mayor, however, is doing something to educate public sentiment in the matter, and in a recent interview expressed some energetic opinions. He thinks that social science demonstrates that there is a close relationship between the lack of physical exercise and crime. An active interest in athletics, and the practice of them, tends doubtless to keep persons out of evil paths. It promotes an interest in, and a desire for, physical development and prowess with which the excesses of vice are incompatible. The mayor is convinced that there is nothing visionary in the proposition that the more money the community spends on gymnasiums the less it will have to spend on hospitals and jails. Putting the case merely on the basis of municipal economy, he claims that prevention is cheaper than cure, and that the study of the causes of social disorder is the sure way to lead to the discovery of remedies.

This is high ground upon which to discuss athletics, and while perhaps the mayor is a trifle optimistic in his economic views, he is evidently sound on the subject of physical culture. We have never doubted that the rational development of athletics in our colleges and universities is a potent influence for good morals and clean living; and we have made direct observations upon boys and young men, infused with the athletic spirit, and compared them mentally with what we remember of the preceding generation, and are convinced that a better regime exists at present in the sphere of personal habits. This is true, especially, we believe, with reference to the use of alcohol and tobacco; and, what is of first importance, with reference to the age at which such habits are assumed and become fixed.

What the mayor says about the evil influences which lead to crime, and the control—at least, in part—of such influences by physical culture, should have weight in aldermanic councils. In jails the disastrous effects of sloth and idleness are well known. They lead to disease, insanity and death. In the shiftless classes outside of jails—those that contribute the largest share of the criminal classes—these same evil influences are at work, especially in winter. Athletics, perhaps, would not only tend to give physical recreation and health, but would even supply motives and impulses that could not but be healthful in minds too vacant and unemployed to be either happy or useful.

School-hygiene.—An examination of over 1,000 children in the public schools of Buffalo, N. Y., has brought some startling facts to the attention of parents and educators concerning the effects of school-life on the eyes of children. The results show that defective school-furniture and bad light produce their quota of imperfect vision. For instance, in the primary classes the percentage of those nearsighted, or whose eyes are otherwise imperfect, is exceedingly small, but the percentage increases in an almost constant ratio with the advancing school-years, so that by the time young men or women are graduated from the High School, 19.7% are nearsighted or have eyes otherwise defective. In other words, it is impossible to have five children finish the prescribed course without sending one of them out with imperfect vision. The production of nearsightedness is undoubtedly due to: 1. An ill-adjusted desk or seat. The desk must be at a suitable distance from the seat, and the seat of a certain height, preferably the same as the height of the knee. In this way the pupil is enabled to sit upright. 2. The light may be imperfect, requiring the pupil to place his head near his work; or 3. The light may come from the wrong direction, if from the front causing a glare, or if from the right side causing the hand to shade what is being written. If there exists a tendency to astigmatism, to amblyopia from strabismus, or to any similar disease, this is likely to be aggravated if it passes without correction in early life. Contagious diseases of the eyes are frequently propagated in schools where, with utter disregard of hygiene, roller-towels are still allowed. Children should be required to wash at home.

Realizing the increasing dangers which must necessarily result from such a state of affairs, the medical fraternity of Buffalo has decided upon active measures to minimize the evil. The Superintendent of Education has promised to dispense entirely with the few stray roller-towels, and an active movement has been begun to have at least one row of adjustable desks in each school-room. The question of proper light is frequently a difficult one, especially in old school-buildings constructed without proper regard to light or hygiene; but in new buildings it should be an easy matter to arrange.

Frequent examinations of the pupils' eyes, or at least once annually, should be made in every school throughout the country. These can be made by any teacher, and do not require any especial knowledge in that direction. An intelligent, up-to-date teacher can easily detect imperfect vision, and in every case the parents should be notified and requested to see their family-physician as to consulting an oculist. Proper attention to these matters will undoubtedly cause the next generation to suffer less and to have better vision than the present one.

The case of destitute children is a subject of such profound sociologic importance that we need make no apology for at least a brief reference to the work of the New York State Charities' Aid Association as described in its 26th annual report just issued. It appears that from 1875 to 1894 there was a steady increase in the census of children's institutions in the boroughs of Manhattan and Bronx receiving public funds, a steady decrease from 1894 to 1896, and a slight increase in

1897. Corresponding changes have taken place also in the State at large. In 26 institutions for the care of destitute, neglected or wayward children (not including hospitals) receiving pecuniary aid from the city the number of inmates increased from 14,550, in 1890, to 16,858 in 1894; decreased in 1895 to 16,133, and in 1896 to 15,407; and again increased in 1897 to 15,501. It is estimated that upward of $250,000 per annum have been saved as a result of this reduction, which is attributable to the provisions of the revised constitution, the rules adopted by the State Board of Charities under these provisions, the work of the inspectors of that board, and the employment of a staff of examiners of children by the Department of Public Charities, to investigate the circumstances of the parents of children supported by the public, at the time of the proposed commitment, and at intervals thereafter. Increased effort is to be devoted on the part of the Aid Association to restrain admissions and to stimulate the discharge of those who cease to be public charges; and if it proves impossible to secure reasonable control over the grants to private institutions as a class, so as to make the public aid truly beneficent in its results, it is proposed to support public charges in public institutions, under the management of public officials, the subjects of private charity in private institutions receiving no public aid. Not the least important work of the Association consists in its cooperation with various institutions to secure desirable homes for such children as have become the wards of the community or of the State. Real charity seeks to help the weak and the fallen and the destitute and the sick to self-dependence and to useful citizenship.

An atrocious scheme has been brought to our notice, consisting in the offer to physicians of shares of stock in a manufacturing company, the payment for the same to be made from the dividends of the company, the physician binding himself to prescribe the pharmaceutical products of the manufacturing company. It would seem unnecessary to warn physicians against such a pernicious practice. One is astounded every day at the diabolic ingenuity constantly expended in the exploitation of the profession. Does it pay?

Editor and Reader: No. 11. "Sight Unseen."—From the large number of inquiries received it is evident that a great many physicians do not quite understand that before accepting an article an editor must see it. It would save the writing of two letters if, instead of asking whether we wish to publish an article upon a given subject, you would simply send the manuscript itself with a note containing the address to which it may be returned if not accepted. This last item is much more important than is frequently supposed. The number of letters received absolutely without postoffice heading, or without the signature of the writer, sometimes without both, is remarkable. Unnecessary trouble and anger are the inevitable results on one side or the other.

Every subscriber to this Journal is requested to send us the names and addresses of at least two physician-friends who are not subscribers. This is one practical way to aid us. In addition to this we trust you will write these friends a personal request to examine the sample copies we shall send to them, with a view of subscribing. We believe that we are giving more and better medical literature for the money than can be had elsewhere. If this is so it is your friend's misfortune if he fails to become a reader of our Journal.

Reviews.

Diseases of Women. A text-book for students and practitioners. By J. C. Webster, B.A., M.D. Edin., F.R.C.P. Edin., Demonstrator of Gynecology, McGill University, etc. Illustrated with 241 figures. 8vo. Pp. 688. Edinburgh and London: Young J. Pentland, 1898.

The many and useful contributions that have appeared within the past few years from the pen of this gifted author, naturally lead one to look with considerable interest into the subject-matter of this, his latest and largest work. A careful perusal of the book shows that the deepest thought has been employed in its preparation. The natural trend of the author in the line of macroscopic and microscopic pathology of the female generative organs is amply demonstrated in the comprehensive manner in which he deals with these more intricate and necessarily more modern subjects. Especially is this true of the sections on malignant deciduoma, extra-uterine pregnancy, and the development of the organs of generation. We regret that a work of so much value is marred by the insertion of obsolete and dangerous suggestions, such as the use of tents for cervical dilatation. We also note that in some parts of the book the arrangement partakes rather of the nature of a compilation than of a critical and editorial dissertation. Tuberculosis of the female generative organs is treated in accordance with the latest views upon that subject. On the whole the book is a commendable addition to modern gynecology, and must enhance the author's well-merited reputation for scientific accuracy and thoughtful investigation.

Ocular Therapeutics for Physicians and Students. By F. W. Max Ohlemann, M.D. Translated and edited by Charles A. Oliver, A.M., M.D. 274 pages. Philadelphia: P. Blakiston's Son & Co., 1899. Price, $1.75.

This translation of Ohlemann's formulary of ocular therapy, which appeared 3 years ago, is timely, for there has been nothing of the kind accessible since the English edition of De Wecker's ocular therapeutics, and the advance along these particular lines since that time has paved the way for something more up to date. This need is met in Ohlemann's book, which, under the editorial supervision of Dr. Charles A. Oliver, has been rendered into acceptable English without doing violence anywhere to the German author's views. Information as to most of the remedies used in ophthalmology is so scattered through an over-abundant, and ofttimes inaccessible, literature that it is time that such reports be so brought together as to afford opportunity of becoming familiar with the methods of treatment in vogue, at home and abroad. The resulting work is a simple straightforward one that should prove very useful to the student and practitioner. It is interesting to note that "tannin is rarely employed" in Germany, a statement that will not hold true for America, where, as a 20 to 40% glycerite, it is highly esteemed by many. Moreover, the assertion (made on pages 50, 51, and 53) that "scopolamin does not increase the intraocular tension" is dangerous teaching. Scopolamin is not only prominent among the mydriatic alkaloids, but is, according to our experience, a patent cycloplegic sharing fully with its congeners their tension-raising proclivities—hence the danger. Aside from this, there can be only praise for the volume. The English editor is to be congratulated on the cooperation of a publisher who makes good books.

An American Text-Book of the Diseases of Children. Including Special Chapters on Essential Surgical Subjects: Orthopedics; Diseases of the Eye, Ear, Nose, and Throat; Diseases of the Skin; and on the Diet, Hygiene, and General Management of Children, by American Teachers. Edited by Louis Starr, M.D., assisted by Thompson S. Westcott, M.D. Second edition, revised. Pp. 1244. Philadelphia: W. B. Saunders, 1898. Price: Cloth, $7; half morocco, $8. For sale by subscription only.

The second edition of this admirable textbook comes to us with many points for commendation. In order to keep pace with the rapid advances in the field of pediatrics and to round into a more perfect treatise the work so well done by the various contributors, most of whom labored entirely independently of one another, the entire subject-matter has been carefully revised, and some of the articles have been written anew, while others have been added. Among the latter should be mentioned those on Modified Milk and Percentage Milk-Mixtures, Lithemia, and a section on Orthopedics. The articles that have been rewritten include those on Typhoid Fever, Rubella, Chickenpox, Tuberculous Meningitis, Hydrocephalus, and Scurvy. The articles on Infant-Feeding, Measles, Diphtheria, and Cretinism, have all been thoroughly modernized, and altogether about 50 pages of fresh material have been added. The plates and illustrations throughout the work are most attractive. There is much to commend and but little to criticise. We do feel, however, that in these days of revisions and improvements the accepted modern terminology and orthography should be recognized by a work of such importance as this. The elimination of the diphthong in purely anglicized words, is, in this country at least, accepted as a marked improvement in the simplification of the language. We also fail to see the general employment of the more scientific and accurate metric system in preference to the old and irregular systems of weights and measures. Aside from these considerations, which may be considered matters of taste merely, the book is all that could be desired, and amply fulfils the purposes for which it was written.

An American Text-Book of Gynecology, Medical and Surgical, for Practitioners and Students. By Henry T. Byford, J. M. Baldy, E. B. Cragin, J. H. Etheridge, William Goodell, Howard A. Kelly, Flenan Krug, E. E. Montgomery, William R. Pryor, George M. Tuttle. Edited by J. M. Baldy, M.D. Second edition, revised, with 341 illustrations in the text, and 38 colored and half-tone plates. 8vo, pp. 718. Philadelphia: W. B. Saunders, 1898. Price: Cloth, $6; sheep or half morocco, $7. For sale by subscription.

The system of American textbooks has attracted the favorable commendation of the medical world from the appearance of the first volume to the present time. It is needless to say that works of such a nature, the product of many hands and brains, must necessarily exhibit a certain degree of overlapping of material and contrariety of views upon important subjects, and in so far suffer when brought into comparison with similar works of a single mind. Under the able editorial direction that has characterized these American textbooks, however, this defect has been largely corrected, and, as in the present instance, a monumental work is produced that is a delight to the reader and a credit to the editor and the publisher. The second edition of this magnificent volume is a great improvement upon its predecessor in many respects. Several new chapters have been added, notably upon operative technic and after-treatment of gynecologic operations—the field in which there has been the greatest diversity of opinion and the greatest conflict of opinions. A mere rehearsal of the names of the authorities interested in the preparation of the book, together with the great demand for a revisal of the work, is ample proof, if such be needed, of its popularity and the evident want that it has ably filled. The book has been adopted as a textbook and book of reference in most of the best colleges of the country, and it has met with a most gratifying reception from across the seas. The magnificent mechanical construction of the volume is to be especially commended. The type is clear, the illustrations (many of which are new) are artistic and instructive, and the paper and binding all that could be desired. It is needless to say that the book is an essential addition to the library of the gynecologist and abdominal surgeon.

The Rôle of the Salivary Ferment in Digestion. [Le Rôle du Ferment Salivaire dans la Digestion.] By Dr. Godart-Danhieux. Extract from the annual publication by the Royal Society of Medical and Natural Sciences of Brussels. Pp. 128. Brussels: Hayes, 1898.

This monograph contains a very valuable bibliography of the work pertaining to salivary digestion. The author reviews the literature relative to the salivary ferment and its action upon the starches, the importance of buccal digestion, and the intragastric salivary digestion. He then details the results of his own experimental work. This is in close accord with that of other experimenters. The salivary diastase in a slightly alkaline or neutral medium possesses an amylolytic action very powerful and rapid. It transforms starch into a disaccharid, isomeric with cane-sugar, namely, maltose. The stages of this transformation are as follows: The starch becomes soluble under the form of amidulin. This transforms itself into erythrodextrin and finally into achroodextrin and maltose. In the absence of proteid materials the presence of hydrochloric acid in the proportion of 0.03 to 0.05% retards the transformation, and destroys the action of the ferment when the proportion of acid present reaches 0.15%. A very small quantity of the acid does not act as an obstacle to the action of the ptyalin. In the normal digestion the retarding action of the acid is shown by the presence of an appreciable quantity of erythrodextrin. Normally the intermediary phases are prolonged by the admixture of the saliva with the gastric juice. Lactic acid he finds possesses an action exactly analogous to, but less powerful than, that of hydrochloric acid. The acidity of the gastric juice in the middle of the digestive period is five to ten times superior to the quantity of hydrochloric acid capable of destroying totally the action of the salivary ferment. It follows, therefore, that this ferment is very quickly destroyed in the stomach. However, when proteid materials are added to the dilute acid the action of ptyalin is maintained with a greater energy than in the absence of these materials. Under these conditions an acidity of 0.5% is not sufficient to destroy the production of erythrodextrin. It follows, therefore, that the hydrochloric acid in conditions where it is secreted by the stomach in proportions in which it normally exists exercises only a retarding influence upon starch-reduction. The time of appearance of free hydrochloric acid in the stomach varies with the individual, in the normal state, and with the kind of food ingested. Proteid materials retard its appearance. The time between ingestion of food and the appearance of a quantity of hydrochloric acid, free or combined with a proteid material, capable of completely destroying the salivary ferment, varies with the rapidity of the production of the acid. In hypochlorhydria the transformation of the starch-material is almost complete in the stomach. It is decidedly retarded in hyperchlorhydria. These facts should be considered in directing the diet for the various functional digestive disturbances.

The Position of the Promontory of the Sacrum as Shown by Frozen Sections.—Barbour (*Scottish Medical and Surgical Journal*, October, 1898) has made a study of 14 frozen sections of the cadaver to ascertain the relative position of the sacral promontory. He concludes that the position of the promontory is variable, being affected not only by the posture, but by the build of the individual pelvis, which determines the set of the brim. In studying the promontory in frozen sections, it can be analyzed into two measurements, one representing the height at which it stands above the symphysis, and the other the distance that it stands back from this. There is another factor, besides the length of the conjugate diameter, which affects the position of the promontory. Hence the length of the conjugate cannot be determined from the position of the promontory for a given posture alone. [W.K.]

Correspondence.

TUBERCULOSIS OR CONSUMPTION?

To the Editor of the Philadelphia Medical Journal :—

Your "Suggestion to Writers: No. 19," in the Journal for January 7 leads me to venture a criticism. You say that "such terms as consumption and phthisis should be replaced by a specific designation such as tuberculosis when this is really meant, or other word that describes the disease present in so far as this is determinable." The suggestion is not new, and I am inclined to think it has failed of general acceptance hitherto because it does not meet the case. It was often advanced about the time the tubercle-bacillus became generally known and when the relation of the bacillus to disease was thought to be much simpler than is now believed. To many clinicians and pathologists the terms "consumption" and "phthisis" call up anatomical and clinical pictures in which tuberculosis of the lung is only a part—a most important part, I grant. Most of those who use the terms believe the diseases so named are primarily and largely tuberculous, and admit that, according to the rule "a potiori fit denominatio," examples might be spoken of as cases of tuberculosis, but doubt that by so doing there would be a real gain in accuracy. Must we not add "pulmonary," then "chronic," and even then do we get a better mental picture than before, something in short to indicate "phthisis," not only of the lungs but of other parts? It seems to me you recently had an example of the difficulty I allude to. In an article you changed the words "post-influenza consumption" to "lung-disease following influenza." This was obviously not very clear, and it was impossible to say "tuberculosis," because the whole question would then be begged. Evidently "consumption" or "phthisis" would have been very useful, or the new word that you hint at, but do not give.

You also think the layman is misled by such words as "consumption," but inasmuch as the profession is not united on the pathology of tuberculosis, or on the conventional use of "tuberculous" and "tubercular," how can such words make the subject clearer to the layman?

Yours truly,
George Dock, M.D.

Ann Arbor, Mich.

AN INEXPENSIVE AND EFFECTIVE STERILIZING APPARATUS.

To the Editor of the Philadelphia Medical Journal :—

I submit the following suggestion for improvising an inexpensive, convenient and perfect sterilizer. There are many sterilizers offered by different manufacturers. All are patented, some are expensive, and some are complicated and bulky, while none is more effective than the little device that I have improvised in my office at a cost of less than 50 cents. My device consists of three ordinary tin pans, such as can be bought of any dealer in tinware. One of these measures 11 inches across the bottom and 13 inches across the top and has a depth of 3 inches. This is the water-pan and is intended to be filled to the depth of an inch or two with water and placed on a stove or range, or oil-lamp, or gas-lamp. The other two pans are somewhat larger and of equal size, measuring 12 inches across the bottom and 14 across the top and 3 inches deep. The bottom of one of the larger pans is perforated by numerous openings ¼ inch in diameter. This pan fits into the smaller pan, but does not touch the water. In this perforated pan are placed instruments or whatever is to be sterilized, and over all is inverted the other larger pan, the two being keyed together by means of clasps that are hinged to one of the pans. The water in the smaller pan is made to boil and at once the other two are filled with steam, and in a short time effectual sterilization is accomplished of anything that it is desirable to sterilize by steam. When not in use the pans can be nested together and put in the buggy and taken to any private house, where they can be placed on any ordinary cooking-range. During operations they are convenient containers for instruments, sponges, towels, gauze, etc. As stated, the cost is trifling, and the whole apparatus can be improvised in any village in 15 or 20 minutes. The broad surface of the lower or water-pan permits the water to boil in the shortest possible time, and complete sterilization can thus be accomplished with the smallest amount of delay.

Respectfully,
J. T. Clegg, M.D.

Siloam Springs, Ark.

THE PROPOSED LEGISLATION AS REGARDS THE MEDICAL CORPS OF THE UNITED STATES ARMY.

Hon. Joseph R. Hawley,
Chairman on Military Affairs, U. S. Senate.

Dear Sir :—Permit me to call attention to what appears to me a great injustice to members of the Medical Corps of the United States Army.

Upon comparing Section 11 of Mr. Hull's Bill, No. 11022, with the provisions made for the increase of other staff corps, it will be found that only 2% of the personnel of the medical corps will have the rank of colonel, while 8.3% of the other staff corps will enjoy the rank and pay of colonel.

This discrimination against the members of a learned profession seems especially unfair when we consider that medical officers, after spending thousands of dollars upon their education, are appointed only after a most rigid examination into their moral, physical and professional qualifications, while the majority of the officers of other staff corps have been educated at the expense of the Government, at West Point.

Should Mr. Hull's bill become a law, very few medical officers can hope to attain the rank and pay of a colonel with an income of about $4,500 per annum.

In looking over an Army Register of 1865, I find the names of Asst. Surgeons Clinton Wagner, H. R. Silliman, E. J. Marsh, M. J. Ash, Wm. Thomson, P. S. Connor, Ed. S. Dunster, Robert F. Weir, John W. S. Gouley, who if they had remained in the service would now have the rank of colonel and lieut. colonel, whereas their present income exceeds in many instances $15,000 per annum.

I have been connected with the Army as Contract Surgeon, and can testify to the high professional attainments of our Medical Officers. I can only believe that the discrimination in Mr. Hull's bill is wholly inadvertent, but if it be the result of prejudice created by the criticism of a sensational press, I submit, that the Army Medical Department during the recent Spanish-American War has in no sense disappointed the expectations of competent critics and in every way maintained the proud distinction accorded to the Medical Staff of the Civil War by Prof. Virchow, in an Oration delivered before the Army Medical School at Berlin in 1874.

We ought not to judge the efficiency of the medical corps by a few isolated cases of suffering and distress incident to the exigencies of war or due to the neglect of some individuals; but should estimate the work by the grand total accomplished.

During the Crimean War, for example (according to Prof. Virchow), the French Army lost one man out of three of the whole army, and of 95,613 lives lost, only 10,240 were killed, about as many died of wounds, while the remainder, more than 75,000, died of disease. During the Civil War the total deaths in the Union Army numbered 359,496, or over 15% of the entire number of enlistments. Of this number 224,-586, or nearly two-thirds, died from disease, while only 134,-910 were killed in battle or died from wounds. Up to the present time our losses during the Spanish-American War, in spite of the unfavorable climatic conditions, are less than 2%. Due allowances should, of course, be made for the comparative short duration of the recent war, but Deputy Surgeon-General Smart, in comparing the mortality during the *first five months* of these two wars, finds that there were 17.31 deaths out of every 1,000 men during the Civil War, and only 10.21 deaths out of every 1,000 men during the Spanish-American War.

Attempts have also been made by a prejudiced press to institute comparisons between the labors of our Army Medical Department and those of the British forces in India and the Soudan, but even here, careful analysis of the facts reflects the highest credit upon the forethought, zeal and achievements of our own medical department, and conclusively shows that not even Great Britain can boast of a more efficient corps.

An editorial in the *Journal of the American Medical Association*, December 10, 1898, based upon an official report, informs us that from June 19, 1897, to April 6, 1898, among the troops engaged with the hostile tribes in India, aggregating 18,688 British officers and men, 41,677 native officers and men and 32,696 followers, or a total of 93,061, there were 41,-055 men admitted to sick report, and 1,602 deaths, or a rate of 17.20 per thousand of the strength.

Speaking of General Kitchener's campaign, the editorial quotes from the *British Medical Journal* of October 22, "that sickness has been fearful among the English Soudan troops, although the papers, save the *Chronicle*, say little or nothing about it;" and the same journal of October 29 refers to the fact that since the return of the first battalion of the Grenadier Guards to England, typhoid cases have been abundant; 160 men altogether were in the hospital; many of them well-marked typhoid cases.

The editorial continues: "Assuming that the battalion comprised some 800 to 1000 men—rather less than more after a campaign—this would make a formidable percentage, fully equalling that of some of our green volunteer regiments on their return from Cuba, where they had the special disorders of malaria and yellow fever also to combat. On the basis of these statements, it would appear probable that typhoid fever was even a greater scourge to the British troops in the Soudan than to our own forces in the training camps and the West Indies."

The writer expresses the hope that you will prevent a most unjust discrimination between officers of Staff Corps, charged with the correspondence and supply departments of an army, and those entrusted with the highest professional duties in life.

Without wishing to make any invidious comparisons, it seems to me, that had our troops been provided with food and clothing suitable for climate and seasons, the labors of the Medical Department in the field of preventive medicine would have been infinitely more successful. In my opinion improper food and the want of competent army cooks contribute more than any one factor to the morbidity of troops. Man lives not upon what he eats, but upon what he digests; badly cooked and improper food is not assimilated and therefore not only lowers the vital powers, but also prepares a suitable soil for the proliferation of disease-germs. It cannot be expected that every soldier will make a good cook; and, as wholesome food, pure air and water are of vital importance, the employment of trained army cooks would prove in the highest degree good economy for the Government. The Medical Department recommended the establishment of Army Cooking Schools in 1874 or 1875, but it cannot enforce such recommendations, and it seems proper that the powers of the Surgeon-General should be enlarged by Congressional legislation, and made independent of the Quartermaster's Department.

In conclusion, I beg to invite your attention to the fact, that while the numerical strength of the medical corps is increased considerably, the number of trained medical officers will be wholly inadequate in a war of any proportion and duration, since it requires about 2 medical officers for every 100 fighting men.

An effort will be made to induce our medical colleges to establish a course on military surgery and sanitation, but in order to supplement this theoretic instruction by practical experience, legislation should be had to enable respectable medical colleges to recommend to the Surgeon-General a certain number of qualified students for admission to the army medical school.

Upon completion of their course, those passing the most creditable examination might be chosen to fill vacancies in the regular corps, while the remainder should be appointed additional assistant surgeons or contract surgeons for a term of two years, at the expiration of which they should return to civil life obligated to render service whenever the exigencies of war require it.

The advantage of this plan would be the creation of a strong reserve, whose special training would be invaluable not only to State troops, but to the nation in peace as well as in war.

Respectfully,
Geo. M. Kober,
President Medical Association,
District of Columbia.

1819 Q St., N. W.,
Washington, D. C.,
Jan. 12, 1899.

CONTAGION; ITS MEANING AND ITS LIMITATIONS.

To the Editor of the Philadelphia Medical Journal:—

There is perhaps no question in medicine upon which the profession is so much at sea as that of contagion. There has been so much quibbling about the meaning of the word "contagious," and so many hairsplitting distinctions made between it and the word "infectious," that the general reader of medical literature has become bewildered and is really at a loss to know, when he encounters the words, what is actually meant by them. It may be well, therefore, to again take soundings upon the entire subject and to seek the channels of thought that can be used by all of us so as to bring our observations within reach of common intelligence.

The word contagion is derived from the Latin word contingere, which means to be in contact with, to touch. As applied to diseases it conveys the idea of communicability by contact, from one person to another, from a human being to an animal, from an animal to a human being, or from one animal to another. The communicability must be by contact, direct or indirect, and consequently the environment under which communicability becomes operative must be circumscribed. The *Century Dictionary* defines the word as follows:

> First, infectious contact or communication; specifically and commonly the communication of disease from one person or brute to another. A distinction between contagion and infection is sometimes adopted, the former being limited to the transmission of a disease by actual contact of the diseased part with a healthy absorbent or abraded surface, and the latter to transmission through the atmosphere by floating germs or miasmata. There are, however, cases of transmission which do not fall under either of these divisions and there are some which fall under both. In common use no precise discrimination of the words is attempted.

Webster, in defining the word "contagion," quotes from Dunglison, as follows:

> "The act or process of transmitting a disease from one person to another by direct or indirect contact."

For a second definition he gives:

> "That which serves as a medium or agency to transmit disease; pestilential influence."

In illustration of this meaning he quotes from Shakespeare the following lines:

> "And will he steal out of his wholesome bed to dare the vile contagion of the night?"

In his definition of the word "contagious" he says:

> "1. (Med.) Communicable by contact; catching; as a *contagious disease.* 2. Containing or generating contagion; pestilential; as *contagious air.* 3. Spreading or communicable from one to another."

Under synonyms he gives:

> "Contagious, infectious. These words have been used in very diverse senses; but in general a contagious disease has been considered as one which is caught from another by contact, by the breath, by bodily effluvia and so on; while an infectious disease supposes some entirely different cause acting by a hidden influence like the miasma of prison-ships, of marshes, etc., *infecting* the system with disease. This distinction, though not universally admitted by medical men as to the literal meaning of the words, certainly applies to them in their figurative use. Thus we speak of the *contagious* influence of evil associates; the *contagion* of bad example; the *contagion* of fear, etc., when we refer to transmission by proximity or contact. On the other hand, we speak of *infection* by bad principles, etc., when we consider anything as diffused abroad by some hidden influence."

Gould, in his *Medical Dictionary*, defines "contagion" as

> "The process by which a specific disease is communicated between persons, either by direct contact or by means of an intermediate agent."

"Infection" he defines as

> "The communication of disease-germs or virus, by any means, direct or indirect."

Thomas's *Medical Dictionary* gives the definition of "contagion" as

> "The communication of a disease by contact, or by inhaling the effluvia from one already affected; often used as synonymous with infection."

"Infection," he defines as

> "The communication of a disease by personal contact with the sick or by means of effluvia arising from the body of the sick, contagion. The transmission of disease from one individual to another of a different class. The term is sometimes used as synonymous with the contagion, or agent by which a communicable disease is conveyed."

The word "infectious" he defines as

> "Contagious; corrupting; that may be easily communicated; capable of transmitting disease; applied to diseases that are capable of transmission from one person to another by contact or by being conveyed through the atmosphere."

The word contagious he defines as

> "A term applied to diseases which are spread by contagion or communicated."

In Dunglison's *Medical Dictionary* the word "contagion" is defined as

> "Transmission of a disease from one person to another by direct or indirect contact. Also, at one time applied to action of miasmata arising from dead animal and vegetable matter, bogs, fens, etc. Contagious diseases are produced either by virus or contagion, capable of causing them by inoculation, as in smallpox, cowpox, hydrophobia, syphilis, etc., or by miasmata, proceeding from a sick individual, as in plague, typhus gravior, measles, etc. Contagion and infection are generally esteemed synonymous. Frequently, however, the former is applied to diseases not produced by contact, as measles, etc., while infection is used for those that require positive contact, as itch, syphilis, etc. Diseases which are only produced by contagion, are said to have their origin in specific contagion, as smallpox, cowpox, syphilis, etc. Those produced by contagion, and yet supposed to be sometimes owing to other causes, are said to arise from common contagion, as typhus, cynanche parotidaea, etc."

The definitions given in the dictionaries are somewhat obscure and savor of oldtime ideas about the etiology of disease. All, however, agree on certain points, namely: (1) That the word "contagion" has a broader meaning than the word "infection": and (2) that the words "contagion" and "infection" may be used synonymously. In current literature we frequently find the position of the two words reversed and a limited meaning given to the word "contagion" and a broad meaning to the word "infection."

The word "infection" is derived from the two Latin words in and facere, which mean to carry in something, to make in something. As originally applied, the word meant the carrying of disease from one person to another by a force extraneous to both the disease and the persons giving and receiving the disease. It was principally used to convey the thought that diseases which had their source in miasmatic conditions were wafted by the air and thus communicated to all persons breathing that air; for example, as malaria was carried by the wind from swamps. It had a shade of meaning that well suited certain diseases to which the word "contagious" could not properly be applied.

In the light of the germ-theory of disease we are in a much better position to formulate a clear-cut idea of what is meant by "contagion" and wherein it differs from "infection"; and, oddly enough, we see by it that the key to the true application of the words is to be found in their literal meaning and original application.

Synonymous with "contagion" and "infection," in the adjectival form, are the words "communicable" and "catching." These are generic terms and convey the broad idea of communicability, without any qualification as to method or process by which the end is accomplished. "Contagion" and "infection" are specific terms and convey modified ideas of communicability, each peculiar to itself. "Contagion" conveys the idea of communicability by contact, direct or indirect; the chain of communication between the person giving the disease and the person receiving it being unbroken. "Infection" conveys the idea of communicability through an intermediate agency outside of both the person who gives the disease and the person to whom the disease is conveyed.

The essential features of a contagious disease are: (1) A living organism the parasitic existence of which in a human being or animal constitutes disease; (2) the communicability of that organism from one human being to another, from a human being to an animal, from an animal to a human being or from one animal to another; (3) immediate or mediate contact between a person or animal suffering from the disease and a person or animal free from it; (4) a limited environment under which communicability is operative.

The essential features of an infectious disease are: (1) A living organism the parasitic existence of which in a human being or animal creates disease: (2) the communicability of that organism to human beings and animals; (3) an intermediate agency through which communicability between two hosts or from a non-parasitic habitat to a host can be established.

The difference between the ideas of contagion and infection are: (1) That in contagion the chain of contact between the person giving off the disease and the person receiving it must be complete and unbroken; while in infection the chain of contact must be broken by an intermediate agency; (2) that in contagion the environment under which communicability is operative is limited, while in infection the environment under which communicability is operative, is general.

It is true that in contagion the contact may be mediate, that is through fomites; and that fomites in a sense constitute an intermediate agency; but fomites differ on important points from the intermediate agencies of infection. The intermediate agencies of infection are usually earth, air, or water. Fomites cannot become a soil for the reproduction of organisms that produce contagious diseases, and have no inherent power of transferring them from one host to another; they can only give them shelter until some extraneous force conveys them into the proximity of a prospective host or until chance brings such a host into their vicinity. The intermediate agencies of infection can on the other hand become a soil for the reproduction of the organisms that give rise to infectious diseases, and may possess inherent forces with which to convey such organisms to prospective hosts.

In the category of contagious diseases I would place smallpox, measles, scarlet fever, roseola, influenza, "colds" of various kinds, tonsillitis, chickenpox, whooping-cough, mumps, typhus fever, diphtheria, plague, tuberculosis, leprosy, syphilis, erysipelas, glanders, gonorrhea, septicemia, parasitic skin-diseases, and contagious conjunctivitis. In the category of infectious diseases I would place cholera, typhoid fever, the malarial fevers, yellow fever, dengue, tetanus, enteric parasitic diseases, and possibly pneumonia and carcinoma.

That all of the diseases here enumerated are communicable can scarcely be doubted in the present light of medical science. It has not yet been demonstrated that a living organism is the active and essential cause in all, but we can deduce by analogy, from those in which a living organism has been found to be the active cause to those in which no organism has as yet been identified as the active cause, that a living organism must be the active and essential cause in all. Smallpox, measles, scarlet fever, roseola, chicken-pox, whooping-cough, mumps, typhus fever, plague, syphilis, erysipelas, glanders, yellow fever, dengue, and contagious conjunctivitis are admittedly communicable on clinical evidence alone. In tuberculosis, diphtheria, gonorrhea, septicemia, cholera, typhoid fever, malarial fevers, enteric parasitic diseases, and parasitic skin-diseases the organisms that produce the diseases have undoubtedly been identified; and some of them likewise are admittedly contagious on clinical evidence.

A living organism as an active cause having been discovered in these latter, it may be logically assumed that a similar living organism as an active cause must exist in the others. Like causes produce like effects and like effects must have like causes. Pursuing this line of thought to its logical conclusion we arrive at the proposition that communicability is predicated upon life and that all diseases that are found to be due to a living organism are consequently communicable.

What can thus be reasoned out has already been worked out in detail in the laboratory. In diphtheria and tuberculosis not only have the organisms that give rise to these diseases been discovered, but every step in the process of communicability has been demonstrated. In one of these, diphtheria, the clinical evidence has been in favor of communicability; in the other, tuberculosis, the clinical evidence has generally been against communicability. In both, however, the same fundamental law has been found to exist; namely, that they are due to living organisms and that these organisms are communicated from one host to another under certain well-fixed laws and conditions. It is from the knowledge that we have gathered in the laboratory with regard to tuberculosis and other diseases, together with the clinical knowledge that we possess concerning them, that we are justified in placing those diseases in the class of communicable diseases which have not yet been demonstrated to belong there either at the bedside or in the laboratory.

Into which category a communicable disease should be placed, whether that of a contagious disease or an infectious one, must for the present remain to a great degree a matter of conjecture. When the organisms that give rise to the different diseases have all been identified and their life-histories studied, this differentiation will be possible with mathematical accuracy. For the present the order in which I have placed the communicable diseases seems to me to correctly represent our knowledge concerning them as gleaned at the bedside and in the laboratory.

Smallpox is a typically contagious disease; malarial fevers are typically infectious diseases. Between these there are shadings in both directions. If we bear in mind, however, the essential features of the types, and the difference between them, we cannot go far astray in placing all communicable diseases where they belong. I have placed pneumonia and carcinoma among the infectious diseases, rather than among the contagious, for the reason that the environments under which their communicability is operative seems to be general rather than circumscribed. When pneumonia is prevalent in a community it seems to strike people down in all quarters, irrespective of contact; and carcinoma seems to be distributed evenly among all classes and in all parts of a community.

A most important point in the question of contagion is that of limitation. While there are certain laws to which all contagious diseases subscribe, every contagious disease has laws to which it alone is amenable. These laws are dependent upon idiosyncrasies of the organisms giving rise to the diseases and upon the soil that the organisms require for their development and the completion of their cycles of life. For example, smallpox and tuberculosis are both contagious diseases, and conform in all points with the essential features of a contagious disease; but they differ materially in the intensity of their contagion. The organism that gives rise to smallpox finds a congenial soil readily, runs through its cycle of life quickly and exhausts the soil upon which it feeds in a brief period of time. The organism that gives rise to tuberculosis, however, is implanted with considerable difficulty, runs through its cycle of life more slowly and exhausts the soil upon which it feeds most tardily. The organism that gives rise to smallpox escapes from its host almost immediately after the development of the disease and goes out in profuse numbers from every part of the body; while the organism that gives rise to tuberculosis does not escape from its host until the disease has been in progress for a long time, and it escapes by a single avenue. In smallpox the deciduous organism is at once set free in the atmosphere surrounding the host, polluting it and making it intensely infectious, whilst in tuberculosis the deciduous organism is protected by broken-down tissue with which it has to be carried into a new host, and, therefore, it cannot pollute the atmosphere around the host to a very intense degree. The difference in the intensity of contagion between smallpox and tuberculosis is, therefore, great, and the phenomena by which contagion manifests itself are quite different. The essential features of a contagious disease, however, exist in both and are identically the same. In both we have a living organism, the parasitic existence of which gives rise to the specific disease; in both we have communicability of that organism; in both contact, direct or indirect, is essential to communicability; and in both the environment under which communicability is operative is limited.

What is true of smallpox and tuberculosis in regard to individuality of contagion is true of all communicable diseases. Certain groups resemble each other closely, but even in such groups individual members have marked peculiarities. The exanthemata resemble each other closely, all being intense in their contagion and running rapid courses. Leprosy resembles tuberculosis; there is a similarity among the acute disease of the upper air-passages, such as "colds;" and there is a very close resemblance in the mode of distribution of some of the infectious diseases. As a rule the intensity of contagion or infection is in proportion to the profuseness with which the organism is given off from a host, and inversely to the degree to which the deciduous organism is encumbered in its ingress into a new host. When the deciduous organism is given off through a single channel and is contained in broken-down tissue or newly developed tissue contagion is likely to be mild and erratic.

For preventive purposes a correct classification of communicable diseases and a careful study of the idiosyncrasies of each disease are of great importance. With contagious diseases the most important factors to be considered are the host and the prospective host; whilst in infectious diseases the most important factor is the intermediate agency of communication. In contagious diseases we should seek to make the host sterile and the prospective host immune; in infectious diseases we should seek to make the intermediate agency sterile. For example, in smallpox and tuberculosis we have to do (1) with the person suffering from the diseases and (2) with the persons who may be exposed to such a patient; while with cholera and typhoid fever we can accomplish most by looking after the water-supply and the food-supply or after the drainage of our habitations. With all contagious diseases the prospective host is as important a factor from a preventive point of view as the host himself. With smallpox immunity can be established by vaccination, and there is promise in the laboratory-work of the future that similar results may be obtained with all the intensely contagious diseases. With tuberculosis and some of the more mildly contagious diseases partial immunity can be established by the maintenance of a healthy nutrition. Could all the hosts of contagious disease be made sterile or isolated so effectively as to make contact impossible, no new set of hosts could come into existence. In practical life such a condition of things is impossible of attainment; and it, therefore, becomes most important to work at the other end of the line and reduce the number of available hosts to a minimum. With infectious diseases isolation is futile, except in so far as it will aid in preventing the contamination of the intermediate agency of distribution. If every typhoid-fever patient could be isolated and his discharges sterilized, a time would come when all water-supplies would likewise become sterile, and the germs giving rise to the disease would no longer be distributed. Much better results can, however, be attained by at once sterilizing all water-supplies.

In order to be able to understand fully the subject of contagion one must first learn to realize that it is a complex one. With a single idea, based upon what can be observed in smallpox and other intensely contagious diseases, one is bound to become stranded in studying the subject. It is a great and an important subject, and we are as yet merely at its threshold. To gain access to all the secrets that it will reveal to us will require long and tedious study in the laboratory, and careful, conscientious observations at the bedside, with a mind unfettered by traditions and receptive to new ideas. What we know gives us a good hypothetic basis; what we have yet to learn will give us mathematic accuracy.

Respectfully,
Lawrence F. Flick, M.D.
736 Pine St., Philadelphia.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Dr. Wm. J. Taylor has been elected surgeon to the Orthopedic Hospital and Infirmary for Nervous Diseases, vice Dr. W. W. Keen, resigned. Dr. Keen was appointed consulting surgeon to the institution.

Chester (Pa.) Hospital.—Mr. Samuel A. Crozer, of Upland, Pa., learning that the total debt of the hospital amounted to $4,500, recently forwarded to the treasurer of the institution his check for that sum.

Medico-Chirurgical College Alumni Association.—At the recent annual meeting the following officers were elected: President, Dr. Henry Fisher; secretary, Dr. George W. Pfromm; treasurer, Dr. K. E. Gars.

Calendar of Meetings of Philadelphia Medical Societies for the week ending January 28, 1899:

Monday, January 23—Neurological Society.
Wednesday, January 25—County Medical Society.
Thursday, January 26—Pathological Society.

The Oliver A. Judson Fund.—Mrs. Oliver A. Judson has presented to the College of Physicians of Philadelphia the sum of one thousand dollars, to establish, in memory of her husband, the late Dr. Oliver A. Judson, a fund the income of which is to be devoted to the purchase of books on preventive medicine.

The West Branch (Pa.) Medical Society held its eighth annual meeting at Williamsport on January 10, and the following officers were elected: President, E. O. Kane, of Kane; vice-presidents, S. N. Free, of Dubois, and J. W. Albright, of Muncy; secretary, J. M. Corson, of Chatham Run; treasurer, G. F. Bell, of Newberry.

Philadelphia County Medical Society.—At a business meeting held January 18, the following officers were elected for the ensuing year: President, Dr. S. Solis Cohen; first vice-president, Dr. John H. Musser; second vice-president, Dr. George Erety Shoemaker; secretary, Dr. Ellwood R. Kirby; assistant secretary, Dr. Wm. S. Wray; treasurer, Dr. Collier Bower; censor, Dr. H. St. Clair Ash.

Prevention of Smallpox.—Dr. Benjamin Lee, secretary of the Pennsylvania State Board of Health, has issued a circular letter on the subject of smallpox to every local board of health in the State. The following are among the recommendations to prevent the spread of the disease should it arrive:—

"First—Vaccination of all school-children, if the law of 1895 has not been already complied with by the School Board.

"Second—The offer of free vaccination to all who are unable to pay for it.

"Third—Appeals to the general public to give themselves this protection.

"(Note carefully that when the law uses the term vaccination it means the insertion of vaccine virus into the skin, and not the administration of that or any other substance by the mouth.)

"Fourth—Warning the public not to expose themselves unnecessarily to this infection.

"Fifth—Providing themselves with efficient disinfecting apparatus, and instructing the Health Officer or his subordinates in its use.

"Sixth—Providing a 'Contagious Disease Hospital,' to which cases which cannot be cared for in their own homes with safety to the community may be at once removed. Attention is called to the circular on emergency-hospitals, which accompanies this letter.

"Seventh—The adoption of a regulation requiring physicians to report every case of eruptive disease, and the immediate investigation of the same by a physician for the purpose." If there is doubt about the diagnosis the patient should be strictly quarantined provisionally, and the Secretary of the State Board at once notified, in order that the true nature of the case may be established at the earliest possible moment.

The New Medical Laboratories of the University of Pennsylvania.—The accompanying illustration depicts the new laboratories building in contemplation at the University of Pennsylvania at a cost of $300,000 for building and equipment, a large part of the fund to be contributed by alumni of the medical department. The building will be constructed on three floors, devoted to physiology, pharmacology, and pathology, respectively. The main portion will be 192 ft. long, with wings running back at each end 128 ft. The wings will contain laboratories for students, while the front of the main building will be divided into a number of special-research rooms, offices and work-rooms of various sorts. In the rear of the center of the main building there will be on each floor a special demonstration-room, a lecture-room arranged in the form of an amphitheater. The animal-house will be a special building two stories high, and situated at the open side of the hollow square formed by the main building and the two wings.

Berks County (Pa.) Medical Society.—At the annual meeting, held at Reading on January 10, the following officers were elected: President, Dr. A. A. Stamm; vice-presidents, Drs. J. Y. Hoffman and F. W. Frankhauser; corresponding secretary, Dr. S. Banks Taylor; treasurer, Dr. A. S. Raudenbush; board of censors, Drs. Longaker, Seaman and Wenrich; curator, Dr. J. L. Wethered; delegates to the American Medical Association, Drs. Buehler, Rentschler, Stamm, Frankhauser, Hoffman, I. Cleaver, and East. At a banquet held in the evening Dr. W. Murray Weidman was toastmaster, and the following toasts were responded to: "Retiring President," Dr. J. Y. Hoffman; "Our New President," Hon. James N. Ermentrout; "Our Musical Director," Prof. Charles Edwards; "Our Journalistic Brother," Dr. George M. Gould.

Inspections by the Board of Health During 1898.—The annual report of Chief Charles F. Kennedy, of the nuisance inspection division of the Bureau of Health, shows that during 1898 there were received 17,970 complaints; 1,527 came from the division of contagious diseases, 968 from the Bureau of Police, and 108 from the Director of Public Safety. Of the whole number 850 were referred to other municipal bureaus, 1,800 were anonymous, 15,320 were referred to the nuisance inspectors for investigation, 3,926 were found to be without cause and dismissed, and 1,774 were found to be well founded. Of the complaints made 2,351 were returned as "not complied with." Eight hundred and seventy-four wells were condemned and ordered to be abandoned; of this number 785 were complied with; 113 applications for lodging-houses were approved; 5 houses were condemned because of carelessness of the proprietors and the filthy condition of the bedding.

College of Physicians of Philadelphia.—At a meeting held January 4, Dr. John B. Deaver read a report of various surgical cases, which will be published in a future number of the Journal. The following officers were elected for the ensuing year: President, Dr. John Ashhurst, Jr.; vice-president, Dr. W. W. Keen; censors, Drs. Alfred Stillé, Wm. F. Norris, R. A. Cleemann, A. V. Meigs; secretary, Dr. Thomas R. Neilson; treasurer, Dr. Richard H. Harte; honorary librarian, Dr. Frederick P. Henry; councillors, to serve until January, 1902, Drs. Morris J. Lewis, H. R. Wharton; committee of publication, Drs. G. G. Davis, Thompson S. Westcott, William Zentmayer; library committee, Drs. G. C. Harlan, F. X. Dercum, Charles A. Oliver, Wm. J. Taylor, S. Weir Mitchell; committee on Mütter Museum, Drs. John H. Brinton, George B. McClellan, Frederick A. Packard; hall committee, Drs. J. Ewing Mears, William Barton Hopkins, John K. Mitchell, Caspar Morris, Thomas H. Fenton; committee on directory for nurses, Drs. Wharton Sinkler, James C. Wilson, J. V. Ingham.

Lehigh Valley (Pa.) Medical Association.—The following is the scientific program of the eleventh winter meeting to be held at Bethlehem, January 26: The Importance of Early Operations in Tuberculosis of Bones and Joints, by Dr. Charles H. Ott, Sayre, Pa., Discussion to be opened by Dr. Henry D. Michler, Easton, Pa.; Some Peculiarities Found in Examining Applicants for the Regular Army, by Dr. Olin F. Harvey, Wilkes-Barre, Pa.; Discussion to be opened by Dr. Morris F. Cawley, Allentown, Pa.; Obstetrics, by Dr. G. H. Halberstadt, Pottsville, Pa., Discussion to be opened by Dr. J. N. Richards, Fallsington, Pa.; The Advantage of the Cataphoric Method of Destroying Cancerous Growth, by Dr. G. Betton Massey, Philadelphia, Discussion to be opened by Dr. H. Threlkeld Edwards, South Bethlehem. The officers for 1898-99 are: President, Dr. J. E. Bauman, Telford; vice-presidents, Drs. C. D. Schaeffer, Allentown; G. H. Halberstadt, Pottsville; A. A. Seem, Bangor; J. A. Horn, Mauch Chunk; secretary, Dr. Charles McIntire, Easton; assistant secretary, Dr. W. P. Walker, South Bethlehem; treasurer, Dr. Abraham Stout, Bethlehem.

Vital Statistics of Philadelphia, for the week ending January 14, 1899:

Diseases.	Cases.	Deaths.
Total mortality		642
Children under 5 years of age		185
Pneumonia 121, congestion of the lungs 4		125
Pulmonary tuberculosis		73
Influenza		59
Nephritis 30, uremia 7		37
Apoplexy 15, paralysis 15, softening of the brain 5		35
Heart-disease 28, inflammation of the heart 4		32
Diphtheria 25, membranous croup 4	73	29
Marasmus 15, inanition 10, debility 3		28
Typhoid fever	237	22
Gastroenteritis 17, cholera infantum 3		20
Senility		18
Convulsions		17
Cerebritis 16, congestion of the brain 1,		17
Carcinoma 16, tumor 1		17
Bronchitis		16
Intestinal obstruction		15
Burns and scalds 7, casualties 7		14
Scarlet fever	36	5
Cerebrospinal meningitis		1
Smallpox	1	0
Anemia 5, hepatic cirrhosis 5, diarrhea 4, rheumatism 4, suicide 4, dropsy 4, poisoning 3, abscess 2, alcoholism 2, asthma 2, colic 2, cyanosis 2, hernia 2, inflammation of the spine 2, congestion of the liver 1, diabetes 1, dysentery 1, erysipelas 1, drowned 1, catarrhal fever 1, homicide 1, laryngitis, 1, appendicitis 1.		

The Samuel D. Gross Prize of the Philadelphia Academy of Surgery. The second Quinquennial Prize of $1000 under the will of the late Samuel D. Gross, M.D., will be awarded January 1, 1900. The conditions annexed by the testator are that the prize "shall be awarded every 5 years to the writer of the best original essay, not exceeding 150 printed pages, octavo, in length, illustrative of some subject in surgical pathology or surgical practice, founded upon original investigations, the candidates for the prize to be American citizens. It is expressly stipulated that the successful competitor, who receives the prize, shall publish his essay in book-form, and that he shall deposit one copy of the work in the Samuel D. Gross Library of the Philadelphia Academy of Surgery. The essays, which must be written by a single author in the English language, should be sent to Dr. J. Ewing Mears, 1429 Walnut Street, Philadelphia, before January 1, 1900. Each essay must be distinguished by a motto, and accompanied by a sealed envelop bearing the same motto, and containing the name and address of the writer. No envelop will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The committee reserves the right to make no award if the essays submitted are not considered worthy of the prize.

Pittsburg Academy of Medicine.—At a regular meeting held December 12, 1898, Dr. J. P. Kerr presented a number of pathologic specimens removed by operation. From one patient, a colored woman, 40 years old, a simple **ovarian cyst,** a **dermoid cyst,** and a **uterus** containing many **fibromyomas** had been successfully removed. Dr. Kerr also reported an abdominal **hystero-salpingo-oöphorectomy** for carcinoma of the uterus, in which he ligated both internal iliac arteries as the primary step in the operation. This was done for the purpose of depriving any malignant foci that might be left of their blood supply and to give a bloodless field while dissecting out carcinomatous glands. The patient complained of some tingling in the buttocks, but did well.

Dr. E. H. Small reported a case of **tetany,** a case of **myxedema** and a case of **Hodgkin's disease,** giving a review of the literature upon each subject. In the discussion Dr. Theodore Diller stated that in reality myxedema is a rare disease; that, as almost every case seen is reported it appears to be more common than it is. In its treatment the administration of thyroid gland is no less a specific than is quinin in malaria or mercury in syphilis. He had seen a case of akromegaly in Pittsburg recently, and, though it was possible to confound the two diseases, there was little resemblance between them. Dr. Elterich stated that tetany is not as common in this country as abroad. He had seen two cases. He did not believe that it was a primary disease, but that it was closely related to rickets, possibly a symptom of rickets. Dr. Kerr spoke of having seen a case recently in a syphilitic child.

Dr. F. F. Simpson presented a **fetus of about 4½ months with a placenta and a cord that had been removed from the abdominal cavity** by Dr. X. O. Werder. Pulsations were noted for a few moments after removal. The pregnancy had been in the right tube. An ovarian cyst about 10 cm. in diameter was removed from the left side. The uterus was as large as a pregnant uterus at 4 months. The patient recovered.

Dr. Tingley presented, for Dr. Eaton, a placenta from a case of **placenta prævia.**

Philadelphia County Medical Society.—The semi-centennial anniversary of the Philadelphia County Medical Society was celebrated January 14, 15, and 16. On the evening of January 14, Dr. J. Chalmers DaCosta delivered, at the hall of the College of Physicians, an address, which was largely historical in its nature. He described briefly the condition of the world in the year of the foundation of the Society, 1849, mentioning the prominent persons who lived about that time at home and abroad, and speaking of the social conditions of the people. He referred then to the conditions of the arts, sciences, trades, industries, and professions, at that time. He spoke of the men who had been instrumental in the foundation of the Society, and of the motives which had actuated them. He mentioned particularly Drs. George B. Wood, John K. Mitchell, Nathaniel Chapman, Samuel Jackson, Charles D. Meigs, Joseph Pancoast, William Gibson, Robley Dunglison, Thomas D. Mütter, Paul Goddard, and Alfred Stillé, the latter of whom alone is living at present. He traced the progress of the Society from the few original founders to the present times, when its membership is over 700. In conclusion, he reviewed the progress of medicine during the past fifty years, and referred especially to the advantages which the practitioner of to-day possesses over his brother of fifty years ago, particularly in the matter of instruction and in instrumental devices for his assistance. Credit was given to some of the members of the Society for some of the achievements.

On Sunday evening, January 15, Dr. Kerr Boyce Tupper delivered a sermon in the First Baptist Church on The Aims of Medical Culture, taking as his text: "Luke, the beloved physician, greets you." At the conclusion of the sermon, Dr. Tupper made an appeal on behalf of the Mutual Aid Association of the Society.

On Monday evening, about 350 members of the Society attended a banquet at Horticultural Hall, Dr. S. Solis Cohen, first vice-president, and acting president, presided. The following toasts had been arranged: Our Founders—a letter from Dr. Alfred Stillé, an original member, read by Dr. William M. Welch; The Philadelphia County Medical Society, by Dr. W. W. Keen; The Doctor's Duty to New Philadelphia, by Hon. Charles F. Warwick; The Press—the Educator of the Public; The Newspaper, by Talcott Williams, Esq.; The Medical Journal, by Daniel Baugh, Esq.; The Profession's Care of the Needy, by Rev. Dr. Kerr Boyce Tupper; The National Medical Services, by General Walter Wyman, M.D.; The Sister Professions: The Clergy, by Rev. Dr. Charles Wadsworth, Jr.; Law, by Hon. James M. Beck; Medical Education—the Safeguard of the Citizen, by Charles C. Harrison, Esq.; Medical Society of the State of Pennsylvania, by Dr. W. Murray Weidman. The following was the Committee on the Semi-Centennial Anniversary: Dr. William M. Welch, chairman; Dr. W. W. Keen, Dr. James Tyson, Dr. W. B. Atkinson, Dr. George M. Gould, Dr. A. H. Cleveland, and Dr. John B. Roberts, secretary.

Obstetrical Society of Philadelphia.—At a meeting held January 5, Dr. Geo. M. Boyd reported a case of successful elective **Cesarean section.** The patient was 40 years of age, a multipara, and anxious to have a living child. The indications for the operation were a contracted, funnel shaped pelvis and a large child. Section was performed, and a 10½-pound child removed. The size of the child, the degree of ossification of the fetal head, the history of previous labors, the degree of pelvic deformity, with the test of the first stage of labor, influence the obstetrician in the selection of methods, whether forceps, version, symphysiotomy or Cesarean section.

Dr. Boyd prefers the conservative operation, or celiohysterotomy, to the more radical Porro's operation, unless some clear indication for hysterectomy is present, such as a septic condition, malignant disease, or fibroid. He considers it not wise or right to remove a healthy uterus simply to prevent future pregnancies unless the patient demands it. Before operation the fetal heart-sounds should be listened for. *Slow* removal of the contents of the uterus will prevent failure of the uterus to contract. Dr. Mordecai Price advocated celiohysterectomy, believing it superior in every way to the conservative operation, and he reported a series of 8 successful cases followed by a normal puerperium. He believes that in rapid removal of the child there is less danger of its asphyxiation.

Dr. Frank C. Hammond read a paper on the **value of ethyl bromid in gynecology and obstetrics.** Examination under an anesthetic has a broad field of utility which is being more and more appreciated by the gynecic surgeon. Accurate diagnosis is often impossible without the use of this method. Ether and chloroform require considerable time for administration and frequently are followed by disagreeable post-anesthetic effects which render them objectionable for this purpose. Ethyl bromid is the ideal anesthetic for these cases. A small amount is required, and anesthesia and the return to consciousness are rapid, while the post-anesthetic effect is practically nil. The average time required to place a patient under the influence is 1½ minutes. The advantage of this agent is the rapidity of its elimination from the system, which takes place through the respiratory passages. The employment of a pure drug must be insisted upon. Dr. Hammond's method of administration is by the use of a folded towel upon which about a dram of the bromid is poured, holding it closely over the nose and mouth, renewing the drug every few seconds until narcosis is complete. Its use during labor should be limited to the second stage, except in primipara when the pains of the first stage become excruciating. It is administered at the advent of each pain and the severity of the suffering is alleviated without complete loss of consciousness; it does not diminish the force and frequency of the uterine contractions. For obstetric operations requiring more prolonged anesthesia, ether or chloroform, preferably the latter, should be employed.

Dr. Wilmer Krusen reported a case of **double pyosalpinx followed by fecal fistula,** the abscess having infected the rectal wall. A secondary operation for the closure of the fistula was performed 17 days after the primary operation, with satisfactory results. The position of the intestinal opening was in the anterior surface of the rectum, about 4 inches above the anus, the inaccessibility of the injury making the repair difficult. The causes of persistent fecal fistula are, (1) extensive loss of substance in the wall of the bowel; (2) angulation of the bowel opposite the point of external opening; (3) immediate union of the intestinal mucous membrane with the skin; (4) some obstacle to the fecal current beyond the fistulous opening.

Pathological Society of Philadelphia.—At a meeting held January 12, Dr. George E. de Schweinitz presented an eye that had been enucleated for **gumma of the ciliary body.** The patient was a woman aged 40 years, and the gumma had appeared 18 months after the initial lesion. Dr. de Schweinitz presented also a specimen of **melanotic growth (probably a spindle-cell sarcoma) of the conjunctiva,** which had been removed from the eye of a woman aged 28 years, who had always had a spot of injection near the cornea. After the birth of her child, the formation grew rapidly in size, and was removed. After an interval of 6 months there had been no recurrence. It was interesting to note that the child had a similar spot of injection (conjunctival nevus) similarly situated, and a congenital polar cataract of the same eye. Dr. de Schweinitz presented also two **lipomatous dermoids of the conjunctiva,** one affecting a woman aged 30 years, the other a child aged 10 years. He presented also a specimen of **cystic degeneration of the vitreous, with detachment and thickening of the retina.** Dr. A. A. Eshner alluded to a case of gumma of the iris which had developed while the patient (a man) was being vigorously treated with mercurials. It disappeared when iodids were administered. Dr. Riesman referred to a specimen of sheep's eye presented to the Society sometime ago by Dr. Chestnut, which showed the entire cornea covered with hair, and which was probably of the nature of a lipomatous dermoid.

Dr. W. S. Wadsworth read a paper on **indicanuria.** After a brief account of the history and phenomena of indicanuria, in which stress was laid on the facts that indican occurs in the urine of persons ill with various diseases and of those apparently in good health; he pointed to what he believed would be the final explanation of its occurrence—a modified proteolysis in the gastrointestinal tract following some disturbance of the motor or secretory functions, such as are found in nervous dyspepsias, gastric ulcer, gastrointestinal catarrh, etc. Dr. Wadsworth insisted that indicanuria is not characteristic of any of the general diseases, but that it occurs with and is indicative of certain vital conditions. He believed that when so studied, with a clear understanding of the physiology underlying the normal conditions, it would be of considerable value to the practical physician. So long as modern textbook articles are followed blindly or pseudo-scientific enthusiasm over bacterial theories is indulged in to the exclusion of rational physiology of the gastrointestinal tract, just so long will indicanuria be a stumbling block, whereas its study should be of great value. Dr. Wadsworth's studies had comprised about 200 cases of a variety of diseases. In the discussion, Dr. F. S. Pearce stated his belief that it is impossible at present to arrive at a satisfactory conclusion relative to the practical and scientific significance of indicanuria. He had found it associated with various intestinal lesions. Dr. Alfred Stengel stated that the study of indicanuria is the study of but part of the process concerned, and that it is much more desirable to investigate the relation of the aromatic to the fixed or total sulphates. Dr. Boardman Reed referred to cases of excess of hydrochloric acid in the stomach associated with indicanuria, and stated that the amount of indican in the urine is a safe index of the amount of intestinal putrefaction. Dr. A. E. Woldert spoke of some investigations relating to the occurrence of indicanuria in febrile conditions, to its absence in a patient with typhoid fever who had been taking a considerable quantity of hydrochloric acid, and to the influence of intestinal antiseptics on the occurrence of indican in the urine. Dr. H. A. Hare spoke of the condition as a result of intestinal putrefaction, and suggested some experiments relating to the influence of intestinal antiseptics on the condition. Dr. Wadsworth spoke of the impossibility of establishing for practical purposes, at least by the practitioner, the relation of the aromatic or ethereal to the fixed sulphates in the urine, and asserted that the determination of the presence of indican in the urine is clinically available and is of importance.

Dr. George B. Wood presented a specimen of **squamous epithelioma of the penis.** The patient was a man aged 52 years, and the entire prepuce was involved. A portion of the penis was amputated, but a recurrence necessitated amputation of the entire organ. Metastasis had, however, already occurred, and the patient died 6½ months after the manifestation of the initial symptoms. Dr. Joseph McFarland presented a specimen of **carcinoma of the pancreas** with **gangrene of the intestine** following **thrombosis of the portal and mesenteric veins.** Dr. Stengel related a similar case, due, however, to compression, instead of thrombosis of the veins. Dr. McFarland presented also a specimen of **complete exfoliation of the mucous membrane of the vagina.** The patient was a woman, aged 30 years, who during the past 3 years had suffered such exfoliation at irregular intervals. Recently this occurred at intervals of about 5 days, without apparent discomfort. Dr. H. D. Beyea inquired if there is any history of syphilis, as such condition has been ascribed by Winckel to that disease. Dr. Stengel also narrated a similar case. Dr. McFarland replied that there was no indication of syphilis.

Drs. Sailer and Barnes presented a specimen of **mitral stenosis,** with numerous aberrant intraventricular bands. Dr. Sailer presented also a specimen of **aneurysm of the splenic artery, hypertrophy of the prostate and bladder.**

College of Physicians of Philadelphia—Section on General Medicine.—At a meeting held January 9, Dr. J. M. Anders read a paper on **Arrhythmia, some of its causes, associated conditions, significance, and treatment.** He said that cases of arrhythmia may be classified according to their course into temporary and habitual. The second classification is more acceptable because it gives a clue to the essential elements entering into the etiology and clinical manifestations of arrhythmia as refers to irregularity, (*a*) in volume of force, (*b*) in time. The former is referred as irregularity, the latter as intermittence. The former is a comparatively rare form of arrhythmia, and is not always a bad augury. Intermittence most often occurs at irregular intervals; it may he regular. This condition is also sometimes functional. True intermittence must not be confounded with the false variety. Closely related to the pseudo-intermission is the twin pulse. The latter is frequently observed in mitral disease. It may sometimes also be functional, as evidence of which such a case was referred to. A case illustrating pulsus trigeminus occurring as a functional condition was also related. He is inclined to believe the pulsus alternans, the twin pulse, the pulsus trigeminus and pulsus quadrigeminus are nearly as frequently met in the absence of gross organic lesions of the heart or other organs as in association with them, and in such cases must be considered functional disturbances, or as dependent upon the action of some unrecognized toxic substance. The conditions known as embryocardia, delirium cordis and canter rhythm are rarely encountered apart from serious associated conditions. In the matter of treatment of the physiologic arrhythmia which is unassociated with detectable organic changes, the proper course lies solely within the field of hygiene, and has especial reference to carefully regulated physical training with the view of promoting bodily health and development. The cases that are dependent upon psychical reflex influences and such toxic substances as tea, alcohol, tobacco, etc., may be relieved or often cured by a removal of the especial cause. Dr. A. A. Eshner said he believed the diseases of childhood were no less important in the generation of diseases of the heart, both endocardial and myocardial, than the infectious diseases that are observed later in life. He thinks it likely that this origin of cardiac conditions is not sufficiently recognized. In cases in which there is associated with the arrhythmia involvement of the cardiac action, derangement of the circulatory equilibrium, shortness of breath, swelling of the feet, etc., the arrhythmia is probably dependent upon a myocarditis, and in such cases best results have been obtained from the use of nitroglycerin. In conjunction with it or independently, digitalis, strophanthus, atropin, strychnin, or other drugs of the same group can be used to advantage. Nitroglycerin should be administered in solution. Any dose should be one drop ($\frac{1}{100}$ of a grain) and gradually increased to the point of tolerance. Dr. S. W. Morton has found the fluid extract of cactus grandiflorus a valuable agent where the amount of arrhythmia and irregularity is out of proportion to the loss of compensation and the general weakness of the heart-sounds. In cases in advanced life where visceral changes exist, potassium iodid, nitroglycerin, and some one of the generally recognized heart-tonics have proved useful. Dr. J. A. Scott has seen a great many cases of arrhythmia in the course of life-insurance work which were apparently not dependent upon any organic change in the heart. The position of life-insurance companies, with reference to these cases, is always on the side of safety. In the absence of a more definite knowledge of the cause of these so-called functional conditions the companies decline to accept applicants manifesting them. Dr. F. A. Packard thought that in any case of arrhythmia it is particularly desirable to consider the relation between the work of the heart and the ability of the heart to do that work. In certain instances of men who have taken an inordinate amount of physical exercise, hypertrophy exists. Aside from this the heart is apparently healthy. When the exercise ceases the work required of the heart is no longer so great; the system is in consequence every now and then surcharged with arterial blood and the heart being no longer called upon to pump blood through, stops, as it were, to take a rest. In treating cases of arrhythmia it is extremely important to appreciate the relation of the vascular condition to the cardiac activity. The vast majority of cases can be benefited by nitroglycerin. In other cases where the vascular door is already too widely open, in such cases, by giving some vascular stimulant like ergot or atropin, the heart's action will be steadied and the heart-beat will be perfectly continuous and orderly. Dr. James Tyson has always found the subject of arrhythmia a difficult one to comprehend. He believes that derangements of digestion are in some way responsible for some of the cases of arrhythmia. He has been in the habit of giving strychnin for cases of this kind. Dr. Anders said that he had not considered in his remarks the cases of arrhythmia associated with valvular lesions, but he emphasized the fact that in certain forms of arrhythmia the pulsus bigeminus, trigeminus and quadrigeminus are often unassociated with grave organic lesions, including the valvular diseases of the heart. It is particularly difficult to distinguish clinically between the forms that have an organic basis and those that have not. The prognosis is favorable in the functional forms of arrhythmia, but before a favorable prognosis is given one should always most thoroughly and carefully examine not only the heart, but the brain, kidneys and other viscera, so as not to overlook the existence of grave organic affections, since these forms of arrhythmia are perhaps in the majority of cases associated with some such lesion.

DR. S. W. MORTON read a paper on **rare cardiac complication in influenza.** The patient was a male, aged 63 years, with no history of previous illness. He had always been temperate in his habits. On January, 1, 1895, he had a violent attack of influenza. When first seen the heart was perfectly normal. On the 10th day of the disease the temperature rose to 102° F. after having reached normal. On the 11th day it rose to 104° in the afternoon; the patient developed pain in the left thigh and knee. Examination of the heart made at this time showed the heart-sounds still normal. On the 13th day the patient complained of dull, aching pain in the left wrist and severe precardial distress. There were no cardiac murmurs. The pulse-beats were 32 to 34 per minute, large, strong, irregular, intermittent, synchronous with the heart's action. There was a dull, hot, aching sensation over the region of the heart, with severe burning pain of the same character over the wrist and hand. The heart-beat seemed to send out a wave of intense heat. The next day a careful study of the heart showed it to be dropping just half its beats at intervals of from 1 to 4. The 16th day of the disease the pulse began to increase in frequency and within a day or two rose to 88 per minute, a few hours later to 99, was more regular and weaker. The pain, heat, and puffiness of the joints were much lessened. From this point on the convalescence was gradual, the pulse grew slower, fuller and more regular, and on the 23d day was perfectly regular and 72 to the minute, and the patient was up and about. Up to the present time the patient has been perfectly well. A review of the literature has developed but one case which closely simulated this one. He was inclined to believe that the lesion in his own case was in the periphery of the pneumogastric, probably in the heart-wall itself, rather than in its centers.

DR. A. A. ESHNER reported two cases of **triple infection,** which will be published in a future number of the PHILADELPHIA MEDICAL JOURNAL.

DR. PACKARD reported a case of **acute cholecystitis following influenza.** The patient, while suffering from a mild attack of influenza, indulged extensively in various forms of indigestible food. After a hearty dinner he sustained a slight discomfort in the lower abdomen. In the morning of this day he had had a constipated and insufficient bowel-movement. At 1 o'clock in the following night he was awakened from sleep by a sudden attack of severe pain in the upper part of the abdomen, which gradually augmented, and was soon attended by violent vomiting and retching. The pain was located chiefly in the right upper quadrant. Examination showed the whole abdomen to be sensitive to touch, but the slightest pressure in the region of the gall-bladder caused exquisite pain. By careful palpation, with the cooperation of the patient in bearing pain, the fundus of the gall-bladder could be readily felt as a round, elastic tumor, about the size of an English walnut. The edge of the right lobe of the liver was palpable just below the costal margin. There was no history of a former attack. Under the local application of mustard-plasters, the administration of milk-diet, and 5 grains of calomel, the condition rapidly improved. On the second day, in attempting to keep a business engagement, be brought about a relapse which was more severe than the original attack, but from which he eventually recovered. That the patient was not suffering from appendicitis, a condition which was somewhat simulated, was proved by the distinct tumor in the region of the gall-bladder, the point of location of pain and tenderness and the mode of onset, the associated gastric symptoms, the pain produced by the movement of the gall-bladder, from pressure upon the liver by the hand in the right flank, or by deep inspiration, and by the gradual subsidence of tenderness, with the region of the gall-bladder the most enduring point of pain on pressure.

DR. PACKARD showed specimens of a case of **rupture of the gall-bladder seemingly dependent upon primary carcinoma of the ampulla of Vater.** The liver was little enlarged, there was slight dilatation of the intrahepatic ducts, the gall-bladder was very large and its walls thickened, especially at the fundus. The cystic, hepatic and common ducts were greatly dilated. A small rupture was found at the extreme tip of the fundus of the gall-bladder, the causation of which was not accountable, but it apparently was not an artefact; the ampulla of Vater was very prominent and firm. It was about the size of a hazelnut. Sections made from the mass showed it to be an epithelioma.

College of Physicians of Philadelphia—Section on Otology and Laryngology.—At a meeting held January 3, DR. J. S. GIBB read **Notes on a case of primary carcinoma of the tonsil,** with a report of the autopsy-finding. A radical operation being, after consultation, deemed inadvisable, protruding masses of the growth were snared off, affording considerable relief to the patient, who, however, died of exhaustion. DR. W. HOCH spoke of a case of primary carcinoma of the tonsil in a man, 84 years of age, which had come under his observation at a late stage of the disease, and in which operation was not advised on account of the age of the patient. In another case, also, the malignant growth was at first confined to the tonsil. The man had been operated upon three years previously for what was called sarcoma of the tonsil. When first seen by Dr. Hoch, there was a large carcinomatous growth involving both pillars of the fauces and extending also to the posterior wall. A portion was removed for examination and found to be epitheliomatous, and the patient was subsequently operated upon, all of the growth being removed, together with some enlarged submaxillary glands. The patient improved greatly afterward, but there is no reason to doubt that the growth will return. He has, however, enjoyed six months' relief, which would of itself justify the operation. The method pursued was a modified Mikulicz operation, making an incision in front of the sternomastoid, joining a transverse incision along the lower border of the jaw, the ramus of the jaw being cut with a wire écraseur, and the growth and tonsil then dissected out. DR. CHAS. H. BURNETT asked whether or not an increased flow of glairy mucus had been observed from the mouth of the patient. Dr. Harrison Allen had called attention some years ago to this as a sign of obstruction due to a foreign body in the pharynx. DR. GIBB said that, as the paper consisted simply of the report of a case, he had not discussed the subject of carcinoma of the tonsil, nor the question of the radical operation and the symptoms that would lead to the performance of that operation. Early in the case it had seemed as if a radical operation might have proved successful, but at a later stage the accompanying extensive glandular enlargement decided the question against operation. In reply to Dr. Burnett it was stated that the abundant viscid secretion was a prominent symptom in the early part of the disease, but as it progressed there was more difficulty in moving the tongue and in the discharge of the mucus. DR. HOCH remarked that in the first case he had mentioned, only one gland was found to be involved. In the second there were a great number, and this had great weight in deciding against the question of operative interference.

DR. E. L. VANSANT read a paper entitled: **Some remarks upon the use of dried extract of adrenal capsule of the sheep in nasal surgery,** which will be published in a future number of this JOURNAL. DR. BURNETT inquired whether formaldehyd, or the dilute preparation known as formalin, was meant in speaking of the use of a 1 to 1000 solution as a menstruum. Dr. Vansant said that what he had used was a 1 to 1000 solution of formalin, containing 40% formaldehyd. DR. P. S. DONNELLAN said that he had been impressed with the fact observed in his own experience that weaker solutions of cocain, if the applications are continued over a sufficient length of time, are preferable to stronger solutions applied more briefly, when the object is to produce local anesthesia for surgical operations in the nose. He was much interested in the observation that the adrenal extract had the power of intensifying the effect of cocain, and inquired if any anesthetic influence was possessed by the former, and if Dr. Vansant had performed any operations after applying the adrenal extract alone without cocain. DR. VANSANT said that it is known that the extract of adrenal gland exercises an astringent effect upon the mucous membrane when applied topically. It was first used by the ophthalmologists, who found it to be valuable in operations on the eye, which it made almost bloodless. It not only prolongs the anesthetic effect, but it increases the astringent effect of cocain. It does not have any decided anesthetic effect of its own, but it intensifies the influence of the cocain. Dr. Vansant had not noticed any difference arising from its use in the course of repair after operation; in fact the remedy seems entirely innocuous. The application of alumnol (10% solution), or of silver nitrate, may effectually prevent secondary hemorrhage. The glycerin extract seems more convenient for use, but the remedy in powder form, contained in capsules for making the extemporaneous solution, is what he had based his observations upon. DR. DONNELLAN inquired if the remedy had been used in the throat or larynx as well as in the nose. DR. VANSANT said that he had used it in the throat for tonsillar edema, and also in the larynx and throat, upon which it exerts an effect similar to that in the nose. DR. FRANK WOODBURY inquired if Dr. Vansant had employed the remedy in cases of epistaxis, and Dr. Vansant replied in the negative.

DR. CHAS. H. BURNETT read a paper on **Bezold's mastoiditis relieved by a counter-opening in the neck without trepanation of the mastoid process.** Having observed that numerous cases of acute intramastoiditis consecutive to acute otitis media undergo spontaneous rupture of the outer mastoid cortex, with escape of pus beneath the soft tissues of the mastoid region behind the auricle, and entirely recover after evacuation of the pus by the surgeon's knife and antiseptic drainage of the abscess without any further operation on the mastoid bone, Dr. Burnett has concluded that the same results may be obtained in cases of acute intramastoiditis in which spontaneous perforation of the medial plate of the mastoid process occurs, with an escape of pus beneath the deep fascia of the neck below the line of the upper insertion of the sterno-mastoid muscle, either forward in the digastric groove, or backward toward the nucha. Therefore, in the case reported, an opportunity was offered of trying the effects of a counter-opening in the neck, behind and below the mastoid in a case of spontaneous perforation of the medial plate of the mastoid process (Bezold's), without further operation on the mastoid. The result was entirely satisfactory in the case reported. After an incision had been made in the neck, sterilized water could be syringed through this opening, through the mastoid cavity and out at the external meatus, and vice versa. In a few days the aural discharge, which had been copious, ceased, the discharge from the mastoid through the counter-opening in the neck diminished rapidly and ceased in a week, the perforation in the membrane closed and the hearing became relatively normal within a month. Dr. Burnett believes from experience that mastoid complications follow acute otitis media only in those cases in which syringing and instillation of antiseptics have been used in the acutely inflamed and running ear. DR. GLEASON said that he would welcome any method of dealing with mastoiditis that, while avoiding the usual radical operation, would afford a safe cure. It must be remembered, however, that a cure means more than cessation of discharge from behind the ear. In a certain proportion of cases of mastoiditis in which the pus perforates the external plate and discharges through a perforation behind the ear, the discharge ceases, and apparently the case gets well. Such a case, in a young girl upon whom a radical mastoid operation was performed for the cure of a fetid otorrhea, which came on after scarlatina, followed this course and an abscess discharged behind the ear. After a while the sinus healed, but the discharge from the ear continued for 10 or 12 years. A polypus was found and removed, and the attic syringed out, but the discharge continued to be fetid. When the discharge continues foul-smelling, after syringing and cleansing the ear daily for weeks, it may be concluded that the case will not be cured without an operation. In this case, an incision behind the ear revealed a sinus that led into a cavity in the mastoid, which was filled with cheesy pus. The mastoid operation itself is not dangerous; but mastoiditis has frequently been followed by fatal results. It would seem that trephining the mastoid would be a safer method of treatment, as a rule, than delay or any measures not manifestly and certainly adequate. In certain cases, such as the one just reported, it would seem that a cure will follow opening of the abscess and proper local treatment, without the radical operation, but the duration of treatment will be longer. There appears to be well-founded objection to the injection of hydrogen-dioxid solutions in acute middle-ear catarrh, when the secretion is glairy, and Dr. Gleason would limit their use to cleansing of the auditory meatus, when in careful hands there is no danger. In the treatment of diseases of the tympanum it is best to cleanse the part once in 24 hours. As to the use of the Politzer douche, the amount of force used should receive attention. If the blast required to remove the discharge from the middle ear through the perforation is also sufficient to force the secretions into the attic and mastoid antrum, there is great danger of causing inflammation of the mastoid cells. Its use, however, should not be prohibited on this account, but it should be regulated by skill and judgment. A visitor inquired if he had correctly understood Dr. Burnett to state that he had never seen an acute case of mastoiditis except as a result of careless treatment. DR. BURNETT said that the statement was, if not his exact words, pretty nearly what he meant. Acute mastoid inflammation accompanying otitis media in a healthy person, however, is quite a different state of affairs from mastoiditis occurring in conjunction with chronic suppurative inflammation of the middle ear. Dr. Burnett never saw a case of acute consecutive mastoiditis, occurring in the course of an acute inflammation of the middle ear, except as a result of improper manipulation. Mastoiditis must not be regarded as one of the necessary results of acute purulent middle-ear disease. Dr. Burnett has never met with such a result in his own practice, but he has repeatedly seen it in cases coming to him in which the ear had been syringed three or four times a day, especially when hydrogen-dioxid had been used. He believed that in every case of acute purulent otitis, there is attendant inflammation of the mastoid antrum. He objected to syringing in such cases of perforation of the tympanic membrane on account of the liability to infection; it is easy to engraft staphylococci upon streptococci, and make the character of the inflammation more virulent. But the distinction between acute mastoiditis and the chronic form is to be insisted upon, and to speak of the treatment of mastoiditis as if it were always the same, would be as much of an error as to confound a tuberculous lung and an acute pulmonary inflammation under the title of pneumonia, and apply the same treatment to both. Dr. Burnett would as soon think of stopping a discharge from a pneumonic lung as to attempt to stop the discharge from an acute inflammation of the middle ear. DR. GLEASON said that infection is not always due to unskilful treatment. Patients in blowing their noses may infect the middle ear, and some of them learn to practise the Valsalva method of inflation, and do so without medical advice. He referred to a case of this kind, which was infected before coming for treatment. DR. VANSANT inquired if Dr. Burnett had met with any cases of mastoiditis following influenza not due to consecutive inflammation, but to the direct influence of the influenza-poison. Cases of infection of nasal sinuses are common, but mastoid disease is rare. DR. BURNETT said that he has not seen any specific form of inflammation of the mastoid following influenza. The great trouble about the reported cases is that the physician who is called upon to treat the ear-disease and who reports it, is not the one who saw the patient in the acute attack of influenza. An hiatus in the history exists between the date of the attack of influenza and the appearance of the ear-symptoms; there is a great gap in the clinical history, and knowledge is wanting of the treatment of the patient during that interval. Dr. Burnett repeated, however, that he had never seen a condition of acute middle-ear disease pass directly into a mastoiditis. DR. GLEASON asked Dr. Burnett to give his opinion on the use of Politzerization in acute cases. DR. BURNETT said that, when he first came back from Europe, he had tried inflation of the tympanum on the recommendation of Professor Politzer, who claimed that an acute inflammation could be aborted by it. He had soon given it up, however, because it was most painful and was liable to cause mastoid disease. It is opposed to modern ideas of pathology of the inflammation of the middle ear. It is safer to follow the practice of Gradenigo, who has shown that consecutive mastoiditis is due, in acute cases, to overtreatment and the grafting of staphylococci upon streptococcic inflammation. Dr. Burnett thought that Politzerization is contraindicated in acute cases, because it pushes the secretions from the middle ear into the aditus and antrum. The infection may be produced also by the patient himself. Dr. Burnett has had under treatment a case of mastoiditis following influenza and he wondered why the patient did not get well. He had made an incision in the membrane, but the wound would not heal, although the woman was doing well otherwise. After several weeks, her husband incidentally remarked that she had of her own accord practised Valsalva's method several times daily; she thus undid what had been already accomplished and produced further infection. DR. WOODBURY referred to the nasopharynx as the most favorable culture-ground for the bacillus of Pfeiffer, and, in view of the almost constant inflammation of the fauces and nasopharynx in influenza, it would seem that invasion of the middle ear was a most probable result. In view of the fact also that the mastoid antrum might be readily infected during the act of blowing the nose, cases of mastoiditis might result from influenza, and it is remarkable that so few cases had been reported during the several epidemics. DR. BURNETT said that any condition which fills the nasopharynx with secretion is likely to produce middle-ear disease. Thus, in pneumonia, otitis media may be due to the pneumococcus, which produces a severe form of inflammation, but he had not seen a case in which he was certain that the infection of influenza had attacked directly the middle ear, although there was evident liability to middle-ear disease. He mentioned the case of a man who, when convalescent from pneumonia and walking about, blew his nose and infected his ear and set up acute otitis media. After typhoid fever, also, he had seen many similar cases recently among the soldiers at the Presbyterian Hospital, the otitis coming on in the third week, at the time when the secretions and particles of food may be collected and decomposing in the nasopharynx. In his experience there is no more liability in influenza, however, than there is in any other condition, to produce middle-ear disease. In several attacks of influenza that Dr. Burnett has experienced, he has observed that, as soon as the secretions became free, his Eustachian tube became stopped up, and he thought that this was nature's method of sealing it, so as to prevent infection being carried to the middle ear.

At the annual business meeting Dr. E. L. Vansant was reelected chairman and Dr. Frank Woodbury clerk of the Section for the ensuing year.

NEW YORK.

Dr. Alvah M. Doty has been reappointed by Governor Roosevelt Health-officer of the port of New York.

The Niagara Falls (N. Y.) Academy of Medicine, and the **Niagara Falls Dental Association** met in joint session, January 9, 1899, at the Tower Hotel, Niagara Falls.

Bill for the Abolition of the Death Penalty.—Assemblyman Maher has introduced a bill in the Legislature providing for the abolishment of the death penalty, substituting for it life imprisonment.

Smallpox in New York.—It is reported that smallpox exists at Fort Niagara and at Sheffield, Monroe County. In the former place a soldier, one of the United States troops quartered there, is reported affected.

The Society of Medical Jurisprudence held its 139th regular meeting on January 9. S. B. Livingston, Esq., President of the Society, read a paper on Citizenship and the Age of Maturity, which was discussed by Dr. Farquhar Ferguson, James McGregor Smith, Commissioner Sutro, Mr. Henry Melville and Mr. E. F. Stern. The following were elected to membership: Dr. T. H. Burch, Dr. L. A. W. Alleman, Henry C. Hagen, Prof. Isaac F. Russell, E. S. Peets, Wm. R. Wilcox, Thos. Fahey. The 16th annual dinner of the Society will take place at the Waldorf-Astoria on February 18.

St. Vincent's Hospital.—An entertainment for the benefit of St. Vincent's Hospital was announced to be given in the Waldorf-Astoria Hotel, January 18, by the Ladies' Auxiliary Society of the Hospital. Additional buildings have recently been added to the hospital, costing $300,000.

New York Obstetrical Society.—At a stated meeting held January 10 Dr. H. J. Baldt presented a specimen of **fibroma of the uterus** that had been complicated by pregnancy.

Dr. A. J. C. Skene read a paper entitled **a new method of myomectomy.**

New York Academy of Medicine—Section on Genito-urinary Surgery.—At a regular meeting held January 10, Dr. Geo. K. Swinburne was elected chairman and Dr. Chas. H. Chetwood, secretary. Dr. Ramon Guiteras presented a case of **abscess of the prostate.** Dr. R. H. Greene read a paper on **the prostate in urethritis.**

The Red Cross Training Hospital, which was closed last June, was formally reopened in a new building at 259 West Ninety-third street, by Miss Clara Barton, who delivered an address. W. T. Wardwell, president of the Hospital Association, also spoke. The hospital has 30 beds, of which 8 are now occupied. Its object is to train nurses for Red Cross field-work.

The Wyoming County (N. Y.) Medical Association had its semi-annual meeting in Wyoming, January 10, 1899. Dr. Charles Barber, of Rochester, read a paper upon "Bacteriology;" Dr. B. L. Hovey, of Rochester, presented a "Review of Medical Science, during the past Fifty Years." Dr. W. K. Ingersoll, of Wethersfield Springs, reported a "Case of Gastric Ulcer."

Physicians Unite.—The physicians of Oneida have banded together to compel the town to pay regular rates for professional visits to the town paupers. Every physician in town signed a paper agreeing not to bid, as heretofore, for the contract to care for the ailing paupers, and an advertisement asking for bids has met with no response. The Town Board expects that it will have to surrender.

Babies Hospital.—At the annual corporation meeting, held January 10, the following officers were elected: President, Dr. Thomas E. Satterthwaite; vice-president, J. Hooker Hammersley; secretary, B. Ogden Chisholm; treasurer, Henry R. Kunhardt. The treasurer's report showed a balance on hand for current expenses of $403.98. The hospital purposes raising a fund of $100,000 for the erection of a building, and a second fund of $100,000 for maintaining it.

Calendar of Meetings of New York Medical Societies for the week ending January 28, 1899:

Monday, January 23—County Medical Society.
Wednesday, January 25—Academy of Medicine.—Section on Rhinology and Laryngology.
  Surgical Society.
Thursday, January 26—Academy of Medicine.—Section on Gynecology and Obstetrics.
  Brooklyn Dermatological Society.
  Hospital Graduates' Club.

Legislation for the Relief of Dispensary Evils.—The medical profession and the officials of the free dispensaries of New York have agreed upon a plan for remedying the abuse of medical charity, without at the same time destroying the independence of the dispensaries. It is proposed to have a law passed creating a Board of Control, representing the dispensaries, which shall work in harmony with the State Board of Charities, representing the physicians. It is hoped that the two boards acting in conjunction may remedy or abolish the flagrant abuses of which mention has so often been made.

University of Buffalo.—Dr. Roswell Park has had imported from Europe a large projection-apparatus constructed after the specifiations of Dr. Wilhelm Behrens, of Göttingen. It has a focusing condenser and many other improvements that Dr. Behrens has recently made and described. The instrument projects a picture of 9 x 12 cm. in size, and is equipped with a Zeiss-Planar lens with a focal length of 25 cm. and an opening equivalent to f=4. It is also arranged for an electric arc-light of German construction, having a possible candle-power of 4,000. The apparatus is constructed entirely of aluminum and will be a most useful and handsome addition to the equipment of the new amphitheater of the Buffalo General Hospital, where it will be installed. Arrangements have been made so that the amphitheater can be instantly darkened by the simple movement of a lever, and Dr. Park proposes to use the projection-apparatus in connection with his regular clinics.

Tuberculosis in New York City.—As the result of an investigation into the spread of tuberculosis in the crowded tenement-house district of New York City, a report has been presented to the Senate Commission on Tuberculosis, by Dr. A. R. Guerard. He finds that out of 81,828 dwellings in New York City, deaths from tuberculosis have occurred in the last 5 years in 18,771, or nearly 23%. There are 14,479 houses in which there have been 15,511 deaths from this cause in one year. In the Fourth Ward there are 663 houses, holding 18,323 persons, and in 248 of the houses there have been 541 cases of tuberculosis in three years. In the Sixth Ward there are 630 houses, containing 22,897 persons, and 465 cases of tuberculosis were reported. In many houses the continued recurrence of tuberculosis is reported. It is trusted that the report will soon lead to some remedial legislation. In the city entire a summary made for five years shows:

Total number of dwellings in New York City	81,828
Number of dwellings in which there were deaths from tuberculosis	18,771
Percentage on total	22.94
Houses with deaths in one year	14,479
Total deaths in same	15,511
Deaths per house	1.07
Houses with deaths in more than one year	4,292
Total deaths in same	11,232
Deaths per house	2.61

Work of the New York Sanitary Bureau During 1898.—The report of the Sanitary Bureau of the Board of Health, covering the year 1898, shows that there were 1,801,853 inspections and reinspections, based largely on 83,439 complaints received from citizens. The inspections of milk numbered 106,776; 114,199 samples of milk were examined, and action taken resulting in the imposition of fines aggregating $5,098. The bureau condemned 858,200 pounds of meat, 1,232,894 pounds of fish, and 7,714,766 pounds of fruit, food, and milk. The total number of dead animals removed from streets and highways was 88,947; animals and fish removed from shore front, 26,981. Of cases of contagious diseases there were 39,333 reported, requiring 80,351 visits, and the vaccination of 59,197 persons, besides the destruction of 59,553 pieces of infected goods. Public-school children to the number of 139,966 were examined on suspicion of having contagious diseases, and 7,606 were excluded from school on the strength of the inspectors' reports.

The Bureau of Vital Statistics, also attached to the Board of Health, reports 66,161 deaths during 1898, 78,936 births, and 28,877 marriages.

New York Surgical Society.—At a regular meeting held January 11, Dr. A. J. McCosh presented a patient showing the **result of excision of a popliteal aneurysm.** In the operation the femoral artery was tied above and below, and the aneurysmal sac was dissected out. The femoral vein was torn and then ligated. The operation was performed November 1. The patient now has good functional use of the leg.

Dr. McCosh presented also a patient who had had the **elbow excised.**

Dr. Erdman presented a case of **ligation of the third portion of the subclavian artery** for aneurysmal varix due to a pistol-ball. Perfect cure had resulted, but delayed union of the clavicle, which was sawn through to gain access to the field of operation. A pre-existing brachial neuritis was fast disappearing.

Dr. Bolton presented a boy who had had a **fracture of the neck of the femur.** The usual treatment with a spica plaster-bandage resulted in nonunion. An exploratory incision was made and the head of the femur was excised. There is now a good functional result.

Dr. Johnson presented a case of **ventral hernia** in a woman, aged 40 years, following an operation for appendicitis. The cicatrix was excised and a portion of the rectus muscle was transplanted. Five months after the operation the result was perfect.

Dr. Johnson presented also a woman of 20, who had had a **fibrocystic sarcoma of the thigh** 2 years and 10 months ago. It was extirpated and there has been no recurrence.

Dr. Gwyer read a paper entitled **Observations on the use of the galvanic current in the treatment of false ankylosis.** He compared the results of galvanic treatment with that of the hot-air apparatus. The galvanic treatment is simpler, more efficacious and does not burn the patient; and it will bring about a cure when there is no bony deformity. Dr. Woolsey said that years ago he advocated early movement and massage in these cases and he was still as enthusiastic as he was then.

Dr. Kiliani presented a **unique device for paralytic enuresis.**

Dr. McCosh presented a specimen of **septic kidney.**

Dr. Brown presented a specimen of **gastric ulcer** removed from the posterior wall of a man of 32. Dr. Elliot thought it unusual that the lesion was not malignant in a man of that age.

The New York State Pathological Laboratory.—The work of the laboratory during the first year of its existence has been largely that of organization and equipment. So far, the laboratory has developed three branches: Clinical, under the direction of Dr. Roswell Park; pathologic, under the direction of Dr. H. R. Gaylord; bacteriologic, under the direction of Dr. Herbert D. Pease. Up to the present time the quarters of the laboratory have been in the University of Buffalo building. This proving inadequate, the use of a separate building, connected with the Buffalo General Hospital, has been obtained, thereby aiding in concentrating the work, but still failing to furnish sufficient space. The necessary equipment in instruments for the bacteriologic and the pathologic departments has been largely obtained in Europe, the pathologic department being well supplied with a complete set of Becker microtomes, a complete photomicrographic outfit, consisting for a large part of new apparatus, the mechanical construction of which was entrusted to R. Winkel, of Göttingen, and including a complete set of the new objectives of R. Winkel, known as the Flourit system. The laboratory contains a complete set of Zeiss and Vöigtlander photographic objectives, including a set of Vöigtlander microlinear objectives for low-power photomicrography; these objectives are entirely new; they were made upon specifications furnished by the laboratory, and they are in many ways unique, marking a distinct advance along the line of the development of the photographic objective; they were figured by Dr. Ad. Miethe and constructed by Vöigtlander & Sohn. The work of the laboratory is being developed on the most modern principles, a card-catalog system being employed for the registration of all work accomplished. It is so arranged that work carried on in the various departments is interchangeable. It is proposed during the present year to develop a system by which tumors sent to the laboratory from without for diagnosis can be rapidly handled, and for this purpose an improved freezing microtome, of entirely new and unique construction, has been built for the laboratory by August Becker, of Göttingen; this system of diagnosis of tumors will enable an accurate diagnosis to be made within a few hours after the reception of the tumor; it is the system that has been instituted in the laboratory of Prof. Orth, in Göttingen. It is hoped that the State will increase the amount of appropriation during the current year, when it is proposed to add to the departments already existing another of chemistry. It is also hoped that the State will furnish the laboratory with a suitable separate building of sufficient size to include the equipment and furnish the necessary room for the various departments.

Brooklyn Pathological Society.—At a regular meeting held January 12, Dr. Charles C. Henry presented a man, 70 years old, who has had an **ulcer of the leg** since 1885, and which was operated on shortly after being first seen. A 2-in. incision was made down to the bone, which, being involved, was scraped for 6 inches lower than the ulcer. The leg healed after the operation. Later on it broke out again, and, syphilis being suspected, appropriate treatment was instituted and the leg healed. In 1893 there was another involvement of the tissues, which cleared up on mixed treatment. The present attack began last December. Most of the anterior aspect of the leg was covered with large scales of dead epidermis. There was an ulcer 2 in. in diameter on the anterior surface. The only local treatment used was a poultice of carrots and corn-meal. Internally the man was on mixed treatment.

Dr. Braislin presented a **traumatic amputation of the ear** in a man who was caught between a ship and a lighter, leaving his ear behind him. It is thought a fracture of the temporal bone also occurred.

Dr. Henry recalled a case of supposed **fracture of the skull** in a man who was hit with a sand-bag over the ear. There was serous discharge from the ear, but the patient has not yet gone to autopsy.

Dr. Goodrich presented a **hydrocephalic fetus with fibrolipomatous degeneration of the placenta.** The woman was 31, of Swedish birth, and married 8 years. She had been 11 times pregnant, each labor being difficult, and she had bled freely every time. On December 31, signs of life ceased, no fetal heart-sounds could be heard, and the breasts caked. On January 11, labor commenced, with a breech-presentation. There was no trouble, and no bleeding.

Dr. Chase presented a specimen of uterine fibroid and read a paper entitled **Remarks on the indications for operation on uterine fibroids.** He said that too much operating is done for benign fibroids. He did not believe in subjecting a patient to the risks of an operation unless one or more of the following indications were present: (1) hemorrhage; (2) pressure, causing pain from the location of fibroids; (3) degenerative changes inducing sepsis; (4) excessive size of the tumor; (5) malignant degeneration of the tumor; (6) the coexistence of pus-tubes.

Dr. Geo. H. Pierce presented a patient who had suffered for 4 years from **frost-bite ulcer of the ear.** This was finally treated with iodin and healed completely. Dr. Peirce also narrated a case of **tobacco-poisoning** in a boy who had chewed and smoked excessively for 6 years. The patient became comatose, vomited oatmeal and tobacco, and had convulsions. Dr. Pierce concluded with saying that many ills may be traced to excessive tobacco-using, among them being vertigo, loss of memory, cardiac irregularity, irritability of the neck of the bladder, etc. The liver eliminates most of the nicotin.

Dr. H. G. Webster presented a case of **calcareous synovitis of the knee** in a man 46 years old. Four years ago the patient had had pain and swelling just above the knee. There was no history of injury. An incision was made and pus evacuated. Three months ago the swelling and pain reappeared. Another incision was made and more pus evacuated, together with a small spicule of bone. The diagnosis was made of sequestrum following osteomyelitis of the femur. A free incision was made on the outer side of the thigh, 2½ in. above the joint. Two bony plates were extracted, and it was found that they extended from the knee-joint. The patella was free from deposit. There was no history of syphilis nor of tuberculosis. The plates were the size of a silver dollar, and half-dollar.

Dr. John D. Sullivan presented a specimen of **pyonephrosis,** a kidney removed from a man 38 years old. The patient had had a congenital floating kidney, which was anchored by another surgeon 2 months before Dr. Sullivan operated, and evacuated considerable pus.

Dr. W. C. Wood presented a specimen of kidneys removed two months after **implantation of ureters into rectum.** The patient was a child of 5 years who had had exstrophy of the bladder. The implantation of the ureters was done after the method of Dr. G. R. Fowler, whose only case was successful. The ureters were implanted higher up in the rectum than in Dr. Fowler's case. The patient lived two months, when infection of the kidneys took place, resulting in death.

New York Pathological Society.—At a stated meeting held January 11 Dr. E. Hodenpyl presented a specimen of **ruptured urinary bladder.** The patient was 50 years old, and 5 days before death was admitted to the hospital intoxicated and unconscious. He was catheterized, and 50 ounces of bloody urine were evacuated. The autopsy revealed edema of the lungs and a rupture of the bladder extending 3 inches down from the fundus.

Dr. Hodenpyl presented also specimens from a man who had died of **syphilitic pneumonia.** The right lung was emphysematous and the left was filled with syphilitic nodes and ulcers. The stomach contained 3 small syphilitic ulcers. The kidneys were enlarged and the urine contained casts and albumin.

Dr. R. G. Freeman presented a small **accessory spleen** removed from the body of the pancreas of a child. This small spleen was entirely surrounded by pancreatic tissue.

Dr. Geo. A. Tuttle presented specimens from a man who had died of **typhoid fever.** The patient had been working in the tropics and had had attacks of pain in the region of the liver, accompanied by jaundice. The diagnosis was made of gall-stone. The last attack was accompanied by a temperature of 103°–104° with no jaundice. The lungs and the heart appeared normal. No calculi were found in the stools. An operation for gall-stone was performed, but none was found. The bile in the bladder was profuse, thick, and viscid. The patient recovered. Later, for symptoms, paracentesis with exsection of ribs was done, and large quantities of pus were evacuated. At the first operation cultures from the gall-bladder yielded typhoid bacilli. At the second operation cultures from the pleural contents yielded typhoid and colon bacilli. The patient died soon after the second operation. The autopsy disclosed the lower lobe of the right lung occupied by a pus-cavity. The diaphragm in that vicinity was obliterated. The base of the pus-cavity was found in the right lobe of the liver, and there were numerous smaller abscesses in the liver. The intestines presented no evidence of typhoid fever. Ulcers were found in the colon, which showed the presence of amebas upon microscopic examination. Dr. W. T. Park said that the Widal reaction was not conclusive, as it gave a like reaction with the bacilli found in the feces.

Dr. Larkin presented **3 tumors of the esophagus.** The first case occurred in a male, 45 years old, supposed to be tuberculous, who began to suffer from dysphagia 4 weeks before death. Tubercles were found in all his organs. The tumor in the esophagus had broken down and was an ulcerative mass. Microscopical examination proved it to be an epithelioma and not tuberculous. The second case occurred in a man, 54 years old. Dysphagia had been present 5 months. Emaciation was marked and the patient had to be fed through the rectum. Death took place after 2 months, and autopsy revealed epithelioma of the esophagus. The stomach was small and contracted. The third case occurred in a man, 51 years old, in whom dysphagia had been prominent for a week. There was no emaciation, though dyspnea was marked. Tracheotomy was performed and the patient died. On postmortem examination a tumor of considerable size was found in the upper portion of the esophagus behind the larynx. In the discussion Dr. James Ewing said that he had examined the discharges from the first case and had found no evidence of epithelioma.

Dr. W. T. Park presented cultures of **influenza-bacilli, and of pneumococci,** which had been made at the Health Department. Dr. Brooks presented a **pin found in the appendix** of a patient who had died of **broncho-pneumonia.** He showed also an antemortem clot in the heart projecting into the aorta, which had simulated aortic aneurysm. Dr. McAlpin related a similar care.

Dr. C. A. Herter read a paper by himself and Dr. A. J. Wakeman, entitled, **The influence of hepatic, renal and other cells upon the transformations of indol and phenol.** Two methods were employed in this series of experiments. In the first, the organs of rabbits were chopped up, and the indol and phenol were mixed with them. It was found that the liver disposed of the phenol more quickly and better than any other organ. The kidney came next; muscle, third; brain, fourth, and blood, fifth. In the second method, intravenous injections were made and the rabbits killed after a suitable time had elapsed. The different organs were then tested by Milon's reagent. The liver and the kidneys were found to act about the same. Muscle came next, with the brain and blood fourth and fifth respectively.

King's County Medical Association.—At a regular meeting held January 10, Dr. Jos. F. Todd read a paper on **Anesthetics.** He said that chloroform is still the favorite anesthetic in Europe. It should contain 99% of pure chloroform and 1% of alcohol. It produces its effect more quickly and more quietly than ether, a less amount is required to produce unconsciousness, and it is free from the after-effect of nausea and vomiting incident to ether. The danger from chloroform is that it paralyzes the heart-muscle without giving any warning of impending danger. In administering chloroform plenty of air should be admitted with the drug. A handkerchief or Esmarch inhaler should be used and the chloroform be dropped on a drop to each inspiration. The head should be low, the clothing loose, false teeth removed, the heart examined, and the nose smeared with vaselin. Ether is used by preference in this country because of its greater safety. The preparation of the patient is the secret of successful administration of ether. The patient should be prepared by thoroughly evacuating the intestinal tract by free catharsis and restricted diet on the day previous to operation and abstinence from all liquids, as well as solids, on the day of operation. Morphin sulphate gr. $\frac{1}{6}$, and atropin sulphate gr. $\frac{1}{150}$, are administered $\frac{1}{2}$ hour before the operation. The morphin induces a quieter reception of the ether, allays the pain and controls the vomiting after the operation. The atropin controls the excessive mucus and antidotes the shock. The Allis or other open inhaler should be used. It should never be closed at the top by a towel or otherwise. The patient should not be restrained in the first stage. The degree of anesthesia should be judged by the ciliary reaction and the respiration—not by poking a finger into the eye. Renal or cardiac diseases do not prohibit the administration of ether. Drunkards take ether badly, as do also children. Women take it well. A consideration of the Schleich method showed no advantage over plain ether. In conclusion, chloroform was found to be useful, (1) in army-practice; (2) in obstetric practice, and (3) in operations on the upper air-passages. In all other cases ether should be used. In the discussion Dr. Rushmore said that he knew nothing of the Schleich method, which was also true of his knowledge of chloroform; he always used plain ether. He thought the bad results following ether were due to (1) the ether; (2) the etherizer, or (3) the patient. The preparation of the patient is important. Children and drunkards are poor subjects to take ether. Dr. Rushmore always used morphin and atropin prior to operating. In children he omits morphin on account of their susceptibility. Three prominent advantages attend the use of morphin: (1) it quiets the nervous system, so that less ether is required and a quieter emergence from its effects is brought about; (2) it forestalls post-operative pain; (3) it prevents nausea. The advantages of the atropin lie in its control over the bronchial secretions. Atropin fails in this effect when the ether is given profusely. It is also a heart-stimulant, and lessens shock and the tendency to suppression of urine. Dr. Rushmore keeps the stomach empty for only 3 hours before operation. He gives no laxative unless there is a special indication for it. Enemas only are used. No alcohol is given before operation. He approves of the open method and thinks the bad effects due to the method of giving ether. He thinks 95% of air should be the proportion. A good plan is to let the patient inhale from the can first. Pulmonary, cardiac, or renal disease is not a contraindication to the administration of ether. Dr. Rushmore does not approve of professional anesthetizers for the reason that it is due the internes of hospitals to teach them how to give ether. He has found that nausea is increased by lifting and jolting the patient in the application of bandages, etc. Dr. O'Connor said that the importance of ether-administration did not appeal to the general practitioner, who usually wanted to give the ether when he called in a surgeon to operate for him. The general practitioner may not be competent to give ether on account of his inexperience and lack of instruction. A source of danger frequently met with is the inattention of the anesthetizer to the patient while watching the operation. Dr. Rushmore considers chloroform highly dangerous, and he cited a recent case of death due to this agent. He has seen nitrous oxid given for $\frac{3}{4}$ hour in a case of celiotomy. He has had good results from the Schleich method. Ethyl bromid would be more popular were it not so dangerous. It is very quick. The preparation of the patient is most important. Dr. Rushmore commended the use of morphin and atropin. Sex influences the effect of ether—men requiring more than women. Hiccough following ether is a frequent and distressing symptom. Dr. Squibb said that care should be used to say ether instead of sulphuric ether, as the latter is now commercial and is not fit for anesthesia. Ether for anesthesia should contain 96% of pure ether, the rest being alcohol. In late years, ether has improved in quality, so that now the impurities are infinitesimal in proportion. The purer the ether, the less vomiting is provoked. Dr. Gildersleeve said that although he preferred ether he thought the dangers of chloroform were over-estimated. He could see no advantage in the Schleich method. He thought most patients were over-anesthetized. It takes an expert to keep the patient just under the influence and no more. Dr. Gildersleeve thought chloroform better adapted for children. Few men can give ether and chloroform, such administration requiring even more expertness. Dr. Bierwitt said that although most forms of renal disease do not prohibit ether, he thought anesthetics should not be given when the kidneys manifest evidences of weakness.

Academy of Medicine—Section on General Surgery.—At a stated meeting held January 9, Dr. H. Lilienthal presented a case of **general peritonitis treated by enterotomy.** He made multiple incisions in the gut instead of punctures, to evacuate the gas, fluid, and septic material. If this material be not all gotten out, it later causes fermentation and consequently more distention, rendering the operative effects nil. The patient was almost comatose at the time of operation. The appendix was found to be gangrenous. There were a very few adhesions to adjacent gut, which were broken up by finger. Gauze and rubber drainage was used. At the end of two weeks secondary sutures were used to close the abdomen. A culture from the appendix yielded only the colon-bacillus.

Dr. Lilienthal presented another case of **general peritonitis** accompanied by acute sepsis. There was pain throughout the abdomen, which, upon being opened, disclosed an appendicitis. The appendix was removed and the intestines incised in the same manner as in the previous case. Dr. Lilienthal claims that distention may cause death by the mechanical obstruction that it offers to respiration. Death may be caused also by the retained septic fluid. In the discussion Dr. R. H. Dawbarn said that he had found an injection into the bowel of a saturated solution of Epsom salt to be an aid in relieving the distention. Dr. Robt. T. Morris said that he usually made only one incision and then sutured the bowel to the abdominal wall, leaving gas to escape by day and night. This opening closes spontaneously. He thought the Epsom salt acted well because of its hydroscopic properties, causing an exosmosis from the tissues. A good resource in these cases is stretching the sphincter ani. Dr. Jno. Wyeth said that the custom of incising a paralyzed bowel for the relief of distention is 10 years old, and it is a wonder that it has not become more popular. The paralysis is due to 2 causes: (1) hyperdistention by fluids, gases, etc.; and (2) toxemia from the sepsis. Dr. Wyeth favors multiple incisions. Dr. Kammerer said that he has never made multiple incisions—it is his custom to make a single incision and leave it open. He did not believe that distention itself causes death of the patient. Dr. F. Lange said that he needed more proof than was given that the cases reported were general septic peritonitis. Many cases thought to be general are only local peritonitis. Dr. Lange thought that the question as to whether distended gut absorbs more than flaccid gut is one to be decided by experimental research. The inflammation of serous surfaces is accompanied by an exudation for the purpose of preventing absorption. The danger in septic peritonitis is due to the nature of the poison. In making incisions for the relief of the gas it is Dr. Lange's experience that each incision relieves only a small area of gut, the rest of the bowel remaining tympanitic. Dr. A. E. Gallant said that he would like to know the definition of intestinal paralysis. He cited a case of enormous distention in which the vermicular action of the intestines could be seen through the abdominal wall. He has used massage in 30 or 40 cases with success. He favors the large cut. Dr. C. Beck said that he did not believe a single case of actual general septic peritonitis ever recovered. The cases that recovered were probably localized. He favored the single incision. Dr. R. H. Dawbarn said that he did not believe in the small abdominal incision. He usually makes a large one, turning the bowel out of the abdomen and washing it thoroughly with salt-solution. He did not believe that all the pus could be washed out by irrigation, and he cited an experiment in which milk was poured into the abdominal cavity and irrigation was employed to wash it out. After the water came away clear, milk was found in the interstices of the mesentery. This operation was repeated with real pus with the same result. Dr. R. T. Morris responded by saying that it was not necessary to get out all of the pus. Dr. W. J. VanArsdale said he thought absorption was principally from the abdominal cavity and that the center of the diaphragm over the liver and stomach was most active in absorption. The peritonitis is not so deadly as the absorption. Distended intestines increase the pressure and lessen the space in the abdomen, thus forcing the fluids up to the diaphragm. By relieving pressure incision gives more space. If the intestine is kept open it makes continued drainage, which helps not only at once but subsequently. Irrigation of the colon at the time of puncture removes kinks and facilitates the escape of gas. Dr. H. Lilienthal, in closing the discussion, said that he did not believe it possible to thoroughly clean the peritoneal cavity of all pus, and he did not think it was necessary. The art of medicine can only assist Nature, not substitute for her. Dr. Lilienthal did not stretch the sphincter because he used a rectal tube, which answered the same purpose. He thought distention caused death by producing dyspnea, which produced exhaustion.

Dr. C. Beck presented a case of **aortic aneurysm** in which the sternum had been entirely absorbed, except the ensiform appendix. The tumor projected from the neck and was as large as a muskmelon. There was only moderate pulsation in comparison with the size. The patient denied syphilis and claimed that lifting a heavy weight 5 years ago caused the trouble. In the discussion Dr. John Wyeth said that he would suggest as a form of treatment the insertion of hairlip-pins into the sac-wall, leaving them there for 36 hours. Dr. R. H. Dawbarn favored this pin-treatment, which was originated by MacEwen, of Glasgow. He has also used the fine-wire and electric current, introduced some years ago as a treatment of aneurysm.

Dr. E. M. Foote read a paper entitled **Ingrowing toe-nail—a comparison of methods of operation,** in which he reviewed the history of the affection and compared all the methods invented to cure it. He claimed there is no need to excise any of the flesh of the toe; all that is necessary is to remove part of the nail and part of the matrix—the part behind the removed nail. It is necessary to get all of this away or there will be a recurrence. Dr. Foote has devised an operation that is an adaptation from others. It is the simplest operation that can be performed and it meets all the requirements, as was proved by non-recurrence in a dozen or more cases. Dr. Foote showed illustrations and diagrams of the operation. One-third of the nail is taken off. The incision is continued back into the skin over the root of the nail almost to the joint. The matrix and the root are thoroughly removed, with the one-third of nail, and the skinflap is sutured over the raw surface. In the discussion Dr. Dowd said that he approved of the method described. In his own practice he carefully dissects away the matrix back to the joint and down to the bone. He has had no recurrences. Dr. R. H. Dawbarn said that for the last ten years he has performed an operation quite similar to that described. It is most important to remove the root of the nail. Dr. Dawbarn goes to within $\frac{1}{10}$ inch of the joint. He usually removes $\frac{1}{10}$ of the width of the nail. Dr. W. J. VanArsdale says that he employs an operation in which he removes all of the nail and makes two flaps of skin over the matrix, which he cuts out down to the bone, removing at the same time some of the periosteum.

In the executive session Dr. Charles N. Dowd was elected chairman and Dr. John B. Walker secretary.

Medical Society of the County of Erie (New York).—At the annual meeting held in Buffalo, January 10, Dr. Lucien Howe, president, presented a valedictory address on **Why and how the eyes of children in the public schools should be examined.** Dr. Howe referred to the investigations made by the Buffalo Medical Association some time ago upon the effects of school-life on the eyes of children. The results showed that about the same condition prevailed in Buffalo as had been found elsewhere—defective school-furniture and bad light producing its quota of imperfect vision at the time, and the promise of serious disturbances in the future. It was found, for example, that in the primary classes the percentage of those nearsighted, or who had eyes otherwise imperfect, was exceedingly small, but that this percentage increased in an almost constant ratio with the advancing school-years, so that by the time these young men and women were graduated from the High School, 19.7% were nearsighted or had eyes otherwise defective. In other words, it was impossible to have 5 children finish the prescribed course without sending one of them out with imperfect vision. In stating the disadvantages of school-life to the eyes, Dr. Howe placed first of all the production of nearsightedness caused by (*a*) an ill-adjusted desk and seat. The desk must be at a suitable distance from the seat, and the seat of a certain height, preferably the same as the height of the knee. In this way the pupil is enabled to sit upright. (*b*) Imperfect light, requiring the pupil to approach his head to the book. (*c*) Light coming from the wrong direction—from the right side, causing the hand to shade what is being written. If there exist a tendency to astigmatism, to amblyopia from strabismus, or to any similar disease, this is likely to be aggravated if it passes without correction in early life. Contagious diseases of the eyes are frequently propagated rapidly in schools, of course in those schools in which, with utter disregard of hygiene, roller-towels are still allowed, and also often from the contact that children have with one another in their games or even in going to and returning from school. To show the necessity of these examinations in Buffalo, extended extracts were quoted from the public report of the Buffalo School Association, made last year in regard to the sanitary condition of public-school buildings. As to the method of examination, Dr. Howe believes the simpler that it can be made the better. It should be so arranged as to demand of the teacher the least possible knowledge of eyes, should be so rapid as to occupy the least possible time of teachers and pupil, and then, in cases in which vision is found to be so imperfect as to necessitate a notice to the parents, this notice should be given in such a manner as to cause as little anxiety as possible. Fortunately the New York State Board of Health, realizing the necessity of these examinations for pupils in the public schools, has issued a list of instructions to teachers. In conclusion, Dr. Howe offered the following recommendations: (1) That the attention of the Superintendents of Education in Buffalo and the towns of the county of Erie be called to the advisability of examining the eyes of pupils in the public schools as often as once a year, and that this be done by the teachers in the manner indicated by the State Board of Health. (2) That this Society express to the Mayor, to the Boards of Councilmen and of Aldermen its sense of the necessity of adding to the Board of Health another physician, who shall not engage in private practice, but who shall give his entire attention to the sanitary condition of the schools, and to preserving the health and the eyesight of seventy odd thousand pupils. If these two recommendations could be adopted, it is certain that the next generation would suffer less and have better vision than the present one. Improvement in public health, like many others, small by itself, but great in the aggregate, is only a part of the work to be inaugurated or guided to completion by medical societies. Superintendent of Education Henry P. Emerson said that if it took 1200 teachers to look after the intellectual welfare of 70,000 school-children, he thought it a small thing to ask one inspector to look after their physical well-being. The school-department could not adequately handle this important part of the school-work, because no medical examiner was connected with the department, and the present employees had their time fully occupied in following out their own particular lines of work. The superintendent expressed himself heartily in favor of the appointment of an inspector, and thought it would be a great benefit to the pupils and an assistance to the teachers. Health-Commissioner Dr. Ernest Wende said that one great trouble was that the health-department was not consulted beforehand concerning the selection of a site for new school-buildings or their proper sanitary construction. After a mistake had been made, the health-department was frequently called upon to remedy it, but then it was more difficult to accomplish. If the department was consulted beforehand, it would protest most vigorously against selecting a site for a school-building next to a factory containing a nuisance, such as noise or smoke, or any other form of nuisance that would be an annoyance to the pupils and a detriment to the school. Many such cases were referred to the health-department for adjustment, which would not have existed had the department been consulted in time.

Dr. Howe's recommendations were presented as a resolution and adopted.

In the report of the board of censors attention was called, in reference to offenders against medical law, to the "large number of prosecutions in Greater New York made possible by the speedy trial of all violators of the medical statute before local magistrates, without the necessity of going to the grand jury. If it is thought advisable on all grounds to establish this practice in Buffalo, a suitable bill will be presented at the present session of the legislature, extending the jurisdiction of the police-court of Buffalo so as to allow the final determination in that court of trials arising under the medical law." Dr. George F. Cott presented **a new form of atomizer,** consisting in a device for throwing a continuous spray, which he had found useful in washing out wounds and in many other ways familiar to surgeons and specialists as well as to the general practitioner. Dr. Charles E. Congdon presented a paper on **Some points in the diagnosis of ovarian cyst,** with presentation of case. Dr. Benjamin F. Rogers presented a paper on **Ocular hygiene in the school-room,** in which were set forth in a comprehensive manner some common-sense ideas regarding the arrangement of school-rooms, the use of adjustable desks and chairs, the proper light, ventilation, etc. In the course of his paper he expressed the opinion that a large percentage of cases of myopia in the high-school pupils to-day were the result of improper seating, lighting, and ventilation in the grammar-school buildings.

The following officers were elected for the year 1899:—President, Dr. J. B. Coakley; vice-president, Dr. E. H. Ballou; secretary, Dr. Franklin C. Gram; treasurer, Dr. Edward Clark; librarian, Dr. W. C. Callanan; censors, Drs. J. B. Coakley, Irving W. Potter, Thomas F. Dwyer, Charles E. Congdon, Francis E. Fronczak.

Buffalo (N.Y.) Academy of Medicine—Medical Section.—At a meeting held January 10, Dr. Arthur W. Hurd read a paper upon **Autointoxication,** in which he emphasized that physicians grasp at and infer many things in medicine that have to be carefully demonstrated afterward, and that this is especially true of the present status of autointoxication. He called the attention of the profession to its debt to Van Gieson for the knowledge possessed by it upon the present status of the subject, and credited him with much contained in the paper. He said that Hippocrates' assertion that disease of the brain was caused by "bad humors" might in the light of autotoxis be considered modern, the term being now interpreted as toxins. Intoxication from poisons generated within the body has been inferred for many general diseases for a long time. The resemblances of some diseases to the conditions produced by common poisons undoubtedly suggested the theory of autointoxication. Pathologically, changes in the ganglion-cells produced by arsenic, lead, mercury and alcohol simulate closely those produced by bacterial poisons such as those of typhoid fever and diphtheria. A second mode of investigation of the autotoxic nature of disease is by experiments in which toxins from the intestinal contents, the urine and other products, are isolated and injected into animals, and a careful study made of the clinical and pathologic results. Attention was called to Albu's classification of autointoxications into 5 groups: (1) from suppression or disturbance of the function of an organ, *e. g.*, myxedema, diabetes, adrenal disease; (2) from anomalies in the general metabolism, *e. g.*, gout, oxaluria; (3) from retention of the physiologic product of metabolism, *e. g.*, burns, inhibited respiration, uremia; (4) from the over-production of physiologic and pathologic products of the organism, *e. g.*, acetonuria, carcinomatous coma; (5) from the gastro-intestinal tract, arising from disturbances of digestion, with or without pathologic change in the tract. Especial attention was directed to the difficulties of identification and to the doubt upon the inferences drawn when the conditions are considered, the statement being made in reference to group 5 that it is known that bacteriologic fermentation and putrefaction to an extent are normal processes of the intestines, then does the finding of extremely toxic substances mean that the system is getting rid of an unusually large supply and being freed, or does it mean that there is an excess of production and that inferentially some is being absorbed? Is it known that the quantity is abnormal for the given individual, either above or below natural production? Is it known that the toxic substances found, for example, in the urine, are too great in quantity, showing that they have not been destroyed in circulating through the organism and in consequence the system is being burdened by their presence, or does it mean that they are being eliminated freely and the toxic condition being lessened? Dr. Hurd thinks that, clinically at least, acute mania with exhaustion, melancholia, with stupor, and certain forms of epilepsy are due to autotoxis. The physical condition of the patient poisoned with morphin, cocain, sulphonal and alcohol, with closed emunctories, hot dry skin, muttering delirium, evidences of hallucinations of smell, fetid breath and elevated temperature may be so like a case of one of the conditions named, with no history of drug-poisoning, that one is struck with the possible toxic origin of the latter. Again, methods of elimination used in both produce similar results, so that one is forced to believe that the brain-cells of both are being affected by a poison. Reference was made to many other conditions from which similar deductions might be drawn and a statement of Clark emphasized to the effect that autotoxis is merely a secondary condition and that cause and effect are often confounded, that in the effort to counteract the influence of the toxins the primary defect is overlooked and the therapeutic measures adopted simply temporize and do not cure the original lesion. In the discussion Dr. Hayd expressed the belief that the intestinal juices have a function of antisepsis, as well as of digestion. His experience would indicate that psychoses of a melancholic kind might be due to a condition of hypochlorhydria; that a possible cause of shock in major or prolonged operations might be autointoxication; that the indications were for tonics and laxatives to overcome stagnation. He believes that a too free meat-diet is active in producing a more or less grave intestinal-intoxication. Dr. Charles G. Stockton emphasized the caution against laying too much stress upon new theories. He believes that the term autointoxication should be limited to the action of those toxins formed within the true body, and should be carefully separated from the intoxication due to absorption of the toxins produced normally or abnormally within the alimentary tract, which space is really without the body. He thinks that we are but at the borderland of the first class of intoxications; that our knowledge of internal secretions, their normal or abnormal qualities and functions is, as yet, very meager and unsatisfactory, and he cited the present conflicting views in regard to the action of the thyroid gland. He related a case of adrenal disease in which he obtained recovery from the classic symptoms by the use of adrenal extract; yet the patient died suddenly in consequence of an intoxication. He related a case to show that retention of urinary products within the body does not always produce uremia, and he called attention to the fact that Bouchard's position on the toxicity of the urine and the potassium retained in the system is now known to be a false one; that it is not known what the poisons in the urine are; that those formerly so considered, *e.g.*, ethereal sulphates and ureas, can be injected into the circulation in large quantities without producing toxemia. Dr. Stockton's experience with indican-determinations (in the urine) and its relation to HCl-production in the stomach is at variance with that of Simon, as he found indican to vary in individuals with normal HCl, and to be as often absent as present in individuals with lowered HCl-production. He claimed that a great many loose statements are made in regard to the cause and effects of autointoxication, and he related a case of complete absence of bile from the feces of an individual for three years, who had jaundice, but no evidences of profound intoxication. Autointoxication is being used as a scapegoat for ignorance, carelessness and laziness as is neurasthenia and malaria.

Dr. H. A. Wood read a paper upon **Membranous enteritis as found in nervous diseases and insanity.** He showed that the neurotic element is always a predisposing cause of the disease, and that it is always traceable to near or close heredity. He found eyestrain in nearly all cases coming under his observation, and that the relief of a present membranous enteritis always improved the mental condition of the insane patient. He related a typical case in which epileptic seizures were diminished by relieving the enteritis present. Dr. Wood believed the condition created a toxemia, but he had been unable satisfactorily to explain how or to demonstrate a toxin in the excretions to whose influence the conditions accompanying the enteritis might be due. He concluded that the sympathetic nervous system is the part at fault, that slight changes in temperature and in atmospheric conditions quickly affected those having the disease, that there is always present a poor and easily disturbed circulation, that mild and thorough antisepsis relieved the pain best, that antiseptics and nerve-tonics are the best remedies, that those medicines that are taken up to become foreign substances in the circulation, as bromids, are bad remedies to administer in these cases, because of the feeble elimination, and that all methods become after a longer or shorter period helpless, and must be changed. Dr. Wood stated that insanity occurring in these cases always is acute in character.

Dr. Herbert U. Williams exhibited several specimens of **mucous casts** from the University Museum, and from the number of specimens sent to him each year he thought the disease must be quite common. The histories accompanying the specimen were always those of constipated neurotic women of middle life; the material was found to be simply inspissated mucus.

Dr. H. P. Frost read a paper upon the **relation between physical and mental diseases.** He reviewed the conflicting opinions regarding syphilis and insanity and took a middle ground. He stated that renal disease is, in his experience, present in a large number of insane patients, and he cited an illustrative case in which the insanity was relieved by treatment of the renal condition. He called attention to the relation of exophthalmic goiter, chorea and rheumatism to abnormal mental states.

Dr. Helene Kuhlman read a paper upon **paresis,** in which she emphasized the importance of the early recognition of this disease, because it is then that successful treatment might be given. She noted the fact that paresis is claiming more victims yearly and that to some extent the disease is preventable. The etiology is obscure, but excesses, especially combined with much mental overwork, strain and anxiety, on the one hand, and poor food and faulty hygiene, on the other, combined often with an inherited taint are the predisposing factors. Dr. Kuhlman cited the importance of syphilis as a factor also, and stated that women are rapidly equalling men in frequency of attack, putting this at the door of the struggle of the sex in the race with man. She then gave the classification, stages, and reported cases to illustrate each step.

Dr. C. P. Patterson presented two cases, one of **acute mania** and the other of **dural consciousness.**

NEW ENGLAND.

Pollution of Water-supply.—The *Yale Medical Journal* states that it is expected that the report made by Dr. Herbert E. Smith, of the Yale Medical School, regarding the contamination of the water-supply at the Connecticut State Camp in Niantic, will result in the complete removal of the old well-system, formerly in vogue. The plan for the future is to bring, by means of pipes, a bountiful supply of pure water, obtained from sources free from any possibility of contamination.

Laboratory of Hygiene of the Vermont State Board of Health.—The following information to local health-officers in the State of Vermont relative to the work of the Laboratory of Hygiene established by the State Board of Health in accordance with an Act of the General Assembly of the State of October 26, 1898, has been issued:—

The laboratory will be opened for public work Jan. 1, 1899.

Examinations will be made of water-supplies, milk and all food-products, cases and suspected cases of diphtheria, typhoid fever, tuberculosis and malaria.

Section 3 of the act creating this laboratory says that "the use of the Laboratory and all investigations therein made shall be free to the people of this State."

Outfits for sending specimens for examination in cases and suspected cases of diphtheria, typhoid fever, tuberculosis, and malaria will be kept on hand at one or more stations in each of the towns and cities of the State.

Chemic and biologic examination of water-supplies will be made upon application to the Director of the Laboratory by the local health-officer. When any such health-officer determines that such an examination is necessary, he will advise the Director of the Laboratory to that effect. Upon receipt of such request at the laboratory, a collecting-bottle, together with full directions for obtaining the sample of water, will be promptly forwarded. No specimen of water will be examined unless sent in the bottles furnished for that purpose. Express-charges for transportation of the bottles must be paid by the sender or local authorities. In this connection, it is suggested that valuable assistance in the work of the laboratory would be rendered if the subsequent history of any epidemic or termination of each case from which specimens were examined, was sent to the Director.

The following instructions have been issued to agents:—

This laboratory will keep you supplied with outfits containing the following:

1. Culture-tubes for cases and suspected cases of diphtheria.
2. Glass slides for samples of blood from suspected cases of typhoid fever.
3. Glass jars for sputum from suspected cases of tuberculosis.
4. Cover-glasses for cases and suspected cases of malaria.

The culture-tubes are unfit for use when the culture-medium is dry. They should be kept in a cool place, preferably a cellar. Fresh culture-tubes will be sent you every few weeks upon the receipt of which you will always return the old tubes to the laboratory.

These are the only outfits which need returning until used. Those for typhoid fever, tuberculosis, and malaria do not deteriorate with age, and will therefore be kept in stock by you until required for use by physicians.

Applications for additional outfits should be made on the postal cards furnished for that purpose.

It is not the intention of the State Board of Health to furnish these outfits to physicians except for immediate use: they are not to be distributed in anticipation of cases that may require their use.

Every outfit is numbered and recorded at this laboratory. When any outfit is given a physician, the number of such outfit must be recorded in the book furnished for that purpose, together with the name of the person procuring it. Full directions covering this point will be found on the inside of the cover of the record-book referred to.

The diphtheria and tuberculosis outfits must be forwarded by express.

The typhoid fever and malaria outfits can be sent by mail.

For bottles for conveying specimens of drinking-water to this laboratory, application must be made to the local health-officer.

The expense of transportation of the outfits from the laboratory to the agents, and the returning of old unused diphtheria culture-outfits to the laboratory in exchange for fresh ones, will be borne by the State. All other shipments must be paid by the local authorities.

Full directions to physicians for the use of the different outfits will be found on the printed blank which accompanies each outfit.

CHICAGO AND WESTERN STATES.

A Medical Mayor.—Dr. John W. Bean has been elected Mayor of Ellensburg, Wash.

Dr. M. E. A. McKechine has been appointed Health Officer of Seattle, Wash., to succeed Dr. C. A. Smith, recently resigned.

Dr. W. C. Gibson, of Seattle, Wash., has been appointed a member of the City Board of Health to fill the place of Dr. G. M. Horton, whose term had expired.

Cooper Medical College, San Francisco, Cal.—Dr. R. H. Plummer has resigned the chair of anatomy, and Dr. Albert Abrams, the chair of clinical medicine.

Epidemic of Trichinosis.—A family consisting of father, mother, and six children, and two neighbors were recently made severely ill with trichinosis by eating infected pork. It was reported that one of the children had died and that the mother and the two neighbors were fatally affected. It is also reported that the hog butchered had the appearances of being unhealthy, but the extreme poverty of the family induced the people to utilize it for food.

Marion County (Ind.) Medical Society.—At the annual meeting held January 3, the following officers were elected: President, Dr. H. A. Denson; vice-president, Dr. W. V. Morgan; secretary, Dr. F. B. Wynn; treasurer, Dr. H. G. Gaylord; members of the judicial council, Drs. Giodo Bell and J. F. Barnhill.

Smallpox in Oklahoma.—The prevalence of smallpox in the Indian Territory is said to have assumed such alarming proportions that Oklahoma is threatened with the scourge, and the Marine-Hospital Service has called upon the Interior Department to adopt some measure to check the spread of the disease among the Indians.

St. Louis Medical Society of Missouri.—At a meeting held January 14, the following was the scientific program: Preliminary report on the effects of ligating the dorsal vein of the penis for functional impotence, by Dr. G. Wiley Broome; Fair play for the doctor that recommends the specialist: a hint to both, by Dr. Robert Barclay.

Chicago Ophthalmological and Otological Society.—At the annual meeting held January 10, the following officers were elected:—President, Dr. Lyman Ware; vice-president, Dr. Casey A. Wood; secretary, Dr. C. P. Pinckard. Dr. Woodruff reported a case of binocular simulated blindness; Dr. Fulton read a paper on the operative treatment of blepharitis.

Medical Society of City Hospital Alumni, St. Louis, Mo.—The following was the scientific program of the meeting of January 19: Remarks upon an ear and throat infection and subsequent involvement of the neck by Dr. Ernest H. Cole; Some practical suggestions in ear examinations by Dr. John B. Shapleigh; The use of water in diseases of the digestive system by Dr. John C. Falk.

A Most Healthful Exercise.—A recent game of football at Fort Stevens between a team from Astoria and the soldiers' team resulted as follows: Two soldiers are in the hospital with broken legs, one had his knee-cap out of joint, one had two ribs broken, one had his nose broken, one is cut and bruised about the face and head so that he will be disfigured for life. One member of the Astoria team is suffering with a sprained ankle, and another is laid up with a broken leg.

The Cook County (Chicago) Hospital Staff assignments, corrected to date, are as follows: Physicians, Drs. Jas. B. Herrick, A. R. Edwards, Geo. F. Butler, Frank Billings, Robt. B. Preble. Surgeons: Drs. F. W. McNamara, Samuel Weber, T. A. Davis, C. Davison, J. B. Murphy, Weller Van Hook, E. L. Moorhead, D. H. Williams, Jno. Leeming, F. S. Hartman, A. I. Bouffleur, J. W. Tope, Leonard St. John, Denslow Lewis, A. Burwash. Pathologist, Dr. Ludvig Hektoen; ophthalmologist, Dr. Allen T. Haight; dermatologist, Dr. L. Blake Baldwin; obstetrician, Dr. Effie L. Lobdell.

Chicago Medical Society.—At a meeting held January 11 Dr. E. C. Dudley read a paper on the **surgical treatment of uterine myomata,** in which he reported two cases in which two tumors, both apparently springing from the uterus and each occupying the space between the folds of the right broad ligament, were removed. The first case occurred in a woman 60 years old, who had passed the menopause at 51. The most significant factors in the history were chronic rheumatism, general arterial sclerosis, hypertrophy of the heart, occasionally a faint trace of albumin in the urine and, as diagnosed upon these manifestations, chronic interstitial nephritis. Conjoined recto-vaginal examination disclosed a semi-fluctuating, immobile mass in the right side of the pelvis minor, together with great distress and steadily failing health. At operation a degenerated cystic tumor, the size of a child's head, apparently springing from the uterus and occupying the space between the folds of the right broad ligament was discovered, whose removal by enucleation was most tedious and difficult. During enucleation the cyst ruptured and some thick chocolate-colored fluid escaped. The small, senile uterus, which was inseparable from the cyst, was removed with the growth. A continuous strip of gauze-drain was packed into the space between the folds of the broad ligament from which the tumor had been removed and brought out through the vagina. This controlled bleeding from many points which could not readily be secured by ligature. No abdominal drain was employed. On the third day the patient died comatose. No autopsy could be obtained. All the indications pointed to uremia as the cause of death.

On culture the fluid yielded negative results. Microscopic examination showed the growth to be an adeno-cystoma. The gross indications were that the tumor originated in the uterus and thence developed into the broad ligament. Its connection with the uterus was too intimate to be explained on the supposition of an extrauterine origin and subsequent uterine adhesion. It may have been originally an adenomyoma of the variety described by Recklinghausen and later by Ries, and it may, therefore, have originated in a remnant of the Wolffian body. If this be true the myomatous elements had disappeared leaving a pure adenoma. A pure adenoma springing from the outer wall of the uterus is at least rare and interesting. The second patient presented herself with the history of an operation for the removal of a uterine myoma 18 months before. The wound had suppurated and did not completely heal, and about 6 weeks after the operation pus appeared through the vagina. Fever and chilly sensations had continued for 8 or more weeks after the operation. The abdominal and vaginal sinuses were discharging variable quantities of pus and at times feces have persisted and were present when the patient came under observation. Examination disclosed a tumor in all respects apparently like the one just described. Operation was performed and the firmly imbedded cyst was enucleated from the space between the folds of the right broad ligament. The abdominal and vaginal sinuses both communicated with this cyst. At one point it was apparent that a communication had once existed between the cyst and the bowel, but the opening had closed by cicatrization. In the enucleation of the cyst care was necessary not to reestablish this opening. The sinus connecting the cyst with the vagina was enlarged by free incision. As in the previous case, a long continuous gauze-drain was packed into the space from which the tumor had been removed, and brought out through the vagina. The edges of the two folds of the broad ligament were then united over this packing by a whip-stitch and thereby the field of the operation was rendered extra-peritoneal. The abdominal wound was closed without a drain. No part of the uterus or its appendages was destroyed. At the end of a week the vaginal gauze-drain had been gradually removed. The patient made an uninterrupted recovery. On microscopic examination the tumor proved to be a fibro-cyst. It probably originated as a myoma and through degenerative changes lost its muscular elements and became cystic. The contents of the sac were purulent and swarming with pneumococi. Dr. Dudley was not aware that any case has hitherto been reported of uterine fibro-cyst with pneumococcous infection. These two cases are not only somewhat rare, but they illustrate the great developmental and structural differences that may exist between two specimens of like gross appearance. In connection with this subject Dr. Dudley spoke for conservative surgery in myomectomy. The removal of the myoma and the preservation of the uterus, with or without utero-vaginal drainage, is coming to be more and more the operation of election. Eleven years ago Dr. Dudley reported a case of myomectomy by abdominal section and drainage from the interior of the uterus into the vagina. In this case no portion of the uterus was removed. Since this time Senn, Kelly, and others have in many cases and with various modifications made use of the same principle, until now the conservation of the uterus in myomectomy is not only an established but bids far to become a frequent operation. Intramural tumors, even though quite large, may often, with the greatest ease, be shelled out of their beds and the uterine wounds successfully closed. The tumor-cavity, if not too large, may be obliterated by closure with numerous interrupted or continuous buried catgut-sutures, and finally the peritoneal margins of the uterine wounds are united by a close row of rather deep Lembert sutures. During the enucleation of the tumor and the closure of the uterine wound, hemorrhage is controlled by a temporary elastic ligature around the cervix uteri. Before closing the abdominal wound this ligature is removed, and a little time is allowed to make sure that there is to be no hemorrhage from the uterine wound. Hemorrhage is usually in a great measure controlled by the uterine contraction that follows the enucleation. The mortality of this method for small tumors, in which the traumatism is slight, is surprisingly small. In case of a large tumor, and consequently of large traumatism, with enormous surfaces to be united by buried sutures, closure of the uterine wound involves too great danger of sepsis, and the technic should be modified as follows: After the tumor has been shelled out from the uterine wall an opening is made directly from the tumor-cavity to the uterine cavity. If the uterine canal is patulous, a continuous strip of gauze is carried from the tumor-cavity directly through into the vagina, and the cavity is packed with the same continuous strip. The temporary elastic ligature around the cervix does not interfere with the introduction of the gauze. The uterine wound is then closed, as described, by buried sutures and deep Lembert sutures of catgut. The peritoneal margins of this wound, thus turned and united in rapidly grow together, and the whole uterine traumatism, now isolated from the peritoneum, is adequately drained through the vagina. No abdominal drain is required. If the uterine canal is not sufficiently patulous, it may be dilated or bilaterally incised by means of a herniotomy-knife, or it may be both dilated and incised. The vagina is loosely filled with gauze to meet that which protrudes from the uterus; an absorbent vulvar dressing, to be changed as often as it becomes moist, completes the capillary drain. The gauze is removed in 2 or 3 days. Care is necessary in the closure of the uterine wound that the gauze be not caught in a suture, because then its removal would have to be postponed until after the absorption of the suture. As shown in the two cases reported, the same principles will apply also to an intraligamentous tumor. An intraligamentous myoma may be shelled out from its bed between the folds of the broad ligament. The same mode of drainage may be used as in the case of intramural tumors, except the route of drainage. This should be not through the uterine canal, but through an opening that is readily made from the tumor-cavity to a point in the vagina just back of or in front of the uterus. In exceptional cases it may be necessary for purposes of hemostasis to ligate the ovarian or uterine arteries or both. Experience has shown that sloughing of the uterus from thus cutting off its blood-supply is not to be feared. Intra-abdominal closure of the uterine wound and vaginal drainage of the tumor-cavity were early suggested by August Martin, of Berlin; but this surgeon appears not to have developed or practised the method extensively. Dr. Dudley's experience during several years with the technic described shows, (1) almost entire freedom from mortality; (2) prompt and uneventful recovery; (3) the most gratifying permanent results. The method is undoubtedly applicable to a much larger number of tumors than is generally supposed. Any surgeon who is constantly alert to enucleate the tumor and preserve the reproductive organs will be surprised at the number of cases in which this is entirely feasible. The mutilating operation of hysterectomy for myoma is often necessary, but not so often as the statistics of the present time would indicate. A few weeks ago Dr. Dudley enucleated 13 myomas from the walls of a uterus, repaired the uterine wounds thus made and left the organ entire. The result was perfectly satisfactory. In the majority of cases the uterine appendages will be found normal, and in a large proportion of the majority the tumor may be enucleated from the uterus and the wound successfully closed, precisely as would be required for the removal of such a tumor from any part of the body. Cases of large tumors and cases in which many small tumors are scattered through the uterine wall may require hysterectomy, but the conservative operation of simple enucleation will often suffice when the tumor is even larger than the fetal head, and in cases of multiple myomas even when there are several tumors. Dr. Dudley removed in one case a 45-pound myoma and preserved the uterus. This specimen must weigh over 20 pounds, and yet the uterus was not destroyed. The tumor-cavity from which it was enucleated was drained through the vagina.

Dr. Arthur R. Edwards exhibited a case of **leprosy**. The patient, aged 52 years, was previously a resident of India, Hawaiian Islands, and Cuba. The disease was said to have come on suddenly after exposure, the legs suddenly swelling, becoming painful and red, and later, hard, pigmented and tender, with patches of leukoderma. The temperature was elevated but not malarial, and there was falling out of the hair of the head, axillas and pubis. The patient next noticed facial neuralgia, great nervousness, persistent vertigo, the disturbance of all the special senses, glazing and hardening of the tongue, ataxia, increased reflexes, loss of muscular power, hyperesthesia and anesthesia, a girdle-sensation and great pain with tenderness in the lumbar region. Later there developed excessive itching of the skin, blebs on the genitalia, palpitation of the heart, and complete loss of appetite. The essential points in the examination were great scleroderma of the lower extremities, with leukoderma, increased reflexes, small nodes upon the lower extremities and back, with exquisitely tender and enormously enlarged ulnar nerves. No lepra-bacilli were found in the tissue excised. However, in Dr. Edwards' opinion as well as that of Drs. Zeisler, Lieberthal and Patrick, this fact did not change the diagnosis, inasmuch as the anesthetic type of leprosy often fails to reveal bacilli.

Dr. Fenton B. Turck presented cases illustrating the **diagnosis and treatment of motor insufficiency of the stomach,** and emphasized three important indications for treatment: (1) The restoration of the muscular tone of the stomach-walls, so that the churning power and the expulsive power are increased, whereby the food is properly prepared and the contents of the stomach are forced into the intestines within the normal limit of time; (2) a longer period between meals, so that the stomach is afforded longer and necessary periods of rest after the exercise of its secretory and motor functions; (3) the restoration of the vasomotor disturbance of the abdominal vessels. A report of some 100 selected cases of motor insufficiency was then presented. These had been treated and cured during the last 4 years by special methods. A large number of the cases had previously been treated by many other well-known methods without results. Among these cases some were exhibited before the Society for the purpose of demonstrating the methods by which the results were obtained, and also to emphasize the fact that the cures were permanent, some of the cases having received this treatment from 1 to 3 years previously, without subsequent treatment. Among the patients exhibited was a young woman, aged 33, who had been in a hospital for 3 months without beneficial results, the treatment consisting in lavage, diet, and general medication. She complained of great distress in the epigastrium, with severe attacks of gastralgia, headache, insomnia, marked general weakness, constipation alternating with diarrhea, vomiting at frequent intervals, especially from 6 to 8 hours after meals. Thirty-two pounds had been lost in weight during the previous 2 years. The patient had suffered from gastric derangement for 8 years. There was no history of ulcer, and the family-history was negative. On passing the long flexible gyromele into the stomach, the great curvature was found 6 cm. above the symphysis pubis, the lesser curvature just above the epigastric line. The stomach-area extended laterally to the right mammillary line. A sponge on the end of the cable passed the pylorus and became saturated with bile. On aspiration no bile was found in the stomach. The latter contained remnants of food and free HCl 0.28%. A test-meal of meat and rice had not passed out of the stomach in 10 hours. A few days later the urine showed no albumin or sugar; indican was increased. The blood-count was 3,900,000, the hemoglobin 65%. A diagnosis of dilatation of the stomach with gastric myasthenia, motor insufficiency, hyperchlorhydria, was made. The treatment consisted in pneumatic gymnastics of the stomach and the use of the gyromele, with the diet restricted to two meals a day and a cupful of bran in hot water at bedtime, three times a week. A month later the vomiting had disappeared; headache was less frequent, and remnants of food were found 8 hours after meals. The treatment was continued once daily, and on examination after another month the stomach showed a retraction of 5 cm.; 10 pounds has been gained in weight. The patient continued under treatment 4 or 5 times weekly and became free from gastric distress and from headache. The bowel-movements were regular, requiring occasional colonic lavage. The blood-count was 4,600,000; the hemoglobin 80%; 16 pounds had been gained in weight. A later examination with a long, flexible cable showed further retraction of the gastric area, and the stomach emptied itself in 6 hours; no free HCl was found in the empty stomach. One hour after Ewald's test-meal, HCl equaled 0.18%; 27 pounds had been gained in weight. There was no return of the symptoms, and the patient was discharged. She subsequently married and gave birth to a healthy child at term. Her attending physician reports that she is well nourished, free from gastric symptoms and from signs of myasthenia. There was no recurrence.

Another case occurred in a man who had been suffering for the previous 3 years, and during that time had constantly lost in weight, notwithstanding treatment received by various other methods. The examination showed the case to be one of pronounced motor insufficiency. The treatment lasted for 3 months and consisted in pneumatic gymnastics, stimulation by means of the gyromele, the diet being restricted to two meals a day. At the end of the treatment the patient had increased in weight from 112 to 132 pounds, and the gastric symptoms had disappeared. The patient has been examined at different times since, and there was at no time a return of the gastric symptoms. The present weight is 140 pounds.

Another case of 17 years' standing following an attack of malaria occurred in a man, aged 40. The previous treatment by various other methods had been negative in results. After 2 months' treatment the patient was discharged. He reported by letter every 2 or 3 months afterward, and had no relapse at any time, having gained in 3 months 20 pounds in weight. Other cases illustrating various conditions of gastric motor insufficiency were presented in proof of the claim that the good results effected by his method of treatment are as permanent as they are prompt.

Objection was made to direct lavage of the stomach on the ground that it removes necessary nutrient material and secretions and because its continued use causes irritation and an increase rather than a decrease of the symptoms. It was agreed, however, that the beneficial effects in improving the muscular tone of the stomach derived from lavage are due to the intermittent distention and contraction of the stomach. For the purpose of securing the beneficial effects of lavage and avoiding its detrimental effects, a thin rubber bag attached to a double tube is introduced into the stomach, so that the water does not come in direct contact with the mucous membrane of the stomach. This arrangement also permits the use of water at temperatures considerably higher than can safely be employed in direct contact with the mucous membrane, whereby also a marked stimulation of the muscular walls of the stomach and of the vascular area of the abdomen is produced. It was further pointed out that water distends the stomach in one direction only, and so that air is preferable, whereby the stomach is distended in all directions and it is possible to regulate more perfectly the distentions and contractions of the stomach. The effect of higher temperature is used in connection with the air as well by first passing it through a bottle of heated water, at a temperature of 55° C. Such heated air is also used directly in the stomach without the rubber bag. This treatment is termed "pneumatic gymnastics of the stomach." By the use of the gyromele the stomach is cleaned more perfectly than by any other means and muscular contractions are systematically stimulated. The gyromele is also used as the inner electrode in electrization, because with it every part of the stomach can be reached. Finally, the superiority of diet consisting of only two meals a day of suitably prepared food was strongly emphasized, in preference to the more usual frequent meal-regime, because by this means the stomach is afforded longer and necessary periods of rest after the exercise of its secretory and motor functions. To further stimulate the peristalsis and assist in the digestion and to overcome constipation, bran-mush with hot water at bedtime may be prescribed.

SOUTHERN STATES.

Woman's Medical College of Baltimore, Md.—Dr. Jennie N. Browne has been elected professor of physiology, to succeed the late Dr. Batcheler.

Raleigh (N. C.) Academy of Medicine.—The following officers have been elected for the ensuing year: President, Dr. James McKee; vice-president, Dr. R. S. McGeachy; secretary, Dr. K. A. Royster; treasurer, Dr. A. W. Goodwin.

Baltimore Medical and Surgical Association.—At the annual meeting, held January 9, the following officers were elected: President, Dr. C. Urban Smith; vice-presidents, Drs. A. K. Bond and M. B. Billingslea; secretary, Dr. Eugene Lee Crutchfield; treasurer Dr. W. E. Weigand; executive committee, Drs. J. I. Pennington, J. R. Abercrombie, and D. Z. Dunott; committee of honor, Drs. George A. Fleming, S. T. Earle, and C. H. Dixon.

United Charities Hospital, Cambridge, Md.—At a recent meeting of the directors, a constitution and by-laws were adopted. Drs. B. W. Goldsborough, John Mace, and Guy Steel, were appointed the local medical staff, with Dr. Goldsborough chief. Dr. Thomas S. Cullen, of Baltimore, was appointed gynecologist, and Dr. Nathan R. Gorter, surgeon. The following were elected members of the hospital staff: George W. Woolford, Thos. Drennen, Dr. T. H. Williams, W. Irving Mace, Dr. P. E. Hines, and I. Nelson.

The American Peril.—If Havana, in its present condition, were suddenly peopled with men from our Northern and Western states, the results would probably be as follows: The general death-rate would be very much higher than at present; the proportion of deaths from dysentery would decrease somewhat, because of our cleanliness and better dietetic habits; the proportion of deaths from typhoid fever would increase considerably, while malaria and yellow fever would claim scores of victims for every one they gain now. This is not the fanciful prediction of an alarmist. It is an estimate based upon well-established facts. In the epidemic at Memphis in 1878 unacclimated medical assistants were found almost useless; for they were almost sure to sicken and become additional burdens to their acclimated colleagues. Of 55 unacclimated physicians who responded to the call for help, 54 were attacked, and 33 died. Only two of the resident clergy escaped. Of the 9,000 white people who remained in the city, all but 200—and these were mostly immunes—were attacked, and 70% died. Indeed, Dr. Guiteras has said that practically all foreigners are seized by the malady sooner or later, usually within the first year of residence. The white-skinned Anglo-Saxon is much more susceptible than the darker Latin; and all colors intermediary between the latter and the negro are more and more exempt as they approach the African, who has the least to fear."—[Mr. Hill, private secretary of Col. Waring, in the *Forum*.]

The Condition of Havana.—The city of Havana is in a deplorable condition. The Spaniards have left it bankrupt, unable to pay its employees, who have lacked their salaries for many months. The prisons, asylums, and homes for the destitute are without supplies, food, or medicine. The sanitary condition is frightful. Almost inconceivable abuses exist, which are a continuing menace to the health of the city.

The Spaniards have left Havana with scarcely an attribute of modern civilization and practically in the sanitary condition of a city two centuries ago. For the time being, Havana, as well as the island, is in a helpless and destitute condition. The United States is provisionally in charge of the administration of affairs, military and civil. The American Government has expended large sums of money for the regeneration of the island, and is ready to spend more. The money which at this very moment is being used to maintain the charitable institutions of the city is money allotted by the United States as a free gift for this purpose. We have given food rations by the millions, and employment to thousands of men who needed it.

The retiring Spanish authorities have pillaged almost every building destined for public use, stripping all of everything of value, with a few exceptions, and leaving behind only the accumulated filth of generations. Within three months will come the wet season, with deplorable possibilities as to the outbreak of epidemics, particularly yellow fever, from which Havana suffers the year round, owing to the gross neglect of all sanitary precautions.—[Major-General Ludlow.]

Johns Hopkins Hospital Medical Society.—At a meeting held January 9, Dr. T. B. Futcher presented two cases in which the **gelatin-treatment for aneurysm** had been carried out. Lancereaux, who introduced this method of treatment, has used it in a large number of cases, with, on the whole, most favorable results. He uses 2% solution of gelatin in normal salt-solution, of which he recommends the injection of 250 cu. cm. into the subcutaneous tissues of the thighs. The injection is made at intervals of from 2 to 15 days, and from 10 or 15 to 20 injections are necessary to effect a cure. Huchard has used this method with good results. Owing to the severe pain associated with the injections, he recommends the use of a 1% instead of a 2% solution. Huchard found that this modification afforded relief to the pain at the seat of injection. He has recorded two cases in which death occurred suddenly during the injection-treatment. In one of the cases the patient had been seized with a sudden attack of dyspnea and collapse, and sudden death occurred. At autopsy, the aneurysmal sac was found to be lined with a layer of dense fibrin from 3 to 4 cm. thick, and it was further found that all the vessels coming off from the arch of the aorta, excepting the left subclavian, were plugged by clots which probably caused the sudden death. Lancereaux has demonstrated that the coagulability of the blood is increased after gelatin-injections, although others have failed to find an increased coagulability. One of the patients demonstrated before the society had an aneurysm of the descending portion of the thoracic aorta. Up to date he had received 28 injections of the 1% gelatin-solution. There had been an appreciable diminution in the pulsation over the aneurysm, and a marked diminution of the pain complained of. The man had gained 19 pounds in weight. The second case was in a colored man who had received 21 injections without any material improvement. The patient had probably, however, a diffuse dilatation of the arch of the aorta, in which cases Lancereaux admits that little improvement is to be expected. An interesting feature in the case was the development of hard fibrous nodules at the seat of several injections made into the abdominal walls. These disappeared in about 2 weeks. Two other cases of aneurysm had also been treated in the same way. One of the patients, the first one on whom the treatment had been tried, died suddenly from rupture of the aneurysm into the left bronchus after he had received 6 injections. At the autopsy, no fibrin-deposit was found in the aneurysmal sac. The fourth case, one of aneurysm of the abdominal aorta, had shown practically no improvement after 16 injections. Of the four cases, only one had exhibited evidences of material improvement. In 3 of the 4 cases there had been a diminution of the coagulation-time as determined by Wright's coagulometer.

A third patient was shown to illustrate the beneficial effect of the **Schott-bath treatment** on an enlarged heart, the result of myocardial changes. Before the baths were started, the point of maximum cardiac impulse was in the sixth interspace 12 cm. from the median line, and the greatest transverse measurement of relative cardiac dulness was 12 cm. The pulse was of small volume and tension, and irregular. After 10 baths had been given, 4 of which were thermal saline and 6 Co_2 baths, the point of maximum impulse was in the fifth interspace 8.5 cm. from the median line and the greatest transverse diameter of the relative cardiac impulse had been reduced to 6 cm. The character of the pulse had markedly improved. For giving the Co_2 baths, the salts put up by a New York manufacturing company were used and found most convenient. These consist of sodium-bicarbonate and sodium-bisulphate, and are much more convenient and safe than the sodium-bicarbonate and hydrochloric method. The gradual diminution in the area of cardiac dulness was well shown by a series of charts representing the outline of the dulness before and after each bath.

Dr. W. H. Welch presented a communication on **hemorrhagic infarction of the intestine.** The literature on this subject is not extensive, although since the first case reported by Virchow, in 1847, there have been at least 70 cases reported. In a recent case, in which aortic insufficiency and mitral stenosis had been diagnosed during life, the section showed in addition to aortic insufficiency without mitral lesion a thrombosis of the superior mesenteric artery causing hemorrhagic infarction of the greater part of the intestine supplied by the vessel, viz., most of the jejunum, the ileum, the ascending and about one-half of the transverse colon. There were thrombi present in the left auricle. For two days previous to death there had been some abdominal symptoms, but never any vomiting or bloody stools, which are nearly always present in this condition. The thrombosis of the superior mesenteric artery resulted, in all likelihood, from a dislodgment of an embolus from the left auricle. The intestine involved in this case corresponded closely with the area of infarction following ligature of the superior mesenteric artery in experiments. In the latter, however, it extends higher up and takes in the lower half of the duodenum. Cohnheim's terminal-artery theory was shown to be inadequate in explaining the occurrence of hemorrhagic infarction of the intestine. Dr. Welch had shown in 1897 that after ligation of the superior mesenteric artery, or one of its branches, in dogs, there is a contraction of the intestine corresponding to the area supplied by the ligated vessel, which lasts 2 hours. This causes a contraction of the vessels in the submucosa, practically obliterating them and preventing any blood being supplied to the involved intestine from the vessels in the adjacent intestine with which they anastomose. Dr. Welch holds that this contraction of the intestine is a most important factor in the causation of hemorrhagic infarction of the intestine. During the 2 hours in which the contraction occurs there is pallor of the affected part. This is followed by paralysis of the intestinal muscle, relaxation of the vessels and the onset of the hemorrhagic appearance of the intestine. During these 2 hours the cells lining the vessels are so changed that diapedesis is favored, and the affected part becomes infiltrated with red cells. The reason why the infarction is hemorrhagic was discussed at considerable length. Cohnheim believed that the condition was due to a regurgitation through the veins. Cohn, Litten and Welch have shown, however, that this is not the proper explanation. The hemorrhage actually arises from the anastomosing arteries, and is due to the fact that the blood-current is not a pulsating one. Hemorrhagic infarction of the intestine may follow plugging of either the veins or arteries, but not necessarily so. The infarction varies in intensity. It may be slight; frequently it is severe, the hemorrhage occurring in both the intestine and the mesentery. Symptoms of the condition may be entirely absent during life. Usually they are severe and acute. Severe pain, occasionally located at the umbilicus, more often general, is common; vomiting of bloody or fecal material is common; diarrhea and bloody stools frequent. Intestinal obstruction may occur. A diagnosis is rarely made during life. The cases are generally mistaken for intestinal obstruction. Bloody stools and some source for an embolus are important diagnostic points. The cases are not necessarily fatal. Dr. Elliott, of Boston, has had a case recover after resection of 4 feet of intestine. An English surgeon, Dr. Gordon, has also had a recovery follow resection of 2 feet of intestine. Dr. Thayer stated that during life this patient had presented clinically all the signs, including a presystolic thrill and murmur, of a true mitral stenosis, in addition to the signs characteristic of an aortic insufficiency. The autopsy, however, revealed no organic lesion of the mitral valve. Relative dilatation was present and the presystolic murmur heard at the apex during life was undoubtedly a Flint murmur.

CANADA.

McGill University.—The total number of students in attendance during the present scholastic year is 428, as compared with 405 during the previous year.

MISCELLANY.

Obituary.—Dr. John P. Sharere, Little Falls, N. Y., January 8, aged 75 years.—Dr. Stephen H. Webster, Troy, N. Y., January 6, aged 33 years.—Dr. Joseph Albrecht, a native of Walzahut, Switzerland, and a graduate of the University of Paris, a distinguished chemist, botanist, and entomologist, New Orleans, La., January 8, aged 79 years.—Dr. C. C. P. Clark, Oswego, N. Y., January 11, aged 76 years.—Dr. William H. Dustman, New York, January 4, aged 42 years.—Dr. Charles C. Lange, Pittsburg, January 3, aged 56 years.—Dr. Daniel Lucius Adams, New Haven, Conn., January 3, aged 84 years.—Dr. Charles W. McManus, New York, January 6.—Dr. Louis A. Livingood, Womelsdorf, Pa., January 4, aged 68 years.—Dr. John W. Warth, Brooklyn, N. Y., January 7.—Dr. Edward G. Field, New York, January 8, aged 76 years.

Uremic Asthma.—Eliot Johnson (*Virginia Medical Semi-Monthly*, December 23, 1898) regards asthma as a neurosis depending upon irritation reflected from other parts of the system. He claims that the so-called dyspnea, so often occurring in renal troubles, is really uremic asthma, and that this can be shown by the absence of acute congestion or edema of the lungs. He cites several cases to prove his point and urges careful differentiation in order to justly adapt treatment.

Foreign News and Notes.

GREAT BRITAIN.

Lady Curzon, of Kedleston, née Miss Leiter, of Chicago, is to become the President of the Marchioness of Dufferin's fund for providing medical aid for the women of India.

Sir James Reid, Bart., K.C.B., has been appointed by the Prince of Wales a Physician-in-Ordinary to his Royal Highness, vice Sir William Jenner, Bart., G.C.B., recently deceased.

Sanitation of Gibraltar.—According to the *British Medical Journal*, a new drainage system has been completed at Gibraltar, which should result in benefit to the health of the troops quartered there. Hitherto the Rock has had an unenviable reputation for bad odors and defective drainage.

St. George's Hospital Medical School, London.—Dr. Isambard Owen has been appointed joint-lecturer (with Dr. Ewart) in systematic medicine, in succession to Dr. Cavafy. Dr. Lee Dickinson has been appointed lecturer in toxicology and forensic medicine, and Dr. Cyril Ogle lecturer in practical medicine.

Dr. Thomas Clifford Allbutt, Regius Professor of Medicine, has been elected by a Special Board for Medicine at Cambridge, to be their representative on the General Board of Studies until December 31, 1902. They have also reappointed Dr. Hill, Master of Downing College, University Lecturer in Advanced Human Anatomy, until 1903.

Honorary Members of the St. Petersburg Academy of Medicine.—On the occasion of the jubilee of the St. Petersburg Academy of Medicine the following British medical men were appointed honorary members of the Academy: Sir William MacCormac, Sir William Turner, Sir William Stokes, Dr. Thomson, Dr. Macewen, and Dr. Lauder Brunton.

The Harben Gold Medal and the Harben Lecturer.—The Council of the Royal Institute of Public Health have awarded the Harben Gold Medal for 1899 to Lord Lister, P.R.S., in recognition of his eminent services to preventive medicine; and they have appointed as Harben Lecturer for the year 1899, Professor William R. Smith, M.D. Aberd., D. Sc., F.R.S. Edin., who has chosen as the subject for his lectures "Diphtheria."

Vital Statistics of Edinburgh for the Year 1898.—According to the *Lancet*, the mortality in Edinburgh for the past year was 5,321, making the death-rate 17.99 per 1,000. There were 1,802 deaths of children under 5 years of age and 1,485 of persons above 60 years. 256 were above 80 years and 25 above 90 years. Diseases of the chest accounted for 1,720 deaths and zymotic diseases for 413, of which 9 were due to typhus fever, 27 to typhoid fever, 38 to diphtheria, 72 to scarlet fever, 134 to measles, 124 to whooping cough, and 9 to erysipelas.

The first case of poisoning by bromoform of which we have heard is reported from Lancaster, England. The victim was a little girl, 5 years old, who took a cough-mixture of mucilage containing 36 minims of bromoform. She died after swallowing the last dose, and at the inquest it was recorded that the directions concerning shaking the bottle before administering the physic, though written on the bottle, had been neglected. [A case of bromoform-poisoning was reported by L. Fisher, M.D., in the *Annals of Gynecology and Pediatry*, 1896–7, p. 557. We have also an indistinct recollection of a similar case having been reported in some American journal within the last year or two.—Ed. P. M. J.]

Substantial Appreciation of a Medical Officer of Health.—According to the *British Medical Journal*, the Corporation of Glasgow, after a somewhat animated discussion, adopted the proposal that Dr. Russell, their late senior medical officer of health, should receive an honorarium of £1,000. There was some discussion on the legality of the proposal and upon the danger of forming such a precedent. However, the general feeling that the splendid services which Dr. Russell rendered to the city should be specially acknowledged prevailed and the proposed grant was agreed to.

A Charitable Charity.—The Liverpool Ladies' Charity and Lying-in Hospital have done away with a rule which prevented them from offering the hospitality of their institution to any save married women. For the future single women, otherwise respectable, who have "got into trouble"—as the homely English expression has it—will be treated by the Charity after their cases have been investigated, the innovation only referring to first confinements. The Charity has by its wise departure earned a right to the name it bears. In this way, without in the least catering to profligacy, it will save many girls from prostitution.

Encyclopædia Medica.—According to the *Practitioner*, an important addition to medical literature is in course of preparation. This is an "Encyclopædia Medica," in 12 volumes, to be published quarterly. It is intended to do for medical science what the "Encyclopædia Britannica" has done for general literature. "Every subject," says the prospectus, "will be fully dealt with at a length proportionate to its importance, while the alphabetical arrangement, elaborate system of cross-references, and exhaustive index will make every statement contained in the work accessible for immediate consultation. Special attention will be given to bibliographical references." But the new Encyclopædia is by no means intended solely, or chiefly, for the use of specialists; it is the general practitioner that is to be mainly catered for. The list of writers includes all the foremost authorities of the day in the several departments of medical science. It is intended to issue the first volume early in 1899, and to complete the set of 12 volumes in three years.

Great Britain and Quarantine.—Some extraordinary information reaches us from Zanzibar by way of a London correspondent. It appears that on December 27 last, a ship, the *Bhandara*, belonging to the British India Steam Navigation Company, arrived off Kilindini, near Mombasa, reporting seven deaths from plague during its voyage conveying 1,000 coolies from Karachi, India. Sir Arthur Hardinge, Consul General of the British East Africa Protectorate, refused to allow the infected ship to communicate with the land. It is stated that similar action to repulse the unfortunate vessel was taken at Zanzibar, which is now under British control. If this story is true, and we may say that our correspondent is in a fortunate position for obtaining accurate knowledge, Sir Arthur Hardinge appears to have been guilty not only of an action of great cowardice and cruelty, but of breaking the compact of the recent Venice Convention on Quarantine, where Great Britain, through her delegates, spoke so uncompromisingly against this particular form of inhumanity.

Overcrowding in London.—It is not long ago that we read of a case of overcrowding in London, the details of which were made public in a police-court. A man owned one room. He sublet each corner to a family, and reserved the middle of the room to himself. The case at the police-court was a summons for assault, one of the "tenants" alleging that the "landlord's" introduction of a "lodger" to share the luxuries of the center of the room with him was in contravention of a verbal agreement. This story seemed to us *ben trovato* rather than *vero*, but on January 5th of this year the proceedings at an inquest on a suicide revealed a state of things every whit as hard to believe but undoubtedly true, which had for its scene a lodging-house at Wembley on the northwestern outskirts of the metropolis. Thirteen people, of either sex, were found to be lodging in two small rooms as well as the "landlord." The suicide arose out of the determination of one of the "lodgers" to cohabit with the "landlord's" daughter in preference to his own wife. The wretched man first tried to kill his paramour and then committed suicide.

The British Naval Medical Service.—As one outcome of the intense interest which Great Britain just now is manifesting in her complete preparedness for war, this service has had a search-light turned upon it, and has been found wanting by both medical and lay critics. A too rigid system of economical administration has hitherto been pursued with regard to the equipment of naval surgeons, who have had to provide their instruments at their own cost and without any official regulation to guide them as to the amount of money they should spend or the necessity of having modern instruments. As a consequence, it is stated, many naval surgeons, not feeling called upon to do more, have been going through their surgical duties equipped with obsolete weapons, while few have microscopes, and most ships are without the Rœntgen apparatus. This clearly is not fair on the patients; while it is rather difficult for the Government to decide what is and what is not a complete surgical armamentarium, and leave the surgeon to pay the bill. The proper course, and one that will probably be pursued in the near future, is for the country to equip their naval surgeons.

New Year Honors for British Medical Men.—As is well known, a list of persons who have done good public service is submitted to Queen Victoria every New Year's Day, that she may award to them some titular distinction. This year two well-known medical men's names appear in the honorable tale, Sir Henry Thompson and Dr. Hermann Weber. Sir Henry, who is already a knight, becomes a baronet, the effect of which is to make his "Sir" an hereditary distinctioh. As Sir Henry happens to have no heir to inherit the baronetcy the honor seems to be rather a barren one, but if it pleases the eminent surgeon to have it we are pleased that he should have acquired it. For Sir Henry Thompson, consulting surgeon to University College Hospital, was in his day a brilliant operator, as well as the first English opinion on the surgical treatment of vesical calculus and genito-urinary diseases. He is also an authority on dietary and cooking, a respectable water-color painter, and has written two novels, from which it may be judged that his long life—he is nearly 80 years of age—has not been an idle one. Dr. Hermann Weber, who now becomes Sir Hermann Weber, is a naturalized German, a Fellow of the Royal College of Physicians of London, and an acknowledged expert in climatology and the preventive treatment of pulmonary disease. Sir Hermann owes his knighthood to the fact that prophylaxis against phthisis has recently become a national movement in England, and that he has given a very practical proof of his belief that the question is one of first importance. So long ago as July, 1895, Dr. Weber placed a capital sum at the disposal of the Royal College of Physicians of London, for the founding of a triennial prize of the value of £150 to be awarded to the author of the best essay on tuberculosis with special reference to pulmonary consumption in man. The first award was made in 1897, when Dr. Arthur Ransome, F.R.S., formerly a physician to the Manchester Consumption Hospital, was adjudged the prize. The money prize is accompanied by a medal called the Parkes-Weber Medal, Dr. Weber having wished thus to perpetuate the memory of Dr. Parkes, the great sanitarian.

CONTINENTAL EUROPE.

Dr. O. Lassar, of Berlin, has been elected an honorary member of the Vienna Dermatologic Association.

A Woman Prosector.—In a recent competition for the post of prosector in the Medical School of Rouen, France, the nomination was awarded to Mlle. Robineau, interne of the hospitals.

Academie de Médecine de Paris.—At the annual meeting held recently, the following officers were elected for the ensuing year: President, Dr. Panas; vice-president, Dr. Marey; secretary, Dr. Vallin; members of the council, Drs. Potain and Polaillon.

Medical Experts in France.—A bill has been introduced into the French Chamber of Deputies for the reforming medical-expert evidence. According to the provisions of the bill, a list of medical experts—men only of undoubted scientific ability—shall be drawn up each year. From this list one shall be selected by the trial-judge, and he shall act in conjunction with an expert whom the accused may select if he or she elect. In case the two selected cannot agree, the matter is to be decided by a committee composed of eminent scientific men. The bill is now being considered by the Commission of Judicial Reform.

La Revue des Rhumatisants.—The *British Medical Journal* states that a periodical of a decidedly novel character has recently been started in Paris. It is entitled *La Revue des Rhumatisants*, and its aim is the solace and amusement of sufferers from rheumatism. The founder is M. Alexander Hepp, eminent as a journalist and equally eminent as a martyr to rheumatism. All his collaborators are fellow-sufferers. Among them are François Coppée, Jules Clarétie, Marcel Prévost, Aurélien Scholl, Emile Bergerat, Léon Daudet, Clovis Hugues, Coquelin the younger, and Caran d'Ache the celebrated caricaturist. This list would appear to suggest some close connection, hitherto unsuspected, between rheumatism and the finer arts. The matter seems to be worth investigation, and if any young physician is "spoiling" for want of a subject to work at, here is one that would be pretty certain to reward his toil.

The Centenary of the Russian Medical Military Academy was recently celebrated in St. Petersburg. There was a solemn service in the chapel of the Medical University, after which an address was given by one of the chief professors in the presence of the Minister of War, of several of the great dignitaries of the Greek Church, and of a crowded and gay assembly. After the address prizes were handed to the most successful of the students. The chief event of the celebration, however, was a meeting in the Salle de Noblesse, on December 30, 1898, at 2 P.M. The large hall was crowded with ladies in evening dress, with officers in uniform, and with delegates from various countries in their academic clothing. The Grand Duke Constantine assisted at the ceremony, and the Minister of War presided. After the delivery of an address, which embodied the history of the Academy, the Russian and the foreign delegates were, one by one, shown upon the platform and were introduced, each one saying a few words of greeting from the institution which he had the honor of representing.

Pro Puerita.—The Rome correspondent of the *Lancet* writes: Under this title the sub-Alpine capital is carrying on a crusade similar to that conducted in Rome and Florence "Pro Infantia"—a crusade on behalf of children of tender years neglected or abandoned by their parents. The Turin Society, organized for this purpose, has just issued its program, the leading points of which I translate: "The Society, with the support of the local authorities and committees of benevolence, seeks out such children of both sexes as have been morally or materially abandoned; assists on every due occasion the children it protects with clothing, with food, and with medicine; facilitates according to circumstances their admission into the various local institutes destined for the accommodation, care, or education of poor or sickly childhood; and protects in the last resort the said children from maltreatment, violence, or abuse, calling in if need be the intervention of the public authority and having recourse, as circumstances render advisable, to the action of the tribunals and the administration of the law." I hope to have occasion, from time to time, to "report progress" as to these efforts for rehabilitating Italian infancy—efforts certainly serious, well devised, and liberally maintained.

Suit Against a Surgeon for Professional Neglect.—According to the *Aerztliche Sachverständige Zeitung*, an intoxicated workman was wounded during a brawl and was attended by a surgeon who dressed his wounds, and attended him for 10 days. At the end of this time, the patient's condition not improving, he was removed to a hospital where it was discovered that he was suffering from paresis of the right arm and motor aphasia. Seven days after admission he was trephined and a broken knife-blade detected. It had penetrated the skull and the dura, and around it was an abscess. He died a few days later. Suit was brought against the first surgeon in attendance for professional neglect, and two other surgeons were cited to appear as experts. They were asked to state whether the defendant had sufficiently examined the wounds and whether if the blade had been at once removed from the skull the patient's life would have been saved. They agreed that there was no reason to believe that the surgeon had not sufficiently examined the wound, as he had not been informed that a knife had been used in the fight, and that even if he had introduced a probe into the wound there was little probability that the blade would have been detected, as it was inside the skull; and that even if the blade had been removed earlier the patient would probably have died, the knife not being free from pyogenic germs. The court agreed with the opinions of the expert witnesses and a verdict of "not guilty" was returned.

Alcoholism in France.—At the meeting of the Hospitals Medical Society held on December 15 M. Legendre, alarmed by the ever-increasing amount of drunkenness, asked if it would not be possible to withstand this by means of meetings, insistence on the dangers of alcohol, and by what he considered an even better method, that of getting up for the instruction of patients lantern-shows with exhibitions of anatomic preparations to show the dangers of alcohol. M. Legendre has had printed for the use of all his patients a little leaflet, setting forth in the clearest manner the evils that follow the use of alcohol. He gives one of these to every patient of his, both on admission to hospital and when he is discharged. Besides this he has had them stuck up all over his wards and even in the lavatories, as being quiet places where the patients will have leisure to read them with the object of bringing about a veritable obsession against alcohol. The text runs as follows: "Most of the diseases treated in the hospitals arise from alcoholic drinks—that is to say, they are either caused or aggravated by the abuse of alcohol. All alcoholic drinks are dangerous, and the most harmful are those which contain aromatics in addition to alcohol—as, for instance, *absinthe* and the so called aperients, called *ainers*. Alcoholic drinks are more dangerous when taken on an empty stomach or between meals. A man necessarily becomes an alcoholic—*i. e.*, slowly poisoned by alcohol—even if he never gets drunk, when every day he drinks alcohol in the form of liqueur or too much wine, more than one liter per diem. Alcohol is a poison the habitual use of which destroys more or less quickly, but none the less certainly, all the organs most necessary to life—the stomach, the liver, the kidneys, the bloodvessels, the heart, and the brain. Alcohol excites man, but does not strengthen him. It is no substitute for food, but takes away the taste for it. Those who often drink alcohol or too much wine (more than one liter a day) are much more liable to illness, and when ill are much worse, for the disease is often complicated with fatal delirium. Alcohol is a frequent cause of consumption by its power of weakening the lungs. Every year we see patients who attend the hospitals for alcoholism come back some months later suffering from consumption. Fathers and mothers who drink often have children who are deformed or idiots or who die from fits."—[*Lancet.*]

MISCELLANY.

Obituary.—Dr. Donald Campbell Black, M.D. Glasg., F.F P.S.G., emeritus professor of physiology, Anderson's College, Glasgow, December 20, aged 58 years.—Ernest Denman Minter, L.R.C.P. Edin., L.M.M.R.C.S. Eng., a Staff-surgeon in the British Royal Navy.—Dr. Albert Bimsenstein, President of the Société Médicale des Bureaux de Bienfaisance de Paris, aged 54 years.—Joseph Tillie, M.D. Edin., F.R.S.E., formerly University lecturer on experimental pharmacology and senior assistant to the professor of materia medica and therapeutics, University of Edinburgh, at Springfontein, Orange Free State, South Africa, November 28, 1898, aged 38 years.—Dr. Gluge, emeritus professor of physiology in the University of Brussels, aged 86 years.—Dr. C. Eloy, editor of the *Journal des Practiciens*, aged 50 years.—Dr. H. Lotar, professor of pharmacy in the University of Lille, France, aged 62 years.

Music Hath Charms, etc.—A correspondent sends the following festive effusion: "It has been suggested that music might prove a useful adjunct (in some cases, at least) where the usual routine treatment by medicine had not proved satisfactory. I venture to suggest the following well-known airs as being suitable for the cases enumerated, viz:—

Retarded labor from inertia ("Coming through the rye").
Chronic aphonia ("The lost chord").
Melancholia ("The heart bowed down").
Epilepsy ("Let me like a soldier fall").
Cases of chronic deafness ("Come back to Erin").
Pyrexia ("McCoolin").
Cases of doubtful diagnosis ("Oh dear, what can the matter be?").

A. D.—[*Medical Press and Circular.*]

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

December 31, 1898. [No. 1983.]

1. The Pathological Changes in a Case of Chronic Syphilitic Spinal Paralysis. R. T. Williamson.
2. A Case of Syringomyelia. James Carslaw.
3. The Diagnosis During Life of Retinal and Labyrinthine Hemorrhages in a Case of Splenic Leukemia. James Finlayson.
4. The Arthropathic Dystrophies. T. Aldous Clinch.
5. Peculiar Respiratory Disorder Produced by the Habitual Use of Strychnin. C. W. Lawson.
6. Paradoxical Pyrexia. Ernest M. Knowling.
7. Measles and Scarlet Fever Coexisting in the Same Person. John Johnston.
8. Prolonged Incubation-Period of Typhoid Fever. J. T. Knight.

1.—Williamson reports a case of **chronic syphilitic spinal paralysis** (the so-called Erb's type) in a man, aged 27, who had contracted syphilis 6 years before. The symptoms were those described by Erb, but there was in addition some incoordination of gait [this feature makes the case resemble the ataxic paraplegia of Gowers]. The man died 5 years after the onset of the spinal symptoms, and microscopic examination of the spinal cord showed: Endarteritis and hyaline degenerations of the arteries of the spinal cord and meninges; slight meningitis; gummatous infiltration of the right anterolateral columns in the upper dorsal region; sclerosis of the periphery of the cord in the lateral columns in the whole of the dorsal region; sclerosis of the posterior median columns in the upper dorsal region; irregular sclerotic patches with one patch of cell-infiltration (gummatous) in the lowest dorsal region; descending sclerosis in the lumbar crossed pyramidal parts; ascending sclerosis in the cervical posterior median columns. [D.R.]

2.—Carslaw reports a case of **syringomyelia** in a man aged 33 years. At the age of 14 he developed some weakness in the right hand, and the muscles began to atrophy. At the age of 18 he had much vertigo and occipital headache, accompanied by gastro-intestinal symptoms, and annoying pain between the shoulders. About this time he suddenly became dizzy and fell, but did not lose consciousness. On the following day he had a similar attack. Within a week he was completely paralyzed, but he gradually recovered. He had retention of urine during his first fortnight in bed. A year later his condition was diagnosed as spastic paraplegia. He was never able after this time to do any regular work, and his right arm wasted gradually and grew weaker. At the age of 33 years there was slight edema of the feet and legs, slight postero-lateral curvature of the spine, marked paresis of the right arm, especially of the hand, slight paresis of the left hand, practical absence of the thenar and hypothenar eminences of the right hand, and deficiency of the interossei muscles, with less distinct wasting of the same regions in the left hand, associated with inability to oppose the left thumb to the little finger. Fibrillary tremor was present in both hands. There was slight contraction of the third, fourth, and fifth fingers of the right hand. There was paresis of both legs, more marked on the right side. Secondary rigidity was marked, and the attitude of the limbs characteristic. The knee-jerks were exaggerated and ankle-clonus was present on both sides. The plantar reflexes were distinct. The epigastric, abdominal and cremasteric reflexes were absent. There was no tremor, and no evidence of trophic changes in the skin or appendages. Perception and localization of touch were normal over the entire body. Pain-sense and temperature-sense were somewhat defective, especially in the right arm, less in the left, and least in the legs, trunk, and face. There was considerable difficulty in distinguishing between the point of a needle, the head of a pin, and the tip of one's finger. The analgesia was most profound in the right arm and shoulder from the neck, less in the left arm from the shoulder-girdle, least marked elsewhere. The therm-analgesia was greatest in the right arm from the shoulder-girdle, less in the right side of the neck and the left arm from the shoulder-girdle, fairly good in the front of the chest, the left side of the neck, and elsewhere. The muscular sense was normally present. The skin was insensitive to electric stimulation. The feet were kept wide apart in walking; the limbs were stiff. The balls of the toes were trailed on the ground in walking; the gait was rather spastic than ataxic. The man walked poorly in the dark, and was unable to stand steadily with his eyes closed. There was slight headache, and no complaint of pain in the trunk or in the limbs. Speech, intellectual capacity and memory were normal. The right pupil was smaller than the left; both pupils responded to light and in accommodation. There was at times slight nystagmus. The bodily temperature was normal. The urine was alkaline and contained a trace of albumin. Carslaw considers the fit at the age of 18 years to have been dependent upon spinal hemorrhage, occurring in a vascular glioma of the cord, which in turn was probably responsible for the syringomyelia. [S.M.H.]

3.—Finlayson reports a case of **splenic leukemia** occurring in a married woman aged 29 years. The spleen was enormously enlarged, but there was no enlargement of the lymphatic glands that was recognizable during life. The blood-examination showed 1,190,000 white corpuscles, 2,080,000 red. The white corpuscles were mostly of the ordinary size, about one-quarter of them being larger and more granular than normal, and with fatty contents. A short time before death the patient contracted a "cold," during the course of which she suddenly developed ringing sounds in the ears, giddiness, nausea accompanied by a bloodshot appearance of the left eye. There was a decided conjunctival ecchymosis, and an examination of the fundus showed the presence of hemorrhages. An examination of the ears disclosed nothing abnormal in the external and middle ear, and the Eustachian tubes were easily inflated, though without improvement in the hearing. The suddenness of the onset, with the symptoms of giddiness, etc., led to a diagnosis of hemorrhagic exudation into the cavities of the labyrinth. Postmortem sections of the retina showed the hemorrhages noted during life, with a striking abundance of leukocytes in the blood-vessels. Examination of the internal ear revealed hemorrhages in the vestibule and the first turn of the cochlea. [S.M.H.]

6.—Knowling reports a case of **paradoxic pyrexia** occurring in a woman aged 35 years, who was convalescing from a mild attack of influenza. The patient, while in a comfortable condition, was found to have a temperature of 104° F. in the axilla. Shortly afterward the temperature rose to 106°; the patient was comfortable and the skin was not hot. Phenacetin was given and within half an hour the temperature reached 107° F.; in another half-hour it had reached 108°, and at the end of yet another half-hour it had gone up to 113.4°, the highest possible point of registration of the thermometer. The patient said at this time that her head felt "a little strange," and that she had slight tremor of the muscles of the limbs, though the latter was not perceptible to the observer. She soon afterward began to perspire freely and the temperature rapidly dropped to 100.6°. The registration of the thermometer during the following two days was as follows: 11 A.M., 113°, with a pulse of 78; 1 P.M., 113°; 3.30 P.M., 99.4° in the left axilla, 100.4° in the right axilla; 9 P.M., 108°; 9.15 P.M., 99°. On the second day at 9 A.M. the temperature was 113°; at 10 A.M., 106; at 11 A.M., 99.4° in the left, 105° in the right axilla. These remarkable variations continued through several days. The patient was highly neurotic. The most probable and descriptive explanation of the pyrexial condition seemed to be what Dr. Savage calls a "mad calorific area." The temperatures were carefully taken and there was no evidence of fraud on the part of the patient. [S.M.H.]

7.—Johnston reports the case of a girl, aged 8 years, who presented symptoms of a well-developed attack of **measles,** from which she was convalescing comfortably, when during the process of desquamation she developed an undoubted **scarlatinal eruption** accompanied by high fever and sore throat. This was followed by extensive and rapid and complete desquamation. [S.M.H.]

Lancet.

December 31, 1898. [No. 3931.]

1. Relation of the Nervous System to Disease and Disorder in the Viscera. ALEXANDER MORISON.
2. Disease, its Treatment and the Profession of Medicine in 1899. WILLIAM EWART.
3. Notes of Three Cases of Perforated Gastric Ulcer Showing Complications after Operation, One Case Illustrating a New Surgical Method of Treating Severe Recurrent Hemorrhage from Gastric Ulcers. WILLOUGHBY FURNER.
4. Two Cases of Cesarean Section. JAMES BRAITHWAITE.
5. The "Blind Fly" and the Locust in the Evolution of the Malarial Parasite. ARTHUR DUNLEY OWEN.
6. A Case of Indurative Mediastino-Pericarditis in a Young Infant. J. H. SEQUEIRA.

1.—Morison considers **disorders of visceral motion,** taking as the type abnormities in the action of the heart. The motor innervation of the heart is accelerant and augmentor-motor, inhibitory and depressor-motor, trophic and pneumogastric proper, all these movements having necessarily their sensory concomitants or equivalents. It is assumed that the vasomotor phenomena of all viscera, including the brain, have their origin below the level of the first dorsal nerve. The cardiac motion may be average or normal and plus or minus. The midpoint or equilibrium is a balance of extremes, and vital equilibrium is maintained by a certain variation around the center of equipoise. Acceleration and retardation, augmentation and depression, constantly correct one another. Thus, the influence of respiration on the character and rate of the heart, while in part dependent upon pneumatic conditions, is also dependent upon vasomotor regulation, the peripheral incentive to which is to be found in the increased pressure in the dextral chambers in the heart and in the pulmonary circuit during inspiration. There probably exists an antagonistic action of the accelerant and retardant nerves of the heart. Thus, the safety of an abnormally inhibited heart consists in some acceleration of cardiac pulsation. Again, in the sphere of secretory motion there appears to be a certain compensatory independence in the secretory influence of the cranial and sympathetic nerves of the submaxillary gland. Thus, the fatal jaundice that sometimes rapidly follows emotional shock is probably accounted for by spasm or reversed peristalsis of the bile-ducts, while the bile is in full flood. This is probably brought about in the following manner: the shock is followed by pneumogastric inhibition and consequent arrest of its secretory motor function. This causes an attempt on the part of the sympathetic to come to the rescue by producing a more potent, but also more viscid bile. When the pneumogastric, having recovered from this inhibition, throws out by augmented activity too large an amount of bile for rapid escape, there occurs absorption, and rapid toxemia in some cases, a slow poisoning in others. Exophthalmic goiter is taken as another illustration. The thyroid gland is innervated by the pneumogastric and by visceral nerves which reach it by way of the inferior and middle ganglia of the cervical sympathetic. The most active secretory nerve is probably the pneumogastric. Assuming exophthalmic goiter to be a cardio-vascular neurosis, one can conceive the increased though ineffectual effort on the part of the pneumogastric system to restrain the cardio-vascular organs in excessive visceral motion, and although unsuccessful in that effort, so stimulated by it as to provoke increased activity in its own secretory motor-fibers. This would result in an increased secretion of thyroid juice, the effect of which would be to accelerate the circulation. This secretory influence is at present regarded as one of the most probable causes of excessive pulsation in exophthalmic goiter. It is possible further that this period of hypersecretion may result in one of hyposecretion, which may be slow in manifesting itself, as the sympathetic system may induce a supplementary sympathetic juice, and thus maintain for a time the waning accelerant influence of pneumogastric secretion. Ultimately in a large number of cases the excessive excitement of the cardio-vascular system subsides more or less; in some cases bradycardia succeeds tachycardia, and in yet others myxedema takes the place of exophthalmic goiter. The motor effect of shock upon the heart is next considered. Pain or excessive sensibility in any organ may influence the heart's action in association with various degrees of concomitant mental emotion proportionate to the amount of stimulus. The first effect of sudden visceral pain, whether cardiac or general, on the heart's movement, is to arrest its action. This is such an early phenomenon that it is rarely observed. The conditions usually first noticed by the ear and the hand are the phenomena of depression that follow inhibition. These are shortly followed by a rescuing augmentation and acceleration of the heart's beat. In the case of angina dependent upon aortic regurgitation, the heart, as well as the pulse, shows well the extinction of aortic character. The hypertrophied left ventricle will be found to pulsate with increased frequency, the bruits will be almost or quite hushed, and increased tension of the pulmonary circuit will be indicated by accentuation of the pulmonic sound. There exists repletion of the ventricular cavity and comparative emptiness of the extracardiac systemic arteries. The full and hypertrophied heart labors violently to rid itself of the residuary stimulating and dilative burden of blood, because its own intrinsic and momentary failure has cast upon it a paralyzing weight, which must be rapidly reduced in order to prevent arrest. The small peripheral pulse associated therewith during the period of cardiac failure is not one of spastic narrowing but of empty collapse. In the angina of arteriosclerosis without valvular disease, the initial conditions of the attack are indubitably central, not peripheral. There may at times be noted a short period of simultaneous arterial hardening in association with the quickly pulsating heart. How much this is dependent upon spasm and how much upon induration of arteriosclerotic and imperfectly filled vessel is questionable. The affection in fatty heart may be associated with a slow, full and soft pulse, without suspicion of spasticity, the irresponsive and degenerated ventricle throwing its contents into the systemic arteries sluggishly and in imminent danger of fatal syncope. It follows from these facts that, in the regulation and maintenance of sustained visceral motion, the nervous system always plays an important part. Its regulating faculty is more generally conceded than its sustaining power, but for the reasons stated, in this respect also it plays essentially as important a part as the blood and the inherent irritability of the cell manifesting any particular form of motion. Abnormal variations of cardiac action and their relation to the nervous system as typical of other forms of disordered visceral motion are worthy of some consideration. The heart's action is normally quite regular. The first observable departure from this condition is a variation in rate rather than in force. Although in this condition the heart-beats are individually less powerful, collectively they carry on the circulation with much the same efficiency as when the heart's action is more regular, provided there is no necessity for undue cardiac exertion. This condition is usually due to variation in the stimulation in the cardio-vascular nervous system because of variation in the tone of the chambers of the heart and in the amount of their contents. If the condition lasts for any length of time the variation in force becomes more noticeable, and to irregularity in rate is added irregularity in the size of the pulsation. This is dependent upon either the muscular or the neural factor. It is rational to conclude that variations in cardiac action during life, whatever the special character of the rhythm, must be due to the combined or alternate, but always associable, play of the nervous mechanism. Such nervous action may be rhythmically or arrhythmically accelerated. Just as visceral disorder may be the stimulus underlying somatic phenomena, so also somatic motor phenomena may be due to visceral disorder, as is illustrated by the clonic and tonic disturbance of the somatic muscular system dependent upon irritative, septic, and stagnant conditions in the gastro-intestinal canal. [S.M.H.]

3.—The chief primary **complications of gastric ulcer,** namely, perforation, hemorrhage and subphrenic abscess, are also met with as complications following an apparently successful operation for the cure of perforated ulcers. Hemorrhage may be due to an injury of the stomach-wall, or to a second ulcer. For the management of this complication, hemorrhage, temporary enterostomy, as carried out in one of the three cases reported by Furner, is recommended, and has the advantage that when life is threatened by hemorrhage, it offers an alternative between a comparatively slight operation and a severe one, and may enable the surgeon to sustain life during the critical period by feeding the patient while the stomach rests. The operation consists essentially in inserting a good-sized catheter into the jejunum about a yard from its commencement, and suturing the bowel to the abdominal wound. As for such a complication as subphrenic abscess, the best preventive measure and one that should be adopted as routine treatment in every operation for gastric ulcer, is to open the lesser cavity of the omentum. In so doing one is able to ascertain the condition of the posterior wall of the stomach, and also to irrigate this cavity, which is such a common site for a subphrenic abscess. [C.H.F.]

4.—Braithwaite reports two **Cesarean sections** performed because the pelvis was blocked by ovarian tumors, so that delivery was impossible. A pair of strong scissors was used to divide the uterine wall after it had been opened sufficiently by a scalpel to allow of this operation. This plan is preferable to the entire use of the scalpel and director, as the uterus is more rapidly opened and the operator is less likely to injure the child. In one case the wound in the uterine wall was closed by silkworm-gut sutures placed deeply at half-inch intervals. These just missed the internal surface of the uterus. It is believed to be an improvement in technic to close the upper end of the uterine incision last, and just before putting in the last two sutures to syringe the uterus well out into the vagina to insure its freedom from clots. Either fine silk or catgut is preferable to silkworm-gut for closing the incision in the uterine wall. A certain amount of irritation will be produced by the unabsorbable silkworm-gut.—[W.K.]

6.—Sequeira reports a case of **indurative mediastinal pericarditis** in an infant aged 15 months. There was a history of an attack of bronchitis two months previously. One month previously the face and legs had been swollen. The child was believed to be suffering from meningitis. It was pale, but otherwise apparently healthy. It cried constantly. The upper area of cardiac dulness on the left side extended to the second intercostal space, the right border beyond the middle line of the sternum. The heart-sounds were normal. There were no adventitious sounds, and no bronchial breathing and the chest-movements were normal. The feet and legs were cold and pitted slightly on pressure. The urine was normal. The veins of the neck were distended. Ten days after admission the edge of the liver was found to extend 2½ inches below the costal margin; 10 days later there was marked abdominal ascites. At this time the urine contained about ⅛ albumin by bulk. Later the patient developed a profuse diarrhea and died in a few days. The autopsy showed a great thickening of the mediastinal tissues; the anterior mediastinal glands were enlarged and caseated; the left lung was adherent to the chest-wall at the apex; and the pleura was somewhat thickened and adherent over the posterior surface of the lower lobe. The pericardium was ¾ inch thick, fibrous, and adherent throughout to the heart. Firm adhesions united the pericardium with the thickened anterior and posterior mediastinal tissues. The valves of the heart were healthy. Both ventricles were dilated and hypertrophied. No tubercles were found. The abdomen contained 4 pints of fluid; the liver was enlarged, nutmeg, and fatty on section. The kidneys and spleen were engorged. Attention is called to the fact that in the case reported the patient was the youngest in which the affection has as yet been known to occur. The disease frequently begins insidiously. The first symptoms are often those of the consequent cardiac dilatation and dropsy. [S.M.H.]

New York Medical Journal.

January 14, 1899. [Vol. lxix, No. 2.]

1. Some Cases treated by Hypnotism and Suggestion. R. Osgood Mason.
2. Practical Points in Percentage-Feeding. William L. Baner.
3. The Diagnosis of Obscure Cases, and the Treatment of all Cases of Typhoid Fever. James T. Whittaker.
4. Spontaneous Absorption of Senile Cataract, with Restoration of Vision.—Dislocation of Nucleus and Capsule into the Anterior Chamber. F. W. Marlow.
5. Some Suggestions on the Treatment of Pyorrhœa Alveolaris. G. Lenox Curtis.
6. Hygiene *versus* Drugs in the Treatment of Pulmonary Tuberculosis. Charles L. Minor.
7. Dr. George Bodington (1840) and the Open-air Treatment of Consumption. A. Tucker Wise.

1.—Mason reports some cases treated by **hypnotism and suggestion** which for convenience he arranges in 4 classes. (1) Those of a purely psychic character; (2) cases illustrating the effect of suggestion on physiologic processes; (3) the treatment of physical ailments; (4) the educational uses of hypnotism. Illustrating the first class he reports the case of a married woman, aged 41 years, who was suffering from melancholia, with the dominant idea of absolute general debility, and the case of a young woman, who was in perfectly good health, but was afflicted by an uncontrollable fear of thunder and lightning. Under proper suggestion both cases were completely cured. Under this same heading are included cases of lifelong and troublesome somnambulism and night-terrors in young children which have been permanently dismissed by a single treatment. As illustrative of the effect of this form of treatment on physiologic processes a case of obstinate constipation is reported, and one of inordinate and excessive blushing occurring in unmarried women aged 26 and 42 years respectively. Both cases were cured. The second case protected herself against recurrence of her condition by auto-suggestion. Under this same class reference is made to a case of traumatic neuritis of 35 years' duration, in which the affected right hand and arm were of a dark-purplish color, cold, disagreeable to the touch, and entirely useless. The muscles were atrophied and the fingers contracted. About 3 weeks before death the woman was hypnotized; no suggestion was made, but after from 10 to 15 minutes' sleep the affected hand became normal in color. The fingers were easily straightened out and retained their extended position. At the end of an hour's quiet sleep the patient awoke; her hand remained extended, was delicate, white in color, and most lifelike. She experienced a general feeling of well-being and comfort, which continued for several hours, at the end of which time the old conditions gradually recurred and the hand became bluish and contracted. The treatment was twice repeated with the same result. As illustrative of the effect upon pathologic conditions, Mason reports the case of a woman aged 28 years who, on the fifth day following confinement, developed a temperature of 103.5° F., excessive headache, mental confusion and sleeplessness. There was great pain in the back and limbs, and the whole accompanied by an overwhelming feeling of apprehension. No milk had appeared and there was no fulness of the breasts. The patient was placed in a deep hypnotic sleep. She awoke free from pain, her temperature had fallen 1.5° and she slept most of the afternoon and was entirely well in a few days. The last condition is illustrated by the case of a boy, aged 9 years, who had a defective sense of right and wrong, was disobedient, rough, uncouth, coarse in speech, and violent in temper. As the result of hypnotic suggestion his whole manner was changed; and he became comparatively docile and manageable. [S.M.H.]

2.—Baner states that milk is water holding in solution or suspension 4% of proteids, 4% of fat and a little over 4% of sugar. Cream is whole milk plus 12% of extra fat, the extra fat in any cream being 4% less than the total fat contained. As milk and cream contain practically equal proteids, it is the quantity introduced into the mixture that establishes the proteid-percentage and the quality that establishes the fat. Knowing that a fourth of any mixture must be milk or cream or mixed milk and cream, in order to have 1% proteids, it is easy to figure the amount necessary for any percentage by multiplying ¼ the total quantity of mixture desired by the desired proteid-percentage. If in a given mixture it is desired to make the percentages of proteid and fat equal, it is evident that milk alone is necessary. If it is desired that the fat shall exceed the proteids a certain amount of cream must be used in accordance with the extra fat contained in the available cream. Stated as a general rule the amount of cream will be the quantity of mixture divided by the extra amount of cream to be used and multiplied by the difference between the desired percentages of fat and proteid. Having thus obtained a mixture with the desired percentages of proteid and fat, for the sugar-percentage, which is practically the same as the proteid percentage, it is only necessary to add enough dry milk-sugar in order to obtain the desired sugar-percentage. The necessary amount of sugar is found by multiplying the total quantity of mixture by the difference between the desired sugar-percentage and the desired proteid-percentage and dividing by 100. [s.m.h.]

3.—In a consideration of the diagnosis of obscure cases and the treatment of all cases of **typhoid fever,** Whittaker dwells at considerable length upon the value of the diazo-reaction and the serum-test. He believes that with the use of these two tests the clinician is in a position to pretty much control the situation and that there is no longer much room for doubt in the diagnosis of even obscure and irregular cases of typhoid fever. It is important to bear in mind that the Widal test may continue active for some years after an attack of typhoid fever and that the diazo-reaction is present in several other conditions, especially in acute miliary tuberculosis and typhus fever. In the way of treatment early absolute rest is recommended, with a dose or two of calomel, followed sometimes, in cases in which the discharges seem to be offensive, by salol and naphthol. Milk is given as the diet. An occasional dose of 5 grains of lactophenin is given when the temperature reaches 101° F.; when it reaches 102° in the rectum the patient is given a cold bath and upon this measure of treatment is the greatest reliance placed. [s.m.h.]

Medical Record.

January 14, 1899. [Vol. lv, No. 2.]

1. Personal Experience with Bottini's Operation in the Radical Treatment of Hypertrophy of the Prostate. Willy Meyer.
2. A Report of Two Cases of Gunshot Wounds of the Abdomen. William J. Gillette.
3. Sanitary Arrangements for Country Houses. Harvey B. Bashore.
4. Chronic Perichrondritis of the Nasal Septum. Lewis S. Somers.
5. The Relationship of the Distribution of the Arterial and Venous Blood in the Heart-chambers to the Development of Endocarditis. C. Sigmund Raue.
6. Notes on a Case of Alcoholic Neuritis. E. R. Houghton.
7. Apomorphin in Acute Alcoholic Delirium. J. Edward Tompkins.
8. Abscess of the Appendix Discharging through the Umbilicus. John A. Wyeth.

1.—Of **13 Bottini operations** performed by Meyer for the radical cure of **hypertrophy of the prostate,** 50% were cured, 16.6% markedly improved, and 8.3% died as an indirect or direct result of the operation. Of 164 cases collected from literature, 48.8% were cured, 26.8% markedly improved, 15.8% little or not at all improved, 4.9% died as a direct result of the operation, and 3.7% died independently of the operation. In these statistics the word "cure" implies that the patient is able to dispense altogether with the catheter and has no residual urine. Whether or not those cases recently operated upon will remain permanently cured is a question that can be decided only by time, but on purely theoretic grounds and on the clinical evidence furnished by Bottini, recurrence should be only exceptionally met with. The fact that recurrence is a rare possibility is, however, no argument against the employment of this operation; as a matter of fact Meyer "would advise a patient suffering from prostatic hypertrophy rather to undergo Bottini's operation three times than to submit to vasectomy, castration, or prostatectomy after one unsuccessful attempt at bringing relief by the multiple galvanocaustic division of the gland." There really seem to be no contra-indications for this operation; the extreme age of the patient, the nature of the hypertrophy, the presence of complications furnish no contra-indications. To be sure the presence of cystitis or pyelitis makes the prognosis more unfavorable, but no more so in this operation than in any other operative procedure involving intravesical interference. Meyer would "advise every patient with non-complicated prostatic enlargement to submit to the galvanocaustic treatment just as soon as resort to self-catheterization has become imperative." In patients with soft and easily bleeding prostates it might be a safer procedure to practise ligation of the vasa deferentia as a preliminary operation. The performance of the Bottini operation should be preceded by a cystoscopic examination, which will furnish many valuable bits of information, as the presence or absence of stone, the presence of a median lobe, or of a growth about the prostatic urethra or the vesical neck. The direction in which the incisions are to be made will be governed largely by the information derived through this cystoscopic examination, but ordinarily four cuts should be made, one on the floor of the urethra, one in each lateral lobe, and one short one anteriorly. The length of the incisions must be decided upon by the size of the gland, and this is one of the most difficult points in the operation. The cuts should be made extremely slowly and the knives should be at a white heat, rather than red hot, as advised by Bottini. Unless the bladder becomes distended, through the inability of the patient to void a sufficient quantity of urine, the after-treatment consists in absolute non-interference; vesical irrigation does not relieve any of the patient's distress, and may lead to dangerous hemorrhage by premature separation of the eschar. In some cases it may be necessary to resort to permanent drainage with the catheter for a week or two after the operations, obstruction being offered by the swelling of the gland as a result of reactive inflammation. The dangers of the operation are sepsis or pyemia and thrombosis of the pulmonary artery or its branches; it may be said that the larger the prostate the greater its blood-supply, the more pronounced the purulent catarrh, the more dangerous the operation. If we could be sure that the Bottini method would result in shrinkage of the gland in incipient prostatic hypertrophy, it might be a better plan to advocate operation earlier than is now done and thus reduce the dangers attending it to almost nil. [c.h.f.]

3.—Bashore discusses a few modifications in the **sanitary arrangements of country-houses.** A cheap, dry privy is constructed by using a galvanized-iron pail in which ashes are placed, and having at hand a receptacle containing ashes, from which the supply in the pail can be renewed. Wells are usually sources of disease. Cistern-water is really, as a rule, much more healthful. The best way of disposing of waste water in places where there is no drainage is to convey it to some cultivated garden-bed into which it percolates from perforated drains. Garbage may best be disposed of by burying it in shallow beds in the garden and covering it with a little earth. Under these circumstances it rapidly becomes nitrified. Other kinds of waste, such as paper, bottles, etc., may either be burned, sold, or used for the purpose of filling up gullies. [j.s.]

4.—Somers reports the case of a child 7 years of age, who had chronic nasal catarrh. This was improved, but later she complained of constant dull pain and impaired health. The mucous membrane over the nasal septum was somewhat thickened and congested and bled on the slightest touch. The cartilage was greatly thickened, particularly at its junction with the vomer. Under careful treatment, great improvement ultimately occurred. The case evidently was one of chronic **perichondritis of the nasal septum,** a condition usually the result of traumatism. Sometimes the latter may be only as slight as a column of air deflected by a hypertrophied turbinate. There is usually great susceptibility to coryza, abrasions, and perhaps ulceration of the epithelium, and an irregular cough, which may be elicited by touching the affected region with a probe. The most important points in therapeutics are cleanliness and protection, the latter being obtained through ointments containing some mild antiseptic, such as ichthyol. [j.s.]

5.—Raue suggests that the reason why endocarditis is more frequent on the left side in adult life and upon the right side during fetal existence is due to the fact that the particular microorganism causing the disease can thrive only in arterial blood. [j.s.]

6.—Houghton reports the case of a man with considerable muscular development, who usually drank to excess every Saturday night. Four years ago, after a severe spree, he felt numbness and weakness of the limbs, and in the course of a few days complete paralysis in the legs, arms, and hands developed. At the end of 4 months, the man began to improve, and a month later he was well. During the whole period of his sickness he drank freely. The present illness commenced a few weeks ago with pain in the muscles and weakness and numbness in the legs. There was persistent insomnia and slight dyspnea, the result of a partial paralysis of the respiratory muscles. There was both ankle-drop and wrist-drop, and loss of the tendon-jerks. The condition occurred immediately after a period of intoxication, lasting some 36 hours. After two weeks of treatment pneumonia developed, from which recovery ultimately took place, but there had been no improvement in the nervous condition. This, however, finally cleared up after the administration of 0.1 grain of strychnia four times daily. [J.S.]

7.—Tompkins reports the case of a man suffering from paroxysmal tonic convulsions with flushed face and bounding pulse. The condition was assumed to have been caused by excessive indulgence in alcohol. A hypodermic containing 0.1 grain of apomorphin hydrochlorate caused free emesis and was followed by rapid improvement. [J.S.]

Medical News.

January 14, 1899. [Vol. lxxiv, No. 2.]

1. The Clinical Effect of Thyroid Extract upon Fibroid Tumors of the Uterus. Wm. M. Polk.
2. Dislocation of the Semilunar Cartilage. John B. Walker.
3. Furunculosis; Its Etiology and Treatment. H. H. Stoner.
4. The Garrisoning of Our Tropical Possessions. No. 3.—The Sanitary Welfare of Puerto Rico. Azel Ames.

1.—Polk reports a series of cases in which **thyroid extract** was used in the palliative treatment of **uterine fibroids.** In the majority of cases improvement was noticed, the greatest in those that took the remedy longest. The manifestations were: (*a*) control of the menstrual flow; (*b*) arrest of the growth, and, in some cases, diminution in the size and apparently softening of the tumor; (*c*) disappearance of pain and diminution of tenderness in the growth, and also of the sense of abdominal and pelvic distention, with increase in muscular and nervous energy; (*d*) betterment of the general nutrition, manifested at first by slight loss and then by return of flesh; improved state of the skin, hair, and nails, and in the supstitution of a good color for the appearance of anemia. It is believed that the nearer the growth approaches the type of pure myoma as distinct from fibromyoma the better the ultimate result. One patient showed a tendency to pseudo-myxedema during the use of the drug. Tachycardia was the troublesome symptom in all, but in none was it excessive. At present Polk combines arsenic and extract of thymus gland as a means of controlling the thyroidism, giving 3 drops of Fowler's solution three times daily, and thymus extract just double in dosage of the thyroid, the three agents being given simultaneously. Polk urges caution in all cases; "arterial fibrosis and cardiac and renal disease forbid its use" unless extra precautions are taken. [W.K.]

2.—In speaking of the treatment of **dislocation of the semilunar cartilage,** Walker says that in the majority of instances non-operative measures will not be successful, so that it will become necessary to open the joint, which, under suitable conditions, can be done without much danger. If the cartilage be not too severely torn from its attachments, it may be sutured in place according to Barker's method; if, on the other hand, the attachments are so extensively torn that there would be more or less danger of too great tension being put on the sutures, it is a better plan to excise the cartilage, as recommended by Bull, McCormac, and March. [C.H.F.]

3.—Stoner believes that furuncles are always caused by infection from the surface, usually along the hair-follicles. In order to prevent general furunculosis, he therefore suggests washing the surface of the boil with a 1 to 500 solution of mercuric chlorid, extending the washing for some distance around the primary abscess. The application should be made at least twice daily, and after rupture or incision, the abscess-cavity should be carefully irrigated with a weak mercuric-chlorid solution. This treatment is as effective as the injection of carbolic acid into the substance of the boil. The term, furunculosis is objected to, because the condition is not a constitutional disease. Infection is usually carried by the flowing discharge or by the infected hands. [J.S.]

4.—Ames states that Porto Rico contains a slightly larger population than Connecticut upon a smaller area of ground. This population is chiefly rural. It is composed of a great mixture of races, Spanish, French, Portuguese, Malays, Chinese, Hebrews, and negroes. About the only race not represented is the original Indian. About 300,000 of the population are still classed as negroes; the remaining 500,000 being a more or less homogeneous mixture. The inhabitants are lazy, immoral, and apparently take little interest in cleanliness of their surroundings. Ames urges the importance of improving the sanitary condition before undertaking any other reforms. [J.S.]

Boston Medical and Surgical Journal.

January 12, 1899. [Vol. cxl, No. 2.]

1. Pyonephrosis, Nephrolithiasis, Hematuria, Pyuria; Subsequent Nephrotomy; Nephrectomy; Recovery. James. T. Whittaker.
2. Variations in Pathogenic Activity Among Tubercle-Bacilli. Theobald Smith.
3. Neuralgic Affections of the Head. Gustavus Eliot.
4. An Investigation as to the Frequency of Typhoid Fever in Infancy. John Lovett Morse and Hartley Wales Thayer.
5. A Case of Congenital Cretinism. C. W. Townsend.
6. A Case of Gangrene of the Lung. W. H. Swan.

2.—In discussing **variations in pathogenic activity among tubercle-bacilli,** Smith suggests that such variations are much less likely to become evolved in bacteria that are parasitic upon individuals of the same species, because of a close uniformity of soil, and if they occur at all, the differences are probably less appreciable than those occurring in different species. He has called attention to the probable modifying influence upon the tubercle-bacillus of a prolonged multiplication of the necrotic material and the bronchial exudation in cases of mild, long-standing pulmonary tuberculosis. The bacilli live a saprophytic existence that must sooner or later modify their aggressiveness toward living tissue. Reference is made to the briefly expressed view of Koch that there is considerable variation in the virulence of different cultures. The conclusions of Arloing, of Lyon, and his pupils, that with rare exceptions bacilli of pulmonary tuberculosis are more virulent than those of the scrofulous or surgical forms of tuberculosis, and that the pulmonary form of tuberculosis may now and then harbor quite attenuated bacilli, are not accepted. By the result of his own studies Smith is led to believe in the existence of minor variations in the form of the bacillus, the appearance and character of the cultures, and the virulence, the significance of which is not as yet clear. [S.M.H.]

3.—Elliot reports three cases of **neuralgia** which he classifies as lying between the typical forms affecting single nerves on the one side and headaches due to migraine or eye-strain, disordered digestion, catarrhal inflammation and febrile disorders on the other, cases that are relatively common, but undescribed. The conditions that point to the neuralgic character of these painful disorders affecting the whole or part of the head are the absence of fever and circulatory disturbances, the absence of catarrhal or digestive disorders, the occurrence of exacerbations of pain on successive days, the tendency of the pain to extend along certain nerve-tracks, and to change from one part of the head to another, tenderness of the scalp in certain parts of the areas of pain, and the ultimate complete recovery from the attack, and in some cases a repetition of it at intervals of considerable length. These attacks are not necessarily confined to branches of a single nerve or to one side of the head, but they may involve the entire head. Hypodermic injections of morphin are suggested in the attack, and quinin sulphate and gelsemium for continuous treatment. Rest and hot applications to the head with attention to the proper function of all the organs is further advised. [The recommendation of hypodermic injections of the morphin sulphate as a routine treatment in this class of cases deserves to be condemned. S.M.H.]

4.—Morse and Thayer briefly report upon an investigation made with the view of determining the **frequency of typhoid fever in infancy:** 50 infants under 2 years of age, 2 of simple diarrhea, 45 having fermentative diarrhea, and 3 ileocolitis, were examined for the Widal reaction. Among this number but one infant gave a positive response. The child was 7 months old, moderately sick, with loss of appetite, pain in the abdomen, a good deal of vomiting, having daily 6 or 8 large watery, slightly greenish, bowel-movements containing curds, but no mucus or blood. Under treatment the vomiting soon ceased, and the movements were normal in every way at the end of 9 days. There was no abnormal tenderness or distention, no rose-spots or splenic enlargement. The temperature ranged between 38° and 39° C. during the first week of observation; after this it was normal. The positive serum-reaction was obtained first on the fifth day of the disease in 15 minutes, again on the ninth day of the disease in 20 minutes. Examinations for the Widal reaction were made in the mothers also. The mother of this child gave a positive serum-reaction, notwithstanding the fact that she was in perfect health. She however gave a history of having had typhoid fever 10 years previously. This suggests the possibility, if not the probability, that the serum-reaction of the child may have been inherited from the mother or inbibed through her milk. The negative result in the investigation of these cases suggests further that typhoid fever is an unusual disease in infancy. [S.M.H.]

5.—Townsend reports a case of **congenital cretinism** which improved rapidly under the administration of thyroid extract. The patient, although 2 years and 5 months old, was about the size of a baby a year old, and presented the characteristic signs of congenital cretinism. [C.H.F.]

6.—Following an attack of pleuro-pneumonia **gangrene of the lung** developed, which in turn sloughed into the pleural cavity, causing a pyopneumic thorax. Portions of the seventh and eighth ribs were excised and the cavity thoroughly drained. The patient's condition was one of profound sepsis for some weeks after the operation, but he was eventually restored to health. The sputum contained staphylococci, streptococci, pneumococci, and occasionally tubercle-bacilli. [C.H.F.]

Journal of the American Medical Association.

January 14, 1899. [Vol. xxxii, No. 2.]

1. A History of the Theory of Edema. Russell Burton Opitz.
2. Retromaxillary Growths. Carl Beck.
3. Persistent Headache. Swan M. Burnett.
4. Headache from Nasal Causes. J. A. Thompson.
5. Chronic Genito-Urinary Disease. Wilbur F. Storman.
6. Hydrotherapy in Stomach Diseases. George D. Kahlo.
7. Neurasthenia and its Treatment. H. C. Sharp.
8. Serum-Therapy in Tuberculosis. W. Thornton Parker.
9. Specific Action of Air in Consumption. W. H. Weaver.

1.—Opitz reviews thoroughly the literature on the subject of **edema,** beginning with the work of Richard Bright, in 1827, and calls attention to the neglect of the chemic side of the formation of edema, almost all work of research having been done in the interest of the filtration-theory. He sees no reason why edema should be considered a passive process merely, and claims that in some way it may depend upon a pathologic state of the cell. [G.C.C.H.]

2.—The difficulties of technic in **removing nasopharyngeal fibromas** lie in their inaccessibility. Unless removal is thorough, malignant degeneration of portions remaining may ensue. When the growths are large Beck names as points to be observed (1) exposing the tumor (acknowledging that this entails a considerable breach in the skeleton of the face); (2) prevention of hemorrhage; (3) least possible disfigurement and best function of the parts after surgical interference; (4) prevention of secondary diseases. Electrolysis may be of use when the growths are small, but with irritative symptoms Beck advocates ligature of the carotid artery, with the head hanging during the operation. He then makes an incision beginning at the middle ear, crossing the face in a line underneath the eye, passing alongside of the nose around its wing to the middle of the upper lip, splitting the lip and the soft parts of the palate, chiseling the bone on the malar, nasofrontal and middle palatal lines and prying the bone at its junction. In this way the whole tumor will be rendered accessible; and it may now be removed with its processes and anatomically prepared, hemorrhage stopped, the different parts replaced and sutured—only the two incisors being wired—and the soft parts alone being united, but in the most exact manner, in order that primary union, insuring good function with minimum disfigurement, may ensue. Several cases of operation are cited, with their results, from which the additional conclusion is drawn that malignant growths of any extent should not be treated radically except in cases presenting a vital indication, as they give very unfavorable prognoses. [G.C.C.H.]

3.—Burnett reports the case of a man, 53 years old, who was wounded in the right temple during the Civil War, supposedly by a piece of shell. The appearance was that of a surface-wound, and only local applications were made. The sight of the right eye had been destroyed, and for years the wound would break out occasionally and discharge a small quantity of thin pus. There was no marked tenderness, but a sense of discomfort and heaviness, developing, with the lapse of time, into a positive pain on any considerable physical exertion. When the man came under observation enucleation of the atrophied right eye was determined upon, in the hope of finding the source of the occasional discharge. Such search revealed nothing, so that the fistulous opening from the old wound was enlarged and a small quantity of necrosed bone removed. Relief was only temporary, and a further operation was made 18 months later, laying open the fistula for 2½ inches over the frontal bone and cureting the surface of the bone. Finally, 5 years later a most thorough operation was performed, disclosing a pocket of necrosed bone, and, accidentally, evidence of the passage of a bullet, in the presence of a shining point of lead. The bullet was finally found imbedded in the temporal bone, and was extracted by exceedingly delicate manipulations with the Schwartz chisels. Recovery was prompt, no complication arising during the whole course of healing.

4.—Thompson cites cases illustrating the **diseases of the nose** that may produce **headache** as a symptom. These are: Hypertrophic rhinitis, atrophic rhinitis, spurs from the septum, a thin, reflected septum, perforations of the septum, polypi, sarcoma, tertiary syphilis, rhinoliths, foreign bodies, purulent inflammation in the accessory sinuses, extension of acute rhinitis to the frontal sinuses, chronic empyema of the frontal sinuses, etc. Cases in which there is complaint of a constant dull ache over the root of the nose and over the eyes, sometimes resembling a band drawn tightly around the head, with ever-increasing pressure, should be carefully investigated in regard to their possible nasal origin, especially if catarrhal symptoms exist. Sometimes the diagnosis can be surely made only from the results of treatment. In every case the indication is for the removal of the causal condition. [G.C.C.H.]

5.—Storman argues that in the majority of all **nervous disorders** the causal factor is some functional or organic pathologic condition of the **generative or urinary organs,** usually the former. [G.C.C.H.]

6.—Kahlo ranks **water** as first among therapeutic resources in the treatment of **gastric disorders,** used either internally or externally. He describes methods of use, gives results, and details therapeutic deductions. [G.C.C.H.]

7.—**Neurasthenia** traceable to social, domestic, or business conditions should be treated by absolute physical and mental rest, plain and highly nutritious diet, occasionally, when gastric derangement exists, by lavage with hot and cold water, with warm poultices over the abdomen. There is seldom need of drugs. [G.C.C.H.]

8.—Parker objects to the **tuberculin-treatment of tuberculosis** on the ground that it may awaken dormant germs to activity, and he strongly advocates the use of normal immunized serum in conjunction with climatic treatment. [G.C.C.H.]

9.—Weaver characterizes the **miliary tubercle** as an unstable growth that will entirely disappear under aseptic drainage and the action of air. Pulmonary tuberculosis he considers a disease of inactivity or non-use of certain areas of lung-tissue. Improvement follows the forcing of air into the alveoli of the lungs through deep inspirations, closing the glottis and bearing down as if straining at stool. The exercise should be practised frequently and systematically. Statistics are given of 56 cases, with 66% of cures. [G.C.C.H.]

Bulletin of the Johns Hopkins Hospital.

September–October, 1898. [Vol. Ix, No. 90-91.]

1. Development of the Human Intestine and its Position in the Adult. Franklin P. Mall.
2. On the Histogenesis of the Striated Muscle-Fiber and the Growth of the Human Sartorius Muscle. John Bruce MacCallum.
3. Further Observations on the Chemical Nature of the Active Principle of the Suprarenal Capsule. John J. Abel.
4. The Lobule of the Spleen. Franklin P. Mall.
5. Development of the Bile Capillaries, as Revealed by Golgi's Method. William F. Hendrickson.
6. A Study of the Musculature of the Entire Extra-Hepatic Biliary System, including that of the Duodenal Portion of the Common Bile-duct and of the Sphincter. William F. Hendrickson.
7. Development of the Internal Mammary and Deep Epigastric Arteries in Man. Franklin P. Mall.
8. Two Instances in which the Musculus Sternalis Existed—One Associated with Other Anomalies. Henry A. Christian.
9. On the Pathological Changes in the Spinal Cord in a Case of Pott's Disease. Sylvan Rosenheim.
10. Treatment of Otomycosis by the Insufflation of Boracic Acid and Oxide of Zinc. Samuel Theobald.

1.—Mall has traced the development of the human intestine, loop by loop, from the embryo to the adult. The successive stages fit into one another accurately, showing that the first loops in the embryo are destined to form certain loops in the adult, and that the primary folding is in no way a haphazard process. To gain a knowledge of the position of the intestine in the adult, 41 cadavers were carefully examined. The general direction of the intestine in all was diagonally across the abdomen from the left hypochondriac space towards the right iliac fossa, usually diverging once or sometimes twice towards the right side of the abdomen and always towards its end, into the cavity of the pelvis. In the plan considered normal by the author the jejunum first arranged itself into two distinct groups of loops situated well up in the left hypochondriac region. Each group made more than a complete circle, and both of them came in contact with the anterior abdominal wall. After this the intestine passed through the umbilical region to the right side of the body, then recrossed the middle line to make a few convolutions in the left iliac fossa, after which it filled the pelvis, and lower abdominal cavities between the psoas muscles. Variations from this general plan were common. Shifting of the intestines is considered possible, but it is likely that purely mechanic disturbances are readily overcome by readjustment; at any rate, that was the case in some experiments which the author made on dogs. Provided no marked inflammation followed, the omentum and intestine readjusted themselves as they were before. [D.R.]

2.—MacCallum takes up I. **The histogenesis and comparative histology of heart-muscle.** II. **The histogenesis of the voluntary striated muscle-cell.** III. **The growth of the Sartorius-muscle and its relation to histogenesis.** I. The **adult heart-muscle** is made up of rhomboidal branching cells whose processes come together end to end. The protoplasm of each cell consists of a number of darkly staining columns (fibril-bundles) running longitudinally, which are separated by unstained substance (sarcoplasm). With special methods of staining, a definite relation can be made out between these two parts of the cell. The fibril-bundles present regular striations in the form of darkly staining lines. Narrow striations, the so-called Krause's membranes, alternate with broader bands, which are known in voluntary muscle as Brücke's lines. The Krause's membranes do not belong to the fibril-bundles alone. They can be seen also extending across the sarcoplasm. The sarcoplasm is thus divided into compartments, which are limited horizontally by membranes continuous with the narrow striations on the fibril-bundles. In cross-section the muscle-fiber is seen to be made up of dark masses, the cross-sections of fibril-bundles, separated by sarcoplasm, which is divided into definite circular or polygonal areas. The compartments of the sarcoplasm are disc-shaped, and are termed sarcoplasmic discs by the author. They are bounded by membranes which are continuous with the fibril-bundles at the narrow striations of Krause's membranes. There is, then, a definite network in the cell made up of the fibril-bundles and the membranes bounding the sarcoplasmic discs. The stages in the embryo leading up to the adult structure explain the relation of the fibril-bundles to the sarcoplasm.

The study of the heart-muscle of lower animals gives an interesting repetition of some of the stages of the process, although these stages do not make up an uninterrupted sequence, as in the histogenesis of the muscle-cell. II. The **development of voluntary striated muscle** was studied in human and pig embryos. The muscle is formed from a cell containing only a protoplasmic network. The first step is an accumulation of the network at definite places around the periphery of the cell, giving rise to fibril-bundles. This accumulation takes place in the angles of the network, so that the meshes remain as discs between the fibril-bundles. The membranes bounding these discs horizontally are continuous with the narrow striations on the fibril bundles. The formation of fibril-bundles goes on until they occupy a large part of the cell. The sarcoplasm in this way becomes gradually replaced, and in the adult cell is very inconspicuous. At the same time the nuclei undergo changes. The cell, which at first contains only a centrally placed nucleus, acquires other nuclei, which are situated at the periphery. It is possible that the latter are derived from the centrally placed nucleus, which is finally lost.

It may be assumed for both heart and voluntary muscle, that the fibril-bundles and the membranes bounding the compartments in the sarcoplasm are derived from the primitive network found in the muscle-cells of very young embryos. The process of growth is the same in all kinds of striated muscle, but there is a noticeable difference between the heart and the voluntary muscle in the position of the nucleus; in the former it is in the center of the cell, in the latter at the periphery.

III. The **growth of the Sartorius-muscle** is described in careful detail. At first there is growth in size and number of muscle-cells, but after the embryo has reached a length of about 170 mm., the number of cells remains practically constant, the fibers growing only in length and thickness. [D.R.]

3.—See Editorial, Dec. 17, 1898, p. 1260.

4.—Mall states that when the whole vascular system of the spleen is studied in connection with the trabecular system, it is found that the two together outline distinct masses of spleen-pulp, about 1 mm. in diameter, which may be likened to liver-lobules, and for this reason he proposes to term them **the lobules or the anatomic units of the spleen.** [D.R.]

5.—A most careful and interesting study of **the musculature of the extrahepatic biliary system,** the results of which the author sums up in a tabular form, giving the arrangement in the dog, rabbit, and man. In man the distribution is as follows: (*a*) Gall-bladder—muscle-bundles transverse, longitudinal, and diagonal; (*b*) cystic duct—the same; valves of Heister—fibers transverse in the cystic duct, run in a circular direction in the valves of Heister, and the fibers longitudinal in the duct bend at a right angle and run out into the valve. Diagonal fibers apparently do not enter the valves of Heister. (*c*) Hepatic duct—the muscle-bundles are transverse, longitudinal, diagonal. (*d*) Common bile-duct—the same. (*e*) Place of union of the cystic, hepatic, and common bile-ducts—each duct preserves its typical structure, the wall of each merging gradually into that of the others. (*f*) Duodenal portion of the common bile-duct—a sphincter-muscle exists. The article is thoroughly illustrated. [D.R.]

9.—The patient, a colored girl of 15, had Pott's disease with paraplegia, spasticity, and sensory disturbances. At the autopsy tuberculosis of the spine, an extradural exudate, compression, myelitis, tuberculosis of the sternum and of the intestines, pyocystitis, pyoureteritis, pyelitis, and pyelonephritis, bronchitis, and lateral curvature of the spine were found. The region of compression of the cord extended between the eighth cervical and the fourth thoracic nerves and microscopically presented the lesions of a myelitis of some duration. Ascending degeneration was traceable along the dorsal funiculi up into the medulla, along the direct cerebellar tract, and the tract of Gowers. The descending degeneration affected the lateral pyramidal tract and the ventrolateral ground-bundle. Degeneration also extended down, for one segment below the lesion, along the dorsal median septum, and it likewise outlined the comma-tract of Schultze. A feature in the case was the appearance of numerous large holes left empty by degenerated nerve-fibers. The author compares the findings in his case with others recorded in the literature and discusses, among other things, the comma tract of Schultze, which is probably composed for the most part of endogenous fibers arising in cells situated in the gray matter of the cord, and is a long tract ending in the gray matter of the dorsal horn. [D.R.]

10.—Theobald recommends the insufflation of a powder composed of equal parts of **boracic acid and zinc oxid** in the treatment of **otomycosis.** It should be blown into the ear in sufficient quantity to cover lightly the walls of the meatus and the tympanic membrane. [D.R.]

British Gynecological Journal.

November, 1898. [Part lv.]

1. Extra-Uterine Pregnancy. (Continued.) John W. Taylor.
2. Pseudo-Hermaphroditism. Arthur Maude.
3. Uterus Septus Bilocularis and Vagina Semisepta. Fred. Edge.

1.—Taylor relates a series of 37 cases of extra-uterine pregnancy, in 27 of which a correct diagnosis was made. In 3 cases a diagnosis was made of tubal disease only, in 2 of myoma, and in 4 of ovarian cystoma. In some cases there was no pelvic tumor or physical sign pointing to misplaced pregnancy; in cases of early rupture these may be entirely wanting. In one instance a tubal pregnancy was found on one side and pyosalpinx on the other. In 4 cases the diagnosis of extra-uterine pregnancy was made, and a different condition found on operation; one was a case of retroflexion of the gravid uterus, with intraperitoneal adhesions; 2 were cases of double pyosalpinx with temporary cessation of menstruation; the fourth case was one of malignant tumor of both ovaries. In some of the worst cases there were no pelvic or abdominal signs of any definite importance, and the symptom of internal hemorrhage was the chief indication for action. The symptoms of early rupture, with hemorrhage, are so notably instant and sudden that there is but slight danger of mistake, save for affections of similar acuteness, such as gastric or intestinal perforation from ulcer or acute appendicitis. The chief danger of the general practitioner has been to underestimate the condition before him. Taylor believes that the presence of pulsating vessels in the vaginal vault on the affected side is one of the most constant and valuable diagnostic signs, indicating the increased vascularity of the parts, and although other conditions may produce a similar hyperemia, this pulsation of the vessels is rarely so marked and so easy to elicit as in tubal pregnancy. The elements that aid in reaching a positive diagnosis of extra-uterine pregnancy in early months are: (1) A patient within the child-bearing limits of age, and one in whom pregnancy is possible. (2) She has recently been in good health. (3) It is more likely than not that several years have passed since her last pregnancy. (4) There is a history of some amenorrhea, accompanied or followed by (5) irregular uterine hemorrhage, occasionally profuse and red, but generally dark in color, moderate in amount, and persistent in its course. (6) With this there may be a history of the passage of some membrane, either in one pouch or bag as a "complete decidua," or in two pieces, or in shreds. (7) On examination pulsating vessels may be felt in the vaginal vault on one side of the uterus. (8) On this side also, and closely investing the back of the uterus, there is nearly always a tubal tumor (exceptionally this may have a different or curious situation). (9) This tumor enlarges markedly and suddenly by recurrent hemorrhages and by the formation of an hematocele directly continuous with the original tubal tumor. (10) These hemorrhages are signalized by sudden spasms of severe abdominal pain and by transient attacks of peritonitis. (11) The uterus is displaced by the hematocele at first backward, afterward to the opposite side of the pelvis, and sometimes forward, against the pubes (it is rare for the uterus to be permanently displaced downward), and (12) the uterus throughout, although slightly enlarged, may be proved to be empty. Extra-uterine pregnancy may be mistaken for (1) pyosalpinx, with amenorrhea; (2) myoma; (3) simple abortion; (4) retroflexion of the gravid uterus; (5) anteflexion of the gravid uterus, and (6) twisted pedicle tumors—(*a*) of the tube, and (*b*) of the ovary. The treatment is essentially operative; in the great majority of cases "ectopic gestation must be considered as a malignant new-growth, and therefore should be removed by operation as every stage of its development." The possible exception to this rule is when the child is near the period of viability and no sign of danger is present. [W.K.]

2.—Maude reports a case illustrating the difficulty in early differentiation in case of **pseudo-hermaphroditism.** The subject is now 13½ years old and has been brought up as a girl. Careful examination shows the case to be one of pseudo-hermaphroditismus masculinus internus, with complete and possibly functionally active male genital glands and external organs associated with an over-developed uterus masculinus and a patent utero-genital canal. "It is always better in case of doubt to regard the case as masculine." (Hirst.) It is possible that this patient is in a transition-stage and that the genital cleft may become much smaller with advancing sexual maturity. [W.K.]

3.—Edge reports an operation on a patient aged 20, for the division of the septum in a case of **uterus septus bilocularis and vagina semisepta.** The practical points are that any median antero-posterior septa in the uterus or vagina may be divided without fear of hemorrhage. The septum in the uterus must be divided only so far as one can make quite sure by bimanual examination that the walls of the uterus are not cut through and the abdominal cavity opened. [W.K.]

Centralblatt für innere Medicin.

December 10, 1898. [19. Jahrg., No. 49.]

1. Anatomic Local Changes in the Acute Infectious Diseases. E. Walger.

1.—Walger puts forward his theory that the **local changes occurring in the tissues in disease** are not the evidences of disease itself, but are the attempt of the body to overcome the disease. In other words, they are chiefly the attempts of the body to get rid of the toxins. He believes also that the complications that occur in infectious diseases are chiefly abnormal attempts at toxin-excretion: for instance, pneumonia occurring with measles is simply an endeavor to excrete the measle-poison through the lungs. He reports a case of croupous pneumonia in which he administered human serum on the second day. Two days later the signs of consolidation had spread widely; the temperature, however, was low, the pain was entirely gone, and the patient seemed to be practically in entire health as far as his general demeanor was concerned. Walger believes that this spreading of the pneumonia after active symptoms of the disease had disappeared shows that the local process is simply an attempt to excrete toxins. [D.L.E.]

The Toxemic Factor in Diabetes Mellitus.—G. W. McCaskey (*Medicine*, January, 1899) reasons that normal sugar-transformation in the blood is a result of a chemic product (internal secretion), a sugar-destroying substance, thrown directly into the blood from the pancreatic cells without intervention of the duct. The glycemia and the glycosuria of diabetes mellitus (a disease of diverse origin) are mere incidents upon which the clinical picture depends, although dominating factors of the disease. The production, by the use of phloridzin, of an artificial diabetes closely resembling the clinical disease, renders plausible the assumption of a chemic factor as either a primary or a secondary cause of diabetes, this antagonizing the sugar-destroying product of the pancreas in a manner analogous to that in which an antitoxin neutralizes a toxin. This antagonizing substance is possibly of gastro-intestinal origin, possibly a result of faulty tissue-metabolism; or, a perverted internal secretion from some gland. Hence, it would seem advisable to investigate closely the bacteria of the stomach and intestines in cases of diabetes mellitus, not with the expectation of supplanting dietetic treatment, but with a view to aiding it with suitable treatment for possibly existing virulent bacterial protozoa or parasitic growths. [G.C.C.H.]

Original Articles.

ANNUAL REPORT OF THE LOOMIS SANITARIUM FOR CONSUMPTIVES.

At Liberty, Sullivan County, N. Y.

By J. EDWARD STUBBERT, M.D.,

Physician-in-Charge.

The following report represents the work of the Loomis Sanitarium for Consumptives for the year ending November 1, 1898:

Statistics.

Patients in Sanitarium November 1, 1897	78
" admitted since " "	126
	204

Patients in Sanitarium November 1, 1898	47
" discharged cured	28
" " with disease arrested	11
" " improved	67
" " who remained stationary	6
" " unimproved	41
" died	4
	204

Condition of Patients when Admitted.[1]

Incipient stage, without bacilli	17
" " with bacilli	58
Moderately advanced	102
Far advanced	27
	204

Class No. 1. (Patients who remained 3 months or less in the Sanitarium.)

Condition when admitted.		Condition when discharged.	
Incipient stage, without bacilli	9	Cured	10
Incipient stage, with bacilli	23	Disease arrested	5
Moderately advanced	31	Improved	35
Far advanced	12	Stationary	4
		Unimproved	19
		Deaths	2
	75		75

Class No. 2. (Patients who remained in the Sanitarium more than 3 months.)

Condition when admitted.		Condition when discharged.	
Incipient stage, without bacilli	4	Cured	18
Incipient stage, with bacilli	24	Disease arrested	6
Moderately advanced	44	Improved	32
Far advanced	10	Stationary	2
		Unimproved	22
		Deaths	2
	82		82

General Consideration of Patients.

Number of patients whose sputum contained bacilli on admission	187
Number of patients whose sputum was free from bacilli on discharge	37
Number of patients who had hemorrhages before admission	53
Number of patients who had hemorrhages in the Sanitarium	10
Number of patients who gained in weight	153
" " " remained stationary in weight	25
" " " lost weight	26
Average gain per week per patient	2 lbs.
" loss per week per patient	1 lb.
Greatest monthly gain	14 lbs.
" monthly loss	10 lbs.
" gain for one patient	30 lbs.

During the year there were in the Infirmary 83 patients, of whom 12 were in the Infirmary twice.

Summary of Condition of Patients Still in the Sanitarium.

Bacilli disappeared in	3	cases.
" decreased in	11	"
Cough decreased in	32	"
" disappeared in	2	"
Physical signs improved in	33	"
Weight gained in	38	"
" remained stationary in	3	"
" lost in	6	"

By comparing these tables with those contained in my Annual Report for 1897,[2] the following increase in good results among patients discharged during these 2 years will be noted: During the first year 8% of the patients discharged had lost their tubercle-bacilli; during the past year 23% of those discharged had lost their tubercle-bacilli. During the first year 73% of those discharged gained in weight, while during the past year 97% of those discharged had gained in weight. During the first year 13% of those discharged were cured, while during the past year 17% of those discharged were cured. During the first year 10% of those discharged had their disease arrested, while during the past year 7% had their disease arrested.

It is interesting to note that of those patients discharged after a residence of 3 months or less at the Sanitarium, 6% were cured, while among those remaining longer than 3 months, 11% were cured.

The basis of treatment in all cases has been *climatic, hygienic, and dietetic.* The climate of Liberty is well adapted to the treatment of tuberculosis throughout the year, but there is even more marked improvement among the patients during the winter-months than in summer. The elevation, 2,300 feet, is within those limits generally conceded to be most advantageous for pulmonary troubles. This altitude, with the peculiarly dry atmosphere and abundance of sunlight, furnishes all the conditions necessary in the climatic and hygienic treatment of cases of incipient tuberculosis. Malarial fevers are unknown here except when imported.

A clinical fact that has struck me rather forcibly is that while strong winds are generally supposed to be detrimental to the class of patients under consideration, our patients brave with impunity cold and northwest winds. I have seen 80 patients gather from their various cottages for their meals three times a day, at the Administration Building, when the snow has been 1 or 2 feet deep, and almost a blizzard blowing, without the least detrimental effects. On the contrary, it seemed to improve their appetites and digestion. I have not seen one case of bronchitis or influenza among our patients that could be attributed to braving the elements. The experiences encountered and the results obtained during the 3 cold seasons at this Sanitarium seem to tend to revolutionize the popularly accepted ideas of the injurious effects of winds and stormy weather upon cases of incipient tuberculosis.

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[1] *Incipient Stage.*—Slight localized involvement of lung, with little or no constitutional disturbances. *Moderately Advanced.*—More general consolidation of lung, with constitutional disturbances, beginning of softening, or single cavity. *Far Advanced.*—Softening and excavation, with marked constitutional disturbances.

[2] See the Philadelphia Medical Journal for March 12, 1898, page 467.

In this connection I wish to refer to the question of exercise. A good deal has been said and written against allowing tuberculous patients to walk or exert themselves to any great extent, especially if their temperature ranges above the normal. It is a rule with me to allow all patients whose evening-temperature does not reach above 100° F. to walk moderately, and if the temperature is not above 99° F. no restriction at all is placed upon them in this respect; but they are encouraged to gradually accustom themselves to pedestrian tours extending from 2 to 12 miles daily. I have never seen any untoward result from this exertion on the part of patients, and I am fully convinced that it is a mistake to encourage them in taking the rest-cure. We are seeking to improve the general nutrition of our patients in order to enable them to overcome a specific infection, and it would seem unwise to impair their general nutrition by compelling them to do nothing but eat, sleep, and sit.

In the way of auxiliary treatment of individual cases the following remedies have been used: Antitubercle-serum, antistreptococcic serum, ichthyol, ichthalbin, kalagua, creosote, guaiacol, codliver-oil, oil of cinnamon, hot medicated air-inhalations, pneumochemic treatment, multi-nebulizer, ozone-inhalations and electric treatment.

Serum:—Our investigations in the use of antitubercle-serum have been continued, with the following results:

NUMBER OF PATIENTS TREATED.

Condition before taking.		Physical signs.	
Incipient stage	18	Improved	38
Moderately advanced	30	Stationary	2
Far advanced	0	Unimproved	8
	48		48

Expectoration.		Temperature.	
Decreased in	40	Decreased in	26
Stationary	8	Unchanged	22
	48		48

Cough.		Appetite.	
Decreased in	40	Improved	40
Stationary	8	Stationary	8
	48		48

Tubercle-bacilli.		Weight.	
Disappeared in	10	Increased	38
Had none	3	Stationary	7
Decreased	21	Lost	3
Stationary	14		48
	48		

SUMMARY.

Cured	27%	Stationary	23%
Improved	43¾%	Unimproved	6¼%

As will be seen from the foregoing table, 13 of the 48 cases treated, or 27%, have lost their tubercle-bacilli; in 43¾% the tubercle-bacilli have decreased, as against 20% of last year. I have lately examined between 15 and 20 cases treated with serum, and have not found one that had redeveloped the disease; on the contrary, all have been enabled to remain in their homes and at their work; all these cases have been away from the Sanitarium for periods varying from 6 months to 1½ years.

The general effects of the United States Government serum of de Schweinitz during this year upon cough, expectoration, temperature, tubercle-bacilli, etc., are more or less the same as reported last year. As I stated at that time, I am not ready to pin my faith to serotherapy in tuberculosis; but in view of the fact that so far as bad results are concerned it has proved negative, and that a comparatively fair number of cases have apparently improved under its administration, I believe it to be the duty of the profession to continue clinical investigation along this line.

A few cases that have been treated in New York City with this serum have been examined periodically by Dr. Loomis and myself, without our being able to arrive at any positive opinion. Dr. Loomis' experience with serum among hospital-patients has been, I believe, absolutely negative so far as good results are concerned. Concerning those patients treated in private practice in New York City and Brooklyn, reports of attending physicians have varied. It is difficult in these cases to separate either climatic or moral influences from any that might be exercised by the serum. The three apparent effects noted above all others, from the use of this serum, have been *reduction of temperature*, *decrease of tubercle-bacilli, and possible immunity* conferred upon patients after returning to their homes. I have discarded its use at the Sanitarium in all but incipient cases.

To my mind the effects of this serum are, (1) not deleterious; (2) patients show a better percentage of results than under creosote or any other drug, without their deleterious effects; (3) the moral effect is such that even if we gain nothing in the way of specific action by its use, we are contenting the patient while he is under good climatic and hygienic environments.

Fischer's Serum:—During the year we have placed 4 cases upon Fischer's antitubercle-serum, but as none of them did well upon it they were placed upon other lines of treatment.

Oxytuberculin:—Dr. Hirschfelder kindly forwarded to us some of his oxytuberculin, which was faithfully tried in 1 or 2 cases, until the patients rebelled against having such a large quantity of fluid injected. Dr. Hirschfelder has informed me that if we would use hot-water massage after each injection the patient would not complain of any discomfort; however, it has been impossible to devote the time for this purpose.

Antistreptococcic Serum:—While the results from the antitubercle-serum have been somewhat gratifying, its use would generally seem to be restricted to the incipient stage and to those cases showing a pure culture of tubercle-bacilli. The most alarming symptoms and trying complications that the physician encounters in tuberculosis are due, not to the tubercle-bacillus, but to the cocci of mixed infection. The most virulent one of these seems to be the streptococcus, and the profession is watching with great interest the result of the use of Marmorek's antistreptococcic serum, in the hope that in tuberculosis with mixed infection (the most common variety observed) the disease may be reduced to one of simple tuberculous infection that might more readily yield to antitubercle-serum. This hope is a legitimate one in view of the excellent results reported from its use in erysipelas, active abscesses, pelvic inflammation, otitis media, and acute and chronic suppurative processes generally. With this end in view we were led to employ Pasteur's antistreptococcic serum in 10 cases (selecting, of course, only such cases as showed streptococci), believing that if we could neutralize the secondary infection we would leave a clear field for the supposed action of the antitubercle-serum. In the first case only 1 injection was employed; expectoration ceased immediately for a number of days, and then returned in diminished quantity; on examination the streptococci were found to be far less numerous and smaller in size.

The next case had suffered from chronic bronchitis for 3 or 4 years, and developed tuberculosis a short time before entering the Sanitarium, about 2 years ago. Tubercle-bacilli disappeared under treatment, but bronchitis remained. The sputa were muco-purulent in character and contained streptococci; one injection of the antistreptococcic serum was given, after which the expectoration increased materially. After a few weeks the patient began to improve, expectoration decreased somewhat in quantity and became very markedly less purulent in character. This patient is now living in New York and I have lost track of her.

The next patient had a dry cavity at the apex of one lung, and had done very well here at the Sanitarium. She was given 4 injections of the antistreptococcic serum, after which the streptococci disappeared. This patient is still an inmate of the Sanitarium, and the sputa still contain tubercle-bacilli.

The next case was that of a young lady whom I had treated first as a private patient, then for 15 months as an inmate of the Sanitarium. Tubercle-bacilli disappeared from her sputum, the physical signs cleared up, and she was about to return to her home, cured of tuberculosis. However, she also had a history of chronic bronchitis, with but scanty expectoration. About the time she was about to be discharged from the Sanitarium, numerous and long chains of streptococci were discovered in her sputa, and she was immediately given an injection of 10 cu. cm. of antistreptococcic serum, and 2 days later a second injection of 10 cu. cm. After the first injection a slight increase of expectoration was observed, but a few days after the second injection no streptococci could be found; they remained absent for about 4 months, when they reappeared.

In a fifth case three injections were given, but without effect.

The sixth case was given 2 injections at intervals of 10 days; after the first injection the streptococci were greatly reduced, and after the second they disappeared entirely; they had not reappeared at the end of 6 weeks, when the patient returned home.

The seventh case received 1 injection of antistreptococcic serum, after which the streptococci disappeared and remained absent for 2 months, when they reappeared in large numbers. About ½ hour after the injection the lobes of both ears swelled; this condition lasted about an hour and then subsided.

The eighth case received 1 injection of the serum, after which the streptococci disappeared; however, after a few weeks a few were again found in the sputum.

The ninth case was in a man with numerous streptococci; he was given 3 injections of the serum at intervals of 2 days; the streptococci gradually decreased in number until none was found. In this case, however, annoying neuralgic and rheumatic pains followed the use of the serum; they were finally relieved by purging and massage.

The tenth case was in a patient whose sputum contained a moderate number of streptococci, which entirely disappeared after 2 injections of the serum; cough and expectoration decreased materially, while tubercle-bacilli remained numerous.

If, as some of the advocates of antitubercle-serum contend, the cause of failure in many cases is due to mixed infection, the successful use of Pasteur's serum would solve a great part of this riddle before us. One point that I suppose will be immediately noted is the apparent slowness of action of this serum upon the streptococcus in these cases of chronic infection, as compared with the reports from time to time of its rapid action upon the same germ in cases of acute infection.

Throat-cases:—During the past year 40 cases of tuberculous laryngitis have been treated at the Sanitarium; 12 of these patients are still in the Sanitarium, and 28 have been discharged. The combined statistics that I have been enabled to gather from all points in Colorado show 25% of cures among cases of laryngeal tuberculosis in the ulcerative stage. It is gratifying to be able to report that at the Loomis Sanitarium 43% of the ulcerated cases were discharged *cured*, as follows:

Fourteen cases were infiltrated and ulcerated; of these 6 were healed; in 3 the ulceration was lessened; 3 remained stationary; and in only 2 was the ulceration worse. Of the remaining 14 discharged, namely, those with infiltration without ulceration, 4, or 29%, were cured; 5, or 35%, were improved; 2 remained stationary, and 3 were unimproved.

NUMBER OF CASES TREATED, 14.

Infiltration and ulceration.		Infiltration without ulceration.	
Healed	6	Cured	4
Improved	3	Improved	5
Stationary	3	Stationary	2
Worse	2	Unimproved	3
	14		14

Of the 28 discharged, weight was gained in 16
" " " " lost in 5
" " " " stationary in 7
28

CASES IN THE SANITARIUM.

Infiltration and ulceration.		Infiltration without ulceration.	
Healed	2	Cured	1
Improved	2	Improved	4
Stationary	1	Stationary	2
	5		7

Ichthyol:—Ichthyol in keratin-coated pills has been used with satisfactory results. This remedy seems to be indicated not only in pulmonary tuberculosis, but in cases involving the intestines and genito-urinary tract. Large doses of this drug can be tolerated by most patients without ensuing gastric disturbance—as high as 4 grams daily may be taken in most cases. Ichthalbin seems to act better in some cases than ichthyol, and may be given in daily doses of from 3 to 6 grams.

NUMBER OF CASES TREATED, 34.

Classification of cases.		Physical signs.	
Incipient stage	7	Improved	23
Moderately advanced	17	Stationary	5
Far advanced	10	Increased	6
	34		34

Tubercle-bacilli.		Expectoration.	
Not present	2	Decreased	22
Disappeared	3	Stationary	12
Decreased	14		34
Stationary	15		
	34		

Cough.		Weight.	
Decreased	22	Increased	24
Stationary	12	Stationary	4
	34	Lost	6
			34

General condition.	
Improved	26
Unimproved	8
	34

SUMMARY.

Cured	15%	Stationary	15%
Improved	53%	Unimproved	17%

Kalagua:—During the latter part of the year covered by this report, a South American drug named kalagua was brought to my notice, at the same time that it was placed in the hands of specialists in Belgium, and one or two in this country. The merits claimed by the advocates of this drug are (1) that it has no deleterious effects upon the alimentary canal; (2) small doses of the drug soon produce saturation of the patient, evidenced by the odor of the breath, the urine, and the perspiration.

In view of the statistical report forwarded to me by the President of the Medical National Society of Columbia, I employed this drug in a few cases that had failed to improve under every other mode of treatment. with the following results:

NUMBER OF CASES TREATED, 6.

Classification of cases.		Physical signs and general condition.	
Incipient stage	1	Improved	6
Moderately advanced	3	Unimproved	0
Far advanced	2		6
	6		

Expectoration.		Cough.	
Decreased	4	Decreased	4
Stationary	2	Stationary	2
	6		6

Bacilli.		Weight.	
Disappeared	1	Increased	6
Decreased	3	Decreased	0
Stationary	2		6
	6		

Creosote:—Creosote and its derivatives have been used in few cases; as I stated last year, I am not at all favorably inclined to the use of this drug, on account of its deleterious effects upon the stomach, intestines and kidneys.

NUMBER OF CASES TREATED, 23.

Classification of cases.		Physical signs and general condition.	
Incipient stage	8	Improved	16
Moderately advanced	13	Unimproved	7
Far advanced	2		23
	23		

Expectoration.		Cough.	
Decreased	16	Decreased	16
Stationary	7	Stationary	7
	23		23

Bacilli.		Weight.	
Disappeared	4	Increased	16
Decreased	10	Stationary	5
Stationary	9	Lost	2
	23		23

GUAIACOL—NUMBER OF CASES TREATED, 12.

Classification of cases.		Physical signs.	
Incipient stage	3	Improved in	9
Moderately advanced	5	Stationary	2
Far advanced	4	Increased	1
	12		12

Expectoration.		Cough.	
Decreased	8	Decreased	9
Stationary	4	Stationary	3
	12		12

Tubercle-bacilli.		Weight.	
Disappeared	1	Increased	9
Decreased	7	Stationary	2
Stationary	4	Lost	1
	12		12

General condition.	
Improved	9
Unimproved	3
	12

Codliver-Oil has been used in some cases during the colder months, but no series of cases has been placed upon it.

Oil of Cinnamon in daily doses of from 30 to 40 drops has been used with fairly good results.

Number of Cases Treated, 3.

Classification of cases.		Physical signs and general condition.	
Incipient stage	1	Improved	3
Moderately advanced	2		
	3		

Expectoration.		Cough.	
Decreased	3	Decreased	3

Bacilli.		Weight.	
Disappeared	1	Increased	2
Stationary	2	Stationary	1
	3		3

Hot-air Inhalations have been used in 61 cases with the following results:

Number of Cases Treated, 61.

Cough decreased	47
Cough increased	4
Cough stationary	8
Treatment stopped on account of hemoptysis	2
	61
Expectoration	49
“ stationary,	12
	61

The following are some of the drugs that have been used, either singly or in combinations that seemed indicated in individual cases in these inhalations:—Ichthyol, thymol, eucalyptol, creosote, oil of gaultheria, benzoic acid, oil of pine, oil of peppermint, oil of camphor, terebene, napthalin, crystalline menthol, oil-tar, tincture of iodin, and oil of origanum.

Pneumochemic Treatment has been used in a few instances. This form of treatment seems to be indicated in cases suffering from bronchorrhea, and excessive and irritable cough. Owing, however, to the fact that it deprives the patient of outdoor life for 3 or 4 hours daily, it has been used only in extreme cases, until such time as the bronchorrhea was sufficiently decreased to allow the patient to be treated by other methods.

Ozone:—Inhalations of ozone, and static electricity have been used as general tonic treatment, with apparently good results.

A CASE OF DISSEMINATED SCLEROSIS OF THE SPINAL CORD AND MEDULLA.

Pathology and Etiology; Investigations of Secondary Degeneration in All of the Fiber-Tracts and in the Ganglion-Cell Groups of the Gray Matter.

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[From the Pathologic Laboratory of Professor Karl Weigert, Frankfort a. M., Germany.]

The case investigated presented a disseminated sclerosis showing marked degenerations in: (1) the root-fibers; (2) the endogenous fibers; (3) the ganglion-cell groups; (4) the fibers of the white tracts; (5) the pial membranes; (6) the ganglionic and lymphatic spaces; (7) the bloodvessels; (8) the stroma. The investigation was made to determine: (1) the pathology of this cord; (2) anatomic facts; and (3) the etiology. This cord showed none of the usual round-cell infiltrations of syphilitic processes, nor an extension of the inflammatory process from the pial membranes into the cord. The white-fiber tracts were degenerated in an almost direct proportion to degenerations found in the groups of ganglion-cells, and therefore I have made detailed investigations on these cell-groups. There are some cases of disseminated sclerosis reported,[1] in all of which the posterior columns and the posterior regions of the medulla are affected; but in no reported case is there an investigation of the ganglion-cell groups. In my study I found it expedient to adopt Waldeyer's[2] classification, as modified by Edinger,[3] of groups of cells named according to their position. All degenerations here presented were taken from serial transverse and longitudinal sections. The drawings were made by the naked eye, and show the degeneration of the white-fiber tracts.

History.—The patient was a man, 53 years old, who had had syphilis in early manhood.

Pathological Anatomy.

Posterior-Root Fibers.—In the lumbar, cervical, and especially in the dorsal areas, these roots were thickened and diminished in number. The axis-cylinders were not differentiated.

Root-Fibers Within the Horn.—In the lumbar area these fibers diminished in number, were thickened and irregular in contour; the axis-cylinders were broken. The fibers showed no myelin-structure, and therefore were not differentiated. In the lower dorsal areas, the fibers were traceable by a few broken and thickened strands, while in the upper dorsal areas a number of thick, heavily stained, broken fibers were found on the inner side of the horn. The axis-cylinders were granular, but not differentiated. Two fibers were found on the outer side of the horn, heavily stained and thick in parts, yet without a stain in the lower part of the horn. The myelin-matter and the axis-cylinders were not differentiated. In the lower cervical area a thick bundle of fibers were found on the inner side of the horn, going into Burdach's column. Many slightly thickened fibers were on the outer side of the horn in the marginal zone. There was no differentiation in the myelin-matter nor in the axis-cylinders. In the upper cervical areas the nerve-roots were thickened; the axis-cylinders broken and not differentiated. In the area showing crossing of the pyramids, the spinal-accessory roots showed degeneration of their outer sheaths and absence of myelin-matter. The axis-cylinders were not differentiated.

Anterior-Root Fibers.—The fibers of the roots in the lumbar region were much thickened, diminished in number, rough and broken in their outer sheaths, not differentiated in myelin-matter either on cross or full-length sections; the axis-cylinders were disconnected, granular, and undifferentiated. In the lower dorsal areas these roots were absent, and in the upper dorsal areas they were thickened to about four times their normal size and diminished in number. In the lower cervical areas these roots were degenerated and enlarged. A full-length section showed the serrated outer sheath thickened, and the myelin-matter and axis-cylinders destroyed. A transverse section showed a greatly enlarged fiber without differentiation in the myelin-matter and axis-cylinder. Normal fibers were not found. In the upper cervical areas these roots, both on cross and full-length section, showed enlarged fibers; the myelin-matter was not differentiated; the axis-cylinders were broken and granular. The outer sheath had lost the serrated appearance observed in lower sections.

Anterior-Root Fibers Within the Cord.—Within the lumbar areas these roots were diminished in number and degenerated. The fibers could not be traced until after they emerged from the horn. In the lower and upper dorsal areas these roots were absent. In the cervical areas the outer sheaths of the roots were thickened; the myelin-matter was not indicated; the axis-cylinders were not differentiated; their form was lost until after they emerged from the horn. In a section showing crossing of the pyramids the hypoglossal roots were degenerated. The strands of the hypoglossal roots within the lower part of the olivary body showed an enlarged fiber of irregular contour, without any differentiation in myelin-matter and axis-cylinders.

The Posterior Commissure.—In the lumbar area the few fibers of this commissure were thickened and irregular. In the lower dorsal areas the commissure was absent; in the upper dorsal, it was broken and incomplete; in the lower cervical the fibers were much thickened and irregular; and in the upper cervical areas the commissure was complete.

Anterior Commissure.—The fibers making up this commissure in the lumbar area were thickened and of irregular contour; in the lower dorsal areas absent; in upper dorsal incomplete, owing to breaks in the fibers. These latter fibers were thick and irregular in contour.

In the lower cervical areas the fibers were broken, thickened, and of irregular size. In the upper cervical areas the fibers of the commissure were complete, but some were of irregular contour and thicker than normal.

Fibers of the Gray Matter.—The root-fibers within the gray matter of the lumbar area were thick and irregular. The endogenous fibers were normal in parts; in other parts they were irregular and thickened. In the lower dorsal area, black points and broken shreds showed here and there the remains of a fibrous network. The root and endogenous fibers of the upper dorsal area, as they branched in the gray matter, owing to their irregular contour, produced the impression that these fibers were very brittle; while in the lower cervical areas they were more irregular in outline, yet they showed more regular and thickened strands than in the upper dorsal areas. In the upper cervical areas these fibers showed a finer reticulation than in the lower cervical areas.

The Marginal Zones of Lissauer.—These zones contained from 4 to 5 round, clouded cells in the lumbar area; in the dorsal areas a few less: and in the cervical areas from 30 to 35 small, round, clouded cells. At the crossing of the pyramids there were from 35 to 37 small, round, clouded cells.

Gelatinous Substance of Rolando.—In the lumbar areas 3 or 4 spaces were filled with unstained granular matter. In the dorsal areas these cells were absent; no spaces were present. In the cervical areas 3 of these cells were atrophied, and the others were granular. In the medulla some of these cells were granular, some were atrophied, and some were absent.

Central Posterior-Horn Cells.—In the lumbar areas 2 or 3 spaces were filled with granular matter; the cells were absent. In the dorsal areas 3 of these cells, the contours of which were indefinite, were atrophied and firmly attached to the stroma. In the cervical areas there were 3 or 4 atrophied cells.

Basal Posterior-Horn Cells.—In the lumbar, dorsal, and lower cervical areas these cells were absent. In the upper cervical areas there were 3 clouded and atrophied cells.

Stilling-Clark Column.—In the lumbar areas on the right side there was only one cell, and that was atrophied; none in the lower dorsal. In the upper dorsal, on the left side, there was only one small atrophied cell, with an indefinite outline; in the cervical areas there was none.

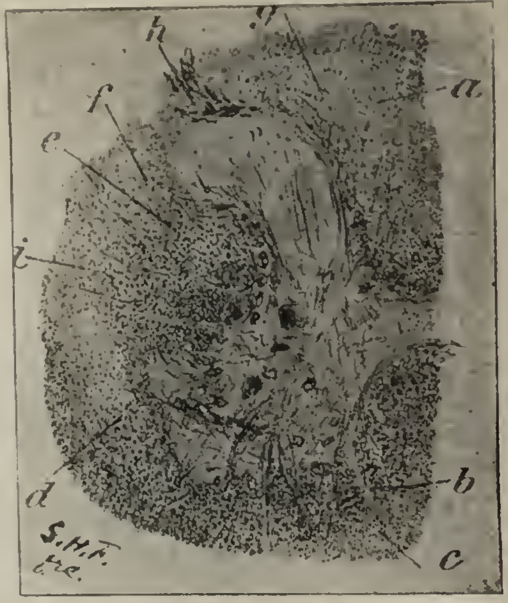

Fig. 1.—Lumbar area. *a*, postero-internal columns; *b*, anterior pyramid; *c*, anterior ground bundle; *d*, lateral ground bundle; *e*, crossed pyramidal tract; *f*, direct cerebellar tract; *g*, postero-external columns; *h*, root-zones; *i*, antero-lateral tract.

Middle Cells.—In the lumbar areas 2 of these cells were granular and atrophied, and their outline was indefinite; 2 or 3 spaces containing granular matter were also present. In the dorsal areas the presence of these cells on both sides was suggested by 3 shrunken granular bodies attached to the stroma. In the cervical areas 4 of these cells were atrophied.

Lateral-Posterior Group.—In the lumbar areas, 3 cells of this group contained granular matter and showed well-defined irregular outlines; 3 cells were much atrophied and showed definite regular outlines; while the seventh cell was destroyed, the space showing a mere trace of the nucleus. The ganglionic spaces of all the cells were filled with granular matter. In the dorsal areas these cells were indicated on both sides by 2 or 3 shrunken bodies attached to the stroma; in the lower cervical areas 2 of these cells were atrophied, while 3 appeared normal except for the heavy stain they took; in the upper cervical areas there were only 3 of these cells, each atrophied.

Lateral-Anterior Group.—In the lumbar area I found one ganglion-cell with a faint outline, and 4 spaces in the group. In one of these spaces a small shrunken body indicated the remains of a ganglion-cell; the other spaces were filled with unstained granular matter. In the dorsal areas these cells were absent; in the lower and upper cervical areas there were in each 3 of these cells, slightly atrophied.

Median-Posterior Group.—In the lumbar areas I found 3 small atrophied cells; in the dorsal areas, none; in the lower cervical, 4 small atrophied cells; and in the upper cervical areas, 3 slightly atrophied cells.

Median-Anterior Group.—In the lumbar areas I found 6 slightly contracted granular cells, and 3 spaces filled with unstained granular matter. In the dorsal areas 2 cells on the right side were atrophied almost beyond recognition, but I found no cells on the left side. In the lower cervical areas 3 granular cells, and 3 others, smaller, atrophied, and deeply stained, appeared; in the upper cervical areas I found 3 small, clouded, atrophied cells.

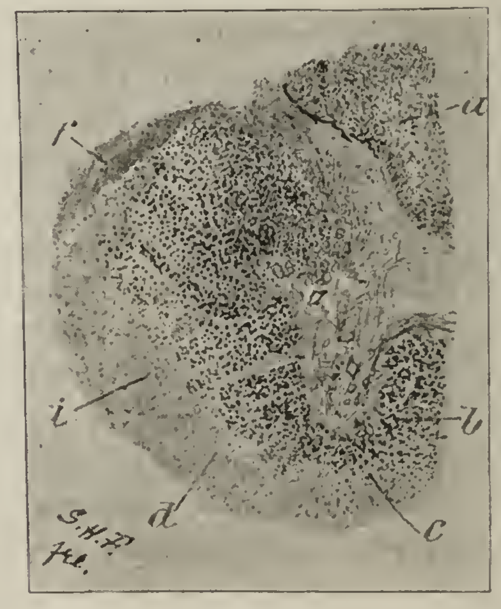

Fig. 2.—Lower dorsal area. *a*, postero-internal columns; *b*, anterior pyramid; *c*, anterior ground bundle; *d*, lateral ground bundle; *i*, antero-lateral tract; *f*, direct cerebellar tract.

Nucleus Funiculus Gracilis and Funiculus Cuneatus.—In sections showing the crossing of the pyramids a number of these cells were granular and atrophied. In the nucleus gracilis many cells were granular, some atrophied, and some absent, the cell-spaces containing unstained granular matter. In the medulla the cells of these nucleii were granular or atrophied and some were firmly attached to the stroma.

Spinal-Accessory Nucleus.—In the area of pyramidal crossing 3 or 4 granular atrophied cells were found; in the medulla the conditions were similar.

Hypoglossal Nucleus.—In a section through the

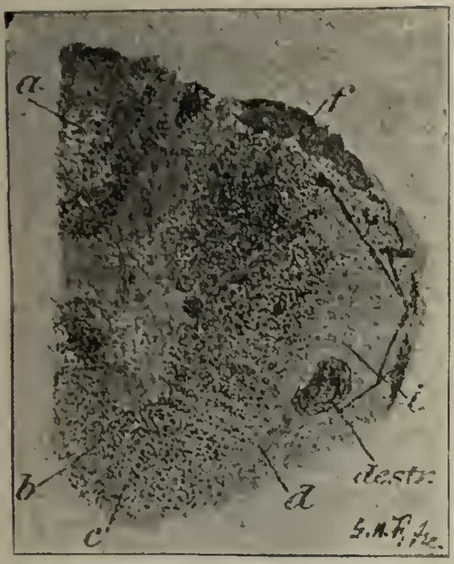

Fig. 3.—Lower dorsal area. *a*, postero-internal columns; *b*, anterior pyramid; *c*, anterior ground bundle; *d*, lateral ground bundle; *i*, antero lateral tract; *f*, direct cerebellar tract; *destr.*, destruction of tissue.

olive the cells of Roller's nucleus were shrunken and granular. The cells of the main hypoglossal nucleus were granular, disintegrated, or entirely vanished, spaces being present; the contour of some was barely visible; none present was entirely normal.

Inferior Olivary Body.—All of the ganglion-cells were atrophied in the lower area of this body, while in the upper areas the cells showed less atrophy.

Acoustic Nucleus.— The cells in the medulla were atrophied.

Posterior Columns.—In the lumbar region the fibers of the columns of Goll, bordering on the median septum in the middle third, were absent. The absence of these fibers was apparent through the middle third into Burdach's column to the margin of the horn (Fig. 1). In the posterior and anterior margins the fibers were thickened and undifferentiated. These two margins contained more fibers than other parts of these columns. Only a few of the fibers showed differentiated myelin - matter and axis-cylinders.

In the dorsal and cervical areas the fibers of the columns of Goll, bordering upon the median septum, in the middle third, were absent. As shown in Figs. 2 and 3, the fibers in Burdach's column in these areas were present. The fibers in both columns showed neither differentiated myelin-matter nor axis - cylinders. The fibers at the anterior and posterior margins of both columns were greatly thickened. At the beginning of the medulla, the fibers of the columns of Goll in the middle third were absent; the fibers of the columns of Burdach were thickened.

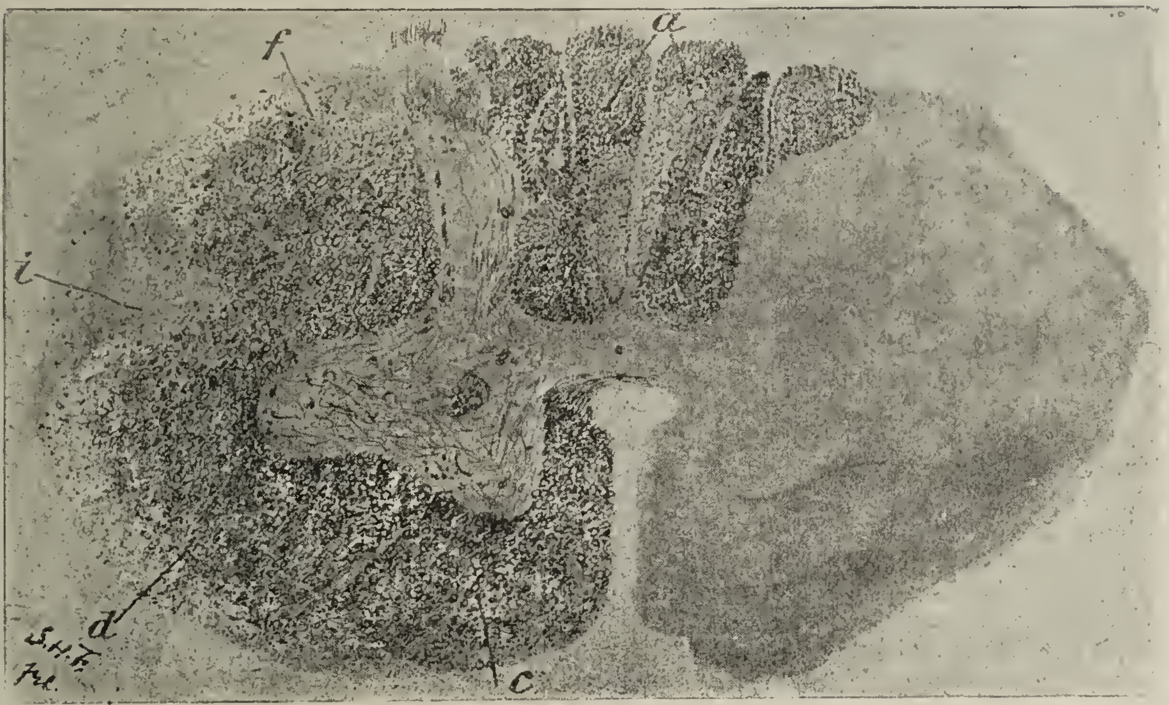

Fig. 5.—Lower cervical area. *a*, postero-internal columns; *c*, anterior ground bundle; *d*, lateral ground bundle; *f*, direct cerebellar tract; *i*, antero-lateral tract.

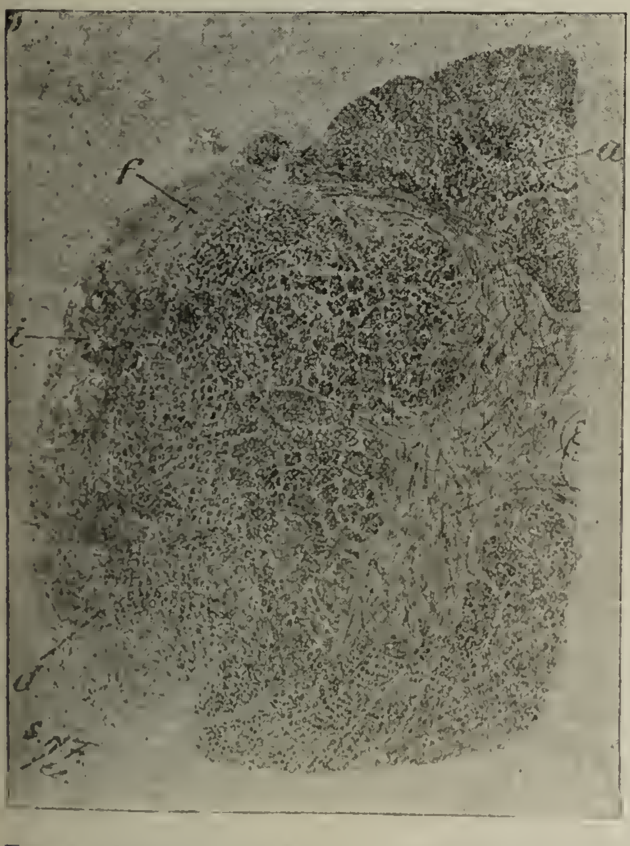

Fig. 6.—Upper cervical area. *a*, postero internal column; *d*, lateral ground bundle; *i*, antero-lateral tract; *f*, direct cerebellar tract.

The Root-Zones.—In the lumbar areas the fibers of these zones were thickened; in the dorsal areas, absent; in the cervical areas, thickened.

Direct Cerebellar Tracts.—In the lower dorsal regions the fibers of these tracts were degenerated; in the upper dorsal areas, they were absent. These tracts were also absent in the cervical areas. In areas showing the crossing of the pyramids, some fibers were absent. The fibers in these tracts in the lower extremity of the inferior olive were not noticeably absent, but degenerated (Fig. 8); they were absent in the lower extremity of the restiform body (Fig 9).

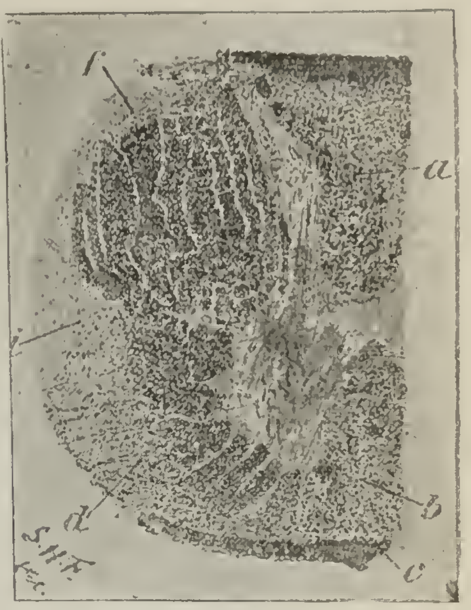

Fig. 4.—Upper dorsal area. *a*, postero-internal columns, *b*, anterior pyramid; *c*, anterior ground bundle; *d*, lateral ground bundle.

Antero Lateral Tracts of Gowers.—These fibers were absent in the dorsal and lower cervical areas. In the lower dorsal areas some of the tissues on the right side were destroyed (Fig. 3). In the upper cervical areas, the fibers of these tracts were absent; in the area of the crossing of the pyramids some fibers of these tracts were absent; all others were degenerated. In the lower extremity of the inferior olive, I observed no noticeable absence of these fibers; they were, however, thickened (Fig. 8). In the lower extremity of the restiform body the fibers of these tracts were absent (Fig. 9). It is notable that the fibers of the direct cerebellar and antero-lateral tracts were absent in this area of the medulla, inasmuch as these fibers, though degenerated, appeared in the lower part of the medulla.

The Lateral and Anterior Ground Bundles.—In the lumbar area many of the central fibers were absent (Fig. 1); those present were thickened and degenerated. At the margin of the anterior median fissure the fibers of the anterior ground bundles were absent (Fig. 1). All fibers were thickened and degenerated. In the dorsal and lower cervical areas the fibers of these bundles were absent around the

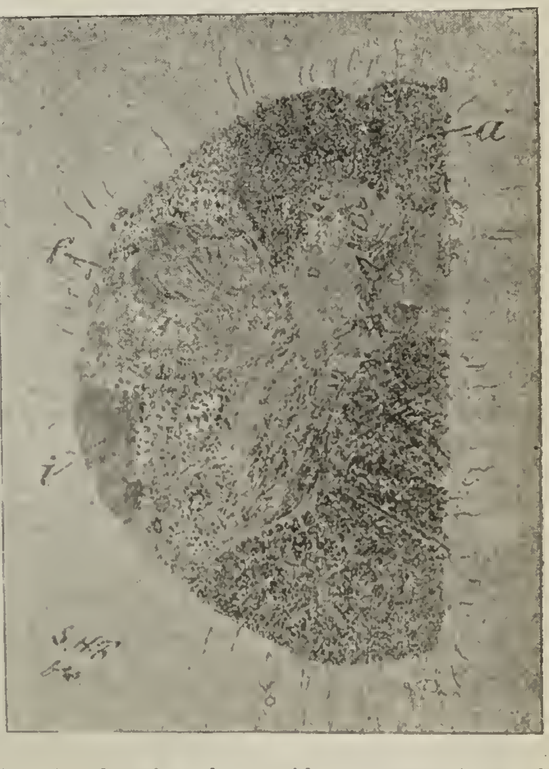

Fig. 7.—Crossing of pyramids. *a*, postero-internal columns; *i*, antero-lateral tract; *f*, direct cerebellar tract.

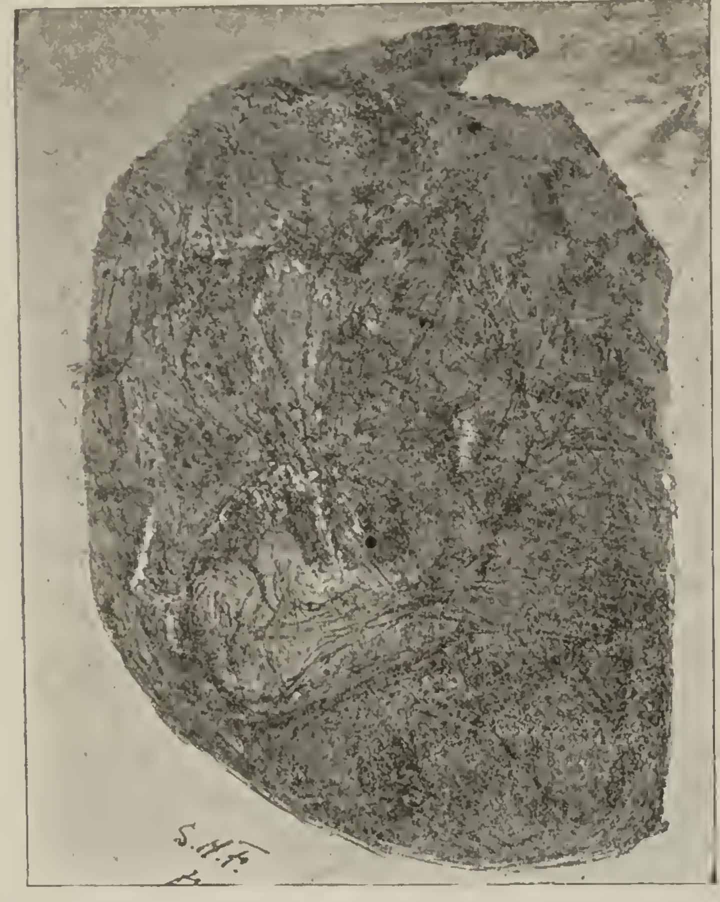

Fig. 8.—Lower border of olivary body.

margin (Figs. 2, 3, 4, 5); all the fibers were degenerated, as indicated by thickening. In the upper cervical areas the fibers of the lateral ground bundles were absent around the marginal borders (Fig. 6); the anterior bundles were there, but degenerated. In the lower areas of the medulla the lateral ground bundles were thickened. In the medulla the long posterior longus fibers were thickened.

Crossed and Anterior Pyramids.—In the lumbar and lower dorsal areas many fibers on the right side in the crossed pyramidal tracts were absent and thickened. Fewer fibers were absent on the right side; yet all were thickened. This difference was caused by a destruction of the stroma on the left side (Fig. 3). In the upper dorsal areas many anterior pyramidal fibers were absent, and all present were thickened. In these areas the fibers in the crossed pyramidal tracts were thickened. In the lower and upper cervical areas, many fibers of both pyramids were degenerated, as indicated by thickening. In the medulla the fibers appeared normal.

Inter-Olivary Fibers.—In the lower areas of the olive these fibers were thickened, while in the upper areas they appeared normal.

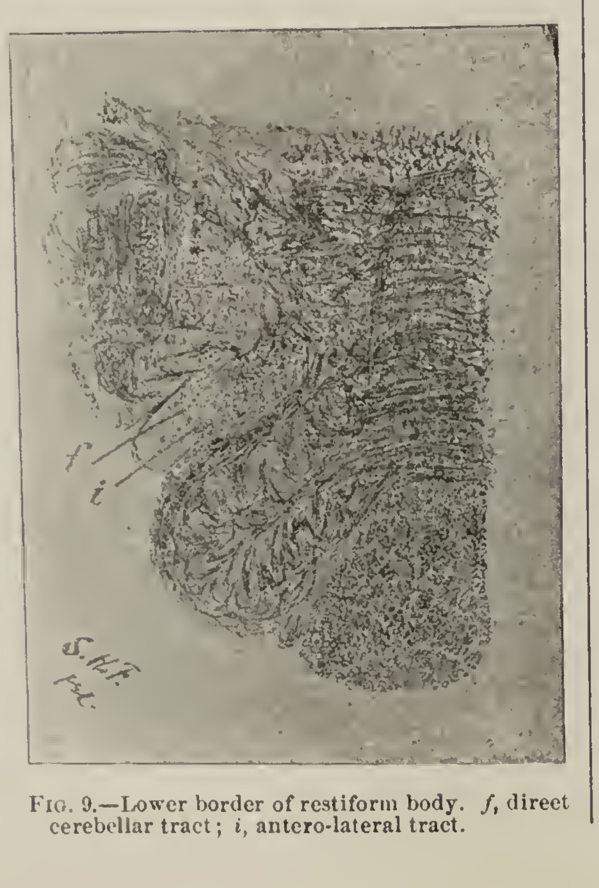

Fig. 9.—Lower border of restiform body. *f*, direct cerebellar tract; *i*, antero-lateral tract.

Anterior, External, Internal, and Lateral Arcuate Fibers.*—In the lower extremities of the inferior olive and restiform body, these fibers were diminished in number, thickened and broken. The degenerated fibers in all tracts were indicated by (1) total absence of fibers; (2) thickening of the neuroglia-sheath and axis-cylinders, with obliteration of myelin-matter. The two preceding forms of degeneration were observed in fibers of all the areas.

Pia Mater.—In the lumbar, dorsal, cervical, and medullary areas, the pia was thickened and appeared in places to be attached to the cord. Inflammatory products were absent.

Bloodvessels, Lymphatic and Ganglionic Spaces.—The walls of the bloodvessels of the gray and the white matter in the lumbar area were thickened; the lumina of all vessels were decreased in size. The same conditions existed in the bloodvessels of the pia. Many normal lymphatic and ganglionic spaces were present.

In the lower dorsal area I found the walls of the artery on the right side of the gray commissure much thicker than in the lumbar area, the vessel having a small lumen; on the left side of the commissure a thick band of fibers indicated the remains of another artery. All of the small vessels in the gray and the white matter were fibrous cords. In the pia the large vessels had small lumina.

In the upper dorsal area, in the gray and the white matter, and also in the pia, I found destroyed tissue and many extravasated red blood-corpuscles. The lumina of the small vessels were not present in any part of this area, in which the pia also showed spots of destroyed tissue, which were made up of broken-down cells. In the dorsal areas all lymphatic and ganglionic spaces were absent.

Within the cervical cord the walls of all bloodvessels were much thickened; the lumina of some of the largest, and a few of the medium-sized vessels were patulous; none of the capillaries had a lumen. In the tissues that surrounded many of the arteries in both the gray and the white matter, red blood-corpuscles were found, indicating thrombosis and extravasation. In the pia the large vessels had lumina, though the walls were much thickened; some of the smaller arteries were destroyed by embolic occlusion and showed extravasation. Some lymph-spaces were found within the gray and the white matter; few ganglionic spaces were present.

In the cervical area, showing crossing of the pyramidal fibers, all the bloodvessels had thickened walls. In this part of the cord, within the gray and the white matter, I found no large vessels; many of the smaller vessels were destroyed, appearing like fibrous cords. I found extravasations of blood. In the pia the walls of the vessels were much thickened; the lumina of the small vessels were obliterated. Many normal lymphatic and ganglionic spaces were present.

In the medulla, at the lower extremity of the olive, the bloodvessel walls within the cord were thickened; a number of small vessels in both the gray and the white matter were degenerated, appearing like fibrous cords. The bloodvessels of the pia showed the same alteration. Normal lymphatic and ganglionic spaces within the cord were present.

In the medulla, at about the lower extremity of the restiform body, the bloodvessel walls were thickened, and the lumina of all vessels were narrowed. Spots of total destruction of tissue were found: (1) in both olives; (2) on the left side in the degenerated direct cerebellar and antero-lateral tracts; (3) in the gray matter of the floor of the fourth ventricle. These spots were directly traced to a thrombosed vessel, and were made up of broken-down cells. The pia showed thickened bloodvessel walls, with lumina obliterated; areas of destroyed pial tissue were also observed. An artery surrounded by red blood-corpuscles was traced into the degenerated direct cerebellar and antero-lateral tracts. The vessel on the left side showed greater hemorrhage than the vessel on the right side. Many normal lymphatic and ganglionic spaces appeared. In all the areas the thickening of the bloodvessels was uniform, involving especially the median coat, which was degenerated to fibrillar cells.

Central Canal.—In the lumbar, dorsal, and cervical areas, the canal was filled with unstained granular matter.

Anatomic Summary.

(1) The position of the degenerated posterior-root fibers of the cord in the columns of Goll and Burdach has been already detailed. Following the degenerated fibers of the columns of Goll, from the lumbar to the cervical areas, a gradually decreasing number of fibers occurred on the border of the median septum in the

middle third. The highest degree of this excessive degeneration was shown in the lower cervical areas (Fig. 5). The number of fibers then increased toward the nucleus funiculus gracilis and cuneatus. According to Türck, Bouchard, Kahler, Pick, Schultze, Hofrichter, Barbacci, Pfeiffer, Bruns, Schäfer, Sottas, Mayer,[4] and Edinger, the median septal fibers have their origin in the posterior-nerve roots of the cords. Edinger's[5] explanation of the position of the root-fibers in the columns of Burdach and Goll is as follows:

> "Where the posterior-root fibers enter the horn, some fibers go into the columns of Burdach. As the fibers enter the columns of Burdach at the higher level, they push the older lower fibers toward the center. This process gradually produces the differentiated tracts of Goll."

The position of the degenerations of this cord in the posterior-nerve roots and in the columns of Burdach and Goll, gave further evidence in favor of Edinger's theory of the origin of the median marginal fibers in the columns of Goll.

(2) The thickened fibers of the posterior roots in all parts of the cord; the degenerated ganglion-cells in the posterior and anterior horns and in the gray commissure; and the degenerated fibers of the posterior and anterior commissures, indicated that the secondary sensory tracts of the cord, first described by Edinger,[6] were degenerated.

(3) The absence of fibers of the direct cerebellar and antero-lateral tracts, up to the upper portion of the cervical area, was undoubtedly caused by degeneration of the ganglion-cells in (*a*) the Stilling-Clark columns, (*b*) the posterior horn, and (*c*) the middle commissure. The degeneration in the upper part of the medulla in these tracts was descending, as indicated by (1) the thrombosed vessels, (2) the destroyed tissues, and (3) the presence of fibers in the lower area of the medulla. Further evidence of a descending degeneration in these tracts was shown by Strümpell, Gowers, Mott, Daxenberger,[7] and Campbell. Campbell[7] reported one case in which he observed a descending degeneration of the direct cerebellar and antero-lateral tracts. He also observed "that the cells of the Stilling-Clark columns on both sides were small." As already detailed, I found hemorrhage and localized destruction of tissue situated in the lower extremity of the restiform body. The hemorrhages and destroyed tissue were traced into the region of the direct cerebellar and antero-lateral tracts in the upper sections. In lower sections of this area, though the degenerations were found in these tracts, yet there was no hemorrhage. The degeneration of these fibers descended about 1 cm. Below this point the fibers in the direct cerebellar and antero-lateral tracts, though thickened, were present in normal numbers, to a short distance above the crossing of the pyramidal fibers and below that point the fibers were absent.

(4) The degeneration of fibers in the anterior and lateral ground bundles was caused by the diseased ganglion-cells in the posterior and anterior horns, and in the gray commissure.

(5) The degeneration of the fibers in the pyramids, and the destruction of the ganglion-cells in the anterior horns making up the secondary motor tracts, has also been observed by Charcot, Leyden, Kahler, Möbius,[8] and Goldscheider.[8] Goldscheider's[9] explanation of the degeneration of the pyramidal fibers is, "that the cortical cells become weakened and the trophic function of these cells becomes impaired." Goldscheider further states that in cases observed by him it was not uncommon for the terminal pyramidal fibers to be diseased as far up as the medulla.

(6) The destruction of the stroma in the dorsal areas, caused by thrombosed bloodvessels, accounted for the absence of some of the fibers in the crossed pyramidal tracts. The disease of the fibers was caused by the weakened trophic function of the cortical cells.

Etiology.

The pathology of this case indicates that the causative factor acted primarily upon the walls of the blood-vessels,[10] the inner and middle coats of which had degenerated to fibrillar cells. The fibrillar cells normally present were also proliferated. The lumina of the vessels indicated a varying thickness of the walls in the different areas: (1) thickness, with narrowing, in the lumbar, cervical, and medulla areas; (2) thickening, with obliteration, in the dorsal areas. The process of obliteration of the lumina progressed: (1) directly by contraction; (2) indirectly by thrombosis.

The narrowing and obstruction of the bloodvessels in the dorsal area caused the following results: (*a*) The ganglion-cells were so greatly atrophied as to be almost totally obliterated; (*b*) the fiber-tracts were extensively degenerated; (*c*) the ganglionic and lymphatic spaces were entirely obliterated; (*d*) the pial membranes were excessively thickened, and showed areas of destruction; (*e*) in places the stroma of the cord was destroyed; (*f*) the entire dorsal area was contracted.

Where the bloodvessels were narrowed in the lumbar, dorsal, and cervical areas the degenerations were lessened in: (*a*) ganglion-cells; (*b*) white fibers; (*c*) the ganglionic and lymphatic spaces; (*d*) the pial membranes. The thrombosed bloodvessel in the upper part of the medulla caused a descending degeneration of the direct cerebellar and antero-lateral tracts and a destruction of the pial membranes.

The character of the degenerations of the ganglion-cells throughout the cord indicated that the cells were starved and the degenerative process was a slow atrophy. In all of the different areas, with few exceptions, the ganglion-cells were smaller than normal, their outlines thick and jagged.

The cells of the lateral posterior, lateral anterior, and median anterior groups of the lumbar area, and the gelatinous substance of Rolando, the nucleus funiculus gracilis, and the hypoglossal nucleus in the medullary areas, showed exceptional degenerations. In these groups, while many of the cells showed a shrunken, atrophic cell-body, other cells appeared unstained and granular, the outlines appearing faint. These cells had undergone softening, which was probably a stage of the atrophic process.

The white fibers showed, in longitudinal as well as in transverse sections, slow atrophy. The pyramidal fibers up to the beginning of the olive, and all of the posterior and lateral fibers throughout their entire extent, were irregularly enlarged and thickened. In none of these fibers was any myelin-matter found. The process of fiber-destruction was gangrenous;[11] the axis-cylinders appeared to have proliferated, then enlarged, then softened, and, finally, to have disappeared, and to have been replaced by connective tissue. The neuroglia-sheath probably underwent the same process.

Especial evidence of starvation was present in the dorsal areas. In these areas, where the greatest degeneration occurred in the bloodvessels, the ganglionic and lymphatic spaces were obliterated, the pial membranes were excessively thickened, and the cord was much shrunken. As connective tissue replaced in all degenerations the normal cell, the cord contracted, and the ganglionic and lymphatic spaces were, consequently, obliterated.

The destruction of the bloodvessels resulted in destruction of the stroma of the cord in the pial membranes in the dorsal and upper medulla areas, and caused in all areas the thickening of the pial membranes.

I conclude that the degenerations of the bloodvessels of this cord caused the degenerations in the tissues of the cord, and that the syphilitic affection probably hastened the atrophy of the bloodvessels.

My investigations show that the ganglion-cell groups in the dorsal areas occupy the same positions as the groups in the lumbar and cervical areas. There are, however, fewer cells in each group in the dorsal area.

I am indebted to Professor Ludwig Edinger for the spinal cord that forms the basis of this study.

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The Ninth International Congress of Ophthalmology will meet at Utrecht from August 14 to 18 1899. Only the English, French, and German languages will be employed. There will be three sections—one for anatomy, pathologic anatomy, and bacteriology; one for optics and physiology, and one for clinical and operative procedures. There will be a secretary for each language, as follows: English, Dr. A. McGillivray, Dundee; French, Dr. A. Dufour, Lausanne; German, Dr. A. Siegrist, Bâle.

A STUDY ON NON-CONTAGIOUS FEVERS.

By C. A. SIEGFRIED, M.D.
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The herding together of men in ships, barracks and camps for any length of time tends to evolve atypical cases of fever, non-contagious, non-classifiable under our present nomenclature; and the amount of invaliding and time lost in hospital compels us to seriously study their etiology, and also to admit our ignorance of many of the elements concerned in their production and prevalence. None of us having to deal with groups of men under the conditions of variable climate, seasons, and service, fails, as a rule, to encounter these nondescript fevers; and, though they go down in our records under the various headings of febricula, gastric fever, simple continued fever, aborted typhoid or atypical typhoid, malaria, remittent, etc., etc., nevertheless one is not convinced or satisfied with the matter or kind of accuracy involved. In the hot season the names, "heat-fever" and "Texas fever" in southwestern American States also serve; and, following long periods of great muscular exertion, "fatigue-fever," "nervous exhaustion," and so on.

Even with the later developed well-marked types of the specific fevers, the local lesions may, for a time, serve to carry the burden of a name; and it is well known that, in hospitals for the treatment of fever alone, cases of entirely different disorders are frequently received with diagnoses of enteric or typhoid fever, apparently the common name for all obscure fevers. Hence the difficulty, and the lack of clear expositions and definite knowledge of the real etiology of many cases of continued fever, and especially as occurring in military and naval life. The usually favorable prognosis has also a share in this neglect of the study of their natural history and their intricate bearings. The great loss of time and of service, including expensive invaliding in some services, makes the subject of more importance than is usually accorded it in our textbooks.

Since 1887, the British army and naval medical officers have clearly elucidated and defined the commonly met with continued fever known as "Malta fever," "rock-fever" (Gibraltar) "Massuah fever" (African coast), "Naples fever," "Cyprus fever," "Cretan fever," etc., etc. From time immemorial this fever has been endemic in the countries and islands of the Mediterranean basin, and has puzzled observers; and it is now proved to be a specific fever, receiving the name of Malta, "undulant," or Mediterranean fever; undulant because of the pyrexial undulations of the temperature-chart. It was, with few exceptions, called enteric or typhoid, atypical typhoid and typhomalarial fever or remittent, yet the better clinicians noted plainly the absence of the enteric lesions and other pathognomonic evidences of true typhoid, and, in its etiology, evolution, and spread, the facts were usually contrary to those so well known in connection with typhoid fever, such as, for instance, milk-pollution and water-pollution, and infection from patient to nurse. The aerial transmission of typhoid is rare, is in fact doubted, while for Mediterranean fever that fact is abundantly proved, and transmission by water and by milk is unknown.

For centuries Malta or undulant fever has been noted under various names by historians in all the countries bordering the Mediterranean basin, and there is good reason to suppose that the disease is not alone confined to that region of the world, from the fact of the constant occurrence nearly universally of types of unclassifiable atypical continued fevers that should be studied in the light of the recent illuminating work of Bruce, Hughes, Gipps, Milne, and others, on the etiology of Mediterranean fever. Our so-called typhoid-fever tables, in our warmer latitudes especially, have been for years of but little scientific value, from the fact that all low, continued fevers are dumped there. Reports are now accessible from remote China, India, and the Western Continent, of fevers that in every detail resemble the descriptions of the observers mentioned of Mediterranean fever, and which may be of the same nature.

In May, 1897, Surgeon Major David Bruce, of the English army, serving at Malta, discovered the micrococcus melitensis as the cause of Malta fever. The germ was isolated from splenic pulp, and cultivated on agar-agar; monkeys were inoculated, the disease reproduced with similar lesions and symptoms; and the organism was constantly found in the blood of patients ill with the disease. Confirmatory work has since been reported in the *Transactions of the Epidemiological Society* (1890), *Annales de l'Institut Pasteur* (1893), English Army and Navy Annual Reports, and in the English medical journals. Bruce cultivated his micrococcus in two cases from blood aspirated from the spleens of patients during life. In 1891, Surgeon Captain M. Louis Hughes, of the English Army, began to work at the bacteriology of the fever, and succeeded in cultivating, after death, from the spleen in 14 fatal cases of undulant fever, pure colonies of the micrococcus melitensis of Bruce, and in no case has this micrococcus been absent. For the last and fullest account of this disease I would refer to Hughes' praiseworthy and scientific book, published by Macmillan & Co., in 1897. This is a model thesis on a subject of great importance to all of us having to do with men in groups and often living under insanitary environment and circumstances provocative of obscure fevers and autogenous disorders.

The chief characteristics of Malta fever are a continued elevation of temperature, with daily morning-remissions and evening-rise for a period of from 6 weeks to 6 months, with intermittent waves of pyrexia of distinctly remittent character. These pyrexial waves last from 1 to 3 weeks, with a period of temporary abatement of pyrexial intensity lasting for 2 or more days. In rare cases the remissions markedly resemble paroxysms of paludal remittent fever, the only difference being an insensibility to the administration of quinin. The fever is sometimes irregular and erratic. Among the clinical manifestations are obstinate constipation, lack of appetite, heavily white-furred tongue, progressive anemia and debility, neuralgic symptoms referable to the peripheral and central nervous system, arthritic effusions, painful inflammatory conditions of certain fibrous structures of a localized nature, and swelling of the testicles. The fever has a close clinical relationship with enteric and malarial fevers and may coexist with these diseases in some localities. The rate of mortality is low, the invaliding rate is high, and the duration prolonged, so that the average stay in hospital is from 70 to 90 days.

Pathologically the spleen is enlarged and softened, the epithelial lining of the alimentary tract may be the seat of irregular patches of venous congestion, excessive in the large intestine in fatal cases. Peyer's patches are unaffected. The tissues appear microscopically as if affected by an irritant poison. Altered pigment is not deposited in the tissues, as in paludism.

It is at present doubtful if there is any drug that can cut short this fever. It can only be attended along more or less successfully to recovery. It is said by some to be influenced by combinations of internal germicides and quinin in late stages, and calomel is at times of some use. We can, however, mitigate its effects. The resulting anemia and debility are difficult to overcome, whilst the neuralgias and rheumatic complications may last for years. The disease is a "filth-fever," and the cases must be placed in the best possible conditions for hygiene, nursing, attendance, and cautious symptomatic medical treatment. The best restorative is complete change of air, climate and environment, usually removal to a more northern climate for a time.

An immunity is gained by those long resident in parts where this fever is endemic; and it is probable that the disease is universally met with in all the warmer countries having insanitary conditions of harbor and of drainage. The soft absorbent rocks and building-stones of Malta, Naples, Crete, and Gibraltar, have been filth-soaked for ages, and these are the conditions always encountered. Obstructed drains, neglected filthy sites, walls and grounds invariably accompany outbreaks among Europeans. The warmer months of the year, in the regions of the endemic prevalence of Malta or undulant fever, are unsuitable and dangerous for tourists and strangers.

The specific microorganism of the disease, the micrococcus melitensis vel Brucii, is a saprophytic coccus, originally evolved and bred under conditions of long-continued filth in and around human habitations in tropical and semitropical climates. It grows well at 37° or 38° C., in media slightly less alkaline than blood. Below 18° C. growth is suspended, and above 42° C. artificial growths die. Most of the experiments were made with 1.5% peptone-agar. The organism will not grow on acid media, and, as with the bacillus typhosus, a gradual change from alkalinity to acidity of nutrient media inhibits and kills growth. Fresh moist agar readily grows the organism. Colonies soon die out. The coccus grows slowly in gelatin, without liquefaction. In bouillon the cloudiness and precipitation are like those due to the Eberth germ. The organism does not seem to grow on potato. In hanging drop it appears as a minute coccus 0.33 μ in diameter; sometimes ovoid in shape and with rapid "molecular" motion. It occurs often in pairs and fours, with no chains. It stains and decolorizes readily. The blood of patients ill with the disease, as likewise the blood of monkeys experimentally inoculated and made ill, causes agglutination of the organism in cultures. Slow growth, small size of colonies, minute size of the coccus, and readiness of staining and decolorization are differentiating points in diagnosis.

The following account of an occurrence of a large series of "simple continued fevers" well illustrates another type of fever, non-contagious and non-classifiable.

In the Spring months of 1895 a large modern U. S. naval vessel, with a crew of 470 men, was on service on the east coast of Central America. She was a fine steel vessel, but hygienically not a favorable abode for humanity, there being a somewhat limited open deck-space, all parts much housed in, and about two-fifths the complement confined, as a rule, far below decks at their duties. The climate and the meteorologic conditions were a wet tropical season, frequent daily showers followed by intense heat from (80° to 90° F.), and high average humidity. The ship was anchored 3 or 4 miles from the Nicaraguan shore, in the open sea. No communication was had with shore but for mails and supplies, and the men were given no leave to go ashore for nearly 6 months. The decks were always damp, as were also clothing and bedding. Cutaneous and superficial irritations were frequent. There was but little exercise for the crew, whose duties and work were monotonous. The diet was fairly good, but not much varied, and fresh supplies, including fruit, were not sufficiently abundant. The ship's sanitation was as good as was possible, with her peculiar close, shut-up construction, and limited open-air deck-space. The number of cases was 145, with an additional number, ambulant and not closely recorded, making a grand total of about 250. It was decided to name the disease "simple continued fever," and so it appears in the official records.

The disease, mainly characterized by elevation of temperature, with weakness and disordered bodily functions, and without localized lesion, lasted from 1 to 3 weeks. The maximum temperature ranged from 100° to 102° F., with morning and evening variations; remissions were not noted. The prominent symptoms were malaise, headache, mental depression, anorexia, constipation, slight prostration, pallor of skin, and loss of weight. The urine was nearly normal, in a few cases albuminous; the urea was increased. The feces were usually lacking in pigment, were "clay-colored," and in a few cases diarrhea persisted. There was no prominent sequel, but convalescence was prolonged and tedious, with a disinclination for mental or physical exertion. There was a marked tendency to slight febrile recurrences and relapses of a few days' duration, marked insomnia and nervous irritability. In a few cases rheumatic and neuralgic pains persisted. The circulatory and respiratory systems were impeded, and cardiac action was weakened.

There was no fatal case. The tendency of the disorder was to persist and intensify without rest and careful management to induce quiet and without general hygienic care. The most useful methods employed included free cooling baths, and the air and light of the open deck. Those working in the open air on deck most of the time were least affected. In severe cases the breath was fetid, the tongue dryish brown, perspiration profuse, and breathing impeded with a weak heart.

The clinical connection with typhoid and malarial fevers seemed in some cases at times imminent and suspicious, but in the light of all the circumstances and the complete history of all the cases it was abandoned. This section of Central America (Nicaragua) always contains sporadic cases of yellow fever and of malarial disease, but there was no general communication with the shore, and the anchorage was without shore-influence. The water used was distilled from sea-water, and the supply was perfect.

The treatment was neither abortive nor curative; in fact no drug seemed capable of much influencing the course of the fever and disorder. As in all fevers of this nature, it was only possible to mitigate the symptoms, and attend the patient along to recovery, by medical care and management. The best results ensued from absolute rest, the use of saline laxatives and diuretics, a limited amount of mercurials, and bathing. Quinin was of no use whatever, increasing the discomfort, yet it was used persistently and in all forms. The coal-tar products were much used, and, beyond slight pain-mitigating effects, were of no real benefit, most probably delaying the inherent bodily curative efforts. Caffein was combined with phenacetin and salol in many cases.

The liver was perhaps most affected, judging from the stools, yellowish color of the skin, faulty digestion, headache, etc. "Portal congestion" was a common condition. The patients were inclined to mope and seemed limp and dull physically as well as mentally. The thermogenetic apparatus was primarily acted upon and disordered, and there was marked loss of vasomotor control. Toxemia was present and the action and influence was apparently a transient one upon the heat-controlling nerve-centers. From the existing conditions, both within and without the ship, this fever was, in my opinion, a bacterial disease from a commonly present saprophyte having gained for the time being pathogenic and thermogenetic qualities in the presence of lowered stamina in the men. It is to be regretted that bacterial investigation was not carried on, but the ship was without microscope or facilities for such work. There are many points of resemblance, in this history, to Malta or undulant fever; in the general and intestinal symptoms, the tendency to recurrence of abnormal temperature, the prostration, and later the arthritic and muscular pains. The disorder was not that fever, but it could be classed with that large number of febrile tropical disorders so commonly seen in the West Indies and usually associated etiologically with high temperature, humidity, overcrowding, insanitary and unhygienic environment, in subjects depressed mentally and physically from various causes.

The disease was not contagious, and those on board in the better circumstances, such as the officers, and men whose duties kept them in the cooler open air, with freedom of space and movement, were but little affected. Judging from our army medical reports, there is a close resemblance to "Texas fever."

Many years ago, while serving on a ship under unfortunate circumstances regarding season, climate, local and general hygiene, the following series of events occurred: A wooden corvet had been for 8 months out of use, lying in a fresh-water stream. In the summer months a large number of men were employed on her, making extensive repairs. In the month of November, in a cold, raw season, she was again commissioned with a crew of about 300 men. The ship was not clean, many of the men were green, and in much confusion they took up their abode in a steam-heated (in parts only) and damp ship. Many days were required to put the ship to rights, scraping and scrubbing the decks and dark corners, and all this time overcrowding, excessive humidity and wet, lack of ventilation, and somewhat irregular routine and confusion among the officers and crew, prevailed. Within a period of 4 weeks fever-cases occurred, 6 being diagnosed as cerebrospinal meningitis; and in the hospital 2 of these died within the week, including the assistant surgeon. Cases of mixed and true types continued to crop up, with some of malaria and typhoid; and, during the next 10 weeks, no less than 6 typhoid cases, 22 irregular but continued fevers, and several cases of inflammatory rheumatism. Of the fever-cases, among a total of 28, excluding the cerebrospinal cases, there was a mortality of 23%. With the lapse of time, improved hygiene, and an outside temperature allowing of free ventilation and an open-air existence for the crew, all irregular and typical fevers declined, and shorter ephemeral fevers ceased altogether by the end of spring. The cases of fever were consequent upon excessive bacterial growth and absorption of its products due to the evolution and multiplication of saprophytic organism becoming pathogenetic with the favoring conditions of moist, overheated and insanitary decks in confined atmospheres. I found developed under my eyes groups of atypical, low, and continued fevers, some with petechiæ, nosebleed, meningeal and pulmonary involvement, with typical enteric cases after a time; and, along with these, a number of milder continued and almost negative cases, with elevated temperature, anorexia, and debility, hovering like a nimbus over the others, better characterized, and forming the closing cases in this interesting experience.

I have always found that there occurred but little fever of any kind in the absence from habitations and ships of any kind of putrescence, with its abundant germ-activity. With light, air, sunshine, dryness of surfaces and floors, fair dieting and, amid the ordinary routine work and duties of the naval service, in the absence, of course, of shore miasmatic influences, we do not encounter fever-cases. These fevers do not occur amid pure and hygienic surroundings. Ship's crews use distilled sea-water, all food if anything is overcooked, and drains lead directly overboard. I have, however, frequently found seamen to become ill with these irregular filth-fevers, non-contagious and "atypical," from those in the boat's crews, much delayed at city-wharves near sewer-outlets. One case that finally proved fatal on the eighteenth day had only a lesion of the heart-muscle, an acute fatty degeneration.

[To be continued.]

THE FUNCTIONS OF THE FRONTAL LOBES OF THE BRAIN.

A Case of Tumor (Neuro-Glioma) Invading Both Frontal Lobes and the Corpus Callosum.

By J. SANDERSON CHRISTISON, M.D.,

of Chicago.

So few cases of tumor of the frontal lobes of the brain have been recorded and especially of the type which I have to describe, that additional reports of such cases are of considerable value in at least contributing to a better understanding of the functions of the lobes affected. Especially is this so when the factor of compression upon adjoining tissues is, as here, absent.

The case is from the practice of Dr. Carl Wagner (President of the North Chicago Medical Society), by whose courtesy I was given the brain for examination, and also furnished with the following clinical data:—

The subject was a farmer's wife, 44 years of age, well formed and well nourished. She had one child, but, since a miscarriage, some 20 years ago, she had experienced some menstrual irregularity and slight ailments, including headache, from time to time. She grew to regard the headaches with comparative indifference, although as time advanced they became more severe. They were of the diffuse type and never localized. Otherwise her history as regards health was good and her husband remarked that she had always been a good wife and a hardworking housekeeper. Of late her headaches had ceased, but Dr. Wagner was called to attend her for general depression and menstrual irregularity about three weeks before her death. He found a number of small nodules on the uterus, but could in no way account for her marked depression and bad feeling. She had a staring look, a subdued tone of voice, and was slow in answering questions, but the answers were distinct, coherent, and pertinent. She did not then complain of headache; she was well nourished and the urine was free from albumin and sugar. The doctor had her removed to St. Joseph's Hospital for observation and prescribed 15 grains of potassium iodid t. i. d., but without any apparent effect. She gradually became slower in answering questions, but otherwise she exhibited no mental peculiarities such as would distinctly indicate any special cerebral disease. She was still up and moving about the day before her death, but answered no questions and declined to eat. She was observed to stare, chiefly in one direction. Next day she remained in bed, and as Dr. Wagner's suspicions were now aroused regarding her brain, he was about to make an ophthalmoscopic examination when he was informed that she had become comatose; she died half an hour later. The results of autopsy were negative, except in regard to the brain and the small uterine nodules.

Dr. Maximilian Herzog (Director of the Pathological Laboratory of the Chicago Polyclinic) examined a portion of the tumor, and I am indebted to him for the following report:

"The microscopic examination of the tumor (including an examination with the Weigert and all other specific neuroglia-stains) shows it to be a glioma of that type which has been called a neuro-glioma. The tissue is composed of a comparatively small number of nucleated glia-cells and a largely preponderating mass of differentiated glia-fibers. These fibers do not seem to have any relation to the glia-cells, they are not processes of the latter. The tumor-tissue, besides these elements, shows numerous hyaline masses, either round or oval. They seem to be the remains of ganglionic nerve cells, hence the tumor may be properly styled a neuro-glioma. The tumor-tissue is fairly rich in small thin-walled blood-vessels."

Figs. 1 and 2 indicate approximately the extent and location of the tumor, which is gray in color throughout, but shaded a trifle lighter or darker in patches. It has no distinct capsule, but merges into the tissues at all points, apparently not producing any displacement by pressure. The tissues, just at its margin, are a little softer. It hardly touches the cortex anywhere except at the median surfaces of the hemispheres. As the whole brain has been hardened by formalin it is impossible now to tell whether the tumor or the other structures were the harder at the time of death. Most of the tumor is now softer than the adjoining tisues. The cut surfaces exhibit several softened areas where antemortem capillar hemorrhages have taken place, and which were probably the immediate cause of death, as many fibers go from the frontal lobes to the pons and the respiratory center in the medulla.

The case, as a whole, is so similar to the one reported by Drs. Francis, Starr and Van Gieson,[1] that I take the liberty of bringing forward the chief data as reported.

Their case was that of a hardworking and wellformed widow, 45 years of age, whose history was good in the main, previous to her first "fit-like" spell some 15 months before she died. She subsequently had a number of these spells which always left her exhausted and drowsy, while in the intervals she seemed to fully regain her health. She was troubled at times with nausea and vomiting and also had internal strabismus of the right eye and occasional twitchings of the right side of the face. Her answering to questions was slow but correct, the slowness becoming more marked towards the end. For years she had exhibited indifference towards her own children and things which were naturally of interest to her. Her last six months was spent in bed, and towards the end questions evoked no replies. She became emaciated and blind and died comatose. She had double optic neuritis with retinal hemorrhage. She had been given potassium iodid "up to tolerance" with no apparent results.

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[1] *Am. Jour. Med. Scs.*, June, 1895.

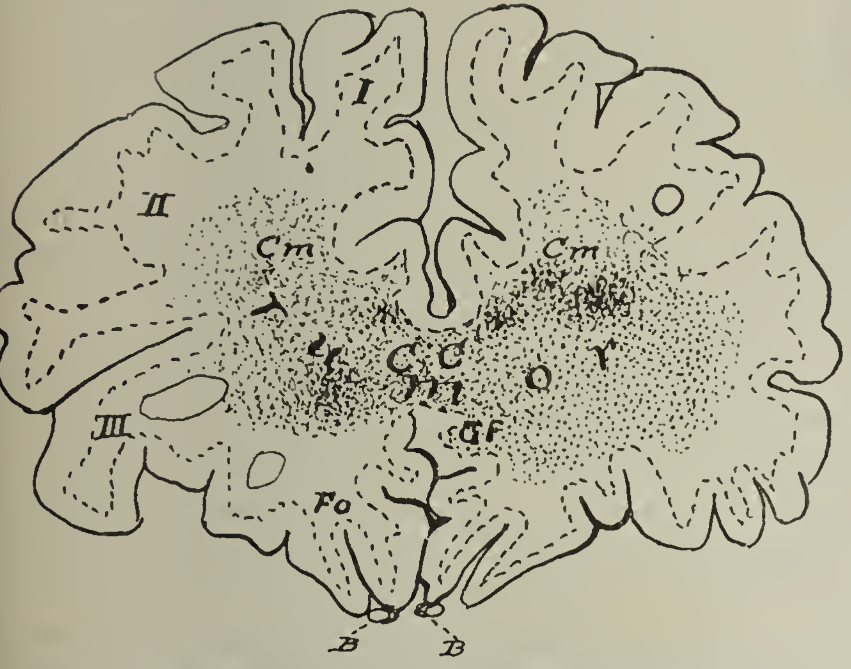

FIG. 1.—(Dr. Carl Wagner's case.)—Front view, cross-section vertically through a point one inch in front of the mouth of the fissure of Sylvius. The tumor-area extends about ½ inch behind the section and to the borders of the lateral ventricles. It occupies almost the whole of the frontal lobes lying in front of the section. The darker areas are soft, dark-blue on reddish-brown, and rotten tissue with hemorrhagic marks.
I, II, III.—Frontal convolutions.
BB.—Olfactory bulbs.
CC.—Corpus callosum.
GF.—Gyrus fornicatus.
CM.—Calloso-marginal fissure.
FO.—Olfactory fissure.

Dr. M. Allen Starr's examination of the brain revealed a gray tumor in the frontal lobes and the anterior knee of the corpus callosum. (See Figs. 3, 4, and 5.) It was rather larger on the right side, and was without nodules or capsule.

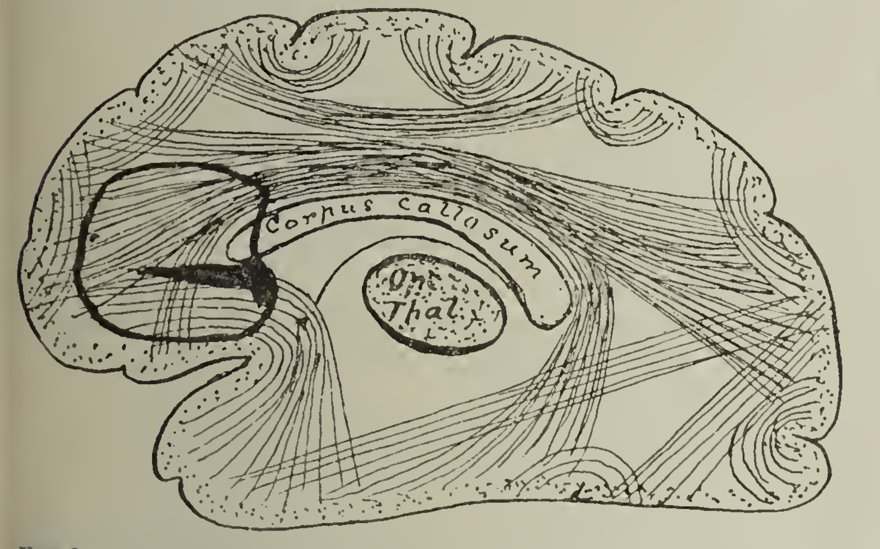

FIG 2.—(Dr. Carl Wagner's case.)—Diagram of a longitudinal section of the left cerebral hemisphere, showing the antero-posterior extent of the tumor and some of the association fibers involved, as indicated by Starr. Horizontal black line below the front knee of the corpus callosum indicates the largest hemorrhagic area. It is on the left side.

"It had evidently grown into the two frontal lobes very extensively, rather than displacing or comprising them." It did not reach the cortex anywhere except on the median surfaces of the hemispheres. It was slightly harder than brain-tissue and the cut surfaces of the tumor were mottled in appearance, gray and white, with a rich supply of blood-vessels, and numerous stains indicated the presence of antemortem capillary hemorrhages. It had no very definite limits, so that its structure ran into that of the hemispheres; and, just beyond, the tissues were softened. It did not reach the optic chiasm or basilar structures.

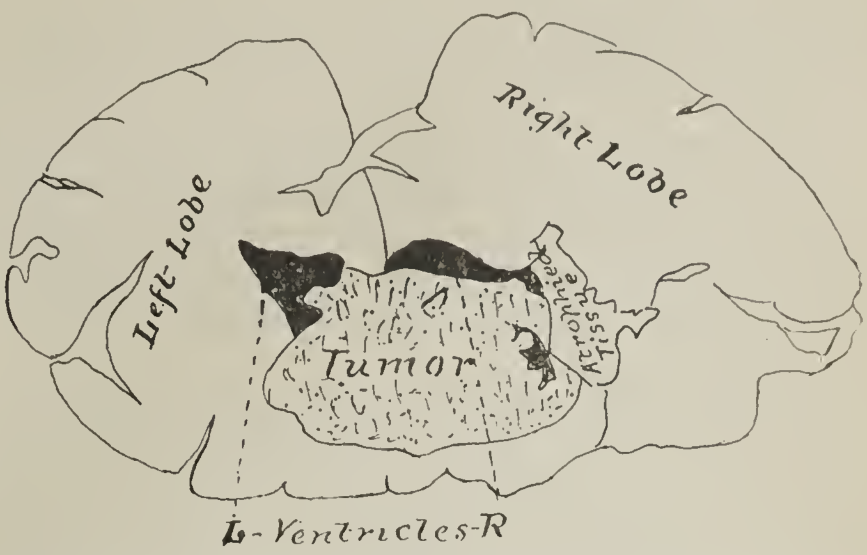

FIG. 3.—(Dr. R. F. Francis' case.) Shows a vertical section just posterior to the anterior end of the tumor, *seen from the front.* The two lateral ventricles are seen with the tumor pressing into them; the corpus callosum shows its diseased and displaced (elevated) condition; the destructive effects of the growth are shown in the right lobe, where a large area of softened brain-tissue has disappeared.

Dr. Ira Van Gieson reported that: "The tumor consists of masses of small round cells with exceedingly limited cell-bodies, which lie in a delicate network of the finest filaments. These cells are arranged in groups or densely aggregated clusters, and between such clusters there is material quite identical in structure with the basement substance of the gray matter of the brain cortex. Interspersed among the small, round-celled clusters are great numbers of exceedingly thin-walled vessels. Thus the tumor is very vascular. The tumor quite uniformly shows this same structure throughout its whole extent, but in many places there are

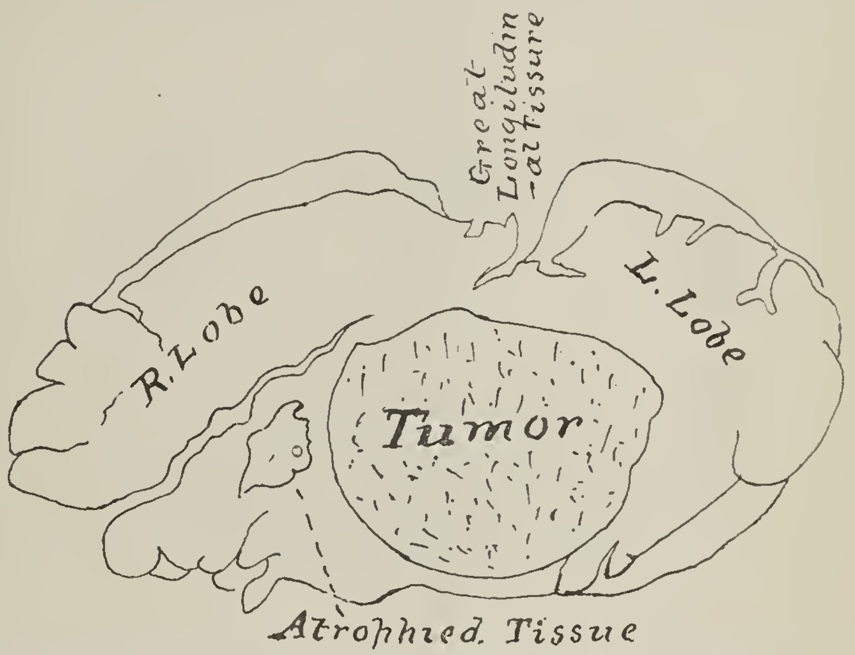

FIG. 4.—(Dr. R. F. Francis' case.) Shows a section made at about the middle of the tumor, *seen from behind.* The disintegration of the corpus is more marked. There is the same loss of tissue in the right lobe.

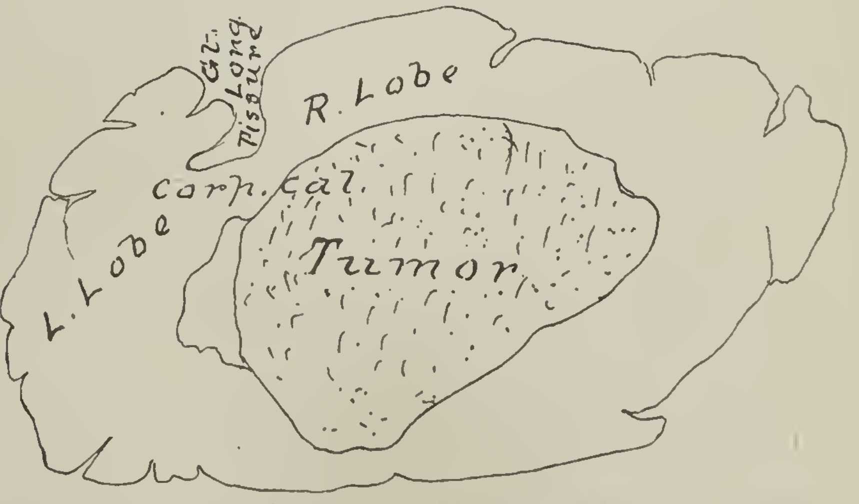

FIG. 5.—(Dr. R. F. Francis' case.) Shows a section just anterior to the posterior end of the tumor, *seen from in front.* Aspect of softening is seen in the corpus ust above the tumor.

degenerated changes in the tissues. The tumor is what is ordinarily called glio-sarcoma, but is more properly called a neuro-glioma."[2]

Comparison of these two cases shows them to be essentially alike in the nature, extent, and location of the brain-disease, and also in the coexisting mental phenomenon of slow answering of questions, which in both cases can only be attributed to a hampering of the thought-processes.

The spells of headache in the one case and the "fit-like" spells in the other case, can be reasonably regarded as but different manifestations of the same thing, and produced by differences in the personal factors. The case of Dr. Francis was evidently farther advanced than that of Dr. Wagner, although a full history of the latter was not procured and now cannot be.

It is to be observed that although replies were slow, neither of the cases manifested any mental aberration in the delusional sense. And although very extensive destruction to the functioning of both frontal lobes existed in both cases, yet no adjoining structures appeared to be in any way displaced or otherwise molested by the tumors.

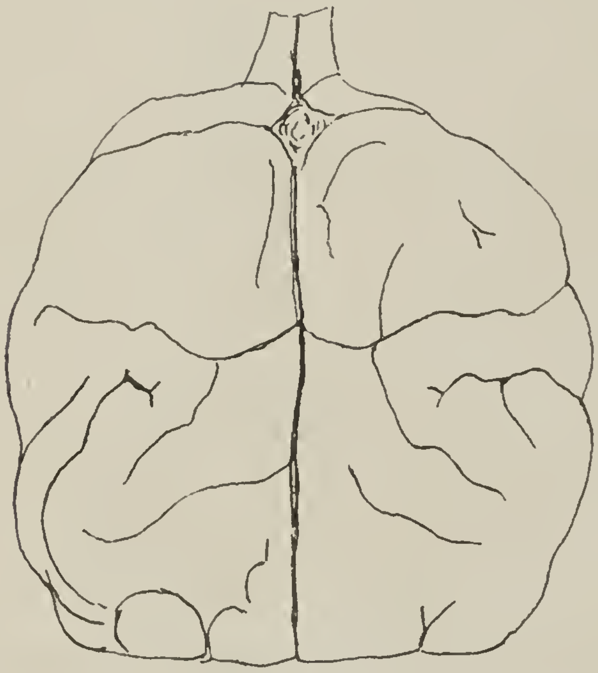

Fig. 6.—The brain of Prof. Bianchi's monkey, after ablation of its pre-frontal convolutions. Operation made in front of the roots of the frontal convolutions, nearly corresponding to the pre-frontal sulcus.

In this connection one of Prof. Bianchi's later experiments on monkeys will be of interest:

"An adult domesticated female cynocephalus, whose habits, dispositions, and peculiarities had been carefully noted for a long time, was deprived of her pre-frontal lobes as indicated in Fig. 6. Two months after this the mental change in her is described much as follows:

"Her physiognomy has become stupid and less mobile; expression of eyes uncertain and cruel and devoid of any flashes of intelligence, curiosity, or sociability. She shows terror even by shrieks and gnashing of teeth, when threatened and hurt, but never reacts aggressively. She is in a state of unrest. When placed in a large closed room she walks aimlessly round, and always in the same direction without stopping near any object or person. Any action done with apparent purpose remains incomplete, unfinished; if she runs towards a door she stops near it, goes back, runs to the door again and so on several times. She shows no affection or gratefulness to people whom she previously loaded with caresses as these animals are wont to do; she does not seem to know them, though they are ever ready to attend to her wants. Whenever approached for a caress she shows fear. When the attendant brings food or fruit she comes near and violently seizes the object with avidity. None of her former friends can now caress her any longer. She is unsociable with the other monkeys; does not play; cannot overcome the least difficulties in her way by new adaptations, nor learn anything new, nor recover what she has forgotten. She picks up and takes to her mouth whatever she comes across. She is, however, somewhat cleaner. The sexual instinct seems to be present, but the periods are less regular and abundant. She occasionally manifests impulses of cruelty quite foreign to her kind. One day while she was menstruating another female cynocephalus came near her. She at once manifested her desire; but finding the other unable to satisfy it, she attacked her companion so furiously that she would have killed her if the keeper, armed with a stick, had not at once interfered. Later her movements became stereotyped. She walks about, sits, looks for parasites all over the body, and remains indifferent to everything except the sight of her food, and no longer expresses desires peculiar to the time of menstruation. She has no sensory defects, and discrimination somewhat improves."

From the facts thus far presented it is quite evident that in the two tumor-cases and also in the monkey deprived of its pre-frontal lobes (those occupied by the tumors in the women), there is the same fundamental similarity in all, viz., functional loss of the pre-frontal lobes without compression upon the adjoining structures, and with the concomitant reduction of the power of attention with indifference to things formerly and naturally of much interest. The power to associate ideas as promptly or as fully as before was not lost, but simply enfeebled. Every other mental peculiarity can be explained by this one defect—inattention—as consequent to it. But this does not prove that attention (which is the measure of intellectual power) is a function of the pre-frontal lobes. It is only evidence of the loss of energizing power, just as is functionally the case in a more general want in all neurasthenias, hypochondrias, hysterias, dementias, and in simple brain-fag, which are only different forms or modes of expressing the same thing and specialized by the psychic factors of the personal equation. But defect of attention results from all sorts of diseases and anywhere within the cerebral hemispheres and even outside. Every experienced physician knows that. Goltz found that removal of the parietal lobes in dogs produced the same consecutive disturbances as does the removal of the frontal lobes,[3] and so with Munk, Luciani, and others he denies that any special intellectual value can be attributed to the frontal lobes. On the other hand such experimentalists as Ferrier, Wundt, and Hitzig think, or did think, that because destruction of these lobes results in the weakening of mental action, therefore they are the centers for the highest mental functions. In view of Andral's case and such other evidence, their argument is not unlike insisting that the sun moves round the earth. They have nothing but superficial appearance in their favor, and it is not possible for any essential mental process to be in any way localized any more than it is possible to localize an idea, for every impression upon the brain must efface the preceding, even if there was no chemical change.[4]

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[2] *Brain*, Winter, 1895.

[3] Flüger's *Archiv*, Band xx.

NOTE.—The brain of Dr. Carl Wagner's case was exhibited at a recent meeting of the North Chicago Medical Society, held in the Newberry Library.

LECTURES ON ORTHOPEDIC SURGERY.*

By JOHN RIDLON, A.M., M.D.,
of Chicago;
AND
ROBERT JONES, F.R.C.S.,
of Liverpool.

THE operative measures for the treatment of spondylitis include aspiration of abscesses, with or without antiseptic injection; simple incision and drainage; and incision followed by erasion, with flushing with hot water, the wound being closed by suture and no drainage provided. Other operations attack the spinal column, either for the removal of necrosed bone or for erasion of the carious areas; and laminectomy may be performed for the relief of pressure-paralysis.

Simple aspiration, even when often repeated, has, as one might expect, not proved of much value. It rarely succeeds in completely withdrawing the abscess-contents in consequence of the caseous masses present, and is often followed by a rapid refilling of the sac. We sometimes see a single aspiration succeed in obliterating the abscess; but, more generally, even after repeated aspirations, it ultimately proves a failure. We often notice after aspiration a disappearance, sometimes lasting for many weeks, of all swelling, and then slowly the cavity refills. This points an obvious moral to those who publish cases as cured by operation before allowing sufficient time to elapse to render a fresh collection next to impossible.

Aspiration, followed by the injection of antiseptic fluids, has been abandoned, as also has the injection of iodoform-ether; but the injection of iodoform-"emulsion" (10% mixture of iodoform in olive-oil or glycerin) still finds favor with some general surgeons, and, in their hands, is reported to yield good results. The results, however, are less favorable with the large, tortuous and deeply-seated abscesses of spondylitis than with those at other joints. We have long since abandoned the use of this method of treatment, as always useless and at times harmful.

Incision of an abscess is demanded when the patient suffers from septic symptoms, when the location of the abscess is such as to prevent effective mechanical restraint to the diseased area, and when the abscess threatens important structures. Incision for the relief of such an abscess may have to be made almost anywhere. In cervical disease, behind the sterno-mastoid muscle; in dorsal disease, by the side of the vertebræ; in lumbar disease, just outside the erector spinæ, and in the case of psoas-abscess resulting from disease in any part of the spinal column, an opening may have to be made above or below Poupart's ligament, or even attack made from the lumbar region. The accompanying diagram shows the arrangement of the pre-vertebral fascia in the neck, and explains its attachments, which have everything to do with the direction of pus in the cervical region. The incision for the relief of abscess in this neighborhood should be made at the posterior border of the sternomastoid, care being taken to avoid the division of the spinal accessory nerve (which leaves the sternomastoid at its middle). The structures are then drawn forward with a broad retractor, when the transverse processes of the vertebræ will be easily felt. If the abscess is large, it will be seen bulging and can be easily opened (preferably by Hilton's method). The finger is introduced and diseased bone felt for, and, if loose or easily detachable, removed. This operation should be performed, however advanced a retro-pharyngeal abscess may appear. It is a mistake to incise through the pharynx, as drainage in any position of the body is thereby rendered difficult and risky.

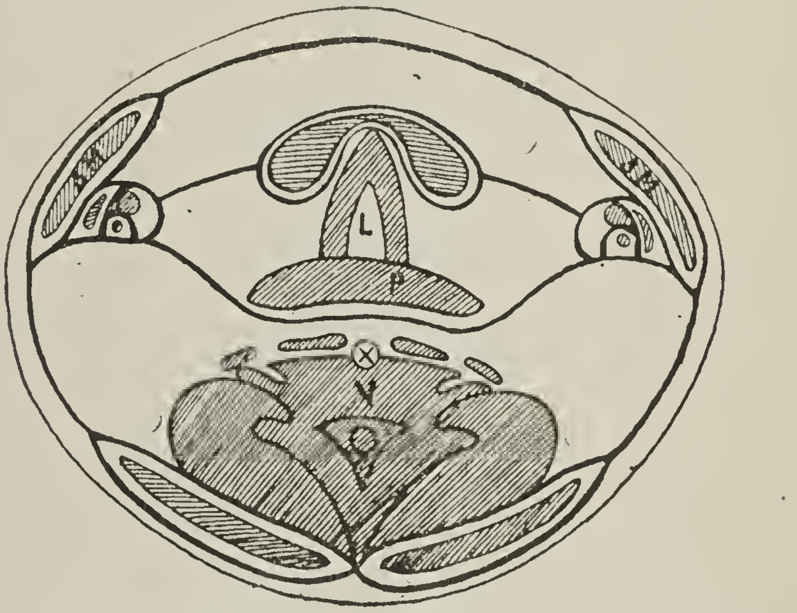

FIG. 1.—Diagrammatic section through the middle of the neck, showing the attachment of the pre-vertebral fascia laterally to the carotid sheath, thus directing pus into the posterior triangle of the neck in cervical caries. The fascia is attached above to the base of the skull; below it becomes lost in the posterior mediastinum centrally, and passing over the brachial plexus at the root of the neck in front of the subclavian artery to be attached to the costocoracoid membrane. If pus descends, it may find its way into the axilla or the posterior mediastinum, in addition to pointing in the pharynx and the posterior triangle of the neck.

Dorsal abscesses may be opened where they present.

In the lumbar region, the vertebræ can easily be reached by an incision along the outer border of the erector spinæ, cutting through the posterior fasciæ and origin of the transversalis. The middle sheath and origin are now divided, and the quadratus lumborum is exposed. This muscle is easily known by the direction of its fibers, which pass upward and inward. The lumbar arteries cause no trouble, and the incision is kept as near to the middle line as the wound permits. By careful dissection arteries may be seen if present and they can be clamped before division. The anterior fascia of the transversalis origin is now seen, then divided, and the finger passed along the front by the transverse processes and toward the bodies. The abscess can be easily felt by the finger, and fluctuation made out by pressing on the abscess in the thigh or abdomen from the front. The sides of the bodies can be made bare by a blunt dissecting tool or closed dissecting-forceps, and the exploration completed when sequestra may be removed. Thorough washing should be done. The abscess should be opened, and the cavity washed out, and scraped gently with the finger, or finger covered with gauze, when a slight general oozing of blood takes place but soon stops. The abscess should next be washed out with hot aseptic solution, preferably of boric acid. It will be found that after the cleansing the chronic abscess-wall collapses much more readily. The edges of the abscess-wall may then either be stitched or not. Deep sutures should be used for the quadratus and erector spinæ, and the superficial wound should then be closed. If this has been done carefully and thoroughly aseptically the whole cavity becomes obliterated by organization of blood-clot, which may fill the original abscess-cavity, now much collapsed. Before stitching has commenced, firm pressure is applied by an assistant pressing forcibly with both fists, one in the groin, the other over the abdominal wall, corresponding to the psoas sheath. This pressure must be continued until a firm pad is placed where each fist pressed tightly. The pads are then fastened by a carefully applied spica-bandage covering well over the abdominal wall. The loin-operation was first described by Treves.

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[4] Andral's case is that of a man, 28 years of age, well educated, of good address and with as much intelligence as most men, and yet he had only one cerebral hemisphere, the place of the other being occupied by an empty sac. The disease began in infancy. (Ref. Hand. Med. Scs., Vol. iv, under "Insanity.")

* Owing to the illness of an assistant with a regrettable combination of accidents, the present article was replaced in our issue of December 24, 1898, by one that should have followed it. To remedy this and other mistakes, we shall soon properly reprint the article in the issue of December 24, 1898.

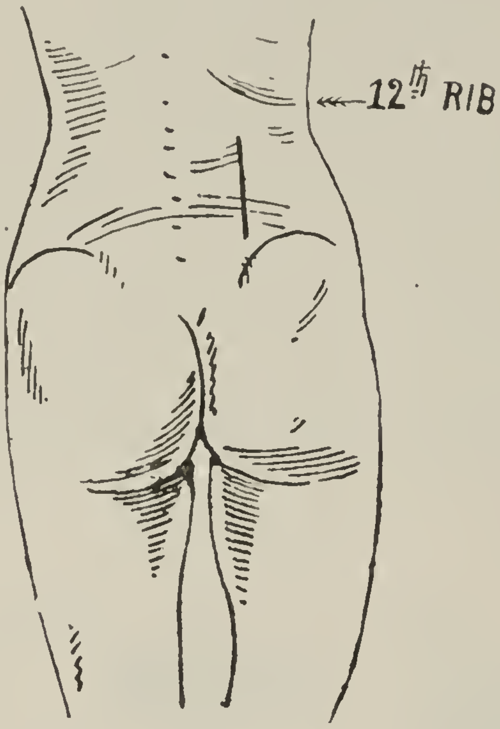

Fig. 2.—The lumbar incision.

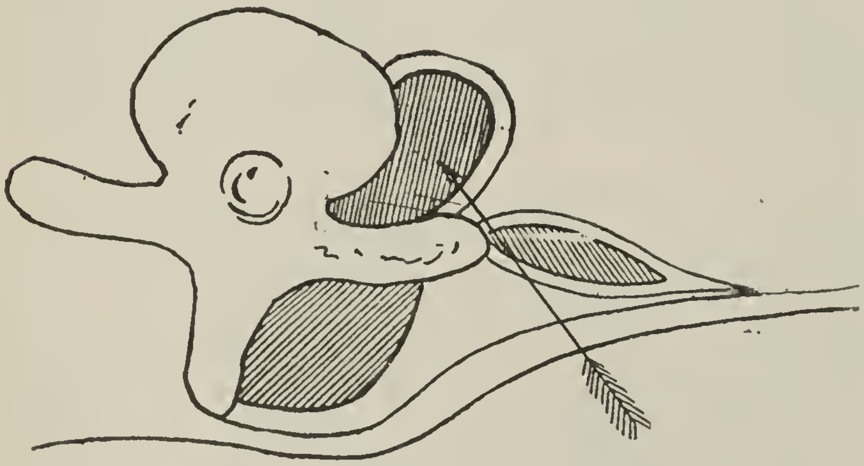

Fig. 3.—Direction of the lumbar incision.

A. E. Barker has reported cases in which he has successfully incised and flushed psoas-abscesses. He takes a case in which he presumes the bone-lesion to be stationary or healing, but in which a purulent collection is gathering. He makes a 2-inch incision through sound structures in the most dependent part of the swelling, after which a hollow gouge is inserted through the opening, and connected by piping with a reservoir of hot water at 105° to 110°. This reservoir (a three-gallon can) is raised up to 5 feet above the operating-table. The fundus of the abscess-cavity is by this means flushed, and the contents are washed away. The more solid caseous mass is dislodged by gently scraping with a scoop, until the soft lining membrane of the abscess is washed away. When the water runs out clear, the instrument is withdrawn, and all the water squeezed out. Iodoform-emulsion is then injected into the cavity, and stitches applied through the skin, the surplus iodoform-emulsion being squeezed out before the stitches are knotted ; the cavity is then closed without drainage.

Laminectomy for the relief of pressure-paralysis has been advocated by Macewen, Horsley, Lane, Willard, White, Lloyd, and others.

The patient lies in a prone position, and a pillow is placed under the lower ribs to produce a curve in the vertebral column, and an incision is made over the prominent spine long enough to admit of the free exposure of the laminæ by retractors, when the erector spinæ is cleaned from them. Transverse notches in the muscle will facilitate this and do no permanent injury, owing to the ankylosis of the vertebræ; owing to the curve in the spine this muscle is often easily drawn aside. The laminæ may be carefully sawed with a spinal saw, or cutters used specially for the purpose. The dura mater and cord are drawn to one side, and the tuberculous material at the back of the body gently scraped away.

The results of this operation are not such as to encourage its employment in any but the most desperate cases. It has distinct dangers of its own in its immediate effect upon the patient, and deprives the spinal column of practically its only support, when the bodies are largely eaten away by disease. It certainly should never be employed when thorough and prolonged mechanical treatment has not been tried. It is extremely rare to find Pott's paraplegia permanent, and from an experience that has been exceptionally large, we can recall only two or three such cases, although we have experience of many in which the paralysis has lasted considerably over a year, and in a few for several years. With the recently revived operation of forcibly straightening carious spines additional hope is held out in these cases, and no case should be subjected to a cutting operation until forcible straightening has been tried and proved a failure.

BOWEL-RESECTION; END-TO-END SUTURE.—KRASKE'S OPERATION; END-TO-END SUTURE OF RECTUM.—PYLORIC DILATATION, WITH SUBSEQUENT GASTROENTEROSTOMY AND PYLOROPLASTY.[1]

By JOHN B. DEAVER, M.D.,
of Philadelphia,
Chief Surgeon to the German Hospital.

I HAVE thought the following cases of sufficient interest to record, particularly as they demonstrate that mechanical appliances are not absolutely necessary to obtain good results in the respective operations. I believe that the simpler the technic of any operation the nearer it approaches the ideal. It will be noted in the histories of the cases that bowel-resection, with end-to-end approximation, was practised in 3 cases, end-to-end approximation in one case of ruptured bowel, and lateral anastomosis in one; in all of these recovery, with restoration of function, followed. In the case of transverse tear of the first portion of the rectum in the operation for pyosalpinx, only the Trendelenburg position rendered effective suturing of the bowel-rent possible.

A. D., a white female, 58 years old, was admitted to the German Hospital on May 20, 1896, with a strangulated femoral hernia. Operation revealed gangrenous bowel, 6 inches of which were resected, and end-to-end anastomosis effected. Recovery uninterrupted.

R. J., a white female, 53 years old, was admitted to the German Hospital on March 14, 1898. Two years previously she had been operated upon for an umbilical hernia of 19 years' standing, and she had since had trouble in the movement of her bowels. Two weeks before admission she was suddenly seized with violent abdominal pain and vomiting. The vomiting continued at intervals of about 3 or 4 hours. After 10 days the vomit was of a fecal character. The bowels were moved by an enema on the ninth day, and wind was passed by the bowel quite easily during the whole of her illness. On admission the patient was given an enema, which was followed by a free, well-formed movement.

Under ether an incision 6 inches in length was made in the median line of the abdomen, excising the scar left from the former operation. A stricture of the small bowel, not entirely occluding the lumen, was found. Four inches of bowel were resected and end-to-end anastomosis was effected. The abdomen was closed with wormgut. Recovery followed.

C. W., a white male, 15 years old, was admitted to the German Hospital on April 6, 1898, with the following history: While riding a bicycle around a street-corner, the street being wet, he was thrown upon the street-car track, along which was passing a large four-wheel wagon, pulled by two horses, one of the front wheels of the wagon passing over his abdomen. Upon admission to the hospital the boy was found to be in great pain, with some shock. Examination of the belly-walls yielded negative information, other than the presence of pronounced rigidity. I was in the hospital at the time the boy was admitted, and it was my judgment, from the presence of excessive pain and the great degree of rigidity of the belly-muscles, that the patient was suffering from a serious intra-abdominal lesion. I advised immediate operation, which was agreed to. There was found a complete transverse tear of the small bowel, the ends of which were trimmed with scissors and united end to end. With the exception of an attack of regurgitant vomiting, which occurred on the second day, recovery was uninterrupted.

Mr. L., a white male, 45 years old, was admitted to the German Hospital in April, 1898, with a diagnosis of carcinoma of the upper and of the terminal portion of the rectum, for the relief of which a modified Kraske-operation was undertaken, with excision of the involved bowel, cutting wide of the diseased area, and end-to-end anastomosis. The wound was packed with gauze, and healing was complete. The result was perfect, with restoration of normal bowel-movement through the anus.

L. E., a white female, 24 years old, was admitted to the German Hospital on July 23, 1897, with general peritonitis, and the added diagnosis of double pyosalpinx. She had been married 2 years, and had had no children and no miscarriage, never having been pregnant. Menstruation was irregular and painful. A vaginal discharge had begun after marriage, with soreness and inflammation of the genitals and burning on micturition. The woman had had severe colicky pains deep in the pelvis and over the lower part of the abdomen. The stooping position caused discomfort, and there was general abdominal tenderness. On vaginal examination, a mass was found behind and on either side of the uterus, high up.

Abdominal section was performed and the uterine appendages removed. Dense adhesions were found involving the upper portion of the rectum. In the enucleation of the inflammatory appendages the rectum was torn across, and the rent was repaired. Glass drainage was employed, and recovery was uneventful.

A. —, a white male, 22 years old, while at sea was the subject of an irreducible hernia, which subsequently became strangulated. Upon reaching port, 5 days later, he was operated upon for strangulated hernia. The bowel was found to be doubtful in appearance; yet the operator returned it to the abdomen and closed the incision. The patient complained of great pain for several days, when the wound opened and the entire bowel involved in the former hernia was discharged as a slough. A large fecal fistula resulted, for which I subsequently effected intestinal anastomosis, with the introduction of the segmented rubber rings. The condition of the bowel at the site of the fistula, which involved the small bowel, was as follows: The bowel to the proximal side of the fistula was greatly distended, while the part beyond was exceedingly contracted; it was with great difficulty that the anastomosing ring could be introduced into the latter.

While the operation of anastomosis was in part successful, a fecal fistula persisted, and as but one of the segmented rings was discharged per rectum a second operation was performed for the double purpose of closing the remaining small fecal fistula and removing the unexpelled segmented ring. This operation resulted in complete cure. It is now 3 years since the operation.

M. C., a white female, aged 28, was admitted to the German Hospital on June 13, 1898, with a diagnosis of pyloric stricture. The patient had swallowed a partial set of artificial teeth, 3 years previously, which was subsequently passed by the bowel. Three months later she complained of pain in the stomach, which increased paroxysmally at intervals for 15 months, since which time the pain had been more or less constant. Vomiting set in one year after the teeth had been swallowed; and since then the patient had been able to retain only liquid food. Blood was found in the vomitus. A localized point of tenderness was detected over the upper portion of the right rectus muscle. Abdominal section, with gastrotomy, was performed on June 30, and a pyloric stricture of small caliber was corrected by pyloroplasty. Recovery was uneventful.

T. G., a white male, 48 years old, was admitted to the German Hospital on June 4, 1898, with a diagnosis of nonmalignant pyloric obstruction. Abdominal section, with gastrotomy, was performed, and dilatation of a pyloric stricture practised. Prompt recovery followed. On October 17, 1898, gastro-enterostomy was performed by direct apposition, using needle and thread only. Death occurred on the fourth day from rupture of an abscess of the lung. Autopsy showed the absence of peritonitis, with water-tight communication between the stomach and the small bowel. The right lung was the site of an abscess-cavity. The left lung was diseased at its apex.

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[1] Read at a meeting of the College of Physicians of Philadelphia, Jan. 4, 1899.

It is interesting to note that the pyloric orifice was found as it was left at the previous operation, patulous to the normal degree. This case will be reported in detail later.

The results obtained in the foregoing cases, as reported in this communication, and in other cases, from direct approximation after bowel-excision, as well as in lateral anastomosis, without the use of mechanical appliances, the facility and the rapidity with which this can be done without instruments other than needle and thread, warrants a declaration in favor of this simple method of technic. The time consumed in completing an anastomosis by this method is from 10 to 15 minutes under favorable circumstances.

Prior to the case reported of lateral anastomosis with segmented rubber rings, it had been my practice to employ mechanical devices. After the unpleasant experience with this case I decided to discard mechanical means and simply use needle and thread. The results obtained have been so satisfactory as to justify me in advocating this method as superior to others.

The method of end-to-end approximation with sutures is likewise employed by me in my operations for lateral anastomosis.

After a limited experience with the operation of dilatation for the relief of nonmalignant pyloric obstruction I have decided that pyloroplasty promises a more permanent result.

The question of preliminary colotomy for carcinoma of the rectum, when Kraske's operation is indicated, is, I believe, a debatable one, particularly in the class of cases in which the growth can be removed without sacrificing the terminal portion of the rectum, including the anus.

From the standpoint of safety against peritoneal infection I have not found it necessary to perform preliminary colotomy. It is my practice to first explore the seat of disease, by removal of part of the sacrum, including the coccyx, etc., when it can be determined if the amount of involvement will necessitate the sacrifice of so much bowel as to preclude the possibility of uniting the divided ends. In the presence of disease too extensive to warrant an attempt at excision and end-to-end suture anterior (iliac) colotomy is immediately performed. The colotomy having been completed, the patient's general condition influences me either to excise the diseased rectum now or to defer this for a few days. When the affected bowel is excised, the peritoneum is opened and the upper portion of the rectum, with the mesorectum and enough of the mesosigmoid, is drawn down to allow of easy apposition of the ends of the divided rectum. The parietal peritoneum is stitched to the mesosigmoid and peritoneal covering of the sigmoid; this shuts off the peritoneal cavity. It is my practice to reinforce the line of suture with a temporary packing of gauze, when I am able to complete the operation, excision and suture or closure of the upper end of the bowel by invagination, with but little risk of infecting the peritoneum.

ACUTE INTESTINAL OBSTRUCTION OF UNUSUAL ORIGIN.—OPERATION.—RECOVERY.

By CHARLES H. FRAZIER, M.D.,
of Philadelphia.
Surgeon to Howard Hospital and the Philadelphia Hospital, Assistant Surgeon to the University Hospital.

I am indebted for the notes of the case to be reported to the resident physician, Dr. N. F. Bitzer.

An engineer, 30 years old, experienced, about 3 o'clock in the afternoon, while at work, cramp-like pains of increasing intensity in the abdomen. There was no history of trauma, nor had there been any particular indiscretion of diet that could account for the symptoms. In addition to the abdominal pain, the man was unable to retain anything on his stomach longer than a few minutes. On the following day the vomiting continued and the pain became more severe. Attempts to move the bowels by medicines proved futile. A first injection of soapsuds caused the evacuation of a small quantity of fecal matter, but subsequent ones utterly failed. The second day after the onset of the symptoms rectal injections were again given a trial, but they were of no avail. The abdominal pains had now become so intense that hypodermic injections of morphin were resorted to.

The patient went from bad to worse, and on the following day I was called in consultation, and advised his immediate removal to Howard Hospital. On admission his temperature was 97°, his pulse 84, and his respirations 20. His skin was cold and clammy. Examination of the abdomen failed to disclose any distinct area of tenderness, the pain being referred generally to the region of the umbilicus. The recti muscles were moderately rigid, and the abdomen slightly tympanitic. As high injections into the colon were attended with negative results, and as the vomiting, which had been continuous for three days, had now become fecal in character, an immediate exploratory operation was decided upon. On opening the abdominal cavity there came into view a portion of the small intestine, which was dilated and markedly congested. The coil of distended intestine was traced to a slit in the mesentery, through which about 18 inches of the bowel had slipped. This evidently was the seat of constriction, as beyond this point the bowel was collapsed, and once the loop of collapsed intestine was withdrawn from the opening in the mesentery, the circulation of the distended coil seemed to improve and the distention to subside. The operation was attended with little if any shock, and the temperature returned to normal on the following day, not having risen above 99.6°. With the exception of the development of several stitch-abscesses in the course of the wound, convalescence was uninterrupted.

Hernia of the small intestine through an opening in the mesentery is of sufficient rarity to warrant the report of this case. Judging from the previous history as subsequently elicited, it may be presumed that this anomaly was not of recent formation. Thirteen years ago the patient had an attack, not unlike the present one, in which persistent vomiting, pain, and obstinate constipation were the prominent symptoms; and since that time he has frequently had "cramps." Such a history, while not absolutely confirmatory, would seem to point to this anomaly being present for at least 13 years. It was further ascertained that the patient was an admittedly rapid eater, gorging his food without proper mastication.

The following explanation for the previous attacks suggests itself: The opening in the mesentery was not small enough to interfere with the circulation of the gut, or the passage of feces, when the bowel was not immoderately distended. As a result of indiscretions in diet, together with greedy habits, improperly masticated food found its way into the intestine, and there excited conditions leading to distention of the gut. This would at once encounter resistance at the mesenteric opening, and until the distention was relieved by the administration of brisk purgatives, signs of intestinal obstruction would manifest themselves.

Reduction of mortality in operations for the relief of intestinal obstruction can only be hoped for when the dangers of delay on the one hand, and the favorable prognosis of early operation on the other, are thoroughly appreciated by the profession at large. Kocher has pointed out that it is not the operation itself that explains the great mortality, since the operative manipulations might be simple and uncomplicated, as in the case here reported. The majority of deaths following this operation are due to circulatory disturbances of the intestinal wall, not at the point of constriction, but above where the bowel-wall is overdistended.

Overdistention of the bowel alone is known to produce venous stasis; this in turn is followed by ecchymoses and ulcerative processes in the mucous membrane as a result of faulty nutrition. Absorption of bacteria or of the toxic products of the fecal contents will inevitably follow, and the patient will die either from general intoxication or as a result of ulceration, and, eventually, perforation of the intestinal wall. Radical measures ought therefore to be immediately adopted to relieve the overdistended gut, no matter whether it be distended with gases, liquids, or solid matter. In the case here reported the distention was relieved as soon as the cause of obstruction was removed; otherwise it would have been proper to have introduced a fine trocar, or, if the contents had been solid, to have incised the gut, in order to thoroughly evacuate it and relieve the overdistention.

In addition to the disturbances in the circulation of the intestinal wall, both at and above the seat of constriction, there is another source of danger that will inevitably follow delay. The microorganisms that normally inhabit the intestines are, under normal conditions and surroundings, perfectly innocuous; and particularly is this true of the ubiquitous bacillus coli communis. When, however, the surrounding conditions change, when the circulation becomes interfered with, or when peristalsis is interrupted or even reversed, the bacillus coli becomes converted from a harmless inhabitant of the intestinal tract to a virulent microorganism, which will elaborate toxins whose absorption into the circulation will materially lessen the chances of recovery. Further, the microorganism may in its virulent state penetrate the wall of the intestine and excite peritonitis, which is more than likely to lead to a fatal issue. Knowledge of these facts should serve as the strongest argument in favor of early operation, for the dangers of an exploratory operation are trivial as compared with those attending delay. From a thorough appreciation and realization of these phenomena alone can we hope for a reduction in the mortality of operations for intestinal obstruction.

UMBILICAL HEMORRHAGE, WITH REPORT OF TWO CASES.[1]

By H. BROOKER MILLS, M.D.,
of Philadelphia.
Assistant in Clinical Medicine in the Philadelphia Polyclinic.

Case I.—A. B., a male, the second child of healthy parents, was born suddenly at full term on January 1, 1898, after a normal labor of 5 hours. Labor-pains had been especially frequent and unusually severe, and after a hard pain, occurring while the mother was on her feet, the child was born so suddenly as to barely permit her to lie down, although she suffered only a slight laceration of the perineum as a result. Owing to a peculiar combination of circumstances neither physician nor nurse was on hand to attend mother or child for several hours, during which time the infant lay wrapped in a blanket by its mother's side. As a result of this delay and exposure the child caught a severe cold, from which it suffered for several weeks, the coryza at times being sufficient to cause alarm.

Five days after birth the child suddenly developed profuse hemorrhage from the umbilicus, without any previous history that could in any way account for the occurrence. A physician in the neighborhood was called in, who immediately applied a wad of cotton, held in position by a broad bandage, and in the course of a few hours the hemorrhage ceased, no internal medication being employed. About 4 hours after all bleeding had stopped, a second equally sudden and profuse hemorrhage commenced, when I was sent for. Accompanied by Drs. Holmes and Hollopeter (to whom I am indebted for the privilege of reporting the case), I reached the house about 3 hours later, when I found that compression by means of cotton and a bandage had again stopped the bleeding.

Careful examination of the umbilicus at the time, and frequently since, failed to reveal any cause for these two sudden and severe hemorrhages, occurring within 12 hours of each other and stopped in the same way. There is no history in the family on either side of hemophilia, syphilis, or any of the cachexias or other usual causes of umbilical hemorrhage. It should be mentioned, however, that previous to these hemorrhages the child bled freely from the slightest scratch, whereas the opposite has been true since the hemorrhages.

During a married life of 4 years the mother had given birth to one child previously, a girl, who was born at about 8½ months, the early termination of this pregnancy being believed to be due in part to two falls from a hammock. This child lived only 6 weeks and died from inanition, the mother being unable to nurse it, and no artificial food being found to agree with it. Soon after the birth of this child it was noticed that a moderate-sized umbilical hernia existed, which improved somewhat under the influence of an adhesive-plaster bandage.

Both children were the subjects of more or less hepatic and intestinal trouble, as shown by alternate diarrhea and constipation, with frequent green stools and often considerable mucus.

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[1] Read before the Northwestern Medical Society, December, 1898.

The second child is now 11 months old and weighs 19 pounds. As a result of the hemorrhages and the inability to find a food that agreed with it, it weighed less when 2 months old than at birth, *i.e.*, 9 pounds. Immediately upon the arrival of a wet-nurse, at the age of 7 weeks, it began to gain weight and strength, and has slowly progressed ever since. It catches cold easily, and this always manifests itself by marked hoarseness.

Teething was accomplished with much difficulty, and preceding the cutting of each tooth a pronounced rash developed, always limited to the right side of the face. At the present time only four teeth have been cut, although signs of dentition were present when the child was only 3 months old. In all other respects the child appears to be normal, and is unusually bright for its age.

The mother states that, so far as she knows, the child had received no injury or fall previous to the hemorrhages, and the trained nurse is equally positive of this fact. However, the mother tells me that the nurse was in the habit of laying the child face downward over her hand, and in that way lifting him up and down, causing great pressure over the umbilicus; so much so that the attending physician requested her to desist from doing so, as it was believed that the early separation of the cord, which occurred a few hours previous to the first hemorrhage, *i.e.*, on the fifth day, was largely due to this cause, although there was no visible sign of injury to the umbilicus.

The second case was one that Dr. Hollopeter was called to see in consultation, and I am indebted to him for the privilege of reporting it also.

Case II.—C. D., a female, was born at full term after a normal labor, and was the second child of perfectly healthy parents. There was nothing in the family-history to account for the umbilical hemorrhage. The mother has borne a child since, also a girl, who is and has been in the best of health. On the fifth day after birth the trained nurse called the attending physician's attention to the fact that the cord had not yet come away, and that there was a slight amount of inflammation around the umbilicus. On the following day the physician requested that the child be stripped so that he could again examine the cord, which was still adherent; and finding that it was only attached by a mere thread, he proceeded to cut it off with a pair of scissors without previous ligature. Immediately thereafter slight oozing began, which was stopped at once by digital compression by the nurse. It was subsequently ascertained that the finger with which the nurse compressed the stump was sore at the time, in consequence of a cut received while handling a damaged enameled wash-basin. During the following day, *i.e.*, the seventh, the child lay quiet, except for occasional muscular twitchings, and this was also true of the next or eighth day, but the spasmodic movements became much more violent, and the child died that night, *i.e.*, about 2½ days after the severance of the cord.

Dr. Hollopeter was called to see the child on the day of its death, about 48 hours after the removal of the stump, and found that slight oozing was still present, although the nurse and the mother stated that it had been stopped for some hours previously. The attending physician had applied a ligature and styptics, and had ordered mustard-baths, which were kept up every half-hour until shortly before death.

So far as could be ascertained, the coagulability of the blood was about normal, but one particular fact noted was that the blood showed a peculiar greenish tint. It was at first thought that this might be due to admixture with some of the styptics, but this was proved to be not the case, as the same color was present after the parts had been thoroughly cleansed. The fact that the bleeding was a slow, drop-by-drop ooze, indicated that the hemorrhage was venous, and that the umbilical vein was present in the fine thread that the physician severed with the scissors.

A postmortem examination was not obtained, but a singular appearance was noted around the umbilicus a few hours after death. A coal-black zone, about 3 inches wide, developed, which apparently was an ecchymosis, and the abdomen appeared to be unusually distended and tense.

In the *Medical Record* for February 26, 1898, page 301, reference is made to an article on hemorrhages in the newborn, by Orlowski, which appeared in *Médecine Moderne* for August 25, 1897, in which the frequency of such hemorrhages is emphasized. From November, 1895 to November, 1896, Orlowski saw thirteen cases among 1,520 accouchements, or a proportion of 1 to 116 births. In one-fourth of the cases hematemesis and melena were present. Kling, Silbermann, Lederer, and Dusser have observed the same association. The melena alone is not so rare as Grynfelf holds, viz., in the proportion of 3 to 1 of hematemesis alone. Umbilical hemorrhage is most frequent. This accident appears ordinarily about the third day after birth ; it was noted by Silbermann on the eleventh day in 10 among 51 cases, but these were cases of infection. Infection and syphilis are the two great causes of such hemorrhages; the results of macroscopic, histologic, and bacteriologic examinations agree on these points. In the order of frequency the infectious agents encountered are streptococci, staphylococci, and colon-bacilli. These microorganisms cause hemorrhages in robust infants free from hereditary taint, as well as in the debilitated and syphilitic. It remains to be shown that the mother was infected by the same microbe that is found in the blood or organs of the child affected with hemorrhage. Negligence in ligating the cord is often the starting-point of septicemia. Hemophilia is rare, if one considers its hereditary origin. The trouble may be caused by microorganisms brought into the placental circulation in consequence of a tedious labor, of the passage of a head into a contracted pelvis, of the forceps injuring the vasomotor apparatus of the stomach, the intestines, and the lungs. The congestion set up by these means becomes a source of hemorrhage in appropriate cases. The prognosis is grave when the hemorrhage has lasted more than 24 hours. When it is accompanied by a serious infectious state, the constitution of the child is of little account; the case usually ends fatally in spite of everything. The mortality is 85.8%.

When the hemorrhage is from the umbilicus, we should begin by loosening the dressings and trying different methods of ligature, but in some cases these all seem to be absolutely useless. In cases of gastro-intestinal hemorrhage the infant should be placed in an incubator at a temperature of 37° C., or in warm cotton. Three times daily it should have mustard-baths, followed by friction with alcohol, hot baths, hot-water bags to the abdomen, hot whisky, and subcutaneous injections of a solution of sodium chlorid, 7 to 100, in amounts of from 10 to 15 grams repeated four or five times daily.

International Balneological Congress. — The twentieth congress will be held in Berlin, under the presidency of Professor Oscar Liebreich, from March 3 to 7, 1899.

The Philadelphia Medical Journal

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The Prize Competition.—The 50 essays received in competition for the prizes offered by the PHILADELPHIA MEDICAL JOURNAL were placed in the hands of the editorial committee of the JOURNAL during the first week of the present month. This committee is composed of Drs. W. W. Keen, T. S. K. Morton, and Prof. Joseph P. Remington. The sealed envelops with the names and addresses of the authors were kept in the safe of the publishing company until all decisions should be reached. In the case of the essays in the department of surgery Drs. Keen and Morton acted as judges. In other departments three expert specialists were chosen by the editorial committee for each group of essays. In the specialties three judges for each (ophthalmology, otology, laryngology, etc.) were selected. No judge contributed an essay in competition. The editor of the JOURNAL did not act as judge in any case. Each judge forwarded his ratings independently to the editorial committee. If the first two judges reporting agreed absolutely, as happened several times, upon the essays to be given first and second prizes, the third judge was not called upon for ratings. In Department V the obvious difficulty was to judge relatively between the merits of the best essays in different specialties of medicine. Care, however, was exercised to reach final justice by further references to men fitted by general and special training and judicial habits of mind to give true decisions. The committee finally reached the following results:—

DEPARTMENT OF MEDICINE: The First Prize to be awarded to the author of the essay entitled, *The Shape and Position of the Stomach*, by "Peggy." The Second Prize to the author of the essay entitled, *Skiascopy of the Respiratory Organs*, by "Burr Oak."

DEPARTMENT OF SURGERY: The First Prize to the author of the essay entitled, *Rotators of the Femur*, by "Gwelweh." The Second Prize to the author of the essay, *Intestinal Sutures, some old, some not so old, and a new one*, by "N. Vestigate."

DEPARTMENT OF GYNECOLOGY AND OBSTETRICS: The First Prize to the author of the essay entitled, *Moot Points in Obstetrics*, by "Ignatius Feliciter." The Second Prize to the author of the essay with the title, *Eclampsia*, by "Hufeland."

DEPARTMENT OF PATHOLOGY: The First Prize to the author of the essay entitled, *The Histology and Histogenesis of Certain Tumors of the Parotid Gland with Particular Reference to those of Endothelial Origin*, by "Ultissimus." The Second Prize to the author of the essay, *The Pathology of the Pacinian Corpuscle*, by "Pathologus."

DEPARTMENT OF SPECIALTIES: The First Prize to the author of the essay entitled, *The Cutaneous Paratuberculoses*, by "Nunquam non paratus." The Second Prize to the author of the essay having the title, *The Connection of the Female Generative Organs and Laryngeal Affections*, by "Palaephatus."

When the awards had been determined, the envelops containing the names of the authors were opened. The results of the Competition are given in the accompanying table:

NAMES OF PRIZE-WINNERS.	RESIDENCE.	DEPARTMENT.	TITLE OF ESSAY.	PRIZE.	AMOUNT OF PRIZE.
Dr. Henry Wald Bettmann,	Cincinnati, Ohio.	Medicine.	The Shape and Position of the Stomach.	First.	$200 00
Dr. A. W. Crane,	Kalamazoo, Mich.	“	Skiascopy of the Respiratory Organs.	Second.	50 00
Dr. Eb. W. Thomas,	Philadelphia.	Surgery.	Rotators of the Femur.	First.	200 00
Dr. F. Gregory Connell,	Chicago.	“	Intestinal Sutures, some old, some not so old, and a new one.	Second.	50 00
Dr. D. T. Smith,	Louisville, Ky.	Gynecology and Obstetrics.	Moot Points in Obstetrics.	First.	200 00
Dr. Thomas Snyder,	Queen's University, Kingston, Ontario, Canada.	“	Eclampsia.	Second.	50 00
Dr. Aloysius O. J. Kelly,	Philadelphia.	Pathology.	The Histology and Pathogenesis of Certain Tumors of the Parotid Gland with Particular Reference to those of Endothelial Origin.	First.	200 00
Dr. A. S. Warthin.	Ann Arbor, Mich.	“	The Pathology of the Pacinian Corpuscle.	Second.	50 00
Dr. James C. Johnston,	New York City.	Specialties.	The Cutaneous Paratuberculoses.	First.	200 00
Dr. Seymour Oppenheimer,	“ “ “	“	The Connection of the Female Generative Organs and Laryngeal Affections.	Second.	50 00

Checks for the amounts of the prizes have been forwarded to the winners. The most cordial thanks of the Journal are due to the judges for their unselfish labor in carefully reading the large number of essays and for painstaking discrimination among so many most meritorious productions. We believe the contest will be found of great good, directly and indirectly, to medical science and literature, and trust that we may be able to repeat it. We heartily congratulate the winners, and wish that we had had many times the number of prizes for contributions but little less praiseworthy than those named in our table. So soon as we can get articles in type we shall commence the issue of our Supplements, each of which will contain one or more of the prize-essays, until all have been published. May we again urge those who have not already subscribed for the Supplement to do so?

Authors of essays not receiving prizes will kindly forward addresses to which we may return manuscripts. If by February 11, such directions have not been received we will then open the envelops indicated by the pseudonyms in order to learn authors' addresses.

The Money-loss from Typhoid Fever Due to Contaminated Water-supply.—If additional argument were needed for the urgent necessity of maintaining the source of water-supply in a constantly pure and uncontaminated state, it may be found in the statement of the Mayor of Johnstown, Pa., who, as a medical man, can be trusted to speak with confidence and intelligence. There occurred in that city, during the year 1896, 21 deaths from typhoid fever, representing at the average rate of mortality some 200 additional cases. Estimating the value to the community of every life on a cash basis of $2,000 and the average cost of burial $30, the 21 deaths would represent a cash loss of $42,630. Taking the average duration of an attack of typhoid fever in cases in which recovery takes place as 43, and the average value of the patient's time as $1 per day, and the average cost of medical attendance and nursing in each case as $30, there is an additional loss of $14,600; or a total of $57,230. For Philadelphia these numbers can be safely multiplied by 30, there having been reported to the Board of Health during the year 1898 upward of 5,000 cases of typhoid fever, about 600 of which terminated fatally; so that the community suffered in a year a loss of more than a million and a half of dollars from the prevalence of typhoid fever. It is true that not all of this could have been prevented, but a very considerable proportion could, and, as typhoid fever is conveyed principally through the water-supply, the loss is to that extent an unnecessary, an avoidable, and a wasteful one. The need is thus urgent and crying, not only in Philadelphia but everywhere, for pure water, irrespective of political party or faction, and every "snake" that raises its head to despoil the people of their possessions should be stricken dead.

Dr. Wood, our medical hero, by his work and personality, suggests many useful lessons to our profession. He has done much to elevate the profession in the world's estimation, and has done it in the truly professional spirit of modesty, ability, and intelligence. Everyone has recognized that his heart has been in his work, that he was interested solely in the task given him to do, and not in himself or his fame. He has taught every official in the Government service the lesson of unselfishness, and has unconsciously shown every ambitious young man that the way to the truest and most lasting success is self-forgetfulness and devotion to duty. Possibly few will be able to learn the lesson, but we trust that very many will learn it. The fact that strikes us with peculiar force is that Dr. Wood (let the world call him General if it will, for us, the higher title of physician is preferred) has most admirably illustrated the close dependence of true government upon sanitation and the health of the people. There is no duty superior to that devolving upon us of making the world know that politics, in its last analysis, is hygiene. To this end all righteous legislation and effective administration finally and inevitably lead. When the Crokers and the Quays can be replaced by Warings and Woods, we shall then have civilization: And not until then! With or without expansion and imperialism, disease is the scourge that is leading the nations to unity and teaching the truths of altruism. Perhaps we shall not as a nation soon learn that the true hero is not the destroyer but the conserver of human life, not the general but the physician. May it be a good omen that, in becoming a general, our hero finds the added power only another tool or article of his materia medica wherewith to carry on the physician's work!

The internes in Cook County Hospital, Chicago, have always been appointed by a competitive examination, held each Spring by the attending staff. The applicants usually number from 60 to 80, and are the best men and women in the graduating classes of the four great colleges of Chicago. Only once during the last thirty years has there been a question as to the integrity and justice of these examinations. Now it is proposed to put the internes under the civil service rules and have them appointed by the civil service examining board. It is needless to say that medical students and medical men in Chicago are aroused over this proposition to prostitute the positions of internes to the basest sort of political purposes. The first steps have been taken to protect the hospital that has educated so many superior men, from the baleful influences of the political pull which has made the attending staff the resort of political favorites and incompetents. The safety of the patients has been largely dependent heretofore on the internes. The superior training and quality and faithfulness of the internes has heretofore secured for the patients the services of the best men on the attending staff. There is no bedside instruction of students in this great hospital of eight hundred patients, and it is difficult to imagine what protection the pauper sick of Chicago will have if the internes are selected by the strength of their political influence. It is an adage as old as hospital building that the safety of the free patients is in proportion to the use of the wards for clinical instruction. The sentimental reaction against such teaching is doubtless due to the neglect of those gentle ways that von Langenbeck noticed in English hospitals seventy years ago.

The "Medical" Journals accepting J. C. Ayer advertisements should supply their subscribers with a copy of "Ayer's American Almanac," for 1899, on the first inside cover-page of which is the following notice :—

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>
> Dr. J. C. Ayer,
> Medical Department, Lowell, Mass.

Municipal Sanitation is a subject worthy of the profoundest interest and study on the part of the best medical men in this country. The indifference of municipalities in this respect is astonishing. They wait until pestilence and death have opened their eyes to existing dangers at the expense of great loss of money, and often of many lives. After a large fire, when little more than smouldering embers remain to indicate the geographical position of some town, every resident is willing to admit that suitable fire apparatuses might have saved their homes, although previously opposed to them on the score of economy. Fire and pestilence are sometimes the best teachers, but the public should not be compelled to wait for such a shock any more than a man needs to become a dyspeptic before he is convinced that he has a stomach. As in most other matters, politics is an acknowledged factor in the municipal health-affairs of our American cities. One who has made a study of hygiene and has become noted for his work in sanitation is frequently compelled to make room for another who is an utter novice in this respect. Occasionally a change is made for the better, and a health-officer is found with superior knowledge, some independence, and sufficient backbone to adopt and carry out long-needed sanitary improvements. This is abundantly proved by a study of our municipal and State health-authorities during recent years.

To prosecute successfully municipal sanitation, four important things should be kept in mind: First, the education and cooperation of the masses in all that pertains to public hygiene, until the laity better appreciate the benefits resulting from a willing and intelligent obedience to nature's laws of how to live and avoid disease; until they better realize that a man does not live to take care of his health, but that he takes care of his health that he may live; until they see that without their assistance the efforts of the sanitarian to control contagion and to blot out sickness and the dominant causes of sorrow and suffering are of little avail towards accomplishing permanent improvements. Second, municipal equipment and organization to carry out modern sanitation. Third, strict ordinances, rules and regulations, the execution of which should be arbitrary, prompt, and impartial. Fourth, laws obtained from the legislature of the State giving plenary powers to the health-authorities in matters of municipal sanitation.

The Keely Case.—Some persons have been trying to make out a psychologic case for Keely, but we suggest that they would do better if they tried to make out the psychology of his dupes. We grant that many ingenious rogues have a mental structure that is not without interest, but it cannot compare for a moment with the intricacies of psychologic development exhibited by those who put confidence in them. This we opine, is the psychology of the Keely case in a nutshell.

We have never been able to understand how any rational man could continue to put confidence in a scheme which defied the laws of physics and was explained in a pseudo-scientific jargon which no expert could understand. We do not recall an instance in the history of mechanics in which an inventor persistently claimed to have invented a remarkable machine and just as persistently declined to bring it forth in order to reap the glory and rewards that would accrue to him from it. The "psychology" of most inventors is a far different affair from this, and usually brings them out rather too soon than too late. But here was this man, Keely, who claimed to have invented an engine that would revolutionize the motor power of the world, and yet for 25 years kept it hid in a cellar.

Critics and scientists, who may feel inclined to work out the problem of Keely's psychology, should remember that insane inventors, or inventive paranoiacs, do not act in any way like Keely. Their schemes are usually divulged prematurely; and we believe the Patent Office at Washington has a museum of their models, which proves that they do not hesitate to reveal their wondrous secrets to the world under the protection of a good patent-right. The very fact that Keely was the secretive schemer that he was is the best proof to our mind that he was not an honest lunatic. He reaped substantial gain from his secrecy, for he ran a joint stock company, and, if report is true, collected thousands of dollars from one person alone.

As for the revelations recently made in Keely's laboratory by the *Philadelphia Press* we cannot doubt that they present the evidences of fraud. The best expert opinion inclines unanimously to the view that the agent used was compressed air. On this aspect of the subject it is not our place to speak—but from the psychologic or psychiatric standpoint we cannot but regret that the man who was believed by some to be a great genius, and by others an interesting crank, has been proved by events to have been merely a vulgar impostor.

The Humanities of War.—Professor von Esmarch has written an article in which he expresses the opinion that the Czar's proposed Peace Conference will not have much effect in preventing war, but that it might be turned to good practical account in mitigating the horrors of the battle-field. He thinks that every soldier should be instructed in giving first aid to the injured, and should be supplied with the proper appurtenances for that purpose. He predicts that the number of wounded in the next war will be so great that the surgeons and ambulance-assistants will not be able to cope with more than a fraction of the cases. He also insists that every soldier should be instructed in the significance of the Red Cross in order to prevent the recurrence of certain outrageous scenes which the German surgeon declares disgraced the French army in the war of 1870.

Von Esmarch condemns some of the modern bullets which inflict frightful injuries, and appeals to the example of the International Congress held at St. Petersburg in 1868, at which the use of explosive projectiles under 400 grams. in weight was prohibited. He hopes that the Czar's Peace Conference will prohibit the use of small caliber projectiles which are not coated or pointed with hard metal.

In the light of our own recent experiences in a foreign war these comments and recommendations of an eminent German military surgeon are interesting. "First-aid" packages were distributed to our troops in Cuba, and, according to the report of Surgeon-General Sternberg, were used with good effect. This authority stated, even before the close of the war, that he believed that some of the success of our surgeons in treating wounds was due to the prompt application of a primary antiseptic dressing while the wounded men were still on the field. Von Esmarch's protest against barbarous explosive projectiles comes with grace and force from a surgeon who knows so well what they mean, and his apparent apprehension that the discourtesies—not to mention the inhumanities—of war may again disgrace the disciplined and chivalric armies of Europe, can be read with appreciation by American critics who remember that the American troops in a foreign war, whatever their faults, were noted for chivalry to a fallen foe. Since von Esmarch wrote his article the Czar has prepared a program for the Peace Conference. He recognizes that political questions, about which war may arise, should be excluded from the debates. He would restrict the proceedings to discussions as to keeping down armaments and making the business of war less cruel and savage. These are the two main points; and, whatever may be said about the practicability of the first, there can be no doubt that the sense of modern civilization, guided not a little by the spirit and teachings of medical science, is strongly in favor of the second.

Progress in Medical Education.—The latest report of the Bureau of Education (Vol. II, for 1896–97) is unusually interesting to the medical profession. Considered with the reports of the previous ten years, the progress of medical education appears to be very satisfactory. The duration of medical study has been increased from a single course twice repeated to four courses of equal educational value in four separate years. The number of medical students enrolled has more than doubled, while theology claims an increase of only 30%. The total enrolment of medical students in the United States in 1896–97 was 24,377 [1,583 women], of which number 23% were in the graduating classes.

The regular medical schools have buildings and grounds valued at $5,377,355, and endowment funds amounting to $344,500!

A better showing is made in the growth of medical college libraries. The medical school of the University of Michigan, and Hahnemann College of Philadelphia, report the largest libraries, each 10,000 volumes; but there are besides twenty-two schools with 2,000 or more volumes in their college libraries. It would be interesting to know how many and what hours a day these libraries are open and how many readers call each day. In one such college library, familiar to the writer, the hours are 9 A.M. to 5 P.M. This does not accommodate the students very well. They would like the library open until 10 P.M.; but, nevertheless, there is an average of 85 readers a day out of some 30 less than 500 students. Medical journals, hospital reports and theses are most called for. This library has a card-catalog and a professionally trained librarian and one assistant.

The report of the Bureau does not make any study of the medical curriculum in the schools of the Republic. Nothing could be so valuable to the profession at this time, which is certainly a formative period in medical education, as a study by a competent expert of the curriculum and its method of presentation in our more typical schools. It is certain that for the past five years there has been a great disassociation of the elements of medical education. The student rarely sees a patient until his third year. He has, however, studied materia medica and pathology. He has spent much time in the dead-house and laboratory on disassociated, often bottled, specimens. The idea of clinical history and diagnosis, which to the physician is the first and greatest idea, comes into the student's consciousness last and almost alone. The enormous medical classes and the hostile attitude of many hospital-boards prevents close contact with patients.

There has been a general improvement in the preliminary education of medical students, although the number with the Bachelor's degree still remains very small—2,566, a little more than 10%. A few universities allow students to elect medicine after the sophomore year, and, nevertheless, take the Bachelor's degree on time and thus shorten the time required for both degrees to six years. This is the first step toward the recognition of the educational value of the medical course by the university authorities. Its wisdom depends on the quality of teaching in the medical school.

The Diagnosis of Hydrophobia.—In the number of this Journal for August 27 last, we took issue with an editorial statement made by a daily newspaper that a recent fatal case of apparently clear hydrophobia in this city had not been an instance of that disease, but of "spinal meningitis." We pointed out that such a disease as acute, rapidly fatal *spinal* meningitis, simulating hydrophobia, and terminating in a few days, is such a rare disease as to excite suspicion as to the accuracy of the diagnosis. The object of the criticism was to counteract the bad effects which are likely to follow from a kind of haphazard claim, now rather common, that so-called hydrophobia is in reality always some other disease which has not been correctly diagnosed. The onus of proof, as we pointed out, lies upon those who make such a claim, and their pathological findings must be above suspicion. This, unfortunately, is not always the case. In that article we were not criticising any individual, because we did not know whom to criticise, or who was responsible for the extraordinary diagnosis of "spinal meningitis" simulating hydrophobia. As the writer whom we refuted was supposedly a layman, writing in a lay journal, with the dogmatism which too often characterizes a lay journal's treatment of medical subjects, we supposed we were within safe bounds when we made no personal references.

We are pleased now to have Dr. Cattell's report of three supposed cases of hydrophobia that occurred in his work last year as coroner's physician of Philadelphia (see the number of the Journal for the 14th inst). Dr. Cattell gives somewhat meager details of the autopsical findings, and claims that these results were negative. In this opinion we fully concur, for the results are certainly negative so far as they have any value to disprove the diagnosis of hydrophobia. In other words, there is not one of these cases that might not have resulted in death from rabies. The first case, in an old man, presented granular kidneys; but these certainly may exist in a man who receives a dog-bite. The second case is not explained in any way by the autopsy, and, as Dr. Cattell himself acknowledges, is one in which the symptoms might be suspected as having been due to rabies. The third (a very typical case of hydrophobia in its history and clinical features) presented in the brain a few apparently innocuous cysts of the *cysticercus cellulosæ.* It is well-known that these cysts are found in great numbers in the hog's brain without ever having caused symptoms, and this may be true of man; and, moreover, the symptoms caused by them are quite unlike the rabitic outburst displayed by Dr. Cattell's patient. The presence of granular kidneys, too, in this case does not account for the highly characteristic symptoms, for certainly granular kidneys do not cause a pseudo-hydrophobia. As for the Sayers case, Dr. Cattell states that the real condition found was one of cerebral lepto-meningitis "from natural causes" (not *spinal* meningitis, as the *Press* erroneously stated in its editorial comment.) This certainly alters the aspect of the case in favor of a more rational pathology, but still does not disprove hydrophobia, because mixed infections are not uncommon in cerebro-spinal meningitis; and, finally, for all that is known to the contrary, the germs of rabies may cause alterations which, in the eyes of some pathologists, might appear more than congestive, even purulent. The one and only bacteriological test made in these four cases was merely negative. It was an inoculation-test on rabbits, and being but a single test, and negative, cannot be said to go far towards disproving the presence of rabies.

Dr. Cattell has done well to report these cases in a clear, unprejudiced way, because, while merely negative, they tend to emphasize the fact that the question of hydrophobia cannot be settled without a much more thorough scientific method than is usually adopted in disputed cases. After reading his report we think that few pathologists would claim that the question of hydrophobia is settled by it in one way or the other.

Suggestions to Writers: No. 21.—The word *apoplexy* is derived from a Greek root meaning "to strike with violence," and it was originally employed to designate sudden loss of consciousness, with which often were associated stertorous breathing, turgidity or cyanosis, and other symptoms; sometimes there was sudden loss of power, without derangement of consciousness and the other phenomena. As these conditions were found in many instances to be dependent upon rupture of a cerebral bloodvessel, with extravasation of blood into the brain, the word apoplexy came to be used as a synonym for interstitial hemorrhage whenever it occurred. As, however, it became evident that the so-called apoplectic symptoms resulted also from blocking of cerebral vessels either by thrombus or embolus, these conditions also became comprehended in the term. It has, further, been learned that identical phenomena may develop in connection with chronic nephritis and uremia. It would, therefore, appear necessary to recast our conceptions of the word apoplexy if it is deemed necessary to retain it; but as the significance and the usefulness of the word seem to have been lost, we can get along better without it than with it. It were certainly preferable to use the term cerebral hemorrhage, or thrombosis, or embolism, or other form of interstitial hemorrhage or uremia, as the case may be, to indicate the existing condition, rather than to ignore the differentiation by using a term of such vague and uncertain significance as apoplexy, which has been employed to designate a number of unlike conditions.

Editor and Reader: No. 12. "Friendliness."—An excellent contemporary, for whom we entertain the kindliest regard, is greatly incensed at the fact of our discontinuance of the exchange system so far as it pertains to the Philadelphia Medical Journal. He even goes so far as to rejoice over the fact that he has induced one of our subscribers to discontinue his subscription. This fact suggests a harsh name, but in the interests of amity we forbear to use it, although, if our editorial brother were quite sincere in his desire and praise of friendship, he would recognize that his method of coercion is hardly likely to advance his cause. He says we are not "friendly" with our editorial brethren because we do not wish to exchange journals. For the life of us we cannot follow the logic, and we certainly deny the charge of unfriendliness most strenuously. Friendliness has nothing more to do with the matter than has the parting of the editorial hair. We found that, in order to give our subscribers and the profession twice or thrice the scientific and literary matter customary, and of a certain kind, we were compelled to do a huge amount of drudgery, and were also forced to spend at least several hundred dollars a year in subscribing for periodicals which would not exchange with us, because they would not exchange with anybody, not even with our amiable and critical contemporary. There are periodicals whose editors receive no salary and who subscribe (*i.e.*, pay their money at the regular rate) for their single copy of the periodical they edit. Such periodicals are doubtless of little value to the profession in comparison with the splendid journals of "friendly" editors, but we wanted them, and we had to pay for them. We did not, however, blame their editors and publishers and charge them with pharisaism and unfriendliness; in our heart we thanked God that such men exist. We are quite certain that these humble scientists and impecunious literary men are quite as "friendly" to truth, to their profession, and to humanity as our occidental unfriendly friend. Each must choose his way of being good and displaying his amity. But of one thing we are pretty well convinced: The terms "loyalty" (to friends) and "friendship" are words fast losing their older significance. The word *idiot* once signified a private person as distinguished from an official or public individual. The original of *silly* meant, in Germany still means, *happy* or *blessed.* In politics, loyalty (to the boss), alias "friendship," is the mask and name of the most revolting deviltry that scoundrelism can concoct. No one is more "loyal," or "true," or "friendly" to his "pal" than the burglar, and yet his so-called loyalty and friendliness are crimes to the community. We by no means imply or believe that those who wax so wrathful over the exchange-matter are idiotic, or silly, or housebreakers, or that they are friendly and loyal. They are simply in error, and we could in five minutes' chat convince them of the erroneousness of their views. As they are not subscribers to our scorned Journal it would not avail to attempt this in print, because our pages would not be allowed to come within their field of vision. Fortunately their number is not legion, our proposal meeting with remarkable general approval. We certainly are grieved that the fact of not swapping horses, or books, or journals, "even," should arouse enmity toward this Journal, as we can assure both our enemies and our friends that the motives ruling the hearts of its makers and governors are not those springing either from vanity, the lack of other occupation, or the desire of financial profit.

The Lane Lectures of Dr. Allbutt.—We have just received a note from Dr. Allbutt in which he says that owing to pressure of work he will not be able to revise the Lane Lectures promised us, so early as expected. We cannot therefore begin the publication of the series so soon as we had hoped.

Every subscriber to this Journal is requested to send us the names and addresses of at least two physician-friends who are not subscribers. This is one practical way to aid us. In addition to this we trust you will write these friends a personal request to examine the sample copies we shall send to them, with a view of subscribing. We believe that we are giving more and better medical literature for the money than can be had elsewhere. If this is so it is your friend's misfortune if he fails to become a reader of our Journal.

Reviews.

Note Concerning the Action of Scopolamin.—In our review of Ohlemann's *Ocular Therapeutics for Physicians and Students* (Journal of January 21, page 117), the words *scopolamin does not increase the intraocular tension*, should not be construed as the teaching of the author of the book, but only as that of others quoted by him. Ohlemann (p. 53) modifies these quotations by the statement that "the assertion that under its use an increase in tension need not be feared, requires further confirmation."

Holden's Human Osteology, comprising a description of the bones, with delineations of the attachments of the muscles, the general and microscopic structure of bone and its development. Edited by Charles Stewart, F.R.S., Conservator of the Museum of the Royal College of Surgeons of England, Hunterian Professor of Comparative Anatomy and Physiology, Royal College of Surgeons of England, and R. W. Reid, M.D., F.R.C.S., Regius Professor of Anatomy in the University of Aberdeen. Eighth edition. Pages 358. Lvi. Plates. London: J. and A. Churchill. Philadelphia: P. Blakiston's Son & Co., 1899. Price, $5.25.

Holden's osteology needs no introduction to anatomists and students of medicine, and, considering its many merits, it seems likely to hold for some time to come its position as the popular textbook on this subject. The text of the present edition has been altered sufficiently to bring the book up to date, but no very extensive changes are noticeable. The first 36 pages are taken up with the structure and development of bone and cartilage; the next 119 pages are devoted to a description of the skull; 71 pages are given to a description of the extremities, and suitable amounts of space are allowed to the vertebral column, bones of the foot and hand, thorax, and a general survey of the skeleton. The descriptions are written with the enthusiasm of one in love with his subject, something not very evident in the section on osteology in some of our general descriptive anatomies. In the writer's own words, "He who learns to love osteology will soon feel that it is far from dry, and that beauty finds indelible expression even in the bones." A valuable feature of the book is the practical references to the surgical and medical applications of the information regarding the bone which is being described. Although primarily a textbook of human osteology the paragraph discussing the comparative anatomy which follows the description of each bone, is of much interest to the student who is interested in the broader bearing of the subject. It is to be regretted that this part of the book could not have been more carefully revised. The book is well printed and bound in cloth, and the plates are numerous and excellent. It is a book decidedly worth having by any one interested in human or comparative osteology.

A Textbook of Mechano-Therapy.—(Massage and Medical Gymnastics.) Especially prepared for the use of Medical Students and Trained Nurses. By Axel V. Grafstrom, B.Sc., M.D., late Lieutenant in the Royal Swedish Army; late House Physician, City Hospital, Blackwell's Island, New York. With 11 pen-and-ink sketches by the author. Philadelphia: W. B. Saunders, 925 Walnut Street, 1899.

Massage has undoubtedly come to stay. Not a year goes by that a new work on the subject does not appear. Even in conservative Philadelphia the "marble-hand" period of its reception by the profession has passed, and the physician is not to be found so ignorant or fossilized that he does not employ it or suppose that he employs it in his practice. We say "suppose" because much that passes for massage is not massage at all, but only very crude and unprofitable rubbing. The nurse who, in the course of her training, has attended two or three lectures, of a purely theoretic character, delivered by a professor who has absolutely no knowledge of the subject himself beyond what he has picked up from a hasty perusal of a treatise on the movement cure, and the attendant on a Turkish Bath, who has watched the manipulations of some older attendant, both feel themselves quite competent to practise this really difficult art. It is the object of this compact little text-book to afford those who really, seriously and conscientiously desire to make themselves proficient in it, a manual which will be of use in pursuing a course of practical study. No written instructions by themselves can ever impart the delicacy and facility of manipulation, the *tactus eruditus*, which is as essential to the masseur as it is to the surgeon. The work is systematic in its arrangement and lucid in its explanations, and will be a safe guide to the student of Mechanical Therapeutics. The author's pen-and-ink sketches are scarcely attractive from an artistic point of view, and add but little to the perspicuity of the text. We cannot agree with the author that "to Weir Mitchell belongs, undoubtedly, the honor of introducing this science in America." The brothers Taylor, of New York, long antedated Dr. Mitchell in introducing it to the notice of medical men. Dr. Mitchell, wise in his day and generation, brought it to the attention of the general public in one of his charming little brochures, and the latter in their turn compelled the profession to accord it the consideration which it deserved, and which it is now so generally receiving.

A Manual of Physiology, with Practical Exercises. By G. N. Stewart, M.A., D.Sc., M.D. Edin., D.P.H. Camb., Professor of Physiology in the Western Reserve University, Cleveland. With numerous illustrations, including five colored plates. Third edition. Pp. 848. Philadelphia: W. B. Saunders, 925 Walnut Street.

It is with pleasure that we note the appearance of a third edition of this admirable Manual of Physiology. Its success is an indication of its value to students and practitioners, and of a growing appreciation of a strictly scientific exposition of physiologic science. Those familiar with the attainments of Prof. Stewart as an original investigator, as a teacher and a writer, need no assurance that in this volume he has presented in a terse, concise, accurate manner the essential and best established facts of physiology in a most attractive manner. Though the problems of physiology are largely interpreted, as they must be, in terms of physics and chemistry, yet the author fully recognizes the inadequacy, at the present time at least, of purely physical and chemical laws to account for the ultimate mysteries of cell-activities. In discussing the nature of the absorptive process, which has been and is a crux to modern physiologists, Prof. Stewart states, page 366, that "at the present time it must be admitted that we possess no explanation of absorption which is more than a confession of ignorance and does not need to be explained," and this, notwithstanding the recent investigations which have been made in the domain of molecular physics and the light which has been shed on the nature of osmotic action. Again "all we can really say is that while absorption is certainly aided by physical processes like osmosis, it is at bottom the work of cells with a selective power which we do not understand and which is probably peculiar to living structures." In addition to a scientific exposition of all the functions of the body, each topic is supplemented by a series of well selected practical exercises which are intended to be expository of that topic and to be carried out by the student in the physiologic laboratory. An attempt is thus made, as the author states in the preface, to "interweave formal exposition with practical work" and to bring the student into actual contact with the facts of physiology. It need hardly be said that in this respect this manual is an advance on those heretofore published. The author evidently recognizes that pure didactic teaching, however well illustrated with diagrams and models, is insufficient to familiarize the student with the facts of physiologic science, or to develop those habits of accurate observation and experimentation essential to success in the investigation of the problems of clinical medicine. The book is illustrated with a large number of diagrams and five colored plates.

Correspondence.

PECULIAR CASE OF ACUTE ACETANILID-POISONING.

To the Editor of the PHILADELPHIA MEDICAL JOURNAL:—

I VENTURE to assert that nearly every medical man has seen in his practice some peculiar manifestations of one of the coal-tar products, and often from the idiosyncrasies of certain persons has been led to prescribe other remedies. The following happened to a physician in this city and probably demonstrates the inadvisability of administering acetanilid in conjunction with morphin, continuing the use of acetanilid after the morphin has been withdrawn. Dr. S., being suddenly confined to bed with a severe attack of sciatica, after passing a restless night, requested me to give him a hypodermic of morphin. This was done, the dose being the usual one of gr. $\frac{1}{4}$, with atropin gr. $\frac{1}{200}$. Acetanilid also was administered, gr. 3 every hour. The patient was considerably relieved by this treatment and was doing well for several hours until the depression following the morphin set in. Without a moment's warning he suddenly became extremely weak, cyanosis set in, particularly about the hands and face, the heart being depressed steadily. I was hastily summoned and reached the house in a few minutes. Whisky was administered both hypodermically and by the mouth, the heart responding almost immediately, but the weakness and cyanosis continued for several hours. Acetanilid was withdrawn and cinchonidin salicylate substituted, on which the patient subsequently recovered.

Respectfully,

ROSS HALL SKILLERN, M.D.

Philadelphia.

THE WORK OF THE ANTIVIVISECTIONISTS IN RELIEVING THE SUFFERINGS OF ANIMALS DURING TRANSPORTATION.

To the Editor of the PHILADELPHIA MEDICAL JOURNAL:—

Dear Sir:—It would not be to the advantage of either truth or justice, were I to leave unanswered your editorial of December the 10th, entitled "Kindness to Animals or Hatred of Science, Which?" that has just been brought to my notice. In this editorial, you accuse, by implication at least, the antivivisectionists with ignoring or paying no attention to the cruelties inflicted upon animals in transportation, and say that if we really had pity for suffering we should have attacked first this evil which you say is infinitely greater than that of physiological experimentation. You also say that a "tithe of the zeal expended by us (upon the latter abuse, we suppose), would eradicate the hideous, illegal, unnecessary torment in the shipment of cattle." You use strong terms, by the way, in a matter of which I do not think you have much knowledge. However, to answer, first, the accusation of indifference or supineness in the matter of cattle transportation, much to my distaste, I am obliged to speak for myself and of my own efforts in the cause of animal protection.

It will generally be admitted, I think, that I am one of the prominent antivivisectionists of this country, and it is well known that I, together with a friend, founded the first antivivisection society in this country, besides having labored assiduously in the cause ever since. Some years, though, before such an organization was ever contemplated, I began to work against the cruelties of cattle transportation, a subject which has occupied much of my time ever since. About 22 years ago the "Massachusetts Society for the Prevention of Cruelty to Animals" introduced into Congress a bill providing that cattle and other animals should not be confined in cars on connecting lines of railroad for more than twenty-eight hours without being taken out for food, water, and rest, unless in cars (commonly called palace cars) which afford all three to the creatures carried therein. This bill, although passed by the House of Representatives, was lost in the Senate, during two consecutive sessions. Learning this, I decided to go to Washington accompanied by my mother, in order to see the Senators opposed to the bill and make known to them the sufferings and consequent loss in weight of the cattle brought from the far West to our Eastern cities. Our efforts were crowned with success, and during the next session the act was passed; so that the law to which you refer in your article, which, if carried into effect, would, as you say, do away with these atrocities in the transportation of cattle, is one for which you and the rest of the community are indebted to two antivivisectionists. Acting upon this law, when once obtained, the "Women's Pennsylvania Society for the Prevention of Cruelty to Animals," of which I am the President, has worked ever since in accordance with its provisions, to lessen the cruelty to animals in transit. Prosecutions of some of the most prominent railroad companies in the United States, for violation of this act, have been undertaken by us and in some cases brought to a successful issue, notably the Reading Railroad Company, which, about two years ago, was convicted and a fine of $200 imposed. It would occupy too much of your space to tell all the rest of the improvements that we have made, the stations for watering cattle where none existed before, the change in the cars, springs, couplings, etc. So I have demonstrated, I trust to your satisfaction, that we did attack this evil before doing anything with regard to vivisection. To show you how diametrically opposite our course has been to that of which you have accused us, and that we are actuated by pity for suffering alone, sinking all feelings of pique or wounded self-love, at the meeting of the American Humane Association in Washington, a few weeks ago, I offered a resolution which was carried that the Association should occupy itself principally with the work of endeavoring to abate the cruelties of cattle transportation, and that for this purpose it should unite its efforts with those of the Department of Agriculture of which Dr. Salmon is a prominent officer. A recommendation to take this course was contained in his paper, which, though not publicly read, was circulated at the convention, and I willingly acceded to it. I agree with you that the suffering of animals in transportation and also in slaughtering, is greater than that in a large amount of the vivisectional experiments practised in physiological laboratories, and for that reason I have almost entirely given up the eating of meat. You are mistaken in supposing that "a tithe of the zeal we now employ in opposing vivisection would eradicate the hideous, illegal, unnecessary torment in the shipment of cattle." A thousand times the money we now spend would not stop it. It will always go on while human beings use beef as an article of food, but it is practicable to diminish it, and that we are trying to do. The charge you make against us that we hate science with a medieval hatred, is too absurd as well as false, to be worthy of a moment's consideration. We hate cruelty, not science.

CAROLINE EARLE WHITE,

Cor. Secretary of Am. Anti-Vivisection Soc.

[We gladly give space to Mrs. White's letter and are delighted to learn of the good work she and her colaborers have carried out. We wish the money and the zeal wasted in the antivivisection crusade had been also used in the alleviation of suffering in the shipment of animals. The hatred of science rather than of cruelty is abundantly proved by antivivisection-literature, but we do not wish to continue a controversy in which there have already been too many words.—ED. PHILA. MEDICAL JOURNAL.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Dr. D. Riesman has been elected professor of clinical medicine in the Philadelphia Polyclinic and College for Graduates in Medicine.

St. Agnes' Hospital, Philadelphia.—Dr. William H. Parish has been appointed medical director to succeed Dr. M. O'Hara, recently resigned.

Calendar of Meetings of Philadelphia Medical Societies for the week ending February 4, 1899:

Wednesday, February 1—College of Physicians.
Thursday, February 2—Obstetrical Society.

Gloucester County (N. J.) Medical Society.—At the annual meeting held in Woodbury, N. J., January 19, the following officers were elected for the ensuing year: President, Dr. Charles E. Heritage, of Glassboro; vice-president, Dr. Eugene Z. Hillegass, of Mantua; secretary and treasurer, Dr. George E. Reading, of Woodbury; reporter, Dr. William Brewer, of Woodbury.

Philadelphia Medical Club.—At the annual meeting, held January 12, the following officers were elected for the ensuing year: President, Dr. James M. Anders; first vice-president, Dr. Charles W. Burr; second vice-president, Dr. George E. de Schweinitz; secretary, Dr. Guy Hinsdale; treasurer, Dr. John Lock; members of the executive committee, Drs. Ernest Laplace, H. Augustus Wilson, G. G. Davis, and Wilmer Krusen.

For a General Leprosy-hospital.—The Board of Health of Philadelphia, at a meeting held January 24, passed a resolution to memorialize Congress upon the subject of leprosy, urging the advisability of the establishment of a general leprosy-hospital. It will be pointed out that by the erection of such hospitals the expense entailed by the several local Boards of maintaining isolated hospitals will be avoided, and that the patients can be best cared for in such a single institution.

The Milk-supply of Philadelphia.—The annual report of Mr. W. J. Byrnes, chief inspector of milk of the Bureau of Health, shows that during the past year 33,555 inspections were made; 468,309 quarts of milk were examined, of which 5,710 quarts, or 1.21%, were condemned for adulteration with water, and 2,680 quarts were "skimmed." The effect of diligent inspection is apparent in the reduced percentage of adulterated milk from year to year, as follows: 1892, 11.15%; 1893, 6%; 1894, 3.82%; 1895, 4.29%; 1896, 3.81%; 1897, 2.38%; 1898, 1.78%.

Pittsburg Academy of Medicine.—At a regular meeting held January 16, Dr. P. J. Eaton read a paper on **placenta prævia,** and reported three cases, in one of which both mother and child were lost. Following the scientific meeting an adjourned business meeting was held, and the following officers of the Academy elected: President, Dr. E. B. Heckel; first vice-president, Dr. J. M. Douthitt; second vice-president, Dr. W. T. Burleigh; recording secretary, Dr. J. C. Thompson; corresponding secretary, Dr. W. B. Ewing; treasurer, Dr. E. W. Day; trustees, Drs. Stewart, Mabon, Williamson, Ward, Robeson; member of Committee on Admission, Dr. I. J. Moyer; on Laboratory, Dr. F. F. Simpson; on Nurses' Directory, Dr. P. J. Eaton; on Library, Dr. D. Moore.

Inspection of Meat in Philadelphia.—According to the report of Mr. Frank Lowry, chief meat and cattle inspector of the Bureau of Health, there were inspected during the year 1898, 135,843 cattle, 53,505 calves. There were condemned 230 head of cattle, 2 being affected with actinomycosis, 219 with tuberculosis, and 9 for other causes; 3,005 head of calves were condemned as monkey-calves and their sale as butcher's meat prevented; 5,192 visits were made to slaughter-houses. Twelve arrests were made during the year for the sale of unwholesome meat.

Montgomery County (Pa.) Medical Society.—At the annual meeting held January 18, the following officers were elected for the ensuing year: President, D. H. Bergey, Philadelphia; vice-presidents, P. A. Corson, Plymouth, and H. A. Arnold, Ardmore; recording secretary, H. H. Whitcomb, Norristown; corresponding secretary, J. K. Weaver, Norristown; treasurer, S. N. Wiley, Norristown; censors, C. H. Mann, Bridgeport; S. L. Slifer, North Wales; and E. S. Kreibel, Worcester; examiners, S. W. Groff, Harleysville; J. R. Care, Worcester, and S. B. Horning, Evansburg.

Vital Statistics of Philadelphia, for the week ending January 21, 1899:

Total mortality	586
Children under 5 years of age	136

Diseases.	Cases.	Deaths.
Pneumonia 104, congestion of the lungs 3		107
Pulmonary tuberculosis 64, intestinal tuberculosis 1		65
Heart-disease 41, fatty degeneration of the heart 3, inflammation of the heart 3		47
Apoplexy 29, paralysis 8		37
Nephritis 29, uremia 7, kidney-disease 1		37
Influenza		32
Typhoid fever	320	31
Inanition 16, marasmus 10, debility 4		30
Senility		24
Carcinoma 18, tumor 1		19
Diphtheria 16, membranous croup 2	97	18
Inflammation of the brain 14, congestion of the brain 4		18
Bronchitis		14
Casualties 11, burns and scalds 3		14
Gastroenteritis 8, cholera infantum 6		14
Scarlet fever	34	5
Smallpox	7	0
Convulsions 8, septicemia 5, pertussis 4, diarrhea 3, dysentery 3, cyanosis 3, appendicitis 3, suicide 3, alcoholism 2, diabetes 2, hernia 2, poisoning 2, suffocation 2, teething 2, abscess 1, asthma 1, parturition 1, cirrhosis of the liver 1, drowned 1, erysipelas 1, inflammation of the liver 1.		

Philadelphia Pediatric Society.—At a meeting Tuesday, January 10, Dr. F. A. Packard reported a case of **multiple sarcomas** in a boy, 3½ years old. The first symptom appeared a year ago, as a limping gait, when examination showed a small tumor in the middle of the left sartorius and also one connected with the left scapula. These grew steadily, but when the boy was last seen there was no involvement of the thoracic or abdominal organs. A portion of the scapular tumor was excised, and microscopic examination showed it to be a small round-cell sarcoma. The blood-count showed 2,840,000 red cells, 8,000 leukocytes and 31% of hemoglobin. A differential count of the nucleated cells showed a slight excess of myelocytes and eosinophiles. Antisyphilitic treatment had been tried thoroughly, but without success. Preparations were being made to use Coley's fluid, when the patient was removed from the hospital.

A letter was read from Dr. M. P. Pavenel asking the aid of the members of the society in procuring sputum or tissue from tuberculous patients in whom the infection was known to be either from other human beings or from milk from tuberculous cattle, in order that the characteristics of the bacilli in these cases might be studied.

Dr. F. A. Packard delivered the annual address of the President in which he reviewed the work of the society during the past year.

Dr. Edwin E. Graham was elected president; Drs. Alfred Stengle, D. J. M. Miller, and T. S. Westcott, vice-presidents; Dr. Alfred Hand, Jr., secretary; Dr. H. B. Carpenter, treasurer, and Dr. D. L. Edsall, recorder; executive committee: Dr. Samuel M. Hamill, Dr. J. P. C. Griffiths, Dr. Frederick A. Packard, Dr. John H. Jopson, Dr. George Woodward.

College of Physicians of Philadelphia—Section on Ophthalmology.—At a meeting held January 17, Dr. G. E. de Schweinitz reported the results of **3 operations for ptosis,** according to Tansley's method. One of the cases was congenital, and in this the result was only moderately satisfactory. Two were traumatic in origin, and the improvement following the operation was marked, in one the normal movements of the lid having been completely restored. Drs. Harlan and Oliver preferred the operation of Grandclément, particularly in the congenital form of the paralysis.

Dr. C. A. Oliver enucleated an **eye** that had been **perforated by a piece of steel.** The foreign body was found imbedded partly in the sclera and partly in the optic nerve. Vision was almost entirely lost immediately after the accident, only that part of the visual field remaining corresponding to a small portion of the nerve that had not been severed. Dr. G. C. Harlan and Dr. de Schweinitz spoke of similar cases. The location of the foreign bodies in the optic nerve had not been suspected until the attempt to cut the nerve during the enucleation was made. Dr. H. F. Hansell reported a case of his own in which Dr. W. M. Sweet had located a No. 4 shot just back of the globe in the orbit. Sympathetic irritation called for the removal of the offending eye, and it was discovered that the shot had penetrated the optic nerve and was lodged in it.

Dr. Harlan detailed a case in which the presence of a **piece of steel in the ciliary region** was detected by Dr. C. L. Leonard, and its removal effected with the electromagnet, with recovery from the traumatic inflammation. Haziness of the lens in the track of the steel only prevented the patient from obtaining useful vision. Dr. de Schweinitz was able to confirm by his experience in a recent case the accuracy of Dr. Sweet's method of localization. The position calculated from radiographs was precisely the same as that determined with the ophthalmoscope when the pupil was dilated.

Dr. M. W. Zimmerman described a case of **spontaneous linear rupture of an ulcerated cornea** followed by a large intraocular hemorrhage in a woman the subject of glaucoma. Dr. W. F. Norris stated that such occurrences were not infrequent in eyes degenerated from glaucoma. Dr. Oliver recorded a similar case.

Dr. W. M. Sweet advocated the use of weak solutions of the **jequirity-bean in the treatment of granular conjunctivitis and pannus.** In a series of 25 cases the results of this treatment were far superior to those obtained from the use of the usual remedies. When carefully applied and watched the danger of corneal ulceration and the excitation of membranous conjunctivitis need not be considered. Dr. Hansell confirmed Dr. Sweet's statements from his own experience with the remedy.

Dr. W. G. Spiller and Dr. H. F. Hansell reported two cases of **unilateral traumatic ophthalmoplegia,** in the one case associated with crossed hemiplegia. The hemiplegic patient was exhibited. Six months ago an umbrella-ferrule had penetrated the orbit so far as the sphenoidal fissure and had injured the nerves passing through that opening. The man exhibited complete internal and external ophthalmoplegia of the right side, loss of sensation in the distribution of the ophthalmic division of the fifth nerve, paralysis of the left side of the face and of the left extremities. The optic nerve was uninjured. The crossed hemiplegia was believed to have been due to a lesion in the upper part of pons or the right cerebral peduncle or at the inferior part of the right internal capsule. In the second case the ophthalmoplegia was also complete, and in addition the retina was edematous and infiltrated with hemorrhages, showing involvement of the optic nerve in the traumatism. The man was struck by a large flying piece of steel, on the inner third of the supraorbital ridge, probably fracturing the anterior wall of the frontal sinus where the ophthalmic division of the fifth nerve had been injured. Anesthesia existed in the region supplied by that nerve. The total paralysis of the internal and external ocular muscles was probably caused by orbital hemorrhage and exudation. The first patient had almost completely regained the function of the paralyzed muscles in 6 months. The final condition of the second patient was unknown.

NEW YORK.

The annual births exceeded the annual deaths in New York during the past year by 12,775.

Charity Hospital, Blackwell's Island, N.Y.—Dr. Charles Quinlan has been appointed laryngologist and rhinologist.

Dr. May Murray, of Flushing, has been appointed Sanitary Inspector of Schools by the Health Department. She is the first woman appointed to such a position.

The Italian Pharmaceutical Association of the State of New York was recently incorporated. The association has been formed in the interests of Italian pharmacists.

Influenza-Bacilli in Telephone-Receivers.—Dr. E. J. Kaufman, of Manhattan, has examined chemically and microscopically the dust found in telephone-receivers and has found the bacilli of influenza in many cases.

The County Medical Society has caused the arrest of Cristina W. Hansen, a young woman who has been practising medicine without a State license. Her advertisements in the newspapers first called attention to her case.

Tetanus from Carious Teeth.—A case of tetanus resulting presumably from carious teeth is reported from the Memorial Hospital. It is thought the bacilli were introduced by the man himself in his efforts to plug his teeth with medicated cotton.

Lodge Practice in Syracuse, N.Y.—At a meeting of the Syracuse Academy of Medicine, held January 17, the following resolution was adopted:

> It shall be a misdemeanor for any fellow of this Academy to engage by written or verbal contract to attend medically or surgically by the year, month or for any specified time the members of any lodge, club, sick-benefit society, insurance society, employes of any contractor or commercial house or any railroad or corporative body at so much per capita or for any specified sum. This shall not be construed to mean the care by contract of any ward or convict of the city, county or State.

The Grosvenor Public Library (Buffalo, N. Y.) has recently separated from the general collection and shelved by themselves, in a light, pleasant room, all the books on medicine and allied subjects, where they are open to the medical profession for inspection without the intervention of a clerk.

Kings County (N. Y.) Medical Association.—There is now in progress in Brooklyn, a Greco-Roman festival, the object of which is to provide funds for the building committee of the Kings County Medical Association. The festival is in charge of the Building Committee and the Woman's Auxiliary Committee.

New York Foundling Hospital.—At the last meeting of the Medical Board the following new members were elected: Attending obstetrician and gynecologist, Dr. John Aspell; attending physicians in succession to Drs. J. Lewis Smith and Joseph O'Dwyer deceased, Drs. L. Emmet Holt and Rowland G. Freeman.

Marine-Hospital Bill and Quarantine.—The sentiment in New York is decidedly against the proposed change of control of the Quarantine Service from the State authorities to the National Marine-Hospital Service. The 34 New York representatives have united to fight Representative Hepburn's bill, which provides for this change.

Faith-Cure for Tetanus.—Another victim of Christian Science died at Flushing last week. The patient, a woman, aged 45 years, developed tetanus while in the employ of two sisters who were staunch believers in mental science. When the patient was nearly dead they sent her to the Flushing Hospital, where her death soon followed.

Calendar of New York City Meetings for Week ending February 4, 1899:

Monday, January 27—New York County Society at Academy of Medicine.

Thursday, February 2—Academy of Medicine; Brooklyn Surgical Society.

Friday, February 3—Brooklyn Gynecological Society.

Rochester (N. Y.) Pathological Society.—At a meeting held January 12, the following resolution was adopted:

> If any member be confronted with a suit at law for alleged malpractice, or similar charge, it shall be his duty to notify the Society. The president shall thereupon appoint a committee of three to investigate the merit of the action, to advise the member brought into litigation, and to recommend to the Society such measures as they consider should be taken.

Legislation in Regard to Tuberculous Cattle.—A bill entitled "An act to prevent the introduction of tuberculosis into the dairy and other herds of cattle in the State of New York" has been presented in both houses of the Legislature, and provides that all cattle entering the State, excepting fat cattle for immediate slaughter, shall be accompanied by the certificate of an approved veterinarian giving temperature-records of a tuberculin-test made within 30 days preceding importation. A State inspector shall pass upon each certificate, and test each head that is without a certificate.

The enactment of such a measure has long been desired by the State Board of Health, because of the continual unloading of tuberculous cattle into New York from surrounding States. As it stands it is weak in not authorizing the State inspector to test every head entering the State, and will probably be amended to make it more effectual.

New York County Medical Association.—At the annual meeting held January 16, in Mott Memorial Hall, the following officers were elected: President, Dr. Frederick Holme Wiggin; first vice-president, Dr. Parker Syms; second vice-president, Dr. Edwin Gaillard Mason; recording secretary, Dr. Ogden C. Ludlow; corresponding secretary, Dr. Charles E. Denison; treasurer, Dr. John H. Hinton; members of the executive committee, Dr. George Tucker Harrison, Dr. Francis J. Quinlan, and Dr. John Shrady. The treasurer's report showed no debt and a surplus of $1,000 in the treasury. The secretary's report showed an active membership of 850, and the following summary of work done during the year: At seven scientific meetings 8 medical, 2 surgical, and 5 gynecological and obstetrical papers were read, 3 apparatuses and 8 specimens were exhibited, and 15 patients were presented.

Academy of Medicine—Section on Neurology and Psychiatry.—At a stated meeting held January 19, Dr. Samuel J. Meltzer read a paper on **Inhibition,** in which he sought to prove by the recitation of numerous experiments, conducted by himself and many others, that nerve-trunks generally contain inhibitory fibers as well as stimulating fibers; that it is a mistake to regard nerves as merely stimulators of muscular contraction, of sensation, of secretion, etc. They have also the power of inhibition. The vagus nerve was taken as a prominent example and its inhibitory control of the heart, stomach, and esophagus shown. The vasomotor nerves were shown to have the power of constricting and dilating the vessels—examples of stimulation and inhibition respectively. Inhibitory nerves have been found in the spleen, lymphatics, lungs, pancreas, bile-ducts, gall-bladder, urinary apparatus, prepuce, vagina, etc. Inhibition of sensation was shown by some simple experiments; exempli gratia: If the hand be held in painfully hot water, the pain will be lessened if a part of the body be tickled. In the discussion Dr. Frederick Lee said that inhibition is a widespread physiologic phenomenon. In Dr. Meltzer's experiments the nervous system was chiefly considered, the specific nerve-centers and fibers receiving the most attention. Dr. Lee thought that inhibition is common to all tissues and cells, as experiments in the line of direct stimulation of the cells had proved. The theory of inhibition could be sifted down to a metabolic basis. According to Herring's theory there are 2 antagonistic processes—anabolism and katabolism. These ordinarily balanced each other and could be expressed by the fraction $\frac{a}{d}=1$. When a stimulus is applied to a tissue, it excites or depresses assimilation or dissimilation. Inhibition is due to (1) increase of assimilatory process, or (2) decrease of dissimilatory process. Prof. James Cattell said that in the field of psychiatry, inhibition was a recognized phenomenon. For instance, one idea may inhibit another. Inhibition might be considered as a logical contradiction; in other words, an action inhibits an inhibition and vice versa. Dr. Muskens drew diagrams to show the results of experiments on the heart's contractions, conducted with the view of accurately measuring the power of inhibition.

Sanatorium for Cases of Incipient Tuberculosis in New York.—We are glad to note that a movement long and zealously urged by Dr. Pryor has been set on foot in the State of New York for the establishment, on State land, of a sanatorium for the treatment of cases of tuberculosis in the early stages of the disease. Massachusetts already has such an institution in operation at Rutland, and New York, as well as our own State of Pennsylvania, could not do better than follow such a worthy example. It is estimated that about 14,000 deaths occur annually in New York State from pulmonary tuberculosis, the vast majority among persons between 20 and 40 years of age. It would be difficult to estimate in dollars alone the immense loss to the State from this cause and the collateral one due to the long illness of the victims of the disease, not to speak of the constant dissemination and maintenance of the great white plague. Experience has shown that under proper environment a large proportion of cases are curable, and from selfish not less than humanitarian motives, it is the duty of the State to institute and foster a hygienic measure of such widespread importance and beneficent influence. The bill before the New York Legislature provides for the appropriation of $200,000 to build and equip, on State land in the Adirondacks, a sanatorium for 200 patients. A committee of five is to be appointed to superintend the erection of the buildings and manage the institution. Only patients in the early stages of the disease will be received. Applicants for admission will be examined by physicians in New York, Buffalo and Syracuse. A separate bill has been introduced directing the State Board of Health to publish and distribute information relating to the transmissibility of tuberculosis and to the methods for its prevention. A report, embodying the result of a year's investigation by a Senate Committee, has also been presented to the Senate and 4,000 copies have been ordered printed for distribution. This report strongly favors measures for more thorough prophylaxis and the establishment of the proposed sanatorium. An analogous project is on foot in Pennsylvania, whose society for the Prevention of Tuberculosis has secured a suitable tract of several hundred acres on Green Mountain, near White Haven. The movement has the sanction and the endorsement of the State Board of Health and the Board of State Charities has recommended to the Legislature an appropriation of $30,000 for the purposes of the institution.

Massachusetts has already shown her progressiveness. The two greatest States in the Union should not be far behind. We await with interest the outcome of a worthy emulation and competition.

Medical Club of Buffalo (N. Y.)—At a meeting held December 20, 1898, Dr. Renwick R. Ross read a paper on the **relation of physicians to hospitals,** in which he pointed out that, according to their constitution and by-laws, hospitals are designed as a charity to afford gratuitous medical and surgical relief to indigent persons, so far as their resources allowed. Upon this idea endowments are made and donations solicited. Therefore, it should be the first aim to return its inmates to society, improved in health, in the shortest possible time. Patients seek hospitals for the benefit they can derive therefrom, and because the inducement that the institution is prepared to do the most advanced medical and surgical work is held out. Therefore, the physician who can most nearly fulfil this requirement should be the one for a place upon the staff. Dr. Ross discussed the relation of the specialist to the profession and to the hospital, and believes that, as the patient should receive that which is the best, and as the specialist is or should be the best in his special field, and as the hospitals are becoming the schools for the teaching of medicine, therefore the specialist should have a working-place upon the hospital-staff, and even charge of a department, if cases enough present. He believes the medical board and the board of trustees should meet often to exchange views to broaden each other's knowledge of their mutual duties and difficulties, to the benefit of the institution and its harmonious working. A physician should be selected for his ability, unswerving loyalty both to the institution and to his colleagues, care in the expression of views, and broadminded liberality; once appointed the duties should be faithfully performed. He believes that the essence of successful administration depends upon the relations between the staff and the trustees. He emphasized the duty of the physician to supervise the diet-lists of the hospital, and particularize for the patient. He believes the complaint of hospital and dispensary abuse is entirely due to the attitude of the physician who hardly differentiates between the needy and the interesting. He criticised adversely the character of the reports of some hospitals, for while much of the advance in medical and surgical knowledge is made in hospitals, yet this is lost to the professional as well as the lay world because of failure to publish such knowledge. He spoke of the educational advantages, both to the undergraduate and the public, as being one of the collateral functions of hospitals, and as such every means should be used to abolish the repugnance of the public and to stimulate the interest of the profession. Dr. Ross claims that the patient, far from objecting to the use of his case as a means of enlightenment, is always willing to properly present himself for observation and investigation. He believed that hospitals should be equipped with laboratories not only for their own use, but for the use of the profession at large. At all times and under all considerations the first interest is that of the patient for which the public maintain the institution.

Buffalo Academy of Medicine.—At the regular meeting of the pathological section Dr. F. W. Hinkel read a paper on the **pathology of catarrhal deafness.** He disclaimed any attempt to describe the morbid anatomy of the regions involved, as he had made no original observations in that field. As a more profitable topic for discussion he offered a consideration of the influence upon the hearing of the pathologic conditions of coordinating mechanisms and an estimate of the influence of diathetic and constitutional conditions upon the function of the middle ear. He quoted an estimation that one in four of the German population has defective hearing in one or both ears, stating that so frequent a perversion of so important a function implies a wide association with other mechanisms and functions of the general economy, and that on investigation this is found to be the case; that the middle ear retains intimate relations with the mechanisms of the upper air-tract and food-tract; that the numerous diseases to which they are subject induce frequent inflammations and trophic changes in the middle ear. The muscles that elevate and make tense the soft palate, dilate at the same time the flaccid walls of the closed Eustachian tube and ventilate the middle ear with every act of deglutition and to a less degree with every respiration; hence a most intimate and important relation exists between the normal action of the soft palate and the health of the middle ear; a failure of proper ventilation of the middle ear is followed by well-recognized disturbances of ossicular tension and circulation in the middle ear; this ventilation is dependent upon so many other mechanisms of the digestive and respiratory tracts that it may easily become impaired by local or general diseased conditions. The earliest and most frequent cause of impaired hearing is adenoid hypertrophy of the nasopharynx. This interferes mechanically with the action of the tensors and elevators of the soft palate, which are at the same time the dilators of the

Eustachian tube; consequently free ventilation of the middle ear is prevented. Swollen and inflamed adenoids favor the development of chronic inflammation of the tube and middle ear. Recurring inflammations in the adenoid structures are accompanied by exacerbations of middle-ear inflammation; hence the recurring attacks of earache and increased deafness in children afflicted with nasopharyngeal hypertrophies. A few years' continuance of these conditions may induce catarrhal deafness, whose worst effects may be manifest only after the original cause has atrophied and disappeared. Of similar, but not quite so frequent or so injurious, effect are hypertrophied faucial tonsils. A large proportion of the cases of catarrhal deafness have begun in childhood as aural catarrh induced by diseased lymphoid structures in the pharynx. This etiologic factor may be overlooked as the hypertrophied tonsils and adenoids usually atrophy in early life, and their former presence is often only to be inferred from the lasting diseased conditions they have induced. The family-physician should be alive to the importance of attention to lymphoid hypertrophies of the nasopharynx. Even if the ears be not at all affected and the ill-effects be shown only in head-colds and "bronchitis," yet there is great danger that the function of the middle ear may eventually become impaired. Another factor in the development of chronic deafness is obstructive disease of the nose. In cases predisposed to aural disease the effects of such disease are often mischievous in part from the diminution in air-pressure in the middle ear that they induce. Derangement of the digestive tract is often accompanied by pharyngitis. The rheumatic diathesis also frequently manifests itself in recurring tonsillitis and pharyngitis. By this route, in cases in which the middle ear is susceptible from inherited or acquired peculiarities, disease of a distant organ or a general diathetic disease may have catarrhal deafness as one of its manifestations. The sclerotic form of catarrhal disease of the middle ear is not infrequently a sequel of the hypertrophic form, but a certain number of cases appear to have a fibrous type of inflammation from the beginning. Most cases of chronic catarrhal deafness, however, have their origin in the hypertrophic form, and their pathology shows that with reasonably prompt and careful treatment they are often remediable and at times curable. The treatment is distinctly prophylactic in character. The early removal of predisposing adenoid, tonsillar or nasal obstructions, is most important, and will yield a more satisfactory result than any treatment after the ear has become chronically affected. DR. H. Y. GRANT, in the discussion, said he believed that the pathology is similar to that of all mucous surfaces; that the hypertrophic change interferes with the motion of the ossicles, and the fenestra, and may cause the formation of bands of tissue holding the ossicles more or less rigid, and these may go on to calcification and the ossicles be rigidly adherent to the fenestra. He believes that the future treatment of this condition will be the cutting of these bands and the maintenance of mobility by massage after the manner of the operation for urethral stricture and the subsequent maintenance of a patulous urethra. He thinks a prognosis cannot be made until after treatment has been maintained for some time. He hopes that electricity will offer a means of alleviating this distressing malady, if not of cure. DR. A. L. BENEDICT said that from the standpoint of the patient this trouble is one of the most serious, on account of its incurability being only exceeded by tuberculosis and malignancy. DR. BLANN believes that obstructive nasal disease is almost a sure cause of future ear-conditions. DR. A. A. HUBBELL thinks the pathologic expression in the middle ear is like that of the nose, differing, however, in that it takes place in a nearly closed cavity and consequently the products are retained. He believes sclerotic changes therein are always secondary to those of hypertrophy and thinks that both nasal and aural conditions are often related to conditions elsewhere and that better personal and general hygiene would prevent adenoids and their train of symptoms. He advises an early search for local and general causes and their speedy correction. He quoted Dr. Sexton's statements that the treatment of catarrhal sclerosis is most unsatisfactory and would always remain so; it is like converting scar-tissue into healthy tissue. DR. LUCIEN HOWE believes that there is a relation between climatologic conditions, especially humidity, and catarrhal deafness. He called attention to the scanty actual knowledge of the morbid anatomy of this disease possessed by the profession, and to the difficulties of exact diagnosis. He said there are four varieties: (*a*) Suppurative and adherent; (*b*) inflammatory and sclerotic; (*c*) non-suppurative and occlusive; (*d*) bony adhesion between the stapes and the window. He called attention to the use of ferments in the treatment, described the difficulties attending postmortem examination of the area, and defined the difficulties of diagnosis and consequent futility of treatment. DR. ABBOTT thinks prevention the only method of treatment, but also that the ferments offer a reasonable result. DR. GROVE thinks that early attention to the conditions of the nose and pharynx would prevent many cases, but, in honestly answering the patient, one must confess to subsequent atrophy if left alone.

NEW ENGLAND.

The vision and hearing of all the school-children of New Haven, Conn., are to be systematically examined under the auspices of the Board of Education.

Legislation in Regard to Malpractice-Suits.—According to the *Journal of Medicine and Science*, the suit against Dr. Lewis L. Austin, of Clinton, Me., for malpractice, is said to have aroused the doctors throughout that section and they will endeavor to secure some legislation at the coming session of the legislature to protect doctors from such prosecutions. The old bill, that a person suing a malpractice-case will have to deposit a bond equal to the amount sued for, before the suit can commence, it is thought, will be resurrected and presented to the legislature for action.

CHICAGO AND WESTERN STATES.

St. Louis Medical Society of Missouri.—At a meeting held January 21, the following was the scientific program: Preliminary Report on the Effects of Ligating the Dorsal Vein of the Penis for Functional Impotence, by Dr. G. Wiley Broome; Fair Play for the Doctor that Recommends the Specialist: a Hint to Both, by Dr. Robert Barclay.

Christian Science.—In an address delivered recently before the Northwestern Ohio Medical Association, and by resolution of the society published in pamphlet form, Dr. C. A. L. Reed lays bare the fallacies and absurdities of Christian Science, whose mysticisms, as Dr. Reed well points out, are absolutely foreign to science, which has been labeled with the name of Christ, because Christ never taught anything of the sort. Christian Science will live so long as there are victims to be bled, for it has been shown clearly to be merely a money-making scheme of the most shame-faced character. It is already on the decline and its successor-fad is in process of incubation.

New Law for Druggists in California.—A bill has been introduced in the Legislature of California to amend the act regulating the practice of pharmacy and the sale of poisons. Among other provisions is the following:

> "No pharmacist shall have charge of more than one store or pharmacy at one time. A registered assistant can be left in charge only during the temporary absence of a registered pharmacist. To be a registered pharmacist, a person must be a graduate in pharmacy, a licentiate or practising pharmacist. Graduates and licentiates must have an experience of four years in stores where prescriptions are compounded. Assistant pharmacists must have studied pharmacy for two years and pass an examination before the State Board of Pharmacy."

Rush Medical College of Chicago has adopted the quarterly system in vogue at the University of Chicago, which will go into effect the present year. The academic year will begin July 1, and will be divided into four quarters, designated the summer, autumn, winter, and spring quarters, and beginning on the first day of July, October, January, and April, respectively. Instruction will be given in all departments during each quarter, and the several courses will be so arranged that a student can begin his medical study at the commencement of any quarter and continue it advantageously. He may continue in residence at the college as many successive quarters as he desires, but credit will not be given for more than three successive quarters. Attendance upon 12 quarters will be required for graduation, and at least 45 months must intervene between the beginning of a student's first course of medical study and the date of his graduation.

Chicago Gynecological Society and Chicago Medical Society.—At a joint meeting held January 18, 1899, Dr. T. J. Watkins read a paper on **Tampons and pessaries in the treatment of displacements of the uterus.** He said fine sterilized lamb's wool is the best material to use for tampons, in the mechanical treatment of displacements of the uterus, on account of its elasticity. The value of tampons depends upon keeping the uterus as near its normal plane in the pelvis as possible, and the elasticity of the tampons elongates any adhesions that may prevent reposition of the lower segment of the uterus. In order to be effective tampons should be used almost continuously; that is, soon after one tampon is removed another should be inserted. It is useless for a patient to wear tampons for one or two days and then to go one or two days without them. Tampons are best inserted with the patient in the knee-elbow or knee-chest position. With these positions the weight of the intestines is removed from the uterus and the vagina is distended with air. After restoring the uterus to as near its normal location as possible, by gentle force, the vagina should be packed as tightly as possible without producing any distress to the patient. Much has been said about the relations of the tampons to the cervix, as to whether they should be placed anterior or posterior to it. This is of no importance, as the most that can be accomplished is to hold the uterus in its normal plane in the pelvis. The Albert Smith and Emmet pessaries fulfil about all the requirements of a pessary for the mechanical treatment of uterine displacements. Intra-uterine pessaries are dangerous to use on account of liability to infection. There is less objection to their use in cases where the uterine cavity is the seat of an infection, than in cases where the uterine mucosa is aseptic. Intra-uterine pessaries do sometimes relieve dysmenorrhea, but it is questionable if they are of sufficient value to justify one in assuming the risk of infection which attends their use. The principle of the action of the pessary is to keep the cervix in or near its normal location (about one inch from the sacrum, and the external os about 2½ inches below the promontory of the sacrum). With the cervix in this location, gravity and intra-abdominal pressure will insure anterior position of the body of the uterus if mobile, when the woman is in an upright position. With the cervix in normal location there is not sufficient space for the body of the uterus to get between the cervix and the sacrum. Pessaries are best moulded by heating them in water, when they can be easily shaped as desired. Tampons are valuable in some cases of prolapse of the uterus due to subinvolution of the uterus or its supports when it is impracticable or inadvisable for the patient to remain in the recumbent position. The tampons are especially indicated when the utero-sacral ligaments are the seat of pain or tenderness on pressure or when the uterus is much increased in weight. The cases of retroposition of the uterus which are most satisfactorily treated by means of tampons and pessaries consist of those of recent occurrence without the presence of adhesions, relaxations of the pelvic outlet or too great mobility of the uterus. In many of these cases the uterus can be replaced and a pessary fitted that will, if the uterus is not much increased in weight or the utero-sacral ligaments sensitive to pressure, entirely relieve the patient of all discomfort. In recent displacements the pessary will in a small percentage of cases result in a perfect cure. If the uterus is much increased in size, or the utero-sacral ligaments sensitive, these conditions can frequently be relieved by the use of tampons, so that a pessary can be worn that will remove all symptoms. A pessary should never be used whenever there are present any sensitive points which it will press upon, or whenever the uterus has a marked tendency to return to the abnormal position as soon as it is replaced. The pessary should be removed at once if it produces any pain or discomfort. It should be removed every one to three months for the purpose of cleansing and readjustment. Douches are not necessary, in the absence of discharge, except for cleanliness. Whether a patient should wear a pessary continuously or submit to some operation of suspension or fixation will depend largely upon her desires. The thought of continually wearing a pessary is annoying to some patients, and in this instance an operation is indicated. As a general proposition a patient with a retroposition of the uterus, who is made perfectly comfortable by the use of a pessary, will enjoy much better health by continually wearing the instrument than she will as a result of any of the operations of fixation and suspension yet devised. The use of pessaries is not advised in every case of simple retroposition of the uterus, as many women have retroposition of the uterus which do not produce symptoms and which consequently require no treatment. Pessaries are of especial value in some cases of simple retroposition of the uterus during the second and third months of pregnancy. Retroposition of the uterus complicated by adhesions may be treated with tampons supplementary to massage and finally relieved by a pessary. These cases, however, have usually been the subjects of infection, implicating the tubes and ovaries, and frequently these organs then require operative treatment and indicate hysterorrhaphy. Cases of retroposition of the uterus complicated by marked relaxation of the pelvic outlet, should be treated by vaginal fixation at the time the pelvic outlet is repaired, as vaginal fixation can be done without materially increasing the dangers of gestation and labor. The routine use of pessaries, carelessness in studying the indications and contraindications for their use, and negligence in the proper selection of the instrument to each individual case, has done much harm and cannot be too severely criticised.

SOUTHERN STATES.

Eastern Dispensary and Emergency Hospital, Washington, D. C.—At a recent meeting of the board of directors, Dr. D. Olin Leech was transferred to the chair of general and nervous diseases, Dr. N. P. Barnes was elected to the chair of diseases of children, and Dr. William B. French, to the chair of pathology.

Therapeutic Society of Washington, D. C.—At the annual meeting held January 14, the following officers were elected for the ensuing year: President, Dr. John F. Winter; vice-presidents, Dr. H. H. Barker, and Dr. Louis Kolipinski; corresponding secretary, Dr. D. Olin Leech; recording secretary, Dr. N. P. Barnes; treasurer, Dr. J. S. McLain.

Clinical Society of Maryland.—At a meeting held January 20, Dr. John S. Fulton read a paper on the **Relation of public-health officers to practising physicians.** Dr. C. Hampson Jones, Medical Health-Officer of Baltimore, reported on the **Work of the Health Department against diphtheria** during the last 6 months of 1898. Dr. Wm. Royal Stokes, City Bacteriologist, presented a paper on the **Management of diphtheria from a public-health standpoint.** In all the papers an effort was made to bring about a better understanding between the city Health-Department and the practitioners of the city. The necessity of carrying out the regulations of the Health-Department in dealing with infectious diseases, particularly diphtheria, was emphasized.

The Centennial Anniversary of the Medical and Chirurgical Faculty of Maryland, which is to be celebrated in Baltimore, April 25, 26, and 27, is to be a noteworthy affair. It is proposed to invite prominent members of the medical profession from places outside of the State to address the scientific meetings. In addition, the president's address will be delivered on the evening of the first day of the meeting, and on the evening of the second day, the annual address will be delivered by Dr. W. W. Keen, of Philadelphia. From 10 A.M. until 2 P.M. daily, there will be demonstrations in the various hospitals of the city. Finally, there will be an exhibition of a loan collection of portraits, relics, etc. Communications in connection with the meeting should be addressed to Dr. William Osler, No. 1 West Franklin Street, Baltimore, Md.

Sanitary Work in Havana.—Gen. Ludlow, we are glad to see, is urging the Washington authorities to take immediate steps to put Col. Waring's plans for the sanitation of Havana into execution. Already a marked improvement in the health of the city has followed the new administration and its new methods. The United States Sanitary Inspector, Dr. Brunner, reports that the death-rate had fallen 25 per cent., though it remains at the appalling figure of 74.10 per 1,000. This gain is no doubt due to the thorough cleaning the city has had, and to the better system of disposing of refuse. But, as Gen. Ludlow observes, this is only a "temporary relief," and the "permanent work" remains to be done. It will cost a great deal of money—not less than $10,000,000 was Col. Waring's estimate. But the money could easily be borrowed, and the removal of the menace to the health of our own country would alone constitute returns sufficient to justify the investment. "The time to act is now." It is not a newspaper which says this, not a visitor in Havana, but its Military Governor, an engineering and sanitary expert. It is he, Gen. Ludlow, who tells the government at Washington that it has a "stupendous undertaking" on its hands, and must move quickly.—[*The Evening Post.*]

Johns Hopkins Hospital Medical Society.—At a meeting held January 23, Dr. Wm. Osler exhibited a patient suffering from **double congenital cystic kidney.** The patient was a young woman, single, and 28 years of age. The first symptoms of any urinary trouble appeared about one year ago with hematuria. On December 6, severe hematuria again set in, lasting about three weeks, and accompanied by severe colicky pain in the region of the right kidney. Since the onset of the recent symptoms the patient had had marked frequency of micturition, and had become weak and pale. About one month ago she noticed for the first time that the upper right quadrant of her abdomen became appreciably swollen. Physical examination revealed large irregular tumors occupying the region of the kidney on each side and readily grasped between one hand in the flank and the other on the abdomen. The left was larger than the right. The urine was of low specific gravity, 1007, and contained a trace of albumin, but no casts. There was considerable pigmentation of the skin of the abdomen. The peripheral arteries were sclerosed, the left ventricle was hypertrophied and the second aortic sound was ringing and accentuated. The physical signs all pointed to the case being one of double congenital cystic degeneration of the kidneys, excepting the skin-pigmentation, which pointed to adrenal disease. There were, however, none of the other cardinal symptoms of the latter affection. The presence of hematuria, bilateral palpable tumors in the region of the kidneys, hypertrophy of the heart and sclerosis of the vessels are symptoms always strongly suggestive of congenital cystic kidneys. Up to 1895, 62 cases had been reported in the adult, and of these 5 had been diagnosed during life. Other congenital malformations are frequent. In 17 of the 62 cases cysts were found in other organs of the body. The cases should not be operated on. Dr. Thayer referred to a case in a patient that had come under his observation two years ago. The patient died and at autopsy each kidney was found to be about as large as a man's head and composed almost entirely of a mass of cysts. Hemorrhage had taken place into one of the latter.

Dr. Friedenwald exhibited a case of **plexiform neuroma of the eyelid.** The patient was a young girl, aged 15, whose right eye was practically closed by a plexiform neuroma of the upper lid the size of a large horse-chestnut. Similar smaller tumors were present over the arms and back. The condition is very rare. Dr. Theobald said that he had never had a case occur in his practice.

Dr. Penrose read a paper on **Some new points in medical mechanics.** He exhibited a table, of his own device, for administering anesthetics with the patient in the knee-chest position. He also referred to the success he had had in the use of salt infusions followed by oxygen-inhalations in the treatment of pneumonia. The oxygen is passed through an alkaline solution, to which a dessert-spoonful of a mixture containing equal parts of creasote, turpentine and compound tincture of benzoin is added. He showed a model of a modified gynecologic operating-table in which the patient could be placed in the Trendelenberg position by the anesthetist without the latter moving from his stool. This is done by turning a crank at the head of the table. A simple device for the prevention of the condensation of moisture on the laryngoscopic mirror during the examination of the larynx was to rub a little soap on the surface of the mirror and then to polish it thoroughly with a linen cloth.

Mr. F. H. Verhoeff exhibited a **new instrument for the examination of the heterophoria** and combining powers of the eyes.

CANADA.

Dr. T. G. Roddick, M.P., professor of surgery in McGill University, and formerly president of the British Medical Association, has been elected an associate fellow of the College of Physicians of Philadelphia.

Montreal Medico-Chirurgical Society.—At a meeting held January 9, Dr. D. P. Anderson showed a rare specimen of **carcinoma of the esophagus** which had eroded the subclavian vein, the patient dying from hemorrhage. There was the usual history of obstruction to the passage of food, and great emaciation. There was no involvement of the laryngeal nerves.

Dr. G. E. Armstrong showed two patients, one presenting **osteosarcoma of the skull** and the other **sarcoma of the upper jaw.** The first was a boy, about 19 years of age, who struck his head upon an iron bar about a year before. A large hematoma was produced, and, according to the boy's story, this had never subsided. The tumor formed a large mass on the left upper portion of the frontal bone. The suture between the frontal bone and the left temporal was opened and the artery on that side greatly enlarged. Aspiration had failed to withdraw any fluid, but the needle struck bone. The tumor was regarded as growing from the middle layer of the frontal bone, the brain being uninvolved. The sarcoma of the jaw had followed upon the extraction of some teeth; there was distinct glandular enlargement on the left side at the angle of the jaw. Microscopically the growth was spindle-celled sarcoma.

At the next meeting there is to be a discussion on the etiology of typhoid fever, taking the subject up from the point of view of pathology and treatment.

Lister Laboratory Club.—At a meeting held January 16, Dr. A. Bruere read a paper on the **germicidal power of crenasol.** This is a disinfectant composed of a number of coal-tar products as paracresol and metacresol with pyridin-compounds. Its exact composition is not known. Dr. Bruere has found that in the strength of 1 to 100 this substance has the power of killing most pathogenic bacteria in from 12 to 20 minutes. It was said to be non-toxic, but Dr. Bruere did not feel sure of this, as the injection of 5 grams into a dog produced death by lowering of the blood-pressure and respiratory failure exactly as many other coal-tar combinations. The substance coagulated albumin, but it apparently did not irritate the skin. Some disadvantages are its price and the fact that freezing impairs its powers.

Dr. J. A. Springle showed a **curious deformity in an infant,** consisting in the presence of only four toes on each foot, with a distinct tendency to syndactylism. The humeri were particularly long, while the ulnas and radii were represented in each upper limb by one short bone. The hands had only three digits and resembled feet. The wrists were articulated in such a way as to give a seal-like appearance to the upper limbs. Dr. Springle had been unable to find record of any similar case.

Dr. A. G. Nicholls showed an **aneurysm of the ascending aorta** in a man of 56 who was a confirmed alcoholic and gave a history of probable syphilis. General arteriosclerosis was present with aortic regurgitation. The left ventricle was hypertrophied and dilated. It was interesting that a presystolic thrill was felt at the apex, and a presystolic and a systolic murmur were heard in the same situation, although no mitral stenosis was present, but merely relative dilatation. The murmur was probably that described by Flint. The radial pulses were equal and there was no pressure on the laryngeal nerves.

MISCELLANY.

Hospital-ship for Manila.—At the instance of Surgeon-General Sternberg, Secretary Alger, on January 20, ordered the hospital-ship *Relief*, which was then at New York, to Manila. Upon arrival at that port it will serve as a means for conveying sick soldiers from Manila to Nagasaki or even to San Francisco.

Disease in Dawson City.—It is stated that the 6 hospitals are full and that the number of sick is increasing. Commissioner Ogilvie recently called a meeting to decide on ways and means for relieving the situation, and a memorial asking for aid will be sent to Washington. It is estimated that $9,000 a month will be required to pay for the treatment of indigent patients. The death-rate this winter has been almost as great as in the summer.

"A Little Learning."—In answer to an advertisment for a workman in an optician's workshop one of the candidates wrote:

> I am well posted on the properties of light and the theory of its propagation. Understand thoroughly the structure of lens and the laws governing their foci. My knowledge of lens and their applicability to the deceased eye led me to study the anatomy of the above-named organ. My age is 22 and can furnish best reference.

Health Reports.—The following cases of smallpox and yellow fever have been reported to the Supervising Surgeon-General of the U. S. Marine-Hospital Service, during the week ended January 14, 1899:

SMALLPOX—UNITED STATES.

			CASES.	DEATHS.
ALABAMA:	Catherine	Jan. 6	Reported present.	
"	Collerine		1	
"	Mobile	Jan. 3-6	2	
ILLINOIS:	Bethel	Jan. 7	2	
"	Media	Jan. 7	1	
NEBRASKA:	Nebraska City	Dec. 12	3	
"	" "	Jan. 7	3	

SMALLPOX—FOREIGN.

			CASES.	DEATHS.
BELGIUM:	Antwerp	Dec. 3-26	19	6
BRAZIL:	Rio de Janeiro	Nov. 26-Dec. 2	8	6
ENGLAND:	London	Dec. 17-24		1
MEXICO:	Monterey	Dec. 28		1
RUSSIA:	St. Petersburg	Dec. 3-10	3	

YELLOW FEVER.

			CASES.	DEATHS.
MEXICO:	Monterey	Dec. 30-Jan. 5		3

Obituary.—Dr. John B. Read, Tuscaloosa, Ala., January 20, aged 80 years.—Dr. Oscar G. Mix, of Charlottesville, Va., at Covesville, Md., January 15, aged 76 years.—Dr. Charles T. Hedges, Martinsville, W. Va., aged 75 years.—Dr. John J. Dirt, New Orleans, La., January 9, aged 45 years.—Dr.

Robert S. McCombs, Philadelphia, January 17, aged 50 years.—Dr. Thomas Wilson Shaw, Pittsburg Pa., January 18, aged 72 years.—Dr. Newton G. Tucker, professor of the theory and practice of medicine, Meharry Medical College, Nashville, Tenn., January 8.—Dr. John Teare, Chicago, January 9.—Dr. Clinton L. Armstrong, Cincinnati, Ohio, January 5.—Dr. H. deV. Pratt, Elmira, N. Y., January 12, aged 42 years.—Dr. A. C. Hartman, St. Louis, Mo., January 10, aged 60 years.—Dr J. C. McPherson, Brunswick, Mo., January 4, aged 42 years.—Dr. M. D. Hoge, Richmond, Va., January 6, aged 81 years.—Dr. John T. Carpenter, Pottsville, Pa., January 23, aged 68 years.—Dr. Orlando E. Bradley, New York, January 21, aged 50 years.—Dr. William Wood, Portland, Me., January 23, aged 89 years.

Official List of Changes of Station and Duties of Officers Serving in the Medical Department of the U. S. Army.

Leave for one month on surgeon's certificate, with permission to return to the United States, is granted Acting Asst. Surgeon R. Fleming Jones. Dec. 15.

Acting Asst. Surgeon Edward Parrish will proceed to his home in New York City, his contract having been annulled to date Dec. 20.

Major Peter R. Egan, brigade-surgeon, will make a thorough inspection of the hospitals and medical personnel of the district of Ponce, P. R.

Acting Asst. Surgeon C. M. Spalding, is relieved from duty in the General Hospital at Ponce, P. R., and will report at Bayamon, P. R., for duty.

Major R. G. Egbert, surgeon, is detailed as a member of the board of medical officers at Vancouver Barracks, in place of Lieutenant-Colonel William D. Wolverton, D. S. G., retired.

Acting Asst. Surgeons Charles S. Stern and Edward A. Southall are assigned to duty at the General Hospital, San Juan, P. R.

Acting Asst. Surgeon L. P. McCalla, now at Boise City awaiting orders, will report at Boise Barracks for duty.

Acting Asst. Surgeon Joseph G. Wilson, now on duty with Light Battery C., Seventh Artillery, will accompany that battery on its march from Ponce to Santurce, P. R.

Major Rafael Echeverria, brigade-surgeon, is relieved from further duty with the Fourth Army-Corps, and will proceed to Havana, Cuba, for assignment to duty.

Major Nathan S. Jarvis, brigade-surgeon, is detailed as a member of the examining board at the Army building, vice Major Daniel M. Appel, surgeon, relieved.

Acting Asst. Surgeon Percy M. Ashburn is relieved from further duty at Fort Thomas and will proceed to Fort Sheridan and report to the commanding officer Fourth Infantry for duty, and to accompany that regiment to Manila, P. I.

Acting Asst. Surgeon John C. Haskell is relieved from duty at Fort Bliss and will proceed to Fort McPherson for duty at the U. S. General Hospital.

Acting Asst. Surgeon James H. Holloway, now in New York City, will proceed to Brooklyn, N. Y., and report on "Massachusetts" for duty.

Acting Asst. Surgeon W. H. Block, now stationed at San Luis, Cuba, is ordered to appear Dec. 30, at the U. S. A. General Hospital before the board of medical officers.

Acting Asst. Surgeon F. R. Maura, now stationed at Guantanamo, Cuba, is ordered to appear Dec. 30 at the U. S. A. General Hospital before the board of medical officers.

Acting Asst. Surgeon W. H. Reynolds is relieved from further duty in the Department of Santiago and will proceed to Savannah, Ga., for duty at the U. S. General Hospital.

Major John G. Davis, brigade-surgeon, is relieved from duty with the Seventh Army-Corps, and will report to the commanding general, Department of Havana, for assignment to duty.

Captain George D. DeShon, A. S., Acting Asst. Surgeon, Percy M. Ashburn, Hospital-Steward Charles J. Wahlquist will accompany the Fourth Infantry to the Philippines. Acting Asst. Surgeon Louis T. Hess will accompany a battalion of the Seventeenth Infantry to the Philippines.

Major Aaron H. Appel, surgeon, is detailed as a member of the examining board convened at the Army Building, New York City, vice Major Daniel M. Appel, surgeon, relieved.

Leave granted First Lieutenant Leigh A. Fuller, A. S., is changed to leave on account of sickness, from Jan. 1, and extended to include Jan. 15, on account of sickness.

Acting Asst. Surgeon Alexander C. Ghiselin is relieved from duty at Fort Myer and will proceed to Fort Sheridan and report to the commanding officer, Fourth Infantry for duty, and to accompany that regiment to Manila, P. I.

The following assignments of officers recently appointed are made and they will proceed from the places hereinafter designated to San Juan, P. I., and report to the commanding general, Department of Porto Rico for duty: First Lieutenant Walter Cox, A. S., Washington, D. C., First Lieutenant Frederick F. Russell, A. S., Brooklyn, N. Y.

Acting Asst. Surgeon Samuel T. Weirick will proceed from Kansas City, Mo., to Fort Reno, O. T., for duty. Jan. 10.

Leave granted Captain Henry A. Shaw, A. S., is extended 23 days. Jan. 11.

Acting Asst. Surgeon Arthur B. Smith is relieved from further duty at Fort Snelling, and will report to the commanding officer Third Infantry for duty, to accompany that regiment to Manila.

Hospital-Steward Herman Harbers, now on duty at the attending surgeon's office, Washington, D. C., will be sent to Savannah, Ga., for duty in the U. S. General Hospital,

Hospital-Steward William E. Heywood, now at Fort McHenry, is transferred to Fort Snelling for duty with the Third Infantry.

Hospital-Steward Oscar F. Temple, Fort Riley, will be sent to Fort Robinson for duty.

Acting Asst. Surgeon W. Edson Apple is relieved from further duty with the Fifth Infantry and assigned to duty with the detachment of the Ninth U. S. Volunteer Infantry at Cobre, Cuba.

Leave for 25 days, on account of sickness, is granted Acting Asst. Surgeon F. R. Maura, with permission to return to the United States. Jan. 3.

Acting Asst. Surgeon S. J. Fraser is assigned to duty as transport-surgeon on the U. S. transport "Scandia."

Leave for one month on surgeon's certificate is granted Major John J. Archinard, brigade-surgeon, with permission to leave the limits of the Division of Cuba. Jan. 9.

The hospital heretofore known as Alfonso XIII is designated as military hospital No. 1, at Havana, Cuba, and Major W. C. Gorgas, brigade-surgeon, is assigned to its command.

Major Richard W. Johnson, brigade-surgeon, captain and A. S., is honorably discharged from the volunteer army, to take effect Jan. 11.

First Lieutenant Williard F. Truby, A. S., recently appointed, now at Otto, N. Y., will proceed to San Juan, P. R., for assignment to duty.

First Lieutenant Richard B. Westnedge, A. S., is relieved from further duty at the Josiah Simpson General Hospital, Fort Monroe, and will proceed to New York City and report to the commanding officer, Third Infantry, to accompany that regiment to the Philippine Islands.

Acting Asst. Surgeon Baen Street will report to the commanding officer, Seventh Cavalry, for duty, and to accompany the first detachment of that regiment to Cuba.

Major George R. Fowler, chief surgeon, is honorably discharged, to take effect Feb. 1.

Major Wm. C. Gorgas, surgeon, will report to Major-General William Ludlow, commanding department of Havana, for assignment to duty as chief surgeon of that department.

Acting Asst. Surgeon Charles H. Andrews is relieved from further duty at Huntsville, Ala., and will proceed to San Francisco, Cal., to accompany troops on the first transport sailing for Manila, P. I., where he will report for assignment to duty.

Acting Asst. Surgeon Bruce Ffoulkes is assigned to duty in connection with the quarantine office, health-department, Manila, P. I.

Hospital Steward Frank Klar will report for duty to the surgeon in charge of the district-hospital, Cavite, P. I.

The following transfers and assignments of officers in the Philippine Islands are announced: Major E. R. Morris, brigade-surgeon, to the district of Cavite, as district-surgeon and surgeon-in-charge of the district hospital. Acting Asst. Surgeon Ira B. Ladd will report to the commanding officer, Twenty-third Infantry, for duty with that regiment, relieving Acting Asst. Surgeon F. H. Titus. Acting Asst. Surgeon F. H. Titus will report for duty at the district-hospital, Cavite. Acting Asst. Surgeon W. O. Taylor will report for duty with the California Volunteer Heavy Artillery. Acting Asst. Surgeons C. J. Bartlett and S. O. Beasley will report at the second reserve-hospital, Malate, for duty. First Lieutenant Henry Page, A. S., and Acting Asst. Surgeon E. K. Johnstone will report at the convalescent-hospital, Corregidor Island, for duty. Acting Asst. Surgeon Z. T. Malaby will report for duty with the Twenty-third Infantry.

Acting Asst. Surgeon C. F. de May will report for duty with the Eighteenth Infantry.

Leave for 10 days is granted Acting Asst. Surgeon E. S. Grigsby; upon the expiration of his leave, he will proceed to Washington, D. C., for orders. Jan. 16.

Acting Asst. Surgeon Stephen M. Long will proceed from Baltimore, Md., to New York City, to accompany the first transport sailing for Manila.

Hospital Steward Harry T. Brown, and eight privates from the Hospital Corps, will proceed to Fort Columbus, en route to Cuba.

Leave for 10 days granted Major Henry H. Lee, brigade-surgeon, is extended 20 days. Jan. 17.

Acting Asst. Surgeon Louis W. Bishop will report on board the U. S. transport "Grant," at New York City, for duty, to accompany that command to Manila, P. I., for assignment to duty.

Extension of leave on account of sickness granted Acting Asst. Surgeon Henry P. de Forest is further extended to include Jan. 31, on account of sickness.

Major Edward O. Shakespeare, brigade-surgeon, will proceed to Philadelphia, Pa., on business pertaining to the inspection of certain apparatus for the sterilization of water, submitted by the Waterhouse Forbes Company.

Acting Asst. Surgeon Jose M. Delgada is relieved from further duty at Fort Riley and will proceed to Havana, Cuba, for assignment to duty.

Acting Asst. Surgeon F. Medina Ferrer is relieved from further duty at Pinar del Rio, and will proceed to Havana, Cuba, for assignment to day.

Acting Asst. Surgeon Arlington Pond is relieved from duty at the U. S. General Hospital, Fort Myer, Va., and will proceed to New York City to accompany the first transport sailing for Manila, P. I., and, on arrival at Manila, will report for assignment to duty.

Official List of Changes of Station and Duties of Officers Serving in the Medical Department of the U. S. Navy.

Surgeon I. W. Kite, surgeon, relative rank of lieutenant from Sept. 2, 1898.

Asst. Surgeon E. J. Grow, detached from the "Amphitrite" and ordered to the "Massachusetts."

Asst. Surgeon E. Thompson, detached from the "Massachusetts" and ordered to the Asiatic Station, via the "Solace."

Asst. Surgeon C. D. Langhorne, detached from the Naval Academy and ordered to the Asiatic Station via the "Solace."

Asst. Surgeon W. H. Bell, detached from the Washington Navy Yard and ordered to the naval hospital, Washington, D. C.

Asst. Surgeon R. C. Holcomb. detached from the naval hospital, New York, and ordered to the Naval Academy.

Asst. Surgeon F. L. Benton, detached from the naval hospital, Washington, D. C., and ordered to the Asiatic Station, via the "Solace."

Asst. Surgeon C. H. DeLancy, detached from the "Wabash" and ordered to the "Amphitrite."

Medical Inspector R. C. Persons, detached from the naval laboratory and department of instruction, Brooklyn, N. Y., and ordered to assume charge of the naval hospital, Cavite, P. I., via the "Solace."

Surgeon T. H. Streets, detached from the "Solace" and ordered to duty as a member of the medical board of examiners, naval laboratory and department of instruction, Brooklyn, N. Y.

Surgeon W. H. Rush, detached from the "Richmond" and ordered to the "Solace."

Surgeon L. W. Curtis, detached from the "Montgomery" and ordered home to wait orders.

Passed Asst. Surgeon A. M. D. McCormick, ordered to the "Montgomery."

Surgeon C. T. Hibbett, detached from the "Independence" and ordered home to await orders.

Surgeon J. M. Steele, detached from the "Monadnock" and ordered home to await orders.

Passed Asst. Surgeon A. R. Wentworth, detached from the naval hospital, New York, and ordered to the "Independence."

Passed Asst. Surgeon C. J. Decker, detached from the "Monocacy" and ordered to the "Monadnock."

Passed Asst. Surgeon J. Stoughton, detached from duty at the Cavite naval station, and ordered to the "Monocacy."

Passed Asst. Surgeon C. F. Stokes, ordered to additional duty at the naval hospital, New York.

Assistant Surgeon H. C. Curl, detached from the Puget Sound naval station and ordered to the Asiatic Station by steamer of February 2.

Asst. Surgeon C. R. Burr, detached from the "Nero" and ordered to the Puget Sound naval station.

Surgeon J. E. Gardner, detached from the "Dolphin" and ordered to the marine recruiting rendezvous, Boston, Mass.

Passed Asst. Surgeon J. F. Urie, detached from the marine recruiting rendezvous, Boston, Mass., and ordered to the "Dolphin."

Surgeon J. C. Byrnes, ordered to additional duty on board the "Puritan."

Asst. Surgeon W. M. Garton, detached from the "Supply," when put out of commission, and ordered to the Washington Navy Yard.

Asst. Surgeon E, M. Blackwell, detached from the "Vixen" and ordered to the "Franklin."

Passed Asst. Surgeon E. P. Stone, passed assistant surgeon, relative rank of lieutenant, from October 6.

Passed Asst. Surgeon T. B. Berryhill, passed assistant surgeon, relative rank of lieutenant, from October 6.

Surgeon S. H. Griffith, detached from the "Mayflower," when put out of commission, and ordered home to wait orders.

Passed Asst. Surgeon G. H. Barber, detached from the "Glacier," when put out of commission, and ordered to the Naval Academy.

Passed Asst. Surgeon C. F. Stokes, ordered to the Naval Hospital, New York.

Asst. Surgeon R. C. Holcombe, detached from the Naval Academy and ordered to the Washington Navy Yard.

Official List of Changes of Station and Duties of Commissioned and Non-Commissioned Officers of the U. S. Marine-Hospital Service for the 7 Days Ended January 12, 1899.

Surgeon C. E. Banks detailed to attend meetings of the National Pure Food and Drug Congress at Washington, D. C., Jan. 18 to 21, 1899. Jan. 10, 1899.

Passed Asst. Surgeon J. J. Kinyoun detailed to attend meetings of the National Pure Food and Drug Congress at Washington, D. C., Jan. 18 to 21, 1899. Jan. 10, 1899.

Passed Asst. Surgeon W. G. Stimpson granted leave of absence for two days. Jan 12, 1899.

Asst. Surgeon A. R. Thomas upon being relieved from duty on U. S. transport "Obdam" to proceed to Stapleton, Staten Island, N. Y., for duty and assignment to quarters. Jan. 6, 1899.

Asst. Surgeon J. B. Green detached from duty on U. S. Revenue Steamer "McCulloch" and directed to report to medical officer in command, San Francisco Quarantine, Angel Island, Cal., for temporary duty. Jan. 12, 1899.

Asst. Surgeon S. B. Grubbs to report at Washington, D. C., for special temporary duty. Jan. 12, 1899.

Sanitary Inspector J. C. Rodman granted leave of absence for 30 days from Jan. 12, 1899. Jan. 12, 1899.

Hospital-Steward E. S. McGuire granted leave of absence for 30 days from February 4, 1899. Jan. 12, 1899.

Hospital-Steward F. S. Goodman relieved from duty at the Cape Charles Quarantine Station and directed to proceed to Philadelphia, Pa., and report to Surgeon H. W. Austin for duty and assignment to quarters on the barge "Protector" en route to Havana, Cuba. Jan. 6, 1899.

Hospital-Steward C. G. Carlton to proceed to Chicago, Ill., and report to the medical officer in command of the service for duty and assignment to quarters. Jan. 6, 1899.

Hospital-Steward Frank A. Southard to proceed to Stapleton, Staten Island, N. Y., and report to the medical officer in command of the service for duty and assignment to quarters. Jan. 7, 1899.

Hospital-Steward John Purifay, Jr. to proceed to New Orleans, La., and report to the medical officer in command of the service for duty and assignment to quarters. Jan. 7, 1899.

Ended January 19, 1899.

Passed Asst. Surgeon C. P. Wertenbaker, to proceed to Clinton, Ga., for special temporary duty. Jan. 13, 1899.

Passed Asst. Surgeon C. H. Gardner, to report at Bureau for special temporary duty. Jan. 14, 1899.

BOARD CONVENED.

Board convened to meet at the U. S. Marine-Hospital, at Chicago, Ill., on Tuesday, February 14, 1899, at 10 o'clock A.M., for the examination of candidates for appointment as assistant surgeon in the Service. Detail for Board:

Surgeon Henry W. Sawtelle, Chairman.
Surgeon Charles E. Banks.
Passed Asst. Surgeon J. O. Cobb, Recorder.

APPOINTMENTS.

George A. Gregory, of Maine, to be acting assistant surgeon at Boothbay Harbor, Me. Jan. 14, 1899.

Foreign News and Notes.

GREAT BRITAIN.

University College, Dundee.—Dr. C. R. Marshall, for some years assistant professor of medicine at the University of Cambridge, has been appointed professor of materia medica in University College, Dundee.

Surgeon-General Sir James Mouat, whose death is announced at Kensington, England, at the ripe age of 83, was a prominent member of the army medical department. He served through the Crimean War and emerged from that terrible ordeal unhurt, covered with medals, a Knight of the French Legion of Honor, and also the possessor of the coveted Victoria Cross for conspicuous gallantry in the field.

Great Britain and Quarantine.—We have already noticed in the Journal the curious and arbitrary action of Sir Arthur Hardinge, the Administrator of British East Africa, who, in defiance of the conclusions of the Venice Convention, refused to allow a plague-infected ship to disembark its crew at Kilindini near Mombasa. We are glad to learn that Sir Arthur Hardinge's order has been cancelled. It could only have been given upon the excuse—which is no excuse—that Kilindini was not in a proper state of preparedness to deal with infectious diseases, and that no other neighboring port was in a better plight. But this very unpreparedness is a breach of the Venice Convention, which laid down the principle that every country accepting the convention—as of course Great Britain did for herself and her colonies—should maintain a port where provision could be made to carry out the terms of the convention.

Mr. Haggard and "Doctor Therne."—At a meeting of the Executive Committee of the Jenner Society held in Gloucester on December, 22, 1898, the following resolution was, according to the *Lancet*, passed unanimously:

> "The members of the Executive Committee of the Jenner Society desire to express their appreciation of the recognition of the work of the society by Mr. Rider Haggard in the dedication to its members of his powerful story, 'Doctor Therne.' They also desire to assure Mr. Rider Haggard of their warm sympathy with his just and vigorous protest against the dangerous agitation carried on against vaccination by which many thousands of persons have been misled and have been induced to deprive their children of the only certain protection against a virulent and fatal disease. The committee congratulate Mr. Haggard upon his uncompromising exposure of this evil and trust his book may have a large circulation, as being calculated to lead a considerable section of the public, who cannot be otherwise interested in the subject, to give serious consideration to a matter of urgent and overwhelming importance, affecting, as it does, the health and lives of multitudes of hapless children who may be exposed to the infection of smallpox without the protection afforded by vaccination."

Crime and Punishment.—The recent trial of a man named Wark at Liverpool for procuring criminal abortion on his paramour, who died of injuries received in the operation, resulted in a verdict of "murder" and a sentence of death. Wark's sentence has now been commuted to one of penal servitude for three years. This makes the third case of the sort that has occurred in England in the last few months and the sentences form a curious commentary on the law. One man, Dr. Collins, was convicted of "manslaughter" and sentenced to 7 years' penal servitude; another, Dr. Whitmarsh, was convicted of "murder" and sentenced to death, the sentence being commuted for one of 12 years' penal servitude; the third case we have just detailed. No lawyer, so far as we have seen, and all the English medical and legal papers have teemed with commentary, has been able to suggest a reason for these discordant sentences; but every one is agreed that to pass death-sentences knowing that they will not be carried out is an undignified and inhumane proceeding.

Fellows of the Spectacle-Makers' Society and Sham Diplomas.—According to the *Medical Press and Circular*, the manufacture of Fellows (save the mark) of the Spectacle-Makers' Society goes on swimmingly. It is announced that there are now 200 craftsmen as members of the Guild, besides 30 liverymen. It appears also that a Yorkshire chemist, who, it would seem, is indisposed to submit himself to the excruciating ordeal of the examination for "Fellowship" of the Spectacle-Vendors' Company, has improved upon the diploma granted by that august body. He announces himself as a "Doctor of Refraction" (Ref. Doc.) duly examined and graduated (*in absentiâ*) by the Philadelphia Optical College. This trustworthy institution says that he has "passed a most satisfactory examination in the theory and practice of refraction," and is, therefore, "entitled to the highest honors which the college can bestow," which is not saying much. But we await with interest some indication of the nature of the evolution described as "the practice of refraction."

Coleothrix methystes, from κολεός (a sheath) and μεθυστής (a drunkard), is the name given to a form of bacterium that has been found in faulty rum by Mr. V. H. Veley, M.A., F.R.S., of Oxford University, and his wife. According to the *Lancet*, which quotes from a book by Mr. and Mrs. Veley entitled, "The Microorganism of Faulty Rum," the micrococcus that has been isolated and identified as the cause of "faultiness" is a most interesting organism. It does not, however, appear to be pathogenic or toxic according to the results of inoculating a guinea-pig. Its survival in spirit—that is, in a liquid that has hitherto been considered to be one of the best materials for preserving anatomic specimens—is remarkable. Strictly speaking, however, the organism does not flourish in alcohol, but "in its gelatinous envelop, thus living as it were in a state of siege in its own castle, through the walls of which it can obtain its necessary supplies of food in the form of sugar, while keeping out its enemy alcohol." No definite information has been obtained as to the original habitat of this peculiar microorganism.

British Court Appointments are coveted by medical men because to hold them is to stand approved as a prominent leader in British medicine, and not because they are of any great pecuniary value. There has just been a new distribution of these appointments owing to the deaths of Sir William Jenner and Sir Richard Quain. Sir Willian Jenner was physician in ordinary to the Queen and held the same position toward the Prince of Wales. In the former appointment he has been succeeded by Sir Richard Douglas Powell, and in the latter by Sir James Reid, who is also physician in ordinary and resident physician to the Queen. Sir Richard Quain was physician extraordinary to the Queen, and has been succeeded by Sir James Pollock, a consulting physician to the Brompton Hospital for Consumption and a prominent person in the counsels of the Royal College of Physicians of London. Sir Richard Douglas Powell's elevation to the post of physician in ordinary left a second vacancy for a physician extraordinary and this has been filled by Dr. Thomas Barlow, already physician to Her Majesty's household. Dr. Barton is physician to University College Hospital and the Children's Hospital, Great Ormond Street, and enjoys a wide reputation as a pediatrist.

A Case Under the English Lunacy Laws.—A case of some considerable interest both to medical men and the public has recently been heard at the Surrey Quarter Sessions at Kingston-on-Thames. Dr. Reichardt, a well-known medical man, had residing with him as a patient, but not as a lunatic, a lady named Stoeterfoht. This unfortunate person escaped the vigilance of her attendants and committed suicide. Whereupon the Crown indicted Dr. Reichardt for having received the deceased at his residence and for having detained her there upon payment as a lunatic, his house not being licensed as a lunatic asylum. The point of the indictment, of course, is that by receiving a lunatic upon unlicensed premises all the safeguards of the lunatic are avoided, for the commissioners only make their periodical inquiries into the mental condition and domestic environment of the inmates of the licensed asylums and public institutions. The Crown broke down in the prosecution of Dr. Reichardt, being unable to put forward any medical evidence that the deceased woman was a lunatic, while much testimony was forthcoming that Dr. Reichardt treated his charge in the best manner possible. The case was one of those "borderland" examples of lunacy, where there was evidently a weak intellect, but not apparently an unbalanced condition that could honestly be certified by medical men as madness. A verdict of "not guilty" has been received by Dr. Reichardt's friends with much relief.

A New English "Midwives' Bill."—The persons interested in obtaining for English midwives a system of registration and a legal position are indefatigable in their efforts. Several measures have been laid before Parliament and have met with no success, but a new bill has been prepared for reading in the session to commence in February, and the circumstances of its drafting give it particular interest to medical men. The majority of English general practitioners have objected to the registration of midwives as signifying the creation of an inferior order of specialists who would undersell the regular medical man obliged by law to know surgery and medicine as well as obstetrics. But the advocates of registration claim that their action, while not levelled against medical men, has for its one object the intelligent succor of poor women at the most trying time of their lives. Midwives, they say, have always existed and always will exist. Their registration will not increase them in numbers or popularize their employment; but it can be used to compel them, by proper tests, not to practise midwifery on the scientific equipment of Mrs. Gamp or Mrs. Prig. The new bill attempts to meet both views, and has been drafted after a conference between the supporters of the registration scheme and the General Medical Council representing, or trying to represent, the feelings of the English medical profession. It is now proposed only to license midwives annually and for practice locally and not to register them once and for all as though they had attained a professional status; the General Medical Council is to approve all the regulations as to the examination of licensed midwives and the definition of their duties; and the unlicensed practice of midwifery is to be made a penal offense. On the whole the bill should now be generally satisfactory to medical men, as it will be to the General Medical Council; but it must always be remembered that the views of the General Medical Council and those of the rank and file of the English profession do not necessarily coincide.

CONTINENTAL EUROPE.

University of Marburg.—Dr. Eberhard Nebelhaut has been appointed extraordinary professor.

University of Giessen.—Drs. Stricker and Walthier have been appointed extraordinary professors.

University of Munich.—Dr. J. N. Oeller has been appointed extraordinary professor of ophthalmology.

The Sixth Congress of German Laryngologists and Rhinologists will be held at Heidelberg during May, 1899.

The number of physicians in the German Empire has increased from 24,393, in September, 1897, to 25,178, in September, 1898.

A monument to the memory of Jean Hameau is projected by the physicians and public-spirited citizens of Bordeaux, France.

University of Vienna.—Professor von Wettstein, of Prague, has been appointed professor of botany in succession to the late Professor Kerner von Marilaun.

Dr. Wolff, director of the clinic for genito-urinary and skin diseases at the University of Strassburg, has been elected an honorary member of the Vienna Dermatologic Society.

The Kaiser Franz Josef Jubilee Hospital for Children.—The sum of $400,000 has been set aside by the City Council of Vienna, for the erection of a hospital for the treatment of the infectious diseases of children, as a jubilee-offering to Emperor Franz Josef of Austria.

University of Rostock.—Professor Kobert, of Görbersdorf, formerly of Dorpat, has been appointed professor of pharmacology and director of the pharmacologic and physiologic-chemic institute.

Departmental Bacteriologic Laboratories in France.—At a recent meeting of the French Chamber of Deputies, a bill was introduced providing for the establishment in each of the departments of France of one or more bacteriologic laboratories. It is hoped that the institution of the laboratories will eventually lead to the repression or prevention of communicable diseases, particularly tuberculosis.

Demise of French Medical Journals.—The *British Medical Journal* quotes *Le Scalpel* for the statement that there has just been a considerable mortality amongst French medical journals, *La Revue des Sciences Médicales de Hayem*, *Le Journal des Connaissances Médicales* (which has existed for 56 years, and has of late been edited by Professor Cornil and Dr. Galippe), and *Le Journal des Maladies Nerveuses* of Paris having ceased to appear.

Women Not Given Membership in the Berlin Medical Society.—At the recent annual meeting it was announced by Professor Virchow that the committee, basing its action on the statutes of the Society which declare that no one not a doctor promotus may be received a member, had decided not to admit women as members. Professor Virchow was re-elected president for the present year, and Professors von Bergmann, Senator, and Abraham, vice-presidents.

The abuse of maternity-charities seems to be excessive in Paris, as three-fifths of all the births are paid for by the Assistance Publique. The Assistance Publique exercises supervision not only over its own registered midwives, but also over those attached to the various charitable organizations who attend lying-in women at their own homes, because they either do not wish, or are unable, to go to the hospitals. In 1877, somewhat over 10,000 cases were attended by the Assistance Publique, while in 1896, the figures had increased to 31,987. The numbers have grown rapidly, particularly the hospital-cases, of which there were 14,096. As the total number of births occurring in Paris yearly is from 50,000 to 55,000, it is evident that three-fifths are under the supervision of the Assistance Publique.

The Incineration of Garbage in Hamburg.—According to *Tribune médicale*, as quoted by the *New York Medical Journal*, Meyer described at a recent meeting of the German Society of Public Hygiene, the system employed in Hamburg for the cremation of garbage. It applies to the central part of the city, occupied by about half the population. The works consist of 36 Horsfall furnaces. The material to be burned is delivered in sealed metallic receptacles. Combustion is promoted by forcing warm, dry air into the furnaces. This is found to be superior to the English practice of employing steam. Except for kindling purposes, no adventitious fuel is required; the combustion is complete. The heat generated is turned to account in operating dynamo electric machines for illuminating and other purposes.

Removal of the Spleen.—At a recent meeting of the Société de Chirurgie de Paris, Dentu presented a patient from whom he had removed the spleen for traumatic rupture. The man was brought to the hospital much shocked, having been forcibly struck in the abdomen by the shaft of a car. Celiotomy was performed, with the idea that the patient was suffering from a rupture of the intestine. This was, however, not found, but, on the other hand, the abdomen was discovered to contain a quantity of fluid blood, which was detected to have come from a rupture of the spleen, about 8 cm. in length. As it was impossible to ligate the rent, it was decided to remove the organ, and this was accordingly done. The patient recovered promptly, and was in excellent health at the time of the presentation.

The Italian Society "Pro Infantia."—Encouraged by the success of the 6 lectures on Infant-Hygiene, held on its initiative in Rome in April, May, and June, 1898, and specially directed to instruct female teachers, the Roman Committee of the National Society, according to the *British Medical Journal*, has arranged for a new series of 12 lectures with the same scope. The lectures will be held at the Institute of Hygiene during the first 6 months of 1899. The following are the subjects of the lectures: (1) Introductory Remarks, by Professor Celli; The Factors of Physical Development, by Dr. Pagliani. (2) Nutrition, by Professor Concetti. (3) Dress, by Professor Marzoni. (4) Muscular Exercise, by Professor T. Gualdi and Dr. Villa. (5) Gymnastics, Games, by Dr. Ballerini. (6) Manual Labor, by Dr. Baldini. (7) Hygiene of the Voice, by Professor Geronzi. (8) Water, by Dr. Prochet. (9) Summer-Colonies, by Dr. Mariotti. (10) Educators and Inquirers, by Dr. Minossi. (11) Hygiene of the Nervous System in Infants, by Dr. Moglie. (12) Perfectibility of Infancy, by Dr. A. Gonfalo.

Prizes of the Académie de Médecine de Paris.—The Audiffred Prize, amounting to about $5,000, to be awarded to any one who shall discover a means of curing or preventing tuberculosis, was not awarded. By way of encouragement, $400 was awarded to Dr. Auclair, of Paris, who has made interesting researches on the substances extracted from the tubercle-bacillus, and has shown that the fatty matters contained in excess in the bacillus are necrosing agents and doubtless play a part in the resistance of the bacilli to phagocytosis. For similar reasons, $100 was given Drs. Auché and Hobbs, of Bordeaux. The Laborie Prize, amounting to $1,000, for the best work in surgery, was divided between Drs. Poncet and Berard, of Lyons, authors of a Traité Clinique de l'Actinomycose, and Dr. Kirmisson, author of a Traité des Maladies Chirurgicales d'Origine Congénitale. $200 of the Chevillon Prize, amounting to $300, for the best work on the treatment of carcinoma, was given to Drs. A. Guinard and Livet, who have employed sodium carbonate as a local application with considerable success so far as the relief of pain, the arrest of hemorrhage, and the prevention of fetor are concerned. The Buisson Prize, amounting to $2,000, for methods of curing disease regarded as incurable, is not awarded; there were three competitors: Dr. Frenkel, who propounded a method of training whereby ataxic patients may be drilled into the recovery of muscular coordination; Dr. Jayle, who has made a series of investigations as to the practical utility of ovarian extract in the treatment of nervous and circulatory disorders accompanying dysmenorrhea and the menopause, whether natural or artificial, and Dr. Petit, who presented a thesis on tuberculosis of the glands of the neck. The Academy did not see its way to award the prize, but gave $200 each to Dr. Frenkel and Dr. Jayle, and $100 to Dr. Petit by way of encouragement.

A New Method of Enumerating the Sudoriferous Glands.—According to the *Archives de Médecine Navale*, as quoted by the *Lancet*, Eijkmann has devised a new method of enumerating the sudoriferous glands: The spot selected for examination having been sedulously washed with soap and water, and still further cleansed by means of alcohol and ether, an alcoholic solution of fuchsin is poured over it and allowed to dry, the drying process being accelerated by fanning. A sheet of fine white paper is then closely applied and maintained in apposition by an evenly adjusted flannel bandage, great care being taken to avoid creases and folds. On removal after a few minutes the paper will be found thickly studded with red stains, each stain representing the aperture of a sudoriferous gland. The fuchsin has no effect on the parts that keep dry, but wherever the paper has been moistened by a drop of perspiration there will be a mark. A whole series of "proofs" can be "pulled" in this way without any need to renew the fuchsin. In determining the number of glands the system adopted for counting the red corpuscles of the blood may be employed. Eijkmann has examined the skin of the palm of the hand, the forehead, the sole of the foot, the forearm, the arm, the thigh, the back, the leg, and the anterior surface of the thorax in two Malays and three Europeans. On an average of the whole body he found 160 sweat-glands per sq. cm. of skin in the former, and 162 in the latter; but the distribution varied greatly according to situation, the palm of the hand and the brow being the parts that are most thickly studded. As far as the sudoriparous system is concerned there would, therefore, seem to be little or no difference between Caucasians and their more dusky brethren, but the number of subjects experimented upon is too small to admit of generalization, and, moreover, sweat-glands vary greatly not only in size but also as to the secretory capacity.

Report of the Austrian Plague-Commission.—The Imperial Academy of Sciences of Vienna recently issued a handsome quarto volume, consisting of two parts, being the report of the plague-Commission which the Austrian Government despatched to India in January, 1897, to study the plague. The Commission consisted of Dr. Müller, who recently died of the plague in Vienna, Dr. Heinrich Albrecht, Dr. Anton Ghon, and Dr. Rudolf Pöch. The first part of the report, according to a short abstract in the *Lancet*, consists of a broad general account of the scope and work of the Commission, and the second of a purely scientific discussion of the subject. The latter acquires a melancholy interest because of the fact of its having been written by the late Dr. Müller. The chief aim of the Commission was to study the disease from the standpoints of (*a*) etiology, (*b*) pathology, and (*c*) in its purely clinical aspect, the bacteriologic and pathologic investigations being chiefly conducted by Dr. Pöch, Dr. Ghon, and Dr. Albrecht. Dr. Müller's clinical observations on the pulse, respiration, and temperature are of the highest practical value. Dr. Müller very wisely confined his attention to carefully following the development and course of a few individual cases as closely as he could under the circumstances in preference to a superficial examination and hasty judgment on all that passed before his eyes. There is a specially interesting chapter on the Diagnosis of Plague Pneumonia in the Initial Stage. Barisch, the attendant who had charge of the animals in the pathologic laboratory of the Vienna Institute, contracted the disease and was at first thought to be suffering from "influenza," a fact that was soon clearly disproved by bacteriologic examination, Dr. Müller remarking at the time "that it was a very difficult point to differentiate between an existent pneumonia and the characteristic plague pneumonia." Dr. Müller's conclusions led him to believe (*a*) that the development of the bubo was one of the earliest symptoms of the disease, preceding the profound disturbance of the nervous system; (*b*) that the disease originates in an "infection" through the skin, remaining localized for a time; and (*c*) that the systemic or general infection develops from a local center or focus of origin. He was of opinion that the disease can be divided into main varieties, one affecting the lymphatic glands and the other the lungs. The work of the Commission was exceedingly thorough, as is shown by the fact that clinical and anatomic investigations were always conducted *pari passu*. Separate sections of the report treat of the effects of the bacillus on the nervous system, on the organs of digestion, on the kidneys and bladder, and on the blood, while others touch upon the influence of age, race, sex, and occupation, the period of incubation, the manner of infection, of prophylaxis, and of the whole question of natural immunity. One important conclusion was drawn by Dr. Müller—that is, that because the infection has remained localized or has become constitutional it is impossible to accurately determine the future course and prognosis of the disease, a bacteriologic examination being alone a decisive test. The volume closes with an appendix on the fatal illness of Dr. Müller, written by his colleague Dr. Rudolf Pöch.

MISCELLANY.

Obituary.—Dr. Constantine Vousakis, professor of physiology in the University of Athens.—Dr. Witold-Narkeiwicz-Jodko, formerly professor of ophthalmology at the University of Warsaw.—Dr. Haan, medical officer of the Havre Hospitals.—Dr. Manuel Tapia y Serrano, assistant professor in the medical faculty of the University of Madrid.—Dr. Oscar Buhleos, professor of clinical surgery in the University of Rio de Janeiro.—Dr. Martinez Pacheco, a member of the Spanish Senate.—Dr. Ernst Gurlt, the distinguished surgeon and author of the well-known work entitled "*Geschichte der Chirurgie*," in Berlin, January 9, aged 74 years.

Cesarean Section in the Philippines.—Dr. Lobti, of Biarritz, furnishes us with information about obstetrics in the Philippines, even more remarkable than the recent reports as to the strange social and political relations of the inhabitants of those islands. Owing to well-known religious prejudices, craniotomy is doubtless rarely, if ever, practised, but Cesarean section after the death of the mother is not rarely performed as a religious duty. In 1821, the year when a deadly epidemic of cholera ravaged the Philippines, 6 postmortem Cesarean sections were undertaken in Bohol alone. The parish-register contains a notification of the baptism of the children, 2 being reported as strong, and the remaining 4 likely to live. No serious comment need be made on this alleged saving of all the 6 infants who survived the algid stage of cholera and the death of the parent. In another village the same operation was undertaken in one case, and the child lived, it is said, 7 hours. Even more incredible is the case of a woman in Cabancalan, Isle of Negros, who died pregnant; her abdomen was opened 24 hours after death. The child, it is related, showed every sign of life. Six years later, at Mandana, a child is said to have been extracted 7 hours after the death of its mother. Not only was it reported as living, but it is said to be yet alive to witness the truth of the report. In the Isle of Negros a living female fetus was removed from the body of a woman who had been murdered 2 hours previously. Lastly comes an announcement—as long ago, we must observe, as December 12, 1854—in the *Official Bulletin* of Manilla: Cesarean section was performed on the body of a woman 5 months pregnant 5 hours after her death. The fetus lived for half an hour. Of the foregoing statements, reproduced in the *Journal d'Hygiène*, it may be confidently asserted that they include two facts mixed up with a mass of what we may gently term inaccuracies: first, that postmortem Cesarean section is often undertaken in the Philippines, no doubt more frequently than as here reported; and secondly, that there is an extreme prejudice in its favor which makes the natives eager and ready to believe that the aim of the proceeding is not missed.—[*British Medical Journal.*]

Seventh International Congress Against the Abuse of Alcoholic Liquors will be held in Paris from April 4 to 9, 1899.—The following preliminary program is announced for the morning sessions:

A. Medical Science and Hygiene: The Doctor and Alcohol, Dr. Mapain, Liege; Prejudice and Alcohol, Dr. Bienfait, Liege; Scientific Knowledge and Alcohol, Dr. Smith, Bordensea; Physiology and Alcohol, Pasteur Marthaler, Berne; Child-Life and Alcohol, Lady Henry Somerset; Mortality and Alcohol, Dr. Baer, Berlin; Muscular Effect and Alcohol, Dr. Laborde and Dr. Lapicsque, Paris; Exciting Action of Alcohol, Dr. Gilbaut, Toulouse; Medical Value of Alcohol, Dr. Kantorovicz, Hanover; Therapeutics of Alcohol, Dr. Drysdale, London; Public Institutions and Alcohol, Dr. Amery; Tuberculosis and Alcohol, Dr. Uhiron, Roumania; Inebriate Asylums, Dr. Forel, Zurich; Dr. Colla, Pomerania; Dr. Crothers, America, and Pasteur Marthaler, Berne; Non-Alcoholic Drinks, Dr. Jordy, Berne; Fruit-Diet and Alcohol, Dr. Kamp, Frankfort.

B. Political and Social Economy and Legislation: Longevity and Alcohol, Dr. Drysdale and Mr. White, U.K.A., England; Assurance and Alcohol, Dr. Jordy, Berne, and Mr. Bingham, London; Prohibition of Alcohol, Dr. Dawson Burns and Mr. Fielden Thorp; Women's Duty, Miss Grey; Inebriate Legislation, Dr. Norman Kerr; High License, M. Caudelier; Number of Drink-Shops, M. Caudelier; Local Option, Dr. LeGrain; Netherlands Legislation, M. Van don Meulen; Effect of Alcohol on Commerce, Dr. Brunon; Number of Victims of Alcohol, Pasteur Marthaler, Berne.

C. Teaching, Education, and Propagation: Bands of Hope, Hiss Hilda Dillon; Abstinence and Moderation, Dr. Alice Drysdale and Dr. de Colleville; The Bases of the British Movement. Mr. Robert Rae; Reform of Public Houses, Mr. W. Bode; Recreations, Dr. Daum, Vienna; Temperance-Establishments, Dr. LeGrain; Sailors' Home, M. Ruyssen, Rochelle; Catering, Mr. Clarke Wilson; Counter-Attractions against Alcohol, Rev. James Sylvester; Origin and Work of the National Temperance League, Mr. J. T. Rae; Good Templars, Mr. Councillor Malins; W. C. T. A., Miss Agnes Slack; Railway-Union, Mr. A. C. Tomson.

The afternoon meetings are to be open for educational, moral, and sociologic studies of the drink problem. The first day the various questions of the relation of alcohol-taking to the higher university training will be presented. The following are some the speakers: M. Brisson, professor at the Sorbonne; Dr. Brunon, director of the School of Medicine, Rouen; M. Ruyssen, professor at the Lycée, Rochelle; M. Gilbaut, professor at the Lycée, Toulouse.

The second afternoon the temperance-cause in the primary schools will be discussed by many of the leading educators of France, Germany, Switzerland, the Netherlands, and other places.

The third afternoon session will take up the subject of alcoholism among workmen in city and country.

The fourth session will study the influence of alcoholism on native races and the means of prevention.

The evenings will be open for the discussion of special topics by leaders and specialists. One will be devoted to the work of societies, the other to the influence of law and legislation, the other to woman's work, the other to the crime-phases of the question, and so on.

Short papers are earnestly solicited on any one phase of the subject from American workers in this field. All letters should be addressed to the American chairman of the organization, T. D. Crothers, M.D., Hartford, Conn.

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

January 7, 1899. [No. 1984.]

1. A Case of Unilateral (Hemiplegic) Spasm and Contracture Without Paralysis. T. Grainger Stewart.
2. On the Organization of Laboratories in Hospitals. Carl von Noorden.
3. On the Cause of So-called Phosphorus-necrosis of the Jaw in Match-workers. Ralph Stockman.
4. The Treatment of Tetanus by the Intracerebral Injection of Antitoxin, with Particulars of a Case Treated by this Method, followed by Recovery. D. Semple.
5. Thymus-Extract in Exophthalmic Goiter. Rushton Parker.
6. Experimental Note on the Ferments of the Ringworm Fungi. Leslie Roberts.
7. On Tonsillar Calculi. W. G. Aitchison Robertson.
8. Acute Suppurative Tonsillitis with Convulsions. Roger K. Hamilton.
9. Extracapsular Fracture of Femur in a Woman of 82 with Morbus Cordis: Recovery. Charles Corbin.
10. Strangulated Hernia in Pericardial Sac. Laurence F. McDowell.
11. Symptoms of Poisoning by Boracic Acid. Sophia Grumpelt.
12. Acute Tetanus Treated with Antitoxin: Death on the Fourth Day. Andrew Clark.
13. A Case of Hematuria from a Movable Kidney Cured by Nephrorrhaphy. Watson Cheyne.

3.—In discussing **the cause of so-called phosphorus-necrosis of the jaw in match-workers** Stockman calls attention to the fact that from existing knowledge of suppurative processes, it is inconceivable that phosphorus-fumes, which consist of phosphorous anhydrid chiefly with some phosphoric anhydrid, can cause a chronic purulent inflammation of bone such as occurs in the condition under consideration, which he believes to be due to microorganisms. With this idea as a guiding factor he made bacteriologic examinations of pus from 6 cases of phosphorus-necrosis of the jaw. In every case, in addition to the presence of staphylococcus albus, streptococci and numerous other organisms, none of which can reasonably be regarded as the cause of cario-necrosis, the bacillus tuberculosis was demonstrated on staining cover-glass preparations by the Ziehl-Neelsen method. These were few in number and did not infect guinea-pigs. They were consequently regarded either as being dead or as having lost their infective virulence. The cases examined were convalescent, which might account for the condition of the tubercle-bacillus. That this organism is quite capable of setting up and maintaining the local suppuration and irritation for an indefinite time is supported by many facts. Its presence can scarcely be regarded as fortuitous, as it was found in every case. As further proof of the tuberculous nature of phosphorus-necrosis are offered the facts that in most cases death occurs from tuberculosis of the lungs, the frequent existence of general tuberculosis, the almost invariable presence of tuberculosis of the abdominal glands and tuberculous ulcers of the intestine, and the occasional existence of tuberculous meningitis. The phosphorus acts by eroding the bone, weakening its resisting power and making it in consequence susceptible to tuberculous infection. It is a known fact that the disease frequently develops many months after patients have given up their work in match-factories. In one instance the condition occurred as late as 18 months after, a fact that supports the tuberculous origin of the disease. Rabbits in which suppuration and cario-necrosis of the jaws had been induced and that were afterward exposed to phosphorus-fumes have died and have been found to have tuberculosis of the lungs. In the treatment of cario-necrosis due to phosphorus early operative interference is called for in order to remove the original tuberculous focus at the root of the tooth. [s.m.h.]

4.—Semple reports a case of **tetanus treated by intracerebral injection of antitoxin.** The patient was a male, aged 22 years, who had suffered a mild contusion of the testicles caused by a bump from the pommel of a saddle. Two days later symptoms of tetanus developed. On the third day the man was put under chloroform and an intracerebral injection of $2\frac{1}{2}$ cu. cm. of doubly strong antitetanic serum was made into each frontal lobe; at the same time 20 cu. cm. of antitoxin were given hypodermically in the flank. The patient rested comfortably on the following night, but as his condition was apparently unchanged, the subcutaneous injection of 20 cu. cm. of antitoxin was repeated. From this point the improvement was gradual and eventually complete. [s.m.h.]

5.—Parker reports 4 cases of **exophthalmic goiter treated with thymus extract.** The first case was in a female, aged 28 years, who had had symptoms of the condition for a period of three years. During 6 months she swallowed 2,000 5-grain thymus-tabloids without any perceptible effect upon her symptoms. The second case occurred in a female, aged 35 years, who had had symptoms of goiter practically all of her life. During 18 months she swallowed 5,000 5-grain thymus-tabloids and ate scores of lightly cooked lambs' thymus glands. There was no reduction in the size of the goiter, although the tumor was less tense. Looseness of the bowels ceased, palpitation lessened, sensation of heat and burning in the head ceased, also tremors and cramps, and the pulse slowed from 120 to 90. The patient could bear exertion much better than formerly and felt herself greatly improved. In this case some spontaneous improvement had set in 5 years prior to the treatment. The third case occurred in a female, aged 45 years, who had had symptoms of goiter for about a year. She was treated for 3 months with digitalis and quinin, and during this time she improved greatly. During the 3 following months she swallowed 400 5-grain thymus-tabloids and ate numerous lightly cooked lambs' thymus glands, and, though the pulse persisted between 160 and 180, she felt stronger and better and seemed to improve in other respects. This improvement continued during the 3 months following, when medicinal treatment was practically abandoned. During the next 3 or 4 months, in one of which thymus was administered, the patient continued to look and feel perfectly well, but her pulse persisted in the neighborhood of 140. The fourth case occurred in a woman, aged 47 years. Thyroid extract administered in this case produced unpleasant effects, and thymus gland was without effect during its administration. At the end of $1\frac{3}{4}$ years, however, the patient was found perfectly free from all discoverable symptoms, except for a pulse of 96 and a slightly enlarged thyroid. She attributed her improved condition to the thymus tabloids. [s.m.h.]

6.—Roberts made some observations on the **proteolytic ferment of the ringworm-fungi.** The specimens examined were all aged, dry museum-specimens, and deprived of all traces of the original nutrient medium. The fungi tested were trichophyton microsporum, T. megalosporum, T. equinum, T. caninum, and achorion. The conclusions reached were that the active agent in the liquefaction of gelatin is contained in the mycelium itself, and is not formed outside the body of the fungus by secondary changes in the soil. This agent is in the nature of an enzyme or soluble ferment, and can retain its activity in a dormant state for a period of 6 years when the fungus has been preserved in a perfectly dry condition. This activity is independent of the life of the trichophyton, and is completely destroyed by an exposure of 2 minutes to a temperature of 85° C. Minute quantities of the active agent can digest comparatively large quantities of gelatin. Experiments further showed that absolute alcohol is not capable of extracting the enzyme from the mycelium. Pure water, on the other hand, possesses this power. The trichophyton does not contain an amylolytic ferment. The proteolytic ferment is considered perfectly distinct from the keratolytic ferment, which is described as being more extensively possessed by fungi than was previously suspected. [s.m.h.]

7.—Robertson describes a case of **tonsillar calculus,** 42 by 36 millimeters in size, weighing almost an ounce, and extended from its bed in a fit of violent coughing. The patient had suffered from repeated attacks of tonsillitis. There was no history of a gouty tendency. The diagnosis of the condition is most difficult unless the concretion lies near the surface. [G.C.C.H.]

8.—Hamilton reports a case of **acute suppurative tonsillitis** developing abruptly in a girl aged 7 years. In less than 12 hours from its onset the right tonsil opened spontaneously and discharged pus. During the following day the child was restless and drowsy, and in the latter part of the day had a severe and distinct convulsive attack lasting about 5 minutes. [S.M H.]

9.—Extracapsular fracture of the femur in a woman of 82 years is of itself unusual; despite the existence of grave cardiac lesions the patient made an excellent recovery, union having been secured after a period of 6 weeks. [C.H.F.]

10.—McDowell reports a case in which a **strangulated hernia in the pericardial sac** was revealed at autopsy. The patient had been a Kaffir, who had died suddenly, having been in perfect health until the day before, when pain set in, accompanied by vomiting, and increasing on the slightest motion. The abdomen swelled and everything taken by the mouth was at once rejected. Postmortem examination disclosed the presence within the pericardial sac of 18 inches of the ileum. There was a rupture in the gut a half-inch long opposite the mesenteric attachment. Death was evidently caused by the pressure upon the heart and by the shock attending the hernia. The case must have been of a nature most difficult of diagnosis, and operation would have been practically impossible, even in the event of diagnosis. [G.C.C.H.]

11.—After **intestinal irrigations of boric acid** of the strength of a tablespoonful to a pint of warm water, Grumpelt saw develop after 3 or 4 injections headache, nausea and intense dryness of the skin. The symptoms disappeared after stopping the injections, to recur again with their renewal. [S.M.H.]

12.—Clarke reports a case of **acute tetanus** in a man, aged 19 years, following a slight injury to the third finger of the left hand from a splinter, the symptoms setting in 6 days afterward. On the second day of the disease 10 cu. cm. of tetanus-antitoxin were administered subcutaneously and repeated in less than 6 hours. The dose was repeated on the third day in the morning, again in the afternoon, and yet again in the evening. The course of the disease was uninfluenced by the injections, and death resulted in the beginning of the fourth day. [S.M.H.]

13.—Cheyne reports a case presenting symptoms of **movable kidney** and in addition intermittent **hematuria** of many years' standing. At the operation the kidney could with ease be delivered from the wound. Nephrorrhaphy was performed and the symptoms were entirely relieved. [C.H.F.]

Lancet.

January 7, 1899. [No. 3932.]

1. The Profession and the General Medical Council. James Grey Glover.
2. Some Peculiarities in the Behavior of Certain Malignant and Innocent Growths. William H. Bennett.
3. On an Outbreak of Diarrhea in the Wards of St. Bartholomew's Hospital, probably caused by Infection of Rice-pudding with Bacillus Enteritidis Sporogenes. F. W. Andrewes.
4. Herniotomy plus Laparotomy Successfully performed under very Unusual and Difficult Circumstances. E. Matthews Owens.
5. A Case of Congenital Absence of Both Clavicles. Gustave Schorstein.
6. A Case of Absence of the Clavicles, with an Account of Various Deformities of the Clavicles in Five other Members of the Same Family. George Carpenter.
7. The Influence of the Shape of the Thorax upon Fractures of the Ribs. (*Illustrated.*) Edred M. Corner.
8. A Case of Curious Gunshot-wound of the Head; Penetration of the Brain by an Iron Ramrod; Complete Recovery. G. Lacy Barritt.
9. Varieties and Virulence of the Pneumococcus. J. W. Eyre and J. W. Washbourn.
10. A Remarkable Case of Multiple Growths of the Skin caused by Exposure to the Sun. A. Marmaduke Sheild.
11. Dermatitis and other Toxic Effects produced by Boric Acid and Borax. R. B. Wild.
12. Hydatid Cyst of the Axilla in a Child. P. J. Thomson.
13. Viability in Children. C. H. L. Johnston.
14. The Topical Use of Quinin in Leukorrhea. W. Wright Hardwicke.
15. A Case of Rupture of the Small Intestine without External Wound; Abdominal Section; Suture; Recovery. Walsham.
16. A Case of Excision of the Spleen for Injury; Recovery. Rutherford Morison.

2.—Bennett cites a number of instances of **tumors disappearing spontaneously,** although apparently malignant in character, the malignancy in some instances having been verified by microscopic examination; of others, in which the diagnosis of malignancy so far as practicable had also been verified by the microscope, in which the growth assumed a "negative malignancy;" and of still others, apparently innocent, that became malignant. In some of these last instances the later developments are attributed to the concentration of the patient's mind upon the part, but in others explanation is wanting. It is concluded from these observations that, in a certain proportion of cases, microscopic examination is powerless to determine whether growths will prove malignant or innocent in course, and that their clinical behavior is often a better index of malignancy than microscopic examination can afford. It is thought also that in nervous subjects recurrence of a growth after operation is more certain and the development more rapid than in persons of a placid disposition, and that, therefore, the practice of announcing to patients suffering from malignant disease the nature of their complaint should be modified when the patient is of neurotic type. It is thought, further, that evidence is wanting to show that operation for carcinomatous tumors of the breast that have assumed the condition of "negative malignancy" is, as a rule, necessary or advantageous. [G.C.C H.]

3.—Andrewes reports an **outbreak of diarrhea** in the wards of St. Bartholomew's Hospital, in which the bacillus enteritidis sporogenes of Klein was present in virulent form in the stools of the patients. The channel of infection was in all probability rice-pudding, examination of which showed the presence of the bacillus referred to. [S.M H.]

5.—Schorstein relates the case of a patient who had always been weakly and in infancy was rachitic. On examination there was no abnormity of the chest while the child was standing still, although the shoulders drooped slightly and fell forward a little. On drawing the finger along the site of the clavicle on either side it was found that the outer two-thirds of each bone were absent, with the exception of a small spicule of bone articulating with the right acromion. The inner third of each clavicle ended externally in a fairly sharp point immediately under the skin. There was a singularly little amount of inconvenience produced by the absence of the clavicles. There was practically no ordinary movement that the child could not perform well, being able to lift heavy weights above her head, lift her body when supported by the arms and give a fairly heavy blow from the shoulder. Neither the patient nor her mother was aware of anything odd in her physical development until it was pointed out to them. [G.C.C.H.]

6.—Carpenter relates the case of a girl, 8 years old, suffering from impetigo contagiosa, with secondary glandular implication. While making a physical examination a **deficiency of the clavicles** was discovered. The child's mother volunteered the information that a brother had a similar deformity on one side. The child's father also had a deformity of the clavicle and a depression of the lower part of the sternum, and two older sisters had club-feet. The clavicles in the patient were represented by two small fragments, thin, tapering and cartilaginous, attached by their broader extremities to the sternum. The fragments were $1\frac{1}{4}$ and $\frac{3}{4}$ inches in length respectively. As the child stood upright the shoulders were obviously narrowed. They fell downward and forward, the scapular angle projected backward to a marked extent, and under the acromion was seen a depression as in a subglenoid dislocation. What appeared to be the first rib could be felt with great distinctness on either side, as could also the coracoid process. Between each coracoid process and acromion was a well-developed coraco-acromial ligament, so apparent as to raise the suspicion of acromial clavicular fragments. The sterno-mastoid muscles apparently had some attachment to the fragmentary sternal clavicles. The clavicular portions of the pectoralis major were wanting, but the pectoral portions stood out well when placed in action. The anterior portions of the deltoid muscles were also wanting, as were also the clavicular fibers of the trapezius muscles. The child was by no means wanting in power. She could push and throw well, lift her body by the arms, etc. She could approximate her shoulders to an extraordinary extent with the greatest ease. The scapular borders could be made to touch behind and even to overlap. Other remarkable positions could be readily assumed. [G.C.C.H.]

7.—Corner has made an interesting comparison between man and other animals in respect to the shape of the thorax in determining the effect of direct and indirect force in producing fractures of the ribs. He concludes that the lesser curve of the ribs with increased strength in quadrupeds is a factor of safety greater than the greater curve and increased elasticity in man. Still, the ribs of quadrupeds may be broken by both direct and indirect violence, while in man indirect force more often leads to fracture, the ribs only being driven in at the place struck, the fracture occurring a little way off. It is thought that this explains the comparative absence of injuries to the deeper-lying structures, such as would naturally be expected to occur, from direct violence. [G.C.C.H.]

8.—Barritt reports a case in which a **ramrod penetrated the skull** over the left eye, passing through the brain and out of the top of the head, transfixing in its passage and carrying with it the cap worn by the boy. The patient, though comatose, could be aroused and would answer questions in a perfectly rational though dull and hazy way. He could move all his limbs, but was clumsy in the use of the right arm, and there was marked dilatation of the left pupil, the right being normal. The wounds were dressed antiseptically and an icebag was applied to the head. On removing the dressing in the evening, considerable brain-substance was seen to have oozed from the wound in the forehead, but this discharge did not continue after the second day. The paralysis of the right arm became more marked until the fifth day, when the patient became more fully conscious, and would answer questions readily and try to grasp objects with the right hand when told to do so. From this time he steadily improved, and, without a single bad symptom made an uninterrupted recovery. The wounds in the head were slow in healing and three weeks after the injury a small shell of bone about the size of a split pea exfoliated from the wound of entrance, after which the wound healed perfectly. A small superficial sinus remained at the point of exit, probably due to a small shell of bone that could not be detected without a probe. The patient put on flesh, his mental faculties seemed intact, and he recovered practically perfect use of his right arm. It is concluded that the brain can sustain injuries that one would consider absolutely fatal, and yet will recover without any apparent detriment to its structure, even though the injury be in the left frontal lobe, where some loss of function might be considered as almost certain. The fact of the ramrod being of iron was greatly in favor of recovery. It is thought that the course of the missile was through the white substance of the brain, penetrating the gray matter only at its points of entrance and exit. The partial paralysis was attributed to pressure from hemorrhage through the track of the wound; as the hemorrhage abated, the paralysis disappeared. [G.C.C.H.]

9.—In an article on **varieties and virulence of the pneumococcus,** Eyre and Washbourn report the results of investigations upon 4 races of pneumococci obtained from different sources. They endeavored first to determine the original biologic characters and the initial virulence of each race; then to raise the virulence to the standard virulence by repeated passages; and finally, to ascertain how long the standard virulence, when once acquired, can be maintained. As the standard they took one that caused death from pneumococcic septicemia usually within 24 hours, at latest within 48 hours, when injected into the peritoneal cavity of rabbits in doses of 0.000,001 of a loop holding about half a milligram. They considered the duration of life after an inoculation to some extent an indication of the virulence. For this reason they ascertained how long the standard virulence is maintained. The 4 races were obtained from the following sources: Pneumococcus 1 and 2 from the sputum of cases of pneumonia, pneumococcus 3 from the pus in a case of meningitis complicating pneumonia, and pneumococcus 4 from the saliva of a normal individual. The results of the investigations showed that the 4 races of pneumococci were capable of being raised by repeated passages to the highest degree of virulence measurable, showing that the various types represent varieties that are mutually convertible. Pneumococcus 1, pneumococcus 2, and pneumococcus 3 did not differ materially from one another. They had about the same initial virulence, the standard virulence was attained in less than a dozen passages, and was maintained for a considerable period. Pneumococcus 4 differed in the first place in that it was derived from the saliva of a healthy individual, and probably had been living in the mouth without producing any pathogenic effect for some considerable period. In the second place it showed traces of having led a saprophytic existence by its capability of growing at 20° C. Thirdly, although its initial virulence was not below that of the other races, there was great difficulty in raising it to the standard. Fourthly, after the standard virulence had once been reached it quickly diminished in the cultivations. From these facts it is shown that in describing varieties of the pneumococcus, besides the biologic characters and the initial virulence, the power of acquiring and retaining a high degree of virulence must be taken into account. [S.M.H.]

10.—Sheild reports a remarkable case of **multiple growths of the skin caused by prolonged and severe exposure to the sun,** and occurring in a robust man, aged 35 years. Numerous growths were studded about the skin of the face and neck, varying in size from a shot to a hazelnut. The smaller growths looked like warts; the larger ones were irregular in contour; a little pink, with slight marking of arborescent vessels. Several were covered with yellowish scales that, when detached, sometimes left a raw surface beneath. There was a well-marked growth, the size of a small bean, below the left lower eyelid. It was firm and indurated in texture. On the right side of the neck was one of a similar nature, the size of a walnut. In many places there were distinct freckles and patches of a blackish color, almost melanotic in appearance. The parts were the seat of itching and burning. No lymphatic glands were involved. The condition is considered xeroderma pigmentosum. The larger areas were incised by oval incisions. The verrucose patches and smaller growths were treated with salicylic-plaster mulls. The condition was entirely relieved. The prognosis in such cases is good if the nodules be extirpated freely as they enlarge and the cause of the condition be removed. [S.M.H.]

11.—Wild reports two cases of **profuse dermatitis following the administration of boric acid.** In the first case the condition developed on 3 separate occasions following the administration of the drug. The patient finally died some time after the last attack in uremia following an alcoholic debauch. In this connection attention is called to the observations of Féré as to the influence of borax in hastening the onset of uremia in patients with renal disease. The manifestations in the second case were similar to those in the first in that they followed prolonged administration of boric acid. Among 40 cases in which boric acid was administered and the results carefully watched, there was, in one case, that of a man aged 70 years, who was taking 80 grains in 24 hours, at the end of 4 weeks distinct flushing and redness of the skin, with the appearance of slight albuminuria. The urine was normal before the acid was given and the albumin disappeared about 2 weeks after it was discontinued. Wild on one occasion took 120 grains of the drug within 4 hours; he suffered from nausea without vomiting, colicky pains in the abdomen followed by diarrhea 7 hours after the first dose, which continued for some hours. On the next day he experienced slight headache, a feeling of depression, a want of appetite, and marked flushing of the skin. The urine contained free boric acid, which first appeared 4 hours after the drug had been taken and persisted for 26 hours. It was also discovered by experimentation that a certain portion of the acid was converted into, probably, sodium borate and excreted in that form. A review of the recorded cases of poisoning from this source and from borax shows that 2 forms must be distinguished, one in which a large quantity of the drug is rapidly absorbed from the alimentary canal, from some serous or other cavity, or from an extensive raw surface, causing vomiting and diarrhea, general depression, skin-rashes and partial paralysis of the nervous and muscular systems, occasionally death. The other class results from the administration of boric acid or borax in comparatively small doses for long periods. In some of these cases the kidneys are diseased, in others albumin appears in the urine, and in several fatal cases, uremic symptoms were descried. [S.M.H.]

13.—Johnston reports the case of a child born about the 178th day, which survived its birth 2½ days. [S.M.H.]

14.—Hardwicke reports favorably upon the topical application of **quinin** to the surface of the vaginal mucous membrane in cases of leukorrhea. He uses it either in the form of a douche or a pessary, and he considers the latter form the better. [S.M.H.]

New York Medical Journal.

January 21, 1899. [Vol. lxix, No. 3.]

1. Further Observations on Coxa Vara, with Particular Reference to its Etiology and Treatment. Royal Whitman.
2. Hygiene *vs.* Drugs in the Treatment of Pulmonary Tuberculosis. (*Concluded.*) Charles L. Minor.
3. Some Remarks anent Facts not Found in Text-books. W. Peyre Porcher.
4. A Case of Fracture of the Neck of the Femur. Fielding Lewis Taylor.
5. Some Critical and Desultory Remarks on Recent Laryngological and Rhinological Literature. Jonathan Wright.
6. Report of a Case of Tuberculosis of the Bladder, with Some Observations. John J. McGrath.

1.—The number of cases of **coxa vara** that have come under Whitman's personal observation has given him exceptional opportunities to study the various phases of this interesting condition. Already he has seen 30 cases of coxa vara and 14 cases of fracture of the neck of the femur in childhood resulting in traumatic coxa vara. As to the etiology of coxa vara, as well as other static deformities, it may be said that there are two periods of life in which these deformities appear: in early childhood when general weakness, due to rachitis, is the etiologic factor of first importance; and in adolescence, when the bones yield to the effects of overweight or laborious occupations. Whitman has had but one opportunity to observe the deformity as the result of general rachitis in early childhood. The comparative infrequency of coxa vara in childhood may be explained by the fact that the neck of the femur is, at this time, short, and forms a more obtuse angle with the shaft, thereby protecting it somewhat from strain. As regards the etiology of those cases of the period of adolescence, it is not improbable to believe that a latent deformity acquired in childhood may be a factor of considerable importance. As Humphrey has pointed out, the natural alteration in the angle of the femur continues only during the period of actual growth and is due directly to the pressure of the superimposed weight. If, now, the angle of the neck should be abnormally lessened at an early age, it seems reasonable to assume that the depression might become exaggerated to deformity at a later period of life. This mechanical explanation of the production of the deformity was brought to Whitman's attention by an investigation of the later results of fracture of the neck of the femur in childhood. In these cases it was noted that there was a marked increase of the deformity due to further depression of the neck, consequent upon the increased strain to which the bone was subjected because of its abnormal position. German investigators speak of local rickets as the chief cause in adolescent cases, but this view is not supported by a pathologic study of specimens, and, furthermore, it is by no means necessary to explain the deformity of the usual type. Whitman has noticed that, if the deformity begin in childhood, it is more likely to be of gradual development, whereas the contrary is true, if the onset occurs during the age of adolescence. The treatment resolves itself into preventive and operative, the former being directed to relieving the bone of any strain until the period of growth is completed, the latter attempting either to replace the depressed neck to its normal position by removing a cuneiform section from the base of the trochanter, or to relieve the effects of the deformity, especially adduction, by linear osteotomy below the lesser trochanter. [C.H.E.]

2.—Minor strongly advises the use of **hygienic measures in the treatment of tuberculosis.** The directions relating to this department of treatment should be just as explicit as that relating to the taking of drugs. [S.M.H.]

6.—In the treatment of **tuberculosis of the bladder,** especially if the vesical lesions be primary, the best chances for obtaining a cure are offered by suprapubic cystotomy and drainage. It is important that the operation be carried out without delay, once the diagnosis is made; there is nothing to be gained by postponement, while there is great risk of other parts of the genito-urinary tract becoming involved secondarily. [C.H.F.]

Medical Record.

January 21, 1899. [Vol. lv, No. 3.]

1. A Complicated Case of Vesico-Utero-Vaginal Fistula; Accidental Vesico-Peritoneal Fissure; Celiotomy, Vesico-Uterine Suture; Cure. Paul F. Mundé.
2. The Use of Musical Vibrations Before and During Sleep—Supplementary Employment of Chromatoscopic Figures—A Contribution to the Therapeutics of the Emotions. J. Leonard Corning.
3. The Physical Signs, Symptoms, and the Importance of Diagnosis of Chronic Interstitial Pneumonia. Abbott Smith Payn.
4. A New Method of Dressing Colles' Fracture. E. Barnes.
5. Flies and Typhoid Fever. Ernest B. Sangree.
6. Radical Cure of Hernia. George G. Hopkins.
7. Whooping-Cough in a Dog. A. Hadden.
8. Carbolic-Acid Gangrene. Edward J. Brougham.

2.—Corning has devised a method of occupying the attention of patients subject to various neurotic disturbances. This consists in placing a hood over the head with the exception of the ears, which are covered by two hollow metal bells that communicate with a phonograph. Suitable music is produced in the phonograph and has an exceedingly soothing effect. In addition the sense of sight also is occupied by throwing kaleidoscopic images upon a screen. The case is reported of a young woman, who had become afraid of work and responsibility. She always suffered from extreme depression in the morning, often lasting until the afternoon. The combination of music and kaleidoscopic images was employed, and the patient was also given 15 gr. of trional. The first night, she slept excellently, and the next day was better. Ultimately it was possible to omit the trional, and the improvement appeared to be permanent. Another patient, a speculator, was cured completely of insomnia. A third, a man past middle life, suffered from nightmare or night-terrors. Although he did not cease dreaming, his dreams assumed an optimistic coloring. A fourth patient suffered with an imperative condition that obliged him to feel skeptical concerning life and various other subjects. After exercise with the phonograph and chromatoscope, he found that his memory was haunted for hours with the chromatoscopic images and their harmonies. During this period he was unable to think, and did not suffer from his imperative ideas. A fifth case was one of nervous irritability, and was also cured. Corning believes the phonograph is the best instrument for the production of sounds on account of the penetrating quality of its tones. The effect can sometimes be heightened by attaching an additional tube to the bell through which suggestions may be made. [J.S.]

3.—Payn insists upon the importance of making an early diagnosis in **chronic interstitial pneumonia.** The symptoms at first consist in slight dyspnea, occasional cough, and some mucous expectoration. These become more and more severe, until, finally, the dyspnea is constant, the cough exceedingly violent, and the sputum muco-purulent. The patients lose weight, and there are signs of circulatory disturbance. If the temperature is above 100°, it indicates some acute inflammatory complication. The physical signs vary considerably. Sometimes there is dulness over the lung, and occasionally the percussion-note is almost tympanitic. The patients are to be encouraged to live an outdoor life. [T.L.]

4.—**The original method of dressing Colles' fracture,** described by Burns, consists in the use of a piece of rubber adhesive plaster of the proper width and long enough to go a little more than one and a half times around the wrist, and a piece of roller-bandage, 3 inches in width and 1 inch in thickness. The piece of roller bandage is applied as a compress upon the palmar surface of the wrist at its ulnar side, extending from a point above and to the inner side of the styloid process of the ulna toward the thumb at its inner aspect. The adhesive plaster is now applied upon the dorsal surface of the lower fragment, carried firmly and tightly across the palmar surface of the wrist, and while the upper fragment is strongly supinated, the plaster is carried across this and again across the palmar surface of the wrist to the border of the ulna. The greatest advantage of the dressing is the rapidity with which the function of the limb is restored. [C.H.F.]

6.—In the **radical cure of inguinal hernia** modern methods aim to displace the divided end of the ligated sac from its normal position over the mouth of the internal ring. This is done ill-advisedly, as the pad formed by the ligated sac will, if sutured over the line of union of the sides of the internal ring, offer a great obstacle to the future breaking through of the abdominal contents. Furthermore, the fascia is not a highly organized tissue, and therefore its cicatrix will the more readily break down; for this reason, therefore, the placing of pads of highly organized peritoneal tissue over the line of union of the two sides of the internal ring adds an additional safeguard against recurrence. The reconstruction of the inguinal canal, as after Bassini, is disapproved of for several reasons, most especially because after this operation the cord in its canal exerts traction over the new line of union and tends to separate the new floor of the canal. [T.H.F.]

7.—Hadden mentions a case of well-marked **whooping-cough** in an English greyhound that contracted the disease from the children of the house. [T.L.]

8.—The possibility of **gangrene** following dressings secured with **carbolic acid** should be borne in mind. Brougham reports two cases of local gangrene of this origin in which the strength of the solution did not exceed 3%. [T.H.F.]

Medical News.

January 21, 1899. [Vol. lxxiv, No. 3.]

1. Gonorrheal Arthritis. A. Bradley Gaither.
2. Protargol and Argonin in the Treatment of the Purulent Ophthalmia of Infants. Edward E. Peck.
3. Gastric Lavage after General Anesthesia. I. P. Gowey.
4. A Nasopharyngeal Polypus of Enormous Size. (Illustrated.) Max Thorner.
5. *The Medical News'* Investigation Into the Claims of Christian Science. John B. Huber.

1.—Gaither calls attention to the discovery by Hück and Neisser of the presence of the gonococcus in effusions drawn from joints affected with gonorrheal arthritis, and to the demonstration of its presence in the blood-stream by Thayer and Blumer. Gonorrheal arthritis is divided into the serous, sero-fibrinous, sero-purulent, and purulent forms. The knee-joint is the one most commonly involved; the next in order are the ankle, shoulder, and hand. The disease is present in 2% of all cases of gonorrhea in males and rarely occurs in females. It usually develops between the third and fifth weeks of the gonorrheal attack; sometimes it develops within a few days, and again months afterwards as the result of chronic posterior urethritis. There is usually a rise in temperature in the acute forms to 104° F. The effusion occurs rapidly, the tension producing agonizing pain. The temperature drops to nearly normal in a few days. The endocardium and pericardium are not involved as frequently as in articular rheumatism. The urethral discharge is not influenced by the appearance of the joint-complication. In chronic gonorrheal arthritis the invasion may be slow and constitutional symptoms slight. Absorption as a rule is slow and deformity may result from the adhesions. In severe cases the synovial membrane may be thickened or its surface become granular and pulpy. Erosion of the articulating cartilages and destruction of the bone-substance and the separation of the periosteum may completely destroy the joint. The bursae may undergo similar changes to those which take place in the synovial membrane of the joint. Treatment is unsatisfactory; quinin in doses of 5 to 10 gr., t.i.d., and biniodid of mercury, $\frac{1}{16}$ gr., are useful. Copaiba in large doses and salol together with the application of leeches to relieve the swelling and pain, and the use of the Paquelin cautery applied daily, are of benefit in some cases. When the case is subacute or chronic with delayed resolution and impairment of motion, massage, and particularly forcible gradual flexion of the joints, hastens the return of voluntary motion. Force should only be used in flexion. If adhesions keep the joint in a position of flexion the tendons should be severed before forcible extension is attempted. The patient should be warned against the great danger of permanent disability in the event of another attack of gonorrheal arthritis. Two cases are reported; the first in a man aged 25. The joints of the second and third fingers were involved. The patient was given capsules containing 10 gr. of copaiba, 5 of cubebs, 2 of salol, and 1 of pepsin. Hot lead and opium lotions were applied locally every 2 hours. The pain practically entirely disappeared on the sixth day. The second case occurred in a male aged 24. He developed arthritis of the right knee-joint following gonorrhea. The same medication was resorted to as in the former one with the addition of urethral irrigation of a solution of the bichlorid of mercury 1 to 10,000. The joint was wrapped in cotton and hot lead and opium solution applied every 2 hours. In convalescence the knee-joint was stiff and could only be slightly flexed. Massage was given to the knee every day with gentle force. Motion gradually returned. The capsules were continued for about 3 weeks. At the end of 4 weeks the patient was practically well. The improvement was attributed more especially to the copaiba. [T.M.T.]

2.—Peck, in an article on **protargol and argonin in the treatment of purulent ophthalmia in infants,** has found these preparations superior to the silver nitrate in that they cause a quicker destruction of the gonococcus and earlier disappearance of the secretion and the inflammatory processes and the resolution of the corneal and conjunctival tissues. Solutions of argonin are readily and rapidly made by placing in a flask 10 parts of cold water and then 1 part of argonin; this to be shaken until a uniform mixture is had, when sufficient boiling water to make up the desired quantity of solution is added, the mixture being shaken the while, and then strained through a piece of gauze. The most effective treatment for clinical work is one of 3%. The protargol solutions are prepared by stirring up the powder with some water, with or without the addition of a little glycerin, into a paste and then diluting by adding the necessary quantity of cold or lukewarm water. Solutions of 0.25 to 2% are employed. In cases of ophthalmia in infants if one eye only is affected, the other should be securely covered in every part, with round lintine pads slightly larger than the orbit. This opening is left for ventilation. These should be covered with sterilized cotton, this latter with gauze, and collodion should be smeared around the whole edge of the pad save at a point at the lower outer region, which should be left for ventilation. This protected eye should be inspected every second day. The nurse should never carry the infant in her arms. To the affected eye small round layers of lintine should be transferred from ice every minute or two, and kept up for an hour without intermission, after which an interval of 1, 2, or 3 hours is given according to severity of the case. The eyeball, lid, interspaces, and conjunctival sacs should at first be thoroughly irrigated with warm saturated solution of boric acid. Every effort should be made to keep the eye free from secretion. The protargol solution, at first 5 to 10% in strength, should be carried rather forcibly over the eyeball into the folds by means of a pipet. It should at first be used from 4 to 6 times a day. As soon as the secretion seems to subside the solution may be brought down to 2.5

and used less frequently. Examinations for gonococci should be made every second day, and the eye should not be regarded as safe until a full week has elapsed without their discovery. A series of 7 illustrative cases are given. [s.m.h.]

3.—Gunby during the past year has used **gastric lavage after general anesthesia** while the patient is yet unconscious, in over 50 cases. An ordinary large stomach-tube is used and the stomach is washed with warm water until the solution comes away clear. The result has been a great diminution in the number of cases of post-anesthetic vomiting with general improvement in the patient's degree of comfort. All classes of cases, including many abdominal cases, have been thus treated. [s.m.h.]

The Boston Medical and Surgical Journal.

January 19, 1899. [Vol. cxl., No. 3.]

The Medical Work of the Massachusetts Volunteer Aid Association.

1. The Hospital-Ship "Bay State." Herbert L. Burrell.
2. Construction of Massachusetts Hospital Ship "Bay State." Mr. J. T. Boyd.
3. Medical Equipment. E. H. Bradford.
4. The Method and Character of Work Done by the Massachusetts Hospital-Ship "Bay State." Herbert L. Burrell.
5. The Medical and Surgical History of the Hospital-Ship "Bay State." J. T. Bottomley.
6. The Duties and Work of the Purser of the Massachusetts Hospital-Ship "Bay State." Mr. W. H. Seabury.
7. The Nursing Care on a Hospital-Ship. Miss C. W. Cayford.

Journal of the American Medical Association.

January 21, 1899. [Vol. xxxii, No. 3.]

1. Hospitals. J. R. McDill.
2. Gonorrhea in Women. Joseph Rilus Eastman.
3. Cases in Hospital-Practice. George N. Kreider.
4. Prevention of Venereal Diseases. David Lieberthal.
5. Some Forms of Gangrene and their Treatment. J. S. Nowlin.
6. Hydatid Cyst of the Liver. Leon J. Willien.
7. Electrolysis and Cataphoric Medication. G. W. Overall.
8. Prevention of Hay-Fever. Alexander Rixa.
9. Dental Septicemia of the Antrum. V. A. Latham.
10. The Medical-Practice Act of Indiana. W. W. Vinnedge.

1.—McDill gives an historic review of the origin and growth of **hospitals,** the principles that should govern the selection of the site, the construction of buildings, ventilation and warming, sewage-disposal and drainage, lighting, water-supply, and other details. A few words are devoted to the operation-rooms, sterilization and disinfection, the necropsy-room, the kitchen, laundry, boiler and bath house, and the furniture. [d.r.]

2.—The diagnosis of **acute gonorrhea in women** is comparatively easy, even without the microscope. With a history of impure coitus, free purulent secretion from vulva, vagina and urethra, intertrigo, burning on micturition, and vesical tenesmus, the diagnosis is not far to seek. Upon inspection one usually detects a discharge of tenacious pus; or greenish or yellowish streaks upon the linen may alone be in evidence. Erosion may be present upon the skin, upon the labia majora or in the inguinal and gluteal folds. The labia minora, the clitoris and its prepuce, and the hymen, if present, are red and swollen. The urinary meatus is found to be congested and ectropic, its normal pink color being changed to a deep red. The mouths of the ducts of the vulvovaginal glands are deeper in color, gaping and tender. They discharge, instead of their normal glycerin-like secretion, pus-laden mucus. A small area of mucosa immediately about these openings exhibits a purplish-red tint. The surface of the vagina proper presents no great change, the adult vaginal mucosa being practically uninfluenced by the presence of the gonococcus; not for the reason generally presented, viz., that the germ cannot exist upon flat epithelium, but more probably because, as Dœderlein has pointed out, of an acid environment and the presence of the vaginal bacillus. The urethra is the seat of predilection of gonorrhea in women, and the vulvitis and vaginitis are secondary, being caused by the bathing of those parts with the discharge from the urethra and cervix. Among the more common indications of chronic gonorrhea are the maculæ gonorrhoicæ of Sänger, red papules about the openings of the vulvovaginal glands, sclerotic inflammation of these glands, which are felt as non-sensitive nodules under the examining finger, cysts of these glands, and scars and erosions in the vulva. To these may be added the colpitis maculosa and granulosis. [w.k.]

4.—Lieberthal does not advocate compulsory inspection of prostitutes, as this would foster concealment from the public officers; nor is he in favor of the rigid enforcement of the law against prostitution, as it would surely lead to increase in seduction and to other evils. The State should provide physicians, who should examine for a small fee or gratuitously all prostitutes applying to them. The women should be examined every 5 days and when found healthy a certificate should be furnished. They should be provided with a printed sheet of instructions for prophylaxis. An infected prostitute should be advised to enter a hospital. Lieberthal refers to the necessity of disinfection of barbers' razors and cups, of chiropodists', dentists', and physicians' instruments; to the hygiene of the home as far as it bears on the prevention of venereal disease. He advises that parents inform their children at the period of puberty concerning the physiology of and the dangers to the sexual organs. The Government should suppress the sale of nostrums for venereal disease. The remedy should either be furnished by the physician himself, or, if it is dispensed by the druggist, it should pass through the former's hand. Gonorrhea should, whenever practicable, be treated in the physician's office. Indigent patients should be sent to hospitals or dispensaries supported by the Government; the physicians of these institutions should be elected by the profession and should receive remuneration. Lieberthal admits that some of his suggestions are as yet impracticable. [d.r.]

6.—Willien reports a case in which upon exposing the liver, the anterior lobe was found to be enormously distended with an **hydatid cyst.** The boundaries of the liver extended beyond the median line, as low down as the umbilicus, and in the flank below the parasternal line. The liver-substance directly over the cyst was only ¼ inch thick, and, when incised, there was no hemorrhage. The hydatid tumors, varying in size from a turkey's egg to a B-shot, amounted in all to about 3 pints. The cavity of the cyst was packed and the operation concluded. Convalescence was uneventful. [c.h.f.]

7.—Impotency in men past 40 years of age, when not due to inebriety or organic cerebrospinal disease, is almost invariably the result of **chronic prostatitis.** The chief causes of the latter are strictures, urethritis, cystitis, rectal ulceration, and rough treatment of strictures by the forcible introduction of sounds. The hypertrophy of the prostate of old age should not be confounded with the swollen prostate of chronic prostatitis. The treatment recommended by Overall consists in **electrolysis** and **cataphoric medication.** The cataphoric electrodes may be introduced into the urethra or into the rectum. Rectal cataphoresis is preferred when the urethra is tender. A number of cases of chronic prostatitis, cystitis, and urethritis, and several of impotency and spermatorrhea are reported in which cataphoric treatment brought about cure. The solution employed was generally one of boric acid. [d.r.]

8.—Rixa believes that **hay-fever** is due to the inhalation, in the predisposed, of the **pollen of the rag-weed** (Ambrosia artemisæfolia), and recommends, as a prophylactic measure, an anticipatory antiseptic treatment of the nose extending over a period of two weeks before the onset of the disease. [d.r.]

Practitioner.

December, 1898. [Vol. lxi, No. 6.]

1. Unusual Case of Axillary Traumatic Aneurysm. Alfred Willett.
2. Sprue: Symptoms, Etiology, Postmortem Appearances, and Treatment. James Cantlie.

3. A Case of Aortic Aneurysm with Pressure-Symptoms limited to the Trachea. T. Sydney Short.
4. Primary Sarcoma of the Vagina, developing during Pregnancy—Operation—Natural Labor—No Recurrence after 2½ years. Charles A. Morris.
5. On the Detection of Small Quantities of Sugar in the Urine. R. T. Williamson.

1.—The case of **axillary traumatic aneurysm** reported by Willett was caused by the jamming of a pair of scissors up into the axilla, making a punctured wound about 1 inch in depth. The wound bled freely, the patient fainting from loss of blood. Hemorrhage was finally stopped by applying a compress over the wound and tightly bandaging the arm. At the time of examination there was found a pulsatile tumor in the axilla over which a bruit could be heard. The arm was "flabby to the touch, and nearly helpless, all movements being assisted by the sound left arm." There was also partial paralysis of the sensory nerves. This palsy of the arm was supposed to have been started by the tight bandage applied to arrest the hemorrhage, and afterward the pressure of the aneurysm on the brachial plexus brought on a more marked degree and broader extent of paralysis. The aneurysm consolidated spontaneously, and was almost entirely absorbed. This happy result was probably induced by elevation of the arm, with the patient in the recumbent position. As the aneurysm disappeared the nervous symptoms gradually improved until, when last seen, the man had fair use of the arm, though still unable to resume his trade as a barber. [G.B.W.]

2.—**Sprue** (psilosis linguæ, Hong-Kong dog, Ceylon sore mouth, etc.) is a chronic catarrh of the alimentary canal from the mouth to the anus, accompanied by tenderness of the tongue, diarrhea of a special character, and an atony and physiologic incompetency of the organs of digestion. It occurs principally in the tropics, and is brought about by the nature of the food consumed, in persons on whom climate has made an impression. Cantlie believes that the vegetable oils, used on account of their cheapness by native cooks, instead of butter, play a large part in the production of the disease. The chief symptoms are a sore mouth, a raw, bare-looking tongue and buccal mucous membrane, and diarrhea which is peculiar in that it occurs principally in the morning, before 11 o'clock, the stools being of a pipe-clay color. There is usually a craving for food of an indigestible character. A little fever is present early in the disease; later the temperature is subnormal. The liver is reduced in size, the spleen is not enlarged. Late in the disease there is marked emaciation, slight albuminuria, and, almost constantly a 2-o'clock-in-the-morning stool. The postmortem appearances were those of death by starvation; the liver is usually shrunken, but marked visceral changes are absent. The treatment is dietetic. Cantlie abhors the use of milk as the sole food for adults, and recommends beef-juice, scraped meat, beef-jelly, and other easily tolerated preparations of meat. A wet-pack should be worn about the abdomen night and morning, and a flannel or cotton-wool bandage in the interval. Removal to a temperate climate is imperative in all well-marked cases. [D.R.]

3.—Short reports the presence of a small, walnut-sized **aneurysm** in a syphilitic man, 32 years of age, running its course almost to the end without pain, but producing by pressure on the trachea a peculiar, paroxysmal cough that differed from the ordinary brassy cough of aneurysm. Death occurred from heart-failure. [D.R.]

4.—Morris reports a case of **primary sarcoma of the vagina** occurring in a woman, aged 20 years, married 8 months, and at time of first examination 6 months pregnant. She complained of frequent and painful micturition and swelling of the vulva, and a slight vaginal discharge was present. On examination under an anesthetic a nodulated sessile mass was found blocking the vaginal orifice; its surface was irregular and superficially ulcerated; it was hard and its edges regular, indurated and everted. It involved the right half of the hymen, the posterior and right portion of the vaginal wall, the right labium majus, and it had spread for a short distance to the skin of the perineum; rectum and uterus were uninvolved, but the glands in right groin had increased in size. The tumor was extirpated during the pregnancy. The microscopic report indicated a mixed-cell sarcoma, and there was no recurrence 2½ years after the removal of the growth. The case is of interest (1) on account of the rarity of the disease, (2) from its occurring during pregnancy and being complicated by labor, (3) from the length of time the patient has been free from recurrence. Primary sarcoma of the vagina is a rare disease. In the statistics of Gurlt, among 11,140 patients with tumors of all kinds, 483 were women with sarcomas, and only one of these affected the vagina. Morris has discovered reports of 50 cases. [W.K.]

5.—A slight reduction of copper when testing urine with Fehling's solution may be due (1) to a defective reagent; (2) to the presence of a small quantity of grape-sugar; (3) to the presence of some other reducing substance. The first may be easily eliminated by boiling the Fehling's solution alone before adding the urine, by not adding an excess of urine, and by avoiding prolonged boiling of urine and solution in the test-tube. In order to decide whether the slight reduction of copper is due to grape-sugar or some other reducing substance, Fehling's solution alone is not sufficient, but by employing also the phenylhydrazin-test and the fermentation-test a decision can be reached. The phenylhydrazin-test is extremely delicate (0.015%), but its chief value is as a negative test. When no reaction is obtained it can be stated with certainty that glucose is entirely absent, and that the reduction of the Fehling's solution was not due to sugar. Williamson's method of performing the phenylhydrazin-test is as follows: A test-tube is filled for about ½ inch with phenylhydrazin hydrochlorate (in powder); then potassium acetate (in powder or small crystals) is added for another ½ inch. The test-tube is half-filled with urine and boiled over a spirit-lamp, and after the boiling-point is reached, boiling is continued for 2 minutes longer. The tube is then placed in the rack, and 20 or 30 minutes later a little of the deposit is examined microscopically for the characteristic crystals. When a positive reaction is obtained, then glucose is almost certainly present, but there is a possibility that the crystals are glycuronic acid. Here the fermentation-test helps to decide. When no reaction is obtained with fermentation—*i. e.*, when no more gas is formed in an inverted tube containing the suspected urine than in one filled with normal urine—yeast being added to both—then Fehling's test should be applied to the urine submitted, for 24 hours, to the action of yeast. If now *no* reduction of Fehling's solution is produced by this urine, it may be concluded that it contained a minute quantity of glucose, though it failed to give any evidence of gas by fermentation. As to the importance of detecting small quantities of sugar in the urine, Williamson states that in some cases this trace is the first sign of a severe diabetes; in others, especially in elderly persons, it never develops into a marked form of diabetes. Traces of sugar in other instances may be present for a short time and then disappear—this may be the case in head-injuries, acute cerebral affections, fever, etc. Glucose may also appear when large amounts of sugar have been ingested (alimentary glycosuria). In any case in which it is desired to clear up the question of the presence or absence of sugar with certainty, the specimen of urine should be one passed after a mixed meal in which there was a large quantity of saccharine food. The individual should pass urine just before dinner, and forward two samples of urine passed after dinner, one at the end of 1½ hours and the other after 3 hours. If a trace is found it is important not to alarm the patient. [D.R.]

Münchener medicinische Wochenschrift.

November 22, 1898. [45. Jahrg., No. 47.]

1. The Effect of Formal as a Disinfectant. Hans Hammerl and Fritz Kermanner.
2. Diaphragmatic Pleurisy. G. Zuelzer.
3. A Foreign Body in the Eustachian Tube. G. Trautmann.
4. Mucous Patches of the Posterior Wall of the Pharynx. Hugo Bergeat.
5. Injury With Needles. Wilh. Claussen.
6. Empyema of the Maxillary Sinus in Children Simulating Tuberculosis of the Jaw. G. Avellis.

2.—**Diaphragmatic pleurisy** has received but little attention in textbooks, and has been described chiefly by French and American writers. According to Bouveret, the general symptoms are like those of pleurisy elsewhere, but physical signs are absent. The pain is more severe and more widely distributed than in ordinary pleurisy. On palpation tender points are found around the thorax at the level of the insertion of the diaphragm; at the base of the neck, where the phrenic nerve passes along the scalene muscles; and at a point, called by Guéneau de Mussy "bouton diaphragmatique," which represents the point of intersection of two lines, one running vertically, parallel with the outer sternal border, the other, a horizontal one, being an imaginary prolonged tenth rib. Pains sometimes radiate along the intercostal nerves and along the branches of the brachial plexus. The hypochondrium of the affected side is almost immovable; percussion over the base of the lung yields a tympanitic sound due to the compression of the lower lobe by the fluid. Auscultation affords practically negative information. The most important sign is, according to Zuelzer, Guéneau de Mussy's point, which is usually found easily. Two cases are described, both of suppurative diaphragmatic pleurisy, in which the diagnosis was largely based on the discovery of this point. Exploratory puncture may, in some cases, be without result, owing to the depth at which the abscess is seated; in the second case it was 10 or 12 cm. from the surface. As to the nature of de Mussy's points, most observers look upon them as tender pressure-points of the phrenic nerve. [D.R.]

3.—Because of the anatomic position of the structure, lodgment of **foreign body in the Eustachian tube** is an extremely rare accident. The case reported by Trautmann belongs to that class in which the foreign body gains access to the tube during the act of swallowing. This particle happens to be forced in the wrong direction, and its entrance into the duct was facilitated by the action of the tensor of the palatine veil, which muscle tends to open the orifice of the Eustachian tube. At the time of examination there was severe pharyngitis, swelling and purulent inflammation around the Eustachian tube, and besides this there was an otitis media, with rupture of the tympanic membrane which discharged through the external auditory meatus. After a few injections of water the patient spat out a cherry-stone, which had evidently been lodged in the Eustachian tube. [G.B.W.]

4.—Bergeat reports a case of **mucous patches occurring on the posterior wall of the vault of the pharynx.** There was considerable redness of the whole mucous membrane of the vault, accompanied by little or no exudation. Both the redness and the patches disappeared under antisyphilitic treatment. [G.B.W.]

5.—Claussen reports two cases of **self-introduction of needles.** In the first the needles were found corroded, lying in abscesses in different parts of the body. The whole number taken from this patient was 3 darning and 26 sewing needles. In the second case a larding pin was found in the urethra, so completely blocking its lumen as to cause acute retention of urine. The foreign body was removed by urethrotomy. [G.B.W.]

November 29, 1898. [45. Jahrg., No. 48.]

1. Abdominal Myomas. M. HOFMEIER.
2. The Relation between Medicines and the Stomach. MORITZ.
3. The Chief Factors in Testing New Remedies. W. HIS, JR.
4. A Case of Anthrax. ALEXANDER STRUBELL.
5. Rhinoplasty and the Insertion of a Plate. HERMANN LOSSEN.
6. Iodoformogen, an Odorless Preparation of Iodoform. ALBERT WAGNER.
7. The Effect of Formalin as a Disinfectant. HANS HAMMERL and FITZ KERMAUNER.

1.—Hofmeier discusses the relative value of the various methods of myomotomy: (1) Abdominal complete hysterectomy; (2) abdominal amputation of the uterus, with intraperitoneal treatment of the stump; (3) abdominal hysterectomy with the extraperitoneal treatment of the stump. The last method, although the oldest, is little employed, and the principal discussion is on the value of the first two operations. The comparative statistics are in favor of supravaginal hysterectomy, with intraperitoneal handling of the stump, concluding from the studies of Noble, Olshausen, and others, that the mortality in the complete is double that of the incomplete operation. [W.K.]

2.—Moritz takes up the **relationship between drugs and the stomach** in order to make clear the methods of protecting the latter organ against irritation. Incidentally he discusses the rapidity of absorption from the stomach and the relative share of stomach and bowel in the absorption of drugs. The absorptive power of the stomach is slight; most of the work is done by the intestines. For this reason the stomach cannot be depended upon for the absorption of drugs, and the point of importance is the rapidity with which the remedy can be propelled into the bowel. Water and neutral salt-solutions leave the stomach most rapidly; other substances—soup, milk, beer, and especially oil—are propelled more slowly. Propulsion is more rapid if the stomach is empty. Drugs then leave the stomach most quickly, and hence are absorbed more speedily when given on an empty stomach in water, most slowly when given after a meal without fluid. A narcotic antipyretic, or analgesic remedy, given on an empty stomach with from half to one tumblerful of water acts quite differently, much more promptly and surely than when given after a meal. As regards the protection of the stomach, that is of course best achieved by administering the remedy subcutaneously or by the rectum. Another way is to give the medicine in such form that it is insoluble in the stomach, and is dissolved only in the intestine by the action of the pancreatic juice. These methods are, however, not always applicable. Experiments have shown that a remedy is the less irritant to the stomach the more rapidly it leaves that organ and the more diluted it is. Hence, on this ground also, the drug should be given with water on an empty stomach, unless there is a reason for not wanting it to enter the intestine too quickly, when it may be given after meals. Mucilaginous vehicles may be substituted for the water, and it is recommended that digitalis be thus administered. In cases in which absorption by the stomach is desired, as when a restriction to the evacuation of the food exists, the medicament may be given with such substances as stimulate gastric absorption, viz., alcohol, condiments, etc., the stomach having been previously cleaned by lavage. [D.R.]

4.—Strubel reports a case of **anthrax of the nose** in a tanner successfully treated with injections of carbolic acid and hot compresses (50-55° C., changed every 10 minutes, day and night). In the course of 18 days more than 400 Pravaz syringefuls of 3% solution of carbolic acid were given without signs of intoxication appearing. [D.R.]

5.—Probably the most perfect results in **rhinoplasty** can be obtained by employing hard-rubber or metal plates to permanently preserve the shape of the nose. A triangular flap is dissected from the forehead and inverted; its raw surface is grafted, and, when entirely covered with epithelium, the flap is sutured in place, a plaster model having first been introduced beneath the flap to preserve the conformation of the nose until union is complete. The model is then withdrawn and the hard-rubber or metal plate substituted. [C.H.F.]

6.—Iodoformogen is a compound of iodoform and albumin, contains 10% iodoform, and has scarcely any odor. It is used instead of iodoform, and, in addition to being odorless, it is less irritating locally and less likely to produce toxic symptoms than iodoform. [D.R.]

7.—Formalin-gas, as obtained from Schering's pastils, is an efficient disinfectant under certain conditions. One of these is a sufficient number of pastils (2 per cubic meter), and a saturation of the air with steam. Hammerl and Kermauner always vaporized a quantity of water four times greater than that necessary to saturate the atmosphere at the existing temperature. [D.R.]

Berliner klinische Wochenschrift.

November 21, 1898. [35. Jahrg., No. 47.]

1. The Development of the Medullary Sheath in the Brain and its Significance for Localization. E. SIEMERLING.
2. An Experimentally produced Heart-murmur. S. TALMA.
3. The Operative Treatment of Lupus. A. BUSCHKE.
4. A Case of Weil's Disease. H. PICARD.

1.—Siemerling calls attention to the fact that the fibers of the corona radiata, which are first surrounded by myelin, are only found in a relatively small part of the cortex; (1) in the sensory area, formed by the two central convolutions, the posterior portions of the third frontal convolutions, and the gyrus fornicatus; (2) in the visual area; (3) in the auditory area; and (4) in the olfactory. These are the only portions that contain myelinated fibers at birth. From these regions short association-fibers pass to the adjacent areas of the cortex. Siemerling calls attention to the results of the investigations of Reghetti, von Monakow, and then reports the results of his own investigations upon 12 brains from new-born children and others that had lived various periods up to 13 months. The tissues were hardened in formalin or Müller's fluid, and the sections stained by Weigert's method. Siemerling believes that the idea that all the fibers first showing myelin-sheaths belong to the projection-system, is purely hypothetic. He had found that, as early as the third month, no portion of the brain lacks these fibers, not even the island of Reil. His further investigations lead him to conclude that it is impossible at present to decide, from the age at which the myelin-sheaths become developed, what the function of the fibers may be. In conclusion, he subjects a recent article by Flechsig to severe criticism. [J.S.]

2.—Talma records the results of experiments carried out by his pupil, van Dorsten, who has studied the effects of oligemia, of hydremia, and of quinin in producing **cardiac murmurs.** The limits of the murmurs were carefully determined by auscultation, and were then marked with pins, and upon postmortem examination of the animals it was found that the murmurs were perfectly heard only over those portions of the heart in which they originated. Those heard in the conus arteriosis were audible only at the portion of the chest that lay immediately over it, and there was no danger of confusing them with murmurs generated at the pulmonary artery. The results of the experiments led to the following conclusions: Oligemia is but seldom a cause of inorganic heart-murmurs; hydremia and hydremia plethora are active causes of such murmurs, particularly of those arising in the conus arteriosis, though other murmurs of the right heart and those arising in the left heart and in the arteries, may be due to the same cause. Quinin causes dilatation of the heart-cavities, and this gives rise to murmurs in the heart and arteries similar to those in chlorosis. Decrease in the frequency of the pulse, in other words increase of the distention of the heart-chambers, aids in producing these murmurs. Strengthening the systole also makes the murmurs more marked. [D.L.E.]

3.—As a result of his personal observation, Buschke concludes that a great number of cases of **lupus** can be cured by **radical excision** and with good cosmetic results. This mode of treatment should be undertaken at the earliest possible moment for then only can the best results be hoped for. The dissection can be carried out under local anesthesia, and it is of the greatest importance that the incision should be made in healthy tissue, at least 1 or 2 centimeters from the infected area. If there is any doubt as to how far the tissues are infected, it is well to employ the tuberculin-test. The plastic operation, to cover in the defect, should be carried out preferably on the Krause plan, as by this the flaps are much less likely to shrink than if Thiersch's method is adopted. [C.H.F.]

4.—Picard reports the case of a butcher, 46 years of age, who was seized with a chill, followed by vomiting, fever and headache. He soon presented icterus, the liver became enlarged, as did the spleen and albumin appeared in the urine. The man had severe cramps in the calf-muscles. His condition grew worse, consciousness was obscured, and he had violent hiccough. Then improvement set in and continued for several days, but this was followed by increase of the febrile symptoms; at this time there was almost entire anuria. Improvement again occurred and the patient seemed convalescent, but there was again a sudden chill, followed by anuria, tremor, and partial loss of consciousness, and finally by dyspnea, cold extremities, terminal pneumonia, and death. The interesting symptoms in the case were anuria, and xanthopsia, and a spotted erythema, which were observed during the course. [D.L.E.]

November 28, 1898. [35. Jahrg., No. 48.]

1. Pericarditis in Older Children. A. Baginsky.
2. Bell's Phenomenon in Peripheral Facial Paralysis. M. Bernhardt.
3. Researches in Physical Diagnosis. E. Baelz.
4. Treatment of Tuberculosis of the Lungs with Subcutaneous Injections of Camphorated Oil (G. P.). B. Alexander.

1.—Baginsky observed among 4,500 cases of disease in **children** 66 instances of **pericarditis**—20 during the first year of life. The latter figure corresponds proportionally to the number of infants among the 4,500 patients. In 24 cases the cause of the disease was rheumatic polyarthritis, with or without chorea. Next in frequency were tuberculosis and pleuro-pneumonia. The forms of pericarditis in childhood correspond anatomically to those seen in the adult, though there is a marked tendency in early life to the formation of purulent exudates and to circumscribed or extensive adhesion of the pericardial layers. Serous pericarditis was seen 13 times. The triangular area of dulness was present in some cases, absent in others. It was, however, generally posssible to demonstrate changes in the shape of the area of dulness with changes in the position of the patient. In very young children the diagnosis was difficult. In young children the pericardial sac had the shape of a cone with convex walls; as the child grows older, the sac assumes more and more the form of an ovoid pointed towards the apex of the heart. In pericarditis of young children an area of dulness was generally found in the posterior wall of the thorax. This dulness might lead to the diagnosis of pleural effusion, but the fact that the respiratory sounds become distinct during deep respiration and during crying, and the absence of fluid on exploratory puncture, serve to decide. Friction-sounds are usually audible, but are finer than in the pericarditis of adults. The serous pericarditis of children is not *per se* a very malignant affection, and is only rendered grave by complicating conditions. Treatment should be directed against the causal and accompanying disease. The excited heart's action is controlled by rest in bed, by strophanthus or digitalis; and by the application of ice locally. Ichthyol-ointment (from 20 to 30%) is useful, and in some cases the old calomel-treatment and mercurial ointment may be of value. Surgical treatment may be indicated; in that case Baginsky prefers incision to mere puncture. Purulent pericarditis was observed 20 times, being in 4 instances associated with tuberculosis; in 3 the condition followed measles. Over half of the children (11) were under 1 year old. The constitutional symptoms were always most grave; the temperature at times was typically pyemic; one child (10 days old) had no fever at all. The area of dulness was practically unmodified and abnormal sounds were rare. The prognosis is most grave, but surgical interference, especially in the cases associated with pleural empyema, promises some hope. [The article is to be concluded. D.R.]

2.—Bernhardt states that **Bell's phenomenon**—the upward and outward rolling of the eyeball—is normal during tight closure of the eyelids, but may be absent when the lids are lightly closed. The sign is of prognostic value in facial paralysis (Bell's palsy), inasmuch as when the paralysis begins to improve, the phenomenon becomes less distinctly visible in the eye on the paralyzed side, partly because of the better closure of the lids, and partly because of the diminution in the energy of the associated eye-movements connected with the restoration of the power to close the lids. [D.R.]

3.—Baelz recommends palpatory percussion (plessesthesia) as preferable to ordinary percussion. The method is performed as follows: The left middle finger is pressed firmly against the surface of the body. The 2d, 3d, and 4th fingers of the right hand are flexed at the metacarpal joints to a half right-angle and remain in this position. They then approach the left middle finger to a distance of about 2 cm., percuss, and remain a few seconds firmly on the finger. The procedure may then be repeated. Plessesthesia is of especial value in the study of diseases of the lungs and pleura, the spleen, the liver, and in cases in which ordinary percussion is not practicable on account of pain and e g., in perityphlitis and cholelithiasis. [We have at various times employed this method, which takes account of resistance rather than sound, and have found it most useful.] **Percussion of the apices of the lungs** should always be from resonant toward dull parts and not the reverse; and it is better to percuss the pulmonary apices from below upward than from above downward. Immediate auscultation, a cloth only being interposed between the ear and the chest-wall, is considered best able to detect fine crepitation, soft diastolic murmurs, and aneurysmal bruits. In case of the last, the head often feels the pulsation far better than the palpating hand. Direct auscultation often detects a sound not truly vesicular nor crepitant, which Baelz would term **crepitoid.** It is heard in pneumonia at the edge of the disease-area and is the first sign indicating that the process is spreading. It may also be the first evidence of an oncoming edema. Usually it is inspiratory, but it may be heard during expiration. Closure of the eyes during auscultation and percussion seems to facilitate the detection of fine changes, by removing the influence on the judgment of the knowledge of anatomic position. [D.R.]

4.—Alexander suggests the use of **camphor in the later stages of pulmonary tuberculosis.** Patients with fever receive subcutaneously, once daily, from 0.1 to 0.2 cu. cm. of the official oil of camphor (Pharm. germ.), equivalent to from 0.01 to 0.02 g. of camphor, for a period of from 4 to 6 weeks. Then the treatment is suspended for from 1 to 4 weeks, and later resumed. When the fever has subsided larger doses are employed—from 0.03 to 0.05 g. of camphor—once daily, for from 1 to 2 weeks, followed by a weekly interval. Afebrile patients either are treated in the same manner or receive at intervals of 8 days, once daily, for 4 days, 1 cu. cm. of the oil. There is no contraindication to the use of camphor. The drug is antihidrotic and antipyretic; it lessens suppuration and subdues the cough, and is a cardiac stimulant. [D.R.]

Deutsche medicinische Wochenschrift.

December 1, 1898. [24. Jahrg., No. 48.]

1. Gastric Symptoms During the Early Stages of Pulmonary Tuberculosis. Wilhelm Croner.
2. The Pathology of Mycotic Poisoning. Martin Thiemich.
3. The Origin and Significance of Chronic Tonsillar Abscess. Treitel.
4. The Diagnosis of Tumors of the Mediastinum. A. Sokolowski.
5. Experiments in Immunization Against the Poison of Bites and Scratches. Siegel.

1.—Two types of **gastric disorders** in the **early stages of pulmonary tuberculosis** must be recognized—(1) That in which signs of lung-disease are entirely absent or are only very slight, and the patients complain merely of distress in the stomach; and (2) that in which the tuberculosis is already fully developed. The chief symptoms of the first type are a loathing for food, acid eructation, vomiting of mucus in the morning, and debility; those of the second are similar, and include also distention of the stomach after eating, distress and pain during digestion, even gastralgic attacks, belching, pyrosis, regurgitation of food, nausea, vomiting, irregularity of the bowels, etc. These symptoms can, however, not be considered characteristic. As to the causes of the gastric phenomena in early pulmonary tuberculosis opinions differ. Chemic studies of the gastric secretions have not given uniform results. In none of Croner's cases was motility diminished; the total acidity was generally normal; subacidity was more frequent than supra-acidity; in only 5 among 36 cases was HCl entirely absent. The presence of fever has some influence on the secretion of acid, but there is no definite relation between the temperature and the acidity. The fact that several observers have found chiefly an acidity, is explained on the ground that they did not give enough attention to the admixture of mucus from swallowed sputum with the gastric secretion. The dyspeptic symptoms are considered functional in character, and not organic—a view substantiated by their inconstancy, their independence of objective conditions, and the usually normal gastric chemism. From the fact that the motility is not impaired, it is concluded that special regard need not be paid to quantity in diet, and abundant feeding is favored. It is not believed that overfeeding plays an important role in the production of gastric distress in the tuberculous. Institutional treatment of pulmonary tuberculosis is recommended for both rich and poor. [D.R.]

2.—Thiemich reports two cases of **mushroom-poisoning** (Amanita bulbosa var. viridis and Russula emetica) in children. Both ended fatally. Sugar appeared in the urine before death. The autopsy and microscopic study showed marked fatty changes in liver and kidney. The liver was used to investigate the source of the fat-deposit, *i. e.* whether it was derived from the fat of the food or not, and a marked similarity was found to exist between the hepatic fat and that of the subcutaneous tissue, both differing greatly from the fat of milk, whence it is concluded that the fat in the liver could not have come from the food. [D.R.]

3.—**Chronic tonsillar abscesses** are a constant menace, as they may lead to local or to general infection. Treitel reports the case of a man, 63 years old, who had repeatedly suffered from tonsillitis, and began to complain of dyspnea, hoarseness, and difficulty in swallowing. The tonsils presented no acute change, and the epiglottis, the arytenoid cartilages, and the aryepiglottic folds, were edematous. Scarification affording no relief, tracheotomy was performed and an offensive abscess opened, but the patient died on the next day. At the autopsy the retropharyngeal tissues were found partly infiltrated, partly purulent. The infiltration extended into the anterior and posterior mediastina, and both pleural cavities contained pus. On the surface the tonsils showed no acute change; on section, about a dozen small abscesses with thick walls were discovered in each. The abscesses were evidently chronic, and an inflammation had extended from them along the lymph-paths down to the cricoid cartilage. A mild angina may have rendered the process acute. A case of **pyemia,** originating in chronic tonsillar abscesses, reported by Jessen, is also quoted. This emphasizes the fact that in cryptogenetic infection it is not sufficient to examine the surface of the tonsils, but the interior should be searched for abscesses. As, in the cases so far observed, the tonsillar abscesses did not cause enlargement of the glands, a diagnosis during life seems not possible. Hence, all that can be done is to prevent their formation. Acute abscesses should be freely laid open; the accumulation of bacteria in the mouth and tonsils should be antagonized. If the lacunæ have small openings, and concretions form in them, they should be incised, and antiseptic gargles subsequently used. Direct squeezing-out of the lacunæ may do harm by injuring the epithelium. Galvanocaustic application may be of more value. As the tonsils are at times infected from the nose, the latter, as well as the teeth, should receive careful attention. [D.R.]

4.—Sokolowski reports a case of **lympho-sarcoma of the mediastinum,** with involvement of the right lung. The patient was 52 years old, and had had syphilis 27 years previously. A few weeks prior to his entrance into the hospital he fell from a carriage into the water, and the symptoms present became much marked directly afterwards. The chief of these were dyspnea with a constant dread of suffocation. The physical signs were (1) marked dulness over the sternum and right side of the thorax; (2) enlargement of the lymph-glands, especially above the right clavicle; (3) contraction of the right pupil, and (4) dilatation of the veins of the chest and abdomen. Exploratory puncture between the third and fourth ribs yielded a purulent fluid, which was puzzling, as lympho-sarcomas have no tendency to soften. At the autopsy it was found that the needle had entered a bronchiectatic cavity in the right lung, which contained numerous cavities of the same kind, resulting from obstruction of the bronchi by the advancing tumor-growth. Pressure of the neoplasm on the trachea and bronchi prevented expectoration of the contents of the bronchiectatic cavities. [D.R.]

5.—A reliable method of **immunization against foot-and-mouth disease** has not yet been discovered. The malady must be combated by better care of the stock. The custom of confining animals for purposes of rapid fattening should be abolished. The disease is less common when the cattle have the range of the meadow. As soon as an outbreak occurs, the animals should be quarantined in a distant stable, and thorough disinfection should be instituted. [D.R.]

December 8, 1898. [24. Jahrg., No. 49]

1. Operative Measures for the Relief of Cerebellar Abscess Resembling Otitis. R. Müller.
2. A Case of Brain-Abscess With Recovery. E. Hoffmann.
3. The Common Pathology of Certain Diseases of the Organs of Hearing. Heermann.
4. Non-Operation on Tumors of the Brain. H. Fischer.
5. Examination of the Sperm. Beumer.

1.—Müller reports a case of **cerebellar abscess, complicating middle-ear disease,** in which operation was followed by recovery. In cases of this kind, the diagnosis before an exploratory operation is always a matter of conjecture. The general condition of the patient, the apathy and somnolence, the violent headache, all pointed to some cerebral complication, as did the vomiting, the constipation, and the irritability; while the slowness of the pulse and the congestion of the eye-ground suggested cerebral compression. At one time in the course of the disease septic thrombosis of the sigmoid sinus was suspected on account of repeated chills, but there was no other confirmatory evidence. Thus, there remained only to be considered in the diagnosis intracranial abscess and meningitis. The latter was easily excluded, and the final point to be determined was the site of the abscess. The absence of any motor disturbances from pressure, of sensitiveness in the temporal region, and of aphasia, rather excluded the temporal region as the site of the abscess, while, on the other hand, the extreme sensitiveness over the occiput, the sensation of dizziness and paralysis of the abducens bespoke a cerebellar abscess. To expose and drain a cerebellar abscess, a section of bone should be removed at a point midway between the external occipital protuberance and the posterior border of the opening for the radical operation. If such a site be selected, the abscess-cavity will not be more than 3 or 4 centimeters distant. Exploration is best carried out with the knife; or, if this fails to locate the abscess, a small pair of forceps may be inserted in various directions. A trephine is preferable to the chisel in removing the bone, as the concussion caused by chiseling may encourage absorption into the circulation of the abscess-contents. Drainage is afforded preferably by iodoform-gauze. In this particular case a bacteriologic examination of the pus disclosed the presence of diplococci and a bacillus not unlike the proteus vulgaris. [c.h.f.]

3.—Heermann calls attention to the fact that **chronic middle-ear catarrh,** leading ultimately to hopeless sclerosis, may be dependent on **general systemic states,** particularly on arterio-sclerosis. Five cases are cited in which otiatric measures, catheterization, nasopharyngeal treatment, etc., had failed to produce permanent benefit. In all of the patients there existed evidence of digestive and circulatory disturbances, and treatment directed toward these proved of great value in two of them. One, a college-student, was made to work for 6 weeks on a farm. He gained in weight and vigor, and then, under catheterization, his hearing improved greatly and the tinnitus disappeared. Active outdoor exercise and restricted consumption of fluids led to a similar result in the second patient, an obese land-owner. Cases that have passed into the stage of sclerosis are probably not amenable to general treatment. [d.r.]

4.—Fischer reports two cases of tumor of the fourth ventricles, the presence of which were confirmed by autopsy. They support the already accepted opinion that tumors that only rest upon the walls of the fourth ventricle need not cause diabetes, and that only by encroachment upon the crus cerebri is this brought about. The observations of Nothnagel to the effect that motor disturbances follow only involvement of the inner portion of the crus cerebri were confirmed by the clinical phenomena in the cases here reported. One of the patients presented in a striking manner the symptom of tumbling or staggering toward the opposite side from that of the tumor, and was never able to walk in a straight line. The psychic disturbances were also marked, such as loss of memory, melancholy, and stupidity. The question arises as to whether or not the glaucoma, for which some time previously an iridectomy was performed without success, was connected with the development of the tumor. That the bulb did not atrophy after the iridectomy speaks rather in favor of the central origin of the glaucoma. The amblyopia of the right eye was undoubtedly due to atrophy of the optic nerve and choroid, the result of pressure. The trophic disturbances manifested in this case again confirm the views of Nothnagel as to the presence of trophic fibers in the inner portion of the crus. The tumor proved to be a tubercle the origin of which may be traced to traumatism, which has been regarded as an etiologic factor especially in tuberculous patients, although a year elapsed between the accident and the formation of the tumor. The retention of urine, associated with the other symptoms, may possibly be attributed likewise to the growth, as there was no demonstrable lesion of the urinary organs. [c.h.f.]

5.—In order to detect **spermatic fluid on clothing,** a piece from the suspected area is moistened and placed between two watch-crystals. After a few hours the water is expressed and tested for Florence's reaction (the development of crystals with iodin-potassium-iodid solution). Failure to obtain the crystals is proof of the absence of sperm; a positive reaction should be further strengthened by staining the fluid. Any one of the ordinary dyes can be used, provided it is allowed to act for a sufficient length of time. Beumer stains for 24 hours, or resorts to boiling. [d.r.]

Wiener klinische Wochenschrift.

November 24, 1898. [11. Jahrg., No. 47.]

1. Aneurysm of the External Iliac and Femoral Arteries. F. Schopf.
2. Subjective Noises in the Head. A Case of Double Pulsating Exophthalmos. Hugo Weiss.
8. Dermoid Cyst of the Mesentery. Josef Mayer.

1.—In the **treatment of aneurysm,** modern operative technic has so lessened the dangers of operations that the question to-day is, which method of treatment will give the most extensive collateral circulation, and the least chance of partial or total gangrene? Therefore there need be no hesitation, because of the danger of sepsis and secondary hemorrhage, to operate when operation seems to be indicated. Schopf offers the following conclusions as fundamental rules to be observed in the treatment of ilio-femoral aneurysm: Whenever possible, compression should be given a trial before resort to more severe measures. By this method it is possible in many instances to effect a cure, and if failure takes place the collateral circulation has been in part established. If compression fails, operative procedures are then indicated, and when feasible, total extirpation of the sac should be chosen as the surest. These rules are especially applicable to ilio-femoral aneurysms, but they are equally so to aneurysms of other portions of the body, if they are so situated as to allow of operative treatement. During recent years total extirpation has been more frequently practised than earlier. [g.b.w.]

2.—**Subjective noises in the head** are of two kinds: (*a*) true subjective sounds, depending on pathologic conditions of the sound-receiving apparatus or on disease of the auditory nerve itself, without the existence of an objective source of sound; and (*b*) sounds for which it is possible to find, by objective examination, an organic disease, usually of the circulatory system, which constitutes their source. From the first group must be excluded the so-called entotic sounds, which arise in the outer or middle ear or in the vessels of the tympanic cavity and its neighborhood, as well as those produced by the rubbing of foreign bodies, etc. Among the second group are loud heart-murmurs heard by the patient himself; heart-sounds rendered audible by a resonating tuberculous cavity, etc. The most annoying of all sounds is that produced by intracranial aneurysm, especially aneurysm of the internal carotid artery, which may be produced spontaneously by disease of the arterial wall, or, more frequently, by fracture of the base of the skull and consequent rupture of the carotid. It is especially the short portion of the vessel within the cavernous sinus that is liable to rupture. The effects are escape of arterial blood, stasis of the blood in the orbital veins, and **pulsating exophthalmos.** The patient becomes conscious of a painful hammering and an extremely annoying rushing in the head. Weiss describes such a case of pulsating exophthalmos in a man, aged 22 years, who had been squeezed between a wagon-tongue and a door, the force expending itself chiefly against the right temple. He bled from nose, mouth, and left ear, and was unconscious for two days. There was also subconjunctival hemorrhage in the eyes. On the third day, as the man awoke, he noticed a rhythmic beating and a synchronous rushing, especially on the left side of the head. Vision was lessened in the left eye, and for a short time the man saw double. The left eye became totally blind in a month. Pressure on the left carotid stopped the pulsation and the rushing in the head. Weiss assumed the existence of a fracture through the middle form of the skull, extending to the tip of the petrous portion of the temporal bone, across the sella turcica, to the optic foramen, and ending at the superior orbital fissure of the left side. The internal carotid was torn within the cavernous sinus, and an arterio-venous aneurysm had formed. The right abducens nerve was also torn, while the left escaped. After a time the patient developed a pulsating exophthalmos on the right side also, which might have been due to the blood of the left sinus finding an outlet toward the right, or to a lesion of the right carotid at the time of the injury, which gradually increased until an aneurysm had formed. Regarding treatment, Weiss believes that digital compression should first be tried; that failing, the left carotid should be ligated or resected, and, after a collateral circulation has been established, the same operation should be performed on the right carotid artery. In his patient the left carotid was ligated. [D.R.]

3.—Dermoid cyst of the mesentery is a rather rare occurrence, and its diagnosis before operation is almost impossible. In the case reported by Mayer the tumor was about the size of a man's hand; was situated mostly in the right side of the abdomen, though it extended somewhat into the left; was smooth, fluctuating, movable, and not painful. On opening the abdomen the tumor was found to have no connection with the genitalia, but it was fastened by a pedicle to the mesentery. The cyst contained a yellowish-brown liquid and hair, and there was no doubt as to its being a dermoid. [G.B.W.]

December 1, 1898. [11. Jahrg., No. 48.]

1. Bottini's Operation for Hypertrophied Prostate. A. v. Frisch.
2. A Graphic Method of Recording Auscultatory Phenomena Connected With the Heart Without Conventional Signs. Meinhard Pfaundler.
3. Absence of Free Hydrochloric Acid in the Gastric Contents With Multiple Round Gastric Ulcers. Anton Krokiewicz.

1.—Frisch has operated upon 10 cases of **hypertrophy of the prostate** by the **Bottini galvanocaustic method,** with the following results: Of the 10 cases, retention of urine was complete in 8, incomplete in 2. Four of the cases were completely cured and one permanently improved; one showed temporary improvement; in 3 cases the operation was a failure; and one patient died. In the majority of the cases the ability to evacuate the bladder was restored by the fourteenth day. In some cases there was a reactive swelling of the prostate, while in others the absence of all reaction was noted. Hemorrhage was quite free in 3 cases; chills followed two operations; epididymitis developed twice; and one case terminated fatally from a prostatic abscess. An estimate may be formed of the merits of the operation by summing up the statistics of all of the operations hitherto recorded. As a result of 127 operations, including Bottini's, 62 patients were cured, 34 improved, 22 unimproved, and 9 died, to 50% cured, with a mortality of 7.2%. These figures compare so favorably with those of other operative methods, that there would seem to be no question as to the great superiority of the Bottini operation. Frisch is inclined to view these figures with some skepticism and believes they do not represent the true state of affairs. Thus, some cases were not traced sufficiently long to ascertain whether the improvement was permanent; others again were operated upon at such an early age as to make the existence of true hypertrophy of the prostate unlikely; while some may have had a passively congested prostate that would have been benefited by the relief of retention and the rest in bed without having to resort to operation. The results of Bottini's own series of cases is so astoundingly good that he must have selected his cases with the greatest care. Contrary to the announcement of Bottini, there are certain pronounced dangers attending the operation, among which may be included phlebitis and thrombosis involving the prostatic venous plexus, hemorrhage, pyelitis, embolic pneumonia, sepsis, and abscess-formation, and cases have been reported in which death was due to one or other of these complications. An attempt was made by Frisch to determine the causes of failure, and in one of his own cases it was found that the blades could not penetrate the enormously enlarged gland; it is probable that a number of failures may be attributed to insufficiency of heat in the blade, as there is no means of knowing at what degree of heat the blades are when once introduced. As for the indications for the operation, perfect results can be obtained only in chronic cases with complete retention, providing the contractile power of the bladder is retained. In incomplete retention further experience alone will determine the indications. [C.F.]

2.—Pfaundler describes a **graphic method of recording the auscultatory results of heart-examinations.** As the method, which is apparently very simple, can only be understood by a reference to the illustrations, those interested are referred to the original article. [D.R.]

3.—Krokiewicz has previously reported a case of triple **gastric ulcer with absence of hydrochloric acid** from the contents of the stomach during the last 6 weeks of life, and now he describes a second. A domestic, aged 40 years, had suffered from gastric distress for 1½ years, had lost flesh, and had a loathing for food. The lungs exhibited evidence of tuberculosis; and nearly all the lymph-glands were enlarged. At first HCl was present in the gastric juice; later it disappeared, and lactic acid took its place. A blood-count showed over 4,000,000 red corpuscles, 12,400 leukocytes, and 70% of hemoglobin. A diagnosis of latent carcinoma was made. The patient died 9 days after the discovery that HCl was absent, having had, on the previous day, a profuse hematemesis. At the autopsy **30 round ulcers** were found in the mucous membrane of the stomach; there was no malignant disease; the mesenteric and retroperitoneal glands were cheesy. It is concluded that free HCl may disappear from the gastric contents in round ulcer, especially when several ulcers are present. The disappearance of the free acid is of serious omen—probably indicating imminent death. In the diagnosis from malignant disease the number of red cells may be of value; Krokiewicz has never seen 4,000,000 red cells in the late stages of carcinomatous cachexia. The ulcers in the case reported were, it is likely, embolic in origin. [D.R.]

Neurologisches Centralblatt.

January 1, 1899. [18. Jahrg., No. 1.]

1. Changes in the Spinal Cord Following Compression of the Abdominal Aorta in Dogs. Max Rothmann.
2. A Remarkable Case of Morbid Somnolence. F. Holzinger.
3. The Adductor Fold in Infantile Paralysis. J. K. A. Wertheim Salomonson.
4. Pupillary Reflexes Caused by Attention. J. Piltz.

1.—Rothmann has performed several series of experiments for the purpose of determining whether paralysis of the hind limbs is caused by **occlusion of the abdominal aorta**; if so, how nearly complete it is, and at which part of its course occlusion of the aorta causes the greatest effect. In the first animal, the aorta was pinched for one hour, just beneath the celiac axis. After the operation was completed, the animal moved the four limbs, but the hind legs were paralyzed. Death occurred in the course of 6 hours. In the second animal, the aorta was occluded just above the celiac axis. During and after the operation, the hind legs were paralyzed. Death occurred in 10 hours. In both of these cases the fatal result appeared to have been caused by the severe disturbance of the intestinal tract. It was, therefore, determined to occlude the aorta below the superior mesenteric artery. In the first animal, the occlusion was continued for one hour, and immediately after the removal of the pincers, there were movements in the paws of the hind legs. Quarter of an hour later the animal was able to walk, but the hind legs were quite ataxic. Improvement continued for 5 days, although even at the end of this time, there was some uncertainty of movement in the hind legs. Death occurred as a result of dysentery. In the fourth animal the aorta was occluded for an hour and 10 minutes. Movements in the hind legs were observed as soon as the clamp was removed. Later there was perhaps slight ataxia of the left hind leg, but this soon disappeared, and the animal recovered completely. The fifth case was practically similar. As a result of these experiments, Rothmann concludes that occlusion of the aorta for an hour or more, just below the renal arteries, causes severe disturbance of motility and sensation in the hind legs. There is, however, probably a pretty free collateral circulation, which explains the remarkable fact that the symptoms are more severe after an hour's occlusion than if this is continued for a longer time. If the occlusion be made between the superior mesenteric and the phrenic arteries, the ataxia persists for at least 5 days. These results do not correspond with those obtained by Schiff, but as he operated chiefly upon rabbits, it is possible that, in these animals, the collateral circulation is not as satisfactory. As, however, Schiff operated without anesthetics and the animals struggled violently during the operation, it is possible that the ganglion-cells of the cord underwent a more rapid degeneration. Two animals were therefore operated upon under light ether-narcosis without opium, and both animals showed much more severe disturbance of the hind legs. In the first case, active movements in the hind legs did not appear for ½ hour, and in the second not for an hour. [J.S.]

2.—Holzinger reports the case of a negro 60 years old, who had suffered from **African lethargy** for 2 years. The condition was so pronounced that the man fell asleep during conversation if he sat down, and even while speaking himself. If he were not disturbed, he slept continuously, not even awakening to ask for nourishment, but at all times he could be easily aroused. From time to time he complained of nightmare, and he apparently suffered from hallucinations. His own opinion was that he had become possessed of an evil spirit. Unfortunately, the blood was not examined. [J.S.]

3.—In well-nourished children, a fold on the inner side of the thigh is found 3 or 4 cm. below the perineum that corresponds to the position at which the adductor muscles disappear beneath the sartorius and quadriceps. This Salomonson names the **adductor fold.** It corresponds to the deeper groove observed on the inner surface of the thigh in young infants; the greater depth in early life being apparently due to the fact that the sartorius and the adductors exceed in relative power the quadriceps. In cases of spinal paralysis, the adductor fold appears more superficial, and somewhat lower in position on the healthy side. In cases of cerebral palsy, there is at first only an indistinct asymmetry. Later, the adductor fold appears to move upward, and there is formed at the same time a second fold, somewhat shallower, at a lower point. Occasionally, however, the normal fold merely becomes deeper. These changes are only to be seen clearly in young children. [J.S.]

4.—Piltz's experiment was carried out upon an intelligent person who was placed in a room so illuminated that the pupils were midway between contraction and dilatation. In the left half of the field of vision, there was a gas flame; in the right half a black hat. If, now, the patient fixed his attention upon one or the other of these without changing the direction of his gaze, the pupils varied in diameter, becoming narrower when the subject thought of the flame, and wider when he thought of the hat; returning to the normal condition when he fixed his attention upon the wall. It was noted that when the subject continued to keep his attention fixed for some time upon one object, such as the flame, the pupils made a series of contractions, corresponding, according to his statement, with renewed efforts at attention. When the hat and flame were removed, and the patient was requested to imagine a black or a bright object, similar results were obtained. With different objects, such as an inkstand, there was no effect. If the subject was asked to imagine severe muscular exertion, the pupils were dilated. Piltz draws the following conclusions: The pupils contract more vigorously if the patient fixes his attention upon a source of light; less vigorously if he fixes his attention upon an imaginary light; they dilate more vigorously if the attention is fixed upon a dark object in the field of vision; less strongly if a dark object is merely imagined. They contract also if an act of muscular exertion is imagined. The degree of alteration in the size of the pupil depends upon the intensity of the attention. [J.S.]

Sundry French Journals.

1. Cicatrization of Wounds of the Liver. Cornil and Carnot. (*Semaine Médicale*, November 2, 1898. 18me Année, No. 55.)
2. Abscess of the Liver Consecutive to Appendicitis. Dieulafoy. (*Semaine Médicale*, November 9, 1898. 18me Année, No. 56.)
3. Hypodermoclysis in Diabetes With Acetonuria. Lepine. (*Revue de Médecine*, September 10, 1898.)
4. Rhizomelic Spondylosis. Spillman and Etienne. (*Revue de Médecine*, September 10, 1898.)

1.—In numerous experiments on animals, Cornil and Carnot have demonstrated that a **simple wound of the liver,** made by a sharp instrument, **heals in the same manner as the connective tissue of the skin** cicatrizes or as adhesions of the serous membranes become organized. In a wound made by a punch, the cicatrix is formed in the same manner as in the preceding case, if the interior cylinder of hepatic tissue has not been detached at its base. If the cylinder has been detached and then replaced, nearly all the hepatic cells that it contains undergo necrosis; but the plasma-cells and the vessels come from the normal liver and penetrate the necrotic cylinder, forming a cicatrix around it that brings the nutrition to it, as in the regeneration of an infarct. A V-shaped wound filled with fresh fibrin or pulp, undergoes repair quickly, and, at the end of 5 or 6 days, the fibrin is nearly entirely invaded by newly-formed vessels and by plasma-cells. In the beginning of the process, a thin layer of hepatic cells becomes necrotic at the surface of the wound, but the connective tissue, the vessels and their cells, and the biliary canaliculi are not injured. The preserved canaliculi appear, therefore, isolated in the midst of the fibrin and far from the islands of hepatic tissue. The epithelial cells of these canals may become giant-cells. The activity of the plasma-cells and of the vessels is always preceded by the appearance of a large number of leucocytes. A piece of fine sponge, especially if it has been soaked in yolk of egg, may be employed to replace a loss of hepatic substance. The spaces at the periphery of the sponge are invaded by plasma-cells and by vessels, whilst the center is filled with blood that subsequently undergoes organization. The removal of a lobe or of an extensive portion of the liver may be partially repaired by filling the wound with a mass of omentum. The resulting fibrous cicatrix resembles cirrhotic tissue. The endothelial cells and the plasma-cells are the active agents in the formation of a cicatrix in the liver, and the hepatic cells take no part in the process. The experiments have revealed some facts that will be useful in human surgery. Slight wounds of the liver may be stopped from bleeding by the local use of a sterilized 10% solution of gelatin. When the wound is of greater extent its lips may be approximated by ligatures passed through the capsule of Glisson. A little fibrin or a blood-clot remaining between the two surfaces of a wound will not retard cicatrization, for the clot will furnish the necessary nutritive materials to the connective-tissue cells and to the endothelial cells of the bloodvessels that will form the scar. Portions of the liver may be removed without inconvenience, and, if the loss of substance be superficial, the wound need not be filled with omentum; but, on the other hand, if the loss of substance is more extensive, the wound should be filled with fresh fibrin, sterilized fibrin, or a piece of sponge soaked in yolk of egg. The sponge is less readily organized than is the fibrin; but it offers more resistance and fills better the cavity into which it is inserted. [J.M.S.]

2.—Dieulafoy reports the case of a man, aged 34 years, suffering from slight jaundice, and presenting a temperature of 104°. The pulse was rapid, the tongue dry and parched. The yellowish color was extensive, without being intense; the urine was abundant and contained biliary pigment and albumin. The feces were slightly colored and never presented the whitish appearance characteristic of obstructive jaundice. The patient was prostrated, and his appearance suggested the form of icterus called typhoid. In the hepatic region there was a projection that extended into the epigastrium and that was so marked that exploratory puncture had been practised without result. The liver was voluminous and tender on pressure; it extended two-fingers' breadth below the margin of the false ribs. The other abdominal and thoracic organs were normal. Twelve days previously the patient had been seized with a violent chill that was followed by high fever, and since that time he had had chills, fever, and sweats without periodicity, nearly every day. Acute hepatic pain followed the access of fever, but the jaundice was not observed until a later time. This history seems to point to **suppuration of the liver,** and to that form of abscess of the liver **consecutive to appendicitis.** Questioned as to his previous history the patient said that about 10 days before the first attack of fever, he had experienced sharp abdominal pains that had obliged him to quit work; he located these pains in the right iliac region. During the 28 days that he was under observation, the fever persisted, in spite of all medication. Fourteen attacks of chills and fever were noted, but after a fortnight the chills had disappeared, although the fever remained, the temperature reaching as high as 105.8°. In a short time the liver had uniformly enlarged until it projected into the abdomen as an enormous, hard tumor without elevations. At times the jaundice was less severe, but the hepatic region was always painful, the pain radiating into the epigastrium, the abdomen, and the thorax. The patient had an attack of facial erysipelas, grew progressively worse, and, finally, died. The autopsy confirmed the diagnosis. The liver was enormous, weighing 3,200 gm.; it was about double its normal volume. The organ was deformed, bosselated, its surface crossed in numerous directions by projections of a yellowish and brownish tint. The consistence was soft and section revealed between 150 and 200 abscesses varying in size from the head of a pin to an orange. Some of these abscesses were situated beneath the capsule of Glisson, while others were deeply placed in the substance of the organ. The abscesses contained thick yellow or green pus, without fetid odor. They were, in the majority of instances, discrete, separated by septa of more or less altered liver-tissue, but without proper walls. Some of the abscesses, on the other hand, communicated with their neighbors and formed considerable purulent collections presenting a spongy character. The extrahepatic biliary passages and the portal vein were healthy and permeable. With the exception of the appendix and a few perihepatic adhesions the other abdominal organs were normal. The appendix was enveloped in false membrane that tripled its volume and that bound it firmly to the posterior surface of the cecum and to the psoas muscle. In dissecting these adhesions a small periappendicular abscess was discovered that contained a small quantity of slightly fetid pus. At the base of the appendix the appendicular veins were so well developed that they formed a true varicose plexus that, after surrounding the appendix, expanded upon the cecum and blended with the mesenteric veins. The appendix was not perforated, its canal did not contain calculi, but the mucous membrane was ulcerated in three or four places, and at one point there was a small abscess beneath the mucous coat. The pus from the periappendicular abscess yielded a pure culture of colon-bacillus. The veins of the appendix presented endophlebitis and periphlebitis, several of them were thrombosed and the walls of many contained microorganisms. These microorganisms reached the liver through the portal vein and there had given rise to the numerous abscesses. A case similar to the one just detailed was also reported, in a little girl, aged 11 years. Other cases have been reported by Berthelin, Achard, Feltz, Jorand, and others. As a result of the study of this case it is concluded: (1) That all cases of appendicitis, even those that are benign in appearance, may be the starting-point of an hepatic infection that will manifest itself by the rapid formation of multiple abscesses that may be counted by the hundred. These abscesses, of different dimensions, and often of areolar formation, may transform the liver into a sort of purulent sponge. The name "appendicular liver" is proposed for the condition as being generic. (2) One is struck by the disparity that exists between the small, closed cavity of the appendix, where the toxic infection is elaborated, and the large liver, weighing 3 kilograms, to which the micro-organisms, endowed with an unusual virulence, are brought, and where, in a few weeks, or, even in a few days, they determine such extensive lesions. (3) The hepatic complications of appendicitis develop quickly. Frequently in the course of an appendicitis that is fully on the way to recovery, an attack of severe fever makes its appearance. This phenomenon, followed by several similar ones is accompanied by hepatic pain and rapid enlargement of the liver. Jaundice is always present, and vomiting and diarrhea are frequent symptoms. (4) The appendicular infection of the liver and the jaundice, which is one of its symptoms, ought not to be confounded with the toxic icterus produced by the toxins elaborated in the closed appendicular cavity. (5) The appendicular affection of the liver is always fatal, and prophylaxis is the only treatment. This measure means early operation for the appendicitis, before fatal hepatic lesions shall have a chance to develop. [J.M.S.]

3.—Lépine reports the case of a man suffering from **diabetes**, passing about 60 gm. of sugar per day. His appetite was poor, and his condition serious. Becoming worse and acetone appearing in the urine, he was given a subdermal injection of 2 liters of sterilized water. The following day he passed a large quantity of urine, the pulse decreased in frequency and increased in strength, and the appetite became much better. The quantity of sugar passed per day was not decreased, but the acetone disappeared. [J.S.]

4.—Spillmann and Etienne report the case of a man, 53 years old, without a previous history of importance, who noticed weakness in his right leg followed by weakness in the left leg, and loss of movement at the hips. At no time was there any pain, or any interference with the general nutrition. When examined, 4 years from the first symptom, the spine was found spondylotic; the back being perfectly flat. The vertebral column seemed to be completely ankylosed, and there was also complete ankylosis at the hip-joint, with slight external rotation of the femurs. The other articulations appeared to be normal. After a discussion of the various names suggested for this condition by others preference is given the name **rhizomelic spondylosis.** [J.S.]

Iron in Anemia.—It is well known that it is by no means a matter of indifference what form of preparation of iron is used in different cases of anemia, and nothing is more common than to find a particular preparation succeed after many others have failed. In the first place, the state of the digestive functions should be examined carefully. If with a coated tongue there is a loss of appetite, flatulent distention, and other signs of dyspepsia or chronic gastric catarrh, the digestive functions should be improved before any form of iron is prescribed, and some such formula as the following should be ordered:

Solution of bismuth citrate	4 fluidrams.
Sodium bicarbonate	2 drams.
Aromatic spirit of ammonia	3 fluidrams.
Tincture of nux vomica	2 fluidrams.
Infusion of calumba to make	8 fluidounces. Mix.

Dose: Two tablespoonfuls an hour before food twice a day. If there is constipation, the following pill should be given daily, immediately before or after dinner, or supper when dinner is taken at mid-day:

Extract of aloes	1½ grains.
Powdered ipecac	½ grain.
Quinin sulfate	1 grain.
Soap	½ grain. Mix.

Make one pill.

After a week or ten days of this treatment one of the milder preparations of iron may be given and then 5 gr. of iron ammonio-citrate added to each dose of the foregoing mixture, and 1 gr. of ferrous sulfate to each of the pills. Subsequently the mixture may be replaced by a modification of Blaud's pills, in which the whole of the ferrous sulfate is not decomposed by potassic carbonate, but an excess of sulfate is left in the pill.

Exsiccated ferrous sulfate	72 grains.
Potassium carbonate	12 grains.
Powdered nux vomica	24 grains.
Soap	6 grains. Mix.

Divide in 24 pills. To be coated with a suitable covering. From one to three after each meal. In ordinary cases in which, as a rule, constipation is a prominent symptom, the following modification of an old formula is a most efficacious and rapid blood-restorer.

Iron sulfate	16 grains.
Dilute sulfuric acid	40 minims.
Solution of strychnin	48 minims.
Magnesium sulfate	1 ounce.
Chloroform water to	8 fluidounces. Mix.

Dose: Two tablespoonfuls twice or three time as day, an hour before meals.

Some prefer to give the *insoluble* preparations of iron immediately or about an hour after food, in order that they may be dissolved by the gastric juice, and so absorbed with the food; and in some cases in which there is an intolerance of iron-preparations this is a good plan. The *ferrum redactum*—the solubility of reduced iron in gastric juice—has been estimated by Quevenne: when 50 centigrams (7½ gr.) of reduced iron were treated with 100 grams (3 oz.) of gastric juice, 51 milligrams were dissolved, or about one-tenth—in 2 or 3-grain doses may be given in pill or powder, or the *ferri carbonas saccharata* in 5 to 10-grain doses in the same manner, thrice daily after food.

—Burney Yeo. (*A Manual of Medical Treatment.*)

Original Articles.

PROGRESS OF NEUROLOGY.[1]

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When invited by the President of the Association to deliver a lecture before its members upon some subject pertaining to the nervous system, I must confess that, while I appreciated deeply the honor conferred upon me, the prospect of such a lecture was associated with a certain degree of anxiety and trepidation. Unless a man is confident that what he has to say to an audience composed in large part of busy practitioners will interest and encourage as well as instruct his hearers, I can conceive of no possible excuse that could justify his appearance before them. On turning the matter over in my mind, however, it seemed to me that to a body of men so interested in the more purely scientific side of our profession that they support and attend each year a course of lectures upon scientific subjects related to medicine, a brief review of the methods that have been and are being employed in neurological investigation, together with an epitome of the main results thus far achieved from their application, could scarcely fail to be entertaining and helpful.

Indeed, on further consideration, and especially in the attempt to arrange the available matter in a more or less orderly fashion, it has struck me that the marked technical progress made and the enormous widening of knowledge concerning structure and function with regard to the nervous system more than any other part of the human or animal body, are peculiarly fitted to arouse enthusiasm and compel the admiration of the practical man.

In the brief time at my disposal it would be folly to attempt any minute description of technical methods or any laborious analysis of the details of individual original investigations. Such circumstantialities find a suitable repository in the special journals and reference-volumes, not in a general lecture. I shall rather attempt, therefore, to indicate as succinctly as possible the broad lines of development and expansion of neurological technic, to point out the relation of modifications of old and inventions of new methods to the successive discoveries in neural morphology and physiology, and, possibly, to make some references to the probable lines of advance in the future. In the course of my remarks I shall have something to say with regard to the combination of instruction with investigation in the study of the nervous system, the importance of division of labor and co-operative activity and the desirability of the association of well-organized laboratories, in which anatomical and physiological researches are undertaken, with well-equipped hospitals and asylums manned with clinicians thoroughly trained in the modern methods of investigating disease.

It will be simplest to begin with a glance at the conception of structure and function entertained by investigators at present, and afterward to consider briefly some of the methods by which this conception has been gained.

The human individual, as a member of modern society and the product of civilization, is an animal manifesting physiological activities more complex and diversified than those of any other member of the animal series, and far more intricate and varied than those of the primitive tribes still to be met with in certain parts of the world. Between the most complex of animals and the simplest protozoan species extends a series of organisms representing a scale of complexity of form and function most delicately graded. Common to every member of the series, though varying in constitution, is the substance that, for want of a better name, we call protoplasm. Equally common throughout the animal kingdom are certain fundamental activities—the capacity to assimilate foodstuffs; to get rid of excrementitious products; to react to stimuli emanating from the environment; to give rise to other organisms of the same kind. As every one knows, however, the amount of protoplasm, and the way in which it is distributed, varies enormously in different animals; it is also a matter of everyday experience that the fundamental properties of protoplasm are by no means identical in their manifestations in the different species of organisms. Morphological differences are constantly correlated with physiological distinctions. In the lowest forms of animals the protoplasm exists as a simple continuous mass—a cell—containing within it certain more differentiated and apparently more solid masses, the so-called nucleus, centrosome and archiplasm. In all higher animals the protoplasm, at the beginning of the animal's life, is also met with in the form of a continuous mass—the fertilized ovum—a single cell containing within it nucleus, centrosome and archiplasm. This unicellular condition does not, however, last long; for by a process of repeated division the single protoplasmic mass becomes broken up into, first, 2 cells, then 4, then 8, and so on, until, ultimately, in an animal like man, according to the estimate of Francke, there are as many as 26½ billions of cells. The original relatively simple minute microscopic lump of protoplasm has, by assimilation of suitable food under favorable conditions, grown into a manifoldly divided mass of protoplasm and protoplasmic derivatives weighing, say, 150 pounds or more. I shall not stop to discuss the factors, external and internal, which are operative in this gradual process of protoplasmic growth and subdivision, interesting as such a discussion could be made, but I shall simply remind you that, as the subdivision proceeds, groups of the masses that result begin to exhibit structural peculiarities that distinguish them from one another, and that are markedly different from those of the common mother-cell.

The body, as we are accustomed to say, becomes differentiated into a number of groups of cells, the cells of the individual groups resembling one another closely, but differing strikingly in microscopical appearance from those of other groups. As a result of this manifold subdivision of the living substance, certain of the cells have come to be in more intimate contact with the external world than others; some are closer to the supply of crude food; some are exposed directly to light and air, etc. Cavities form, intercellular substances, solid and fluid, are manufactured, and the organism is now a multicellular mass, of which the individual cells or individualities of a lower order are so related to one another, and so co-ordinated in their activities, that the whole animal appears to act as a unit—is, indeed, a unit or individuality of a higher order. The life of the higher unit "is not, however, an indivisible unitary archeus, dominating, from its central seat, the parts of the organism, but a compound result of the synthesis of the separate lives of those parts," *i. e.*, of the separate lives of the organic individualities of a lower order.

The cells of a higher organism, though individuals, are not, in a sense, as independent as are free unicellular organisms. They represent, on the contrary, individual members of a great cell-state, in which the principle of physiological division of labor holds, and in which each individual to a greater or less extent affects and is in turn affected by every other individual of the billions that constitute the state. The reciprocal influences vary enormously according to the position and the nature of the individual cells; some cells touch one another, some are directly united with adjacent cells by means of protoplasmic bridges, others are brought into relation with widely distant cells by means of extremely long protoplasmic processes or with the help of delicate fibrils, the product of the activity of the protoplasm of the cells; while through the lymph and blood, which can carry chemical substances in solution, every cell is placed in a position to act upon or to be acted upon by any other cell in the body.

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[1] An address delivered before the Yale Medical Alumni Association, December 15, 1898.

Though in the physiological division of labor each of the individualities of the lower order sacrifices in a certain degree its independence, yet it is in this way alone that it is possible for it to attain to a specialization of function, and had it to care for all the exigencies of the life of an independent isolated organism it could not long continue its existence in its peculiar condition. It is only by virtue of its membership in a well-organized state, composed of a multitude of individuals divided into groups of workers of various sorts, that it can with safety follow, as it were, "its own bent," and attain to a high degree of perfection in its own specialized physiological activity. The whole multicellular organism, on the other hand, can maintain a normal existence only when each individual group of workers functions in its proper time, place and intensity, so that the sum-total of the activities of the various specialized groups of workers is just sufficient for the "continuous adjustment of the internal to the external relations" of the organism; in other words, all goes well only so long as the activities of the various parts maintain collectively a certain equilibrium.

It is not, however, to be thought that in the differentiation of the multicellular organism into organs and tissues, each cell in developing a special function loses entirely the general fundamental properties of protoplasm. On the contrary, each of the specialized individualities retains the power to assimilate food, to give off excrementitious substances, and often the capacity of reproducing its like; the difference in capacity is one of degree rather than of kind. The specialized cell may not be capable of digesting crude foodstuffs; it may require that its nutriment be especially prepared for it by other cells or even by a whole series of other cells of different varieties. Again, the excrementitious products of a specialized cell may not consist of substances that can be directly eliminated by the body. Often, doubtless, other cells have to carry the process of combustion and analysis further. Indeed, the excrementitious product of the former cell may constitute a suitable article of diet for the latter.

The various groups of cells in the human body so curiously differentiated morphologically in correspondence with their specific physiological activities are already well known to all of you. The great group of cells of hypoblastic origin have been set apart for purposes of digestion and respiration. They build zymogens, acids and alkalies, and pour them out into the alimentary canal, where they mix with the food and prepare parts of it for absorption and utilization by the other cells of the body; or, as in the lungs, they mediate the gas-interchange between the air in the pulmonary alveoli in contact with their distal surfaces and the corpuscles and fluids of the blood situated proximal to them. The mesoblastic cells build intercellular substances and form the framework of the body upon which the soft parts are hung. Some of the intercellular substances become calcified, and in the form of bone supply "struts and ties for the bearing of thrusts and tensions." In other instances the intercellular substances are firm but elastic, and supply the resilient material suitable for the articular surfaces of joints. Other mesoblastic cells build fibers of various sorts—long, tough, non-extensile fibrils, as in tendon, aponeurosis, and ligament—elastic fibrils, as in areolar tissue, or the extremely delicate meshwork of finest fibrils, such as those met with in the fine-meshed reticulum supporting the parenchymatous elements cf the various organs. In the muscle-cells we see the embodiment of a special function of high dignity—contractility. In the protoplasm of these cells are laid down certain longitudinal structures—plasma-products—which look like fibrils, often with curious cross-markings—structures that are undoubtedly associated in some way, though we are yet ignorant how, with the approximation of the two ends of the fiber when the latter is stimulated. The cells of ectoblastic origin become divided into various groups, some of them forming a superficial covering for the body and certain appendages of that covering, as hair and nails; others entering the orifices to provide them with a lining; still others dipping down beneath the surface to build the secreting glands that elaborate the milk, the sweat, and the sebum.

A very large proportion of the ectoblastic cells—brothers or sisters of the epidermal cells—become especially differentiated along the lines of irritability and response and go to form the central nervous system, the axis-cylinders of the peripheral nerves, and the true nervous elements of the various sense-organs.

The nervous system, as we know it to-day, consists, like all the other tissues of the body, of an aggregation of cells and of intercellular substances derived from the cells. Aside from the covering membranes and the bloodvessels, with the tissue immediately surrounding them in the central nervous system, and the connective tissue, bloodvessels and lymph-vessels and neurilemma-sheaths of the peripheral nervous system, all the cellular elements and intercellular substances of the nervous tissues are believed to be derived from this ectoderm or outermost of the three layers of which the embryo is composed at an early stage.

These cells and intercellular substances of ectoblastic origin in the nervous system may be divided into two great classes: (1) That including the true nerve-cells and their derivatives, and (2) that including all the other cells in the central nervous system and their derivatives, namely, the elements classed as neuroglia and ependyma. Thanks to the newer investigations, the form-relations to be met with in connection with these two groups are gradually being unravelled, and it is to an epitome of our knowledge concerning these that I wish to direct your attention particularly this evening.

One of the most striking differences between a nerve-cell and most other cells of the body is the curious distribution in space of parts of the protoplasm composing it. While a subdivision of the peripheral parts of the protoplasmic mass, with the formation of cell-processes, does occur in several tissues of the body, nowhere else is this subdivision so pronounced; nowhere are cell-processes so long, so complex, and so manifoldly branched and so ultimately delicate as in the nervous system. Indeed, for a long time these intricate subdivisions of processes and many of the long delicate processes were not known to constitute integral parts of nerve-cells, and it was not until they became recognized as such that the cell-doctrine could be satisfactorily applied to the nervous system. To distinguish the whole nerve-cell, inclusive of all its processes, from the torso recognized by the older observers as the nerve-cell, Waldeyer has introduced the term *neurone*, a designation that has met with almost general adoption. While I shall speak of the specialized cell-individuals in the nervous system as neurones, I do not mean to imply that we meet here with structures incomparable with other cells in the body. On the contrary, the neurones or complete nerve-cells are individualities of a lower order, quite comparable with other individualities of the same order; *e. g.*, with gland-cells, smooth muscle-cells, tendon-cells and the like. In the case of the neurones, the special labor performed has to do with the functions of irritability and conductivity; in the gland-cell the most manifest functional capacity is secretion; in the muscle-cell contractility; in the tendon-cell, the manufacture and nutrition of firm fibrils for mechanical purposes. In every instance we may assume that the structural peculiarities met with correspond to the physiological functions to be performed, although as yet we may be unable to correlate all the details of structure with their corresponding details of function.

Nearly all the nerve-cells or neurones possess more than one process. Indeed, in most there are many processes, though in some cells only two exist. In the cells with many processes the latter are found as a rule to consist of two sorts: (1) much-branched processes never extending to great distances from the main mass of protoplasm of the cell, processes that come off by a rather thick wedge of origin from the main protoplasmic mass, branch manifoldly soon after leaving the cell, and soon exhaust themselves by multiple division; and (2) longer slender processes, each arising from the principal protoplasmic mass by a narrow wedge of origin, and extending for a shorter or longer distance, maintaining or nearly maintaining its original caliber on the way and giving off in its course only a few delicate side fibrils or colaterals. Ultimately, the fiber, like each of the side fibrils, divides several times and exhausts itself in delicate terminal arborizations—the so-called telodendrions. To the first set of processes,[usually multiple, the term "dendrites" is applied; to the second set of processes usually, however, single or one nerve-cell, the name "axones" has been given.

That there are neurones free from dendrites and that here are others entirely devoid of axones need not detain us here, nor need we at this time consider the elaborate nomenclatures that have been introduced for convenence in the description of certain peculiarities of number, istribution and function of neurones in various parts. One mportant point, however, must be mentioned, viz., the xones of the various neurones differ enormously in length. Thus, whereas some axones are short, extending for perhaps nly a few millimeters or even for a fraction of one millimeter from the cell-body, others are much longer, extending ven to many centimeters, and in extreme instances for a istance greater than half the whole length of the human ody. The neurones with long axones have been called by Golgi, cells of Type I, and those with short axones cells of ype II. They are, perhaps, better designated with von Lenossek as inaxones and dendraxones. The classification is merely a matter of convenience, as transitional forms exist. t is interesting to note the long axones become surounded during development by a myelin-sheath, while the short axones are not thus enveloped. Outside the central nervous system the axones of the cerebrospinal neurones are surrounded not only by a myelin-sheath, but also by a cellular sheath, the neurilemma, while the sympathetic axones are devoid of myelin-sheaths, but retain a partial cellular covering. The axis-cylinder of every nerve-fiber is in reality but the axone of some neurone, that is, a long-drawn-out process of the protoplasm of a nerve-cell. The perikaryon of a neurone, that is, the main protoplasmic mass containing the nucleus, and its dendrites, do not become surrounded by myelin-sheaths, but in certain instances, at any rate, are enclosed in an external reticular covering of peculiar structure, resembling, as has been suggested, a stocking drawn over the protoplasmic mass.

The main mass of protoplasm or perikaryon, with its contents, together with all its dendrites and their subdivisions, the axone with its side fibrils, collaterals and end-ramifications, constitute then a single nerve-cell, or neurone, that is, the particular form of individuality of the lower order met with in nervous tissues. It is estimated by Donaldson, of Chicago, that of the 26½ billions of cells in the human body, some 3,000 millions are nerve-cells, an estimate that, as I have suggested elsewhere, if, of necessity, not quite accurate, is rather below than above the truth.

While the nerve-cells or neurones are strikingly uniform in general external morphology, still microscopic examination shows that the length, mode of branching and size of the cell-processes, together with the relation in which they stand to the cell-body, afford ample opportunity for the production of varied appearances, and in the different groups of nerve-cells (for as might be easily imagined even among specialized workers belonging to one colony, when the colony contains thousands of millions of individuals, there is further specialization, division of labor, and accordingly formation of multiple sub-groups), one meets with structural peculiarities that permit a skilled histologist to decide even from the external form as to the particular group to which a given neuron belongs. Thus, in the diagram no difficulty is encountered in distinguishing a pyramidal cell of the cerebral cortex from a Purkinje cell in the cerebellum, a motor-cell from the ventral horn of the spinal cord, or a cell from a spinal ganglion.

The researches of the cytologists, in addition to supplying us with data concerning the form of the outside of the neurones and their processes, have added a wealth of detail concerning the internal structure. Each neurone, like every other cell-individual of the same order, contains a nucleus, with one or more nucleoli embedded in the protoplasm. In addition, in many nerve-cells the existence of centrosome and archiplasm has been demonstrated, and it is not impossible that all nerve-cells contain these peculiarly differentiated structures. In nearly all nerve-cells, after treatment with fixing reagents, the protoplasm of the dendrites and of the perikaryon can be seen to be made up of at least two substances (aside from the so-called pigment met with in many nerve-cells): (1) a substance, consisting of minute granules, arranged in masses that have the form of dots, rods, spindles, wedges, or cones, the so-called Nissl bodies, tigroid masses, or chromophile corpuscles; these show an especial affinity for certain dyes, contain iron and phosphorus and are soluble in alkalies; and (2) a ground-substance, in the fresh condition, and by some methods of preparation almost homogeneous in appearance, stainable by an entirely different set of dyes, resistant to weak alkalies, but digestible in artificial gastric juice.

There is a good deal of evidence that the first substance, that corresponding to the Nissl bodies or tigroid, is present in the living cell in solution, that it is allied in composition to the nucleo-albumins, and that it represents in large part the food-supply of the nerve-cell. The fact that it is present in about the same quantity and distribution in nerve-cells of the same group, and that it varies considerably in quantity and distribution in nerve-cells of different groups when studied by a particular method, makes it of high importance for the anatomy and pathology of the nerve-cell. This substance is present in the perikaryon and dendrites, but no ascertainable amounts of it exist in the axone or in the portion of the perikaryon directly continuous with the axone, the so-called axone-hillock. It must be extremely labile, for the quantity and distribution can be speedily and remarkably altered by insults of various kinds, mechanical, chemical, or thermal, applied to any part of the neurone. It may even be made to disappear entirely from the nerve-cell for awhile, to return again some time after the cause of the disturbance has been removed. No direct relation, however, between the symptoms manifested by the animal as the result of the insult and the change in this tigroid substance can at present be made out, for on the one hand the symptoms may be out of all proportion to the changes recognizable in this substance, and on the other the alterations in the substance may continue for a relatively long period after the unusual symptoms have disappeared.

The structure of the second substance, that which we have spoken of as the ground-substance of the nerve-cell protoplasm, and sometimes referred to as the "unstainable substance of Nissl," is as obscure as is that of protoplasm in general. In the perfectly fresh condition it seems to be, under the highest oil-immersion lenses, quite homogeneous, but that it is not entirely homogeneous is rendered likely by a consideration of the effects of certain reagents upon it. Thus, it is easily vacuolized, and the vacuoles, when formed, though varying in size with the different reagents that can be employed, tend to recur in the same variety of nerve-cell constantly in the same arrangement. Thus, the character of the vacuolization differs in the dendrites from that in the main protoplasmic mass, and the vacuolization in both dendrites and perikaryon is again quite different from that of the axone. In such vacuolized preparations, certain particles, sometimes lying in the vacuoles, more often lying in the protoplasmic walls intervening between the vacuoles, can be stained by suitable dyes. These are the so-called neurosomes, and they also differ much in number and arrangement in the various parts of the neurone, being most abundant apparently in the protoplasm of the terminal ramifications of the axones and collaterals.

By special methods of fixing and staining, fibrils have been observed from time to time inside the ground-substance. Some of these are doubtless identical with the walls of the vacuoles seen in other preparations. Recently, however, definite fibrillary appearances have been demonstrated inside the neurones of both invertebrate and vertebrate animals, and it would appear that these represent special morphologic entities differentiated from the rest of the nerve-cell protoplasm. In invertebrates, coarser fibril-like structures running through the axones and dendrites of neurones are described as breaking up in the perikaryon into a relatively large number of simpler fibrils, which, anastomosing freely with one another, unite to form intricate intracellular networks. In human nerve-cells similar fibrils can, by a somewhat different method, be demonstrated in the processes, and in the perikaryon, but, it is said, without the formation of anastomoses or networks. Single fibrils can be traced through the perikaryon from a dendrite to an axone or from one dendrite to another dendrite of the same neurone. It is even stated that a fibril running for some distance toward the perikaryon in one branch of a dendrite may, before reaching the perikaryon, turn back into another branch of the same dendrite and run in the opposite direction.

With regard to the ground-substance of the nerve-cell protoplasm morphological knowledge is far in advance of explanations of physiological significance. Certain it is that this ground-substance is of the highest importance for the nerve-cell functions—certainly of infinitely greater importance than the stainable substance of Nissl. While the latter can be markedly disintegrated or even obliterated from the nerve-cell structure, and yet complete recovery follow, any pronounced general alteration in the ground-substance is inevitably followed by complete degeneration and death of the whole neurone. Certain portions of the ground-substance may, it is true, be destroyed without necessarily causing the death of the whole nerve-cell. Indeed, disintegration of all the ground-substance forming that portion of an axone distal to the lesion when an axone be cut need cause no permanent injury to the neurone. The portion of the neurone that remains may regenerate the part removed.

We feel tolerably certain from recent experience that the ground-substance of the nerve-cell protoplasm is the portion of the neurone more especially concerned in the nerve-functions proper; but whether it acts as a whole, or whether, as would seem more likely, the structures differentiable in it, such as the neurosomes and fibrils, are of different physiological significance than the more homogeneous parts, the data at our disposal do not permit us to decide. Some investigators have been tempted, naturally I think, to assume that the fibril-like structures in the ground-substance represent the essential conducting substance, but, however plausible, this is not yet satisfactorily proved, and even if such structures were shown to be particularly suited for conduction, a similar function for other parts of the nerve-cell protoplasm would be by no means excluded. In passing, it may not be superfluous to remark that, lucky as we should be to establish clearly the element or elements actually concerned in *conduction* in the nervous system, such establishment would refer to only one feature of neuronal function, and the capacities other than those of mere conduction would have to be considered subsequently. Time will not permit me to enter into a discussion of the morphological and physiological facts that have been accumulated with regard to th nucleus. It will be sufficient to say that they are probably just as important as those of the protoplasm, if not more important, and that as yet our knowledge of them is even less complete.

A word as to intercellular or interneuronal substances inside the central nervous system. I have already spoken of the periaxonal myelin, and have referred to the reticula investment of the perikaryon and dendrites. That the blood capillaries give off a nutrient fluid that bathes the nerve cells there can be no doubt; that the neurones throw o excrementitious substances into the lymph is just as certain. Whether, in addition to this lymph and the products of th neuroglia and ependyma, there are, besides the perineuronal myelin and the reticular investment, any formed cellular substances derived from the neurones, we do not know. Th majority of investigators at present are opposed to the a sumption. For the neuropilum of invertebrates, howeve

It is asserted that fibrils similar to the intraneuronal fibrils exist entirely free, and a well-known German neurologist has recently made a strong plea in favor of the view that in the gray matter of the central nervous system of vertebrates, and especially of man, similar extraneuronal fibrils exist in large numbers, and are accountable for the peculiar stamp that the gray matter bears. From what we know of other tissues in the body, and from what we have learned of the fibril-building power of neuroglia-cells, the existence of such intercellular substances in the nervous tissue is not incomprehensible; nor would the demonstration of their presence be a matter of surprise. Thus far, however, this demonstration is lacking, and we need scarcely worry ourselves concerning the possible function of such hypothetical substances before their existence has been proved. That the bringing of such proof could fundamentally alter our general conception of the structure of the nervous tissues or of the body as a whole, I find difficult to realize, for as every histologist who has worked with the tails of rats, the ligamentum nuchæ of he ox, a piece of hyaline cartilage, or a mass of bone, knows, the occurrence of an intercellular substance is no strange phenomenon and exercises no restraining influence on the formation of the idea that the body essentially consists of a mass of cells or individuals of a lower order, united and co-ordinated into a single individual of a higher order—he whole organism.

It would take too long to review even briefly the main acts concerning glia-cells, ependyma-cells and glia-fibers. An epitome of the changes that the nerve-cells undergo in he body of the embryo and after birth, before they have assumed the form met with in the adult, must also be omitted. That in early stages the nerve-cells are devoid of processes, are motile and multiply by karyokinesis, is now well known. Independent of one another and wandering from heir birthplaces, the neurones gradually develop their wonderful processes, first the axones, later the dendrites, and finally they come to occupy, some of them sooner, others later, the localities in which they are destined to spend the emainder of their lives.

So much for the modern conception of the histological units in the nerve-tissues. The neurologist is in possession, however, in addition to the special knowledge that concerns he units or individuals, of much valuable information bearing upon the interrelations of the units, the way in which hey are grouped, the possibilities of reciprocal influence, ot only among members of a single group, but among the roups themselves—in short, the architecture of the central nd peripheral nervous organs. He sees how that, among n enormous number of individuals, of the order of body-ells, in the process of physiological integration, which leads n normal animals to a united functioning as a higher and more complete vital unit, a series of units morphologically nd physiologically intermediate have arisen. Neuronal mechanisms are combined to make neurone group mechanisms; neurone-group mechanisms are combined in turn to give rise to mechanisms of still higher orders, until, finally, the hole nervous system is included. In the latter, constantly acting upon the rest of the body and the environment, and in turn being influenced continuously by the rest of the body and its environment, we stand face to face with organism as ersonality.

It would take many lectures of the time allotted to this to deal with the features of this organization with which we are ready familiar. For we should have to consider the gradual ansition in the organismal series from unicellular animals in which the response to a stimulus has to be made by the same cell that receives it, through a long chain of ever-increasing complexity, in which there is dissociation of the primary stimulus from the ultimate response and the intercalation between the two of one, two, one hundred or perhaps many thousands of neural activities. In multicellular organisms there is, with the increase of functional complexity, corresponding increase in the number of special laborers and progressive dissociation of the function, with distribution of special tasks among these laborers. A brain appears, a general movement-center in connection with one or more organs of special sense (Steiner). In the highest of animals, consisting as he does of a large number of partially fused segments, each segment fitted out with a relatively independent sensori-motor apparatus formed architecturally of a set of receptive neurones closely related to another set of discharging neurones, the individual segments in turn being manifoldly united by commissural and association neurones with one another and with higher groups of neurones, we meet with the acme of dissociation of neural function, combined with the highest known order of complex unitary neural capacity.

We are learning to recognize the anatomical mechanisms that account for the fact that the application of sensory stimuli to the skin or tissues belonging to a primitive segment, while primarily influencing, by way of the neural channels, the musculature and the secreting glands of the same primitive segment, may secondarily excite similar tissues of adjacent or even widely removed segments; for the fact that the same sensory stimulus that sets free reflexes can also play a part in the origin of an instinctive reaction or even enter as an important component into the genesis of a voluntary act; for the fact that groups of elementary sensations resulting from stimuli originating in the body itself or in the external world can be united into physiological units of higher orders, into feelings or emotions, into more clean-cut perceptions and even into abstract ideas and conceptions; and also for the fact that subconscious afferent impulses, strong feelings and mature reasoning can all excite motor discharges, in the one case suddenly as an immediate and necessary response to the stimulus applied, in the second instance less promptly perhaps and modified by intercurrent factors, and in the last event more slowly, with the manifestation of all the characteristics of a deliberate choice. I say we are learning to understand these anatomical mechanisms, for I do not mistake the beginning for the end. What we know is but the threshold of that more complete knowledge of the treasures of which contemporary neurologists are beginning to catch a glimpse. Fortunately for medicine and for mankind this threshold is that of an "open door," entrance to which is barred by no political constitution or jealous state enactment; portions of the wealth beyond are available to anyone who possesses natural aptitude, and who, approaching it with reverence, interest, and industry, is willing to make his aptitude of value by submitting for a time to that rigorous training by which alone it is possible to acquire the necessary technical skill. This brings me naturally to the discussion of the methods of neurological investigation that have led to that knowledge of the nervous system that we already possess, and that, together with new methods that are sure to be discovered as we continue to work conscientiously with the old ones, are destined to expand our views, to open up new neurological vistas, and to illuminate those that are now seen only in the dawn.

On examination it is perhaps not surprising to find that these methods can be divided into two groups, which stand in intimate relation to the two aspects of function that we have learned to distinguish in our study of the nervous system. We have seen in this system how, through the subdivision of the labor among a large number of individuals, there has arisen a marked dissociation of functions, and how through fusion of the activities of dissociation-mechanisms the higher and higher unitary physiological activities are to be accounted for. In the study of the nervous system also, methods of dissociation or analysis have to be combined with methods of integration or synthesis, in order that the most satisfactory results in either morphology or physiology can be reached. It is a universal experience that in the progress of acquiring knowledge analytical methods precede the synthetical. There must be differentiation before integration. Now while a whole series of analytical methods have been in use for a long time, and have of late been wonderfully refined and rendered extremely delicate, it is striking that there are but few synthetical methods, and those that have been employed have been relatively crude, the latter methods having been used only by a limited number of investigators.

I shall not be so inconsiderate as to detain you by describing even briefly the technic of the various methods that have been and are still helpful, but shall be content with recalling to mind the special advantages of the principal ones and perhaps the names of the investigators deservedly associated with some of them. What I shall say in this connection will bear solely upon morphological studies.

The earliest workers occupied themselves mainly with describing the gross form-relations of the central and peripheral nervous systems as revealed on simple exposure by removal of the bony and membranous coverings, or by cutting into the organs. The shape of the principal masses and cavities, the existence of white and gray substance, the distinction of the cerebro-spinal and sympathetic nervous systems, and certain gross pathological alterations were early known and described. Coincident with the increased study of human material and greater skill in the use of the scalpel the descriptions become gradually more accurate, until in the records left behind them by such men as Sylvius, Vesalius, Monro, Sir Charles Bell, Lockhart Clarke, Reil, Rolando, Burdach, and Stilling, we cannot but marvel at the accuracy of the observation and the faithfulness of portrayal that they manifested.

The introduction of hardening fluids facilitated the study of gross material and, by preserving the tissue from decomposition, permitted the prolongation of the examination of a single specimen indefinitely. Thick slices of the hardened tissue yielded in many respects more satisfactory information than that derivable from slices of the fresh soft organs. Alcohol hardening permitted of successful manipulation with fingers and forceps, and the newer conceptions gained with the aid of the *Abfaserungsmethode* were at the time justly lauded. In this connection the work of Burdach, Reil, Foville, Stilling, and Meynert deserves especial mention.

Late in the last century and early in the present the method of isolation of parts was pushed farther, especially when the microscope came into more general use and methods of teasing with needles and of loosening the parts from one another by means of fluids that soften or dissolve out certain of the substances that ordinarily prevent dissociation were introduced, and the knowledge of the nervous organs became, within a relatively short time, enriched to an unprecedented degree. The details made out concerning isolated nerve-cells and their processes, and separated single nerve-fibers and their coverings by these relatively simple manipulations were truly remarkable. The histologists of the time attained to a degree of skill in this field that would give the blush to the modern histologist did he attempt to imitate them. In this connection Wagner, Deiters, Max Schultze, and von Kölliker are the names one thinks of. The student of neurology to-day will do well if he do not despise or neglect a form of examination that affords pictures of the parts obtainable by no other means.

So early as 1824 Rolando had cut sections of the nervous system and examined them under the microscope. It was in 1842, however, that Stilling, having cut a frozen section of the spinal cord and recognized the ease of the study of relations inside it, exclaimed "eureka" and caught a glimpse of the great possibilities of the application of the method of the study of serial sections. Since then microtomes have been invented and wonderfully improved, satisfactory methods of embedding have been devised, and now it is possible to cut the whole brain of an adult man into faultless serial sections in any one of the three dimensions of space, without loss of a single section. Recently Flatau has shown that it is possible also to divide the whole spinal cord into longitudinal serial sections. By means of absorption, embedding, serial sections of one or a few nerve-cells can be obtained as thin as one micron, or even less.

Next in importance to mechanical subdivision of the nervous system into its morphological elements and into extremely thin slices was the invention of the method of differentiation by means of the application of coloring-matters of various sorts. The carmine method of Gerlach, in connection with bichromate hardening of the tissues, not only differentiated the nuclei of the nerve-cells from the protoplasm in which they were contained, but by showing a special affinity for the axis-cylinders of the nerve-fibers rendered them, in sections, easily distinguishable from investing sheaths and from neuroglia-elements. The impregnation with gold chlorid also revealed minute nerve-fibrils and processes of nerve-cells that must have appeared most remarkable to those studying tissues prepared in this way for the first time.

Of even greater significance was the introduction of Weigert's stain for myelin-sheaths, which made it possible to follow bands of medullated fibers or even single medullated fibers for long distances in the central nervous system and in the peripheral nervous system. The method is valuable, not alone for the study of the adult nervous system of man and of animals in health, but because in diseased conditions it yields information of the highest import, as in areas in which the medullated nerve-fibers have undergone degeneration from any cause and have been absorbed, the absence of bundles of myelin-sheaths from positions in which they normally exist is demonstrated in a superb manner. While the extremely delicate method of Marchi will indicate the existence of degenerated nerve-fibers at a much earlier period than that corresponding to the total absorption of these fibers, and is accordingly a boon to the experimental investigator, it can never entirely replace Weigert's method for the study of degenerations. Indeed, in human pathological anatomy the two methods supplement one another most conveniently.

As a special application of Weigert's myelin-sheath stain may be mentioned Flechsig's studies of the developing nervous system. The discovery of the fact that the bundles of medullated nerve-fibers that exist in the adult nervou system do not all receive their myelin-sheaths at the sam time, but get them rather at successive intervals corresponding more or less accurately in serial appearance to the successive manifestations of more and more complex functional activities, gave the clue to the embryological analysis of the medullated tracts, which, having thrown and still throwing so much light upon the architectural characters of the spinal cord and brain, will always be associated with Flechsig's name.

The latest results of this application of this method have resulted in Flechsig's hands in the better localization of the primary sensori-motor areas in the cerebral cortex, in the demonstration of the fact that the projection-fibers connecting these various areas with lower parts of the central nervous system are medullated at different periods, and in the discovery of the existence and topographical distribution of the secondary centers of a higher and fundamentally different significance—the so-called association centers of the cerebral cortex.

Through improvements in the compound microscope, especially by devices for increasing the illumination and for the elimination in large part of the spherical and chromatic aberration, it has been possible to obtain a clear definition of microscopic objects even when magnified 1,000 or 2,000 diameters. The expansion of the powers of the human retina thus made possible, together with the advances in staining, clearing, and mounting, has revolutionized the science of histological and microscopic anatomy, and the old-time 6 weeks' course given in these subjects has had to be replaced by one of as many months. Cytology in general has made enormous strides and with it cytology in particular, although curiously enough the nervous system, owing to the peculiar character of these cellular elements, did not reap the benefits quite so soon as did the other organs of the body. When once results began to be attained in the nervous system by these methods or by particular modifications of them suited to the special structure of the nervous organs, they came with a rush, and during the past two decades the world has been flooded with books and original articles in morphological journals dealing with the results of research into the histology and architecture of the nervous system. To Golgi, of Padua, belongs the credit of devising a form of metallic impregnation that better than any other procedure outlines the external form of the nerve-cell and its processes, especially in embryonic tissues. Utilized by many students in many countries, this method has taught us how complicated the various processes of the nerve-cell really are. It has shown us the external morphological differences between dendrites and axones, the varying appearance of these structures in the same part and in different parts of the central nervous system, and it has given us an insight into the various interrelations that exist among the cellular units of which the system is made up. Recently, by slight modifications of the method, Golgi has shown that it can be utilized to demonstrate not only the reticular investment of the paracaryon and dendrite, but also certain curious network-like appearances inside the nerve-cell protoplasm. The objection, therefore, that Golgi's method affords no information with regard to the interior of the neurones can no longer be urged with justice.

The method of vital staining with methylene-blue or thionin, invented by Ehrlich, not only confirmed in large part the findings arrived at with Golgi's method, but also extended them. A special advantage of Ehrlich's vital staining lies in the fact that with it the axones of medullated fibers can be stained; whereas with Golgi's method the impregnation of an axone usually ceases as soon as the myelin-sheath is reached. By means of the method of fixation that we owe to Bethe, the transitory pictures obtainable by the vital staining may be caught at the acme of development and rendered permanent.

Among the host of cytological methods that are suitable for the investigation of the interior of the nerve-cell, that introduced by Nissl has been extensively followed up. It consists of alcohol-fixation, sectioning without embedding, staining with the methylene-blue-and-soap mixture, differentiating with aniline-oil and alcohol, and mounting in benzine-colophonium. It is especially valuable for the examination of the neurones under normal and pathological conditions with respect to the amount of the stainable substance of Nissl present in them and its distribution in the cytoplasm. Other similar methods such as thionin staining, toluidin-blue staining or double staining with methylene-blue and erythrosin, offer special advantages for certain purposes.

To demonstrate the neurosomes, fixation in a neutral solution and staining with iron-hematoxylin (Held) serves admirably. Fibrillary appearances are discoverable in tissues fixed in chrom-osmo-acetic acid and stained in saffranin (Flemming). They are exquisitely stainable in invertebrate tissues by a sublimate-gold method and by a hematein stain (Apáthy); while in vertebrate tissues they are most easily demonstrable in cells that have been treated first with ammonia, afterwards with hydrochloric acid, then with molybdic acid and finally with toluidin-blue (Bethe). The action of alkalies, acids and digestive agents of various kinds should also be mentioned.

[To be concluded.]

A STUDY ON NON-CONTAGIOUS FEVERS.

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[Concluded from page 168.]

With change in quality of respirable air come disorders in the physiologic capacities of the lung-chemistry, with sequence of disordered metabolism in the cells of the tissues in detail, ending in the formation of new products and compounds derived from the proteid molecules. These new unoxidized compounds, mainly leukomains, cause probably the phenomena in vital activities of tissue-excitability (excess or loss), irritability, and degeneration of structure, as a result of disordered metabolism. It is usually an excess of metabolism more or less localized at first, and the elevation of temperature is simply the outward sign of disordered heat-regulating function seated in the central nervous system. The production of heat is abnormally great by purely metabolic excess, while the dispersion of heat is faulty by reason of debility or paralysis of organic function; hence the elevation of temperature by retention mainly. It is problematic how much of the system's endeavors in this direction are meant to inhibit bacterial growth by the excessive heat (combined with the usually observed leukocytosis), thus curtailing the originating causal elements. At least it is in practice not well to interfere too much with the febrile conditions by the use of antipyretics. The least stable element of the body is probably the blood, and its absorption-products readily affect the nerve-centers; so that enzymes, ferments, and chemic products of bacterial growth, and the toxins resulting from disordered metabolism in conditions of distress, oppression, physical hardship, and deprivation, readily produce disorder of heat-balance. The blood, being a living tissue, its cells and elements ever changing and ceaselessly performing many varied and complex processes throughout the body, is the first to undergo change when exposed to the evil influences of excremental and organic emanations, and equally so when exposed to the same elements dissolved in water-supplies and food-supplies and absorbed from the digestive tube. There are many instances of continued-fever outbreaks from these causes, prominent among which are those cited by Roux (Lyons Café cases), and by Vaughan,[1] the series of fevers from the use of lake-water slightly polluted from boats (toxicogenic organisms, not typhoid), and such is distinctly the originating cause of Malta and forms of tropical and irritative fevers.

An instructive series of 17 cases of fever resembling typhoid, but not that disease, reported in the *New York Medical Journal* for January 8, 1898, is of interest in this connection and study, and are considered to have been cases of intestinal self-intoxication or toxemia. Dr. N. E. Brill in reporting the cases asks "How shall we classify the group of cases?" They occurred in July, August, and September, and at no time yielded the Widal reaction, the test being made daily in each case. The clinical history was as follows: There was a period of 3 or 4 days in which the patients complained of loss of appetite, malaise, general weakness, headache, and general body-pains, succeeded in many instances by either a distinct chill or chilly sensations, and in a few by epistaxis. The temperature (taken in the rectum) rapidly rose to 104° or 105° F. The period of temperature-rise, to its acme, was within 5 days, the morning and evening temperature of each successive day of this period being higher than that of the preceding day. On the fourth or fifth day, that is, when the patient's temperature was highest, the sensorium was dull, the patient apathetic, the face flushed, the cheeks reddened, with a white zone about the mouth, the eyes dull and expressionless, the conjunctivæ congested, the tongue in the greatest number of cases moist and always furred. The fur was thick and white, and it covered the dorsum of the entire tongue, only the edges and tip of that organ being free from the coating. There were contraction and wrinkling of the brow, owing to the intense headache of which the patient complained. The skin was hot and dry, and over the abdomen was an eruption of rose-red papules, with a diameter of 2 mm. only slightly raised and temporarily disappearing on pressure. The papules were not numerous, were lenticular in shape, sometimes acuminated, with a minute vesicle on top, and while present both over the skin of the back, chiefly between the scapulæ, and over the loins, they were, as a rule, more numerous over the abdomen. Sometimes the eruption was absent. The abdomen was slightly distended and tense, owing to a slight degree of tympanites. There was usually abdominal pain, but little tenderness. The spleen was enlarged, and its free border palpable. The bowels were, as a rule, constipated, and could only be moved by some laxative agent. Diarrhea was only exceptionally present. The mental condition was disturbed, there was apathy, semi-stupor or drowsiness most of the time. In a few cases there was delirium toward evening. The pulse was full and rapid, often dicrotic. The temperature was continuously high, 103° or 104°, with morning remissions of from 2° to 3°, and it showed these exacerbations for 10 or 12 days from the beginning of the disease, when, in the large majority of cases, it suddenly dropped to normal. In a few cases it showed a step-like descent in a period of 3 days The patient at once felt well, but weak. His appetit returned, his headache was gone, tympanites had vanished, the bowels moved without difficulty, and th patient regained his mental composure. Emaciatio developed, and while not so much as in typhoid, it wa still considerable. Prostration was complained of earl and the patient could not sit up in bed without assistance. The urine was high-colored and scanty. Ehrlich diazo-reaction was present in some cases only. Indica was not present in excess, and was sometimes absen Acetone and diacetic acid were not present. The bloo showed no leukocytosis, nor any change in the re blood-cells. The plasmodium malariæ was not present. Hemorrhage from the bowels did not occur, no was there any trace of blood in the stools.

None of the cases presented any complications o sequels. The course of the disease was not influence in any demonstrable manner by any plan or metho of treatment. All of the patients were strictly on flui diet, and were plunged, if the temperature remaine above 104° F. for any time. The bowels of some wer thoroughly evacuated, while in others no attention wa paid to them. Whether the bowels were moved tho oughly or not, the course of the disease remained th same in all; nor was the severity of the attack mod fied. There was no blood-reaction with cultures of th colon-bacillus, and this was the only organism foun in the stools and the secretions. The cases differ from true typhoid in the absence of prodromes, or ear prostration; the temperature-rise and the defervescen were different; and the state of the secretions, th tongue, the bowels, the cutaneous eruption, the leng of disease and the results, were all totally differe from the rule in enteric fever. In some respects, ho ever, the clinical picture bore some resemblance typhoid; yet, by all scientific generalizations applying to types and classes of disease, and the fact that they failed to fulfil the bacteriologic and clinical requirements of typhoid or any known type of fever, they are for the present best put in the category of toxemias or self-poisonings, autoinfections, or autointoxications. Intestinal sources are, in all probability, the chief mode of infection in these universal non-contagious fevers, and a mixed bacterial toxemia finally results. It is interesting to note that a certain degree of climatic heat, with the sequence of filth and lack of hygiene, is nearly always present, combined with faulty supplies and peculiarities of diet. (Gaertner's bacillus fever?)

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[1] *American Journal of the Medical Sciences*, August, 1892.

It is easily seen with what facility this enormous class of fevers encumbers the lists of typhoid, as a matter of scientific fact inadmissible, in view of the present available diagnostic methods,—serum-reaction, Elsner's and Hiss' differential culture-methods for the Eberth germ—in examining all the attainable secretions and excretions of the body. Cases of typhoid without intestinal lesions are not uncommon, but these do not fail to give us the germ from the urine, feces, or blood, and the clinical symptoms are the same (typhoid toxemias), with this exception, that the germ multiplies elsewhere than in Peyer's glands.

Facts to substantiate the theory of autointoxication and autoinfection are still limited in number. Autointoxication consists in the poisoning of the body by its excessive or abnormal metabolic products (Gautier's leukomains). In the course of tissue-oxidation there occurs an accumulation of incompletely oxidized products of the retrograde metamorphosis of the albuminoids, which results in self-intoxication (Poehl). Recent studies also show that intermediary chemic products of the fats and carbohydrates can also cause the condition. In addition, the toxic substances usually present in small amount in all the excretions and secretions, failing of elimination, do constantly cause grave pathologic disturbance. In speaking of these bodily poisons, von Jaksch classifies them as follows: (1) Retention-toxins, the result of normal tissue-consumption, and accumulated in the body as the result of obstruction of the avenues of excretion; (2) noso-toxins, the result of pathologic processes, which, changing the character of metabolism, form toxins instead of harmless products. Noso-toxins are subdivided into those from spontaneous alterations of fats, albuminoids, and carbohydrates, and those resulting from modified metabolic products by bacterial growth. These subdivisions may be unnecessary.

Robert, von Jaksch, Schwalbe, and Bouchard include under the head of self-intoxications all diseases resulting from a contagium vivum, *i. e.*, the infectious diseases. This is a doubtful proposition, from the lack of evidence of the fact, and from the standpoint that self-intoxications usually result from matters introduced from without, so that specific or infectious bacterial disease may not be included under self-intoxications. Yet, ultimately, bacterial agencies, we may affirm, are at the bottom of all these changes, internally and externally, whether modifying metabolism in changing the character of nutritive supplies, or interfering with glandular metabolism in cell and tissue, in any of its multitudinous forms, constructive and destructive, by their growth and multiplication.

Self-intoxication may take its origin from the skin, following injury or septic inflammation; the kidneys and the gastrointestinal tract; the various systemic disturbances. There is also disorder of the liver, pancreas, and the ductless glands, whereby function becomes faulty, leukomains accumulate, and ferments, albumoses, and peptones are obstructed, are changed, or are absorbed into the blood in excess, from various causes.

In a thorough study of autoxemia, considered in relation to general pathology, Dr. Charles Greene Cumston[2] refers in chemic detail to many observed facts in this connection, and, quoting Bouchard, Luff, Ewald, Gilbert, Hayem, Roger, Charlin, Ruffer, Lepine, Roux and Rouques, forms a valuable summary. To this article those interested are referred. But experiments with mixed cultures of intestinal organisms, such as, for instance, the colon-varieties and the commoner saprophytic cocci, still remain to be made, and exploration in this field may elucidate some of the fevers without lesion of a part.

Lesion of any tissue is accompanied by fever, the thermogenetic substances or products being to some extent indicated; as for instance the experiments of Rouques on the thermogenic action of extracts of various organs, and, according to Charrin, Ruffer, and Roger, the thermogenic action of muscle-extract under various conditions. This is constantly seen with renal, hepatic, and articular lesions. The injection of liquid extract of suprarenal glands produces rise of temperature. The ferments, peptones, and albumoses of digestion, when absorbed from the digestive tract, cause pathologic states of fever, and we are all familiar with the short continued fevers of intestinal retention or non-elimination. A rich field for investigation lies here. The subject of autogenous disease, and principally of a febrile character, is not yet explored, and only a few of the fragmentary definite conclusions of scientific experimenters are within our reach. The study is a most difficult one, requiring the greatest skill in physiologic chemistry, and the scientific results upon our comprehension of fever and general pathology promise to have the most profound and far-reaching influence on medical science. The formation of a toxic element, with selective affinity for the centers of the heat-regulating functions, is equally comprehensible and probable, whether by bacterial or by glandular cell.

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[2] *New York Medical Journal*, January 1, 1898.

Fever, increased bodily temperature, increased frequency of pulse, disturbances in the distribution of the blood, and alterations in the interchange of gases in the lungs, and in the excretion of urine, is produced by chemic changes occurring in the organism, especially in the muscles and glands. The phenomenon of heat-production stands in contrast with that of heat-dissipation, the latter taking place especially through the skin, the lungs and the excreta. Both processes, heat-production and heat-dissipation, are governed by the nervous system, and it is such regulation of both phenomena that makes possible the normal constancy of body-temperature. (Ziegler.)

Ordinarily, on exposure to low external temperature, the heat-production is augmented (especially by muscular activity), while heat-dispersion is hindered by contraction of peripheral and cutaneous bloodvessels and sweat-inhibition. On exposure to low temperatures heat-dissipation is increased by hastened respiration and dilatation of cutaneous bloodvessels and increased sweat-production. "Fever," hence, is the phenomenon illustrative of disordered balance between heat-production and heat-dissipation, the former being in excess. The elevation of body-temperature is dependent on increased metabolism. The increased respiratory interchange of gases is proof that the oxidation-processes and heat-production are increased. At the same time the excretion of nitrogenous substances in the urine is increased, on the average from 70 to 100%, and under certain conditions threefold. The destruction of the albuminoid substances in the body is also increased, this being observed even in the latest periods of fever.

With increased heat-production there is increased heat-dispersion, but the former is continuously augmented, while the latter is only irregularly increased, the nerve-centers governing heat-dispersion acting faultily. In defervescence these relations change and heat-dispersion is now the more active.

The various stages of fevers, the occurrence of rigor, the prodromes, initial stage, fastigium or acme, crisis, lysis, and convalescent periods sufficiently explain themselves, and the mechanism or outward phenomena are pretty well known.

The ultimate cause or causes of fever we may not know certainly, but we may take it as capable of positive demonstration that fever is generally if not always the result of the absorption of a harmful agent into the fluids of the body. These harmful agents may be demonstrable in a local lesion or trauma from broken-down tissue, from functional disease of an organ or glandular tissue, from injected substances into the blood of many and various characters; and lastly, and to us of most importance, the bodies elaborated by microparasites, especially those derivable from the proteid constituents of the body, the toxalbumoses and ferments.

The multiplication of microorganisms in the body may act directly or secondarily, causing an increased retrograde metamorphosis of the tissues, as well as the production of substances acting as poisons upon the constituent elements of the nervous system. This activity is of the nature of muscular and glandular stimulation or excitation, consequently heat-producing metabolism; while on the other hand, by lessened vasomotor nerve-function governing heat-dispersion by the skin and excretory organs, the normal regulating control and body-temperature balance is soon lost.

To what extent bacterial agencies and products are responsible for these primary and secondary actions is still undetermined in all types of fevers, non-infectious, specific, and those accompanying apparent lesions or organic disorder. Also, a still more complex conception ensues in cases following severe acute infections, when the body-energies seem to be palsied by the presence of a series of unusual, or unoxidized, compounds existing in the fluids and tissues, associated with disordered excretory action and grandular inactivity. In these cases autointoxication without marked pyrexia may exist, with additional or superimposed localized pyogenic infections from lessened resistance.

Autointoxications are caused by leukomains (the products of beginning retrogressive metamorphosis of the albuminous materials), which, under normal circumstances, through the action of intraorganic oxidation, are used up in the formation of urea and are then expelled. Thus autointoxications occur in diseases characterized by diminished oxidation-energy (uremia, diabetes, gout, infectious diseases and fevers). According to Poehl, the ferment that keeps the oxidation-process of the body at normal height is spermin, a base found in a variety of glands (pancreas, thyroid, testicles, etc).

A disorder of one organ (from climatic or environmental vicissitudes, diet, etc., produces eventually disorder in other organs and finally conduces to autotoxications, heat-perturbations, "fevers and retention-diseases"—a formation and absorption of harmful substances (unoxidized products)—a fever-origin in many cases.

Heat-perturbations of the character of continued fevers of unclassified types may also be of trophoneurotic origin, and the close relation of the trophic-nerve system to the constituent individual tissues of the body, their nutrition and functional integrity, and essentially that of the protoplasm of the glandular cell, all these still remain obscure.

The "idiopathic" fevers of the older writers were said to be due to, and independent of, local inflammations, and to result from the absorption from without of some poison multiplying in the system; or from the action on the nervous system of a poison bred in the body—what Murchison, in his handbook of special therapeutics and pathology, called a "non-specific cause."

Fever (Virchow) consists essentially in elevation of temperature, which must arise in increased tissue-change, and have its immediate cause in alterations of the nervous system.

Samuel (in the article on fever in the "Real Encyclopädie der gesammt Heilkunde") states that by fever we understand an elevation of temperature evoked through lesion of the heat-centers.

Dr. Austin Flint wrote that the febrile condition involves "defective nutrition or inanition, an excessive production and discharge of nitrogenized excrementitious matters and carbonic acid, with waste and degeneration of the tissues, and partial or complete suppression of the production and discharge of water."

Liebermeister defines fever "as a symptom-group, at the foundation of which is an elevation of the temperature of the body produced by a morbid general increase of metamorphosis."

There are in all languages similar definitions of fever, but we can hardly state that we really know more than the sequence of the phenomena observed in the various types of fevers, however much the present microphytic pathologic science is elucidating. Biologic chemistry is not yet ready to solve the problem.

The physiologic facts that have to be kept before us, in addition to an understanding of the theory of animal heat, are well described by Dr. Maclagan in his "clinical study" (1888) and are as follows: (1) Two main processes embraced under the general term metabolism (Stoffwechsel) are constantly going on in the system, constructive and destructive. (2) During tissue-disintegration various products, destined for elimination are formed—urea, carbonic acid, and heat. (3) Urea is chiefly eliminated by the kidneys, CO_2 by the lungs, and heat by the skin. (4) In the case of each, production and elimination are so well balanced that no accumulation takes place in the system. (5) In the case of heat, this balance is so well maintained that the mean normal temperature is always the same (98.4° F.). (6) The various processes here indicated are presided over by the nervous centers, and it is by the regulating powers of these centers that the normal balance is maintained. In fever this whole process is disturbed; there is increased formation of urea and CO_2, and the temperature rises above 98.4° F. "The preternatural heat of fever is the result of vital and chemical action exalted above the standard of health, with disturbance of the processes by which heat is carried away" (Murchison).

Dr. Maclagan states further that the thermal apparatus is composed of (1) the tissues—particularly the muscles—forming heat; (2) the surface, from which heat is eliminated—about 80% (20% by the lungs); (3) a central controlling power in the nervous centers; (4) nerves connecting this with the heat-forming parts of body; (5) nerves connecting the heat-centers with the heat-eliminating surface.

Dr. Macalister describes the thermal nervous system as consisting of three parts: (1) The heat-adjusting mechanism (thermotaxis); (2) the heat-producing mechanism (thermogenesis); (3) the heat-discharging mechanism (thermolysis). Disorder of the first implies irregularity of temperature only; disorder of the first and second implies, in general, heightened temperature and increased body-heat—that is, ordinary fever; disorder of the first, second, and third implies, in general, hyperpyrexia, dangerous increase of heat, and steadily rising temperature.

In the ascending scale of evolution in the animal kingdom, we seem to rise from the thermolytic to the thermogenic, and thence to the thermotaxic nervous system. Cold-blooded animals possess a thermolytic mechanism—a nervous mechanism that controls the vessels and breathing. We cannot easily throw a frog into an enduring fever. In young mammals, the thermogenic system is developed before the thermotaxic—hence a slight cause sends an infant into a "high fever;" a little restores it again. As the child grows, the thermotaxic mechanism is evolved, and its temperature becomes stable.

Thus, according to the neurotic and metabolic theories, the rise of temperature above normal is due to impaired inhibitory force, by which heat-production is kept within normal bounds (impaired thermotaxis), and increased activity of heat-forming processes (exalted thermogenesis). The German writer, Samuel, states, "if the heat-centers alone are diseased, the question is one of uncomplicated (febris simplex pura) fever.

Cantani (1890) is not satisfied with the nerve-center disease-theory as originating fever, but thinks that the local production of heat, resulting from processes of chemic combination, forms the essential factor. The action of the nerve-centers may produce temporary rise of temperature, but not a continuous or remittent elevation. Fever must be looked upon as an acute alteration of organic metabolism, with increase of tissue-combustion, and consequently also of heat and consumption of body; and is also, to a certain degree, a beneficial reaction of the organism to changes in metabolism and in the blood, produced by the causative agent of the disease. So long as the cardiac muscle does not suffer, or the nervous system is not threatened by hyperpyrexia, and the consumption of tissue does not give rise to exhaustion, fever or high temperature is now thought to be curative. The temperature alone is not a measure of gravity—varying according to the condition of the reactive qualities and energy of the organism. Pyrexia diminishes the virulence of the causative agencies, increases the power of tissue-resistance, and alters the nutritive soil, rendering it less favorable for the multiplication of the microphytic elements, the essential factors originating the morbid state.

Ughetti[3] maintains that the hyperthermia of fever is due to the presence of corpuscular foreign bodies in the blood. He says that a distinction should be made between fever and hyperthermia, yet that hyperthermia is almost always one of the symptoms of fever. According to some theorists, the fevers properly so called are infectious toxemias, due to a poison that should be called pyrotoxin, but always, in Ughetti's opinion, fever is caused rather by the presence of microbes in the blood, acting as foreign bodies, than by the secretion of a pyrogenic toxin. Experience, he contends, proves that the constant result of all poisoning is a subnormal temperature. If poisonous chemicals are injected into an animal, the temperature is always lowered; if, on the other hand, substances perfectly harmless of themselves, such as a saline solution, are injected, they may lead to a dissolution of the surrounding tissues, producing a certain amount of detritus, the particles of which will act as foreign bodies, and cause a rise of temperature. through the antitoxic energies of the body, the morbific influences, vital and chemic, are ceasing to irritate, to paralyze, and to disturb functions; and an immunity is progressingly occurring and gaining the mastery, the endurance and strength of which is inherent in the molecular constitution of the individual. With the recession of the force of the microphytic causal elements, their destruction and elimination, we have the usual phenomena of lysis and convalescence.

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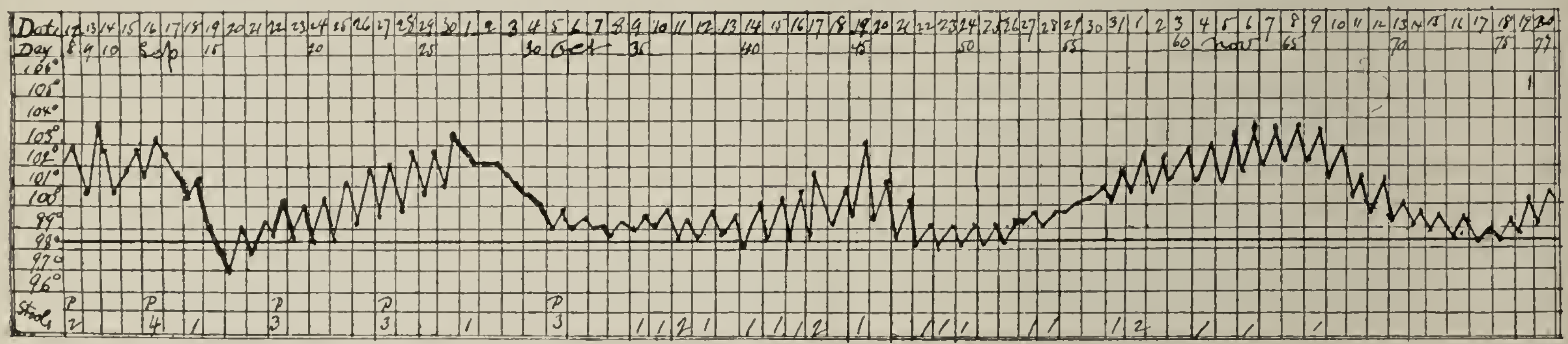
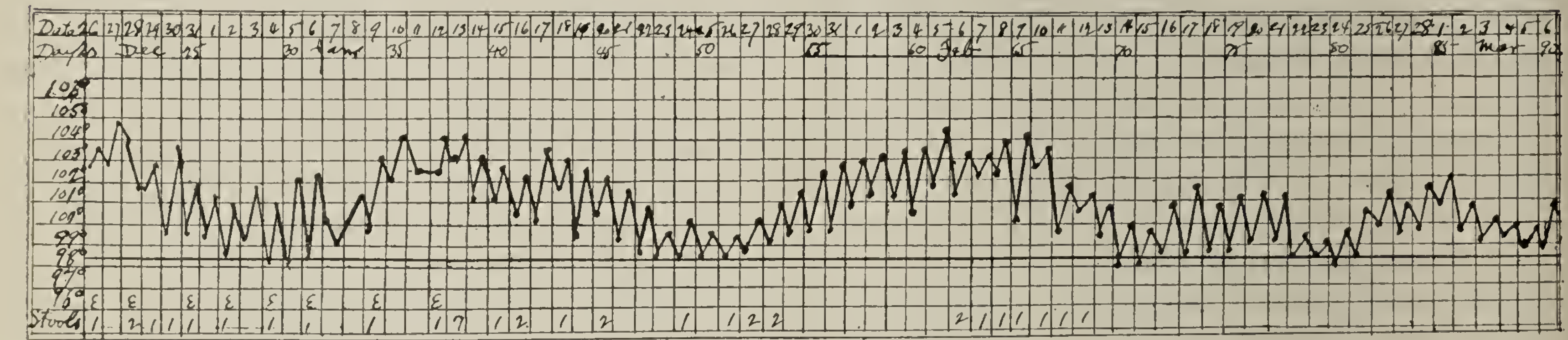
[3] *Gazette Hebdom. de Med. et de Chirurg.*, Sept. 2, 1897.

Thus, what we believe to be the general rule in all cases of severe and infectious fevers is in all probability the same for the greater number of the disorders characterized mainly by elevated temperature and which are without marked local lesions in their course. It is at the present time questionable whether the microorganisms of typhoid, typhus, and Malta fevers do not always exist within us, and in the environment of a crowded humanity, as saprophytes without pathogenetic qualities; yet these are essentially specific infectious organisms when found associated with their well-known diseases, and capable of reproducing or communicating the typical disease. Among the host of other saphrophytes, within and around us, may we not evolve, under appropriate conditions, species that may readily influence glandular and functional disorder in the men temporarily susceptible, owing to the well-known circumstances in military and naval life that tend to depress the physical and mental energies? Physical hardship and deprivation, vitiated breathing-air during sleep, crowd-poison, and monotony of occupation, all influence susceptibility. Hence the origin of disease, attended mainly by disorder and elevation of temperature, with impaired functions and accumulated waste-products—in short, a "continued simple fever." That we do not as yet individualize the organ-

The charts show the temperature in cases of long-continued Malta or undulant fever, exhibiting characteristic pyrexial waves. (From Hughes.) E = Enemas. P = Purgatives.

The pathology of the more pronounced infectious fevers includes (1) the entrance into the blood of a contagium—the specific poison; (2) this contagium affects by means of the blood-stream the nerve-tissue, thus disturbing the processes for the production, regulation, and the dispersion of the heat of the body. The resulting phenomena of abnormal heat, tissue-waste, disturbed function, and exhaustions naturally ensue. The rapid cardiac action and exhaustion are due to nerve-paralyses (pneumogastric and cardiac ganglia) and to the irritating toxins in the blood. Non-elimination of metabolic wastes results from disordered glandular functions; these retentions in the body, together with the excessive heat, directly cause the ataxic symptoms and complications. Now, in the majority of cases there occurs a climax in the contending elements, successful for the patient in whom, isms concerned (probably of the micrococci) is not proof of their absence in the ultimate etiology, but it must appeal strongly to those who have seen many of these simple fevers that one or more of the commoner saprophytes in association with the colon-varieties have finally gained sufficient pathogenetic qualities to disturb normal nutrition and balance of function; or, if carried further, to the formation of selective bodies acting as toxins upon the nerve-centers governing the regulation of the body-temperature. The majority of simple continued fevers occur in the warmer climates and seasons of the year, in consonance with heightened conditions for all bacterial growth; and the fatal cases seem due to the action of nerve-toxins purely, as the excessive pyrexia cannot be influenced by any form of treatment apparently, there is no local lesion, and as the ataxia and the degenerated heart-muscle found after death seem to indicate.

Among the more recent experiments on combined or mixed bacterial toxemia from varieties of colon-bacteria with pyogenic cocci in the etiology of gastro-intestinal fever, are those of A. M. Coco,[4] who asserts from his researches that: (1) the colon-bacilli become virulent in the presence of the pyogenic streptococcus or staphylococcus; (2) the colon-bacilli alone produce no thermic elevation, or merely a slight momentary rise in temperature; (3) the simultaneous ingestion of colon-bacilli and the pyogenic staphylococcus determines an appreciable elevation of temperature and rapid loss of weight; (4) cultures of the colon-bacilli and pyogenic streptococcus or staphylococcus ingested simultaneously establish an intense gastro-intestinal catarrh.

The studies on mixed infection by Fessler, Roger, Frænkel, Bouchard, Emmerich, Roux and Yersin, Klein, Pandowsky, Friedländer, Buchner, and many other leading bacteriologic authorities in many countries, have been conducted mainly with a view of increasing or attenuating individual virulence, or inhibition and curative qualities secondarily; and, with few exceptions, studies are lacking upon the subject of thermogenesis as the result of bacterial agencies, singly or in association.

THE DIFFERENTIAL DIAGNOSIS OF PHARYNGEAL SYPHILITIC LESIONS AND DIPHTHERIA.*

By LEWIS S. SOMERS, M.D.,

of Philadelphia.

It seems almost impossible to mistake the lesions of syphilis of the oro-pharynx for those of diphtheria, but in a small number of cases, especially when the tonsils are involved, errors in diagnosis occur; although the literature reveals an almost entire absence of references to this question: Lennox Browne[1] devoting a line to the subject, and Quain[2] saying that "syphilis may be mistaken for diphtheria." In both secondary and tertiary syphilis, especially when no skin-lesions are discoverable, and when the patient will give no history of infection, so-called ulcers on the soft palate and tonsils are liable to be diagnosticated as diphtheria, especially during an epidemic of the latter disease. These patches of apparent white membrane are usually mucous plaques, and consist of a white, opaline center of necrosed epithelium, surrounded by an inflammatory zone.

The various manifestations of syphilis, during its entire course, from the initial chancre to the destructive ulcer resulting from the breaking down of a gumma, may be seen in the throat; the secondary erythema, the mucous patch and tertiary destruction of tissue being the manifestations that may be misleading. Erythema alone is rarely mistaken, as it differs in color from the inflammation present before the appearance of the false membrane in diphtheria, is sharply defined, and has a peculiar brick-red hue, readily recognized. In syphilitic angina before other tonsillar changes have occurred, I can recall several cases in which the diagnosis was, for a time, in serious doubt, the existence of diphtheria being verified only by the development of the membrane. In such cases we do not always find typical Klebs-Löffler bacilli, modified rod-forms and cocci being the prevailing types.

The specific ulcer that is common on the tonsils, and less so on the pharyngeal walls, is more frequently mistaken for diphtheria than any other lesion of syphilis, on account of the grayish-white appearance of the debris covering the ulcer and its irregular form, especially when limited to the tonsillar tissue; and when this is removed, bleeding occurs; but, unlike that resulting from diphtheria, it arises from granulation-tissue covering its floor. These ulcers may be superficial, deep, phagedenic or gummatous, the deep and gummatous forms especially resembling diphtheria; they may also be single or multiple, and when several are observed in proximity, they coalesce, covering the entire tonsil and extending to the velum and the soft palate, and resemble most strikingly a true diphtheric patch. Usually the ulcers are single, round or oval in contour, the edges thickened, with sloping walls and smooth floor and covered with a scanty secretion of pus and mucus. When the secretion accumulates and covers the ulcer, it is raised above the edges, and the syphilitic aspect is, to a great degree, lost, the diphtheric appearance being pronounced, especially when there is an excess of thick, tenacious mucus, binding the debris into a compact mass. Granulation-tissue in the superficial ulcer is not present in any considerable amount, but in the deep variety the floor is covered with large, pale granulations, bleeding on the slightest touch, the mucous membrane surrounding the ulcer assuming a dusky-red color that is more or less characteristic.

The following case of symmetrical mucous patches on both tonsils and adjacent portions of uvula, illustrates the close resemblance to diphtheria:

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[4] *Gazetta d. osped clin.*, Jan. 23, 1898.

* Read before the Northwestern Medical Society, October 4, 1889.

A. A., male, 43 years old, was first seen on April 5, 1898. He had arrived in this country from Germany three days previously and felt in perfect health until the 4th, when he complained of sore throat and dysphagia, rapidly increasing in intensity. The patient was seen by a physician, who made a provisional diagnosis of diphtheria, as there was moderate rise of temperature, general malaise and rapid pulse, and both tonsils and part of the soft palate were covered with false membrane. I then saw the patient and found the symptoms described, with glandular enlargement at the angle of the jaws, post-cervical region and epitrochlear space. The pharynx was congested and on the upper two-thirds of the tonsils, the soft palate and also covering the sides of the uvula adjacent to the tonsils, was a grayish-white membrane to all appearances diphtheric in nature. The membrane was elevated above the surface, and on the right buccal surface there was a small irregular area, surrounded by a faint blush distinctly outlined from the healthy mucous membrane, as was the red coloration surrounding the tonsillar and palatal membrane. This did not resemble the other white areas, as it had a bluish, translucent tinge and was recognized as a typical mucous patch. The teeth were in bad condition, but no membrane was present on the gingival surface, and from the glandular involvement and mucous patch on the inner surface of the cheek, a diagnosis of syphilis was made. The character of the plaques on the tonsils, and especially at the junction of the anterior pillar with the soft palate, was misleading, on account of secondary infection with pus-cocci, the bacillus of diphtheria not being present at any time.

Previous to this the patient had given a negative history, but while examining the throat the question was suddenly asked as to when he had had a primary sore, and he answered that infection had occurred 3 months previously, thus making the diagnosis absolute. The man was placed on potassium iodid and mercuric chlorid and was given an alkaline antiseptic solution for the mouth, while the mucous patches were cleaned with hydrogen dioxid and dusted with equal parts of calomel and boric acid. Two days later the patient felt decidedly better, but still complained of some difficulty in swallowing. On April 9th, the man's condition was worse, as the mucous patches had increased in dimensions. On the 14th he was much better, the patches were diminishing in size and the inflammatory areola was nearly absent, but there was complaint of headache at night. On the 21st the mucous patches had entirely disappeared and there was only slight congestion of the mucous membrane. On May 3d the man complained of pain in the larynx, and the soft palate, the uvula and the anterior pillars were deep red in color and infiltrated, but not edematous. He was decidedly improved in all respects and could swallow both liquids and solids without difficulty. On the 10th the previous condition had entirely disappeared, but a typical mucous patch had developed on the posterior pharyngeal wall.

The local symptoms analogous to those of diphtheria are both subjective and objective, and, as the latter have to a great extent been considered, it is only necessary to mention the character of the syphilitic pseudomembrane, which is due to infection of the ulcer by streptococci and staphylococci and is not a true membrane, but debris with fibrin-elements and blood-cells. The superficial layer may readily be removed, but the deeper portion is tenacious and closely adherent, causing bleeding when forcibly removed. In some cases of diphtheria, when membrane is present in considerable amount, no complaint is made of sore throat, this being well exemplified in a case seen a short time ago, in which the fauces were covered with diphtheric membrane, the disease being of such severity that the child died in a few days, and yet at no time was there complaint of sore throat. In syphilis we usually find absence of pain in the majority of cases and few subjective symptoms; even on inspection there may be no sign of the future ulcer, except, if the parts be irritated with a probe, sharply demarcated areas of congestion will become visible. In tertiary ulcers there is no pain of any moment, while in the secondary changes, pain on swallowing is only noticed when the epithelium is denuded and hot drinks or highly seasoned food is used. The temperature is commonly elevated in extensive syphilitic throat-lesions, as it always is in diphtheria, and malaise, anorexia and the symptom-complex common to nearly all acute throat-affections make their appearance. These general symptoms have been observed by several writers, and Klotz[3] remarks that in conjunction with the local signs, secondary syphilis, especially in the early stages, may be mistaken for diphtheria.

The following case is one of tonsillar and pharyngeal ulcer resulting from the breaking down of a gummatous tumor of tertiary syphilis and simulating diphtheria, but not to the same extent as in the previously recorded case.

Mrs. M. B., 29 years old, was seen on July 6, 1897, complaining of acute pain in the throat for three weeks and inability to swallow. Her throat had felt dry from childhood and she had been subject to attacks of tonsillitis at frequent intervals. The left tonsil was enormously swollen and projecting beyond the median line; the anterior pillar and soft palate inflamed and edematous; and the uvula obliterated. The right tonsil was also inflamed, but not to the same degree as the left. In the center of the anterior pillar on the left side was a perforation 2 mm. in diameter, through which pus was exuding in small amounts. The tonsil was hardly visible, on acount of the edema and infiltration of the palato-glossus muscle, while the pharyngeal tissues were atrophic, with superadded inflammation. There were nasal obstruction and tinnitus, but the auditory apparatus was normal, while the nasal tissues were sclerotic, except the right middle turbinal, which was "jammed" against the septum.

The diagnosis was phlegmatous tonsillitis, and the pus was evacuated by dilating the sinus in the anterior pillar and directing the woman to use a rhus glabra gargle. Two days later she again returned, without having improved. The edema and inflammation had disappeared to a great extent, but there was considerable destruction of tissue around the sinus, the result of treatment being different than what one usually expects. It was then found that the woman had had an ulcer on the left tonsil a year before, which lasted for several months, but she had had no pain in the throat, except with the attacks of tonsillitis, and the ulcer did not trouble her at all. She had had three miscarriages and had borne five children at term, four of whom were dead and macerated at birth, while the fifth was healthy. Her hair has fallen out and there were asthenopia and catarrhal conjunctivitis, but no iritis. With this history and the condition of the tonsil, a diagnosis was made of gumma, with beginning destructive changes, and the woman was placed on mixed antisyphilitic medication. She was again seen on July 31, when the left anterior pillar was almost absent, while the tonsil on the same side had entirely disappeared. Extending backward from the former position of the tonsil and involving the left half of the pharyngeal wall was a large, white area, surrounded by a red areola and covered with thin bluish-white membrane. There had been marked destruction of tissue, the uvula being drawn to the right, with the remains of the anterior pillar attached to it, and resembling a second or supernumerary uvula.

Not recovering promptly, the woman had consulted another physician, who diagnosticated the case as one of diphtheria and instituted treatment for that affection. The patient was, however, not satisfied, and returned with decided appearances of diphtheria that proved to be syphilitic. Examination of the throat, without careful attention to the previous history, disclosed the clinical picture of diphtheria. The voice was weak and phonation was painful, although the general physical condition was good. The larynx was anemic, but otherwise normal, and defect in speech was due to the changes in the soft palate. On August 3 there was much improvement, the destruction of tissue having ceased and healthy granulation-tissue being present. The ulcer on the pharyngeal wall was 3 cm. in diameter and covered with white secretion, which was readily removed with an alkaline spray. The post-cervical glands were slightly enlarged, other glands being normal. On August 31 the pharynx was normal, except that the remains of the anterior pillar were adherent to the pharyngeal wall.

Similar to these cases is one reported by Sendziak[4] which presented, 3 weeks after the commencement of the disease, all the appearances of diphtheria, and was treated as such for several weeks. The right tonsil was enlarged in its vertical diameter so as to nearly occlude the isthmus of the fauces; it was entirely covered with a bluish-white membrane, which was thick and lardaceous and incapable of being separated from the parenchyma of the tonsil. The procedures used proving of no avail anti-syphilitic treatment was begun, with prompt and rapid cure.

The differential diagnosis of syphilitic lesions simulating diphtheria has, to a considerable extent, been pointed out, but of further interest it may be noted that in syphilis the temperature is not so high, the patches on the pharynx and tonsil are not as elevated, the adjacent tissues are not so violently inflamed and we usually find some concomitant symptom, such as the dermal eruption. In a number of cases of diphtheria it is common to find a somewhat symmetric arrangement of the membrane; this, however, is more marked in syphilis, and the so-called "Dutch garden" symmetry of syphilitic ulcers is rarely similated. The crucial test, however, is the presence of the bacillus characteristic of diphtheria; and to establish the diagnosis Thompson[5] says that the history of the case, absence of acute constitutional symptoms, with the course of the disease, must also be taken into consideration.

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TREPHINING IN EPILEPSY.

By WILLIAM P. SPRATLING, M.D.,

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Failures often speak more eloquently than success, and we can always learn something of value from them. It is not my purpose in this article to write for or against trephining in epilepsy, but to submit a brief resume of facts covering the operation in 7 cases; and whoever reads may draw his own conclusions. All of the cases presented are now under treatment at the Craig Colony. In none of them, however, was the operation of trephining performed at the Colony.

Case I.—P. T. W., a male, aged 24 years, was admitted to the Colony March 25, 1896. He had been epileptic for 7 years. The type of epilepsy was grand mal. The frequency of seizures was at first once a day, later, once in 10 days or 2 weeks. The aura was represented by dizziness. The mental state was good. The man was sent to the Colony from the City Hospital, Blackwell's Island.

History of Operation.—The operation was performed in October, 1895, 5 years after the epilepsy developed. The case was in charge of a prominent surgeon and neurologist of New York City. The history of the operation cites trauma, but the patient denies that he ever received any injury to his head of sufficient violence to break the skull. A large omega-shaped incision was made over the motor area and extending to the posterior margin of the depression. The bone adherent to the soft parts was chiseled through and broken off in the usual manner. At the point of greatest depression of the inner plate of the skull the dura was found to be firmly adherent and thickened. This was separated, and the depressed bone removed by rongeur forceps. The dura was then opened by a semicircular incision and the motor tract explored. Nothing abnormal was found. The cortical centers for the arm and the face were stimulated by electricity applied directly to this region. The dura was united by 5 catgut sutures, the bone replaced, and the soft parts sutured. The wound healed kindly, and the patient made an excellent recovery.

Five months after the operation the patient was admitted to the Colony. It was noted at the time that "the operation did not materially lessen the frequency or severity of his epilepsy." Another note on June 30 states that "patient's attacks are about as frequent and as severe as ever." On March 20 of the following year, it is noted that "his seizures still continue to be as sudden and as severe as before; he frequently falls and sustains injuries about the head and face during a convulsion." On June 21: "For the last three months the patient has been employed daily upon the lawns, with marked physical and mental improvement; the seizures are much less frequent." September 3: "The epilepsy and the mental condition are improving; the patient is industrious and contented." The improvement noted has continued to this time.

It will thus be seen that the operation was of no benefit whatever to the patient.

Case II.—N. W., a female, aged 15 years, was admitted to the Colony, May 7, 1896. She had been epileptic for 2 years. The type of epilepsy was petit mal. The frequency of the seizures was from 10 to 30 or more in 24 hours. The mental condition was good. The supposed cause was a fracture of the skull.

History of Operation.—At the age of 11 years the patient fell on the ice while skating, striking her head on the right parietal eminence. The scalp was not broken, but was greatly contused, and the patient remained in a stuporous condition for 2 hours afterward. She was confined to bed for 10 days after the fall, and 15 months later she had her first seizure, which began by a jerking and twisting movement in the right hand. This manner of origin was constant up to the time of the operation, which was performed at the Buffalo General Hospital on November 21, 1894. There is nothing unusual to say relative to the operation itself. The patient made an uninterrupted recovery therefrom. She was discharged from the hospital on December 12, having had no recurrence of the fits since the operation, although before it they occurred once in every two weeks. On admission to the Colony the patient stated that she did not have a seizure for 5 months after the operation, but that at that time they returned and were more severe and frequent than before. During the rest of the year of 1896, and during 1897, and to the present time of 1898, she has averaged from 4 to 5 attacks a month, although they apparently have little or no effect on her mental condition. She is unusually bright, quickly becomes an expert at whatever she is required to do in the way of the ordinary handwork of women.

In this case, also, the operation was of no benefit whatever.

Case III.—A. S., a male, aged 26 years, was admitted to the Colony May 22, 1896. He had been epileptic for 14 years. The character of the attacks was grand mal. The frequency of the attacks was, at first, once a month; later, once a week. The supposed cause was an injury to the head by a falling shutter when the patient was 13 years old. He was trephined at the Harlem Hospital, New York City, in August, 1894, the operation being performed in the right upper Rolandic region. The patient made an uninterrupted recovery from the effects of the operation. No permanent benefit was experienced as a result thereof. The man was admitted to the Craig Colony, May 22, 1896. His attacks of epilepsy alternated with attacks of acute mental disturbance partaking more of the nature of subacute delirium, during which it is necessary to keep him in isolation. His attacks, since his admission to the Colony, have averaged from 5 to 8 per month.

In this case, therefore, the operation was of no permanent benefit.

Case IV.—G. S. K., a male, aged 27 years, was admitted to the Colony, December 1, 1897. He had been epileptic for 10 years. The character of the attacks was grand mal. The frequency of the attacks was, at first, one in 2 months; now it is one in 2 weeks. A cause was not given. The patient had an attack of measles and one of scarlet fever early in childhood, but no appreciable ill-effect followed either. It was supposed that he received an injury at the base of the brain, but no good basis for such a conclusion could be ascertained. The man was trephined over the right occipital re-region at the Post-Graduate Hospital, New York City, in May, 1897, and he states that he was free from seizures for nearly 5 months afterward, the longest period he had been immune up to that time. The attacks, however, then began again, and continued with as much severity and frequency as before the operation. The man was admitted to the Colony, December 1, 1897. It is noted that his attacks are accompanied by considerable mental depression. Immediately before a seizure he complains of headache and other symptoms indicative of faulty digestion, and treatment directed to overcome this difficulty has resulted in marked improvement.

In this case in which good results followed trephining, they were temporary in nature, and did not last.

Case V.—S. S. M., a male, aged 19 years, was admitted to the Colony, March 1, 1898. He had been epileptic for 8 years. The character of the attacks was as follows: At the beginning they were grand mal; now the major attacks alternate with petit mal, while, occasionally, they are psychic only. The frequency of attacks was once a week at first, while at the present time they occur 3 or 4 months apart. The mental state is good. The alleged cause is trauma from the kick of a horse on the head.

While in the Garfield Memorial Hospital, Washington, D. C., the patient was trephined over the site of the injury. Nothing was found except that the dura was somewhat thickened. The seizures were not changed in any manner whatever as the result of the operation.

In this case trephining resulted in no benefit to the patient.

Case VI.—B. M., a male, aged 19 years, was admitted to the Colony, April 25, 1898. He has been epileptic for 4 years. The cause of the epilepsy was unknown. The character of the attacks was at first petit mal; at the present time, and since the operation of trephining, in September, 1897, at the Polyclinic Hospital, New York City, the attacks are not so frequent, but they are much more severe. During the first, second and third years the patient had from 15 to 24 attacks of petit mal daily, while the grand mal attacks occurred once a month during all this time. The trephine was applied over the right motor region, but nothing of interest was found, except the old story of thickened dura, with evidences of chronic inflammatory changes. The patient made an excellent recovery from the operation.

In this case the operation was of no benefit to the patient.

Case VII.—J. D. R., a male, aged 35 years, was admitted to the Colony, October 4, 1898. He had been epileptic for 8 years. The cause of the trouble was supposed to have been an injury to head. The character of the attacks was petit mal. The frequency of the attacks was, at first, one in 3 or 4 weeks; later, daily. The man has suffered considerable mental deterioration. He was trephined in April, 1898, at Bellevue Hospital. The operation was over the right Rolandic region. No benefit whatever was obtained by the patient as a result of the operation. The attacks continued just as frequent and just as severe. The patient states now, after the operation, that he has an epigastric aura before each seizure.

To attempt to draw from the foregoing 7 cases any conclusions regarding the value of trephining in epilepsy would be pure folly, but in view of the fact that the operation failed in every case to give permanent relief naturally leads us to ask why; and I may be pardoned for expressing plainly my own belief, and at the same time saying something of surgical interference in general in the treatment of this deeply-seated disease.

In the first place I believe many mistakes are made through *failure to verify the cause of the disease.* Hearsay evidence is too often accepted without question, and the fact that the disease originated as the direct result of an injury sustained by the patient is frequently still a debatable question when the operation of trephining is undertaken.

Again, enough attention is not paid to the matter of the patient's ancestry in searching for hereditary taints that assisted in the first instance in the production of the disease, and helped later on to defeat *any* interference of any kind made with a view to curing the disease. In some of the cases here related the entire ancestry of the patient was tainted with largely incurable diseases, such as insanity, tuberculosis and epilepsy. In such cases it matters not how clear a history of trauma may be and how firmly we may regard such trauma as the direct cause of the epilepsy, trephining is always a questionable procedure for the reason that the knife in such a case cannot be made to reach the real cause and seat of the trouble. A diathesis is beyond the reach of the surgeon's knife.

In Case IV there was a clear failure to obtain a history showing the cause of the epilepsy. It was *supposed* that the patient had received an injury at the base of the brain, but it is also stated that no good basis for such conclusion could be ascertained. In spite of this the patient was trephined, but of course with no benefit whatever. After his reception at the Colony the patient was examined thoroughly, and it was discovered that he was a subject of the uric-acid diathesis. He was accordingly put on Haig's treatment to correct this, and it is gratifying to note the improvement brought about in his condition.

Finally, if I may be allowed to express the opinion, although such opinion is not absolute, and I may in future have cause to change it, I do not now believe that epilepsy is a disease *so focal in its character*, especially after there have been epileptic manifestations for 2 or 3 years, that the knife, or any single instrument at the command of the surgeon, can be made to cure it.

BLAUD'S PILLS.

By JOSEPH W. ENGLAND, Ph.G.,
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Despite the fact that the apparently essential ingredient of Blaud's pills—ferrous carbonate—is represented in the official mass of ferrous carbonate (Vallet's Mass), and that the latter is more definite in composition than the former and has less tendency to oxidize and harden, Blaud's pills are clinically preferred, in some cases, by physicians. Such preference suggests the thought that, possibly, there may be something of clinical worth in the pills apart from the ferrous carbonate present. To determine this point it is desirable to examine the original formula, study the chemical changes involved, and offer any improvements in manufacture that may suggest themselves.

According to A. Blaud, nephew and successor of the inventor of Blaud's pills, the formula, which was not secret, was first devised in 1831, and was inserted in the *Nouveau Codex Francais* for 1866, p. 555, formula 612, and since that time and up to the present it has been prepared in exact accordance with the directions that are here translated.[1]

Blaud's Ferruginous Pills.

Ferrous sulphate, purified, dried and powdered, 30 grams; potassium carbonate, pure dried, 30 grams; acacia, powdered, 5 grams; water, 30 grams; sirup, 15 grams.

Dissolve the acacia in the quantity of water prescribed, in a porcelain capsule, by the heat of a water-bath; add the sirup and the ferrous sulphate; stir for some moments in order to render the mixture homogeneous; add the potassium carbonate, previously powdered, constantly stirring with an iron spatula, and continue heating until the mass has acquired a pilular consistence rather more hard than soft. Withdraw from the source of heat, and divide the mass into 120 pills, which must be dried in the stove, and then silvered. Cork pills well in bottles. Each pill weighs about 40 cg. (or about 6 grains).

The chemic reaction in making the pills according to this formula is as follows:

$$\begin{array}{ccccc} 2FeSO_4 \,.\, 3H_2O + & 2K_2CO_3 = & 2Fe.\,CO_3 + & 2K_2SO_4 + & {}_3H_2O \\ 357.28 & 275.82 & 231.46 & 347.76 & 53.88 \end{array}$$

By this equation it will be noted that 30 grains of exsiccated ferrous sulphate require only 23.16 grains of potassium carbonate for decomposition, and that there are, therefore, undecomposed, about 6.84 grains of potassium carbonate in each 120 pills. There are also produced 29.2 grains of potassium sulphate, and 19.4 grains of ferrous carbonate.

It will thus be seen that we have in the finished product, as made by the original formula, a mixture of ferrous carbonate, potassium sulphate, and potassium carbonate, protected, partially, from oxidation by gum, sugar, and the silver-leaf coating. The presence of potassium sulphate and potassium carbonate may, possibly, serve a twofold purpose therapeutically. It may be that the free alkali serves to neutralize the free acids of the gastric juice, and that no absorption of ferrous salt takes place in the stomach, but in the intestinal tract beyond, and that the potassium sulphate, dissolved in the intestinal juices, stimulates osmosis, with the decomposition of the ferrous carbonate, and the absorption of a soluble ferrous compound. This is, of course, only an hypothesis, but it is offered with the thought that, possibly, it may be, or may suggest, the reason for the therapeutic favor in which Blaud's pills are held.

In this country the formulas usually followed for Blaud's pills have been for some years past: (1) Equal parts of *crystallized* ferrous sulphate and potassium carbonate (2.5 grains of each in each pill) beaten together in a wedgewood mortar to a pasty consistence, until the reaction is complete, when powdered tragacanth is added to stiffen the mass, and the latter is made up into a pill with sirup;[2] and (2) equal parts of *exsiccate* ferrous sulphate and potassium carbonate (3 grains of each in each pill) beaten together in a wedgewood mortar, etc., and made up with powdered tragacanth and honey.[3]

Made according to the first formula, the chemic reaction is as follows:

$$\begin{array}{ccccc} Fe\,SO_4.\,7H_2O+ & K_2CO_3= & Fe\,CO_3+ & K_2SO_4+ & 7H_2O \\ 277.42 & 137.91 & 115.73 & 173.88 & 125.72 \end{array}$$

Made according to the second formula, the chemic reaction is the same as that previously given under the original formula for Blaud's pills.

It should be noted that in these formulas an excess of potassium carbonate is ordered over and above the amount required to convert the ferrous sulphate into carbonate; especially is this the case when the crystallized iron-salt—with its over 45% of water of crystallization—is employed.

Prior to 1890, Blaud's pills were not recognized by the U. S. Pharmacopeia, but in the official standard for that year the formerly official "Pilulæ Ferri Compositæ," or Compound Pills of Iron (made of myrrh, sodium carbonate, crystallized ferrous sulphate, and sirup), was dismissed, and in its place there was substituted a "Pilulæ Ferri Carbonatis," or Pills of Carbonate of Iron (Blaud's pills), (made of crystallized ferrous sulphate, potassium carbonate, sugar, tragacanth, althea, glycerin and water); but a radical difference exists between the official formula and the original Blaud formula. In the former, *crystallized* ferrous sulphate is directed, and enough potassium carbonate to convert it into carbonate; in the latter, the *exsiccated* ferrous sulphate is employed, and an excess of potassium carbonate is in the finished product. Now, if the free alkali is of therapeutic worth—as would seem to be evidenced by the clinical success of Blaud's pills in the past—why eliminate it from the official formula?

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[1] J. Ince in *Pharmaceutical Journal and Transactions*, 1894, 131.

[2] *American Journal of Pharmacy*, 1881, 694.

[3] *French Codex, vide National Dispensatory*, 1884, 1170.

Some years ago I devised for use in the Philadelphia Hospital a formula for Blaud's pills that has been found most satisfactory. Taking advantage of the fact that the official mass of ferrous carbonate—containing about 42% of iron-salt—of good quality, is always available, this was used in place of the ferrous sulphate, and the by-products of the reaction—potassium sulphate and potassium carbonate—were directly added. The relative proportions were decreased somewhat, so as to permit a more gradual increase of dose in increasing the number of pills given. Each pill, or rather capsule (which is the preferable form of administration), contains 3 grains of mass of ferrous carbonate, 2 grains of potassium sulphate, and $\frac{1}{3}$ grain of potassium carbonate, with sufficient althea and acacia to make a mass of proper consistency. The pills (in the capsules) weigh a little over 5 grains each, are of medium size, keep for months, remaining soft and readily disintegrable. The formula recommended is:—

Mass of ferrous carbonate	36 grains.
Potassium sulphate	24 grains.
Potassium carbonate	4 grains.
Powdered althea	1 grain.
Powdered acacia, sufficient.	

Make into 12 pills, and enclose in No. 4 gelatin capsules.

CONGENITAL WITH ACQUIRED HERNIA, AND A REPORT OF FIVE CASES.[1]

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of Chicago, Ill.

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During the last year and a half I have performed quite 100 herniotomies, mostly upon patients past middle life. Among this number I have come upon conditions in four different cases that I do not find described in late works on surgery and anatomy as occurring together. There can be no doubt that every operator of experience has encountered what is known as congenital hernia, and perhaps, too, the condition of which I am to speak, but failure on my part to find any description of the association of congenital with acquired hernia has prompted me to make this report. In fact, I have communicated with a number of surgeons of very large experience as to their observations of this form of hernia, and but one, Dr. Alex. Hugh Ferguson, has reported having met with it. I studied my cases carefully before operation to try to diagnosticate the variety of hernia, but was only able to determine that it was inguinal. To be sure, it is not always possible in the old, and when the inguinal opening is large and the hernia of long duration, to determine whether the hernia, if inguinal, is direct or indirect; for often the external and internal rings are so distorted or approximated that their anatomic relations are no longer maintained, and consequently they are of no aid in making a diagnosis. Nor is it always possible to determine the relation of the neck of the hernial sac to the deep epigastric artery. Therefore, it is sometimes impossible to make a diagnosis of the form of hernia until after the incision is made and the structures separated; and even then I have found conditions that at first were confusing.

In the cases under consideration I made the incision after the usual manner, and without much difficulty dissected out a true hernial sac and disposed of it properly; but in my efforts to locate the cord before placing the deep sutures, I discovered that I had what appeared to be another sac to deal with, and could not locate the cord until an incision into this second sac was made. This sac I found to make up the tunics for the testicles, as in the congenital form. I, therefore, made a circular incision about the congenital sac, and then a lateral incision up to the internal (?) ring. The cord was drawn out of the sac, and the upper portion of the sac was tied or sutured in the usual manner. When orchidectomy was not performed, the lower part of the sac was left to form the tunics for the testicle. The five cases herewith reported were in old men, with a history of hernia of many years' duration.

Case I.—A man, aged 62, presented on right side an inguinal hernia of 59 years' duration. On the left side, also, there was a large inguinal hernia extending into the scrotum, of 10 years' duration. The hernia on the right side was not diagnosticated as to whether it was oblique or direct until after the incision was made, when I discovered that the acquired sac was to the inner side of the deep epigastric artery, and that I could pass my finger directly through the external ring into the abdomen, without passing it up the canal or through the internal ring. This, of course, was a true direct inguinal hernia. The neck of the congenital sac was to the outer side of the deep epigastric artery, and passed through the canal and internal ring. The acquired sac was dissected out with gauze, and disposed of in the usual manner. A circular incision was then made around the congenital sac, and a lateral incision up to the internal ring. Here the cord was withdrawn, and the sac tied off and dropped into the peritoneal cavity. The testicle being unusually large, I examined it and found that there was multilocular cystic degeneration. It was removed and the inguinal opening was completely closed with formalin catgut sutures, No. 5. There has been no recurrence.

Case II.—A man, aged 61, presented an enormous right-sided inguinal hernia, extending two-thirds of the way to the knee. No diagnosis could be made before the operation as to whether the hernia was direct or oblique; nor was it possible to do this after the incision. The canal seemed to have been obliterated, and the internal and external rings were so nearly approximated that no distinction could be made. I could not determine the relation of the neck of the sac to the epigastric artery. The acquired sac was greatly adherent to the scrotum and the congenital sac. All adhesions were broken up by gauze-dissection. The intestines were also adherent to the sac, and could not be reduced. On examination the testicle was found to be cystic, and it was removed. The congenital sac was ligated high up and dropped into the peritoneal cavity. The acquired sac was opened and the adherent intestines freed and reduced. The sac was returned as a tampon, as in the Macewen operation. The inguinal opening was entirely closed with the usual suture. Convalescence was uneventful, and there has been no recurrence after a year.

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[1] Presented to the Chicago Medical Society, October 5, 1898.

Case III.—A man, aged 75, presented a right inguinal hernia of many years' duration—he could not remember how long. Aside from its being an inguinal hernia, nothing further as to its variety could be determined. On incision it was found to be congenital with acquired hernia. The acquired sac extended into the scrotum. The inguinal opening was very large, and all anatomic landmarks were obliterated. The congenital portion was handled as in the other cases. The acquired sac was returned as a tampon, and the canal was completely closed. No recurrence has taken place up to this time.

Case IV.—A man, aged 64, presented right complete direct inguinal hernia of 39 years' duration. There were acquired sacs of the properitoneal variety, but rather anomalous, as there were three large pockets or sacs with a common communication with the abdominal cavity. One of these sacs was greatly adherent to the scrotum and to the congenital sac, which formed the tunic. Loops of intestines occupied each of the acquired sacs. They were reduced, the sacs tied off at their common neck, and the stump dropped back into he abdominal cavity. Upon incising the congenital sac the esticle was found completely degenerated into a cyst, and t was removed and the rest of the operation completed is usual.

Case V.—A man, aged 67, presented bilateral inguinal ernia. The protrusion on the right side extended into the crotum and was of 27 years' duration, and direct; that on he left side was of 5 years' duration and indirect. The right ernia had been exceedingly troublesome, often becoming trangulated, and reduced with difficulty. The patient had een an invalid on this account for many years. Upon inision on the right side the hernia was found to be direct and omplicated with a congenital hernia. The acquired sac vas greatly adherent to the scrotum and to the congenital sac.

The adhesions were broken up and an attempt was made o reduce the intestines. After failure, an incision was made hrough the sac, when I found the cecum, with the appendix, irmly adherent to the sac. The appendix had a mesentery f its own and contained five enteroliths. It was removed, he adhesions broken up and the intestines reduced. The ac was tied off and cut away. After incision into the conenital sac the testicle was found to be the size of a small ocoanut and cystic. It was removed, and the operation vas completed as usual. Herniotomy was performed on the eft side, and convalescence was uneventful.

It will be noted that in all of the foregoing cases the ernia was on the right side, which is the favorite site f appearance of the congenital variety. Although it vas impossible for me to determine in two cases whether he acquired hernia was direct or oblique, I am of the pinion that it was direct. The patient in Case IV had uffered intensely for many years, for often the hernia ould "come down," and could only be reduced with reat difficulty.

It will be recalled that the properitoneal variety of heria is very rare, and is usually considered due to some ongenital defect. I have met with one typical encysted ernia in the course of my experience.

Earache an Early Symptom of Tetanus.—Lukmand-Dowlah (*Indian Medical Record*, December 1, 1898) claims iat earache is an early symptom of tetanus and cites several ises to prove his position. Such earache usually appears i both ears instead of in one, and is usually accompanied y slight rigidity of the jaws, while the ear is normal in apearance. The symptom is believed to be due to spasm of ie muscles of the interior of the ear. [G.C.C.H.]

A CASE OF PROBABLE CONGENITAL TUBERCULOSIS IN A CHILD BORN OF A MOTHER WITH TUBERCULOSIS OF THE BLADDER.

By H. McC. JOHNSON, M.D.,
of St. Louis, Mo.

I wish to report the case of a white female child, born of a mother with tuberculosis of the bladder, which lived 3 months and 2 days, and after death was found to be tuberculous. Delivery had been complicated by an adherent placenta, which on its fetal aspect was finely granular to the eye and touch, while necrotic areas and foci of inflammation were distributed throughout its body. The child was much emaciated, shriveled, small, and so weak that it could in no way be made to nurse. It rapidly emaciated more, made efforts at coughing, and, being exceedingly cadaverous, died in collapse of, and during, a profuse pulmonary hemorrhage. The father is apparently healthy. The mother, 32 years of age, had, in early life, right coxitis, resulting in ankylosis. Eight years ago she began to have frequency of urination with pain, which has steadily increased to almost intolerance, the frequency being about equal night and day. The urinary sediment contains numerous pus-cells, some red blood-cells, no casts, and, repeatedly, numerous tubercle-bacilli. Otherwise the woman is seemingly well and fairly nourished.

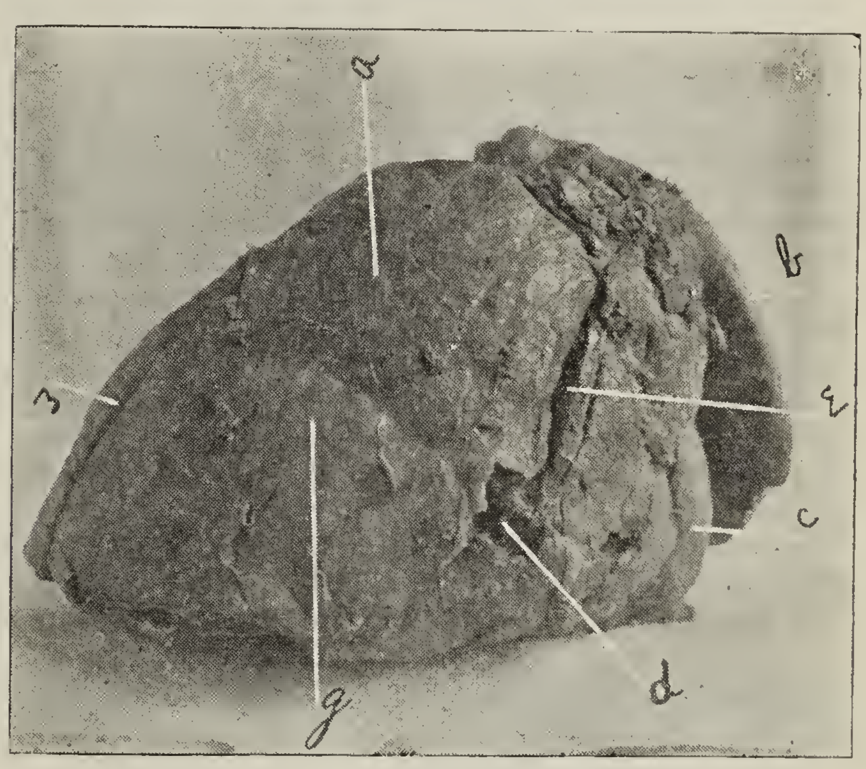

Fig. 1.—(*a*) Right lung and adjacent parts after being in formalin-solution 1 month. (*b*) Left lung. (*c*) Heart. (*d*) Site of a large cavity. (*e*) Cuts made post mortem. (*g*) Necrotic mass.

At the autopsy in the case of the child the right lung (see Fig. 1) was extensively involved in the tuberculous process. It was firmly attached by old adhesions to the entire chest-wall, the diaphragm and the pericardium (the pericardial cavity being obliterated). The organ contained 2 large and several smaller cavities, and it was solidified in its entirety, much of it being a cheesy mass. The outlines of the lobes were, for the most part, obliterated. The left lung was studded everywhere with miliary tubercles, but was uncomplicated by pleuritis. The mesenteric glands were enlarged. In no other organ were there any signs of tuberculosis, although the brain was not examined. The kidneys and the liver showed macroscopically spots of fatty degeneration.

On microscopic examination areas of necrosis, diffuse inflammation and foci of coagulation-necrosis were found in many parts of the placenta under and involving the membranes, as well as in the deeper structures. (Figs. 2 and 3.) The lungs contain well-marked tubercles, and tubercle-bacilli in large quantities were demonstrated in them. No tubercle-bacilli could be found in the placenta.

Knowing the state of the mother and seeing the evident condition of the child at birth, there was no doubt in my own mind that it was tuberculous at that time.

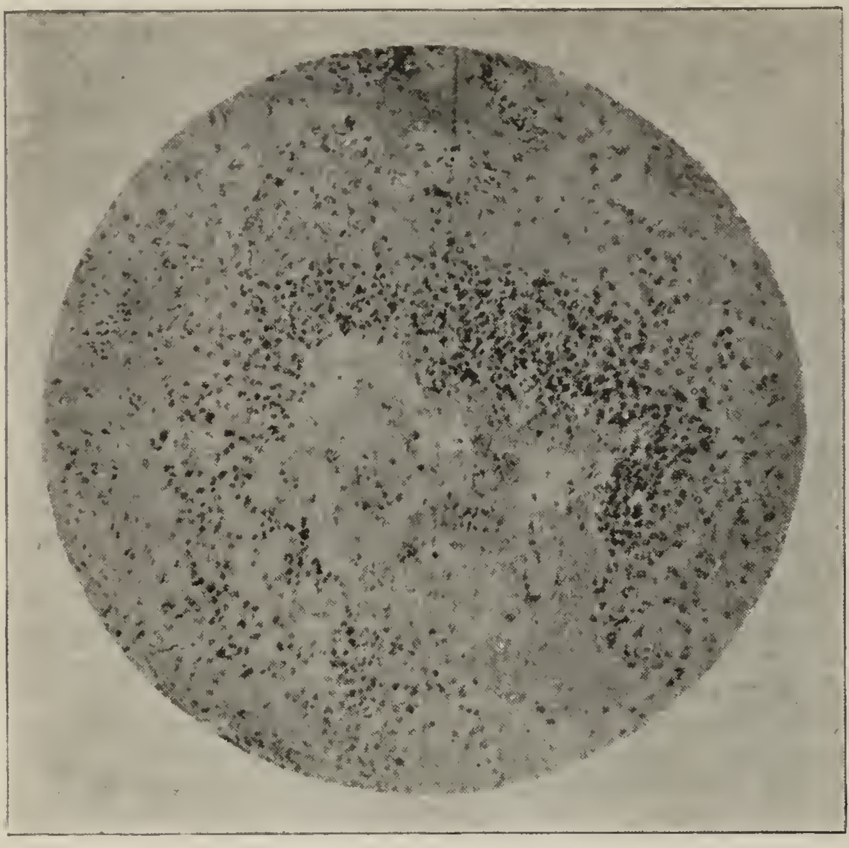

FIG. 2.—Photomicrograph of a section of a necrotic area (resembling miliary tubercle) of the placenta.

Owing to want of opportunity I made no careful physical examination of it. My absence from the city prevented me from seeing the child again until the day prior to its death. Since the opportunity for positive demonstration of the condition of the child by an autopsy did not present itself at the time of birth, the evidence is not absolute. That the toxins of the bacilli in the mother produced the emaciation and feebleness of the child and the condition of the placenta might be considered within the range of possibility, but scarcely within that of probability.

In view of the fact that the mother had marked tuberculosis of the bladder; that the placenta showed numerous pathologic changes on microscopic examination, such as we are accustomed to find in tuberculosis and involving both the fetal and maternal sides; and that the child at birth exhibited decided emaciation and inanition, and after so short a time presented at autopsy a decidedly advanced stage of tuberculosis, it appears thoroughly reasonable to me that the disease was congenital.

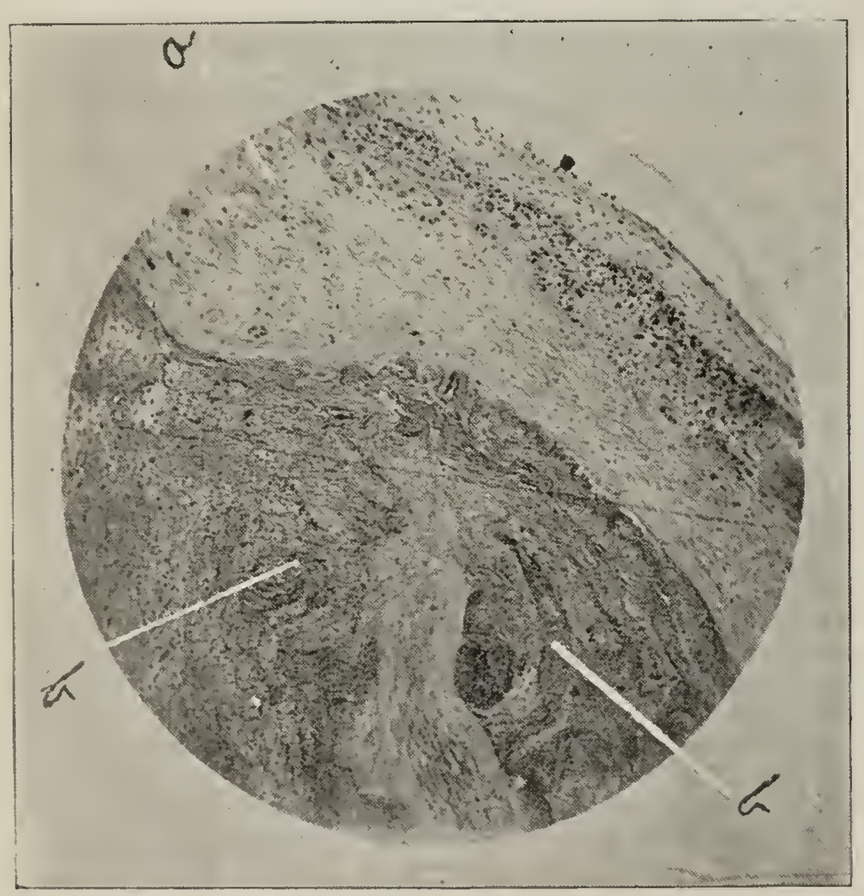

FIG. 3.—Photomicrograph of a section of the placenta showing the involvement in the degenerative process of the fetal aspect of the placenta up to, and partially including, the membranes covering it. (*a*) The membranes. (*b*) Necrosis of placental tissue immediately under the membranes.

The photograph from which Figure 1 was prepared was kindly made by Dr. P. J. Heur; the photomicrographs from which Figures 2 and 3 were reproduced by Mr. Joseph Maserang.

DISTURBANCE OF EQUILIBRIUM ASSOCIATED WITH DEFECT OF HEARING.—LABYRINTHINE VERTIGO (MENIÈRE'S DISEASE).

By P. W. ERDTMANN, M.D.,
of Brooklyn, N. Y.

In January 1898, Mrs. B. B. called at my office and related the following history:

For the preceding 10 months she had suffered from sudden attacks of vertigo. At first she had one or two a week, but they steadily increased in frequency until they recurred once or twice daily. These attacks were brought on by any sudden movement, such as getting up out of bed, or a turn of the head. The woman became so dizzy that, without artificial support, she would fall forward as though intoxicated. In fact on one occasion she was almost made the victim of a policeman's diagnosis. Another prominent symptom complained of was a roaring in the ears, the patient comparing it to the noise of a ferry-boat. Hearing was defective on the same side. The tinnitus was always present, but it was greatly exaggerated during one of the spells. A sense of fulness in the head and of throbbing was another marked symptom. Some of the attacks were so severe as to render the patient almost unconscious, and at their close she would often be completely exhausted, feeling faint and weak, with a clammy sweat. Her eyesight had always been good until the beginning of her present trouble, but since, she has felt as though something was floating before her eyes, like a veil. The patient has been treated for change of life. She is a tall, well-nourished woman, 45 years of age, and a widow. She menstruates regularly every 28 or 30 days. On investigation and examination I could exclude gastric vertigo, vertigo due to cardiac valvular disease, aortic insufficiency, arterio-capillary fibrosis, chronic interstitial nephritis, as well as epilepsy, gout and syphilis. The ear presented no discharge and nothing else abnormal. I therefore concluded that the case was one of labyrinthine vertigo. The treatment consisted in the administration of pilocarpin, beginning with gr. $\frac{1}{8}$ (0.0075), and gradually increased three times a day. I advised the patient to remain in bed for an hour or two after each ingestion, in order to guard against drafts. Quinin, gr. ij (0.12) was given three times a day, and the dose increased until the patient received gr. xxx (2.) during the day. Nitroglycerin was administered in doses of gr. $\frac{1}{100}$, but these were also gradually increased, though very slowly. Counterirritation was practised behind the ear, by means of tincture of iodin. I would stop the pilocarpin for a time, using in its stead large doses of bromid with the addition of a few minims of mixture of belladonna. Strict attention was given to the bowels and the general health was looked after. No alcohol in any form was permitted. The attacks became less frequent and less severe under this treatment, until they finally ceased entirely $2\frac{1}{2}$ months ago. Since that time I have seen the patient once a week, and have stopped all treatment excepting the nitroglycerin in doses of gr. $\frac{1}{100}$ (0.0006) twice a day, at intervals. Hearing is perfect on both sides and the patient is in excellent health.

On looking over the literature that I could obtain on the subject, I find that it is generally contended that the dizziness does not cease until hearing is completely destroyed on the affected side. I could find no case on record that terminated in complete cure, as in the one I have just reported.

The Philadelphia Medical Journal

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See Advertising Pages 18 and 21.

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Three Classes of Advertising Mediums.—In quoting we wish to commend the following newspaper waif that from some good source has drifted to our desk. It emphasizes a fact too often ignored by the careless advertiser:—

> "It may be set down as a basic principle in advertising that circulation without character amounts to nothing; that character without circulation is better, and that circulation and character together are best."

The Reading-Notice.—An advertising agency offers to place in a thousand leading dailies in the United States, "as telegraphic news-items, without any of the earmarks of advertising," "anything about your business that you want the public all over the United States to know." Of course this is a lie—but not quite out of the whole cloth. There are about 2,000 daily papers in this country, and we do not believe one half of them are either such knaves or nincompoops. But doubtless there is altogether too much truth in it, and the fact gives us a healthful skepticism as to the morality and trustworthiness of the so-called newspaper. It also suggests that our professional withers are by no means unwrung. We wish the statistics could be gathered as to the proportion of our two or three hundred medical journals in which advertisements appear as news.

He has Develloped a Remedy if the Patients are not of Teramatic Origin.—The following letter copied verbatim from the original is "significant of much":—

Jan. 23, '99

Dr. F. Peterson
60 W. 50, NY City.

Dear Doctor,—

I desire to state that I have develloped 'a remedy, that will cure nine patients out of ten, where they are not of the teramatic origin. I would like to have you test this remedy among your epileptics at Craig Colony, Mt. Morris, and if all proves satisfactory, will sell you the "formula, or either give controlling interest for its use in the state of NY. or any other state in the Union except this state, Penn., which I desire to hold for my own.

Very respectfully,

E. Grewer.

Zeitschrift für Augenheilkunde is a new periodical under the editorship of Professors Kuhnt and von Michel, and published by S. Karger, Berlin. Its object is thus given: "Die Quintessenz, den Auszug des Werthvollen und Bleibenden aus der gesammten ophthalmologischen Litteratur kritisch und nach bestimmten Fragen gesichtet, in einem Organe zu bieten, ist die Tendenz, die zur Gründung der *Zeitschrift für Augenheilkunde* leitete." We do not wish to be hard upon our Teutonic brethren, especially from a single and first number of what perhaps promises to become an excellent journal. We cannot help noting, however, that the United States contributed only 7 or 8 articles in the year 1897 (and there was a whole year to find us out and decide about us) concerning the relation of ocular diseases to nervous affections. One of these authors was a certain "Schweidnitz." "L. Ranney" represents the whole American work done in eye-strain. *Ex oriente lux!*

Homeopathic Progress.—The following excerpt is from an editorial in the *Medical Visitor* of January, 1899:—

> "The tremendous tread of interminable symptoms, which is supposed to overawe any disease agency, is sometimes only sufficient to paralyze the physician. All this might be endured and even welcomed, however, if this stupendous aggregation of ours were only reliable. But how many of our symptoms are unquestionably authentic? How many have been evolved under proper scientific safeguards? How many are even the result of careful individual test, unsullied by the insidious influence of the personal equation, undimmed by the stain of probable *post hoc, propter hoc?* Until we can answer these questions fully, freely and fairly, we shall stand compromised, halting and ashamed upon the threshold of the vast domain of science."

In the same number of the *Medical Visitor* from which we quote (but which we should not have dared to write, charge, or assent to, for fear of dire results) there is an original article, one of a series on the "Tissue Remedies," in which, if we understand what is meant (and we greatly doubt whether we really do comprehend the author's intention), there are described in 7½ packed pages the most astounding train of frightful symptoms, probably numbering two or three hundred in all, and affecting every organ of body and mind, and all due to "Natrum muriaticum." But we are not complaining, or criticising, or suggesting, anything to or of anybody! *Gott bewahr!*

To extinguish the substitution-evil must be the aim of every true physician and honest druggist. It is a crime against both medical and commercial honor. We judge that the root of the evil lies in the fact of the degradation of the retail pharmaceutic business by the control of the so-called patent-medicine or nostrum business. Druggists lose professional pride as well as self-respect by the unscrupulous methods in vogue in these trades, and insensibly they come to consider the selling of drugs as many other men do the selling of adulterated spices and shoddy-cloth—merely another way of making money—and thus they drift into substituting one drug for another ordered, indifferent as to the fact so they be not caught in the trick. We think the remedy must come from the pharmacists rather than from the medical profession. We fear the suggestion which we made some time ago that druggists might help to kill outright the nostrum-traffic by substitution was an error (a frank confession is better than silence or hugger-mugger), and the reasons are that too many druggists do not care a fig whether a remedy is secret or not, and also there are a thousand grades of secrecy, so that, in reality, with the best conscience, the druggist often cannot tell what is secret and what not. Hence we are now convinced, upon second thought, that any substitution whatever is itself wrong and leads to practices more and more reprehensible. The plan of watching druggists and blacklisting the guilty ones, we fear would fail because of the difficulty of detection, the costs of legal prosecutions, and the general carelessness of the world. But instead of blacklisting the bad why not whitelist the good? Why not form a league of dealers of the best reputations and characters who will promise that under no circumstances will they knowingly practise substitution? Physicians have the right to advise and even command their patients where to get their prescriptions filled. They also, be it remembered, have the right to furnish medicines themselves instead of a prescription! Such a "white list" prepared by the best pharmacists, with proper safeguards and conditions, furnished every physician, and even handed the patient with his prescription, would go a long way toward extinguishing the evils of substitution.

The Symposium of Twenty.—The following is a copy of a letter recently received by a Philadelphia physician. The original was written by the associate editor of a New York lay-paper:

My Dear Doctor:

The ——— ——— is preparing a symposium of very well-known doctors. This will consist in the main of very fine full-page illustrations, with interesting character-sketches. We have limited our invitations to Drs. One, Two, Three, Four, Five, of New York, and one of the most prominent doctors in each of the principal cities of the United States, limiting the symposium to twenty. The cost of making a plate, the size which we contemplate, will be $37.50. These gentlemen that I have mentioned have consented to incur this expense. If you feel disposed to honor us with the acceptance of this proposition, will you please send us at once a photograph of yourself, and such data, too, as well as the check for the foregoing named amount, made payable to the order of the ——— ———. We would be pleased to hear from you at your earliest convenience concerning this matter. Very respectfully, ——— ——— ———.

These advertising schemes are of perennial exuberance. They are generally successful in proportion to the exclusiveness and the high price of the "full-page illustration." In this respect we think the plan above described is not the best. The price should have been made at least $100, in view of the limitation to one physician to each of the other cities except New York. We are jealous, dear contemporary! Why should you have given us only one-fifth the glory of New York? The sun does not thus discriminate as to the just and unjust. We would also like enlightenment as to the judges and criterions of "prominence." Why was the Philadelphian chosen considered the most promising game? The five New Yorkers elected are fine men, of course; but others would say the choice was not scientific or flawless. The Philadelphian chosen is in doubt, and even in some distress of mind; he leaves the letter unanswered, and yet he writes us: "It is difficult to see how a city, in which the members of the profession will not advertise in this way, is to keep pace with a city in which advertisement is done whenever occasion offers." To which we would reply that the frank confession of pure vanity is better than that of the willingness to advertise. Was a physician ever able to trace a single patient to a "symposium"? Moreover, the civic patriotism is hardly genuine that puts up with one to five!

Physiology in the Public Schools.—Physiology as now taught in the public schools is generally unpopular with both teachers and pupils. This is largely due to the provision of our State law, requiring that physiology and hygiene, with special reference to the effects of alcoholic drinks, stimulants and narcotics, shall be taught in *every* grade of the public schools. The effect of this provision is to invert the relation which this special teaching bears to the science in general. Instead of treating physiology and hygiene as a practical science, and making the study of the effects of alcohol and tobacco incidentally a part of the subject, we find the importance of these latter facts glaringly magnified to the children, with enough physiology taught to make these definite. The children feel that they are being sermonized, and are brought to feel a repugnance to the subject. Educators generally recognize that direct teaching of morals does little to make pupils *feel* the right. And, further, to spread the formal study of physiology over so long a time is bound to make the subject hackneyed before the children are ready to comprehend the significance of what is taught.

Another cause of dislike for the subject is the lack of preparation of the teachers, who usually have but a limited knowledge of the science. They have, of course, a word-knowledge, or a book-knowledge, of what they teach. But how many of them could dissect any organ of an animal and indicate the corresponding parts in the human body? The broad, scientific view, so necessary in teaching such a subject, is lacking.

Then, too, proper facilities for teaching physiology are not accessible. Such appliances as skeletons, models, etc., are not supplied by the school authorities, and thus some of the most necessary aids to presenting the subject are missing.

The teaching of physiology to school-children should aim, not at inculcating scientific principles, but at giving a good general knowledge of how to care for the health. This being true, there is not sufficient stress put upon the general hygiene of the body, and entirely too much on anatomy and on the effects of alcohol and tobacco.

State Superintendent of Public Instruction, Dr. N. C. Schaeffer, in speaking of "Scientific Temperance Instruction" in his report for 1898, says, in part: "The forms of intemperance which hurt childhood most are intemperance in eating, in playing, in working, occasionally in resting. Hence, while instruction is given upon the effects of strong drink, temperance in all things should be taught as a fundamental law of hygiene. . . Mere knowledge of the effect of stimulants and narcotics will not cure the cigaret habit, or save a growing youth from the evils of strong drink. Hence the teacher needs not merely scientific information, but also tact and judgment, so as not to arouse prejudices which block entrance to the heart and prevent the operation of influences that quicken the soul, guide the will, mold the life, and stamp their impress upon character."

Akromegaly.—Of the diseases which the keenly observant Paris School has added to our nosography in recent years, one of the most interesting is without doubt the akromegaly of Marie. When typical, this presents a picture so striking that he who runs may read—an assertion almost literally true, for on more than one occasion the disease has been recognized by the physician as he passed an individual afflicted with it on the street. The large frame, the massive head, the protuberant brow, the huge jaw, the fleshy nose, the thick lips, the stoop; the long arms, with their spade-like hands, hanging, simian fashion, in front of the lateral body-line; the thick, sausage-shaped square-tipped-fingers, the slow, deliberate gait—these combined symptoms give to the patient a remarkable and peculiar aspect. Despite his great size the akromegalic is not strong, on the contrary, he is feeble and easily exhausted; his vision is disturbed—often he sees but half of each visual field; and headache, of an intense degree, is frequently present. What is the pathology of this strange malady? It is not definitely known; the final word has not been spoken on this point, although there are strong signs that before a great while it will be possible to decide between the contending views. The theory that has the largest number of adherents is the one which makes akromegaly dependent on the disease of the pituitary body. In favor of this is the important fact that in nearly all the cases that have come to autopsy the pituitary body has been found more or less diseased. No other organ in the body has been so constantly affected. The opponents of this view maintain that the disease of the pituitary body bears no causal relation to akromegaly, and point, for confirmation, to those rather numerous cases in which the hypophysis was extensively diseased, and in which akromegaly was nevertheless absent. But they do not offer a positive, tangible theory in the place of the one first named.

The subject of the pathology of akromegaly was recently discussed at a meeting of the Philadelphia Neurological Society (see Philadelphia Medical Journal, November 5, 1898), in connection with a case of tumor of the pituitary body from a patient who had not presented any signs of akromegaly during life. A solution of the question will be brought nearer so soon as the physiologic functions of the mysterious hypophysis are understood. Much has been done in this direction by Cyon, who has shown that an extract of the hypophysis—the essential chemic constituent of which is *hypophysin*, a phosphorus-compound—injected intravenously produces a slowing of the circulation and a strengthening of the heart through stimulation of the vagus. Under natural conditions the vagus-stimulation influences the thyroid gland and leads to dilatation of its vessels, and this reciprocal relation brings about a lessening of the afflux of blood to the brain.

Cyon compares the thyroidal arteries to locks which are opened in obedience to the influence of the pituitary body. By the harmonious interaction of the two organs the cerebral circulation is constantly regulated, and the hypophysis thus is comparable to the governor of an engine.

The exact bearing of these physiologic facts on the question of the pathology of akromegaly is not immediately apparent, but Cyon is evidently of the opinion that the disease is connected with functional impairment of the hypophysis. During the past summer he observed 3 cases of akromegaly, all in boys, the ages being 3, 7, and 12 years respectively. The oldest had intense headache, hemianopsia, nystagmus, and other nervous phenomena, and was excessively obese. The administration of hypophysis-extract in powder yielded amazing results—the boy lost in seven weeks 8½ kg. (over 17 pounds) in weight; the circumference of his waist diminished from 1.15 meters (46 inches) to 0.80 meters (32 inches); and the headache and nystagmus became considerably lessened. The improvement, even in the mental condition, was so striking that it was decided to institute the same treatment in the other boys. Cyon is so capable and conscientious an investigator that it is unlikely that he could assert the presence of akromegaly where it did not exist.

The disease is, however, so rare in childhood, and its occurrence in three members of one family perhaps still more so, that we shall await a fuller description of the cases with great interest. If the oldest boy was really an akromegalic, the result of treatment surely points to a causal relationship between the disease and disturbance of the pituitary body, a relationship quite analogous to that obtaining between myxedema and disease of the thyroid gland, and invites the future employment of carefully-prepared extract of the hypophysis in akromegaly.

Government in commercial competition with tax-paying citizens is a thing indefensible either on legal, ethical, medical, or commercial principles. The illegality is attested by the harmonious trend of legislation and of judicial decisions from ancient times; the immorality is self-evident, as it plainly results in social injustice; it is expensive; it produces disease and death. One crude and simple fact stamps it as essentially wrong, and that is the fact that private citizens in an honest and skilled occupation contribute their share of taxes which are used to encourage governmental competition in their own business, a proceeding flagrantly opposed to the clearest judicial principles of equity. Only those things which by their very nature are necessarily monopolies has government the right to own and manage. Let us take one example and examine the results of the business-competition of a city with its private citizens.

According to the laws of 1897, chapter 378, section 1, p. 226, of New York, we find in reference to the sale of lymph and antitoxin in New York City :—

> "Whenever the amount of vaccine-lymph, or virus, collected by the said corps, or of diphtheria-antoxin, and other antitoxins produced, shall exceed the amount required in the proper performance of its duties, the said board of health may authorize the sale of such surplus lymph or virus, and diphtheria-antitoxin, and other antitoxins, at reasonable rates to be fixed by the board of health. The avails of such lymph or virus, and diphtheria-antitoxin, and other antitoxins shall be accounted for and paid to the chamberlain, and shall be set apart and constitute distinct funds, to be known respectively as 'the fund for gratuitous vaccination,' and 'the antitoxin fund,' and they shall be subject to the requisition of the board of health for the purposes named in the preceding section."

The entire statistics for the year have not been published, but according to the official reports (*City Record* of June 28, and November 12) we find for the first two quarters :

Curative injections of diphtheria-antitoxin given	645
Individuals immunized with diphtheria-antitoxin	1,030

At this rate, the amount for the full year, required "in the performance of its duties," one vial for each treatment, would be 3,350.

In the same period (first six months of 1898) we find :

Bacteriologic diagnoses of suspected diphtheria	8,697
Cases, not true diphtheria	2,440
Cases undecided	1,739
Cases of true diphtheria	3,319
At this rate the number of cases of true diphtheria for the full year would equal	6,638
Adding the proportional number of indecisive cases	3,478
Amount required if every true and uncertain case had been treated, one vial for each	10,116
Against this possible requirement were actually used	3,350

As to the sale of the surplus antitoxin, the most recent statistics available are for the quarter ending December 31, 1897 (*City Record*, January 13, 1899). We find from the Comptroller's statement :

Antitoxin fund—sales of vials of antitoxin by board of health	$10,104 20
At the same rate for the year	40,416 80
At the average price of $1.00 per vial, the surplus in vials, about	40,000 00
Amount actually used "in the proper performance of its duties"	3,350 00
The surplus marketed vials	40,000 00
Amount that might have been used	10,116 00

We see, therefore, that the board manufactured about 50,000 vials in one year to be able to "properly perform its duties," in connection with a possible need of treating about 10,000 cases of true or suspected diphtheria, and that the "surplus" was about four times as great as the most it could have needed. The actual number of cases, as we have seen, was 3,350; the "surplus" was therefore twelve times as great as used by the board for non-commercial purposes.

As to the reasonable rates fixed by the Board of Health, we copy from the official bills of the Board :—

Diphtheria-Antitoxin, New York Board of Health.

	Contents of vial in cc.	Total Units.	Potency.	Price.
4	7.5	1500	200	$1 25
4a	4	750	187	75
5	5	1500	300	2 00
6	5	2000	400	3 00
6a	8	3000	375	4 50
7	3	1500	500	3 00
8	4	2500	600	5 00

These prices are the retail quotations at which the product is placed on sale at a hundred or more drug-store agencies. The retail agent receives a commission of 10% on every vial he disposes of either by sale or gratuitously on the order of a physician.

The Board of Health sells its "surplus" in other markets. The following are the rates which the Chicago Board of Health pays to the New York Board for a supply of this surplus. The Chicago prices are supplied by the Chicago Board of Health :—

	New York Price.	Chicago Price.
4	$1 25	$1 00
4a	75	50
5	2 00	1 80
6	3 00	2 70

To determine more accurately the cost, we shall quote still more figures:—

BACTERIOLOGICAL LABORATORY—ESTIMATES FOR 1899.
(*City Record*, Dec. 21, 1898, Sup. p. 52, 59, 169.)

Dr. Herman H. Biggs, Director	$2,500
Dr. W. H. Park, Assistant director	2,000
A. L. Beebe, Chemist	1,800
Dr. J. H. Huddleston, Vaccine dep'mt	1,800
	$8,100
1 Small animals, care, maintenance and purchase	$ 500
2 Ten horses, care, maintenance, pasturage	2,500
3 Horses, purchase	1,000
4 Laboratory supplies, chemicals, apparatus	500
5 Car-fares collecting tubes	500
6 Incidentals	500
7 Labor	44,248
	$49,748
Four salaries	8,100
	$57,848

The latest published roster (*City Record*, Jan. 29, 1897) shows the following items of salary which cannot be traced in the above estimate; they undoubtedly are drawn from a general salary fund.

Technical assistants, bacteriologists, pathologists, chemists, etc	$25,020
Clerical assistants	3,940
	$28,960
Summarization:—	
Included in 1899 estimate	$57,848
Salaries carried on other accounts	28,960
Total cost, bacteriological laboratory	$86,808

Perhaps these figures may be slightly inaccurate by the fact of which we have no knowledge and can find no data that the laboratory may be making some investigations other than those pertaining to diphtheria-antitoxin.

The Laboratory therefore costs about $85,000 a year; there are in all about 10,000 cases of true diphtheria, including all cases of indecisive bacteriologic diagnosis. Hence each such case represents a city-expenditure of $8.50 for treatment. But the city does not treat all cases. It has treated only 3,350 cases; each case is thus found to cost $25.37.

The very pertinent query thus arises: Why should the New York Board of Health pay so much for its laboratory when it could secure a less expensive, and, may we add, a better product?

The manufacture of diphtheria-antitoxin is a regular and well-understood affair of business, quite as much so as the manufacture of quinin, or codliver-oil, or absorbent cotton, or shoe-strings. There are many private manufacturers in the business, and their products, many of them, are of the highest standards of excellence, certainly equal to those of the Board of Health. What right has the Government to enter into competition with these citizens?

But the financial aspect is not the only, nor is it the principal, item of the indictment. If we examine the clinical results we are astonished to learn that in 1898, for the first six months, there were in New York City 3,319 cases of diphtheria with a mortality of 916, that is, 27.59%. In the four city hospitals, there were 631 cases, of which 138 died, or 21.87%. In the present case comparisons are particularly "odious," and yet they must be pressed.

COMPARATIVE CLINICAL RESULTS OF ANTITOXIN-TREATMENT.

		Percentage.
Massachusetts,	3 years	10.70
Detroit,	a) 841 cases	12.56
	b) 937 "	10.49
Denver	3 years	5.83
Baginsky	163 cases	14.37
Moizard,	231 "	14.70
Lebreton & Magdelaine		12.00
American Society of Pediatry		12.30
Belgian Commission		11.00
Russia,	44,631 cases	14.60
Zurich,	437 "	12.00
Germany,	9,581 "	15.50
New York City,		27.59

Is this either political economy, civilization, or medicine?

Editor and Reader: No. 13. Opinion the Tool of Personal Motives.—There was once a little man who took it into his head that *æther* and *anæsthetic* should be spelled *ether* and *anesthetic*. This was a question entirely open to unimpassioned discussion, and therefore should not have been suggested by the little man. And why not? Simply because the small gentleman had three personal rivals or enemies who were on the lookout for a chance to slay him. When there are three men in the world who dislike you, you must be most careful to express no opinion that can possibly be questioned or denied. Under such circumstances you must deal only in truisms. If you assert that crows are black, at once the three are upon you with contempt and contradiction. "Is not every man with the least knowledge of ornithology well aware that some crows are white?" If one of the three forgetfully writes, "anæsthesia with ether," you must not call attention to the slip of the pen, or you will be hated all the harder. And you dare not hint that the reason of the secret grudge of the three may be due to the fact that one desires to supplant you in public office, that you once had to trip another up in a piece of smutty medical politics, and that the third is a hopeless crank. With otherwise inexplainable unanimity the three oppose whatever you propose, giving the most cogent ethical and professional reasons of seeming scientific and impersonal quality. Only you are perfectly conscious of the reason that lies behind all reasons. It is a sad fact that many men are not capable of divorcing private motives and public actions. Even editors of medical journals, as near perfection as are their characters, and as coldly logical as are their intellects, have been known to use their journals and editorial positions to pay their private debts and grudges. A friend tells us that in one periodical a certain author could never get his books reviewed at all, or most maliciously reviewed, because of the editor's private animosity for the luckless author. It is difficult to believe that any such ignoble motives could rule these celestial minds, but if you see a movement advocated by one journal set upon by another and every base reason ascribed by a rival editor, it is, perhaps, judicious to suspect that there is an Afro-American concealed in the innocent pile of wood. When one is in an exceptionally dyspeptic mood he is likely to think that the criticisms and opinions of some medical journals are the direct products of concealed private motives of jealousy, gain, pique, or policy, and that sincerity and frankness are virtues beyond the reach or the desire of the controllers of medical journalism. But with a better digestion returns the acknowledgment that there are quite a number of other editors and publishers very differently minded.

Correction.—In the paper on *Blaud's Pills*, by Joseph W. England, Ph.G., page 229 of the JOURNAL of January 29, 1899, the word *grains* in the paragraph beginning, "By this equation," and ending with the words, "ferrous carbonate," was a typographic error printed instead of *grams*. Read *grams* in this paragraph wherever *grains* appears.

Every subscriber to this Journal is requested to send us the names and addresses of at least two physician-friends who are not subscribers. This is one practical way to aid us. In addition to this we trust you will write these friends a personal request to examine the sample copies we shall send to them, with a view of subscribing. We believe that we are giving more and better medical literature for the money than can be had elsewhere. If this is so it is your friend's misfortune if he fails to become a reader of our JOURNAL.

Selected.

WHAT HOMEOPATHY NEEDS.

AN esteemed contemporary, in an editorial of recent date, indulges in some pessimistic philosophizing as to the future of the homeopathic medical profession. He sees much that is discouraging. He is convinced that "to-day there is a greater danger of a disintegration of the homeopathic school as a separate and distinct sect in medicine than there ever has been before." This dark outlook he attributes to the fact that our friends of the dominant school have at last been shrewd enough to let down the bars and admit homeopathic students and graduates to their institutions upon an equal footing with pupils of their own. As a result of this, it is stated that during last year three hundred homeopathic physicians took post-graduate courses in allopathic colleges. And what is worse, certain homeopathic students have since abandoned their chosen schools and started in to complete their courses in these aforementioned objectionable institutions. All of which, instead of being viewed as the dawn of the millennium by our disheartened friend, is looked upon as a reprehensible and lamentable piece of business.

There is force in his arguments. There is no doubt whatever that, unless the homeopathic profession rises to the occasion, this new move on the part of our wily enemy bodes no good to the perpetuity of our institutions. For it is unquestionably true that homeopathy has been the child of adversity. It has lived and thrived upon opposition. Antagonism has sharpened the wits and aroused the latent energies of its advocates. Persecution has stirred popular sympathy, which has led to investigation and a consequent understanding of homeopathy's real merits. Thus has the child grown, gaining fresh strength from every conquest, until to-day it stands, a lusty young rival of its long dreaded enemy. But now all is to be changed. Instead of trying to kill this young giant in fair and open combat, our adversaries propose to coddle and nourish and feed and caress him, with the poorly concealed hope of some time fattening him to death. And this brings us face to face with the question, what are we going to do about it?

The present status of affairs suggests several pertinent thoughts. One is that in some respects the allopathic colleges are superior to our own, otherwise our students and graduates would not have any desire to cross their portals. If an education at a homeopathic college represents all that is required in mastering the intelligent practice of medicine, why should any believer in the homeopathic law go elsewhere? This may be a disagreeably suggestive question, but there is nothing to be gained by evading it. The bald truth is that some of the allopathic colleges are better equipped than are many of ours. They have practically unlimited financial resources, and they spare neither time nor money in an effort to cover the whole field of medical research in a thorough, practical, scientific manner. Their clinical facilities are boundless. Their laboratories are fitted with every useful scientific appliance that human ingenuity can devise. Their lecturers and teachers are the ablest and brightest that can be obtained. True, the law of similars is not taught in these institutions; but the administration of drugs is but one of many sides to the whole practice of medicine, and the student does not necessarily neglect or renounce homeopathic therapeutics because he tries to perfect himself along other lines. In view of all these facts, we cannot wonder that our students seek allopathic colleges.

This unfortunate condition of affairs suggests its own remedy. We must improve our homeopathic institutions. The requirements of yesterday are wholly insufficient for to-day. Our colleges must teach essentially all that the allopathic schools teach, and the homeopathic law and its uses in addition. Nothing less will avail. And it is folly for us to sit back and throw stones at the allopathic medical profession. As a rule its leaders are able men, conscientious, energetic, progressive, alive to the needs of the hour, and ever pushing on with a determined effort to solve the complex problems that present themselves at the bedside. Our students, as well as ourselves, need and are entitled to the benefits of their united labors.—[*The Medical Visitor*, January, 1899.]

Pneumonia Treated with Antistreptoccic Serum.—Glozier (*Rev. de Med.*, September 10, 1898) reports the case of a boy, 13 years of age, who was suddenly seized with chills, followed by fever continuing for 10 days, when he was obliged to go to bed. The bases of both lungs appeared to be consolidated, and fine crepitant rales and bronchial breathing were audible. The expectoration was slight and rather mucous than purulent. It contained almost exclusively streptococci, and no tubercle-bacilli were found. Other treatment having been employed without any results, Marmorek, in consultation, suggested the employment of his antistreptococcic serum. The case being desperate, the suggestion was acted upon, and from 10 to 20 cu. cm. of the serum were injected every day for nearly two weeks. The temperature began to fall after the third injection and reached normal on the tenth day, with complete disappearance of all the signs. During the employment of the serum no other treatment was given. [J S.]

Reviews.

Thirteenth Annual Report of the State Board of Health and Vital Statistics of the Commonwealth of Pennsylvania, Transmitted to the Governor December 1, 1897. 2 vols., 8vo, pp. 1110. Wm. Stanley Ray, State Printer of Pennsylvania, 1898.

Though somewhat belated in appearance this report of the Pennsylvania Board of Health is none the less welcome, as it contains much interesting and valuable information. These two attractive volumes indicate the large amount of useful work done by the Board and the wide influence for good it possesses.

The American Year-Book of Medicine and Surgery. Under the general editorial charge of George M. Gould, M.D. Illustrated. Philadelphia: W. B. Saunders, 1899. Price, Cloth, $6.50; Half Morocco, $7.50.

This volume is a large octavo of over 1100 pages, profusely illustrated with a three-column index of 70 pages. Twenty-eight contributors cover the whole range of medical science. The year's progress in each one of the eighteen departments is noted and complete bibiographic references are appended. The most important change to be noted in the list of contributors is the omission of the name of Dr. William Pepper. The wonderful versatility of this great man is evidenced by his participation in nearly all the literary innovations in American medicine. The laborious and important task of compiling the literature relative to general medicine has been most satisfactorily performed by Dr. Pepper's former associate, Dr. Stengel, in conjunction with Dr. D. L. Edsall. The Year-Book seems to be as complete as it is possible under the conditions to make it.

Manual of Clinical Chemistry. By Elias H. Bartley, B.S., M.D., Ph.G., Professor of Chemistry and Toxicology in the Long Island College Hospital; Dean and Professor of Organic Chemistry in the Brooklyn College of Pharmacy. Thirty-three illustrations. 8vo, pp. 150. Philadelphia: P. Blakiston's Son & Co., 1899. Price, $2.00.

In this little volume are described such chemic processes as are most useful to practising physicians. It consists in part of the last 88 pages of the *Textbook of Medical and Pharmaceutical Chemistry*, by the same author, and is deserving of a like favorable opinion. It contains beside a chapter on urinary diagnosis, a collection of experiments with carbohydrates, fats, proteids, and milk, and a scheme for the qualitative analysis of commercial prepared foods. As a part of the book is printed from the plates used in printing the *Textbook*, no harm results from the inclusion of some material that does not belong in a laboratory-manual, but it would have avoided confusion to have taken out a number of references to pages that cannot be found in this volume.

The Sexual Instinct. Its Uses and Dangers as Affecting Heredity and Morals. Essentials to the Welfare of the Individual Future of the Race. By James Foster Scott, B.A. (Yale University), M.D., C.M. (Edinburgh University). 8vo, pp. 436. New York: E. B. Treat and Co., 1899. Price, $2.00.

This book is an impassioned plea for social purity, based upon physiologic not less than ethical and moral considerations; and we could wish that the object for which it has been written would be fulfilled. The subject is one that requires most delicate treatment, and the views here promulgated are those to which physicians in general will give assent. The ground is covered in 13 chapters, dealing successively with the sexual instinct and the importance of a just appreciation of its influence; the physiology of the sexual life; a proper calculation of the consequences of impurity from the personal standpoint; woman, and the unmanliness of degrading her; some of the influences which excite to sexual immorality; prostitution and the influences that lead a woman into such a life; the regulation of prostitution; criminal abortion; gonorrhea; chancroid; syphilis; onanism; the perversions.

Diet and Food. By Alexander Haig, M.A., M.D. Oxon., F.R.C.P., Physician to Metropolitan Hospital and Royal Hospital for Children and Women. London: J. & A. Churchill, 1898. Pp. vi—1 to 86. Price, $1.00.

Although at first sight this little volume would hardly seem to call for any extended notice, yet the prominence of the author in the estimation of both the profession and the laity, would seem to justify the advisability of calling attention to some of the many gross inaccuracies and irreconcilable statements which the book, small as it is, contains. In the first place, Halliburton most efficiently and scientifically disposed of the author's claim that the amount of urea excreted is an exact measure of the available albumins taken in and of work performed. Secondly, Figs. 1, 2, 3, 4, in themselves serve very effectually to defeat the author's own arguments. A half-pint of milk should contain 145 gr. of available albumin, and yet Fig. 2 only shows 15 gr. more urea in 5 hours (after taking ½ pt. of milk) than Fig. 1, which shows the urea excreted by a fasting person. Thirdly, is the author serious when he would have us believe, taking Fig. 2 as a basis, that in the space of one hour a man can take a glass of milk, convert it into cell-protoplasm, and that this in its turn will undergo metabolic changes and find its final expression in the urine as "urea"? Again, Fig. 4 shows almost the same curve as Fig. 3; still, because sugar is given instead of some form of albumin, Dr. Haig gravely informs us that the upward curve can only be due to the ingested material "indirectly," and yet there is only 7 gr. more of urea shown to be excreted in Fig. 3 over Fig. 4, as against nearly 150 gr. available albumin ingested, but not (apparently) digested. The foregoing remarks will serve to demonstrate the kind of misstatements with which the book, small as it is, abounds. Taken as a guide to the kind of diet which might serve to relieve the sufferings of a chronic dyspeptic, or reduce the sugar in a case of diabetes mellitus, "Diet and Food" may find a sphere of usefulness, but as a scientific and practical aid to the physician it is valueless.

Glaucoma: Its Symptoms, Varieties, Pathology and Treatment. By Alex. W. Stirling, M.D., C.M. (Edin.), D.P.H. (Lond.), Atlanta, Ga. 177 pages; illustrated. St. Louis: Jones H. Parker, 1898.

This is a series of lectures delivered at one time to the students of the Postgraduate Medical School and Hospital of New York. While the volume shows more of compilation than of original research, it is an admirable review of our knowledge of this vexed subject, and to those who would look up the bibliography of glaucoma or any of its individual features, Dr. Stirling's book will be a boon indeed. In the matter of treatment the author directs attention to prevention, to the role of constitutional dyscrasias (especially gout); to the influence of sleep, and peace of mind; and to the necessity of attention to the circulatory and digestive systems. Mydriatics, myotics, and electricity are also briefly mentioned, but the author's preference for iridectomy is unmistakable. That certain glaucomas may be cured by iridectomy is true—and yet we feel that surgery ought to be reserved for the final *coup*, after local and general treatment have failed. We miss mention of either the theory or practice of massage. Theoretically, massage of the eyeball, correctly performed, certainly ought to partially or wholly reestablish the ocular filtration. That it can be done in cases, there can be no doubt, and so simple a measure deserves trial in every case. We note with satisfaction the following sentiment, which should have been printed in some large capitals: "Recently, Schoen has asserted that if every one who requires glasses would only wear them in good time, there would be no more glaucoma; women shrink from wearing glasses and therefore produce twice as many glaucoma patients as men do." Further comment on the preventive value of careful refraction is needless. In the making of the book, we would criticise the spelling of "micro-photograph" on the title-page *with* a hyphen, while "microscope" in the text is spelled *without* one. Both are compound words. Why the difference? The printing and proof-reading leave something to be desired.

Correspondence.

ACETANILID-POISONING IN A CHILD.—THE DEPRESSING EFFECT OF QUININ.

To the Editor of the PHILADELPHIA MEDICAL JOURNAL :—

I REPORT two cases that may be interesting. One is a case of acetanilid-poisoning in a child, the other shows the effect of quinin on a feeble heart. These cases also illustrate the dangers of the use of drugs by persons who know nothing of their physiologic action. In both cases the drugs were supposed, by those who administered them, to be harmless.

CASE I.—A child, 3 years of age, was seen by me at about noon. Its face was dusky ; the tongue, the lips and the rest of the mucous membrane of the mouth were dark blue. The skin was cold, and there was no sweating. Respiration was accelerated, with an occasional long inspiration. The pulse was 140, small and soft. When left undisturbed, the child would seem to fall asleep. The mother stated that she had given her boy, about two hours before I saw him, "as much acetanilid as could be placed on a dime," because he complained of a headache. Just before I arrived the child had voided a small quantity of brownish urine. The stomach was washed out, the child making little resistance. He was placed on his back, with the head low, and wrapped in blankets, while hot bottles were applied. A hypodermic injection of strychnin, gr. $\frac{1}{100}$, was administered, and repeated according to indications. Whisky, ʒj in hot water, was given every 15 minutes by the mouth. Half a pint of hot salt-solution was introduced into the intestine through a colon-tube, with the hope that it would be stimulating and would hasten elimination. At 1.30 P.M., the lips and skin were of a better color, the patient was sweating and asleep, and the pulse was fuller and less rapid. I now ordered a teaspoonful of whisky to be given every hour, and saw the child again in the evening,—when the cheeks were red, the pulse good, and the child wide awake and playing with toys. He had passed a few ounces of urine of normal appearance.

CASE II.—I was called at about 5 A.M. to see a man who was "choking," and found the patient lying on his back, with a bag of hot water at his throat. He complained of a choking sensation and a headache. He said that he had been sick for a week with the "grip," had not felt well on the preceding day and had taken, just before going to bed, four capsules of quinin, each containing 3 grains. His face had an anxious expression. Respiration was rapid ; the pulse rapid and weak ; the heart-sounds were faint. Over the lower part of the lungs nothing could be heard but subcrepitant and coarse mucous rales. Dry cups were applied to the lower part of the chest and hypodermic injections of atropin (gr. $\frac{1}{50}$), nitroglycerin (gr. $\frac{1}{100}$), and strychnin (gr. $\frac{1}{50}$), were administered thrice. After about two hours, the heart's action was much better, the respiratory murmur could be heard at the lower part of the chest, and the patient no longer had the choking sensation.

Respectfully,

FREDERICK C. KELLER, M.D.

411 West 43d St., New York.

BROMID-PAPER IN X-RAY PHOTOGRAPHY.

To the Editor of the PHILADELPHIA MEDICAL JOURNAL :—

IN your issue for January 14, p. 104, I find a paper by Dr. J. S. Wight, Jr., on "Some New Suggestions in X-ray Photography," which reads as follows in relation to the substitution of bromid-paper for dry plates: "It gives the shadows in black and white with more detail than any dry plate, and it responds more quickly, from ten seconds to one minute being the time required for a hand or wrist." Again, it is stated : "We must look to the sensitive film for rapidity, and bromid-paper in my experience takes the lead."

Inasmuch as I have been especially interested in work along this line, I would like to state my experience and to say first of all, that it does not correspond with that of Dr. Wight.

I have, in conjunction with Mr. Cady of the Blair Camera Co., worked with various kinds of bromid-paper for nearly two years, and we have not, as yet, been able to get satisfactory radiographs. Bromid-paper has, in our hands, been too slow, because the emulsion was too slow, and when we coated paper with extra-quick emulsion, the resulting radiographs were fogged in development. We were never able to get the fine detail that a properly timed glass plate gave us, and we feel that the very nature of bromid-paper and the emulsion used in its preparation render it impossible to get as much detail as we can depend upon in glass plates.

It is, of course, a great satisfaction to get a positive or several positives without being compelled to make a negative and wait for it to dry before a print can be obtained. In fact, it was this very question of loss of time that first suggested to us the use of bromid-paper ; but, after two years' experience, with every facility for experimenting, we are obliged to admit, that while we have obtained fair results, they are not in any way comparable with the brilliant results from the use of albumin-paper or collodion paper and a glass plate negative. Our experience has been that bromid-paper required four or five times the exposure necessary to make a good glass plate negative, while on the other hand "from ten seconds to one minute" was ample for the exposure of a sensitized plate, as against from three to fifteen minutes for the bromid-paper. Five minutes usually gave but a faint shadow of the outline of the hand and in the paper coated with that emulsion which gave the most distinctly contrasting positive, from 15 to 20 minutes' exposure to the rays was necessary for the best results.

Yours very truly,

FRANCES M. HARRINGTON, M.D.

Pawtucket, R. I.

[We have never seen finer or clearer skiagraphs than the originals sent us by Dr. Wight for reproduction. Dr. Wight informs us that he is making from time to time skiagraphs by the process described in the JOURNAL and the results continue uniform and reliable. ED. PHILA. MEDICAL JOURNAL.]

MEDICAL ETHICS FROM A SUBURBAN STANDPOINT.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

NONE of your readers more earnestly watches the present wave of reaction against the encroachments of quackery in the profession than the brother of the X-roads. When fitful revolt will finally settle into definite, purposeful effort to sweep away all the irregularities done in the name of Medicine, close to the head of the column, with steady hand and willing pocket-book, will be found your friend, the country doctor.

His lot and mission have never been described and must become a personal experience in order to be understood. His practical isolation, his far-removal from the central sources of medical lore and clinical research make him independent, earnest and loyal—qualities that will be needed in the struggle to make scientific medicine prevail.

He buys your books, he reads your city-constructed medical journals, and he feels the meagerness of his surroundings. The Mecca of his thought is that vague, ineffable plane on which the city physician waxeth fat. Once in a while he will become dissatisfied and move to the city, but generally he stays at home and hopes. He has an abiding faith in his profession that is a moral assurance, even while submissively recognizing the advantages and facilities which have wrought out of his brother, the city doctor, that paragon, that wonder—a college professor, a vermiform adept, or one whose "practice is confined to the eye and ear!"

The good old, steady, modest times of the ethical have fallen into strangely tangled ways in these days of the departing century. The departmental arrangement of the one-time "Theory and Practice of Medicine" into innumerable specialties has increased competition to a degree that has landed various of the specialties upon the danger-line of the irregular, along which hang the sign-boards of the quack.

In the beginning of divergence, Doctor Jones successfully performed some difficult operation out at some country farm-house, or within his unfrequented office wrought out some pregnant thought that in its elaboration during recent times has developed a specialty. Doctor Jones then moved to the city to enjoy the reward and fame of his achievements. But Doctor Jones has not been moving into the city during the present decade. The modern advancement in medical science has not been growing out of the unusual, the accidental, the commonplace; it has been as far removed from these as is the spiritual from the physical in man. It has not been from analysis of the proximate but because of synthetic simulacra of the ultimate and abounding. The result has been centralization within a few schools or universities or hospitals of the laboratory and clinical possibilities of the present, thus placing the city physician at the head of the profession, distinctively, and for the first time, in history. And he occupies the position legitimately. Will he keep the trust? is the question of the hour.

At this hour there is a centrifugal force appearing that already threatens the situation. It lies within the profession and is no less than the apparently irresistible disposition toward yielding to the temptation to advertise. Every time little Johnny Jonesky puts a bean up his nose, every time Johnny's sister swallows her shoe buttoner, every time Timothy Swipe's next boy develops strabismusal tendencies, the Spragtown Daily editorially informs the public that Dr. Hornblower is in the city on professional business! The doctor likes to see his name in print and so he "goes down" again and often, reveling in free travel and free advertising. The establishing of this self constituted "underground railway" becoming noised around, you soon find the country physician in a perfect succession of "professional trips to the city," taking down his own few (and his neighbor's many) doubtful cases of uterine entanglements and refractive eye-involvements. Professor L. Deviere Maurierii (who used to part his hair and name like other people and spell his name M-O-W-E-R-Y, before he removed a tapeworm through an abdominal fistula up at Moseyville and became famous), soon receives an inspiration, and he not only tacitly encourages Doctor Hornblower to double his diligence, but he sets forth to amplify the caravan feature of modern practice by sending to the members of the county medical societies certain sly little dodgers, or so called excerpts, reprints, and reports, in which is disingenuously set forth all of the latest nomenclature, past history and prospective data of a case, while any technic that might instruct a reader how to go and do likewise is ingeniously omitted. The cunning little display heads of the sly little dodger sets forth that Professor L. Deviere Maurierii is also: surgeon in charge of the Ultima Thule Eye, Ear, Nose, Throat, Lungs, or Lights Institute; Nose, Throat and Pancreatic Surgeon of several other homes, institutes and hospitals; and that the proper way to address him is: L. Deviere Maurierii, A.M., M.D., Ph.D. and B.D! That does it. Every man who receives the fateful dodger at once agrees with the professor that he is entitled to the little specialty business that is left and he at once joins the caravan, and answers the gentle appeal by swelling the flood of city-ward patients who ought to be treated at home.

In the fight against quackery true physicians must present a solid front. Unless we can have mutual confidence and respect from all parts of the profession for all other parts of it there will be little use of making attacks upon the enemy. It will not do to advance under the banner of captains-general who are in any way helping the enemy. The practices of lending (or selling) name and station as endorsements of nostrums, and of sounding blasts on the trumpet of fame by the indirect aid of the printer's devil and the post office are not the least among modern instances of carrying water on both shoulders. Respectfully, and regretfully,

Sunbury, Pa. G. W. Furey, M.D.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Dr. John V. Shoemaker has been appointed by Gov. Stone Surgeon-general N. G. P.

Calendar of Meetings of Philadelphia Medical Societies for the week ending February 11, 1899:

Monday, February 6—Academy of Surgery.

Tuesday, February 7—College of Physicians, Section on Otology and Laryngology.

Wednesday, February 8—County Medical Society.

Thursday, February 9—Pathological Society.

Friday, February 10—College of Physicians, Section on General Surgery.

Home for Nurses at the Presbyterian Hospital.—In memory of his father, James Hogg, who was one of the trustees of the Presbyterian Hospital, Mr. J. Renwick Hogg, also a trustee of the hospital, will erect and present to the institution a handsome building, to be used as a home for nurses. The building will have three stories and a basement, and is to be 52 by 123 feet.

Lancaster (Pa.) City and County Medical Society.—At the annual meeting held January 4, the following officers were elected for the ensuing year: President, Dr. William Blackwood, Lancaster; first vice-president, Dr. I. N. Lightner, Ephrata; second vice-president, Dr. Theo. B. Appel, Lancaster; secretary, Dr. Park P. Breneman, Lancaster; treasurer, Dr. Geo. R. Rohrer, Lancaster; corresponding secretary, Dr. J. R. Lehman, Mountville; censors, Drs. M. L. Davis, Lancaster; G. W. Berntheizel, Columbia; J. B. Kohler, New Holland; medical examiners, Drs. Geo. L. Cassel, Lancaster; S. M. Crawford, Columbia; S. T. Davis, Lancaster; librarian, Dr. Park P. Breneman, Lancaster.

Smallpox in Pennsylvania.—The following has been issued by the Secretary of the State Board of Health:—Since my last report of December 31, 1898, smallpox has been reported in Pennsylvania as follows:—Charlesville, Bedford County, previously reported existing in two families, fifteen cases; thirteen recovered, two still sick. Philadelphia, Philadelphia County, nine cases, no deaths. Altoona, Blair County, one case. Bedford, Bedford County, one case. Claysburg, Blair County, one case; origin, Brumbaugh. Brumbaugh, Bedford County, two cases. No deaths thus far have been reported. Yours very truly

(Signed) Benjamin Lee, M.D., Secretary.

Dr. Christine's Affidavit Concerning the Meat Supplied the U. S. Troops.—The following affidavit has been prepared by Dr. G. Maxwell Christine, a homeopathic physician of Philadelphia, and forwarded to Major-General Miles:

G. Maxwell Christine, M.D., being duly sworn according to law, doth depose and say:

"While on a visit to Omaha in June, 1898, I was invited to make a tour of inspection through the butchering establishment of Swift & Co., at South Omaha. I accepted the invitation and paid a visit to said establishment on or about June 27, 1898, in the company of several other physicians, members of a medical convention meeting at Omaha. While passing through one of the departments I saw one of the men, apparently an employe, engaged in injecting a fluid into pieces of meat. These pieces of meat were perhaps twelve or sixteen inches long, but not as wide. I do not know what the fluid was, nor for what purpose it was injected into the meat. I recall the general features of the manipulation, but would probably fail to identify the workman. I have lately notified Gen. Nelson A. Miles of the above information, solely in the interest of truth and for him or others to ascertain its relevancy or irrelevancy to the present National beef issue in the army. Further than that which I have stated above, I know not.

"G. MAXWELL CHRISTINE."

Sworn and subscribed to before me this 28th day of January, 1898.

WILLIAM Y. TRIPPLE,
Notary Public.

Vital Statistics of Philadelphia, for the week ending January 28, 1899:

Total mortality		518
Children under 5 years of age		133
Diseases.	Cases.	Deaths.
Pneumonia 66, congestion of the lungs 2		68
Pulmonary tuberculosis		60
Typhoid fever	427	40
Apoplexy 18, paralysis 11, softening of the brain 2		31
Heart-disease 23, fatty degeneration of the heart 3, inflammation of the heart 2		28
Nephritis 24, uremia 2		26
Inflammation of the brain 22, congestion of the brain 3		25
Influenza		24
Inanition 11, marasmus 10, debility 2		23
Diphtheria 18, membranous croup 2	104	20
Senility		20
Convulsions		17
Bronchitis		14
Gastroenteritis 10, cholera infantum 2, gastric fever 1		13
Casualties 6, burns and scalds 6		12
Scarlet fever	35	5
Carcinoma 9, suicide 7, dropsy 6, peritonitis 3, cirrhosis of the liver 4, anemia 3, abscess 3, diabetes 3, homicide 3, teething 3, parturition 2, pleuritis 2, insanity 2, rheumatism 2, asthma 1, congestion of the liver 1, cyanosis 1, diarrhea 1, dysentery 1, erysipelas 1, gangrene 1, appendicitis 1, poisoning 1, drowned 1.		

Philadelphia County Medical Society.—At a meeting held January 25, DR. ANNA M. FULLERTON read a paper on **Tuberculous peritonitis,** and reported four cases successfully operated upon. In one case bilateral tubo-ovarian disease was present, the patient suffering from irregular menstruation and vesical tenesmus. The pus was found to contain tubercle-bacilli. In a second case miliary tuberculosis was associated with a suppurating ovarian cyst; the pus contained bacilli, and the patient was profoundly septic. Drainage was employed, and a fecal fistula was one of the complications of convalescence. In another case reported 2½ gallons of free fluid were evacuated, the uterine appendages removed, and drainage used for several days. Repeated evacuations in these cases sometimes leads to a cure; and as operation affords the one chance for relief, it should be advocated. DR. BEYEA reported that, in a large series of specimens examined in the work at the University and Gynecean Hospitals, 18% of the cases showed evidence of tuberculous disease. A very large proportion of these cases were primary, and presented no symptoms of tuberculosis elsewhere in the body. DR. NOBLE believes the ultimate prognosis in these cases is unfavorable, although the immediate mortality is slight; but many die from the recurrence of the disease. DR. M. PRICE believes in repeatedly evacuating the fluid, if necessary, and lightly dusting the intestines and peritoneum with iodoform. He considers that to the latter procedure is due one-half the benefit of the operation.

DR. C. P. NOBLE read a paper on **Conservative gynecology.** All methods which promote the best interests of the patient are conservative methods. In treatment of laceration of the pelvic floor, immediate repair by suture will secure accurate apposition and restoration of normal anatomic relations, if thoroughly and carefully done. This method prevents infection from an open wound or the necessity for a dreaded secondary operation. The sutures should be introduced first at the upper angle of the laceration. Immediate repair of cervical lacerations require more skill, complete anesthesia, and plenty of assistants. It may be deferred until a later date. Frequently these lacerations will heal spontaneously. Extensive lacerations are constant sources of irritation and frequently predispose to malignant disease of the cervix. If cervical tear is slight, let it alone. The early recognition and treatment of gonorrhea and puerperal infection, before the appendages are involved, will often limit the pelvic inflammation. Gonorrhea is often due to men who have been pronounced cured. Careful, prolonged treatment of the vaginitis prevents the spread of the disease to the appendages. If antiseptic midwifery were practised, puerperal infection would become a disease of the greatest rarity. If vaginal incision and drainage were employed, in many cases relief would be secured without the sacrifice of tubes and ovaries. Resection of the tubes and ovaries and separation of adhesions will often relieve the symptoms in pelvic inflammation. Ovarian or uterine fixation or Alexander's operation is advisable. In uterine fibroids drugs have little effect; the reputation of ergot rests on its use in submucous growths. Myomectomy is the preferable operation, either by the abdominal or vaginal method; it requires more skill than hysterectomy, but permits the uterus and its appendages to remain, and does not interfere with their functions. Curettage is valuable in polypoid endometritis, but is dangerous in the presence of tubal disease, and should be only cautiously used in puerperal cases. Frequently the curet will break down the barrier nature has raised and produce extension instead of prevention of infection.

Pathological Society of Philadelphia.—At a meeting held January 26, DR. H. L. WILLIAMS reported a case of **papilloma of both ovaries with ascites,** and presented gross and microscopic specimens. The patient, a woman aged 33 years, noticed the first symptoms, which consisted of enlargement of the abdomen six months prior to operation. After the evacuation of a large quantity of fluid, both ovaries were removed. Upon examination they were found covered with an extensive papillomatous growth, which did not extend beyond their limits. The peritoneal cavity subsequently refilled, and a diagnosis of carcinoma of the liver was made. DR. DAVID RIESMAN referred to a similar case and mentioned that these growths infect the viscera by implantation only, and stated that this fact is very suggestive of a parasitic origin of tumors (if this theory be at all acptable). Dr. Wilmer Krusen related a case of papillo- atous cyst of the ovary, which had ruptured at one point, bsequent to which the growth progressed on the outer sur- ce of the ovary. The tumor was removed, but recurrence nsued, and at present there was extensive local involve- ent. He asked as to the prognosis in such cases. Dr. illiams stated that the prognosis as to return is bad, and at the recurrence is likely to be very malignant.

Dr. A. O. J. Kelly read a paper upon **Histologic chnic**, which will be published in a future number of the urnal. He demonstrated a method for securing very in celloidin-sections, a dish for the constant irrigation of ecimens, and a test-tube adaptation for hardening, wash- g, and staining delicate fragments and thin sections of sue. Dr. M. B. Hartzell stated that he preferred the raffin method of embedding, which he commonly carried t in a vacuum. He spoke of a dry method of cutting lloidin-section by the use of oil of cedar, and said that he eferred chloroform to 70% or 80% alcohol for hardening e mounted celloidin-blocks. Dr. Wayne Babcock stated at as fat in some specimens led to rapid deterioration of e celloidin, in such cases it is better to use small recep- les and change the celloidin frequently. He spoke of id methods of celloidin-embedding and of the hardening mounted celloldin-blocks in chloroform. Dr. Cattell ke of the hardening of specimens by keeping them con- ntly in absolute alcohol by the constant distillation of the ter. Dr. W. M. L. Coplin thought the constant distillation thod a great nuisance, as was also the necessity of keeping specimen and the knife flooded with alcohol in cutting loidin-sections. He much prefers the paraffin method l feels assured that the successful cutting of large sections either method is largely a question of stability of the paratus. Dr. J. Dutton Steele latterly has come to think l of paraffin, and stated that he commonly secured the cimen to the slide with the use of water alone. Dr. lliams spoke of the celloidin method. Dr. Riesman ed that he is well satisfied with celloidin and finds that stock solution if properly kept does not deteriorate. He fers also to mount the specimens upon vulcanized fiber. Kelly stated that he hardly intended to institute a com- ison of the relative merits of the celloidin and paraffin hods of embedding; he was rather seeking to secure nner sections by the celloidin method.

r. A. E. Taylor read a note on **A possible urinary t for obstruction of the pancreatic duct.** Basing idea upon the experimental work of Pisenti and Rosen- , he suggested that a marked reduction in the ethereal hates in the urine might be a diagnostic sign of obstruc- of the duct of Wirsong. In dogs, ligation of the pan- tic ducts produces a marked reduction in the elimination e ethereal sulphates. He considered that in the ab- e of trypsin-digestion the intestinal bacteria were not to produce more than a minimum of ethereal sulphates, that the experimental phenomenon noted in the dog d thus be best explained. One case was described in h the general and local symptoms pointed to a malig- neoplasm; there was obstructive jaundice, a constant ocytosis, rapid wasting and extreme cachexia. In the e of this man three determinations of the ethereal sul- es gave 0.087, 0.121, and 0.092—very low figures. No psy could be obtained.

W. S. Wadsworth presented some **skiagraphs** of 2 nts suffering with tabetic arthritis of the knee, of a pa- with a dermoid cyst in the pelvis, and of a calculus in the bladder. Dr. Charles W. Burr presented also some skiagraphs of tabetic joints.

Dr. Barnes presented a specimen of **carcinoma of the pancreas and stomach,** and a **horse-shoe kidney.**

Dr. J. Dutton Steele presented a specimen of **alveolar sarcoma of the retroperitoneal tissues.**

Pittsburg (Pa.) Academy of Medicine.—At a regular meeting held January 23, Dr. Theodore Diller reported a case of **pontine lesion** in a man whose head had been caught between two cars. He had complete anesthesia and analgesia of the right face and left arm and leg, with some paralysis of the same members, and complete deafness in the right ear. The location of the lesion was believed to be within the pons, involving the fifth, seventh and eighth nerves with some of the nerves of deglutition. That the sixth nerve was not involved was thought to be somewhat singular in view of the intimate relation its nucleus bears to the seventh nerve.

Dr. Diller also reported a case of **transitory mania** in a man, aged 41 years. It resembled somewhat the so-called typhomania. The medico-legal importance of such cases was dwelt upon. In addition Dr. Diller reported two cases of **hysteria.** A woman had been vomiting or regurgitating small quantities of food or liquid so often as 20 or 30 times daily for several years past, but was not emaciated. She was relieved by strychnin hypodermatically and completely recovered after being hypnotized a number of times. Each time this was done, it was suggested that vomiting be absent for increasing periods of time until it was made permanent. The other case was in a boy of 11 years, and was associated with and growing out of Sydenham's chorea. The boy had laughing-spells which increased in length and severity until they terminated in a convulsive attack. Treatment consisted in rest in bed, massage, hydrotherapy, and hypnotism, with ultimate recovery. In discussion Dr. F. F. Simpson asked if hypnotism is often found of value in hysterical cases. Dr. J. C. Thompson inquired concerning the possible diagnosis of hysteria in a woman who had been in bed for six months, but complained only of severe pain in top of head. The patient's father was insane and she had had a phlebitis. Examination was negative. Dr. Diller replied that he considered the diagnosis of hysteria in Dr. Thompson's case improbable. The headache might continue for six months, with no other symptoms, and yet be caused by organic disease—syphilis, tumor, embolism, or thrombosis of sinus. Headache of neurasthenia is particularly stubborn. Replying to Dr. Simpson, he said that hypnotism is frequently found a valuable means of treatment in hysteria in his experience, but that he preferred to exhaust other methods of treatment first. Suggestion without resorting to hypnotism is often efficient.

Dr. T. G. Simonton read a paper on **Inspiratory pneumonia, with the report of a case.** The case of a twelve-pound infant was related, whose symptoms began a half hour after a tedious forceps-delivery, with cyanosis of face and extremities. Eighteen hours after birth it had 8 to 10 convulsions. On the fourth day dulness over the left apex anteriorly was detected. The child recovered. The case was thought to be one of croupous pneumonia in spite of the fact that it is generally considered that inspiratory pneumonia in infants is a broncho-pneumonia. The opinion was based upon the character of the onset and the temperature-curve which was shown. In the discussion Dr. F. F. Simpson asked if inspiratory pneumonia is not more frequent in dystocia than supposed. Dr. Elterich related a case of intense congestion of lungs in an infant, due to exposure, and stated that lobar pneumonia is rare in young children; that it is found in the apices and is accompanied by high temperature and delirium. Closing the discussion, Dr. Simonton stated that three months after birth the child weighed 25 pounds.

Dr. E. S. Montgomery read a paper on **Strychnos nux vomica,** in which he gave an exhaustive resume of the physiologic action and therapeutic value of the drug. The value of drop-doses of the tincture every 15 or 20 minutes in the vomiting of pregnancy was insisted upon, as was the value of strychnin in shock. The use of the drug in torticollis was mentioned. A somewhat surprising remedy. In the discussion, Dr. Diller stated that it was a drug of wide application and of great therapeutic value, but that he would not care to use it in torticollis. He called attention to the fact that Dr. Dana, of New York, contends that strychnin in large doses is a sedative, in neuralgia for example, is of great value in dipsomania and is a prominent ingredient in many of the so-called "cures." He advised large doses—never less than gr. $\frac{1}{24}$ to $\frac{1}{32}$ and frequently gr. $\frac{1}{12}$ to gr. $\frac{1}{16}$. He inquired if it was used habitually in surgical clinics before operations and if there was such a thing as the strychnin habit. Dr. Heckel advocated large doses. He uses the nitrate in doses of gr. $\frac{1}{10}$—sometimes more—in amaurosis, amblyopia and optic atrophy. He was somewhat skeptical as to its value in the latter condition and did not believe that it increased sharpness of vision in normal eyes. Dr. Simonton related a case of multiple neuritis that received enormous doses of strychnin for $2\frac{1}{2}$ days with benefit. Dr. Singley had used the drug as a sedative in neuralgia with good results as well as in chronic muscular rheumatism, as advised by Osler. Had also found it of value as an addition to cough-mixtures for old people—a practice originated by Fothergill and constantly urged by H. C. Wood. Dr. Simpson insisted upon large doses. Closing the discussion Dr. Montgomery suggested that possibly the good results obtained in neuralgia were due to suggestion. He thought it was of value in cough-mixtures and stated that 30 drops of the tincture rendered his vision most acute. In the depression following grip, he had found it very beneficial. He related the case of a physician who took by mistake over one grain of strychnin and recovered. This physician, in relating his symptoms to him, stated that he was unconscious during the convulsions.

Increase in Typhoid Fever Charged to Break in Intercepting Sewer.—The almost unprecedented number of typhoid-fever cases in this city was made the subject of special attention by the Board of Health, and it was stated that there were 427 cases reported under treatment at the end of last week, an increase of 107 over the week previous. As only 9 cases are reported from Boston, and but 16 from New York, it was thought that some special contaminating agent must be at work among the people of this city. Dr. A. C. Abbott, chief of the bacteriological laboratory, presented a chart showing that the present high-water mark almost reaches the number of a few months ago, when so many soldiers were in local hospitals. A table of reports from the chief affected districts showed that the majority of cases are in the Twenty-first, Twenty-eighth, Thirty-eighth, Thirty-second, Twenty-ninth, Fifteenth, Twentieth, Fourteenth and Thirteenth Wards. Dr. Abbott pointed out that these wards are supplied wholly or in part by the Queen Lane Reservoir, and if the fever comes from bad water the pollution comes from Wissahickon creek, which is not probable, or else there has been a break or overflush in the intercepting sewer from Manayunk, which discharges ordinarily into the Schuylkill River below the dam. Such a break would immediately pollute the Queen Lane Reservoir. A year ago, during a similar epidemic of typhoid fever, the Board of Health was of the opinion that the reservoir was the cause, and, acting on the same belief, a resolution was passed requesting that the Director of Public Works cause an inspection to be made of the territory traversed by the intercepting sewer to learn if there is a break or overflush from the sewer.—[*Philadelphia Ledger.*]

NEW YORK.

Dr. Robert T. Morris delivered a lecture on "Labrador," at the Museum of Natural History, in Manhattan, on Thursday evening last. Dr. Morris is an enthusiasti naturalist and has spent his summer vacations recently i Labrador.

The Brooklyn Hospital.—At a meeting of the boar of trustees held January 19, the following officers wer elected:—President, John F. Halsted; vice-president, Jame H. Frothingham; treasurer, Edward Merritt; secretary, Ed ward H. Kidder. Attending physicians: Drs. Rober Ormiston, Alexander Hutchins, Arthur R. Paine, Frank West. Attending surgeons: Drs. George R. Fowler, Rober L. Dickinson, Walter C. Wood.

Kings County Medical Society.—At the annua meeting, held January 12, the following officers were elected President, Dr. Joseph H. Hunt; vice-president, Dr. E. Bartley; secretary, Dr. David Myerle; associate secretar Dr. Robert J. Morrison; treasurer, Dr. Charles N. Cox associate treasurer, Dr. O. A. Gordon; librarian, Dr. Wi liam Browning; censors, Drs. H. B. DeLatour, John E. She pard, J. M. Van Cott, H. A. Fairbairn, W. C. Wood; truste Dr. Charles Jewett.

Academy of Medicine—Section on Laryngolog and Rhinology.—At a regular meeting held Wednesd evening, January 25, the following program was discusse Presentation of New Instruments and Apparatus. Exhi tion of Cases. Report of a Recent Case of Tonsillar a Laryngeal Diphtheria in which Antitoxin was Employe by Dr. N. S. Roberts. Paper: Tonsillitis in Children, by H. D. Chapin. Discussion by Drs. Koplik, Rice, Knig Paper: The Treatment of Dysphagia and Cough, especi in Tuberculosis, by Dr. W. Freudenthal. Discussion by D Coffin and Myles.

Associated Physicians of Long Island.—At t annual meeting held in the Union League Club, Janu 21, the following officers were elected: President, Dr. Lo N. Lanehart, of Hempstead, L. I.; first vice-preside Dr. James M. Winfield, of Brooklyn, N. Y.; second vi president, Dr. W. B. Gibson, of Huntingdon, L. I.; th vice-president, Dr. J. S. Cooley, of Glen Cove, L. I.; sec tary, Dr. Robert J. Morrison, of Brooklyn; treasu Dr. H. Terry, of Patchogue, L. I.; historian, D. Joseph Hunt, of Brooklyn. The treasurer's report showed balance in the treasury of $98. The secretary's rep showed a membership of 118, an increase of 24 during year. The following papers were read and discussed: Tr ment of Hip-joint Disease, by Dr. Louis N. Lanehart Hempstead, L. I.; discussion by Drs. J. D. Trask and C Napier; Laryngeal Diphtheria, by Dr. William F. Dud of Brooklyn; discussion by Drs. J. M. Van Cott, A. S. Am and Arthur H. Terry; A Factor in the Preparation of ents for Laparotomy, by Dr. George McNaughton, of rooklyn; discussion by Drs. Ernest Palmer, Charles Jewett nd Philip M. Wood.

City vs. Citizen.—Assemblyman Collier introduced a ill at Albany, on January 27, repealing section 1226 of the ew York Charter which gives the power to sell serum. his legislation is advocated by Dr. Paul Gibier, who comlains that the Board of Health has driven him from busiess. He had at one time 50 horses, now he has but one and at solely for experimental purposes. Antidiphtheritic rum is not the only one in which he was injured; he had a antitoxin for rabies and was doing quite a little with when the Board of Health sold a product at such a low rice that he could not compete. He is ready to fight igorously, for, it is said, "if he cannot win with this bill he ill have to close up shop and go off to run a chicken-farm mewhere, and even then he would not dare to attempt to re such cases of pip and roup as might make their appearce."

Summer Courses at Cornell University Medical ollege.—At the last meeting of the Faculty, a Summer ourse, from the middle of May to the middle of August, was ted. The Faculty are now working out a schedule for the aff of instructors. The course is to be laboratory and clinal, with recitations. The principal part of the instruction, wever, is to be clinical in dispensaries and hospitals. is means an elaboration of the regular curriculum throught the rest of the year; that is, small sections of students e to be placed under the direction of a surgeon or physician siting at a hospital or dispensary and required to attend e instructor on his rounds and duties, and to study cases personal observation and contact, three or more days a ek for six weeks at a time. The course is to be open to dents of any medical college on the payment of a very oderate fee.

Dr. Alvin C. Henderson, Coroner's physician, had his ght leg amputated just below the knee recently in the ng Island College Hospital. The amputation was the sult of an injury he received in his great toe in the latter rt of October when a woman stepped upon it in a trolley-car. t the time of the accident Dr. Henderson was returning to s office after performing an autopsy. When the woman epped on the physician's toe he thought the injury only a ght one, but changed his opinion when he reached his me and discovered that he was unable to take off his shoe. e shoe had to be removed with a knife. Dr. Henderson eated the injury, but it gradually extended and the foot gan to swell. He finally put himself under the care of Dr. mes Feeley. After a consultation the patient was removed the Long Island College Hospital last Thursday. The rgical staff, after a conference, decided that unless an eration was performed the physician would die. While r. Henderson was under the influence of an anesthetic it as thought for a time that he could not survive the shock. fter the amputation it was some time before the patient as restored to consciousness. His condition is regarded extremely critical.

New York County Medical Society.—At a stated eeting held January 23, DR. J. H. CLAIBORNE read a per entitled, **Three months' experience in Camp homas,** in which he criticised comprehensively and in tail the management, or rather mismanagement, of the veral army departments, particularly the medical and artermaster departments, during the recent unpleasantness with Spain. Dr. Claiborne was a line officer in the 12th New York Volunteers, and although his regiment did not get beyond camp at Chickamauga, there was more sickness in it than was necessary if proper precautions had been taken. He gave the following reasons for the prevalence o sickness at Chickamauga Park:

1. Undue haste in bringing regiments into the Park.
2. Unpreparedness of the regiments in uniform and equipage.
3. Choice of poor locations.
4. Dearth of good water for drinking, cooking, and bathing purposes.
5. Prevalence of great quantities of flies, which carried contagion from the latrines to the food—the most potent cause of all.
6. The crowding of regiments in too close proximity to one another.
7. Shallowness of the sinks, owing to the character of the soil.
8. Sudden change of climatic conditions, different from those to which the regiments as a whole were accustomed.
9. The change of manner of life from indoor to open life.
10. Natural ignorance of the laws of health on the part of officers and men.
11. Excessive drilling under the Southern sun.
12. Ennui, due to over-drilling and the lack of excitement.
13. Homesickness.
14. Insufficiency of medical supplies—the least important cause.
15. Keeping camps too long on one site.
16. Sleeping on damp ground, owing to absence of wooden floors in the tents.
17. Total inefficiency of the Division Hospital system, as conducted in the Park.

The paper was discussed by DR. GEORGE GRAY WARD, who was a medical officer attached to the same regiment. Dr. Ward corroborated everything said by Dr. Claiborne, emphasized some things and spoke of some others that Dr. Claiborne had forgotten.

DR. JARVIS, who has been assistant surgeon-general of the State, upheld the government. He said that compared with the management of other wars, the government did exceptionally well in the short time it had to prepare for everything. DR. ANDREW H. SMITH said that he had seen service in the civil war and that for the first year of that war conditions were as bad if not worse than during the recent war. It took time to perfect arrangements, and this fact should not be lost sight of in criticising the government.

DR. ELMER LEE read a paper entitled **Curability of Bright's disease,** in which he said that in most cases death from Bright's disease should be considered as a premature death, because such death is preventable if the proper course be pursued. He gave, as the most frequent causes of nephritis, high living, over-eating, alcohol, etc., without compensatory exercise. Overfeeding in infants frequently lays the foundation for nephritis in later life. The diagnostic points of Bright's disease are fatty tube-casts and renal epithelium with albumin in the urine. The pith of the paper lay in the treatment advocated, *i. e.*, the logical eradication of the causes, overfeeding and lack of exercise. A spare diet, plenty of pure water, and systematic exercise are all that is necessary in the treatment; medicine or drugs should be given only temporarily for symptoms. The diet should consist of two meals a day of fruit and vegetables. In the discussion DR. A. H. SMITH said it was all very well to talk of the prevention of nephritis before the structure of the kidney has become changed. That most cases applying to the physician are of this kind—an advanced stage exhibiting marked structural changes—and that in these cases simple diet and hygiene will not be satisfactory. DR. MORRIS MANGES said that he had seen and treated a great many cases of nephritis and that the treatment outlined in the paper would not be appropriate for any of them. It might possibly do for cases of incipient nephritis, which, however, the physician seldom saw until they became more advanced. Dr. Manges believes in the generally adopted treatment of rest in bed with skim-milk diet and the use of drugs, etc.

At the close of the scientific session DR. F. R. STURGES read a resolution to the effect that the delegates from the county society should be instructed to support the Sullivan bill regulating hospitals and dispensaries. DR. WENDELL C. PHILLIPS objected to this on the ground that a new bill has been prepared, which has met with the approval of members of the society and of the delegates themselves, who have signified their intention of supporting it. There was some heated discussion over this until DR. DANIEL LEWIS made an amendment to Dr. Sturges' resolution, which was in effect, that the delegates should use their discretion in supporting some measure designed to correct hospital and dispensary abuses.

New York Surgical Society.—At a stated meeting held January 25, DR. GEO. E. BREWER presented a case of **posterior gastro-enterostomy with entero-enterostomy.** The patient was first seen last May. He presented all the symptoms of advanced carcinoma of the stomach. When the stomach was washed out it was found to be greatly dilated, holding 4 quarts. This was due to a stricture near the pylorus. The lower curvature rested on the pubes. The operation of gastro-enterostomy was done, two Murphy buttons being used. Only one button has been passed. In discussion DR. WILLY MEYER said he frequently used more buttons than were subsequently passed. In 1 case he discovered the button in the stomach by means of the X-ray. It was there for 3 years and caused no trouble. He will always continue to use the buttons. DR. KAMMERER said he always used the buttons and did the posterior operation in preference to the anterior, as it caused less vomiting and few bad after-effects.

DR. KAMMERER exhibited a case of **nephrectomy for tumor.** Last August patient noticed swelling in abdomen which was found by palpation to be a large tumor. There was hematuria. A lumbar incision extending to within 2 inches of umbilicus was made, resecting the tenth, eleventh, and twelfth ribs. The tumor weighed 6 pounds and was the size of a pumpkin. The superiority of the lumbar incision was shown in this operation.

DR. KAMMERER also exhibited a case of **nephrectomy for tuberculosis.** The patient had a tumor of the right kidney. Examination of urine showed tubercle-bacilli. A suprapubic opening was made into the bladder and through this opening the kidneys were catheterized. The right kidney was found to be affected, the left not, so the right was removed. In the discussion DR. JOHNSON said the prognosis in cases of tubercular kidney after removal was good. He had had a case where the ureter was extensively involved, but this he left in after removing the kidney. Later he opened the wound in order to cure a sinus and found the ureter dwindled in size to almost a string. DR. F. T. BROWN said he had an experience similar to Dr. Johnson's. He removed the kidney of a boy who died several months afterward of tubercular meningitis. He did an autopsy in order to inspect the ureter, which, at the time of operating, was as thick as a thumb. It had diminished to one-sixth of its former size. DR. WILLY MEYER said he never removed the ureter after taking out the kidney, as he thought it unnecessary. As soon as the source of infection is removed the ureter takes care of itself. DR. FRANK MARKOE said he never removed the ureters and never even secured them outside the body. He did not believe in nephrotomy, but always did nephrectomy when an operation was indicated. DR. A. J. MCCOSH said he remembered 3 cases where the ureter was left in after nephrectomy. One case was in hospital now with an abscess near the seat of the ureter. He will operate to remove the ureter. In the second case, a year after the operation, he had to operate to remove the ureter on account of the discharge. In the third case a sinus resulted which led into the bladder, as was proved by the injection of methylene-blue. When the ureter is much affected it is best removed. DR. KAMMERER said he never had fistulas resulting from left-in ureters. His experience was that not only the ureters heal up, but ulcers in the bladder near the ureteral orifice heal after removal of the kidney.

DR. G. E. BREWER read a paper entitled **A preliminary report upon the surgical anatomy of the gall-bladder and ducts, from an analysis of 100 dissections.** The main points brought out in the paper were the variations in size and length of the gall-bladder, cystic and common ducts and the almost constant presence in the duodenum of a fold of mucous membrane which he styles the "falciform process." In 77 out of 100 cases this fold was observed. It is about 8 inches from the pylorus, and an average of 1½ inches distant from the gall-duct. In the discussion DRS. MARCOE, GEO. HUNTINGTON, H. LILIENTHAL, GEO. WOOLSEY and ELSWORTH ELIOTT all agreed that the finding of this crescentic fold in the duodenum was a valuable addition to science.

Academy of Medicine—Section on Gynecology and Obstetrics.—At a stated meeting held January 26, Dr. Brooks Wells was elected chairman and Dr. E. A. Gallant, secretary for the ensuing year. DR. EDWARD AYERS presented a specimen of parturient uterus taken from a case of **placenta previa.** The patient was 26 years old and had been 8 months pregnant. Examination showed central attachment of the placenta. Cervical dilatation was produced by Barnes' bags—60 minutes being consumed in the process. The hand was then introduced by the side of the placenta and the head found to present. Forceps were applied and the fetus extracted in 15 minutes, dead. The placenta then extracted per manus. A high rectal injection of 1 qt. saline was given, but the patient died after 12 hours of hemorrhage. Postmortem revealed no cervical tear nor any other cause for the hemorrhage except non-contraction of lower uterine segment. In the discussion DR. SIMON MARX said he believed delay in interfering with a placenta previa unnecessary and dangerous. He does not believe in Barnes' bags, always uses hand. Thinks 60 minutes for dilatation too slow. Thinks the use of forceps wrong. Would rather do a version. Would tampon the uterus and vagina to prevent hemorrhage. DR. AYERS said in self-justification that this was the first case he had ever delivered by the forceps head first. He usually did a version. This case was tamponed. DR. PAUL F. MUNDÉ said that he recently saw in one week 3 cases of placenta previa. In the first, premature labor was induced, and version performed; there was no hemorrhage and the patient recovered. In the second case severe hemorrhage and anemia of the patient demanded interference. The os was dilated and the membranes ruptured by the fingers. Version was done, and the uterus, after being emptied, contracted well, and there was no hemorrhage; the patient, however, died several hours later, presumably from heart-clot. The third case was similar to the first. Dr. Mundé thinks tamponade unnecessary when the uterus is emptied.

Patients die of hemorrhage before, not after, delivery. He favors version. Dr. Marx explained why he advocated tamponade. It acts as a mechanical hemostatic. Patients who have lost considerable blood before delivery should have every drop saved to them, and this tamponade does. He leaves the tamponade in for 36 hours.

Dr Herman Boldt exhibited a specimen and narrated a recent case. He saw the patient at 7 p.m. when she was in good condition. He was called at 9 p.m., to find her in collapse from hemorrhage. He dilated manually, extracted the fetus and placenta. The patient died. Autopsy revealed a cervical tear extending up beneath the peritoneum. Two other cases which he has recently seen had placenta prævia centralis. He emptied their uteri in the same manner as just described and they recovered. He does not use tamponade, thinking it unnecessary.

In closing the discussion Dr. Ayers said that he took 60 minutes to dilate the cervix in his case because she was a primipara, the cervix was unyielding, and he wished to avoid a tear.

Dr. Paul F. Mundé narrated two cases of **total absence of uteri and vaginæ.** The women had female shapes and well-formed external genitals. Dr. Mundé made artificial vaginæ for them 3½ inches deep. These they kept patulous with glass plugs. One patient became married and found no difficulty in sustaining the conjugal relation. Dr. Mundé has seen 13 cases of malformation of the female genitalia in the last 3 years. Dr. H. N. Vineberg said that in a paper which he published recently he made the statement that it was impossible to say whether uterus and ovaries were entirely absent without opening the abdomen. He has always found rudimentary ovaries and uterus in those cases of suspected absence in which he has opened the abdomen. He also said that Dr. Mackenrodt, 2 years ago, performed an operation for artificial vagina, in which he used the mucous membrane from another case of perineorrhaphy to form the vagina. The result in this case was most satisfactory, there being no contraction. Dr. Boldt narrated a case of supposed complete absence of uterus and ovaries in which the abdomen was subsequently opened and rudimentary uterus and ovaries found. Dr. A. Palmer Dudley recited a case of a girl of 16 who had complete male genitalia on one side and complete female genitalia on the other. He has seen several cases of supposed absence of uterus and vagina which were later found rudimentary when the abdomen was opened. Dr. Mundé said he did not doubt but that laparotomy would prove in most cases a rudimentary uterus and ovaries in those cases of suspected absence. He did not believe there was ever a case of true hermaphrodism.

Dr. Herman J. Boldt presented a specimen of **ovarian cyst** which was thought before operation to be ascites. All the physical signs suggested ascites, and the patient was tapped several times. The cyst and fluid it contained weighed 40 pounds.

Dr. Boldt also presented a specimen of the broken **tip of a glass syringe** for which he had to do a laparotomy in order to extract. The syringe had been used in making an intrauterine injection.

Dr. Wm. Stone narrated a case of **acute urethral and vaginal gonorrhea** from an old uterine gonorrhea. Discussion by Drs. Vineberg and Gallant.

Dr. Paul F. Mundé read a paper on **The complication of twisted pedicle in ovarian tumors,** in which he stated that the pedicle of an ovarian tumor consists of the broad ligament, fallopian tube and ovarian artery and vein. The pedicle may be long and slender, which is generally the case in small floating tumors, or it may be short and thick. The small slender pedicles are the ones which usually twist. The causes of the twisting lie in the movements of the intestines, the movements of the woman, sudden emptying of a pregnant uterus, etc. When once twisted the pedicle never untwists. It may be twisted several times, each process of twisting causing an acute paroxysm of pain. Pain is a diagnostic sign of twisted pedicle, as an ordinary ovarian tumor is not painful. Dermoids are particularly liable to twist, probably on account of their small size and solid nature. When there are two ovarian tumors it is very unusual for both pedicles to twist. Dr. Mundé has never seen such a case. The frequency of twisted pedicles is 29 in 430 cases of ovarian tumor, or 2%. The treatment is early operation. Dr. Mundé then recited the clinical histories of several cases which he had seen and treated. In the discussion Dr. Riddle Goffe said there was one point he wished to bring out, *i. e.*, the law of Bland Sutton *in re* the direction of the twist. Tumors on the left side twist from left to right, and on the right side from right to left. Dr. Goffe remembered one case he saw in which there were two ovarian tumors and two twisted pedicles. Dr. Boldt said that in a patient upon whom he operated for general peritonitis he discovered an ovarian tumor with four pedicular twists.

Dr. L. S. Jones read a paper on **Unguentum Credé in puerperal sepsis.** He recited the death-rate from puerperal disease in New York City from 1866 to date.

From	1866 to 1870	average	yearly	rate	110
"	1875 " 1880	"	"	"	197
"	1885 " 1890	"	"	"	214
"	1893 " 1897	"	"	"	203

In 1898 there were 390 puerperal deaths. After deprecating this state of affairs he went on to say that the remedy for puerperal sepsis lay in the destruction of the streptococci. He thought Dr. Credé had hit upon the right thing in his unguentum Credé, which is a soluble preparation of silver. It is used by inunction in doses of 1 dram. In a case narrated by Dr. Jones it produced a miraculous effect, reducing the temperature at once and making the patient feel immensely better. In the discussion Dr. H. U. Vineberg said he had one objection to the use of unguentum Credé; it might cause an overlooking of the real condition, which was a surgical disease and not a medical one. To produce sepsis there must be a wound and an infection somewhere. An operation would seem to be more indicated than anything else. Dr. H. J. Boldt said there were different kinds of puerperal sepsis. He thought the unguentum Credé would have its best effect in mild or in chronic cases. Dr. P. F. Mundé said puerperal sepsis was purely a surgical disease and demanded surgical measures. He would operate in nearly all cases, but he thought unguentum Credé might be used in some cases. Dr. S. Marx said he thought this new silver treatment was much the same as the old mercurial treatment. In simple cases it was not needed, as the cases would better anyway, and in bad cases it would do no good.

NEW ENGLAND.

Massachusetts Medico-legal Society.—At a meeting held February 1, the following was the program: Medical expert testimony, by Dr. Irish; Report of a double homicide, and its mystery, by Dr. Brown; The murder of John Dean, by Dr. Hoitt.

Boston Society for Medical Improvement.—At a meeting held January 30, the following was the scientific program: Some practical results of recent studies upon the feet of young children, by Dr. John Dane; Cases of paralysis after cerebrospinal meningitis, by Dr. William N. Bullard; The etiology of abscess of the liver, by Dr. Henry Jackson.

Gynecological Society of Boston.—At a meeting held January 12, the following officers were elected: President, Dr. A. H. Tuttle, of Cambridge; vice-president, Dr. C. W. Stevens, of Boston; secretary, Dr. C. H. Harwood, of Boston; treasurer, Dr. F. Carroll, of Boston; auditor, Dr. J. F. Frisbie, of Newton; committee on nominations, Dr. J. W. Redmond, of Boston; Dr. T. E. Cunningham, of Cambridge; Dr. F. R. Bowman, of Boston; for committee on pathological specimens; Dr. J. H. Woods, of Brookline; Dr. J. Cushing Gallison, of Boston; Dr. F. B. Lawson, of Boston.

WESTERN STATES.

Dr. E. H. Lee has been appointed surgeon to St. Alexian Brothers' Hospital, Chicago.

Pierce County Medical Society, Tacoma, Washington.—Dr. Henry W. Dewey has been reelected president for the ensuing year.

Cleveland (Ohio) Medical Society.—At a meeting held January 27, the following was the scientific program: Metaphysics, by Dr. H. C. Eyman; The diagnostic value of the tracheal-tone sound, by Dr. C. F. Hoover.

Smallpox Among the Indians.—Recent advices state that the Indians in Zuni Pueblo, in Western Valencia County, New Mexico, are seriously affected with smallpox. It is stated 600 are at present sick, and that 217 deaths have already occurred.

King County Medical Society, Seattle, Washington.—The following officers were elected at the annual meeting held January 16: Dr. Montgomery Russell, president; Dr. R. W. Schaenle, vice-president; Dr. W. L. Ludlow, secretary; and Dr. Chas. B. Ford, treasurer. Following the business meeting, the Society celebrated its tenth anniversary by a banquet at the Rainier Club.

Denver and Arapahoe Medical Society.—At the annual meeting held January 10, the following officers were chosen: President, Dr. H. B. Whitney; vice-president, Dr. C. K. Fleming; secretary, Dr. Edward Delehanty; financial secretary, Dr. G. H. Stover; treasurer, Dr. E. J. Rothwell. Board of censors: Drs. Robert Levy, J. N. Hall, Edward Jackson, E. P. Hershey and J. M. Blaine.

Chicago Medical Examiners' Association.—At a meeting held January 26, Mr. Kuhn read a paper on classified risks in life-insurance. The following officers were elected for the ensuing year: President, Dr. James H. Stowell; vice-president, Dr. Denslow Lewis; secretary, Dr. A. H. Brumback; treasurer, Dr. W. K. Harrison; committee on membership, Drs. E. J. Mellish, D. J. Doherty, W. F. Follansbee, and L. H. Montgomery.

Physicians' Club of Chicago.—At a meeting held January 30, the subject for discussion was **Social Settlements.** The speakers and the topics were as follows: Origin of the Social Settlement, by Mr. H. F. Ward, Northwestern University Settlement; Industrial Situation which Calls for the Settlement, by Prof. Graham Taylor, Chicago Commons. The Aim of the Settlement, by Miss Jane Addams, Hull House; Instruction of the Needy Public in Hygiene and Sanitation, by Dr. J. H. Kellogg; The Poor Man's Lawyer, by Mr. Joseph W. Errant; Duties of the Outsider to the Settlement Movement, by Prof. C. R. Henderson, Chicago University.

Vital Statistics of Chicago for 1898.—According to the report of the Commissioner of Health of Chicago, the total deaths for 1898 number 22,793, as compared with 21,809 during 1897. Computed on the School-Census figures of population of June, 1896—namely, 1,619,226—the annual death-rate of 1897 was 13.5 per thousand. Computed on an estimated mean population of 1,650,000 the death-rate of 1898 is 13.8 per thousand—still the lowest for any metropolitan city in the world. If it be contended that there has been no increase of the population since June, 1896, and the mortality be computed on the Census figures of that date, the death-rate of 1898 would be 14.07 per thouand of the population of 1896.

Milwaukee (Wis.) Medical Society.—At the annual meeting held on January 10 the following officers were elected: President, Dr. A. I. Comfort; first vice-president, Dr. H. B. Hitz; second vice-president, Dr. Joseph Kahn; secretary, Dr. J. J. McGovern; treasurer, Dr. U. O. B. Wingate; librarian, Dr. Louis F. Frank; curator, Dr. Arthur. J. Patek.

At a recent meeting Dr. C. G. Willson demonstrated a heart removed from an old man who was found dead in bed. The cause of death was a rupture of one of the papillary muscles of mitral valve at its basal end. The endocardium near this point had some areas of atheromatous degeneration. That the tear was antemortem and not artefact was shown by the hemorrhagic infiltration that existed at the seat of the lesion.

Smallpox and Vaccination in Los Angeles, Cal.—The people of Los Angeles are vigorously opposing compulsory vaccination of school-children. On account of smallpox having made its appearance in that city, the Board of Health has ordered school-children to be vaccinated. A surprisingly large proportion of the people have entered protests against this order and propose to resist its execution in every possible way. An endeavor is being made to have this law repealed by the present legislature. In San Diego it was found by the health-officer that over 60% of the children had never been vaccinated, and that most of those who had been vaccinated are from the East. There are one or two cases of smallpox in the San Francisco Pest House at the present time. It appears that its origin in Southern California is owing to lack of proper precautions in isolating cases when it was first discovered among the railroad employes in Arizona.

Chicago Society of Internal Medicine and the Chicago Medical Society.—At a joint meeting held January 25, the annual discussion took place, the subject being **Acute articular rheumatism.** Dr. Henry M. Lyman spoke of the symptoms of acute articular rheumatism, especially as seen before the days of salicylic acid. He discussed the nature of the malady and its relations to other diseases, *e. g.* chronic rheumatism, gout, arthritis deformans, etc. He referred to some unusual forms of the disease, such as cerebral rheumatism. He spoke of the treatment, comparing ancient and modern methods. Dr. Arthur R. Edwards spoke on the causation and symptomatology of the malady, considering rheumatism an infectious disease and discussing its nosological status and bacteriology. He discussed varieties in clinical manifestations with reference to etiology, cause of joint changes, and relations to pyogenic bacteria. The number of joints affected, masked and atypical types, cardiac, nervous, cutaneous, renal and other complications, the ultimate prognosis and diagnostic differentiation, and the question of therapeutics were treated. Dr. J. H. Salisbury read a paper on the chemical theories of the causation of acute rheumatism: (1) Lactic acid theory, history supported by insufficient evidence, but the objections to it do not warrant its complete rejection. (2) Uric acid theory is consistent and explains well the symptoms of the disease, but it lacks experimental evidence. (3) Bacterial theory accords with present ideas of causation of apparently similar diseases, but lacks experimental evidence. (4) The diminished alkalinity of the blood favors the growth of microorganisms and lessens the power of resistance.

Denver and Arapahoe Medical Society.—At a meeting held January 24, Dr. W. W. Grant read a paper describing a **New operation for epithelioma of the lip.** The object of Dr. Grant's method is to prevent or lessen the contraction of the mouth and the deformity resulting from other operations. The V-operation should be limited to very small growths and very large mouths. It necessitates a needless sacrifice of tissue in order to make a smooth coaptation of the flaps, and there is unnecessarily great contraction of tissue and lips, with resulting change of mouth from oval to a round sucker-like appearance, the upper lip overhanging the lower, with frequent depression of lip at the point of union. The extensive dissection of skin from the inferior maxilla frequently necessary to proper coaptation also increases the puckering of the mouth. Dr. Grant's method is simple, easily and quickly done; enables one to completely remove all diseased tissue, and gives excellent cosmetic results. It has been performed three times. The first operation was for an epithelial ulcer located near the center of the lower lip. A straight perpendicular incision was made on each side of the diseased area and extending well below it. These were united by a transverse incision removing a quadrangular block of tissue. From each lower angle of the wound an incision was made obliquely downward and outward over the upper and lateral surface of the chin. The triangular flaps were brought together, united in the center, and the lower borders of the flaps were then united to the chin. The cosmetic result is so good that at a distance of three feet one can hardly discover that any operation has been performed. The next case related was that of a patient with a large ulcer occupying the lower right half of the lip, extending well into the corner of the mouth. A quadrangular piece of tissue was removed, which included half the lip. Oblique incisions were made as in the first case and the flaps brought together. The mouth is not contracted and the result is better than could have followed the V-operation. The other case was that of a gentleman who had had a previous operation. It was necessary to remove almost the entire lower lip. There is but little perceptible traction of the mouth. The advantages of the new method are: (1) The incisions are confined to the mobile, elastic portions of the lip and cheek. The large, well-nourished triangular flaps which slide readily over the chin-incision and make traction on the whole cheek and none on the chin. (2) There is less tension of the lip and it is more prominent and natural in consequence; therefore, more flexible in use. (3) There is less necessity for resorting to additional operations to restore the size and shape of the mouth.

Dr. J. M. Blaine read the report of a case of **dermatitis exfoliativa** produced by the external use of chrysarobin. The patient was being treated for psoriasis when the dermatitis developed. For the latter condition he was treated by the continuous bath, remaining in the bath 39 days, at which time the skin had re-formed. Furunculosis developed as a sequel. Isolated patches of psoriasis returned, but yielded to treatment.

SOUTHERN STATES.

New General Hospital at Savannah, Ga.—Major Appel, of the medical corps of the army, recently arrived at Savannah to assume charge of the new hospital at that place. He announced that the hospital would begin to receive patients in three weeks, notwithstanding all of the building will not be completed within that time. There are 46 buildings in the establishment. Twenty of them will be ready for occupancy next week, and the hospital-ship *Missouri* will begin to bring patients from Cuba and Port Rico. The buildings here will not be used as a hospital from May to November. During the intervening months they will be used as a training-school for male army-nurses. One hundred and fifty nurses will be employed during the winter months, and about that number will be instructed during the summer.

Memphis (Tenn.) Medical Society.—At a meeting held January 24, 1899, Dr. W. B. Rodgers read a paper on **Intra-scrotal enlargements** with especial reference to their diagnosis. He adopted the following anatomic classification:

I. Enlargement of the cord alone—*i. e.*, from or including or surrounding the cord:
  a. Varicocele.
  b. Hydrocele of the cord . 1. Encysted.
    2. Diffused.
  c. Hernia . . . . 1. Enterocele.
    2. Epiplocele.
  d. Hematocele.
  e. Spermatocele.
II. Enlargement of the testis alone:
  a. Inflammatory . . . . 1. Epididymitis.
    2. Orchitis.
  b. Non-inflammatory . . 1. Hydrocele. Simple.
      Congenital.
      Symptomatic.
    2. Hematocele.
  c. Sarcocele—Inflammatory (Simple).
    Syphilitic.
    Tubercular.
    Fatty.
    Cartilaginous.
    Malignant.
III. Enlargement of both cord and testis:
  Hernia . . . . 1. Interocele.
    2. Epiplocele.

Dr. Wm. Krauss has had the opportunity of examining specimens of all sorts of tumors of the testicle, and a recent one submitted to him by Dr. Smythe was found to be a fibromyoma, probably springing from the muscular tissue of the walls of the bloodvessels of the vas deferens. Another case from the same operator proved to be purely fibrous, of inflammatory origin.

Dr. F. D. Smythe read a paper entitled **A plea against the unwarranted assaults upon the female genitalia by aspirants for notoriety in the practice of obstetrics and gynecology.** Either through ignorance, desire to do something, or for a fee, practically normal pelvic and perineal structures are often attacked with disastrous results. Even when indications are present, operations undertaken by one not qualified to operate, utterly fail to relieve the condition, if indeed they do not make it worse. He spoke specifically against the reckless curetting of puerperal uteri, needless vaginal examinations of virgins, useless removals of tubes and ovaries, improperly done plastic operations and unnecessary gynecologic "tinkering." DR. E. C. ELLETT stated that Dr. Smythe's remarks might have a broader application than to any one specialty. Men frequently announce themselves as specialists after a six weeks' course in a post-graduate school, and sometimes simply drop general practice and take up a specialty without any preparation or special study at all. Such men not only fail to become of any advantage to themselves or their unfortunate patients, but bring discredit on the profession as a whole, and particularly on the specialty which they presume to practise.

MISCELLANY.

The Prize-medal of the American Medical Association, having a value of $100, will be awarded by the Association for the most meritorious scientific contribution, at the meeting to be held in June. The committee on the award is composed of Dr. Geo. M. Gould, of Philadelphia, Dr. E. Fletcher Ingals, of Chicago, and Dr. T. W. Huntington, of Sacramento.

American Orthopedic Association.—The thirteenth annual meeting will be held at the New York Academy of Medicine, May 31, June 1 and 2, 1899. The officers of the Association for this year are Dr. W. R. Townsend, No. 28 West 59th Street, New York City, president, and Dr. John Ridlon, No. 103 State St., Chicago, secretary.

The Annals of Ophthalmology.—Dr. H. V. Würdeman, of Milwaukee, who has been associate editor of the *Annals of Ophthalmology*, in charge of the department of German literature, has accepted the position of editor-in-chief, vice Dr. Casey A. Wood, of Chicago, resigned. Dr. Wood will retain an interest in the *Annals of Ophthalmology* and will remain in charge of the department of Italian literature. The staff of the *Annals of Ophthalmology* will shortly be enlarged by the appointment of six collaborators. Abstracts of Dutch, Russian, Scandinavian, Polish and Grecian literature will be hereafter included. With these, the abstract departments of the journal will cover the ophthalmic literature of all the world.

The Sections on Ophthalmology and on Laryngology and Otology, of the American Medical Association, at the June meeting, in addition to their regular programs, will devote the morning of the second day, June 7, to a joint meeting, under the chairmanship of Dr. Casey A. Wood, of Chicago, and of Dr. Emil Mayer, of New York. The subject for discussion will be, **The relation of ocular diseases to affections of the nose and neighboring cavities.** Four papers are to be read on this subject, by invitation, as follows: Dr. Charles Stedman Bull, of New York, on Some points in the symptomatology, pathology and treatment of the sinuses adjacent and accessory to the orbit. Dr. D. Bryson Delavan, of New York, on Nasal stenoses in their relation to ocular disturbances. Dr. Joseph A. White, of Richmond, Va., on Eye-troubles attributable to naso-pharyngeal and aural disturbances. Dr. J. H. Bryan of Washington, D. C., on Diseases of the Accessory Sinuses in their Relation to Diseases of the Eye. General discussion on the main question.

Obituary.—DR. JOHN P. METZ, Allensville, Pa., January 21, aged 32 years.—DR. JUDSON CLARK SMITH, New York, January 28, aged 33 years.—DR. EUGENE CARROLL SKINNER, Detroit, Mich., January 27, aged 58 years.—DR. ALCEE CHASTANT, New Orleans, La., January 17, aged 70 years.—DR. SAMUEL B. LYNCH, Boston, January 14, aged 39 years.—DR. LEONARD WOOD PEABODY, Henniker, New Hampshire, January 17, aged 82 years.—DR. TIMOTHY MCGILLICUDDY, New York, January 17, aged 43 years.—DR. JULIUS A. ROTH, New York, January 15, aged 40 years.—DR. JAMES BECKETT, Chicago, January 15, aged 44 years.—DR. WALTER H. MARBLE, Chicago, January 13, aged 40 years.—DR. W. W. COCHRANE, Atchison, Kansas, January 14, aged 79 years.—DR. ROBERT A. IRWIN, Sisterville, W. Va., January 14, aged 29 years.—DR. MYRON N. CHAMBERLAIN, Cheshire, Conn., January 10, aged 63 years.—DR. WILLIAM YOUKER, Belleville, Ont., January 12, aged 52 years.—DR. CHARLES FAYETTE TAYLOR, formerly of New York, in Los Angeles, January 26, aged 72 years.—DR. RICHARD H. GREEN, formerly mayor of Annapolis, Md., January 20, aged 64 years.—DR. JOHN M. ESTILL, formerly of Tazewell, Va., and at one time vice-president of the Virginia State Medical Society, at Lexington, Ky., January 23, aged 77 years.

Health Reports.—The following cases of smallpox, yellow fever and cholera have been reported to the Supervising Surgeon-General of the U. S. Marine-Hospital Service for the week ended January 28, 1899:

SMALLPOX—UNITED STATES.

			CASES.	DEATHS.
ALABAMA:	Calvert	Dec. 10-Jan. 20	10	
"	Clarke Co.	Dec. 25-Jan. 1	2	
		Disease generally prevalent.		
"	Mobile	Jan. 20	5	
CONNECTICUT:	New Haven	Jan. 16	2	
		Origin of the disease, New Durham, N. J.		
DISTRICT OF COLUMBIA:	Washington	Jan. 21	1	
		Origin Alexandria, Va.		
FLORIDA:	Pensacola	Jan. 15	1	
KANSAS:	Marion Co.	Jan. 18	11	
		Origin Oklahoma.		
MISSOURI:	St. Louis	Nov. 1-Jan. 21	15	2
NEBRASKA:	Nebraska City	Jan. 9-16	4	3
NEW YORK:	Dunkirk	Jan. 7-14	3	
"	New York	" "		1
PENNSYLVANIA:	Altoona	Dec. 31-Jan. 23	1	2
"	Bedford	" " "	1	
"	Brumbaugh	" " "	2	
"	Charlesville	" " "	15	
"	Claysburg	" " "	1	
"	Philadelphia	" " "	9	
VIRGINIA:	Alexandria	Jan. 20	1	
"	Norfolk	Jan. 16	90	

SMALLPOX—FOREIGN.

BELGIUM:	Pretoria	Dec. 24		
		Smallpox epidemic suppressed.		
BELGIUM:	Antwerp	Dec. 24-31	10	2
BRAZIL:	Rio de Janeiro	Dec. 3-16	21	9
FRANCE:	Paris	Dec. 24-31		1
INDIA:	Calcutta	Dec. 3-10		1
MEXICO:	Chihuahua	Jan. 7-14		1
"	Mexico	Dec. 31-Jan. 8		4
"	Vera Cruz	Jan. 5-12		1
RUSSIA:	Moscow	Dec. 17-24	14	8
"	Odessa	Dec. 24-31		1
"	St. Petersburg	Dec. 24-31	1	1
"	Warsaw	Dec. 17-31		4
TURKEY:	Bagdad	Oct. 22-Nov. 27	96	20
"	Constantinople	Dec. 26-Jan. 2		11
"	Smyrna	Dec. 18-25		4

YELLOW FEVER.

BRAZIL;	Rio de Janeiro	Dec. 3-16	10	10
COLUMBIA:	Barranquilla	Dec. 17-24	1	1
INDIA:	Calcutta	Dec. 3-10		1
MEXICO:	Vera Cruz	Jan. 5-12		4

CHOLERA:

INDIA:	Calcutta	Dec. 3-10		6

Changes in the Medical Department of the Army.

Lieutenant-Colonel Egon A. Koerper, chief surgeon of the department of the Missouri, will proceed to Fort Crook and make a sanitary inspection of that post and the hospital thereat.

In addition to his present duties, Major Guy L. Edie, surgeon, will act as medical inspector in the construction of the new General Hospital now in progress at the Presidio.

Major S. P. Kramer, brigade-surgeon, is relieved from duty with the Seventh Army-Corps and detailed as commanding officer, Military Hospital No. 2 (for officers and civilians), Havana, Cuba.

Majors William J. Kernachan and Henry H. Lee, brigade-surgeons, are relieved from their present duties at Huntsville, Ala., and will proceed to Anniston, Ala., and report to the commanding general, Second Division, Second Army-Corps, for assignment to duty.

Captain Marlborough C. Wyeth, A. S., will report to Colonel Dallas Bache, A. S. G., president of the examining board, at the Army Medical Museum Building Washington, D. C., for re-examination for promotion.

Captain Jefferson D. Poindexter, A. S., Acting Asst. Surgeon George S. Pitcher and Hospital-Steward George C. Douglass will accompany companies D, H, K and L to the Philippine Islands.

Major Charles M. Gandy, brigade-surgeon, is relieved from his present duties and will proceed to Fort Monroe for duty in the Josiah Simpson U. S. General Hospital.

Major James D. Glennan, brigade-surgeon, is relieved from further duty at Columbus, Ga., and will proceed to Fort Myer for duty.

Major William R. Hall, surgeon, is relieved from further duty as commanding officer of the U. S. General Hospital, Fort Thomas, and will repair to Washington, D. C., and resume his duties as attending surgeon.

The following named officers of the medical department are honorably discharged from the volunteer army, to take effect from the date set opposite their respective names: Majors George E. Bushnell, chief surgeon, Jan. 23; Henry P. Birmingham, March 22; Marlborough C. Wyeth, Feb. 22; Edward C. Carter, Feb. 22; Peter R. Egan, March 22; Henry S. T. Harris, Feb. 22; Charles E. Woodruff, March 22; Charles F. Mason, March 22; Charles M. Drake, Feb. 22; John H. Dodge, Feb. 22; Charles R Parke, Feb. 22; John J. Archinard, March 22; John E. Woodbridge, Feb. 22; David C. Peyton, Feb. 22; Geo. G. Groff, March 22, brigade-surgeons.

Major Randall R. Hunter, brigade-surgeon, will proceed to Guantanamo, Cuba, for duty.

Leave for ten days is granted Major Guy L. Edie, brigade-surgeon, Jan. 17.

The following changes in the stations and duties of officers are ordered: Major Charles Richard, surgeon, is relieved from further duty with the U. S. hospital train and will proceed from Atlanta, Ga., to Fort Monroe, and assume command of the Josiah Simpson U. S. General Hospital to relieve Lieutenant-Colonel Alfred Woodhull, D. S. G; Lieutenant-Colonel Woodhull is relieved from further duty as chief surgeon department of the Colorado, and will proceed via Washington, D. C., Denver, Colo., and San Francisco, Cal., to Manila, P. I., for duty as chief surgeon of the department to relieve Lieutenant-Colonel Henry Lippincott, D. S. G.; Lieutenant-Colonel Lippincott, of the Pacific, will proceed to Denver, Colo., for duty as chief surgeon of the department of the Colorado; Major Edwin F. Gardner, surgeon, is relieved from further duty at the Josiah Simpson U. S. General Hospital, Fort Monroe, and will proceed to Fort Logan for temporary duty.

Major Henry D. Thomason, brigade-surgeon, will proceed with the Tenth Cavalry from Huntsville, Ala., to Fort Clark for temporary duty.

It is announced that Captain Benjamin Munday, A. S., having been found by an army retiring board incapacitated for active service on account of disability, which is not the result of any incident of service, has been wholly retired from active service to take effect Jan. 21, under sections 1252 and 1275, R. S., and his name will be henceforward omitted from the Army Register. Jan. 21.

Changes in the Medical Department of the Navy.

Medical Inspector D. Dickinson, detached from the "Philadelphia," and from duty as fleet-surgeon of the Pacific Station.

Asst. Surgeon G. F. Freeman, detached from the "Arethusa" and ordered to temporary duty on the "Vermont."

Surgeon H. G. Beyer, detached from the "Amphitrite" and ordered to the "Wabash." Jan. 7.

Surgeon J. M. Edgar, detached from the "Cincinnati" and ordered to the "Richmond."

Asst. Surgeon R. K. McClanahan, detached from the "Southern," when put out of commission, and ordered to the "Richmond."

Surgeon H. L. Law, retired, detached from the "Wabash" and ordered home.

Asst. Surgeon J. G. Field, retired, detached from the "Richmond" and ordered home.

Asst. Surgeon Edward G. Parker, appointed Jan. 10, 1899.

Passed Asst. Surgeon L. L. Von Wedekind, detached from the Naval Academy and ordered to the Asiatic Station via the "Solace."

Asst. Surgeon G. N. Angeny, detached from the Naval Hospital, Chelsea, Mass., and ordered to the "Indiana."

Asst. Surgeon R. C. Holcomb, order of Jan. 19, detaching from the Naval Academy and ordering to the Washington Navy Yard, revoked.

Asst. Surgeon H. A. Dunn, detached from the "Cincinnati," when put out of commission, and ordered to the Naval Hospital, Chelsea, Mass.

Asst. Surgeon G. B. Rice, detached from the "Solace" and ordered to the "Chicago" immediately.

Changes in the Marine Hospital Service, for the week ending January 26.

Surgeon H. R. Carter to report at Bureau preparatory to detail for temporary duty in Cuba. Jan. 23.

Passed Asst. Surgeon W. J. Pettus to proceed to Portsmouth, Va., for special temporary duty. Jan. 26.

Passed Asst. Surgeon M. J. Rosenau to proceed to Delaware Breakwater Quarantine for temporary duty. Jan. 21.

The Bad Beef Furnished American Soldiers.—The newspapers publish extracts from about 100 reports and letters sent Gen. Miles concerning the bad meat furnished the U. S. Army during the late war. From the *N. Y. Herald* we quote as follows from an interview with Gen. Miles:—

"In addition to the reports of the regimental commanders, I have a great mass of evidence consisting of communications, affidavits, etc., from officers, soldiers, and civilians. Every part of the country has contributed to the mass of correspondence which I have received in reference to the beef served to our soldiers, and the evidence is all corroborative of what I have said. The great publicity which the press has given to the matter has brought all the correspondence of which I speak unto me.

"I have overwhelming evidence that the embalmed beef was treated with chemicals in order to preserve it. I have affidavits from men who saw the beef undergoing the treatment or embalming process. Now, as to the canned roast beef, that was different from the embalmed beef. The canned roast beef was the beef after the extract had been boiled out of it. You have seen the advertisements, 'Beef extract, one pound contains the substance of from four to five pounds of prime beef.' Well, this is the beef after the extract has been taken from it. They put this beef pulp up in cans and label it 'canned roast beef.' The soldiers report that the canned beef was nauseating. If swallowed, it could not be kept on the stomach.

"I have no interests to serve but the army and the country. When I found that it was the chemicals in the beef that had made the soldiers sick, then I ordered an investigation and reports to be sent in. So widespread is the evil that all the reports are not yet in. They are coming every day. They are overwhelmingly of the same character—all showing that the beef had been embalmed or was otherwise made unfit for men or dogs.

"Half a million pounds of this beef came in one ship to Porto Rico. The soldiers were fifty miles away in the mountains. The beef was so bad that it would have caused a pestilence had it been taken ashore from the ship. So it had to be thrown overboard. What else could be done with it? Nothing alive could eat it."

Phœnixville Medical Association.—The physicians of Phœnixville organized the Phœnixville Medical Association February 1, with the following officers: President, Dr. F. D Emack; vice-presidents, Dr. W. B. Wynne and Dr. George Unstad; secretary, Dr. E. J. Haddfield. The association begins with 14 members. President Emack read a paper on "Medical Organizations."

Foreign News and Notes.

GREAT BRITAIN.

Dr. Robert Barnes and **Mr. Lawson Tait** have been elected honorary presidents for Great Britain of the Gynecological Congress which is to meet at Amsterdam in August.

Dr. C. O. Hawthorne, formerly Senior Assistant to Sir William Gairdner in the University of Glasgow and Lecturer on Materia Medica and Therapeutics in Queen Margaret College, has been appointed Medical Superintendent of the Medical Graduates' College and Polyclinic of London.

An English Hospital in Rome.—The English colony in Rome has decided to open a hospital with accommodations for five or six paying patients and for a few poor patients who will be admitted free of charge. The nurses attached to the hospital will also be available for the attendance of private cases, which will be a decided blessing to English-speaking visitors to Rome. Fifty thousand francs have already been subscribed towards the new institution.

The Badge of the British Royal Army Medical Corps.—The recently constituted British Royal Army Medical Corps has been authorized to assume a new badge, which consists of a central serpent entwined about a staff—the emblem of the art of healing from a very early period; surrounding these is a wreath of laurel, symbolic of victory and honor. These are surmounted by a crown, and beneath is the motto: In arduis fidelis.

Lectures at the Royal College of Physicians of London.—The spring course of lectures will be delivered as follows:—

The Milroy Lectures on The Earth in Relation to the Preservation and Destruction of Contagia, by Dr. G. Vivian Poore on February 23, 28, March 2; the Goulstonian Lectures on the Pathology of the Thyroid Gland, by Dr. George R. Murray, of Newcastle, on March 7, 9, 14; the Lumleian Lectures, by Dr. Samuel Gee, on March 16, 21, 23. The first lecture will be on The Causes and Forms of Bronchitis; the second on The Nature of Pulmonary Emphysema; and the third on the Nature of Asthma.

London Hospitals and London Rates.—London rates are very high, so that there is much to be said for a motion which is to be brought forward at the next session of the London County Council, by Mr. J. B. Porter, that the eleven great general hospitals of the metropolis should be exempted from their civic burdens. The hospitals jointly pay nearly £10,000 per annum in rates, while several hundred beds in the aggregate remain closed for want of funds. It would be an obvious economy for the community if these great charities were let off their rates and so placed in a more efficient position to cope with sickness.

Gloucester and Vaccination.—Gloucestershire was Jenner's own county, and Gloucester is the headquarters of the Jennerian society which exists for the promotion of sound views on Jenner's discovery and its after-developments; but Gloucester has just refused to appoint a public vaccinator. This is a bold bid for notoriety, for, while many local authorities have endeavored to contract the districts in their charge out of the new Vaccination Act by offering the public vaccinators such insufficient fees that the posts are likely to go begging, but few have flatly refused to make any appointment. It is only some two years since there was a terrible epidemic of smallpox in Gloucester, attended with a sad loss of infant lives, but the Town Council has not yet built a permanent smallpox-hospital. If a second epidemic should visit this city and catch the community both unvaccinated and unprepared, the inhabitants will find their notoriety transformed to infamy.

Disinfection of the Books of Public Libraries.—The fact that the public library may become a prolific source of disease is now recognized and steps are being taken to meet the indications. It is reported that in Edinburgh already a regular service has been organized by which the directors of libraries are notified each day of the names and addresses of all those in the city who are ill of contagious diseases. The librarian therefore makes careful search to find if any of their books have been loaned in any of the homes specified. When this is found to be the case, the Health Department seizes upon the books, which are either disinfected or destroyed, according to the nature of the illness. Public chemists in these cities are busy experimenting with various disinfecting processes, hoping that a suitable one may be developed. The difficulty is to find one that is simple, thorough, and can be quickly accomplished. It is not only the serious and ominous contagious diseases that may be carried in books, but the innumerable skin-affections that exist.

The London Water-Supply.—The Royal Commission which is now sitting on this matter, under the chairmanship of Lord Llandaff, and to whose deliberations we have made many allusions in the Journal, has now issued an interim report dealing with the most pressing of the questions submitted to them for consideration, viz., the possibility of connecting-up some of the different systems of supply of the eight companies in such a way that if any one company should fail the other could come to its rescue. The commissioners conclude, although no such scheme of interconnection can be considered a final solution of the difficulties attached to the question of the water-supply of London, that it is both feasible and advisable to arrange methods of intercommunication between the companies that would obviate immediate chances of local famine. The companies are understood to be so much in accord with the views of the commissioners that they have expressed themselves willing to share the cost of carrying out a scheme embodying these views in proportion to their water-rentals.

The Official Lectures of the Royal College of Physicians of London for 1899 are now announced. Dr. G. V. Poore will deliver the Milroy Lectures on the Earth in Relation to the Preservation and Destruction of Contagia. Dr. Poore, who is physician to University College Hospital, has long made the subject of the land-treatment of sewage a particular study, and all his statements, which are apt to be as sweeping in their scope as they are pithy in their telling, are the results of personal experiment. Dr. G. R. Murray will deliver the Goulstonian Lectures on the Pathology of the Thyroid Gland. Dr. Murray is physician to the Royal Infirmary at Newcastle-on-Tyne, to which institution the Medical School of Durham University is attached, and leaped into pathological fame as quite a young man some six or seven years ago by initiating in England the treatment of myxedema by hypodermic injections of the thyroid gland of the sheep. Dr. Samuel Gee will deliver the Lumleian Lectures on the Nature of Bronchitis, Emphysema, and Asthma. Dr. Gee is physician to St. Bartholomew's Hospital and is an authority on pulmonary disease. With regard to these official lectures they mostly resolve themselves into resumes of accepted knowledge, and are useful for purposes of reference because the summaries are made by persons of accepted weight in the medical profession. The fact gives them value, but does not always give them interest, and, truth to say, they are in our experience often very dull. May the present lecturers avoid this reproach!

Medical Scandals.—"The medical profession," writes a frequent English correspondent, "is, I am sorry to say, exciting more than usual attention at the present time in the lay papers. The paragraphs are generally headed 'Medical Scandals,' and the contents make one feel ashamed. Two medical men have been recently convicted of serious crimes and sentenced to long terms of penal servitude; a sham practitioner, whose fraud was only made possible by collusion with a genuine medical man, was sentenced a few days back to three years, and now a medical man has been censured by a coroner and his jury for neglecting a patient by attending her when under the influence of drink. As a matter of fact there can be no doubt that the General Medical Council, as a body, are unsuited utterly to be the disciplinary authority to whom the medical profession in Great Britain can look to purge the Register of evil-doers." To this last sentiment we subscribe, seeing that within quite recent times two cases of substitution have taken place, where men not entitled to a position on the Register at all have been able to place their names on the official roll. This is a most serious matter. The General Medical Council, as we understand what is called "The Medical Act," exists solely or mainly that the public may be able to ascertain which of the men calling themselves "Doctor" has received a proper medical education and has passed tests of due stringency, and which are mere claimants to medical knowledge, their attainments remaining unproved (or which, in other words, are quacks). If it is open for the quack, even occasionally, to get a place on the official roll, the General Medical Council, to our way of thinking, is convicted of inefficacy. It must do heaps of good work in other directions before it can wipe out such a flaw in its usefulness.

CONTINENTAL EUROPE.

The German Surgical Congress will meet in Berlin, April 5 to 8, 1899.

Dr. A. Martin, of Berlin, has been called to Greifswald as ordinary professor of obstetrics and gynecology.

Professor Ponfick, the distinguished professor of pathology in the University of Breslau, celebrated January 15, the 25th anniversary of his elevation to the position of ordinary professor. A Festschrift was presented to him by his present and former assistants.

Inebriety in Belgium.—According to the *British Medical Journal*, M. le Jeune, a member of the Belgian Government, has introduced in the Senate his long-promised bill for the diminution of inebriety. The principle of the measure is gradual reduction of the number of places for the sale of alcoholic liquors. Only those cabarets open on November 8, which were licensed when the Commune allowed 1 to every 30 inhabitants, will be interfered with. The maximum number of cabarets will be 1 to 150 inhabitants in communes of under 10,000; 1 to 200 in from 10,000 to 20,000; 1 to 250 in from 20,000 to 50,000; and 1 to 300 where the population is over 50,000. By the provisions of the bill, the cabarets in Brussels would be reduced to one-tenth of the present number—that is, to 700; and the sale of absinth would be entirely prohibited.

Medical Practitioners and Medical Affairs in Hungary.—According to recently published official statistics, the number of medical practitioners in Hungary has been steadily increasing during the past few years. In 1892 there were 4,047; in 1893, 4,174; in 1894, 4,280; in 1895, 4,424; in 1896, 4,657; in 1897, 4,858. As regards the proportion of practitioners to population it is largest in Buda-Pesth, where it is 23 per 10,000 inhabitants, and lowest in Hodmezovasarhely, where it is 3.2. Of the whole number of practitioners in Hungary, 2,154, or 44.3%, hold public appointments. The number of midwives holding regular diplomas is 8,580, as compared with 8,189 during the previous year. There are 359 hospitals and asylums, being an increase of 10 as compared with 1896. The number of patients in these institutions during 1897 was 189,675. The number of vaccinations performed during 1897 was 540,037; the number of revaccinations, 499,255.

Surgery of the Stomach.—At a recent meeting of the Academie de Médecine de Paris, Doyen reported that in cases of simple stenosis or spasmodic contraction of the pylorus, he had abandoned the operation of gastroenterostomy in favor of gastroduodenostomy with transverse section of the pylorus. The operation is simple of performance, gives an opening 40 mm. in diameter, and permits of the patient digesting all varieties of food at the end of eight days. For gastro-anastomosis M. Doyen has invented a metal eyelet which is in many ways preferable to Murphy's button. The external diameter is the same—namely, 27 mm.—but the caliber is twice as great, and the thickness of it much less. The eyelet joins the stomach to the intestine by suture and invagination at one and the same time, for the male portion which is fixed into the stomach is supplied with eight points which perforate the coats of the stomach and the intestine at the same time as they fit into the grooves of the female piece. Doyen presented, in addition, a specimen of tumor of the stomach which he had removed by his new operation.

The Abuse of Thyroid Preparations.—According to the Paris correspondent of the *Lancet*, M. François Franck together with other members of the Academy of Medicine have requested that body to stop the unrestricted sale of thyroid preparations to the public. An enormous development has recently taken place in the way in which these preparations are handed over by druggists without any prescription from a medical man to anybody who comes to ask for them. They are even advertised in the lay press and their use is by no means unattended by danger. Although their use is no doubt of great value in certain cases, yet they are often employed for a variety of complaints, such as obesity, where their use becomes a veritable abuse. A point which M. Franck did not bring forward, but which everybody at the Academy was aware of, is that the ordinary public may become infatuated by a communication recently put forward by M. Lancereaux, in which he vaunted iodothyrin as a remedy for all the troubles arising from arteriosclerosis. M. Franck proposed that such preparations should only be dispensed by a physician's prescription. M. Huchard, M. Potain, and M. Lancereaux himself related several cases where tachycardia, shortness of breath, and even death had overtaken patients who had taken these preparations in excess and without due consideration.

Barlow's Disease.—At a recent meeting of the Société médicale des Hôpitaux, Ausset read a paper on Barlow's disease, in which he narrated the clinical history of a case which he had carefully observed. He stated that so-called Barlow's disease is but an unusual form of rachitis—a hemorrhagic rachitis; that it possesses but little kinship with scorbutus, and should therefore not be classified with the latter; and that it is not caused, as is commonly asserted, by the employment of sterilized milk as the diet. Netter opposed this view, stating that the designation Barlow's disease had been inaptly chosen, as the disease had been described by other English physicians long before Barlow; that the assertion that it is a hemorrhagic form of rachitis is incorrect; that it is in reality an infantile scorbutus; and that it is due to deficient nutrition, particularly the absence of fresh milk. By the administration of suitable food, especially fresh articles of diet, this disease in childhood is rapidly cured, similarly as is scorbutus in adult life. Netter reported three cases of infantile scorbutus, personal observations, the subjects being children who had been fed upon sterilized milk.

The Legal Aspect of So-called Traumatic Rupture.—According to the *Lancet*, Dr. Kaufmann, of Zürich, whose authority in medico-legal cases under accident-insurance laws is generally acknowledged on the continent, has published an interesting article on the above subject. He lays full stress on the importance of an immediate and detailed medical examination after the accident, and explains very lucidly the points of import to the medical practitioner who has to deal with such cases in the first instance. The number of cases brought before the law-courts for compensation greatly exceeds the number deserving compensation, as the patient often either fails to prove the traumatic origin or the recent occurrence of the rupture. Only 32 out of 400 German cases (in 1895) received compensation. Altogether there is only an average of from 14 to 20 cases in every 100,000 insured workmen. Relying on a careful examination of 200 legal cases Dr. Kaufmann comes to the following result. Certain cases of rupture are what the French term "*hernies de force*" or doubtless of traumatic origin; these should receive compensation. They all occur immediately after an accident or some unusual overexertion; the sudden appearance and the accompanying severe pain are decisive for the diagnosis. The German Board of Insurance compensates a rupture retainable by a truss with a certain percentage of the wages previously earned, which percentage is higher if heavy labor cannot be permitted. This percentage refers to the wages of the workman at the time of the accident and is either paid as annuity for lifetime or capitalized. Radical operation, however advisable in particular cases, cannot be legally enforced.

The Treatment of Phrenasthenic Children in Italy.—In an interesting article, Dr. Garofalo, of Rome, refers to a work *On the First Institution for Phrenasthenics founded in Italy in 1889*, by Professor A. Gonnelli-Cioni. According to the census of 1881 (the last taken in Italy, owing to financial reasons), the number of idiots and cretins was 19,671, a figure which exceeds that of the census of 10 years before by 2,358. In other nations, such as Switzerland, for example, idiocy is diminishing with the increase in education. It is well known that the idiots and cretins are very differently distributed in the various regions of Italy, and the places where cretinism is most endemic are the Alpine chains of Piedmont and of Lombardy. The following are, according to G. Gazzaniga, the proportionate figures of the phrenasthenics for 10,000 inhabitants in the different regions of Italy: Piedmont, 15.3; Lombardy, 14.7; Liguria, 14.3; Marchi, 9.9; Venice, 9.7; Tuscany, 9.3; Emilia, 8.8; Umbria, 8.0; Naples, 7.2; Rome, 6.4. In this respect Italy has a lower percentage of idiots than all other countries, excepting the United States, Switzerland, and Belgium. Garofalo then gives a brief account of the institutions existing in England and in France. Italy up to 10 years ago shared with Spain, Greece, and Turkey the sad privilege of not having a single special institution for the treatment of idiocy. To Gonnelli-Cioni is due the first experiment of this kind in Italy. He, formerly a teacher in the public schools and in special schools for the deaf and dumb, began, in 1887, to study the mode of educating a few idiots admitted by mistake among his pupils, totally ignorant of what had been done and written before him on the subject. In 1889, with a capital of 50 francs and a single pupil, he founded at Chiavari the first Italian Institution for Phrenasthenics. He was considered a visionary, but his faith conquered; a short time after he was able to transfer his institution to Vercurago, in Bergamasco, near Lake Lecco, in a most charming situation; and in a few years he was able to show a philanthropic and educational work of the greatest interest. The number of his pupils is not large, but the experiment of Vercurago eloquently demonstrates what good might be done by several of these institutions scattered through Italy, and destined to receive the greater part of the 20,000 phrenasthenics that it contains. The results of the treatment are admirable. Gonnelli-Cioni certainly does not make a man of genius of an idiot or of an imbecile, but he makes him an individual who knows the more necessary affairs of life; the most common moral ideas; who knows how to avoid bad or injurious actions to himself and others; who no longer will be a burden on his family or a danger to society. The method is essentially practical. It is divided into three parts: (1) Physical education. (2) Intellectual and moral education. (3) Technical education. The physical education, directed by a patient and experienced master, is applied in different ways to the individual pupils, and it is intended to correct impulsive and incoordinated movements; to stimulate torpor of the movements; to inculcate the ideas of order and cleanliness; this obtained, it is directed to improve the senses, exercising the hearing with various sounds; the sight with manifold objects; the taste with foods; the touch with heat, cold, etc. The intellectual and moral education has religious teaching as its basis. The technical education, after a sufficient physical development, tends to direct the idiots towards an occupation adapted to their natural dispositions, then to awaken in them the love of work, and, finally, to teach them a trade according to their aptitudes and their social position.—[*British Medical Journal.*]

MISCELLANY.

Smallpox at Manila.—The War Department has received a cablegram from General Otis, at Manila, in which he reports eleven deaths from smallpox since his last report, on January 8.

Dysentery in Japan During 1898.—According to the reports of the Marine-Hospital service, the total number of cases of dysentery in Japan since its outbreak in 1898 until December 10, was 90,335, with 22,199 deaths. The cases were distributed in the various prefectures as follows: Yamonashi, 9,922 cases, 2,154 deaths; Niigata, 9,835 cases, 2,382 deaths; Nagano, 8,133 cases, 1,944 deaths; Shizuoka, 6,662 cases, 1,558 deaths; Nagasaki, 957 cases, 215 deaths.

Obituary.—DR. DUMONTPALLIER, president of the French Society of Biology, an Officer of the Legion of Honor, and physician to the Hotel Dieu, Paris, aged 74 years.—DR. CAMILLE DARESTE, formerly professor of medicine at Lille more recently professor at the School of Anthropology and well known for his researches in embryology, at Paris.—DR. GIAN PAOLO VLACOVICH, ordinary professor of descriptive anatomy at the University of Padua, Jannary 11, aged 7 years.

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

January 14, 1899. [No. 1985.]

1. Polymyositis. W. R. Gowers.
2. A Case of Unilateral (Hemiplegic) Spasm and Contracture without Paralysis. T. Grainger Stewart.
3. Clinical Microscopy at Johns Hopkins Medical School. William Osler.
4. Two Cases of Gangrene of the Lung. Byrom Bramwell. With a Surgical Report on One of the Cases. J. M. Cotterill.
5. Pulsus Bisferiens. Walter Broadbent.
6. The Vision of School-Children. J. Acworth Menzies.
7. A Case of Cystitis of Three Years' Duration due to the Typhoid Bacillus. Thomas Houston.
8. On the Influence of Pathological States Upon the Elimination of Water and Carbon Dioxid by the Skin. J. O. Wakelin Barratt.
9. On the Incubatory Period in Varicella or Chicken-Pox. William Sykes.
10. Bromohydrate of Arecolin as a Myotic. K. C. Chetwood-Aiken.
11. Acute Febrile Catarrh Associated with Inflamed Glands of Head and Neck. George Mahomed.
12. Case of Angina Ludovici: Recovery. Richard Margerison.

1.—Gowers defines **polymyositis** as a condition in which there is a simultaneous inflammation of many muscles and of some nerves, the inflammation being symmetrical in its distribution. The condition is almost exclusively the result of exposure to cold and seems to be due to a peculiar variety of the rheumatic poison produced in especially susceptible individuals, rendered so by some influence that depresses the general health. The affection presents the general distribution of polyneuritis so far as preponderant loss of power is concerned, but with a far wider implication of the muscles, of which many suffer that escape in ordinary polyneuritis. At first they are very tender, and later they undergo hardening and contraction, which may be extreme in degree, and after a time may be insuperable and resist all efforts to overcome it. A case is reported occurring in a married woman, aged 36 years. The symptoms indicated the existence of polyneuritis as well as polymyositis. The only hopeful treatment of this condition consists in well-directed measures applied during the stage of development. [S M.H.]

2.—Stewart reports a case of **unilateral (hemiplegic) spasm and contracture without paralysis.** The patient was a soldier, aged 25 years, who had had typhoid fever in India. On recovering from the typhoid coma he found his left hand useless on account of stiffness of the fingers, which gradually became flexed, and the arm, foot and left side of the face became rigid, with constant hypertonicity and frequent tonic spasms. The condition resembled a case of hemiplegia, with descending sclerosis, but there was no paralysis and all the muscular disability was due to the antagonistic action of opposing muscles. There was no abnormity of any system or of the nervous system in any respect except the unilateral spasm. Locomotion was interfered with only in so far as the spasm and contracture and the consequent changes in joints and bones were concerned. The patient had two attacks of mania after his illness began. Especial attention is called to the fact that the deep reflexes were exaggerated and that, although the electric relations differed on the two sides of the body, there was no trace of the reaction of degeneration. Stewart was inclined to believe the lesion giving rise to the symptoms cortical, and it was probably either a sclerosis following upon thrombosis affecting the right optic thalamus or a nonhysterical functional condition of the whole right psychomotor cortex or of the gray matter of the right optic thalamus. The patient was given potassium iodid notwithstanding the absence of a syphilitic history. [S.M.H.]

4.—Bramwell reports two cases of **gangrene of the lung,** of unusual interest on account of the uncertainty of their origin. In the first case, the patient, a woman, 28 years of age, had been apparently free from any symptoms indicative of disease of the lungs or stomach until the onset of the present illness. This developed suddenly with a sensation as if something had given way in the lower part of the chest on the left side. This was immediately followed by a sensation of hot gas coming up into the mouth, and also by an extremely bad taste. The patient then began to cough, and immediately expectorated a considerable quantity of liquid material, which was black in color, and also of an extremely fetid odor. Expectoration of this character continued, and in a few days marked irritability of the stomach developed, with attacks of vomiting. The vomited material on several occasions was brown in color and contained blood. The irritability of the stomach was so urgent that rectal feeding was commenced, and soon after this, immediate improvement occurred; the vomiting ceased, the temperature suddenly fell, the cough became much less urgent, and the expectoration much less copious and less fetid in character. The etiologic factor in this case is believed to have been a latent ulcer on the posterior wall of the stomach, which had perforated through the diaphragm into the thorax. There an abscess developed, and eventually ruptured into the lung and bronchi, causing a gangrenous inflammation of the lung, with pleurisy. The introduction of food into the stomach undoubtedly kept up this irritation and inflammation, and as soon as rectal feeding was commenced and the source of irritation removed, the gangrenous inflammation of the lung gradually subsided; so that in time the patient's health was gradually restored without operative intervention. The second case was less difficult of solution. The patient, a ship's captain, 40 years of age, had had an attack which, though not absolutely suggestive of gastric ulcer, might nevertheless warrant this assumption. When the man first came under observation, it was obvious that he was suffering from pulmonary gangrene, and that there was a large cavity in the lung or in the pleura. The physical signs seemed to indicate either that the case was one of gangrene of the lung following pneumonia, or that there was a subphrenic abscess associated with an ulcer of the stomach. Subsequently, a resection of the portion of the seventh rib was performed, and a large abscess-cavity discovered and drained. Though the origin of this abscess was presumed to be a gastric ulcer, there seemed to be no positive indication for operative intervention in that connection. The patient made an uneventful recovery. [C.H.F.]

5.—Broadbent reports 3 cases presenting well-marked **pulsus bisferiens** on the left side, while on the right the pulse was only that of aortic regurgitation. The first patient was a man, aged 41 years, who had had rheumatic fever at the age of 16 and again at 20. Death occurring suddenly, both ventricles were found at the autopsy greatly dilated and hypertrophied, especially the left. The aortic valve was incompetent and the orifice narrowed. The mitral orifice was narrowed. In the aorta, just beyond the subclavian artery, was a shallow pocket in the aortic wall, the latter being thinned and atheromatous, and from this point a long line of atheroma extended along the left side of the aorta. The carotids and subclavians were normal. The second case occurred in a boy, aged 18. In addition to the condition of the radial pulse noted in the other case, the left carotid could be felt to yield a double beat, but not the right. The tracing of the right, however, suggested this character. This patient also died suddenly, and both ventricles were found greatly dilated and hypertrophied. The aortic valve was incompetent. The edges of the cusps were thickened, causing slight stenosis. The right posterior cusp had on its aortic surface a calcified prop which kept it stretched across the orifice. The aorta was slightly dilated generally. The large arteries were normal. The tricuspid orifice was slightly narrowed. The third case occurred in a woman, aged 32 years. The left carotid pulse yielded a double beat and the right not. The heart was much hypertrophied. There was evident aortic stenosis and regurgitation. The anacrotic tracing of the left radial and carotid in these cases approximately represents the intraventricular blood-pressure. It has been shown that a rise of peripheral resistance makes the intraventricular curve anacrotic. In aortic stenosis and regurgitation increased resistance is offered by the narrowing of the aortic orifice, and therefore in all such cases one would expect an anacrotic tracing for the intraventricular pressure. In 2 of these cases there existed visible retraction in the back in the region of the eleventh and twelfth ribs, which was synchronous with the cardiac systole. This condition was probably due to hypertrophy of the heart, helped perhaps by adhesion of the pericardium to the chest-wall, lifting the diaphragm to such an extent as to pull in the lower ribs on each side behind. [S.M.H.]

6.—In an investigation as to the **vision of the children** in the Rochdale Parish Church School, Menzies first tested each eye in each child by means of Snellen's types and trial-lenses, and then examined with the ophthalmoscope and retinoscope those whose vision was subnormal. He found 165 cases of hypermetropia in 66 boys and 99 girls; 40 cases of astigmatism, in 29 boys and 11 girls; 16 cases of myopia, in 9 boys and 7 girls. Included in this table are 13 cases of nebula or other opacity of the cornea. In these cases the refraction was ascertained by retinoscopy. [S.M.H.]

7.—Houston reports a case of **cystitis** of 3 years' duration in which a study of the microorganisms, with the idea of developing the presence of the bacillus coli communis, was rewarded by the discovery of the bacillus of Eberth. The patient's blood yielded a well-marked agglutinating reaction with the bacillus isolated from the urine in a dilution of 1 in 100. The other laboratory-cultures of the typhoid bacillus also reacted with the blood of this patient, while several varieties of the bacillus coli failed to yield the reaction clearly. The bacillus was recovered also from 2 specimens of urine. The case was especially interesting because it was one of typhoid infection without the usual symptoms of typhoid fever and there was no point in the history subsequent to the commencement of the cystitis that suggested the occurrence of a new infection. It is probable, therefore, that the typhoid bacillus was present from the beginning. It seems that in this case the bacillus of Eberth was capable of giving rise to a local lesion, generating typhoid fever, and this fact is in favor of the view that this fever is a true general infection and not merely of local origin in the Peyer's patches in the intestines. The case also proves that the bacillus may occur in the tissues and the blood-serum yield the Widal reaction without the infection recognized clinically as typhoid fever resulting. This anomalous lesion can be explained (1) on the ground that the patient for some reason or other was not susceptible to infection with the typhoid bacillus, so that when the opportunity arose only a local lesion resulted; or (2), that the organism present was a form of typhoid bacillus that differs in its infectious power from the recognized form; or (3), on the ground that typhoid fever is not solely due to the bacillus of Eberth, but other etiologic factors can be brought to bear on the patient before the clinical features of typhoid septicemia result. [S.M.H.]

9.—In considering **the incubatory period of varicella** Sykes suggests that in the incubation-period of microbic diseases 2 factors influence the earlier or later appearance of the eruption: (1) The tissue-resistance of the person affected, and (2) the amount of poison received by him. It is probable, therefore, that the incubation-period of this class of diseases is not a fixed quantity, but varies widely within certain limits. The average period of incubation is probably about 14 days. The possibility is suggested that patients, removed to purer air shortly after exposure, experience a longer period of incubation. [S.M.H.]

10.—Chetwood-Aiken has found **arecolin bromohydrate** a valuable myotic, the pupillary contraction lasting from about an hour to an hour and a half. The tension of the normal eye is only little decreased by it, but in cases of glaucoma its superiority in this respect over eserin is decided. Unlike eserin it produces no headache or unpleasant after-effects, nor is its instillation by any means so uncomfortable. It will overcome the mydriasis produced by homatropin more quickly than will eserin. It keeps well in solution, maintaining its activity, apparently unchanged, for a lengthy period. [S.M.H.]

12.—Margerison reports the case of a lad, aged 19 years, who on the day after having a tooth extracted from the right lower jaw developed considerable swelling of the face and neck on the same side, which was hardest below the jaw on a vertical line with the painful tooth. The tumefaction was surrounded by puffy edema, which extended backward to the space between the angle of the jaw and the mastoid process and downward as far as the sternum. The tongue was much swollen behind and pushed upward, causing great difficulty with speech and deglutition, together with considerable dyspnea. Under anesthesia free incisions were made vertically through the deep fascia, one in the middle line, one over the most prominent part of the swelling and one behind, and the wounds were drained. Some improvement followed. By the next evening the patient was delirious. The urine contained a moderate amount of albumin. At the end of 2 weeks the temperature, after having been normal, suddenly ran up again. At the end of 3 days a large quantity of pus and blood were expectorated. It was found that the pus had burrowed through the tissues of the neck and ruptured into the pharynx. The patient rapidly recovered after this date. [S.M.H.]

Lancet.

January 14, 1899. [No. 3933.]

1. The New Neurology. WILLIAM R. GOWERS.
2. Influence of the Milk-Supply on the Spread of Tuberculosis, based upon an Investigation of 116 Milk-Supplies in Cambridge. A. A. KANTHACK and E. SYDNEY ST. B. SLADEN.
3. Neurological Fragments. J. HUGHLINGS JACKSON.
4. Surgery in the Greco-Turkish War. FRANCIS C. ABBOTT.
5. "Letter" without "Word" Blindness. JAMES HINSHELWOOD.
6. A Case of Tumor of the Uterus complicated by Twin Pregnancy; Cesarean Section; Recovery. E. R. C. EARLE.
7. A Case of Operation for Extreme Myopia. ROBERT BRUDENELL CARTER.
8. A Note on the Treatment of Chilblains by the Electric Bath. H. LEWIS JONES.
9. Note on an Interesting Case of Pemphigus. SIDNEY ROACH.
10. Note on a Labor Obstructed by a Pelvic Ovarian Tumor. W. GIFFORD NASH.

2.—Kanthack and Sladen made an investigation of the **tuberculous lesions** and the presence of the tubercle-bacillus found in guinea-pigs as the result of the inoculation of milk from various commercial sources. Of 90 guinea-pigs that were inoculated 23 died from tuberculosis (25.55%). Of these 23 pigs 13 were inoculated with the creamy layer and 10 with the sediment, both obtained by centrifugation. Of the 16 dairies examined the milk of 9 caused tuberculosis. It is, therefore, not unreasonable to regard these dairies as a source of grave danger, especially as regards hand-fed infants, young children, delicate persons, and all those suffering from acute diseases. While some authorities believe that tuberculosis arises solely from inhaled tubercle-bacilli it is probable that a much larger number of human beings, and especially of infants, contract that disease by drinking milk containing tubercle-bacilli. The negative results yielded by the milk of 7 of the dairies examined is not considered a sufficient guarantee of the safety of the milk from these dairies. Before reaching such a conclusion it would be necessary to examine every animal separately, as a dairy that on 3 successive days sends out milk free from tubercle-bacilli may a few days later issue milk containing these bacilli. The best manner to avoid all danger of infection under existing conditions is by boiling or carefully sterilizing the milk consumed and withholding from infants or delicate persons the cream, unless obtained after boiling or scalding. Physicians should not rest content with anything short of a certainty that no milk is offered for sale except that obtained from cows known to be free from tuberculosis. [S.M.H.]

3.—Jackson considers **asphyxia in slight epileptic paroxysms** to depend upon an arrest of respiration as the result of cortical inhibition of the respiratory center; the superior center of the lowest level. He calls attention to a group of cases of epilepsy in which there is at the onset of the paroxysms a crude sensation of smell or of taste, or in which there are movements of chewing, smacking of the lips, and sometimes spitting. These movements are the reflex consequences of an epileptic discharge of gustatory elements of the cortex. In some of this group there is warning by what is known as an epigastric sensation. Different varieties of this group of cases depend upon discharge-lesions of different parts of the uncinate gyrus or of parts of convolutions in its close neighborhood. The smacking movements of the lips, nasty taste, dreamy state, and turning blue, have an association in the sense that there is one discharge-lesion of some cells of the uncinate gyrus and that there is spreading of the discharge from this focus. The dreamy state is also probably a consequence of a discharge-lesion so seated. [S.M.H.]

5.—Hinshelwood gives the history of 5 cases that demonstrate a distinct variety of **letter-blindness,** the individual, though able to read words, not being able to read the individual letters of which the words are composed. The rarity of such cases is considered in all probability to be due to the fact that when they do occur they pass unrecognized. It is usually assumed that when a patient can read words the testing of his power to read letters is unnecessary. Clinical evidence demonstrates the complete independence of the visual memories for letters and for words and that this complete functional independence can only be reasonably explained on the assumption that these distinct groups of visual memories are stored and preserved in different, but probably contiguous, areas of the cerebral cortex. It is easily conceivable that individuals who have acquired, by long and constant education, the power of reading words by sight, not phonetically but ideographically, may lose visual memory of individual letters, but yet retain the visual memory of words. [S.M.H.]

6.—Earle reports a successful **Cesarean section** in a case of **fibroid tumor of the uterus complicated by twin pregnancy.** Both children were safely delivered, and the fibroid tumor was permitted to remain. A rapid diminution in the size of the tumor occurred after the operation. The twins were thin, ill-nourished and weak, evidently in consequence of the tumor using up for its own support a considerable portion of the blood-supply that would otherwise have been devoted to the nourishment of the placentæ. [W.K.]

7.—Carter operated upon a young man the subject of a **high myopia** amounting to 14 D. of the left eye, and apparently the same in the right. The latter could not be measured precisely on account of some cloudiness of the lens. Discission and evacuation of the lens in the right eye in the usual manner were practised. The result was excellent distant vision and relief from most of the inconveniences incidental to short sight. In a second case, in a young woman, the right eye had a refractive defect of 18 D. spherical, and 6 D. cylindrical; the left, 12.5 S. and 6 C. The patient on one occasion dropped her glasses in her bedroom and could only find the door by feeling for it around the walls. The right lens was broken up with a needle; and 6 days later the left lens and the right a second time; 3 days after this the fragments of the right lens were evacuated and 4 days later the left was needled a second time and evacuated 3 days later. After the lapse of 2 weeks a central opening was torn in the residual capsular films and 3 days later the patient started on a journey. In evacuating the broken lenses an effort was made to correct the high degree of astigmatism by making large incisions at the lower corneo-scleral junction perpendicular to the vertical meridian. At the expiration of 3 months distant vision was better than it had ever been with the help of glasses, of which, for all ordinary purposes, the woman was quite independent. Vision was raised to $\frac{20}{20}$ for the first time in her life by + 1.5 S. adding for the right eye + 0.5 C. and for the left + 1.5 C. with the axes vertical. Carter was inclined to infer, from the fact that the eyeballs never presented the ordinary myopic formation, but were rather small and deepset, as well as from the absence of any large crescents around the optic discs, that the moypia was due, at least in some measure, to a high index of refraction of the crystalline lenses. This conjecture seems to be borne out by the marked effect brought about by the removal of the lenses. Rectification of the high astigmatism was produced to the extent of 5.5 D. in the right eye, and to the extent of 4.5 in the left. [S.M.H.]

8.—Jones advises for the **treatment of chilblains** the electric bath applied in the following manner: An induction-coil is used and the wires are attached to 2 metallic plates placed at the 2 ends of an ordinary earthenware foot-bath filled with warm water. This bath should be used at bedtime for 10 or 15 minutes, whenever the slightest threatening of chilblains is noticed. The current is employed as strong as can be borne without discomfort. The effect is to make the foot warm with a glow that lasts until the patient goes to sleep. The procedure should be repeated for 8 or 10 consecutive nights. It not only improves the immediate condition, but produces a state of circulation that renders the patient more or less chilblain-proof for some time. [S.M.H.]

9.—Roach reports a case of **pemphigus** in a boy, aged 7 years, which had persisted almost since birth. There was no sign of congenital syphilis. The child had never been vaccinated. The eruption was present chiefly on the posterior surface of the body and legs, with some scattered patches all over the trunk and limbs. There were tense hemispherical vesicles and blebs of clear serous fluid, without any areola, while other vesicles and blebs had a pinkish areola. [S.M.H.]

New York Medical Journal.

January 28, 1899. [Vol. lxix, No. 4.]

1. Bacteriological Study in the Etiology of Yellow Fever. P. E. Archinard, assisted by R. S. Woodson and John Archinard.
2. Preliminary Report on the Results of Blood-Examinations at Camp Wikoff, August and September, 1898. James Ewing.
3. Polypus of the Uvula. E. Harrison Griffin.
4. The Electric-arc Bath. A Clinical Report. Margaret A. Cleaves.
5. Typhoid Infection with Primary Focus in the Gall-Bladder. Robert T. Morris.
6. Intravenous Saline Injection in Severe Hemorrhage. J. O. Cobb.

1.—From a **bacteriologic study of the etiology of yellow fever,** P. E. Archinard, Woodson, and J. Archinard reached the following conclusions: (1) In a large proportion of autopsies (32 out of 39) of yellow-fever cases in New Orleans in 1897, a bacillus was found either in the pure state (twice) or in association (30 times), similar to the Sanarelli bacillus icteroides. While similar to the coli communis, this bacillus differs in some of its essential characteristics. (2) In live blood taken from the veins of the elbow, in well-marked cases of yellow fever, this bacillus was isolated 4 times in 5 cases. (3) In the exhaled breath, mixed up with secretions from the mouth, and nose, (sometimes bloody), the bacillus was isolated twice in 12 cases. (4) In scrapings from the surface of the body of the sick, principally from the face, neck, and upper thorax, the bacillus was isolated twice in every 12 cases. (5) The bacillus injected intravenously in the rabbit, and subcutaneously in the guinea-pig, in large doses, from 5 to 10 cu. cm. of a bacillus-culture, was always fatal, and sometimes very quickly. In smaller doses (from 1 to 2 cu. cm.), the animals were made sick, but generally recovered. The animals that died showed characteristic lesions in the liver, kidney, and stomach. Cultures from these organs yielded pure growths of the inoculated bacillus. (6) The bacillus was identical in almost every respect with Sanarelli's bacillus icteroides obtained by himself and by Sternberg, but differed somewhat in its cultural aspects from Sanarelli's description of his bacillus. (7) The blood of yellow-fever cases or of recent convalescents from this disease agglutinated, within 1 hour, in over 80% of the cases, the bacillus icteroides of Sanarelli, and also the bacillus isolated by Archinard, in the proportion of 1 part of serum to 40 of culture. In less than 20% the reaction did not take place. (8) The blood of typhoid dengue, with eruption, and of malarial fever, when properly diluted, 1 in 40, did not agglutinate the bacillus icteroides or the bacillus of Archinard save in exceptional instances. (9) The blood from a number of diseases other than yellow fever when properly diluted, 1 in 40, did not react on the bacillus icteroides or that of Archinard. (10) Normal blood, properly diluted, 1 in 40, did not agglutinate the bacillus icteroides or this bacillus. (11) The blood of persons who had had yellow fever seemed to retain its agglutinative power for a number of years. The great majority of the cases that had had yellow fever in 1878 yielded the reaction. Those prior to 1878 yielded no agglutination with the bacillus icteroides or with that of Archinard. [S.M.H.]

5.—Morris reports a case that he considers one of **typhoid fever with primary infection of the gall-bladder.** The patient, a male, aged 26 years, was suddenly seized with sharp pain in the region of the gall-bladder, which rapidly extended as an acute general peritonitis. The temperature was 102° F. There were no rigors. The patient was constipated. Palpation disclosed a mass at the site of the gall-bladder, and the peritonitis seemed most marked at this point. A diagnosis of empyema of the gall-bladder was made and an operation undertaken. The peritoneum was congested and covered with coagulated lymph in the vicinity of the gall-bladder. The gall-bladder was distended, containing a mixture of thin, greenish mucus and thick, tenacious, yellow pus. No bacteriologic examination was made. The constipation continued and the temperature rose to 106°. After the bowels were freely moved the temperature fell again. Afterwards the patient ran through a typical course of typhoid fever ending in recovery in 4 weeks. [S.M.H.]

6.—Cobb conducted a series of experiments for the purpose of demonstrating certain facts in connection with **intravenous saline injections in severe hemorrhages.** He aimed to show the ease with which the operation can be performed, and the condition of the blood after saline injections following severe hemorrhages. As to the time when it is hopeless to expect favorable results from the injection of saline solutions, it is noted that in cases in which the cherry or rose color had disappeared from the blood, no one dog recovered. The beneficial effects of the saline injection seemed to be augmented by the simultaneous administration of oxygen-gas by inhalation. [C.H.F.]

Medical Record.

January 28, 1899. [Vol. lv, No. 4.]

1. Membranous Enteritis and its Treatment. MAX EINHORN.
2. A Service-View of Inguinal Hernia. WM. C. BRAISTED.
3. Antitoxin, Diphtheria, and Statistics. ADOLPH RUPP.
4. Albuminuric Retinitis, with Special Reference to its Occurrence During Pregnancy. JAMES FRANCIS MCCAW.
5. Elephantiasis of the Vulva, with Report of a Case. W. DUFF BULLARD.

1.—Einhorn discusses **membranous enteritis.** This he defines as an affection in which larger or smaller pieces of mucus, somewhat ribbon-like in appearance, are passed with the feces in periodic attacks. He gives a table of 12 cases suffering from this disease, in 8 of which enteroptosis was present. Five showed absence of HCl and rennet in the gastric juice. One case had hyperchlorhydria. In 8 cases the motor function was increased; in 4 it was normal. Usually the attack is preceded by a period in which the patients suffer from obstinate constipation. There is loss of appetite, and sometimes a burning sensation at the pit of the stomach. In rare cases the patient vomits. The duration is from 3 to 7 days, and the attack is sometimes followed, as well as accompanied, by diarrhea. The mucous masses are grayish-white or yellowish in color, and at times may reach a length of 7 feet. Ehrlich's triacid solution stains them green, determining their nature. Einhorn reports the case of a woman, 28 years of age, who, 11 years previously, had had diarrhea, that disappeared, recurring 4 years before the report. Even in the free interval the feces contained small quantities of mucus. The most important element of the treatment is the diet. This should be solid rather than liquid, and abundant and nutritious. During the attack the patient should remain in bed, and it is frequently desirable to place a warm poultice over the abdomen and to administer a warm-water enema. During the interval the patient should be systematically treated with oil enemas, giving one at first every night, and then, after 3 weeks, every other night, and later with decreasing frequency. The quantity at first should be from 200 to 500 c.c.; later it may be considerably diminished. [J.S.]

2.—As many men who seek enlistment in the United States army have inguinal hernias, and as many cases of inguinal hernia develop during active service, the question of the treatment of this condition is an important one, from the standpoint of the military surgeon. It is believed that the following service-conditions justify **operation for hernia**: Those cases absolutely incapacitated for duty, in which the physical condition is such as to stand operative procedure; all cases up to 35 and 40 years of age with good muscular development, whether incapacitated for work or not; cases in which immense strain causes a hernial protrusion, leaving the ring, otherwise strong, impaired; all cases in which trusses prove irritating or dangerous. The operation is to be recommended for applicants otherwise desirable for enlistment, and these men should be considered fit for enlistment after operation has proved its efficacy by 4 to 6 years' trial. In all cases in which strangulation is actually present or threatens, or in which the recurring discomfort and pain show the tendency to hernia, and in which the slight, repeated engagement of the intestine and the internal ring calls attention to the liability of the accident, operation is deemed advisable. The report of the Surgeon-General for 1897 shows that, during the past two years, 79 cases of hernia have been operated upon by army surgeons, with thus far but 3 recurrences; in one of these, a second operation was performed with success. [C.H.F.]

3.—Rupp gives a sharp **criticism of the antitoxin-treatment of diphtheria,** and adduces all the evidences obtainable against the adoption of favorable conclusions regarding its effect. In the first place, the antitoxin itself is by no means of uniform strength. Even in tested specimens, the injection of various numbers of units, from 500 to 2,500, appears to produce no recognizable difference in the result. Furthermore, the various preparations are easily rendered useless by age or unfavorable temperature. Rupp does not believe that the antitoxin hastens the disappearance of the membrane, finding from a study of the statistics and the observation of a number of cases, that little difference existed between the cases in which serum was used and those in which it was not. In laryngeal diphtheria, according to the author's conception of the term, antitoxin has been claimed to be of particular value, but it fails to diminish the number of croup cases and it does not seem to have the same effect in different localities. In operative cases, the mortality is normally so variable that statistics are unreliable. A diminution in the death-rate of 30%, as was obtained by McClellan in Boston, is not so great as has been observed occasionally before the introduction of the serum. Statistics are also inconclusive, particularly when compared with the 1927 cases of Hennig with 59 deaths. Finally, he believes that antitoxin is itself poisonous, although its effects are usually so evanescent that they cannot be noticed. It may, however, give rise to pruritus, dermal eruptions, joint-pains, irregular heart-action, etc., and, in exceptional instances, its administration is followed by death. As a therapeutic agent, it is a rank failure. [Dr. Rupp appears to be as strongly prejudiced against antitoxin as its most enthusiastic advocate could be in its favor. It must be confessed that he appears to refuse the results of statistical investigation, or, at least, prefers to explain them in some other than the most obvious way. [J. S.]

4.—McCaw reports the case of a woman, 26 years of age, who, in the fifth month of pregnancy, had swelling of the feet and ankles, with impairment of sight and severe headaches. Seven months later, the symptoms were somewhat better, but the vision was still impaired, and ophthalmoscopic examination revealed a severe **albuminuric retinitis.** This condition is exceedingly serious, statistics showing that nearly 25% of the cases become permanently blind. In conclusion, McCaw believes that "in all cases in which retinitis appears before the sixth month of gestation, emptying of the uterus should be recommended." Cases of later occurrence, or those occurring in women who have suffered from retinitis in previous pregnancies, should be treated expectantly. [J.S.]

5.—Bullard reports a case of **elephantiasis of vulva.** The immense vascular tumor occupied the space from the pubes to the knees, and was divided into three parts. The one upon the left was by far the largest, and was apparently attached to the whole perineal region, and extended from midway to the umbilicus in front to the coccygeal fold behind. The superior surface was dark-brown in color, hard and nodular to the touch, and seamed with deep fissures filled with a brownish, ichorous secretion. The tumor on the right was about the bulk of a good-sized muskmelon, chocolate in color, soft to the touch, and arose from a labial pedicle, 6 inches in length and about the size of a man's forearm. The central tumor closely resembled a banana in appearance, and was the hypertrophied clitoris. All of these tumors were comparatively hard, covered with a secretion, and so exquisitely sensitive as to render a thorough examination impossible; consequently, the location of the vagina and urethra could not be determined at this time. Immediate operation was advised and performed, and death supervened 12 hours after the operation. The features of interest in the case seem, to the author, to be as follows: (1) The rapidity of the growth and the size of the tumor. (2) The patient had always lived in New York City. (3) The control of all hemorrhage by Wyeth's pins and ligature in severing a pedicle in size 11 inches antero-posteriorly and 5 to 8 inches laterally, composed of a most vascular tissue. (4) The obscure causation. (5) The death with slow and deep respirations and respiratory paralysis. [W.K.]

Medical News.

January 28, 1899. [Vol. lxxiv, No. 4.]

1. The Diagnosis and Surgical Treatment of Renal Calculus. NATHAN JACOBSON.
2. A Little Epidemic of Poliomyelitis. LEO NEWMARK.
3. Hysterectomy for Puerperal Sepsis; With Report of a Case. J. RIDDLE GOFFE.
4. The *Medical News* Investigation into the Claims of Christian Science. (*Continued.*) JOHN B. HUBER.

2.—Newmark reports a **little epidemic of poliomyelitis** which occurred in a village of 49 inhabitants located near San Francisco. The first case developed in the morning of June 2, 1898, in a boy aged 8½ years. It began with pain in the back and fever. He continued to walk about, but refused food. A few hours later his temperature was up to 102.5° F., and on the following day he was unable to walk. Four days later his brother, aged 10 years, complained about noon of an aching in the knees. At night his temperature was 102.5°, but he was able to walk as late as 10 P.M. The following morning he could not move his lower extremities, and they were painful to touch. He had retention of urine and great prostration until the eighth day of his illness. Four days later the son of the physician in attendance upon the former cases, and their constant playmate, was seized with pain in the back, headache and fever. His temperature ranged from 101° to 104.5° F. for 2 days and nights, then gradually fell to normal. He had frequent micturition, pain and stiffness in the elbows, wrists and shoulders, and, on the second day, partial paralysis of the left arm and leg. Power was completely regained over the leg, but the arm remained affected. The fourth case, a few miles remote from the other cases, occurred in a robust boy of 14 years. He sickened suddenly with fever, headache and nausea. The lower extremities were paralyzed almost completely. Two days later the left arm was partially paralyzed and there was difficulty in micturition. The muscles of respiration became involved and he died on the sixth day of the disease. The first two cases were observed by Newmark about 8 weeks after they first developed. At that time case 1 was able to walk briskly with a swaying gait. He rose from the recumbent posture with effort, and to reach the erect position from a sitting posture, pushed the trunk up by resting his hand on his thigh. There was marked wasting of the region between the lowest rib on the right side and the crest of the ilium. Extension of the knees was slightly enfeebled; also flexion of the left knee, extension and flexion of the left ankle, and abduction of the left thigh. The knee-jerks were normal. The left tibialis anticus showed the reactions of degeneration. The second case presented an almost flaccid paraplegia. The boy could not extend the big toe of his right foot, but was able to flex them all. Only feeble flexion was possible in the toes of the left foot. There was some flexion and extension possible in the right ankle, but none in the left. The other movements in the lower extremities were very slight flexion of the knees, slight extension of the right hip, fair upward and slight inward rotation of the right thigh. The knee-jerks were absent. Faradic contractility was absent in the right tibialis anticus. It was absent in all the muscles of the left side below the knee and in the extensor quadriceps. There was no anesthesia in either case. The third case showed paralysis and atrophy of the intrinsic muscles of the left hand under the deltoid. The cases were considered of infective origin, but the character of the infection was undetermined. [S.M.H.]

3.—Goffe reports a case of **hysterectomy for puerperal sepsis.** On examination of the removed uterus, it was found that the walls of the uterus were permeated with accumulations of pus varying in size from that of a pea to a large one near the fundus fully an inch in diameter. The right ovary and tube contained pus amounting in all to two ounces. The left side was less involved. The patient rallied from the operation, but died 36 days later, in spite of careful nursing, nourishment and stimulation, death being due to exhaustion. [W.K.]

Boston Medical and Surgical Journal.

January 26, 1899. [Vol. cxi, No. 4.]

1. Work of the Massachusetts Volunteer Aid Association in Santiago. E. G. BRACKETT.
2. Camp Wikoff, Montauk, L. I. W. H. PRESCOTT.
3. General Report. JAMES BOOTH-CLARKSON.
4. The Shipwreck of the Steamship "Lewiston." T. B. SHEA.
5. The Work of the Massachusetts Ambulance-Corps on the Steamship "Lewiston" and Elsewhere During the Spanish War. MYLES STANDISH.
6. Massachusetts Volunteers at Camp Thomas. J. B. BLAKE.
7. The Reception of the Sick Soldiers in Boston. F. G. BALCH.

Journal of the American Medical Association.

January 28, 1899. [Vol. xxxii, No. 4.]

1. Social Forces of To-day and the Future of the Medical Profession. DAVID INGLIS.
2. Nursing and Nurses in War. N. SENN.
3. Implantation of Ureters in Rectum. FRANKLIN H. MARTIN.
4. Schott Treatment of Chronic Heart Disease. ELSWORTH SMITH, JR.
5. Loomis Sanitarium for Consumptives. J. EDWARD STUBBERT.
6. The Climate of Colorado. C. F. GARDINER.
7. Pelvic Massage. F. H. WESTERSCHULTE.
8. Report on Massage. DOUGLAS GRAHAM.
9. The Passing of Alcohol. JOHN M. FARRINGTON.
10. Otitis Media Purulenta Chronica. CHEVALIER JACKSON.
11. Acute Gonorrheal Meningitis. JOE S. WOOTEN.
12. New Method of Nephrorrhaphy. J. F. BALDWIN.

3.—The chief difficulty to be overcome in **rectal implantation of the ureters** in cases of total ablation of the bladder is the danger of subsequent infection of the ureters and kidneys. This Martin claims to have overcome in his procedure, perfected and proved by experiments on 37 dogs and 3 operations on human beings. The principles of the method are: (1) The ureters empty into the bowel in the direction of its length and from above downward so that the urine is discharged in the direction taken by the fecal current. (2) The ureters are buried longitudinally in the walls of the rectum for the distance of an inch or more, so that in the act of defecation the fecal mass will squeeze the caliber of the ureters closed by its pressure on the mucous membrane, and so that pressure is exerted from above downward in the direction of the onward flow of the urine. (3) The ureters are further protected by the muscular coat of the intestine, by being surrounded by the circular fibers of the bowel, which hold the ureters closed during defecation. After the pressure of the fecal mass and of the circular muscular coat is removed, urine retained in the ureters will spurt forth with considerable force, acting as its own cleanser. (4) The implantation is in the lower bowel, which is normally empty save during defecation. The operation is performed with the patient in the Trendelenburg position. The ureters are approximated by fine silk sutures and the implantation into the bowel is made when the latter is completely empty and secured above the seat of operation by a clamp, to prevent the entrance of fecal matter. The ureters are secured to the fibrous and mucous coats of the bowel by a number of closely applied sutures of fine catgut or of silk, great care being necessary not to penetrate to the mucous coat of the ureter or to apply sutures so as to constrict the ureters. [G.C.C H.]

4.—Smith cites a series of 5 cases to prove the beneficial effect of the **Schott treatment in chronic heart-disease.** He claims that a plan of treatment producing any proportion of success in cases of types uncontrollable by older methods, must be looked upon as a valuable aid. [G C.C.H.]

5.—See this Journal for January 21, 1899, p. 155.

9.—Farrington asks for a revision of textbooks in regard to recommending the use of **alcohol,** since there has been a complete reversal of ideas relative to the effects of alcohol on the human system, it being no longer considered either a food or a stimulant. [G.C.C.H.]

10.—Jackson recommends as invaluable in **otitis media purulenta chronica** a digestive powder of carica papayo, the South American digesting melon. It will break down and digest pus, mucus, detritus, and cholesteatomatous formations, enabling them to be readily washed out by hydrogen-dioxid solutions. It has little solvent power upon ceruminous plugs, and does not act on living tissues, either healthy or granulation-tissue, but it assists materially in removing cheesy or foul pus. [G C.C.H.]

12.—The following modification of Johnson's method of **nephrorrhaphy** is recommended: The usual incision being made in the loin, the kidney is forced into position by the hand of an assistant, and the true capsule is exposed posteriorly. This is incised longitudinally, care being taken not to wound the substance of the kidney. Flaps, 2½ by ¾ inches in size, cut or torn with the fingers at each end, so that they can be brought at right angles to the kidney, are separated from the capsule and are inserted into corresponding incisions made through the fascia and muscular tissue on each side of the original incision in the loin. Each flap is now apposed on each side by muscular tissue and fastened in place by 3 or 4 straight catgut-stitches. This brings muscular tissue in direct relation to the naked kidney. [G.C.C.H.]

Practitioner.

January, 1899. [Vol. 62, No. 367.]

1. Tuberculosis. Thomas Clifford Allbutt.
2. A Case of Jaundice of 16 Years' Standing Treated by Operation. Frederick Treves.
3. On the Probably Cortical Origin of some Laryngeal Paralyses. (*Illustrated.*) Felix Semon.
4. A Conical Stump following Intra-Uterine Amputation of the Arm. Edmund Owen.

1.—Allbutt urges the value of the **open-air treatment for tuberculosis.** He believes that the disease will ultimately be eradicated by careful attention to personal hygiene on the part of the patients, and by a more rigid inspection of cattle. [J.S.]

2.—Treves reports the case of a girl, 19 years of age, who had had **persistent jaundice for 16 years.** Every attempt to remedy the condition by internal medication had absolutely failed, and the patient's condition was pitable. In addition to all the symptoms associated with obstructive disease of the biliary passages, she suffered from great depression, and was dull intellectually. In an exploratory celiotomy, Treves found a satisfactory explanation for the persistent jaundice in a **congenital deformity of the common duct.** The latter was but ½ inch long, and terminated in a hard fibrous nodule, having no connection with the duodenum. Cholecystenterostomy by means of Murphy's button was effected, and during the succeeding 10 months, the patient's condition gradually improved, although she still had some mental depression, bleeding from the nose and gums, and constipation. Several problems are presented by this case, and are yet to be explained, viz.: The absence of any symptoms until the age of 3, despite the congenital absence of the common bile-duct; the absence of any apparent changes in the liver-substance itself; and the persistence of bile in the urine after a free communication between the bowel and gall-bladder had been established. [C H.F.]

3.—Semon notes that in association with Horsley, he found in each cerebral hemisphere an area that, when stimulated, caused bilateral adduction-movements of the vocal band. In a monkey, this was situated just posterior to the lower end of the precentral sulcus at the base of the third frontal gyrus. Later, Masini found that stimulation of the laryngeal area with a weak current produced unilateral movements in the opposite side; stronger stimulation produced bilateral movements. In higher animals, the phonatory function of the larynx is governed by centers in the cerebrum, and the respiratory by centers in the medulla. The former is a predominant force and usually overcomes the latter; but, after ablation of the cerebral hemispheres, respiration proceeds normally. In man, there are found certain clinical laryngeal conditions, particularly hysterical aphonia, that appear to be the result of cerebral influence. Semon, however, believes that certain laryngeal paralyses may be produced by organic lesions of the cortex, but only when both areas are destroyed. Of course such bilateral lesions are extremely rare, and even should they occur, separated by a considerable length of time, it is probable that functional restoration would have taken place in the part first affected, and therefore no symptoms would be produced. Cases, however, have been reported in which symmetrical lesions existed that appeared to have caused paralysis of the larynx; one by Eiserlohr with partial degeneration in the posterior parts of both internal capsules; another by Pitt, in which two successive apoplectic attacks occurred in a case of uremia, with paralysis of the muscles of the mouth, face and larynx, and again with lesions in the posterior portion of the internal capsule. In regard to the possibility of the production of laryngeal paralysis by a unilateral cortical lesion, Semon argues that, in addition to the double functions and the bilateral innervation of the larynx, the frequency with which destruction of the third frontal convolution on the left side occurs without laryngeal paralysis is against this view. [J S]

4.—Owen reports an interesting case of **conical stump following intrauterine amputation of the arm.** In the patient's early life, the end of the humerus did not project beyond the muscular tissues, but at her eleventh year the humerus had grown nearly 3 inches beyond and was covered only by a thin film of closely adherent skin. An operation was advised, and a sufficient portion of the bone resected to make a shapely stump. In operating upon such cases in children, it should be borne in mind that, inasmuch as the growth of the humerus takes place largely from its upper epiphysis, there is a probability that, later on, another operation may be required. Owen objects to the term, "amputation," as applied to these cases of ill-development, believing the deformity to be due rather to imperfect development than to amputation by the strangulating influence of a twisted umbilical cord. The latter theory, however very commonly accepted, is not a rational one, and cannot explain all of the phenomena that are met with in this connection. [C.H.F.]

Münchener medicinische Wochenschrift.

December 6, 1898. [45. Jahrg., No. 49.]

1. Investigation of Orthoform. Einhorn and Heinz.
2. A New Method of Examination in Nervous Disorders. Heinrich Roder.
3. Endoscopy of the Esophagus and the Stomach. George Kelling.
4. The Result of Bicycling and Other Athletic Sports Upon the Action of the Heart. G. Altschul.
5. A Case of Echinococcus of the Throat. Fritz Reich.
6. On Counting the Blood-Corpuscles. Franz Starcke.
7. The Fundamental Necessity of Proving New Remedies. W. His, Jr.

1.—As orthoform and new orthoform cannot be used hypodermically on account of the difficulty with which they dissolve, and as their salts are too irritant for that purpose, Einhorn and Heintz have by processes of substitution produced a substance, the hydrochlorate of **diethylglycocoll-p-amido-o-oxybenzoic-acid-methyl-ester,** which is not alone more permanent than cocain, but also ten times less toxic; in addition it is antiseptic. In 2% solutions, injected hypodermically, it produces a prolonged regional anesthesia. It is sold under the name of nirvanin. [D.R.]

2.—Röder suggests the employment of **psychophysic methods** for determining the mental status of persons suffering from nervous affections in consequence of injury. The tasks that he sets the patients are: to count aloud and as rapidly as possible from 1 to 100 and from 100 to 1, to add, for half an hour in a book, a series of numbers, to subtract progressively 7 from 100 down to 2, and then to repeat the counting. The method is to be used to test applicants for benefits on account of mental disability—mental fatigue, lack of concentration, etc.—and it is believed that malingerers cannot imitate the response given by persons that are actually ill. [D R.]

4.—Altschul has studied the effects of various forms of exertion, viz., bicycling, turning, and mountain-climbing, and has found that a dilatation of the heart was demonstrable in all persons as soon as the respirations rose to 28 or more; the pulse was also accentuated, but in a variable degree. His conclusions are that every considerable muscular effort, in which large muscle-groups are brought into play in rapid succession, causes an increase in the heart's action and the respiration, and this leads to a physiologic enlargement of the heart, which in a state of quiet subsides after a time. It is not believed that bicycling can be compared, as has been attempted, to a climbing of stairs in the sitting posture. The total resistance to be overcome is much less than that of the body-weight. The reason that bicycling is a form of work, more severe than moderate mountain-climbing, is that it calls into action nearly all of the muscles of the body; in addition there is the mental strain. It is important to remember that subjective shortness of breath, which is a danger-signal, is much less marked and appears later in bicycling than in turning or climbing. This absence or late occurrence may lead to serious consequences. Only such persons should be permitted to ride whose heart, vessels, and lungs are sound. He who after a ride feels well, has a good appetite, is not sleepy, but enjoys sound slumber at night, has not overtaxed himself. In chlorosis and neurasthenia the use of the bicycle should be restricted to mild or convalescing cases. Chronic constipation, particularly in women, is benefited by the exercise, and in obesity bicycling surpasses all other physical methods. [D.R.]

7.—His concludes his article with the following theses: (1) The purposeful industrial search for new remedies and their preparations is to be encouraged by both the physician and the suffering public. (2) The efforts of commercial establishments to secure rapid dissemination and trial, as well as early publication of trial-results, lead to undesirable conditions which are antagonistic to the interests of the sick and to the influence of the medical profession. (3) The test of a remedy should invariably be preceded (*a*) by an exhaustive investigation of its properties by the animal experiments. Without this no remedy should be used on human beings. (*b*) By a critical reflection as to whether, with respect to our present clinical and experimental knowledge, a curative effect is to be anticipated from the remedy. (4) Powerful remedies should be tried only on patients under constant supervision in institutions. (5) Only such physicians as, by reason of literary study and personal experience, possess a knowledge of the course of the disease in the untreated state or when treated by other means, are capable of forming a proper judgment of the action of a new remedy. (6) It would be advisable to prevent, by legal process, the sale of a new preparation until it is sanctioned by medical authority. [D.R.]

December 13, 1898. [45. Jahrg., No. 50.]

1. Photography of the Interior of the Stomach. Fritz Lange and Meltzing.
2. On the Value of Expertness in Premature Birth, with Statistics of 60 Cases. Hucklenbroich.
3. A Theory Concerning Diaphragmatic Pleurisy. O. Rosenbach.
4. Endoscopy of the Esophagus and the Stomach. George Kelling.

1.—Lange and Meltzing, independently, conceived the bold idea of **photographing the interior of the stomach.** By combining their efforts they have succeeded in devising an instrument, the description of which is best studied in the original article with the aid of the illustrations there given. The apparatus is still too crude to render the method of much value, but the anticipated improvements may render it useful. It is interesting to note that a description of an instrument for a similar purpose has recently appeared in an English journal—another illustration of the fact that discoveries are usually made contemporaneously by several individuals working independently. [D.R.]

2.—Hucklenbroich reports 60 instances in which **artificial premature labor** had been induced in 16 years on 29 women; in 6 cases 2 times; in one woman 3 times; in two, 4 times; in three, 5 times, and in one, indeed, 6 times; in the remaining 16, one time. The indication for the induction of labor in 26 of the cases was contracted pelvis; of these 19 had flat, rachitic, and 6 simple flat pelves; one had an exostosis from the right ascending pubic arch. The true conjugate in none was under 8 cm. Three patients had normal pelves, but other indications were present: (1) Persistent vomiting due to gastric carcinoma; (2) general dropsy due to nephritis. Eclampsia followed in this case after the introduction of the bougie, and version was performed. (3) The patient had great disturbance of respiration and circulation due to contraction of the lungs and dilatation of the right ventricle. Of the 29 cases 26 recovered, 2 are still in the hospital, and one died of septic peritonitis 6 days after labor. The time selected usually was the thirty-fourth week of pregnancy. After careful antiseptic preparation of the vagina and the pubic region, a bougie which has been immersed half hour in 1% sublimate-solution and two hours in 2% lysol-solution and anointed with bryolin, is rotated and slowly introduced into the uterus; if resistance is met with, the instrument must be withdrawn and passed in another direction. It is passed so that the lower end is not visible outside the vulva, and an iodoform-gauze tampon wet with lysol is introduced. The knees are bound together and the patient is turned upon her side. If there is no result after 24 hours, the bougie is withdrawn, treated antiseptically and reintroduced. A large bougie is preferably used, as the smaller curl up too easily. [W.K.]

4.—Kelling describes a **gastroscope** and then discusses the indications for the use of such an instrument. It will be of value in the early diagnosis of carcinoma, in determining the extent of the tumor with respect to operability; the seat of an ulcer can be determined and hour-glass stomach positively diagnosed. Ulcer and stenosis of the duodenum can be differentiated from gastric lesions; foreign bodies in the stomach can be distinguished from tumors of the organ. [D.R.]

Berliner klinische Wochenschrift.

December 5, 1898. [35. Jahrg., No. 49.

1. Acute Diffuse Myocarditis. George Freund.
2. Serumtherapy in Tetanus. F. Blumenthal and P. Jacob.
3. The Spread of Venereal Disease in Kiel. Wullenweber.
4. On Alimentary Glycosuria in Neurasthenics. M. Arndt.
5. Pericarditis in Childhood. Baginsky.

2.—Roux and Borell succeeded in curing rabbits and guinea-pigs presenting symptoms of tetanus by injecting the tetanus-antitoxin directly into the brain of the animal, after trephining the skull. Independently of the French scientists' experiments, Blumenthal and Jacob had conceived the idea of introducing the antitoxin into the subarachnoid space; but as this was difficult in small animals, they selected goats. In not a single instance, however, was it possible by this method to save an animal in which the first tetanic symptoms had appeared in consequence of an injection of tetanus-toxin into the flank. The presence of antitoxin could be demonstrated in nearly all the organs and in the cerebrospinal fluid. In a control-goat that received only tetanus-toxin, the cerebrospinal fluid was not toxic, while blood, milk, and extracts from nearly all organs save the brain and cord contained toxin. It appears that at the time of the first appearance of symptoms of tetanus, the toxin is already too firmly established in the central nervous system to be removable through antitoxin injected into the subarachnoid space. On repeating Roux and Borell's method with goats, it was found that the animals died despite the intracerebral injection of antitoxin, and attention is called to the unsatisfactory results of this mode of treatment so far achieved in man. Of 8 persons thus treated, 7 died; the case in which recovery followed was a chronic form of tetanus. [D R.]

4.—**Alimentary glycosuria** (after administration of 100 grains of glucose) has been observed in a variety of diseases of the nervous system, more particularly of the brain; it is rare in spinal affections. It is more common in functional than in organic nervous diseases, and is of special interest in the so-called traumatic neuroses, in which, according to the figures of Arndt, Strauss, Van Oordt, and Geelvink, it occurs in 32.6% of the cases. Arndt himself has examined 96 asylum-patients suffering from various nervous affections—of 31 hysterics 2, of 7 hypochondriacs none, of 21 melancholiacs 5, of 7 cases of stupor 1, of 6 maniacs 1, of 13 epileptics none, and of 4 cases of traumatic neurosis 4 showed alimentary glycosuria. The nontraumatic cases of hysteria, hypochondria, and neurasthenia showed alimentary glycosuria in 14.4%, as against 32.6% in traumatic neuroses, which seems to indicate that the latter occupies a position somewhat apart from other functional nervous diseases. Studies of this nature are especially desirable in neurasthenia. [D.R.]

5.—Tuberculous pericarditis is not as frequent in children as might be expected. Baginsky has seen 11 cases. Tubercles were demonstrable only in 6; in the others a purulent, or, in one case, a serosanguineous exudate was found. In the first group the diagnosis of miliary tuberculosis was usually easy, but the pericarditis was, in the absence of distinct cardiac symptoms, generally unrecognizable. Pericardial friction was absent. In contradistinction from these really not true forms of pericarditis, the others in which true tuberculosis of the pericardium was present were characterized by distinct symptoms. There was marked enlargement of the area of cardiac dulness, friction-sounds, and evidences of obliteration of the pericardial sac. In all such cases the cough is severe, there is dyspnea, orthopnea, cyanosis, dropsy; albuminuria is moderate and variable; pain is often intense. The most important variety of pericarditis is the fibrinous, which may be acute or chronic. In 15 of Baginsky's cases the disease was acute, the etiologic or concomitant factors being rheumatic polyarthritis, chorea, pleuropneumonia, otitis media, scarlatinal nephritis, empyema, enteritis with pyelonephritis, and diarrhea with bronchopneumonia. Nine were fatal. The clinical course varies with the nature of the underlying disease and the age of the individual. In young children the disease may be without symptoms. In older children, especially in cases in which the disease is connected with chorea and rheumatic polyarthritis, it has quite a distinctive character. The face is pale, the lips cyanotic; fever, dyspnea, cough, and chest-pains are present. The cardiac area is enlarged, and friction-sounds are present. The heart's action is vigorous, vehement; the apex-beat diffuse; the heart-sounds are muffled, often split, and early accompanied by endocardial murmurs. Respiration and pulse are rapid. The symptoms may eventually subside, but the amelioration is in some instances deceptive, as in two of Baginsky's cases, in which death ensued with collapse-symptoms during convalescence. The chronic form of fibrinous and fibrous pericarditis leads to great cardiac hypertrophy and obliteration of the pericardial sac. In only 2 of 12 cases was hypertrophy absent; in the other 10 articular rheumatism and chorea were the etiologic factors. The symptoms in the acute stage are like those described. After a second attack of polyarthritis, the patients become pale, dyspneic, and present symptoms of catarrhal affections of the respiratory tract; lips and extremities are cyanotic; the precordial area bulges, and the impulse shakes the entire left half of the thorax; the area of cardiac dulness is greatly extended. Systolic and diastolic murmurs may be heard over the entire heart; the pulmonic second sound is greatly accentuated. The cervical veins are distended, undulating, or slow systolic venous pulse. Effusions occur in the pleural cavities; the liver enlarges, ascites and anasarca appear. Agonizing pain is present, and delirium sets in toward the end. The danger of this form lies not solely in the pericarditis, but also in the endocardial and myocardial lesions. The two cases of pericardial obliteration in which hypertrophy was absent were not due to polyarthritis; only dyspeptic symptoms had preceded the disease. Regarding treatment, the salicylates and kindred remedies seem to have but little influence on the cardiac, or especially, pericardial, complications of rheumatism. Palliatively, ice may be applied to the precordia; also ichthyol. Internally, digitalis or strophanthus may be employed. When the urine is scanty, and dropsy and orthopnea are present, theobromin sodio-salicylate (from 4 to 5 grams per day) is most useful when combined with digitalis or strophanthus. [D.R.]

Deutsche medicinische Wochenschrift.

December 15, 1898. [24. Jahrg., No. 50.]

1. Blepharitis Acarica. Raehlmann.
2. A Reply to Grawitz on Inflammation. O. Lubarsch.
3. A Case of Obliteration of the Aorta and Persistence of the Ductus Botalli. Friedrich Brunner.
4. Further Discussion on Tuberculin treatment. Bandelier.
5. A Case of Obturator Hernia. Cysticercus in the Cerebellum. J. Bresler.

3.—Brunner describes the case of a woman, 30 years old, suffering from pulmonary and lymphatic tuberculosis, who presented marked pulsation of superficial arteries, especially in the neck; a systolic murmur at the tricuspid area and over the aorta; at the pulmonic cartilage the sounds were clear. The patient died of marasmus, and at the autopsy complete **obliteration of the aorta** at the insertion of the ductus Botalli was found. In connection with this case Brunner briefly reviews the literature of the subject—there are now at least 105 cases on record—and offers a theory in explanation of the pathogenesis of the condition, which is an amplification of one enunciated by Skoda in 1855. He believes that the atresia arises during the closure of the duct after birth, and is dependent on the existence of (granulations) tissue of the duct in the adjacent parts of the aorta; sometimes aberrant vestiges of the tissue of the duct may occur in the aorta, or the tissue may be entirely displaced and be found exclusively in that vessel. The duct, it has been shown, consists chiefly of connective tissue resembling granulation-tissue. After birth involutional changes take place in the duct-tissue, which lead to different results according to the position of this tissue—if this is normal, only the duct is obliterated, if duct-tissue exists also in the aorta, varying degrees of stenosis result; even multiple stenosis may occur. Pari passu with the obliteration, a collateral circulation is established. [D.R.]

5.—In the majority of cases of **obturator hernia** the diagnosis is usually made at the autopsy, and the case reported by Bresler is no exception. The positive signs of obturator hernia are indeed few; the presence of a tumor is perhaps the most important, while the Romberg symptom, if present, may be of some assistance, though it is present in other conditions and oftentimes passes unobserved. For more than a year the patient in question had had attacks, in which there was some abdominal pain, not localized, and distention, with slight elevation of temperature. After the administration of purgatives the symptoms usually subsided. Shortly before the patient died the pain became more pronounced, there was obstinate constipation, pain along the course of the anterior crural nerve, and a distinct tumor in the right hypogastric region. The autopsy revealed a small incarcerated hernia in the right obturator foramen, the contents of which were gangrenous. [C.H.F.]

Wiener klinische Wochenschrift.

December 8, 1898. [11. Jahrg., No. 49.]

1. Type of Paralysis Agitans Simulated by a Form of Hysteric Tremor. Krafft-Ebing.
2. Acute Gangrene of the Penis and Scrotum. Josef Sorgo
3. Therapeutics for Nose and Throat Diseases. Friedrich Hanszel.

1.—Krafft-Ebing points out the existence of a form o **hysteric tremor** closely resembling paralysis agitans, an describes five cases of the affection. All occurred in youn women; in three there was a neuropathic taint and a psychi or mechanic trauma; in the fourth the disease was ascribe to a severe attack of typhoid fever; in the fifth a latent pre disposition existed, and upon this a psychic trauma (a fright acted. Hysteric stigmata of a psychic nature were presen in two of the cases; corporeal stigmata were absent in all The development of the neurosis is gradual. The tremor i undoubtedly psychic in origin, subsides during perfect men tal rest and during sleep, and is intensified by voluntar movement and by emotion. It resembles mercurial tremo in its tendency to increase enormously during motio and excitement, but differs from it in not subsidin during physical quiet. With paralysis agitans it h certain similarities, but differs from it in the presence of i tention-tremor, the variability of the tremor, and in its localization and spread, which are much more irregular in the hysteric neurosis than in Parkinson's disease. Involvement of the head is much rarer in the latter than in the former affection. The motor-weakness in paralysis agitans appears early and is progressive; if at all present in hysteric tremor-neurosis, it is variable and amenable to suggestion. The latter affection also occurs earlier in life. The prognosis is uncertain. Krafft-Ebing localizes the place of origin of the tremor in the motor cortex. In an addendum he describes the case of a young woman who after a powerful emotional shock began to have a violent general tremor lasting four months and resisting even large doses of narcotic remedies. One day the patient observed that on rising the tremor grew less; eventually it was entirely absent while the patient stood erect, but always recurred on sitting or lying down. Apart from the violent tossing about of the limbs and trunk in the reclining posture, nothing abnormal was found except some painful and tender points along the spine. Strong pressure upon these points caused the tremor to abate. This induced the author to try the influence of the faradic brush after previous anesthetization of the points with the ether-spray. After three seances the patient was practically cured, and the points were no longer tender. The case is classed as one of hysteric clonic spasm of reflex origin. [It seems to have borne a close resemblance to paramyoclonus multiplex. D.R.]

2.—Fournier, in 1883, described 5 cases of **spontaneous gangrene of the skin of the penis and scrotum** occurring without demonstrable cause. A number of instances have since then been reported without throwing any ight on the strange affection. Some have attempted to dentify it with gangrenous erysipelas, but neither the clincal features nor the bacteriologic studies justify this. Sorgo's patient was 27 years old. He noticed first a little pimple on he glans; swelling of the prepuce set in and led to paraphimosis. The skin of the penis and scrotum was mottled with dark-green patches; there was pain in the hypogastric egion. The general symptoms were grave and suggestive of ystemic infection. Despite operation, mortification of the kin of the penis and of portions of the scrotum occurred; n abscess formed to the right of the symphysis, and was pened. After the sloughing of the dead parts healthy ranulations developed. The gap remaining in the integuent was eventually closed by a plastic operation. Bacteiologically, the bacterium fluorescens liquefaciens and a icrococcus, resembling the staphylococcus albus, were und. Neither alone was pathogenic for animals, but, incted together into the subcutaneous tissue of a mouse, ey produced gangrene. Death of the culture of the micrococcus prevented further study. [D.R.]

December 15, 1898. [11. Jahrg., No. 50.]

Local Anesthesia. M. W. Herman.
A Further Discussion upon the Knowledge of the Final Results After Reclination. Max Mader.
A Chemical Research into Fatty Matters Held in the Fluid of Ascites. Karl Hodlmoser.
A Method for Teaching Deaf-Mutes to Hear. Victor Urbantschitsch.

1.—In considering the question of **local anesthesia,** Herman believes firmly that the best results are to be btained by Schleich's infiltration-method. Cocain and ucain in stronger solutions and in necessarily smaller uantities had not given so satisfactory results and the ethod of O. Manz, which consists in attempting to paralyze ith cocain-injections the peripheral nerves centrifugal to a ubber ligature, had failed to give complete anesthesia. The reatest drawback to the use of Schleich's infiltration-method the danger of infection, which, unless the greatest precauons are taken, is most apt to follow its use. Herman gives e following conclusions to his experiments and clinical rearches on this point: (1) Schleich's fluid, if made with eshly distilled and boiled water, and if the hands and inruments used in its preparation are sterile, may be rerded as aseptic. (2) It is not antiseptic and if accidentally ntaminated is unfit for use. (3) If by keeping or otherise the solution has been infected, it must be sterilized bere using. This is best done by fractional sterilization, as gher temperatures or antiseptic solutions tend to render it unfit for use. So far as chosing between a local and a general anesthetic is concerned, we must be guided by the individual circumstances and the temperament of the patient. [G.B.W.]

3.—Hodlmoser has made a careful chemic analysis of the **fluid** obtained by aspiration **of a chylous ascites.** The fluid had a specific gravity of 1021, was free from peptones, had no proteolytic properties, but had a slight amylolytic action, contained some sugar, lecithin, and over 5% of albumin. Microscopically only fat-droplets and a few lymphocytes were found. Quincke and Senator speak of **ascites chylosus,** as that form due to admixture of chyle, and of **ascites chyliformis, or hydrops adiposus,** that in which the presence of fat depends on the incorporation in the fluid of the fatty debris of degenerated epithelial cells. In the former, the fluid shows numerous smaller and larger fat-droplets, and a few lymphocytes, and also contains sugar; in the latter the fat-droplets are fewer, numerous fatty epithelial cells are present, and sugar is absent. Despite the fact that the examination of the fluid points to chylous ascites proper, the author is disinclined to make that diagnosis, as in his case the clinical course, and especially the slow development of the ascites do not point to a chylous origin. [D.R.]

December 22, 1898. [11. Jahrg., No. 51.]

1. The Question of the Resorption of Bacteria in Fresh Wounds. Josef Halban.
2. The More Definite Localization of Cerebellar Tumors, and their Differential Diagnosis from Chronic Internal Hydrocephalus. Rudolf Schmidt.
3. A More Comprehensive Report of the Use of the Rœntgen Rays in Diagnosing Pyopneumothorax. Robert Kienbock.

1.—**The resorption of bacteria in fresh wounds** takes place chiefly if not entirely through the lymphatics, the bloodvessels playing only a very secondary part. Halban in his experiments employed the anthrax-bacillus, placing the pure culture in a fresh wound. The bacilli were found in the nearest lymph-glands 2½ hours later, and were not found in the other organs of the body until still later. Halban says that Nötzel, though he found the anthrax-bacillus in the spleen, heart, lungs, etc., in 10 to 15 minutes after infecting the animal, did so because he employed cultures containing plenty of spores, and used enormous quantities placed in deep wounds with more or less force. But he also says that this sort of infection was an unnatural one, and even in this method the number of bacteria found in the internal organs was exceedingly small, while the lymph-glands contained large quantities of them. [G.B.W.]

Centralblatt für Chirurgie.

January 7, 1899. [26. Jahrg., No. 1.]

1. A Simple Craniometer. Krönlein.
2. Operation for Hypospadias. Carl Beck.
3. Fiber, an Ideal Material for Splints. A. C. Wiener.

1.—The **craniometer** described by Krönlein is simple in its construction and can be applied to a head of any dimensions. With its aid it is possible to locate the fissure of Sylvius, the upper and lower portions of the central sulcus, the points, recommended by Krönlein, to apply the trephine in cases of hemorrhage from the middle meningeal artery, and the point, recommended by von Bergmann, for resection of the skull in otitic abscesses of the temporal lobe. The craniometer is constructed of 6 flexible metal strips, 2 horizontal, 3 vertical, and 1 oblique. One passes horizontally on a level with the external auditory meatus, a second horizontally on a level with the supraorbital ridge; a third vertically across the middle of the zygoma, a fourth parallel to this, passing over the temporo-maxillary articulation, and a fifth in a similar direction on a line with the posterior margin of the mastoid process. The oblique strip begins at the intersection of the anterior vertical and superior horizontal strips, and terminates at the point where the posterior vertical strip crosses the crown of the head. This line represents the fissure of Rolando while a line bisecting the angle formed by the fissure of Rolando and the superior horizontal strip corresponds to the fissure of Sylvius. [C.H.F.]

January 14, 1899. [26. Jahrg., No. 2.]

1. A Discussion of the Various Methods of Intestinal Suture. V. CHLUMSKY.
2. A Case of Secondary Intestinal Resection, Complicating a Gangrenous Hernia. NOLL.

1.—Chlumsky conducted a series of experiments and investigations upon both animals and man to determine the relative strength or stability of the line of union after various methods of **intestinal anastomosis.** The latter included the double row of continuous sutures, recommended by Albert, and the Murphy, Frank, and other buttons. The most exact method ot estimating the resistance at the point of anastomosis proved to be the subjection of the intestine to various degrees of water-pressure. The amount of pressure to which the intestine could be subjected varied appreciably according to the number of days that had elapsed after the operation. From the second to the fourth day inclusive the anastomosis was weaker than in the first 24 hours. From the fifth day on, however, there was a gradual increase in the resisting power at the point of anastomosis, and after the tenth day the wall of the intestine above the anastomosis would rupture before the line of union yielded. No appreciable difference could be detected between cases in which the button and those in which the suture alone was employed. Circular anastomosis withstood a higher pressure as a rule than lateral anatomosis, and, in cases treated with the continuous suture, perforation always took place at that point where the knot was tied. Adhesions formed between the omentum and the gut always fortified appreciably the line of anastomosis, and in one case in which the serous coat was scarified after Wölfler's method the adhesions were so extensive that it was difficult to determine by dissection exactly where the anastomosis had been effected. [C.H.F.]

Deutsches Archiv für klinische Medicin.

October 27, 1898. [Bd. 61, Heft 3 u. 4.]

8. The Inheritance of Tuberculosis. G. HAUSER.
9. Experimental and Clinical Investigations upon the Testing of the Functional Activity of the Intestines. AD. SCHMIDT.
10. Pneumothorax Caused by Aerogenic Bacteria. RICHARD MAY and AD. GEBHART.
11. Writing on the Hand. KATTWINKEL.
12. Clinical Investigations upon the Blood-Plaques. DETERMANN.
13. The Causes of Azoospermia. M. SIMMONDS.

[The numbers of the articles correspond to those in the Archiv, and are volume numbers.]

8.—Hauser gives an elaborate study on the **transmission of tuberculosis** from one generation to the succeeding one. The arguments in favor of its occurrence are: (1) the analogy of other diseases, such as syphilis and the pébrine disease of silkworms; (2) the localization of lesions in parts not susceptible to external infection; (3) the microscopic and experimental demonstration of tubercle bacilli in the sexual glands; (4) the discovery of tuberculosis in the fetus of men and animals; (5) direct experimental demonstration; (6) the development of tuberculosis in chickens after inoculation of the egg. All these arguments he subjects to a very sharp criticism, throwing out the last completely, since the albumin only is infected, and it therefore is not a true embryonal inoculation. He gives a series of elaborate and apparently exhaustive tables, the first showing all the cases of tuberculosis occurring in newborn children and in human fetus; second, similar conditions in cattle; third, the discovery of tubercle-bacilli in the testicles and semen of men; fourth, their discovery in the corresponding organs of animals; fifth, the discovery of tubercle-bacilli in the ovaries; sixth, and seventh, the results of experimental investigation. The observations of tuberculosis in newborn children are not all of them indubitable, and, indeed, Hauser is only able to find 18 certain cases; 9 of developed tuberculosis in the newborn, 5 in which tubercle-bacilli were found in the fetal organs, and 4 in which they were found in the fetal placenta. In all these cases, only the mother was diseased; in 6 cases she suffered from general miliary tuberculosis, and in only 2 cases did she survive the birth of the child. As a result of these points and of further careful criticism of the other tables, Hauser reaches the conclusion that tuberculosis is capable of hereditary transmission in both men and animals. In no case, however, is there satisfactory evidence of transmission from the side of the father. In nearly all cases the mother has been very severely infected, but even in cases of general miliary tuberculosis only about 10% of the children are tuberculous.

This exclusive observance of bacillary transmission from the mother is opposed to the general tendency of hereditary diseases. It occurs infrequently, and the lesions, when found, in 80% of the cases affect the liver and the portal system, so that it is impossible to draw positive conclusions regarding the nature of tuberculous transmission. Clinically, it is generally admitted, that when the children of tuberculous parents subsequently become tuberculous, the disease generally manifests itself in its severest form. Often these children are born at a time when the disease of the parents is latent. In order to solve this question, Hauser for four years has been carrying on experiments with rabbits and guinea-pigs. For the purpose of obtaining localized disease, he first injected very dilute solutions of the bacilli, and later placed a fresh tubercle in the pleural or peritoneal cavity. Some of the animals were infected before, and some after, conception. Altogether, he obtained 30 young that could reasonably be suspected of hereditary infection, 12 rabbits and 18 guinea-pigs. All the rabbits had infected parents on both sides. Fourteen of the guinea-pigs had an infected father, and 4 mothers were infected during pregnancy. Eight of these young died during the first 7 weeks, and none were tuberculous. Of the 22 remaining cases, all were kept alive for periods varying from 4 to 22 months. One was killed accidentally, and found to have general tuberculosis. All the others failed to exhibit any symptoms of the disease. All developed normally, and of 25 descendants obtained from them, none showed the presence of tuberculosis. These results are very different from those observed clinically in connection with syphilis in the human race, and are no analogous to the pébrine disease of silkworms, Hauser therefore concludes that "the theory of the bacillary inheritanc of tuberculosis not only lacks a sufficient foundation, bu appears to be irreconcilable with many important actua observations, and contains, moreover, internal contradictions that cannot be satisfactorily explained by the theor of actual heredity." He is, therefore, compelled to assume that there is a peculiar hereditary predisposition in certai animals to the virus of tuberculosis, which, like syphilis, i not maintained in the human race by a congenital transmission of the specific virus, but is the result of perpetua reinfection by tubercle bacilli from outside. [J.S.]

9.—Adolph Schmidt calls attention to the necessity no existing in clinical medicine of having some **satisfactor method of testing the functional power of the in testinal tract.** At present, for example, clinical exam nation of the feces is almost completely neglected, and eve the occasional investigation regarding the presence of a bumin and fat in the feces, is of little clinical value, becaus we do not know what are the limits within which the quantit may be normal. Naturally the first requirement is generally applicable test-diet. A convenient test is that the fermentiscible and digestive capacity of the feces, a though positive results do not mean the same in all case Schmidt is now undertaking a careful clinical study on th subject, and gives the results of his first series of expe ments. The following technic is employed: a fresh spec men is thoroughly mixed with distilled water until it a quires a freely flowing but comparatively thick consistenc This is then placed in an ordinary fermentation-tube, havi a capacity of about 30 cu. cm. The results are classified in weak, medium and strong, according as less than $\frac{1}{3}$ or mo than $\frac{2}{3}$ of the tube is filled with gas. In 75 cases taken random no fermentation occurred in 31, a weak fermentati in 21, a medium in 6, and a strong in 17. Twenty-five of t subjects were entirely healthy and on mixed diet. The r sults were: none, 8 cases; weak, 8 cases; medium, cases; strong, 6 cases. If the observation is continu for more than 24 hours, the specimens showing stro fermentation usually cease to evolve gas at the end about 48 hours; specimens showing weak fermentati often continue the evolution for 3 or 4 days; and spe mens showing negative results sometimes begin to evol gas (late fermentation). It often occurs that different portions of the same specimen show different degrees of fermentation. Apparently fermentation does not take place in the soluble elements because watery extracts filtered through good filter paper never ferment, nor does the addition of fat or albumin develop this quality. If, however, starch is added, then fermentation occurs. Careful analyses of the gas evolved were made, which cannot here be given. Naturally CO_2 was always in largest quantity. CH_4, H_2, air, and nitrogen were also present. Simultaneously with the gas formation, there was the development of a strong acid reaction due to the presence of volatile fatty acids, particularly butyric, acetic, and small quantities of formic acid. Cases with late fermentation, that is, after the first 48 hours, show a considerable diminution in the quantity of CO_2, and great increase in the quantity of CH_4 evolved, the former being 28.5% and the latter 58%. Less acid appears to be formed, and there are usually evidences of putrefaction. Nevertheless, the distinction between these two forms is not sharp. The early fermentation appears to be due to the presence of carbohydrates in the feces. The CH_4, however, is apparently the result of the fermentation of the albumins. Causes of the fermentation are, of course, bacteria, the chief varieties being the bacterium coli, a diplococcus, and a streptococcus. Yeasts and the butyric-acid bacteria apparently do not occur. Fermentation seems to kill all the microorganisms very rapidly. There are probably also certain ferments present; at any rate, it is certain that we cannot imitate, by the mere placing together of reagents, the form of fermentation that occurs in the feces. In regard to the causes of the variability of fermentation, it can only be said that this may be due either to the lack of fermentiscible substances, to insufficient nutriment for the bacteria, or to the lack of both. The presence of starch in such form that it cannot be attacked by the ferments, may cause a modification of the first factor. Late fermentation seems to indicate a diminished destructive power on the part of the intestinal tract against the bacteria. In order to utilize these experiments in the elucidation of pathologic processes, it is necessary to place a number of persons, suffering from various diseases, upon approximately the same diet, gradually increasing the quantity of carbohydrates digested with difficulty. When digestion is disturbed, as after indulgence in alcoholic liquors, the quantity of CO_2 is diminished and replaced in part by CH_4. Mere constipation or diarrhea appears to have little influence. Anatomic changes in the mucous membrane of the intestine, however, always produce a profound alteration. A peculiar pathologic form of late fermentation is characterized by the presence of an alkaline reaction and the evolution of H_2S. This depends almost entirely upon the decomposition of the carbohydrates. [It is greatly to be regretted that up to the present time no adequate methods for the clinical investigation of feces have been devised. Should the subject be as carefully studied as the analysis of the urine has been, almost equally definite and important results should be obtained. J.S.]

10.—The patient stabbed himself twice in the region of the heart. The wounds appeared to be insignificant, but the temperature remained elevated, and finally an area of dulness with weakened breath-sounds was found in the posterior lower portion of the thorax. In the course of two weeks, tympany developed above the area of dulness, and, particularly over the cardiac region, the note was exceedingly clear. At first, when the patient sat up, the area of tympany became higher, but later exactly the reverse occurred. The pressure of the air in the thoracic cavity increasing, the thorax was aspirated, and a considerable quantity of bloody, purulent and frothy fluid withdrawn. This operation was repeated several days later, and the gas allowed to escape, when it was accidentally discovered that it was inflammable. Finally, several of the ribs were resected and free drainage provided. The patient improved for a few days, then finally pericarditis was discovered, and 2 liters of liquid evacuated. In spite of temporary improvement, the patient ultimately died. At the autopsy, he was found to be greatly emaciated. The left lung was densely adherent, and there were no granulations on the pleura. The whole of the heart was covered by villous masses of fibrin. It is difficult to decide when the pericarditis occurred. It was at first, in all probability, associated with a collection of gas in the pericardial cavity that was later absorbed and replaced by pus. No symptoms of pneumopericardium could be detected, except the change in the tympanitic area accompanying change of position. The gas obtained from the thoracic cavity consisted of 17% CO_2, 5% O, 54% H, and 25% N. Cultures showed the presence of the staphylococcus aureus, and the bacterium coli. The latter produced fermentation in bouillon with the production of the same gases in slightly different proportions, the most important elements being the presence of H and CO_2. The N and O were probably the result of the admixture of atmospheric air. The case, therefore, is one of pneumothorax and pneumopericardium caused by the spontaneous evolution of gas as the result of the zymogenetic properties of the bacterium coli. [J.S.]

11.—Kattwinkel's attention was called to the importance of the ability to **recognize letters written upon the palm of the hand,** by the fact that a blind and deaf patient, who had been admitted to the hospital, could only be made to understand questions by this method. He, therefore, carried out a number of investigations upon normal and diseased persons. The normal cases numbered 7, and included intelligent and unintelligent subjects. It was found that the small letters were more readily and accurately recognized than the capitals. Some of the subjects were able to read writing, written without interruption between the letters, but they formed the exception. No difference was detected between the right and the left hand, or between the palmar and the dorsal surface. The pathologic cases were as follows:—The first, an old right hemiplegic with contractures of the paralyzed side, and extreme aphasia, apparently incapable of understanding complicated commands, but without any disturbance of sensation in the paralyzed side, could not recognize any letter. The second had become unconscious and remained so for three days, then recovered with a slight hemiplegia. There was pronounced amnesia and aphasia. He still retained the ability to copy letters, but could not recognize them. There was homonymous hemianopsia. He could not recognize objects nor letters written upon the hand. The third patient suddenly lost speech, apparently as the result of an accident. Later, there was partial return. There was no paralysis, sensation of all kinds, including the stereognostic and muscle senses, was preserved. He recognized individual letters and numbers, but could not read words. Spontaneous writing was preserved. He could not read any letters written on the hand. The fourth patient, a right hemiplegic with diminished sensation but ability to read and copy, recognized the small and large letters very readily, and was able to read words. The fifth patient, a case of hemiplegia which had begun with aphasia and, not until a month later, with the development of paralysis, had, when examined, paraphasia, ability to recognize letters, and complete understanding of commands. He readily recognized letters written on the hand. The sixth patient, a right hemiplegic, with almost complete alexia, was able with some difficulty to recognize letters; the small ones better than the capitals. The seventh patient, another hemiplegic with understanding of commands, ability to copy and read, recognized nearly all the small and large letters. Kattwinkel, in analyzing these results, believes that when a letter is written upon the skin a visual image of it is formed, and it is recognized by means of this. Therefore, in order to recognize writing upon the hand, it is necessary that the parietal and occipital lobes should both be intact. It does not follow, however, that blindness, caused by a partial lesion, interferes in the least with this power. Therefore, letters should be recognized in pure motor aphasia, but not in cases of alexia with the lesion in the region of the cuneus. In conclusion, he adopts the opinion, with Marie, that reading is not performed by a special individual center, but represents rather the action of several centers, increased in facility as the result of practice, and probably it is these centers that control the recognition of writing upon the hand.

12.—Determann has employed the following methods in order to obtain the blood-plaques scattered singly throughout the fluid of the counting chamber: A drop of the diluting fluid is placed upon the finger; the puncture is made through it; and, as soon as the blood flows forth, the two are rapidly mixed with a cover-glass. The drop can then be transferred to the counting chamber of the Thoma-Zeiss apparatus, and the number of reds and plaques counted, the ratio determined, and the reds counted by the usual method, and the exact number of plaques in a cm. calculated. The diluting fluids are preferably 9% NaCl, to which a little methyl-violet has been added, or a solution of 1% NaCl with 5% potassium bichlorate. Cover-glass preparations may also be made by this method and stained preferably with methyl-violet. They take the stain, however, very faintly, and no particular advantage is gained by this procedure. The blood of 25 healthy persons was counted, and the proportions of the plaques to the red cells found to vary between 1 to 18 and 1 to 30; the average being 1 to 22. In a considerable variety of chronic diseases associated with anemia, the blood-plaques were always found increased. In these cases they usually degenerated readily, and were difficult to preserve. Determann says particularly that the blood-plaques were not increased in all cases of anemia. In acute febrile conditions, the plaques are diminished at first and during the stadium, and increased again during the defervescence. In order to determine the origin of the blood-plaques, it was necessary to preserve blood under observation for some time. This was accomplished by filling capillary tubes and sealing the ends. It was found that the red blood-corpuscles in the pathologic blood, in the course of 24 hours threw out processes with a slightly bulbous extremity that did not contain hemoglobin. These were soon separated from the cell by a constriction of the stalk; the resulting body resembled exactly a blood-plaque. In blood from normal persons in which the blood-plaques were few in number, these did not appear so readily. Determann calls attention to the similarity of his results with those obtained by Arnold, and draws the conclusion that the blood-plaques represent a peculiar form of degeneration of the red cells, consisting of portions of their protoplasm that have been separated from the parent mass. Their number, therefore, depends more or less upon the resisting powers of the red corpuscles. They did not show characteristic alterations in the number according to the nature of the disease, but merely indicate the degree of severity of the condition. To this extent, then, their investigation is of diagnostic and prognostic importance in chronic diseases. [J.S.]

13.—Simmonds, in more than 1,000 autopsies, has examined the contents of the seminal vesicles. In these subjects, which ranged between the years of 16 and 91, 125 suffered from azoospermia as follows: in 280 cases of acute disease, 6 times; in 130 of malignant tumors, 9; in 119 of chronic heart and kidney disease, 9; in 43 of chronic disease of the nervous system, 6; in 242 of chronic tuberculosis, 42; and in 87 of chronic alcoholism, 53. These figures show particularly the very serious influence of chronic indulgence in alcohol, 61%, or 5% of all cases, having been rendered sterile by this condition. In case of undescended testicle, spermatozoa were not found in the vesicles of the corresponding side. Hydrocele, spermatocele, varicocele, atheroma of the seminal arteries, and inguinal hernia seemed te be without effect. Chronic interstitial nephritis always caused azoospermia. The most important, and nevertheless least considered, causes, however, are strictures in the vas deferens. These are frequently multiple, and can readily be recognized by the fact that the canal is dilated on the distal side. Microscopically, the canal shows at the point of stricture scar-tissue, and below it, according to the degree of dilatation, a wrinkled or circular lumen. Altogether, Simmonds has collected 23 cases, naturally associated with azoospermia, either unilateral, if the strictures are unilateral, or complete if they affect both sides. The most frequent seat was in the last third of the canal. In the distended portion, a milky fluid containing granular detritus, amyloid bodies, and a few spermatozoa was found. In 22 cases, the epididymis showed more or less scar formation with obliteration of the canal, and all were associated with azoospermia. Curiously enough, in neither condition was the substance of the testicle apparently altered. In 25 cases, tuberculosis of the seminal vesicle was found, but only in 6 of these had the condition led to sterility. The earliest manifestation of this condition is the presence of pus in the vesicle; later, the wall appears to become involved. Simmonds concludes with a few interesting statistics. Of the 1,000 cases, 33 had become sterile as a result of previous venereal infection, that is 3.3%, and this appears to be a very small number considering the frequency of these diseases. In treatment, the only method that promises any results is operation, and this can be successful only when there is a stricture of the vas deferens somewhere near its entrance into the bladder. Even if this has lasted for many years, however, histologic examinations have shown that, should it be resected, the functional activity of the gland may be restored. [J.S.]

Zeitschrift für klinische Medicin.

[Band 36, Hefte 3, 4.]

1. Analysis of Irregular Pulse. K. F. WENCKEBACH.
2. Contribution to the Pathology and Symptomatology of Exophthalmic Goiter. W. HIRSCHLAFF.
3. On the Symptomatology and Diagnosis of Angiospastic Dilatation of the Heart, and on Acute Transitory Spasm of the Vessels. J. JACOB.
4. The Fatty Liver with Phloridzin-diabetes. G. ROSENFELD.
5. Practical Points in the Internal Treatment of Perityphlitis. LUDWIG HERZOG.
6. On the Alkalinity of the Blood. K. BRANDENBURG.
7. On the Excretion of Neutral Sulphur in Pathological Conditions. H. BENEDICT.
8. A Case of Intermittent Exophthalmos, with Pulsation of the Eye. H. A. KOOKYER and M. E. MULDER.

1.—Wenckebach explains the occurrence of **irregular pulse** by attributing it to a so-called extra systole. If the heart be irritated during the whole period of the systole, diastole, and pause, it will be found that at certain times the heart-walls are not excited, while at other times they react to an electric irritation. The refractory period is during, just before, and just after the systole, and irritation at this time will not cause an extra contraction, but during the diastole it will cause an extra systole, which is more marked in degree the more advanced the period of diastole. If one listens to the heart of a patient with an irregular pulse one will hear either one sound with an intermission, or two sounds following immediately after the two normal heart-sounds. Wenckebach claims that these extra heart-sounds can be considered only as evidence of a systole taking place at an unusual time. If the extra systole occurs in the early portion of diastole the contraction will be so ineffectual that it will produce but one slight first sound, and will not cause the expulsion of a sufficient amount of blood to give rise to the valvular second tone. If it occurs later it will be a strong contraction and will result in two healthy tones. In sphygmographic tracings one may often find an extra pulse-curve at the period of intermission that is the evidence of the extra systole. Sometimes this extra pulse-curve is replaced, however, by a complete intermission, the occurrence of an extra pulse or of an intermission depending upon the period at which the attempt at an extra systole occurs. Often the patient himself can feel that there is a double beat of the heart. Wenckebach considers it of the utmost importance to determine whether the physiologic rhythm is retained in these irregular pulses, doing this by accurate observation throughout a considerable period. The occurrence of regular physiologic rhythm of the extra systole is a strong indication of its being of little moment, while irregular rhythm of the extra systole makes the prognosis decidedly graver. Wenckebach insists that in counting the frequency of the pulse one must count intermissions as pulse-beats. [D.L.E.]

2.—Hirschlaff records a case of **exophthalmic goiter** in which he made interesting observations in metabolism. The patient, a girl of 21, had apparently hysterical convulsions after a violent fright. About 2 years after this she began to lose strength and weight, and became mentally somewhat excitable, and other symptoms of exophthalmic goiter rapidly appeared. There was extensive brownish pigmentation of the skin, marked choreiform movements, and striking tremor of the hands, weakness of the legs, exophthalmos, palpitation of the heart, a pulse-frequency of 130, some increase in the size of the thyroid, dulness under the upper end of the sternum, a tendency to severe sweats, marked polyphagia and polyuria, together with distinct Graefe, Stellwag, and Mœbius symptoms. At times there were severe hysterical attacks; there was also irregular, moderate fever. During a period of overfeeding the patient gained about 39 pounds within 10 weeks. The brownish discoloration of the skin, and the exophthalmos became less, as did also the general symptoms, but death occurred with a sudden rise of temperature. At the post-mortem examination there was no evidence of bacterial invasion, either in sections or in cultures. There was found an adenoma of the thyroid, hyperplasia of the thymus, and follicular hyperplasia of the tonsils, stomach and intestines; the heart was dilated. The results of the investigation of the metabolism in this case are of importance in proving that the condition was one of intoxication, and they showed that the metabolic processes were most surprisingly active. Within the 46 days during which the investigations were carried on 296.5 gm. of nitrogen seemed to be retained. As such an enormous amount was not accompanied by a corresponding increase in flesh, a considerable quantity of this nitrogen must have been lost in the sweat, but that the assimilative functions were exceedingly active is shown by the fact that the patient ingested daily more than 5,300 calories, and but 360 calories were excreted in the feces, so that, allowing for the loss of calories by respiration, she must have used in increasing tissue about 1,200 calories daily. It is notable that, in spite of the almost continual loose stools, the absorption was good, but 80% of the nitrogen being excreted unabsorbed, and of the fat 88% was absorbed. The highest nitrogen-balance in one day was + 9.1 gm. The respiratory interchange was investigated over a considerable period, and was compared with that of normal individuals, with the striking result that the gaseous interchange was found 77% greater than that of a normal girl of about the same weight; the patient lost over 2,700 calories daily in respiration. In the last 3 weeks of life the respiratory interchange showed a striking increase; the amount of oxygen consumed being 28% greater than before, while 52% more of CO^2 was given off. This is an important point, and Hirschlaff explains it as follows: With increasing dysthyreosis or hyperthyreosis, the oxidation increases slowly and correspondingly, but at times the body cannot rid itself of the excess of heat produced, and fever results. This may disappear or the heat-regulating mechanism may become powerless, and then, as in this case, with increase of temperature death occurs. The whole clinical course in this case, as well as the results of the study of the metabolism, and the pathological lesions speak for the origin of exophthalmic goiter in an intoxication. [D.L.E.]

3.—Jacob records a number of cases as further proof of the **angiospastic** origin of those instances of **dilatation of the heart** which he has attributed to such a cause. The 3 cases first reported had the usual symptoms—a feeling of coldness with precordial anxiety, dyspnea with long-drawn breaths, and coldness of the skin with decrease of its sensibility. In one case there was bradycardia. New proof of spasm of the vessels during the attacks is found in the fact that the second heart-sound was found louder at the apex during the attacks than was the first. In one case the attacks had been apparent for years, and the heart remained much dilated. In the second case but a few months had elapsed since the first attack, and still the heart was dilated, the dilatation increasing during the attacks, and the mitral valve becoming insufficient at such times. In the third case it was interesting to note that the pain which accompanied the attacks began in one leg, owing, as Jacob believes, to the beginning of the vascular spasm in that limb. The observation of pulsus bigeminus in one case is afforded as additional proof of vascular spasm, as this has been observed repeatedly in experimental work when the arteries were contracted, as, for example, after curare-poisoning or compression of the aorta. Certain authorities have advanced a theory that the attacks are due to temporary partial paralysis of the left ventricle, resulting from primary weakness of the muscle; but Jacob answers this by stating that in such cases the second sound must be weak rather than strong. In records of the third case reported there is the interesting observation of apparant dilatation of the cervical vessels with contraction of the main portion of the arterial system. During the attacks the face was less pale than the rest of the body, the carotids pulsated visibly, and the thyroid swelled, while over the remainder of the patient's person there were the usual evidences of narrowing of the arterial tree. Sphygmograms taken during the attacks showed an increase in the height of the secondary wave to nearly the level of the primary, the latter becoming smaller and at times almost vanishing. The descending line of the pulse-curve was almost always vertical. This is the picture of the pulse-curve of vascular contraction. [D.L E.]

4.—Rosenfeld makes another contribution to the subject of the **origin of the fat in the liver in phloridzin-diabetes.** It has always been an unsettled question as to whether or not this came from the proteids. Investigations of the amount of proteids in the livers of animals after poisoning with phloridzin showed that the quantity was distinctly less than in the livers of animals that had been simply starved, and to which phloridzin had not been administered. The fat, however, was present in enormous quantities in the poisoned animals as compared with the others, so that it could not be thought that all this fat was derived from the small amount of proteids that had disappeared. The question as to the origin of the fat from proteids in other portions of the system is discussed, and while the nitrogen-loss in animals poisoned with phloridzin is shown to be considerable, and it is conceivable that the proteids from which this nitrogen is derived went to form sugars or fats, the animals are, owing to starvation, in such urgent need of heat-calories, that such sugars or fats would, it seems probable, be burned and not be deposited as fat. It, therefore, seems most likely that the new-formed fat in the liver is not derived from albumins, but from other places in which fat had previously collected, and from which it is carried to the liver by the blood-stream. Rosenfeld fed dogs on horse-flesh freed of fat, and mixed with sheep-suet, using the latter because it is distinctly different from dog's fat in constitution and has a different melting-point and contains much less iodin. Animals were first starved and then by killing controls it was determined that the fat had in great mass disappeared from their tissues. Then after feeding with the sheep-suet it was found that a control-animal had considerable fat in the subcutaneous tissues and the other common situation for adipose tissue. This fat resembled sheep-suet, and not the fat of dogs, in all its characteristics. The liver contained about 12% of fat, which, however, was similar to dog's fat. The phloridzin-animals had fat similar to sheep's-suet in the subcutaneous tissue, and the amount of fat in the dried liver was over 53%. This fat was of nearly the same character as sheep's suet, and very different from the fat of the dog. Numerous experiments had the same results, and it seems, therefore, indubitable that this fat was simply a deposit of the sheep's suet, which had been administered in the nourishment. The comparatively slight differences from sheep's suet which it exhibited in melting-point, and in the amount of iodin, can reasonably be attributed to slight alterations that it had undergone in the course of reaching the liver. The entire proof that fat administered as such does reach the liver in large amounts, and is deposited there is shown by further experiments in which dogs were fed upon cocoa-butter. After starving them for 9 days one animal was overfed, and not given phloridzin, the second animal being given phloridzin. In this case the overfed animal had 73% of fat in the dried liver-substance, while the phloridzin-animal had 64% only, and, further, the fat in the overfed animal simulated the cocoa-butter in the amount of iodin contained in it even more closely than did the fat in the livers of the phloridzin-animals. Rosenfeld concludes that these experiments furnish no ground for the belief that fat may be formed from proteids, but indicate, on the contrary, that the most important element in the fatty liver is infiltration by deposition of fat derived from other fatty deposits in the body. [D.L.E.]

5.—Herzog makes a general contribution to the details of the management of the cases called **appendicitis.** Perhaps the most notable point is the recommendation with great earnestness of the use of opium, particularly because it quiets peristalsis, and thus tends to aid in walling off an abscess, and in preventing rupture of the adhesions that may be already forming in any such attempts to wall off pus. Besides, the opium lessens the irritation of the appendix resulting from peristalsic movements. Especial insistence is made upon the importance of a limited diet, and confinement to bed for a number of days after the attack seems to have ceased entirely. [D.L.E.]

6.—Brandenburg employed a $\frac{1}{10}\%$ normal tartaric acid in determining the **alkalinity of the blood,** using lacmoid paper as an indicator; normal individuals showing an alkalinity varying from 330 mg. to 370 mg. of NaOH in 100 cu. cm. of total blood, and an alkalinity equal to from 160 to 190 mg. in 100 c.c. of blood-serum. The total nitrogen of the blood varied from 3.5% to 3.66%, while the nitrogen of the serum was about from 1.5% to 1.6% in the few individuals investigated. Occasionally there were marked differences in the alkalinity in normal individuals, without any distinct reason. In two cases quinin increased the alkalinity markedly, while in other cases, this drug, as well as salicylic acid and sweat-baths, was without effect. The most important point made is that no valuable conclusions can be drawn from determining the alkalinity of the blood by titration, unless the proteid-contents be determined at the same time. The alkalinity varied in nearly all of the cases investigated in accordance with the amount of albumin in the blood. Diminution of the alkalinity corresponded to lessened concentration, and increase of alkalinity usually coincided with increased concentration. In fevers the alkalinity varied from the highest normal limits to subnormal points, the variations being almost parallel with the amount of albumin. In two cases of uremia, however, the alkalinity was found quite low, and yet the amount of albumin in the serum was normal. It seems possible, therefore, that there was acid intoxication in this case. Subnormal alkalinity was found in youthful individuals, and in primary and secondary anemias, while increased alkalinity was found present with catarrhal icterus. [D.L.E.]

7.—Benedict publishes the results of a long series of experiments upon animals and upon various patients. As a result of this and other work he concludes that the excretion of unoxidized sulphur in the urine differs in amount from the quantity of sulphates chiefly in the fact that the unoxidized sulphur bears no relation to the excretion of nitrogen. The absolute amount of the unoxidized sulphur varies within slight limits, and shows little change with the change in the amount of nitrogen excreted, whether the nitrogen come from the food or from the body-tissues. Even destructive tissue-metabolism caused no absolute increase in the excretion of unoxidized sulphur. A relative increase has been observed in a few cases in which nitrogen-metabolism was excessively slight, as in inanition, and similar conditions, while, when much nitrogen is being excreted, it is relatively lower, the absolute values, however, remaining about the same. Investigations of the quantity of acetone in the urine had like results, there being no evidence that this substance could be used as an indication of the amount of proteid-destruction. Excess of acetone indicates, at most, only a negative nitrogen-balance. The variations in the excretion of unoxidized sulphur are similar to variations in the amount of the alloxur-bodies, especially of uric acid, and it is therefore possible that the sulphur is derived from special portions of the cells, as the uric acid is derived from the nuclein. Neutral sulphur cannot be considered as a body formed preliminary to the production of SO_3, as but little of it even goes to form sulphates. [D.L.E.]

8.—Kookyer and Mulder report a case of **intermittent exophthalmos** in a man of 37 who had no specific history, but had always been peculiar in disposition; who was not intelligent, showed asymmetry of the face and peculiar disturbance of the speech; who also had epileptic attacks, and presented numerous telangiectatic fibromas over his body. The right eye was about 4 mm. deeper within the orbit than was the left, and it deviated downward. The right side of the face was less well developed than the left. The ocular movements were normal in all directions, though upon extreme lateral movement there was nystagmus of the right eye. There were peculiar pulsating movements of the right eye, which were synchronous with the heart-movements, the globe moving about 1 mm. forward; the strength of the pulsation varied from day to day. There were no murmurs heard about the orbit, and there was no thrill. The pulsations were entirely synchronous with those of the carotid Compression of the carotid caused the pulsation to become slightly less, but when the jugular vein was compressed the enophthalmos vanished, and in its place there was actual exophthalmos, and the pulsation became somewhat stronger. It is curious that a slight mental effort, such as the multiplication of 6 by 8, caused the pulsation to increase. Pressure upon the cervical vessels on both sides increased the exophthalmos that had been produced by pressure upon one jugular vein. There were no signs of local paralysis of the ocular muscles or of the surrounding facial muscles. The right leg was slightly weaker than the left.

Mulder is inclined to believe that the pulsation was communicated to veins in the rear of the orbit by the vessels within the cranium. Kookyer does not assent to this explanation, however, as it would then be expected that compression of the jugular veins would increase the pulsation of the eye, and that when the eye projected forward during compression of both veins of the neck the collateral veins, and especially the angular veins, would show pulsation. This was not the case. If such were the true explanation it would be entirely to be expected that the other cases of intermittent exophthalmos would have shown pulsation, while this has not previously been noted. [D.L.E.]

Sundry French Journals.

1. Studies of the Mechanism of the Agglutination of the Typhoid Bacillus. E. Dineur. (*Bulletin de l'Académie Royale de Médecine de Belgique.* IVme serie, tome XII, No. 8, 1898.)
2. A New Sign of Sclerosis of the Arch of the Aorta. M. M. Cherchevsky. (*Semaine médicale*, October 12, 1898. 18me Année, No. 51.
3. Calculus of the Urethra in a Child of 6 Years. J. Reboul. (*Médecine moderne*, October 26, 1898. 9me Année, No. 74.)
4. The Tendo-Achillis Reflex in Tabes. J. Babinski. (*Médecine moderne*, October 26, 1898. 9me Année, No. 74.)
5. Left-sided Exophthalmos With Hypertrophy of the Right Side of the Thyroid Body and Tachycardia. M. Armaignac. (*Journal de Médecine de Bordeaux*, October 30, 1898. 28me Année, No. 44.)
6. Treatment of Carcinoma with Calcium Carburet. G. Livet. (*Gazette de Gynecologie*, November 1, 1898.)
7. A Case of Autointoxication During Pregnancy, With Uncontrollable Vomiting, Complicated by Femoral Arteritis and by Dry Gangrene of the Lower Extremity. M. Barth. (*Semaine médicale*, November 16, 1898, 18me Année, No. 57.)

1.—Dineur considers that the agglutinating substance of Kraus and Nicolle plays only a secondary part in the phenomenon of **agglutination.** He believes that the mechanism of the agglutinating reaction seen in the typhoid bacillus under the influence of typhoid serum is due to the presence of the ciliated envelop of the microorganisms and apparently results from the chemic modifications that this membrane undergoes. Under the influence of these newly formed substances, the flagella acquire the property of adhering to each other and of holding the bacilli in the network thus formed. In practising serum-diagnosis, passive movements that influence the preparation hasten the production of the phenomenon considerably. [J.M.S.]

2.—Under normal conditions the **diameter of the arch of the aorta** is quite variable and the absence of this change in the lumen of the vessel, according to Cherchevsky, is a sign of aortic sclerosis. It is possible to produce dilatation that will be followed by contraction in the caliber of the arch of the aorta at will, provided the vessel possesses its normal elasticity. The method for the production of this phenomenon is as follows: The normal extent of the arch of the aorta is mapped out in the usual manner. Then from 5 to 10 sharp blows are struck with the hammer directly on the skin of the region previously marked out. These blows should be strong enough to produce a moderate painful sensation. In a few moments the limits of the arch of the aorta are again marked out. After the area of dilatation is obtained, 2 or 3 blows upon the epigastric region will cause a contraction of the lumen of the aortic arch, which may be recognized in the usual manner of outlining the limits of that vessel. In outlining the limits of the arch of the aorta, it is preferable to percuss toward the median line of the sternum. By employing the sphygmograph, it has been shown that the dilatation of the arch of the aorta is accompanied by a lowering of the blood-pressure. The constriction of the vessel, on the other hand, is attended by a rise in the blood-pressure. The degree of these variations in the diameter of the arch of the aorta is in inverse relation to the age of the subject and in direct relation to the excitability of the vasomotor apparatus. In patients that are subject to sclerosis of the arch of the aorta, the diameter of the vessel is unchanged by the procedures mentioned. Thus, there are

3 physical signs of sclerosis of the arch of the aorta: (1) Fixed increase in the diameter of the vessel; (2) diminution in the mobility of the heart; and (3) absence of variations in the lumen of the arch of the aorta. The last sign will, it is believed, prove of value in the diagnosis of beginning arteriosclerotic processes, in the appreciation of the cause of certain phenomena accompanying the menopause, and in the recognition of syphilitic lesions of the aorta in young subjects. [J.M.S.]

3.—Reboul reports the removal of a **calculus** by external urethrotomy from the **urethra of a child,** aged 6 years. The child, sickly and miserable, was subject to bronchitis and had presented urinary troubles for several months. Complete retention of urine developing, it was found impossible to pass a catheter. In the perineoscrotal region of the urethra, a sac containing fluid and a hard, oblong body was made out and the diagnosis of obstruction of the urethra by a calculus was made. The concretion was removed, and at the operation the wall of the bladder was examined and found to be normal. After an attack of bronchopneumonia, the child left the hospital in good health and with normal micturition. The calculus was probably primarily of vesical origin and had become arrested in the bulbous urethra during an attempt at its passage. On account of the alteration in the wall of the urethra, it was feared that stricture would follow the operation. [J.M.S.]

4.—Babinski has called attention to the **abolition of the tendo-Achillis reflex in sciatica,** and indicated its value as a differential sign between true sciatica and hysteric pseudo-sciatica. It seems logical to admit that the sign may be demonstrated in all varieties of neuritis, whatever the cause. It may also be seen in tabes when that disease affects the roots of the sciatic nerve. In the normal state this reflex is about as rarely faulty as is the patellar reflex, if one takes pains to look for it when the patient is placed upon his knees on a bench. Cases of tabes may be divided into four classes, depending upon the relation of the tendo-Achillis reflex to the patellar reflex: (1) Cases in which the two reflexes are absent on both sides of the body, (2) cases in which the reflexes are disturbed, but not entirely absent, (3) cases in which the patellar reflex is absent and the tendo-Achillis reflex is normal, (4) cases in which the patellar reflex is normal and the tendo-Achillis reflex is absent or disordered. Babinski's experience leads him to the opinion that weakness or absence of the tendo-Achillis reflex is of as great importance in the diagnosis of tabes as is absence of the knee-jerks. [J.M.S.]

5.—Armaignac reports the case of a young girl who presented **left-sided exophthalmos** that had increased during 4 months. The right eye was perfectly normal; the refraction was emmetropic in both eyes and the acuity of vision was equal. The left eye was projected directly forward and the exploration of the orbit with the finger and with the stethoscope revealed nothing in particular. The movements of the globe and of the lids were normal. The globe followed the lid in descent; tachycardia was present, the pulse being from 120 to 150 per minute. There was slight hypertrophy of the right lobe of the thyroid body. The patient began to menstruate at the age of 15, and had always been regular until during a visit to the seashore, when it disappeared and had not since returned. The patient was extremely nervous and was the daughter of a neuropathic mother. There was no goiter in the family, although the mother had a large neck. There was slight hypertrophic rhinitis. The general health was good and the patellar reflex was slightly exaggerated. In discussing the case, Lagrange said that he thought that the case was one of exophthalmic goiter, and that within 6 months the symptoms that were then absent would make their appearance. He did not approve of resection of the cervical sympathetic nerve as a therapeutic measure, and advised the usual method of medication, although he would not expect much result. Pitres thought that medical treatment, particularly in a case seen so early as this, would accomplish much. He recommended cold hydrotherapy in particular. He had seen good results from the injection of iodoform and ether into the enlarged thyroid body. [J.M.S.]

6.—In discussing the **treatment of carcinoma** G. Livet asserts that the application of calcium carburet following the procedure that he indicates immediately arrests the most rebellious hemorrhages of uterine and utero-vaginal carcinoma. Although the hemorrhages may reappear after the first application, they never resist a second. Calcium carburet also destroys the fetid odor of carcinoma; it dries up the hydrorrhea; and it almost always quiets the pain quickly. Its employment is without danger. It is preferable to all other drugs, as it is at the same time hemostatic, analgesic, and disinfectant. It is preferable to curetment followed by cauterization, because its application does not constitute an operation, always dreaded by the patient, and necessitating an anesthetic often dangerous, and also a certain number of assistants. Finally, a dressing of calcium carburet has an advantage over all others that it is needed less frequently. [W.K.]

7.—Barth reports the case of a young, unmarried woman, aged 21 years, suffering from vomiting that had persisted for 3 weeks. The girl came of a neuropathic family, in which a son was tuberculous. The patient had had typhoid fever; had presented symptoms that pointed to tuberculosis, and had been addicted to the use of large quantities of alcohol. The vomitus consisted of a yellowish, bilious fluid. Symptoms of pregnancy were also present, and vaginal examination confirmed the existence of this condition. Subsequent questioning elicited the fact that the vomiting had followed the use of a powder to bring on the menstrual flow. Treatment proved unavailing, and the patient suddenly developed cramp in the right leg, due to thrombosis of the femoral artery, and followed by dry gangrene. For the 3 weeks following the development of this complication the condition was much worse than it had formerly been, and vomiting occurred whenever anything solid was taken into the stomach. Subcutaneous injection of artificial serum, in daily doses of from 300 to 400 gm., relieved the condition somewhat. Engorgement of the right lung was next noted, and after the induction of abortion the patient died. At autopsy, cicatrized lesions of pulmonary tuberculosis were discovered. The liver presented the changes due to a double fatty infiltration, both perilobular and subhepatic. The kidneys presented several old infarcts, hemorrhagic infiltration, and colloid degeneration of the epithelium of the convoluted tubules. The gangrenous process had stopped below the patella, anteriorly, but, posteriorly, it extended part way up the thigh. The abdominal aorta measured 1 cm. in diameter; the right iliac artery was transformed into a thick cord; and the femoral artery presented a similar appearance as far as the apex of Scarpa's triangle, where it was adherent to the neighboring parts. Microscopic examination of the femoral artery showed a patch of arteritis, about 2 cm. long, at the point at which the deep femoral artery was given off, that was probably the starting-point of the obliterating clot. At this point the clot presented evidences of organization, while higher in the femoral and in the iliac arteries there was no evidence of this organization. Bacteriologic examination was negative. Barth considers this case to be a typical one of grave vomiting of pregnancy, and he seeks to explain its occurrence by a process of autointoxication. He considers the poison to be elaborated in excess in the pregnant uterus. The lesions of the liver he explains according to the ideas of Sabourin. The peripheral fatty infiltration (perihepatic) was due to the tuberculous process, while the lesion in the center of the lobule, around the subhepatic vein (subhepatic), was due to alcoholism. The renal lesions were secondary. The case then resolves itself as follows: In a young girl, whose organs had at various times been submitted to a series of grave attacks, typhoid fever, tuberculosis, and alcoholism, pregnancy occurred; the liver, infiltrated with fat, was incapable of destroying the poisons produced in the gravid uterus. Under the influence of the autointoxication thus established, and the nervous troubles that accompanied it, vomiting, which became more and more severe, was set up, producing a series of digestive troubles that increased the blood-dyscrasia. The kidneys were already diseased, and were unable to help out the diseased liver, and, consequently, the poisoning made rapid progress. Soon the defenses were paralyzed, and the system became invaded by the microorganisms of ordinary infection, which colonized upon the wall of the femoral artery, producing an obliterating thrombus. If this interpretation of the syndrome is correct, the indication in such a case is to operate before the autointoxication becomes too serious. [J.M.S.]

Original Articles.

INTERNAL SECRETIONS; METABOLIC TOXEMIA.[1]

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Perhaps the most interesting subjects engaging the attention of the medical world to-day are immunity and internal secretions. From a practical point of view, immunity is of transcendent importance, and as a theoretic problem, none, it seems to me, possesses a like fascination for the medical mind. The vast domain of biology is opened in contemplating the causes of immunity; and heredity, that everlasting sphynx, is drawn within the radius of our reasoning. As for internal secretions, they constitute a subject closely approximating, both practically and theoretically, that of immunity in importance; but, before proceeding, it is better to define what is meant by internal secretions. An internal secretion is that secretion of a glandular organ which is not conveyed to a surface, but finds its way into the blood and subserves some useful purpose in the economy.

The subject of internal secretions first engaged the attention of physiologists; later the pathologist was attracted to it, and lastly the scientific therapeutist and clinician has fallen under the spell. By the combined efforts of these three, our knowledge of many diseases, particularly those of noninfectious origin, has been greatly widened, and our insight into the mysterious laboratories of the body deepened. New fields have been opened for investigation, and greater power has been given us to heal disease.

While even the youngest of us was still a student, the group of organs classed as ductless glands—the thyroid, the thymus, the hypophysis, the spleen, and the suprarenal bodies—was dismissed by the lecturer on physiology with a few hesitating words in which he confessed his inability to discuss the functions of these organs intelligently. They were then the darkest Africa of the human body, and much of the information about them was based on tradition and hypothetic speculation. In 1889, less than a decade ago, Brown-Séquard, then in his 73d year, startled the scientific world by the publication of his observations on the effects of hypodermic injections of testicular extract. Suffering from the ailments that advancing age must bear as a penalty for a vigorous youth, his fertile genius led him to try *in corpore vili* an extract of the testes of the dog and the guinea-pig. The result was marvelous—the rectal and vesical functions threw off the weight of age and responded as in youth. The gait became elastic, the mind regained its pristine vigor, and the strength of earlier years returned to his feeble arms. He drew the natural inference that the secretions of the testes contained some substance that was a powerful stimulus; the decrepitude of old age, he believed, was in part due to atrophy of these glands. Many investigators turned their attention to Brown-Séquard's discovery and extended his observations to other organs. Brown-Séquard himself, writing much upon the subject, conceived the idea that the testes and other glandular organs manufactured a substance independent of the external secretion or excretion, and that this substance was absorbed into the blood. This idea he had entertained more than 20 years before, particularly with reference to the ductless glands, but he did not give definite expression to it until the period of which I have spoken. As you well know, his discovery inaugurated an epoch characterized by gross empiricism, and even charlatanry, and extracts were prepared from every organ of the body as a panacea for diseases of that organ or others, near and remote. Such organotherapy is not new—the history of medicine is replete with records of the use of animal organs and fluids in the treatment of disease. Gilbert Ballet found, in an old pharmacopeia published in Paris in 1698, careful instructions for making extracts from the lungs and liver of the fox, the wolf, and other animals, which were reputed as most efficacious in the treatment of pulmonary and hepatic diseases. Our present methods are not unlike those described in this book, and we may well exclaim with Ecclesiastes, "there is nothing new under the sun."

But this is only one side of the shield—permit me to present the obverse. The idea of internal secretions found many true scientific followers, who endeavored to solve the numerous problems involved by the only scientific method—experiment. I need not detail the brilliant studies of Horsley on the thyroid gland, the admirable experiments of von Mering and Minkowsky on the pancreas; nor the interesting and careful researches of Schäfer and Oliver, Gottlieb, Cybulski and Szymonowicz, and others, on the suprarenal body. I shall have occasion to refer to these a little later. I should not neglect to say, however, that, long before Brown-Séquard's day, experiments had been made upon these organs for the purpose of discovering their function; but the productive period dates its beginning back scarcely more than 10 years. And what has been the result of a decade's tilling of this field? It would take too long to describe all the results that have been attained, and I shall confine myself to a brief review of the most important.

First of all the *thyroid gland*. Experiments on animals have shown that removal of the entire organ is disastrous, leading usually to early death. In dogs, for example, complete thyroidectomy is generally followed within 24 or 36 hours by painful muscular spasms, a form of tetany, to which the dogs succumb. My friend, Dr. Carter, and myself removed the thyroid gland with great care and under rigid antiseptic precautions from a number of dogs, but not a single animal lived as long as a week; all died in a tetanoid condition. When it is remembered that the dog survives removal of the cerebrum, and even excision of the entire stomach or the spleen, it must be conceded as remarkable that the extirpation of the thyroid, the lobes of which are no larger than lima beans, should be so speedily fatal. If a part of the thyroid is left behind or if thyroid tissue is introduced into the body by grafting, the gland can be removed without the supervention of symptoms of tetany. If they do occur they are of a mild type. In human beings degeneration or atrophy of the thyroid gland is also productive of serious diseases—myxedema has long been known as an affection dependent on morbid changes in the thyroid, associated with suppression of its function. Furthermore, acute removal of the entire organ may, as in dogs, lead to tetany. How shall we explain these phenomena? There are two ways: we may either assume that the thyroid gland produces some substance that is necessary for the proper performance of the bodily functions or that it destroys some poison or neutralizes some deleterious material developed by the metabolism of the tissues. There are arguments in favor of both of these conceptions, and it is very probable that the two functions coexist. That the gland possesses an important influence is not alone proved by animal experiments and untoward operative effects, but is beautifully shown in the results of treatment. Murray, of New Castle, conceived the brilliant idea of administering thyroid gland in myxedema, and the results obtained by him and others have been truly marvelous, so that a disease that was formerly absolutely incurable has become a tractable affection. Cretinism, a congenital morbid condition resembling myxedema, has also yielded in a large measure to thyroid therapy, as well it may; for it is probably due to absence or imperfect action of the thyroid gland. It is fair to assume that the ingredient that acts so beneficially in these diseases is the same one to the absence or insufficiency of which the symptoms characterizing the two diseases are due. What is this ingredient, this all-important secretion of the thyroid gland? Different observers have isolated different substances, and each has considered the product isolated by himself the essential constituent. Thus there is the toxic nucleoproteid of Notkin, an unnamed substance obtained by Drechsel, and the colloid matter of Hutchinson. Perhaps the most interesting discovery is that of Baumann, who found in the thyroid gland a compound containing iodin, an element the existence of which in the human body had hitherto been unsuspected. As far as a decision can be made, Baumann's iodothyrin and Hutchinson's colloid matter represent most nearly the physiologic activities of the thyroid gland; and they can be used instead of the gland in the treatment of the diseases in which the administration of thyroid or its extract seems indicated; and they also retard or keep in abeyance the symptoms following experimental thyroidectomy. Chittenden believes that Hutchinson's colloid matter, a proteid containing phosphorus and iodin, is the chief constituent of the thyroid secretion. The most important function of the secretion is probably to regulate metabolism, particularly proteid metabolism. Under the use of thyroid extract, more nitrogen and more CO_2 are eliminated than normally, which is an evidence of a stimulation of the katabolic processes, and has led to the use of thyroid gland in the treatment of obesity.

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[1] Address delivered at the 80th Anniversary of the Cumberland County Medical Society, at Bridgeton, New Jersey, December 8, 1898.

The *suprarenal gland*, which we may next consider, is, despite its small size, a vital organ, and, like the thyroid, produces some substance that finds its way into the blood, influencing bodily functions in an important way. Removal of the gland in animals is followed by death in a few hours, the preceding symptoms being great prostration and a fall in temperature and blood-pressure. Extensive disease of the adrenals in man is nearly always associated with an interesting complex of symptoms first described by Thomas Addison, and known since his day as Addison's disease. The active substance of the gland, whatever its nature, and I may say that, according to Abel and Fürth, it resembles the alkaloids, is contained in the medulla, and the extract made from the latter has striking properties. Injected into the circulation it raises the blood-pressure and strengthens the action of the heart. It is highly probable that the adrenals constantly supply this substance to the blood, and that it is concerned in maintaining the tone of all the muscles of the body, both striated and nonstriated. The rise in blood-pressure produced by the extract is most marked, and can be well illustrated by what is known as the perfusion-experiment. If the kidney is removed from a living animal, it will remain alive for a considerable length of time. Defibrinated blood can be passed through its vessels, and by adding various substances to this blood, their action on the vessels can be studied. If digitalis is added to the blood entering the renal artery, the blood will flow out of the renal vein slowly, drop by drop. If extract of suprarenal gland is added, it is necessary to raise the vessel containing the solution three times as high as in the case of digitalis in order to get the same flow from the vein. This shows that the suprarenal extract is three times as powerful a vasoconstrictor as digitalis. The action of suprarenal extract is, however, transient. These qualities, namely, its powerful constricting property and the transitoriness of its action, would, it seems to me, make adrenal extract the ideal remedy in the treatment of shock, the chief feature of which is profound lowering of the blood-pressure. It was recently used in the removal of a large dermoid cyst from a child of 7. There was no shock whatever. One case, of course, proves nothing. I have also found, I may add parenthetically, suprarenal extract of value in some cases of headache, particularly those in which the headache was congestive in character, as, for example, menstrual headaches. The known physiologic properties scarcely explain the good results obtained, and it is possible that the gland has, in addition to the function of stimulating the muscular tissues, others that are still unknown. It is also useful in vasomotor relaxation.

The *pancreas* is an organ the function of which was considered thoroughly established until the experiments of von Mering and Minkowski and de Dominicis proved that, apart from its influence on digestion, it possesses other and not less important properties. Its removal from dogs leads to glycosuria and to a fatal cachexia. If a small piece of the pancreas is left behind, or is placed anywhere in the abdominal cavity, sugar does not appear in the urine. The inference is warranted that the pancreas produces something that prevents the accumulation of sugar in the blood. Lépine believes that this something is a ferment (glycolytic ferment) which splits up any excess of sugar that may be absorbed into the blood. The theory of a glycolytic function is partially corroborated by the fact that some cases of diabetes are associated with advanced disease of the pancreas.

The other glandular organs I need not discuss. The *liver*, it is well known, produces more than merely bile, namely, urea, glycogen, etc. Of the *kidneys*, it has long been suspected that they have other functions besides the secretion of urine, but conclusive experiments have not been made.

As regards the *pituitary body*, our evidence is inferential rather than demonstrative, and is based chiefly upon the fact that in akromegaly the pituitary body is practically always diseased, and by analogy with myxedema we infer that the disease of the pituitary gland deprives the body of some internal secretion, the absence of which allows akromegaly to develop.

That the *sexual organs* do more than merely generate spermatozoa and ova respectively, is a fact for which the evidence is as old as it is irresistible. The world's experience in the domestic animals as well as in man proves this beyond doubt, but it is scarcely likely that extracts from these organs have the rejuvenating powers with which Brown-Séquard endowed them, and the fountain of youth must be sought elsewhere.

But there are other organs of the body that probably have their internal as well as their external secretions. There are the *sweat-glands*. It is probable that they manufacture, in addition to the sweat, something that they return to the blood. It has always appeared to me as rather mysterious that a cold sweat should be so profoundly exhausting—scarcely anything is so prostrating. Have we not the right to assume that during such a perspiration there is an alteration or suppression of an internal secretion? Lauder Brunton, several years ago, threw out a similar thought. The *intestines* probably produce an internal secretion in addition to the intestinal juice. We might look upon the reconversion of the peptones into albumins, which takes place in the intestinal wall, as a sort of internal secretion.

The theory of internal secretions has been extended very widely by several writers. It is held that not only the glandular organs, but all parts of the body, all tissues, are constantly engaged in elaborating products which after their entrance into the circulation fulfil some function. I think we must accept this as plausible, but it is not advisable to say that the muscles, for example, have an internal secretion. It is best to confine this term to the specific substance elaborated by glandular organs and contributed to the blood.

The proof of the existence of useful metabolic products is still slender, but there is considerable evidence that all cells of the body, normal and abnormal, contribute something to the blood for good or ill. Virchow, in his masterly Huxley Lecture, compared the cells of the body to microbes; the cells resemble, he said, independent living beings, and exercise chemic influence through their metabolic products.

When we study tumors we note that the malignant growths exert a profound constitutional effect. This has been explained in various ways; some have believed that there was a specific parasite for carcinoma and for sarcoma, the toxin of which was responsible. Other observers have ascribed the cachexia to septic inflammation from the ulcerating surface of the tumor. To me it appears that *tumors are comparable to ductless glands*—they are usually distinct anatomically, and have their own vascular network. The tumor-cells are active living entities, multiplying rapidly, and they must give rise to metabolic products, which enter the circulation and exert in all probability a distinct constitutional effect.

Ribbert has compared tumors as a whole to parasites, and the comparison is apt, as it permits us to attribute much importance to their life-activity. We may look upon the relationship between the tumor-cells and the body as a sort of symbiosis. The tumor, like all commensals, not only deprives the body of nutritive material, but also overwhelms it with its own excrementitious products.

In fibroid tumors of the uterus, gynecologists have observed several curious symptoms, one of which is tachycardia. While that may be reflex in origin, it can be explained on the theory that the actively proliferating muscle-cells give off some metabolic product to the circulation which brings about the general effects. There is in some cases of fibroid tumors of the uterus a distinct myocardial degeneration, which more than once has led to a fatal end. This degeneration is no due to hemorrhage, and is best explained, I take it, in the manner indicated. On expounding this theory to my friend, Dr. H. D. Beyea, he was much pleased with it and declared it reasonable. It should be possible by certain experiments to demonstrate its truth or falsity, and I hope before long to have an opportunity to do some work in this direction.

Those present who have seen cases of *miliary tuberculosis*, and have made autopsies, have no doubt noted that the lungs, the liver, the spleen, or whatever organ was affected, though well studded with miliary tubercles, preserved a large part of normal tissue. The death in miliary tuberculosis could not be explained by the destruction of tissue or even by the invasion of a vital part by the tuberculous process. The reason always given is that it is due to toxemia, through poisoning with the products of the tubercle-bacillus. I would not deny that the bacillary poisons play an important role, but attention, so far as I know, has not been called to the part taken by the myriads of new cells that are added to the body in the course of two or three weeks. When we reflect that every living cell forms metabolic products, that cell-multiplication is probably always accompanied by the excretion of certain materials, we must conclude that during the formation of the countless host of tubercles, with their infinite number of cells, a large quantum of metabolic substances is thrown into the circulation for the system to deal with as best it can; and when, under the influence of the bacillus, some of the cells break down, more soluble matters are washed into the blood. It seems but reasonable to conclude that the body cannot rid itself of that enormous quantity of metabolic products, even if this material were normal in character, and if it is, as we may justly assume, *not* normal, then the result can only be a profound intoxication. Add to this "*metabolic toxemia*," as I would call it, the bacterial toxemia produced by the bacillus, and the cause of death becomes clear.

The same reasoning may be applied to *typhoid fever*. In this we have a rapid hyperplasia of the lymphatic tissues, a hyperplasia much more extensive, as Mallory has shown, than has usually been conceived. The newly-formed cells add their excreta and secreta to the body-fluids, and probably these metabolic products are not normal, as the cells, formed under abnormal conditions, functionate abnormally. The system cannot dispose of the products promptly and they remain in the blood, to join their noxious effects to those of the poisons of the typhoid bacillus. Another disease that the theory of metabolic toxemia helps us the better to understand is *leukemia*. In this disorder the cause of the enormous increase of the leukocytes in the circulating blood, as well as of the accumulation of lymphoid cells in the various organs, is shrouded in mystery, but some authorities believe, not without reason, that a parasite, perhaps a bacterium, is responsible. If that be the case no doubt the parasite elaborates or forms a toxin that causes some of the symptoms of the disease; however, I venture to believe that the inestimably vast number of new cells contributes something to the blood—it may be an excess of a normal constituent, or it may be something entirely foreign. The result is a form of autointoxication. After all, are not the leukocytes themselves comparable to parasites? If a small bacillus or coccus, much smaller than a white corpuscle, can generate a powerful poison as a product of its life-activity, why shall we not grant an analogous activity to the leukocytes? The product may not be poisonous in the ordinary sense, it may only cause symptoms when present in large quantities, although, as just stated, a change in quality as well as in quantity is conceivable in disease.

To pursue the analogy still further, may we not explain the sudden reduction in leukocytes that is sometimes seen in leukemia as due to the action of a product of the leukocytes themselves? Emmerich and Löw have recently shown that the death of bacteria in culture and in the animal body is brought about by enzymes elaborated by the bacteria themselves—something of this kind might also be found responsible for the reduction in the number of the leukocytes.

I need not pursue this subject any farther; I doubt not that it may find abundant illustration in other diseased states. Whether, if proved, the theory of *metabolic toxemia* will lead to practical results, I cannot say, I can only hope. Moreover, in science, the question "cui bono," has long ago been ruled out of court.

PROGRESS OF NEUROLOGY.[1]

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of Baltimore, Md.

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[Concluded from page 219.]

Concerning the synthetic methods there is but little to say, inasmuch as the sole procedure that has been employed by the majority of the neurological investigators is the mental fusion of the pictures obtained by isolation and sectioning into more or less vague ideas of solidity. Actual reconstruction in tangible form of the solid bodies in the nerve-tissues from a faultless series of sections has been carried out only by a limited number of workers. This method originated with the embryologists and grew out of the desire felt by investigators to reproduce exactly in three dimensions the magnified details of external and internal form as studied in microscopic sections. If an embryo be cut into serial sections and section after section be studied, the exact relations in the individual sections can be easily made out; but even anatomists endowed most liberally with what may be termed the spatial sense find difficulty in uniting a long series of sections through several bodies, as seen through the microscope, into an integrated, accurate conception of the solid bodies thus magnified. My experience teaches me that a relatively large number of students are almost absolutely devoid of this power of integration, or, as it is sometimes expressed, "of thinking in three dimensions," when studying a series of sections.

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[1] An address delivered before the Yale Medical Alumni Association, December 15, 1898.

For the purpose of coming to more accurate conclusions himself, and especially with the object of making certain form-conceptions clear to students, Wilhelm His, of Leipsic, many years ago introduced his method of graphic reconstruction from serial sections. His procedure is so generally known that I need not take the time to describe it in full. He used, it will be recalled, paper ruled at distances corresponding to the thickness of the sections multiplied by the magnification employed. The outline drawing of the whole object over these lines thus permitted the introduction on the parallel lines of the paper the limits of any desired object in the various sections. In this way extremely valuable flat projections of the various internal organs and tissues could be obtained, and the method is a favorite one at present with many embryologists.

From a series of projections of the organs as viewed from different aspects it is possible for an artist to model them in clay or wax. Thus there arose, through the combined activities of His and Ziegler, the exquisite models illustrating various stages of development of the embryo chick, which are nowadays a feature of so many anatomical museums.

Not all investigators, however, are gifted with the mathematical knowledge and artistic talent necessary for the successful application of the method. Somewhat later reconstruction with the help of wax-plates permitting the making of wax-models directly from the specimens was introduced by Born. In the 22 years that have elapsed since he first employed the method many improvements have been made, so that a number of technical difficulties with which he had to contend can be avoided. It is this method of reconstruction modified and improved, that Dr. Mall has used so successfully in the study of the anatomy of his series of human embryos. It is also this method that Miss Sabin, with the aid and counsel of Dr. Mall, has employed in the construction of the model of the medulla oblongata, pons and midbrain which I here show you. The prerequisites to the work are (1) the possession of faultless serial sections of the object to be studied stained in a suitable manner; (2) an intelligent idea of the general relations and significance of the contents of the sections, as seen through the microscope; (3) a suitable mechanism for the production on paper or directly on the wax-plates of the magnified picture of the section (camera lucida or Zeiss projection-apparatus); (4) wax-plates of proper dimensions and consistence; (5) the guidance of an experienced workman; (6) patience, industry, enthusiasm and a certain amount of spatial sense and mechanical skill.

We are fortunate enough to possess in the anatomical laboratory at Baltimore several sets of serial sections cut in various directions through the brain-stem and cerebral hemispheres of human fetuses, and babies of different ages, illustrating accordingly different stages of development.

The early form-relations of the human nervous system have been worked out by His, and his results are embodied in his well-known series of models. Last year Mann, of Edinburgh, presented to the Anatomical Society reconstructions of single nerve-cells. Thus far, however, no one has, to my knowledge, published the results of reconstruction of the medullated tracts in the nervous system. It has occurred to us that the analysis of tracts rendered possible by the embryological method of Flechsig offers a most suitable field for the application of the reconstruction-method. A certain number of students may, I believe, conduct such investigation satisfactorily and without interference with their regular medical studies. A number of models are now in progress. The first fruits of the work are represented by this model upon which Miss Sabin has been engaged in the time she could spare from her regular studies since March, 1897.

The portion of the brain represented by the model is that of a human fetus near full term. It was cut into horizontal serial sections and stained by the method of Weigert-Pal, by Dr. John Hewetson, in the anatomical laboratory of the University of Leipsic. Circumstances preventing Dr. Hewetson from continuing his work with the specimens, he was kind enough to place them at the disposal of instructors and students at Baltimore. After some preliminary study of a series of transverse sections through the medulla Miss Sabin made a more careful study of a series of horizontal sections until she was sufficiently well oriented with regard to the principal medullated tracts and gray masses to proceed with the actual work on the model. Every other section of the series by means of the Zeiss apparatus and electric illumination was projected, magnified 14½ diameters in a dark room upon a sheet of white paper, and the outlines of the tracts and nuclei were drawn in accurately with leadpencil. This outline-drawing was subsequently made entirely accurate with regard to certain details by control-studies with higher powers of the microscope. After all the drawings had been made and corrected, each one was accurately transferred by means of carbon-paper to wax-plates, numbered to correspond, each wax-plate of course representing in thickness 29 times the thickness of the individual sections. To facilitate subsequent manipulations the areas on the wax-plates were painted in various colors.

The wax-plate sections once completed, it was necessary to cut out the various areas and to begin piling the sections of the different tracts and nuclei upon one another so as to reproduce the exact form magnified 14½ times in the three dimensions. Here the investigator meets with his greatest difficulty, and it is just at this juncture that natural mechanical skill, as well as experience, counts for much. In order to pile the pieces correctly the worker is helped enormously by (1) a knowledge of the external form of the whole object before it was cut into serial sections, and (2) a knowledge of one or more localizable perpendiculars, or curves, that can be used as a guide. There need be no trouble about the external form if an accurate drawing from three aspects or photographs of the object have been made to scale before the sections are cut. Unfortunately, in the present instance no such drawing or photograph was obtained and Miss Sabin had to resort to a method discovered independently by Selenka and Mall, which obviates the difficulty. Several brain-stems of fetuses of the same age were studied in the gross with particular reference to the external form. The drawings of the sections were then cut out (whole) of the wax-plates and piled repeatedly until the type-form, as learned from the study of other specimens, was approximated as nearly as possible. Then the waste of the wax-plates, that is, the boundaries of the holes after the drawings of the sections were cut out, were piled up in exactly similar manner. A cast of the holes was then made with plaster-of-Paris, the wax picked off, and the external form permanently preserved as a guide.

As to the establishment of perpendiculars and curves the middle line of the sections of the symmetrical nervous system serves admirably in the one dimension; for the other two dimensions the curves of the external form were followed, helped out, of course, by the known distances of the individual structures from one another in the different sections. The stratum interolivare lemnisci and lemniscus medialis were first modeled, and the other structures gradually built up about these.

The various ingenious contrivances that had to be invented to work out successfully many of the details of the structure may be passed over at this time without mention. They will doubtless be described by Miss Sabin in full in her publication. After the various parts have been reconstructed and the edges smoothed with a hot iron, the medullated bands of fibers were painted white, the motor nuclei blue, the nuclei terminales of the sensory nerves red, and other gray masses yellow.

The gross relations represented by the model are clear at a glance—the upper extremity of the spinal cord, the medulla oblongata, the pons and the midbrain. The remarkable curves made by the central cavity (1) at the junction of the central canal of the cord with the fourth ventricle and (2) in the region of the aqueductus cerebri, are illustrated. The medullated tracts of the cord can be followed upward into the rhombencephalon. The division of the nervus acusticus into its two components, and their relations to the corpus restiforme, and their nuclei terminales are observable. It is seen that the nucleus nervi cochlearis ventralis forms a continuous mass with the nucleus nervi cochlearis dorsalis lying lateral from the corpus restiforme. The situation of the striæ medullares is indicated. At the isthmus the nervus trochlearis of one side undergoes decussation with its fellow of the opposite side.

On the removal of the nervus acusticus and the corpus restiforme, the course of the ascending and descending limbs of bifurcation of the fibers of the nervus vestibuli can be studied, as well as the relations of these to the various terminal vestibular nuclei—the medial, the superior, the lateral nucleus, and that of the descending root.

The modeling of the nervus trigeminis, with its motor nuclei of origin and sensory nuclei of termination, has been particularly instructive. The course of the tractus spinalis nervi trigemini, the division into a larger lateral and a smaller medial portion, the relations of these bundles to the substantia gelatinosa, the descending mesencephalic root, the minor motor nuclei and the principal motor nucleus, and the relations of the motor nuclei to the portio minor of the peripheral nerve—all are evident. The fibers of the nervus glossopharyngeus and of the nervus vagus now come into view, and it is seen how large a mass of the glossopharyngeal fibers go to form the tractus solitarius. The relations of the motor fibers to the nucleus ambiguus, and of the sensory fibers to the nucleus alæ cinereæ are demonstrated.

These two large masses of gray matter painted yellow, fitting so accurately into these irregular cavities in the white matter, which represent the medullary continuation of the dorsal funiculi of the spinal cord, are the nucleus funiculi gracilis and the nucleus funiculi cuneati respectively. The difference in the distribution of internal arcuate fibers derived from the two nuclei is obvious.

Removing the last-mentioned structures the funiculus lateralis, and the bundle of fibers going into it from Deiters' nucleus can be better examined. The motor nuclei of the medulla are now well exposed, and the division into a lateral group and a medial group is seen. The ambiguous nucleus and the nucleus of the facial nerve are evidently members of the lateral group, while this long, curved nucleus of the hypoglossal nerve and the nearly spherical nucleus of the abducens are more medially placed. The old bugbear of the raw student in neurology—the course of the facial nerve inside the medulla—has lost its terrors, for here pars prima, genu, and pars secunda are all seen at once, the excursion around the sixth nucleus is evident, and the final plunge through the trapezoid body to the outside can be readily followed. Higher up the motor nuclei of the trigeminal nerve, the trochlear nerve, and the oculomotor are seen. The inclined plane formed by these upper eye-muscle nuclei is rarely understood from the study of transverse sections alone, although in sagittal sections of course the inclination is obvious.

Let me call your attention to the plastic representation of the lateral lemniscus and the medial lemniscus. The relations of the lateral lemniscus to the trapezoid body, to the superior olivary complex, and to this long-drawn-out nucleus lemnisci lateralis, which lies in a trench on its lateral surface, as well as the intimate connection of a large part of the bundle with the colliculus inferior of the lamina quadrigemina are prominent features of the model. No less instructive is the illustration of the origin, course and distribution of the fibers of the medial lemniscus or fillet. Starting below as a vertical mass of fibers—the stratum interolivare lemnisci—formed in large part of internal arcuate fibers, which have crossed the raphe from the opposite side of the medulla, it is continuous dorsally in the first part of its course with the medial longitudinal fasciculus or the so-called posterior longitudinal bundle. Higher up the two bundles are separated by masses of gray matter and, from the trapezoid body on, the medial lemniscus, now much increased in volume, alters its position and direction, spreading out as you see into this large, curved fan-shaped mass.

Miss Sabin's model of the brachium conjunctivum supports most conclusively the view that the ventral part of the decussation of the brachia of the two sides represents a vestibular commissure. The pocket between the ventral and dorsal portions of the decussation is here visible, and it is satisfactory to note that the portion of the brachium conjunctivum on each side corresponding to the ventral decussation is related directly with the ventral extremity of the superior nucleus of the vestibular nerve or Bechterew's nucleus. The results that concern the medial longitudinal fasciculus, the formatio reticularis alba et grisea, the decussationes tegmentorum, the nucleus ruber and the bundles of white fibers near it, the fasciculus retroflexus of Meynert and the substantia nigra are of interest, but to fully appreciate them or indeed any part of the model it is necessary to study the serial sections along with the reconstructed parts. It is in this way alone that the value of blending the areas met with in the individual sections into the solid wax bodies can be fully appreciated, and a real mental coalition effected.

One can hardly fail to be interested in the appearance of the inferior olivary nucleus here for the first time, I believe, accurately reproduced in three dimensions. To me it is one of the most instructive parts of Miss Sabin's work. Every one who has studied the olive in sections knows that the gray matter is repeatedly depressed and elevated on the surface, and each of us probably has formed some vague idea of the wrinkled shell corresponding to the whole structure; but who would have guessed that the olive presents the remarkable appearance we see here! It is obvious on examination that the lateral surface is divided by deep fissures into lobes and that each of these lobes is further subdivided by shallower sulci into gyri. That these sulci and gyri are not accidental but tolerably constant features, is clear from the reconstructed olive of the opposite side, which is almost the exact counterpart of its fellow. As the gyri and sulci are as definite and characteristic as those of the cerebral cortex, Miss Sabin will, I have no doubt, name them for convenience of description. If the medical student of the future had to learn by rote the new lists of names that such studies are constantly thrusting upon us he would indeed need to be commiserated, but fortunately instructors and examiners nowadays are becoming more sensible than their predecessors in what they demand of their students.

This method of wax-reconstruction then represents the most accurate of the integrative methods at present at our command. In the solution of morphological problems connected with organs the most complex in architectural arrangement in existence on this planet it is capable, I believe, of wide application. That it will sooner or later have served its purpose and be replaced by more delicate and accurate integrative methods yet to be discovered there can be but little doubt, for, while on the one hand those who are familiar only with the "mental arithmetic" reconstruction in general employed are much impressed when they first become acquainted with the wax-plate method, with the beauty and accuracy of the spatial concepts attainable through it, on the other hand, those who know it best and are familiar with technical procedures of the past, are conscious of its crudeness and aware of its limitations, and they are prepared for, and will welcome, the time when we shall be presented with three-dimension reproductions of the nervous organs as much superior to these wax-plate models as the latter are to the less accurate, but at the time of their production extremely valuable, schematic models of an Aeby or a Cazeaux.

Before closing this lecture, which I fear has already made too great claims upon the graciousness and patience of some of you, I must beg your indulgence still further for a moment in order to refer briefly to the importance of more systematic neurological instruction in our medical schools, the value of combining such instruction with neurological investigation, the necessity, in order to accomplish this end, of the development of better teachers and more perfect laboratories and laboratory-organization, and finally of the benefits derivable from a better understanding of one another's aims among laboratory-investigators and clinicians and from such co-operation among these as may, while in nowise interfering with individual liberty, permit of the direction of their specialized activities along the lines of a more or less co-ordinated plan.

It has for several years past seemed to me a striking anomaly that so little provision has been made, even in medical schools generally recognized for their excellences, for the study of the structure and function of the human and animal nervous system, especially since every one, prepared to think accurately and who has given the subject thought, readily admits that it is precisely by virtue of his neural pre-eminence, rather than by marked special advantages in other parts of his body that man ranks first among the animals. The difference, too, between individual men lies in large part in differences in nervous organization, and, indeed, it is owing largely to our knowledge of differences in brain-morphology and brain-capacity that we can without fear of successful contradiction designate the statement, "All men are born free and equal," as one of the greatest fallacies that has ever moved large bodies of men into action. When we remember this and recall the large proportion of ailments that have a neural or psychic element in them it is surprising to use as mild a word as I dare that a more or less extended knowledge of the anatomy and physiology of the nervous system has not been regarded as of essential importance in the training of the medical man. It is not long since when even distinguished professors of medicine in our best medical colleges were brave enough to admit—indeed seemed delighted to jocularly confess—that they "never could understand the fillet;" but, while at that time knowledge was so limited, and the means of acquiring the little possessed were so inadequate, that such a confession was one of which he who made it need not necessarily be ashamed, that period is now happily passed, and we have entered on an era in which neurological facts tolerably accessible and of extreme practical usefulness are by no means few in number. It is owing to our ignorance of the anatomy and physiology and pathology of the nervous system that we are unable as yet to manage as successfully as we would that host of so-called functional nervous disorders, which unhappily are becoming so prevalent among us, and it is in large part due to this ignorance that the flora of "the Garden of Cagliostro" is so rank and luxuriant. Not until medical men understand psychology and learn how to recognize and cope with the psychic factors of disease and ignorance need we hope to prevent the access to "Gloria Mundi" of some disciple of the Prince of Quacks.

A study of the early records that have come down to us teaches us that in ancient times the healing of the body was entrusted to the priests, who thus ministered to the physical as well as to the spiritual needs of their people. Since then the science and art of medicine have become separated from the priesthood; but is it impossible that at some time in the not very distant future, when through the fusion of converging lines of research psychology has come to be recognized in its normal relations as a department of physiology, psychiatry as a department of pathology, a redistribution of labor should take place and the functions of physician of the body and physician of the soul come again to be united in a single individual?

Two great difficulties at present obstruct progress: (1) The lack of trained individuals to serve as teachers and to conduct research, and (2) notwithstanding the remarkable multiplication of so-called laboratories, the lack of appreciation of the importance of suitable laboratory-organization. Anyone living in one of the large centers of medical education, in touch with the leaders of medical thought in such places and conversant with the extraordinary demand for trained men to undertake responsible laboratory and clinical positions, cannot fail, when he sees the difficulty of filling such positions, to lament the gross errors of the system of education responsible for this condition. In a country full of young men with great natural aptitude and unprecedented adaptability, it is a pity to have to confess a dearth of men with real skill. This is not the fault of the men, but the lack of opportunity for adequate training. A wave of educational reform in medicine and in the natural sciences is sweeping over this country at present. The faults of the older regime are being recognized, and the prospect for the future, I am glad to say, is bright.

Medical faculties have been too prone to imagine that the construction of large lecture-halls and magnificent laboratory-buildings will suffice for the development of a productive department and for the institution of adequate instruction; but too often they are disappointed in the results. A shrewder foresight and a wider wisdom puts its money into *men*, the other necessaries follow of their own accord.

That much of the best talent and capable brain is diverted from scientific channels in a country where for comfortable existence considerable sums of money are necessary is easily understandable when one remembers how meager the pittance so often accorded to the holder of a scientific chair, and how much greater the same talent and the same brain-capacity can command in a different market.

Given, however, a good laboratory and a good man, the conditions for successful instruction and investigation are by no means fully satisfied. An institution can nowadays no longer hope to succeed by taking a scientist into a brick box and saying to him "Robinson Crusoe, here is your island." The director of the laboratory must be accompanied by trained assistants, and it is desirable that these assistants, though perhaps on the whole equally expert, be skilled in somewhat different branches of the same department of knowledge. There must be in addition to these assistants provision for the execution of purely mechanical labor, for, in shame be it spoken, fine minds have before now been ruined and fair bodies wrecked by being subjected to the iniquitous necessity of menial services, which could just as well have been performed by minds and bodies of a much lower order.

Apparatus of various sorts, books and journals, collections of old material, access to new material—all come into the scheme. The division of labor is to be planned; criminal stunting of an assistant's growth by over-demands on his time or in routine work is to be avoided, instruction in the known and investigation of the unknown but knowable have to be arranged for. With successful organization, instruction and investigation go hand-in-hand, and students of the better sort, while acquiring existing knowledge, can add a necessary prop here, or a new beam there, to the general mass of knowledge. There is no stimulus so great or so beneficial to good students as the feeling that by accurate, conscientious work they can contribute something, be it never so little, to the world's store of facts. The time of a medical student is usually so limited that it is only the exceptional man who can undertake a long and complicated research, but in a large laboratory, with the sort of organization I have in mind, a number of students working on a number of different points in one problem, each contributing his mite, can together collect a mass of data, that when integrated make a contribution of no mean significance.

The anatomist, physiologist, or pathologist who directs his attention to the special study of neurological problems should of course have a solid foundation in general pathology and clinical medicine before giving himself over to such special studies. He should, in connection with his work, see autopsies and, if possible, a certain number of patients and should be in a position to consult with special workers in pathology and internal medicine, helping them and in turn being helped by them; for in the study of the functions of the nervous system especially, no stable conclusions have been or ever can be arrived at, with regard to the higher groups of neurones at least, without the rigid control of clinical and pathological observations on man. Morphologists working alone tend to become one-sided; isolated physiologists cannot fail to focus falsely and the pathologist and the clinician, if out of touch with one another, and with the students of normal structure and function, are bound to arrive at conclusions that are erroneous.

Let each one work by his own methods and push them as far as he can, but let each have reverence for and keep conversant with the work and results of others. Objectivity must be a watchword; subjective interpretation always mistrusted. We shall then have more facts and fewer hypotheses. Mindful of the fate of our speculative predecessors and in awe of the judgment of some scientific Dungara, we shall do best to make our sacrifices to the God of Things As They Are rather than pay homage to the God of Things as They Should Be. In this way our building of knowledge will be slow, but what is lost in rapidity will be more than compensated for in solidity.

I have now done. From what I have said it will be clear to you that our knowledge of neurology, so slow in acquisition, is dependent upon the application of a large number of different methods of investigation, differentiative and integrative. For the proper understanding of form-relations the analyses require to be synthetized, in particular and in general. Owing to the special difficulties in solving problems in the nervous system and the increasing complexity of knowledge of structure and function and methods of investigation, co-operative activity is essential for progress. Such co-ordinated, divided labor can be most satisfactorily performed in a series of well-organized laboratories in association with medical schools, hospitals and asylums and in connection with skilled clinical observers. The further pursuit of anatomical, physiological, chemical, pathological and clinical studies will permit of the recognition of ever-increasing interrelations among the results, with corresponding reciprocal benefit.

VARIETIES OF ARTERIOSCLEROSIS.[1]

By JAMES T. WHITTAKER, M.D., LL.D.,

of Cincinnati, O.

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Angina Pectoris.

This old gentleman is over 60 years of age. He stands sturdily, although he is, as you see, too fat. His face looks listless. His expression is placid, but that is because he is forced to keep quiet. Whenever he moves he has pain in the region of the heart. This pain becomes in a short time so intense as to arrest his movement and compel him to stand still. The pain is always severe, and if not relieved by arrest of movement it becomes intense. For the most part, when pain comes on at night the patient may secure relief by sitting up or by assuming a semirecumbent posture. But our patient is unable to relieve his pain in that way. He must get up and stand against a wall for a time perfectly quiet. It is this arrest of motion and enforced quiet that have so largely contributed to the obesity. The fat is hard. It has something of a tallowy feel, like that we see in the drinker. But our patient is not a drinker.

On exposure of the chest we find that the heart does not reveal itself by its impact. This is partly because of the amount of superjacent fat, and partly because the action of the heart is weak. It is difficult to outline the heart; in fact, it is always difficult to outline the heart with any exactness; but it is especially difficult in fat persons. It would appear, however, from the percussion-note that the heart's diameters are enlarged. I get dulness on the line of the nipple and on the right as far as the right border of the sternum. Auscultation reveals no anomaly, save the weakness and an occasional intermission. But this weakness and arrhythmia speak volumes for the condition of the heart. There is no bruit, though we might expect to find some lesion of the aortic valve.

With this history and with this condition we make a diagnosis of angina pectoris, probably from atheroma of the coronary arteries. In establishing this diagnosis we must appreciate the rarity of real angina. Pseudo-angina is common enough, but the real angina is rare. To make the diagnosis easy we should have, in the first place, the male sex; secondly, advanced age; thirdly, a history of incompetence of the heart, if we can get it, manifested chiefly by shortness of breath on exercise, and general muscular incompetence. Fourthly, we should have an attack of pain occurring at intervals, and nearly always after effort; or, fifthly, when apparently spontaneous, that is, unpreceded by effort, occurring at night. Attacks that occur in the night are nearly always real anginas.

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[1] A clinical lecture delivered at the Good Samaritan Hospital, October 11, 1898.

It is characteristic also of the pain of angina that the patient is forced to take the upright posture. This posture is said to relieve the pressure.

Now with all the light that has been thrown upon the subject from observations at autopsies, the real nature of angina pectoris is still subject to dispute. A real angina is generally attributed to insufficient feeding of the heart-muscle and for the most part through atheromatous degeneration of the coronary arteries or of the aorta at the orifice of the coronary arteries, and this is the condition usually found. Cases in which atheroma is manifest without angina secure their exemption by collateral circulation through unaffected vessels; and cases of real angina without atheromatous change in the coronary arteries are sometimes explained by the finding of a patch of atheroma at the orifice of these vessels. Experiments upon animals throw but little light upon this subject. Closure of the coronary arteries produces death in a short time. With gradual closure the action of the heart persists for a longer time. In the atheromatous change the closure is gradual and intermittent. The arteries may supply the heart for ordinary effort; for extraordinary effort their caliber is too small.

Our case differs from the conventional description in that the patient suffers little or none of the great anxiety that is characteristic of the real angina. It is this sense of impending dissolution that renders the disease so dreadful. I like to attribute this feeling to a threatening collapse of the heart, the gravity of which is appreciated by the brain as an indescribably intense anxiety.

Pseudo-angina, which is common, occurs in young persons, for the most part in young women, as a side scene in the drama of hysteria. It goes along with the emotional disturbances, the clavus, the globus, the hysterogenic zones, the paralyses and the anomalies of sensation characteristic of this disease. The attack is not so sudden in its onset, persists much longer and is not inconsistent with movement. The young woman affected with pseudo-angina may walk up and down the floor wringing her hands, or she may throw herself upon the bed, complaining bitterly of the pain in the region of the heart. The attack of real angina permits no such movement. The patient stands still as if transfixed, while the expression of anxiety upon the countenance is more intense and eloquent than words. Our patient is able to cut short his attacks by the inhalation of amyl nitrite from a handkerchief, in which is crushed the five-drop "pearls," which he always carries with him in a box. The amyl nitrite flushes the face, dilates the surface-capillaries, unloads the heart and relieves the pressure. The patient is taking nitroglycerin, which acts in the same way, but more slowly and over a longer time, in the dose of 2 drops every 4 hours. We shall prescribe for him in addition an ounce-to-the-ounce solution of sodium iodid and have him take 5 drops in a wineglassful of milk before meals. We prescribe this remedy, not because of any syphilitic basis for the malady, but in deference to authority which claims a definite action of the iodids in the arrest of atheroma.

It goes without the saying that the patient must keep his bowels regular, his kidneys active, his skin warm, must restrain his appetites and stand guard over his emotions.

Aneurysm.

I have now to present another case of disease of the arteries of somewhat the same nature, but showing entirely different results. This man has a tumor in the abdomen which protrudes above the surface in the neighborhood of and below the umbilicus. It is oblong in shape and so much elongated that I am not enabled to enclose it with both hands. In this act of enclosure I am struck by the fact that the tumor pulsates. In fact, you may see the pulsation as the tumor rises and falls above the surface of the abdomen. I observe upon palpation also a peculiar thrill, which is characteristic of aneurysm. The tumor lies in the line of the abdominal aorta. It is dull on percussion; it bulges above the surface; it pulsates and develops a thrill. As I lay my ear upon the surface I catch also a distinct bruit. We have, therefore, clearly to do with an abdominal aneurysm.

When all the symptoms are set in course, as in this case, the diagnosis is exceedingly easy, but there is a long time in all these cases when the diagnosis is difficult or impossible, and it is always interesting to uncover the first symptoms in protection against future mistakes.

Aneurysm usually reveals itself first by pressure-signs, that is by pain, but, as you hear in the history, our patient has never suffered from pain. This is a most interesting fact, illustrative in a striking way of the long period of latency that aneurysm sometimes shows. In fact, in many of these cases the diagnosis is only established upon the postmortem table, and questions actually of juridical importance have arisen in cases of sudden death from rupture of an unsuspected abdominal aneurysm. Another interesting feature in this case is the fact that the patient has never had syphilis. We become exceedingly suspicious of a diagnosis and loath to make it in the absence of a syphilitic history; but our patient has suffered an accident. He received a violent blow in the abdomen from the kick of a horse, and his symptoms set in 6 weeks after the accident. We have to deal then with a traumatic aneurysm, such as we often see in the popliteal space, where aneurysm is most frequent.

The question that interests us is that of differential diagnosis, and then only when the tumor is much smaller. Many pulsating tumors are found in this region, but in the vast majority of cases the tumor is nothing but an accumulation of gas in the intestine lying over the abdominal aorta. Abdominal pulsation is common in nervous persons, and physicians have been misled more than once by the observation of a pulsating tumor in the epigastrium. Aneurysm is rare always, and in this region it is extraordinarily rare. In the vast majority of cases the pulsation is simply transmitted from the abdominal aorta.

A thousand devices have been suggested for the treatment of aneurysm of the great vessels. They are all of them, however, as yet, tributes rather to the ingenuity of the human mind than real contributions to therapy. My experience teaches me that a man who will go to bed, keep perfectly quiet, and reduce his diet to the minimum compatible with life, has the best chance with an aneurysm. This is the so-called Tufnell treatment. I would rather take my chances under this treatment than resort to any of the devices of surgery. In this process of starvation I would not think it necessary to specify the exact quantity of food for each case, but I would insist that the patient keep himself all the time a little bit hungry.

Chronic Myocarditis.

This man of middle age, our next patient, complains of shortness of breath. He is able to get about, but feels weak. He looks sallow and has lost flesh. His vocation is that of a musician. I could almost predict that he blows a wind-instrument. He says that he is a cornet-player. He has always enjoyed good health until about 2 years ago, when he began to grow short-winded and more and more incapable of effort. He is now unable to do anything. His chief symptom is weakness and lack of wind. He pants when he climbs stairs. He is no longer able to blow the horn, and consequently make a living for himself.

When the circulation is at fault, when the face is blue, we look first to the lungs; when the wind is short, when the breathing is difficult, we look first to the heart.

Inspection of the chest reveals nothing. Palpation discloses a feeble and irregular action of the heart. The arrhythmia is marked. Upon auscultation I hear no bruit, but I appreciate all the more distinctly the irregular action, which approaches the gallop-rhythm of the fetal heart.

This gallop-rhythm has received various interpretations, but the most satisfactory is that of d'Espine, who attributes it to irregular contraction of the ventricular walls. It is not only that the two ventricles do not act synchronously, but that different parts of the same ventricle contract irregularly. The act of contraction is a single effort only to coarse inspection. With the use of the delicate instruments that magnify the time of contraction, it is seen that different fibers contract at different times, even in the normal heart. In the big heart of the horse this interrupted contraction is all the more apparent.

A mere irregular action of the heart is of itself not incompatible with long life. Patients sometimes tell me, old men, that they have noticed this irregular action as far back as they can remember. This action may be only an exaggeration of the normal irregularity. Moreover, an irregularity under the action of toxins, especially of enterogenous toxins, as an expression of indigestion, is not at all uncommon. With some people arrhythmia shows itself after every full meal, when the bloodvessels are overloaded, and with others after a glass of wine or beer, or after the use of tobacco, coffee and tea. Such an irregularity is considered under the head of the neuroses and is of no especial gravity; but an arrhythmia that comes on in connection with shortness of breath, with enlargement of the diameters of the heart and with a quick pulse, all of which factors are to be observed in this case, indicates organic change. In other words, we have before us a case of myocarditis, subacute or chronic, probably with patches of necrosis from arteriosclerosis in the heart-muscle.

It would be easy to assume that the blowing of a wind-instrument has so strained the heart as to wear it out, as we see hard work in the course of time exhausts the heart; but neither this strain nor that of hard work will do much damage until the heart-muscle itself is poisoned, and the most frequent cause of this poisoning is the use of alcohol. Every form of alcohol stimulates the heart, leads to excessive action and thus tends in the course of time to exhaustion; but certain forms are more injurious than others, and this is especially true of beer. There is something in beer that not only exhausts the heart by overstimulation, but irritates and weakens it by poisoning. Pretty much all beer-drinkers have weak, irritable and irregular hearts. Our case is no exception. As a musician, his avocation has called him to play in the beer-halls and saloons. Nearly all musicians form bad habits in this way. When, in addition to the toxic influence, the heart is subjected to the strain of long-continued holding of the breath, the way is open for the development of myocarditis.

The disease shows itself in the condition of the heart, in the stasis of the lungs, which leads to dyspnea, as distinguishing symptoms in the history of the disease. There is also oliguria, the heart being unable to pump the blood in full stream through the kidneys; the urine is scanty, high-colored and slightly albuminous. The feet are cold and the ankles are swollen at night. All this is in accord with the feeble and irregular pulse.

Hard work, anxiety, alcoholism, these are the prime factors in the development of myocarditis. Next most frequently the disease is due to the infectious diseases, especially typhoid fever, diphtheria, and influenza. A captain of the army came to me last week with the complaint that he had been obliged to do a good deal of forced marching in the early part of our recent campaign, and at the end of a week he was taken down with typhoid fever. Fortunately for him, he was sent North, and after a long and tedious convalescence, was able to get about. He was in bed 7 weeks. His strength returned slowly, and although he had been sent North to a watering-place, he still found himself unable to walk rapidly or to climb stairs without getting short of breath. He was about to be mustered out of the service, the examining surgeon considering him weak only as a result of a protracted convalescence from typhoid fever. Upon examination of the heart I found it enlarged. There was this same arrhythmia, with distinct intermission every fifteenth or seventeenth beat. I had the patient climb a pair of stairs, and found that it made him short of breath. He was anxious to get from me such a certificate as would enable him, after a few weeks' rest, to reorganize a company for the regular army. I advised him, on the contrary, to abandon the service altogether, to give up all hope of reentering the army, and to return to civil life. The strain of the forced marching, more especially the typhotoxin, had developed a real myocarditis. I forgot to say that there was also a trace of albumin in the urine, but there was no other evidence of nephritis. The albuminuria was due to stasis. I put this patient upon a mixture of equal parts of tincture of digitalis and tincture of nux vomica, and under this treatment I look for improvement, but no such improvement as will justify a return to the regular service. In fact, I think the captain should rather put in a plea for a pension.

Now, our patient here requires rest first, with hot salt-baths, together with gentle stimulation of the heart by digitalis, say 10 drops of the tincture every 4 hours, until the dyspnea, oliguria, and dropsy will have disappeared. Then we may advise him to take regular exercise, teach him to climb ascents, stopping short always this side of fatigue. It goes without saying that we still order him to abstain from alcohol altogether. Under this treatment he may be able to resume his avocation and earn his living eventually as a musician. To what degree he will recover, time only may determine. I have had such patients, intelligent men, who have lived exemplary lives, who at the time of the first visit were so bloated with dropsy as to be scarcely able to climb stairs, but who at the end of 3 months were able to walk a distance of 5 miles.

These are the grosser expressions of arteriosclerosis. The finer lesions that preface these, sometimes by years, have even higher interest. We seldom see the diagnosis made, and yet the majority of mankind dies of arteriosclerosis. The term itself was first introduced by Lobstein, in 1835; but the famous expression, "a man is as old as his arteries," originated later with Cazalas, in 1849. As a result of the finer lesions the arteries lose their elasticity, resilience and contractility, and their caliber is lessened. It is the loss of control of the size of the vessels, however, that is first felt. We appreciate this condition by the rise in blood-pressure. We are in sad need of some instrument of precision—more precise than those that we now have—to detect this rise in pressure. The bloodvessels are often spoken of as peripheral hearts. As they lose their resiliency they fail to assist the heart, which suffers from what is known as idiopathic hypertrophy. This condition is first appreciated by accentuation of the aortic-valve sound. The individual in whom arteriosclerosis develops, gradually loses his power of adjustment to outside or inside insults. You will see old people exercise great care regarding exposure to drafts. Arteriosclerosis makes the whole body vulnerable. We notice this condition in age always, but there is nothing in the number of years that produces it save the greater exposure to insults in the longer period of time. The overshadowing factor in the production of arteriosclerosis is syphilis. Sclerosis is, however, a remote lesion of syphilis. It shows itself in tabes, in paresis, in renal cirrhosis, etc. The next most frequent factor is alcohol. Then, after a long interval, come the infectious diseases, hard work, plethora from luxury and depressing mental emotions. Finally, the hard arteries break the heart.

CARCINOMA OF THE DUODENUM.[1]

By CHARLES D. AARON, M.D.,
of Detroit.
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AMONG growths of the intestine carcinoma is the mos common. It occurs most often after the age of 40 years though some isolated cases have been observed i youth. Carcinomas are usually subdivided accordin to the tissues that predominate in them. They ar either encephaloid or scirrhus, which differ only in th amount of fibrous tissue present. In all varieties o carcinoma the cells form the only neoplastic structure that is, they are the only individual items of the neo plasm that are truly abnormal. The fibrous tissue an the bloodvessels are perfectly normal in their develo ment and function, although they afford nourishmen and support to the abnormal growth. The ancient dis tinction between hard and soft carcinoma has still som significance from a clinical standpoint. The scirrhu is a small tumor developing slowly, owing to the abun ance of fibrous tissue.

Carcinoma of the intestine originates usually in th cylindric epithelium. The cells may lose their cyli dric or columnar form, changing to the squamou through metaplasia. Carcinoma of the duodenum usually of the same type as carcinoma of the pyloru The growth is derived from a simple form of secreti cell, cylindric epithelium, and it forms a new-grow of cylindric cells arranged in manner somewhat sim lar to that of the normal tissue from which it springs. At the pylorus the glands are formed of a single layer of cylindric cells on a basement-membrane. The glands are situated in the mucous membrane. At the junction of the pyloric end of the stomach and the duodenum the glands pass down through the muscularis mucosæ into the submucous tissue, and in the duodenum they become Brunner's glands. The pyloric glands and Brunner's glands are identical in structure, and are continuous with one another; the only difference is as to situation, one being in the mucous membrane, the other in the submucosa.[2]

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[1] Read before the Buffalo Academy of Medicine, November 15, 1898.

Almost all intestinal carcinomas encircle the intestinal tube in the form of a band or ring, contraction of which produces stenosis and imperils life because it interferes with the process of nutrition.

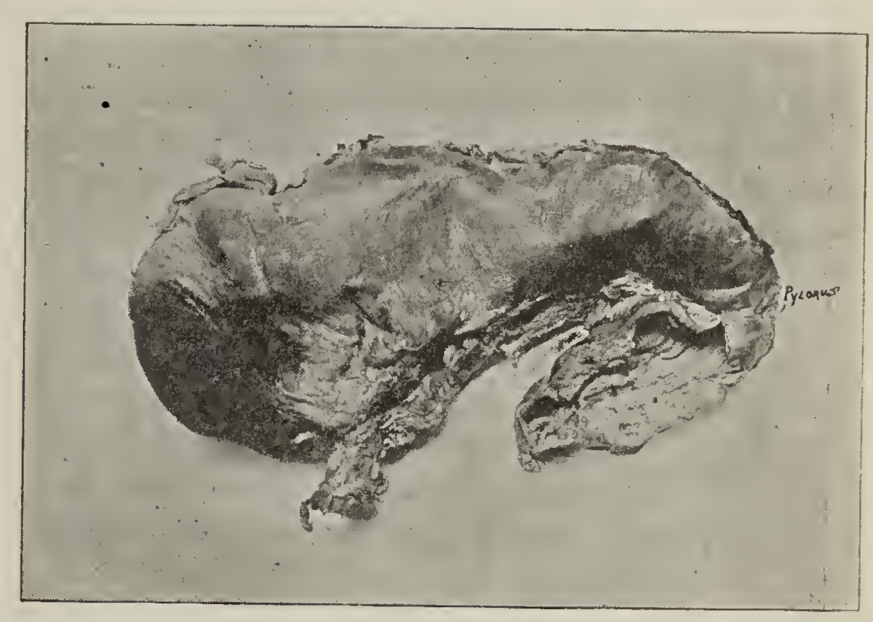
For therapeutic reasons the diagnosis of carcinoma of the duodenum should be made as early as possible, a task that requires the keenest medical acumen. In the majority of cases the tumors are quite large when discovered; for when they are small we do not get many symptoms so long as the lumen of the intestine is patulous.

It is a characteristic fact that carcinoma of the small intestine is rarer than that of the large intestine. Du Castel and Journet, assume, contrary to general opinion, that carcinoma of the small intestine occurs more frequently. This opinion, which I cannot but believe to be erroneous, is made plausible when the neoplasm in the neighborhood of the ileo-cecal valve is assigned to carcinoma of the small intestine. It has also been noticed that carcinoma is quite rare in the small intestine, occurring more frequently in the colon and most frequently in the rectum. This is verified by statisticians as well as by independent observers, who, however, I may say, differ somewhat among themselves. Maydl reports that of 20,480 necropsies made in the Pathological Institute at Vienna during the 12 years from 1870 and 1881, carcinoma was present in 1,460 and the intestine was involved in 100, as follows: the rectum in 48; the colon in 46, the ileum in 4, the duodenum in 2. In the subsequent 12 years from 1882 to 1893 there were 21,358 necropsies at the same institution. Carcinoma was found in 2,125, and the intestines were involved in 243, as follows: the rectum in 114, the colon in 118, the ileum in 6, the duodenum in 5. We find that in a period of 24 years 343 intestinal carcinomas came under observation among 3,583 carcinomas of all kinds, viz., nearly 10%. Of these 48% were of the rectum, 48% of the colon, 4% of the small intestine.

It will be noticed, however, that the duodenum becomes carcinomatous almost as frequently as the jejunum and ileum taken together.[3]

I wish to report an interesting case of carcinoma of the duodenum and to present the specimen.

On December 20, 1896, I saw with Dr. Jamieson, of Detroit, Mr. W., a merchant, 68 years of age, who had been suffering from stomach-trouble for 3 years, and had been growing constantly worse. The man complained of severe pain in the upper part of the abdomen, and had been vomiting for 3 months, the vomitus consisting of food that had been taken several days before. He was pale and cachectic-looking; not jaundiced, but greatly emaciated. The tongue was dry and coated. A marked mitral regurgitant murmur was audible and arteriosclerosis was evident. The abdomen was quite prominent and the succussion-sound was easily produced. By percussion, auscultatory percussion and gaseous inflation, the greater curvature of the stomach was found to be 6 cm. below the navel. On palpation no tumor could be made out. The stomach was washed and cleaned of its contents and after this palpation yielded negative results. His temperature was always normal. There was slight edema of the extremities. Lavage had been practised for some time, but the patient always rebelled against it. I ordered a test-breakfast on December 21 and found an absence of free hydrochloric acid, although pepsinogen and rennet-zymogen were present. Lactic acid was present, sarcinæ were absent, and Oppler-Boas bacilli were absent. The urine was normal, except for a decrease in the chlorids. I suspected carcinoma of the pylorus and suggested an exploratory incision and perhaps pylorectomy or gastro-enterostomy. To this the family objected. The patient continued to grow worse and died March 2, 1897. After death, rigor mortis being absent, I attempted to make out a tumor by abdominal palpation and found it impossible.



At necropsy, on March 3, 1897, the subject was found greatly emaciated. The abdomen was sunken, and upon opening it we came immediately upon a large dilated stomach that reached nearly to the symphysis. I was somewhat nonplussed at finding no tumor of the stomach, but more careful examination showed a tumor encircling the duodenum, as shown in the accompanying illustration. The growth was hard and was situated about 4 cm. below the pylorus, between this and the ductus communis choledochus. It was freely movable and non-adherent.

Dr. Preston Hickey, of the Detroit College of Medicine, to whom I submitted the growth for microscopic examination, reported as follows: Pieces of the growth were hardened in formalin, embedded in celloidin, cut, and stained with hematoxylin and eosin. Examination of sections showed the neoplasm to be a colloid carcinoma. The external coat of the gut was separated from the muscular layer by large alveoli, subdivided by bands of connective tissue into smaller spaces. Of these smaller spaces those midway between the external and muscular coats contained principally colloid material. Part of the muscular coat of the bowel could be made out quite distinctly as strands of varying thickness. In the mass that encroached upon the lumen of the intestine, the amount of connective tissue was slight in comparison to the number of cells. The evidences of rapid cell-proliferation were abundant and the different stages of colloid degeneration could be made out readily.

An anatomic peculiarity of intestinal carcinoma is its disposition to develop in ring-form and to encompass the circumference of the intestine. This is frequent and marked in a large number of cases. Such circular formation reduces the lumen of the intestine, and the rapid growth and tendency to contraction lead to the development of a stricture that is significant for surgical interference. In fact, carcinoma of the intestine manifests itself by the phenomena of stenosis. In the beginning an intestinal carcinoma presents a single circumscribed spot, which soon breaks through all the thicknesses of the intestinal wall. This process is of special value for the macroscopic diagnosis of malignant growths. Infiltration frequently follows the wall of the intestine, and in this case the intestine is changed into a stiff cylinder, with invariably resulting stenosis. Carcinomatous masses that grow into the lumen of the intestine may also produce stenosis.

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[2] Gibbes, Practical Pathology, p. 180.

[3] Nothnagel: Die Erkrankungen des Darms, Wien, 1898, p. 220.

Chronic stricture of the intestine gives rise to certain characteristic modifications in the sound portion of the digestive tract. The effort to overcome the obstacle at the constricted point causes hypertrophy of the muscle on the proximal aspect. Later, this portion of the bowel becomes dilated, and stagnation of the intestinal contents ensues. The collection of feces that arises in consequence of this stricture reacts upon the stomach. As this viscus is not capable of emptying itself into the intestine with regularity, we have a stagnation of the stomach-contents. The stomach suffers also in another way, from the fact, namely, that the intestinal contents flow back into it. This process is analogous to that found with stenotic heart-lesions. In the latter case, stenosis leads to hypertrophy of the heart-muscle, which is followed by dilatation, and then stagnation of blood in the organs that lie behind the lungs and the liver. If we can diagnosticate a chronic stricture of the intestines from such secondary symptoms, we can usually locate the seat of the stenosis and its relative distance from the stomach.

In general, stenosis of the large intestine causes symptoms referable to the intestine; stenosis of the duodenum, symptoms referable to the stomach. If we have an acute stenosis of the colon we usually find severe pain in the abdomen, symptoms of collapse, and peristaltic restlessness from the effort of the intestinal muscle to overcome the stenosis. Only when the stenosis has lasted for some time does vomiting of the gastric and intestinal contents occur. In stenosis of the duodenum severe attacks of ileus are quite rare, because the contents of the duodenum are soft and fluid, so that complete obstruction does not readily take place. The section of the intestinal tract above the seat of stricture is quite short. The more the stenosis of the duodenum increases the more does vomiting occur. Duodenal stenosis gives rise to gastric dilatation of a high degree. If the stenosis is near the stomach, insufficiency of the pylorus may ensue and the dilated stomach may form a single cavity with the contiguous portion of the duodenum.

Intestinal carcinoma has no typical clinical history. It is true that certain phenomena and symptoms are more common than others, but even main symptoms may be completely wanting. This is due to the seat of the growth, to its varied rapidity of development, and its histologic constitution. Proceeding from the lower section of the intestine to the highest, the duodenum, we find that carcinoma of each part gives rise to certain peculiar symptoms.

It is immaterial what causes constriction of the duodenum, whether gall-stones, tumor, or circumscribed peritonitis; the symptoms will always exhibit some clinical peculiarity. If a tumor be situated near or immediately behind the pylorus, in the ascending section of the duodenum, it will sooner or later produce the symptom-complex of carcinoma of the pylorus. A differential diagnosis is impossible. The essential symptoms are those of dilatation of the stomach, according to the extent of stenosis present. This complication usually appears if the stenosis is at all pronounced. Vomiting, pain, and dyspeptic symptoms are observed. The abdomen is scaphoid, for there is a lack of all kind of fecal formation. On the other hand, the farther along the intestine the carcinoma is located, the greater is the protuberance of the abdomen, because of the formation of feces and gases. Leichtenstern[4] has diagnosed carcinoma of the duodenum from the vomiting of masses of matter of a bilious character coincidently with the usual symptoms of pyloric stenosis. The diagnosis was made of stricture below the ductus communis choledochus. Cahn[5] confirmed a similar diagnosis under similar conditions by means of necropsy. There is a change in the chemistry of the stomach-contents in these cases. The gastric juices are frequently altered with reference to the hydrochloric acid. In some cases hydrochloric acid is present, and in others it is absent. This condition can be explained through an occasional admixture of bile, pancreatic and intestinal juices, which, flowing back into the stomach, neutralize the hydrochloric acid and render the pepsin inoperative. Such patients, despite thorough lavage, vomit abundantly during the night, though they have taken no food. This can be explained by the supposition that chyme has gathered above the stenosis in the enlarged section of the duodenum and has flowed back into the stomach, whence it is rejected.

If a tumor is present in the ascending section of the duodenum, it lies to the right of the median line within the lower border of the ribs, the navel and the gall-bladder. A tumor thus situated will be found, on palpation, to be easily movable. If the growth arises in the descending or transverse section of the duodenum it will lie in the same position, but it will be little, if a all, movable, being firmly fixed by the pancreas and the peritoneum. The common bile-duct and the pan creatic duct perforate the median border of the descending section of the duodenum. If carcinoma develop here, the opening of the bile-duct will be stopped and jaundice will result. Occasionally such obstruction is accompanied by acute attacks of chills and fever, vomiting and depression, without disquieting prodromes. Along with jaundice, symptoms referable to stenosis of the pylorus may appear, depending upon the extent to which the tumor narrows the lumen of the intestine.

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[4] Rosenheim, Pathologie und Therapie der Krankheiten des Darms, p. 320.

[5] Cahn, *Berliner klin. Woch.*, 1886.

The feces offer no diagnostic information in cases of carcinoma of the duodenum, notwithstanding the fact that they frequently contain blood or are alcoholic. In general, a disposition to constipation prevails.

The symptomatology of carcinoma of the ileum and jejunum corresponds in the main with that of carcinoma of the upper colon, inasmuch as both are attended with anemia, cachexia, pain, colic, and a disposition toward constipation alternating with diarrhea, with repeated loss of blood through the anus and symptoms of entero-stenosis. A diagnosis can be reached only by exact examination of the tumor, if it be palpable; but this cannot always be done. Treves found that of 10 cases of stricture of the small intestine due to carcinoma, only 3 presented a clearly palpable tumor. Carcinoma of the small intestine is more movable than any other variety of intestinal tumor, unless it is not fixed by adhesions, metastases, etc. Only tumors of the transverse colon are equally freely movable. We find at times, therefore, insurmountable difficulties in the differentiation between carcinoma of the small intestine and carcinoma of the transverse colon. No conclusion can be drawn from the location of the tumor or from its mobility. In these cases careful study of the development and of all symptoms referable to the localization of an entero-stenosis is necessary for differential diagnosis.

Tumors that arise from the head of the pancreas or the ductus communis choledochus are difficult to differentiate clinically from those that originate in the descending portion of the duodenum. The position of the tumor, the jaundice and the symptoms of stenosis are possible with all three forms, although jaundice may be absent in cases of carcinoma of the head of the pancreas, for the outlet of the bile-duct may not be involved. In doubtful cases the diagnosis may be helped in the determination of pancreatic disease by the character of the feces and the presence of sugar in the urine. Again, pancreatic disease develops much more rapidly and from the outset produces less disturbance of digestion, but more pain.

A bust of Gianbattista Morgagni has been presented to St. Thomas' Hospital, London, by a committee of physicians of Italy, presided over by Dr. Soffiantini. The bust, which was executed by Signor Salvino Salvini, the distinguished Bolognese sculptor, was unveiled in the Ospedale Maggiore, of Milan, on January 8, and subsequently started on its journey to London.

HEPATIC CIRRHOSIS IN THE GUINEA-PIG PRODUCED BY INOCULATION WITH A BACILLUS.

Preliminary Report.[1]

By GEORGE H. WEAVER, M.D.,
of Chicago, Ill.
Assistant Professor of Pathology in Rush Medical College.

In view of the interest excited by the recent communications of Adami concerning a probable relation between bacteria and human hepatic cirrhosis, it seems desirable to make a brief report at this time of a bacterium that has come under my observation and that produces cirrhosis of the liver in guinea-pigs. The more detailed report will be reserved for later publication, when some of the details regarding the bacillus itself and the lesions produced by it have been more fully studied.

Adami[2] has found a bacillus in the cirrhotic liver of cattle affected with a localized enzoötic, known as Pictou cattle-disease. He demonstrated the presence of this organism in sections of the liver and adjacent lymph-glands, and obtained it in pure culture upon artificial media. While the cultures, when inoculated into rabbits, guinea-pigs, and mice, caused death, the cirrhosis of the liver was not reproduced. From the liver in cases of human cirrhosis, Adami obtained cultures of bacilli that he places in the group of colon-bacilli. While he finds bacilli fairly numerous in the cells of the human liver, when death is due to various causes, he is able to demonstrate such bacteria in much larger numbers in the liver-cells and connective tissue in cases of cirrhosis. These bacilli he holds to be mostly dead, and he thinks they belong to the colon-group.

Cirrhosis of the liver has been observed in animals in the sequela of experimental injection of toxic materials. Flexner[3] has produced cirrhosis of the kidney and liver in rabbits by the injection of dog's serum into the circulation. In a rabbit dead 12 days after the injection, the microscopic appearances in the liver were an accurate reproduction of cirrhosis in man. In this liver there were present newly formed and forming connective tissue, proceeding from the portal spaces and also from the capsule, and irregularly distributed throughout the organ; numerous newly formed bile-ducts; and acute degenerative changes in the liver-substance, from which the sclerotic process distinctly started. In earlier cases (after 5 or 6 days) the liver showed areas of coagulation-necrosis. The leukocytes were not attracted to such areas of necrosis in such numbers as in cases of diphtheria or poisoning by abrin or ricin.

Focal necroses are observed in various infectious diseases, and it is quite possible for these necrotic areas to be replaced by connective tissue and a form of cirrhosis result. The cases of cirrhosis of the liver in children have been accounted for in this manner.

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[1] Read before the Chicago Pathological Society, Dec. 12, 1898.

[2] *Montreal Medical Journal*, July, 1898; *British Medical Journal*, Oct. 22, 1898.

[3] *Transactions of the Pathological Society of Philadelphia*, 1896.

Reed[4] has recorded the case of a woman, 70 years of age, who died from carcinoma of the ovary, and who had passed through an attack of typhoid fever 25 years previously. In the liver were found round, oval, and irregularly shaped areas of dense connective tissue, corresponding in their distribution to the areas of necrosis as observed in typhoid fever.

While foci of necrosis have been observed in the liver of animals after inoculation with pathogenic bacteria, the organism here described appears to be the only one studied that produces uniformly necrosis, rapidly followed by diffuse cirrhosis in the liver of the inoculated animal, and unaccompanied by marked changes in the other viscera.

I chanced to obtain this bacterium in following the routine practice of examining each animal that dies in our animal-room without previous inoculation. On September 22, 1898, a large female guinea-pig died without apparent cause, having been ill for two or three days. Upon examining the body the following conditions were found: A pneumonia involving one upper lobe, with a little reddish fluid in the pleura; punctiform hemorrhages beneath the pericardium near the apex; the liver pale and mottled grayish drab; the spleen large and dark red; the inguinal lymph-glands enlarged and red. Cover-slip preparations from the viscera disclosed the presence in the lung and spleen, and in smaller number in the liver, kidney, and blood from the heart, bacilli that did not stain by Gram's method. Cultures upon agar-agar plates yielded abundant colonies from the liver, spleen, kidney, lung, and heart's blood. All the colonies were of the same bacillus.

The pure culture of the bacillus obtained from these plates, possesses the following characteristics. The bacilli are about the size of the bacillus typhosus, from two to three times as long as thick, usually single, occasionally in pairs end to end, non-motile and without flagella. They stain with the usual solutions of anilin dyes, in most instances uniformly, but occasionally more deeply at the ends, especially with carbol-fuchsin. They do not stain by Gram's method.

Upon agar-plates, after 24 hours at 37° C., the deep colonies are the size of a pin-point, white and sharply outlined, and if slightly magnified they appear oval or round, sharply outlined and yellowish in color. The superficial colonies are white, opaque, sharply outlined, 2 mm. in diameter, slightly elevated, with a glistening surface. If magnified they appear round or oval, regular in form and sharply outlined, granular, of a yellowish color, and sometimes presenting radiating striations that pass toward the periphery where the colony becomes thinner.

Upon gelatin-plates 4 days old, the deep colonies are pin-head in size, and faintly yellowish white; when magnified slightly they are oval, sharply outlined and dark brown. The superficial colonies are from 2 to 3 mm. in diameter, white, elevated with finely-irregular edges; when magnified they are dark brown, granular, the edges being coarsely irregular with finer subserrations. Toward the edge the colony becomes thinner, usually gradually, and sometimes with more or less perfectly-shown terraces.

On the slant of agar, the growth is abundant, white and confluent. On glycerin-agar the growth is similar to that on plain nutrient agar. On Löffler's solidified blood-serum the growth is abundant, elevated, and creamy white. On potato there is an abundant, elevated spreading, faintly yellowish, creamy deposit, with gas-bubbles at times. Bouillon is first rendered cloudy, and later a clear fluid above is left by a settling of the bacilli to the bottom. In glucose-agar the production of gas is abundant. Litmus-milk is turned red after 24 hours at 37° C., and after 5 days it is decolorized and coagulated. In the puncture in gelatin a fine growth appears all along the track of the needle, with a thin surface-growth 1 cm. in diameter with a serrated border. Grown on a slant of Kashida's medium (1½% agar, 1% urea, 2% lactose, colored with litmus) a white deposit forms on the surface, and the medium remains dark blue. If a similar slant after inoculation be placed in a jar containing pyrogallic acid and a 5% solution of potassium hydroxid, and the cover sealed, a white growth forms upon the surface, but the medium is turned red. A few hours after the tube is removed from the jar, the medium becomes blue again. The cultures have a slight aromatic odor. Indol is not produced on Dunham's peptone-solution, nor in bouillon prepared after Theobald Smith's method. The bacteria are killed by a temperature of 60° C. in 3 minutes, and by one of 70° C. in 1 minute, but not by one of 50° C. Carbolic acid in the proportion of 0.5% kills the bacilli within 24 hours, but weaker solutions have no effect.

The organs of the guinea-pig, after being fixed in alcohol, were cut and the sections stained in various ways for microscopic examination. The liver was the seat of extreme, diffuse fatty degeneration. In the solidified portion of the lung there was fibrinous exudate into the air-cells, with blood. A large proportion of the air-cells were literally packed with bacilli. The kidneys showed no marked change.

The results of inoculation-experiments varied with the animal used, and the method and quantity of the culture employed. Inoculation with large quantities produced no effect upon rabbits, mice, pigeons, ground-squirrels and frogs. Guinea-pigs were killed by intraperitoneal, intrapleural and subcutaneous inoculation. From 0.5 to 1 cu. cm. of a 24-hours' bouillon incubator-culture, injected into the peritoneal cavity, killed guinea-pigs in from 8 to 20 hours. Under such condi tions there was turbid fluid in the peritoneal cavity with varying quantities of fibrinous exudate upon the visceral serosa, sometimes there was none, and usually but little. The liver and the kidneys were not altered macroscopically. The spleen was enlarged and firm; the adrenals injected; the pleuræ containing a little turbid fluid, and the lungs rich in blood, but without solidification. The left side of the heart was firmly contracted and empty; the right heart being dilated and filled with fluid blood. There was slight enlargement of the axillary and inguinal lymph-glands. Smear-preparations from the peritoneal and pleural luids contained many bacilli, and in those from the blood and various viscera a few could be found. Plates from these various sources contained colonies of the inoculated bacillus in pure culture; from the peritoneal and pleural cavities in enormous numbers; from the iver, spleen, kidney, lung, gall-bladder, urine, and heart's blood in smaller numbers.

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[4] *Johns Hopkins Hospital Reports*, v., 1895.

Microscopic examination of the tissues from these early cases showed slight desquamation of the glomeruar and capsular epithelium, with granular material in the capsular space. The bloodvessels of the spleen were dilated and contained a varying number of large, clear, uninuclear, phagocytic cells. In the liver there were zones of necrosis about the larger branches of the portal vein, with apparent increase of the lining endothelium. At times, there was beginning necrosis of the liver-cells adjacent to the prolongations of Glisson's capsule. Minute areas of necrosis of liver-cells with nuclear fragments were scattered throughout the iver. Occasionally phagocytic cells, similar to those n the splenic vessels, were observed in the vessels and capillaries of the liver. Guinea-pigs that were inocuated into the peritoneal cavity with a small amount of a bouillon-culture, or subcutaneously with 0.5 cu. cm. of a 24-hours' bouillon incubator-culture, lost weight and died after 8 or 9 days. Under such conditions the bacteria may have disappeared entirely before death, as cultures from the viscera failed to yield colonies. After ubcutaneous inoculation the bacilli were found only n the small abscess in the abdominal wall at the site of inoculation. The number of such experiments has been limited and wider variations may occur. After death the changes recognizable by the unaided eye are usually a pale, firm liver, which may feel slightly uneven upon its surface, a slightly enlarged spleen, edematous lungs containing much blood, a firmly conracted and empty left heart and a dilated right heart containing fluid blood. Under the microscope the pleen shows dilated sinuses, containing numerous phagocytic cells, enclosing blood-pigments and nuclear ragments. In the liver the changes are those characeristic of cirrhosis in this organ; marked proliferation of the bile-ducts; accumulation of connective tissue between the lobules and invading them; and necrosis of the liver-cells. The proliferating connective tissue seems to replace the areas of necrotic tissue seen in the earlier stages. Intraperitoneal injection of bouillon-cultures devitalized by heat produced after 9 days lesions similar to those just described. Injection into the peritoneal cavity of a bouillon-culture from which the bacteria had been removed by passing through a Chamberland filter, caused death, but without any apparent change in the viscera. The last two experiments were performed but once.

From the foregoing findings it appears that the bacillus described, causes, as its chief effect, when inoculated into guinea-pigs, necrosis of the liver, and if death is sufficiently delayed, marked cirrhosis of the liver. The dead bacilli in cultures devitalized by heat, produce the same effect as living bacilli if introduced into the peritoneum, but cultures from which the bacilli have been removed, do not cause the changes in the liver that occur under other conditions. It is not certain how this organism should be classified, but so far as it has been studied it appears to possess more of the characteristics of the members of the colon-group than of those of any other.

INTESTINAL-ANASTOMOSIS FORCEPS.

By ANDREW J. DOWNES, A.M., M.D.,
of Philadelphia.
Gynecologist to St. Mary's Hospital.

In 1893,[1] I attempted to have made a metal medium immediately removable after union of the bowel over it. My ideas culminated in 1896 in the discovery oı the inflatable rubber bulb for intestinal anastomosis, which was devised by me independent of any knowledge whatever of its previous use in any modified form. My ideas differed from those of other discoverers or users of the bulb in that I advocated complete, or almost complete, suture of the bowel over it and immediate removal.[2] It was, therefore, as devised and used by me, the first practical, immediately removable medium for intestinal anastomosis. The fact that it is made of perishable material has retarded its more general adoption. A metal medium to replace it was desirable. Such a medium is the Laplace anastomosis-forceps exhibited in June, 1898, by Dr. Laplace at the meeting of the American Medical Association. The description[3] and illustrations of these instruments did not impress me with their simplicity. On November 7, 1898, I was present, by invitation of Dr. Laplace, at a private demonstration in the Medico-Chirurgical Hospital. I was impressed with the practicability of the forceps, but it immediately occurred to me that a simpler instrument would do the same work. I drew a design with measurements, and had the forceps shown in Fig. 1 made within 24 hours. This forceps

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[1] *Medical and Surgical Reporter*, July 11, 1896.
[2] Philadelphia Medical Journal, April 2, 1898.
[3] Philadelphia Medical Journal, June 11, 1898.

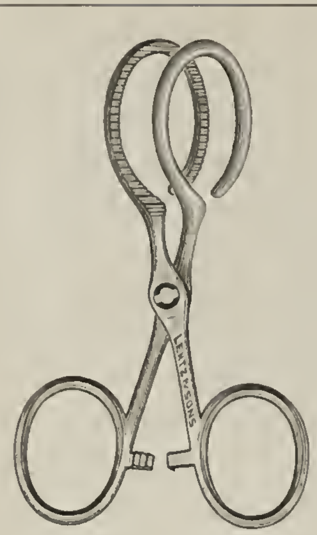

Fig. 1.—Forceps for end-to-end union, slightly open.

was exhibited before the Philadelphia County Medical Society on November 23, and a brief description of it appeared in the succeeding issue of the *Philadelphia Polyclinic.* It may be recalled that the Laplace forceps is formed of two complete forceps, the bowel-blades of each forming half a fenestrated circle or ellipse, the two locked together forming the bowel-blades, circular for end-to-end union, elliptical for side-to-side anastomosis. This forceps contains five separable parts. My modified forceps (Fig. 1 and Fig. 2) is exceedingly simple and fulfils all requirements. The end-to-end instrument (Fig. 1) is a single, locking forceps, the bowel-blade forming a fenestrated circle, with a small segment left open for easy withdrawal after use. In use the edges of the bowel to be anastomosed are united by 3 or 4 fixation-sutures, one of them at the mesentery. The forceps, slightly open, is easily introduced into the bowel, and the edge of the bowel inflanged quickly between the blades. The forceps is then locked (Fig. 3). When introduced and locked, the handle of the forceps should preferably lie as near as practicable to the surface of the mesentery facing the operator. We thus obtain the greatest possible rotation of the forceps for its removal. The shorter the forceps the better. The small open segment of the forceps-blades should face the operator. This is a most important point and insures removal. Suturing is now easily and accurately effected. After suture the forceps is, for removal, (Fig. 4) unlocked and slightly opened. The thumb and index-finger of one hand hold the sutured bowel on the blade, as the other hand rotates the handle. Withdrawal is the easiest part of the operation. One or, at most, two sutures then complete the anastomosis.

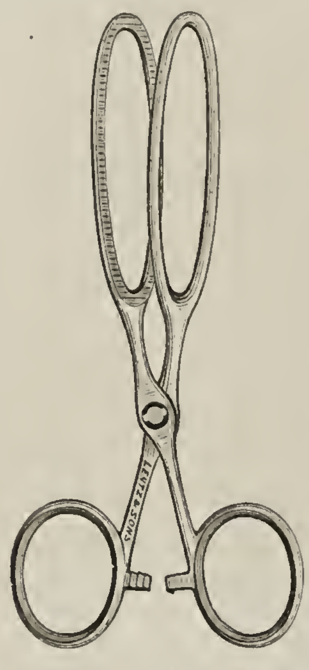

Fig. 2.—Forceps for lateral anastomosis.

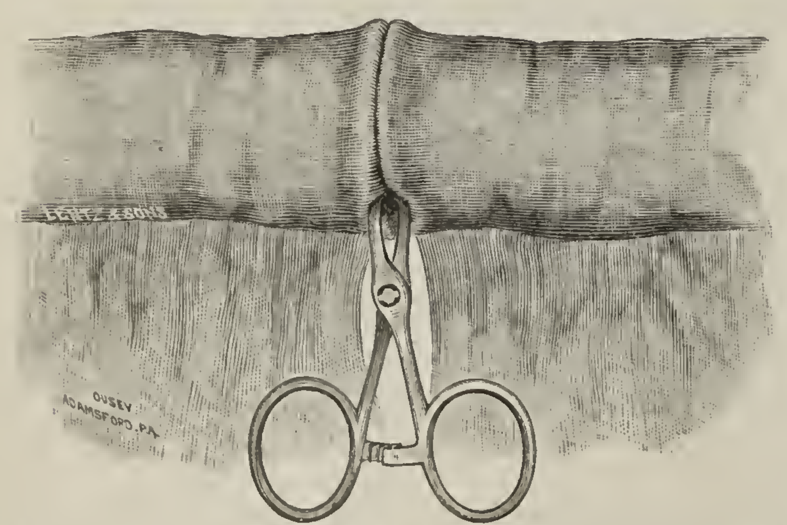

Fig. 3.—End-to-end forceps in place, with bowel-edges enflanged between the blades, ready for suturing.

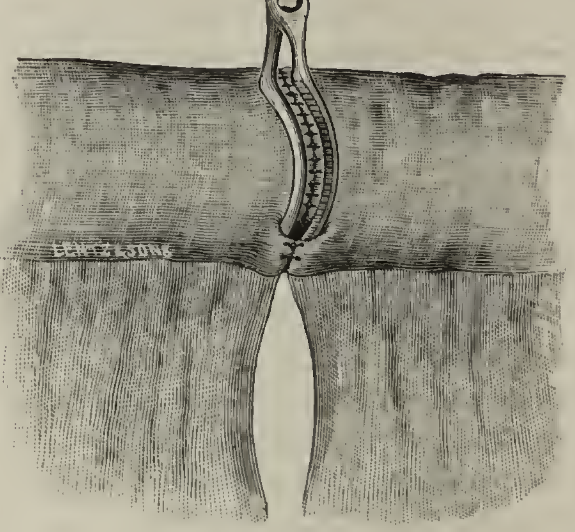

Fig. 4.—Shows the bowel sutured and the method of rotating and removing the forceps; shows how the bowel rolls into the hollow of the blades through the small open segment as the handle is rotated.

For lateral anastomosis the forceps, as shown in Fig. 2, is used practically as by Dr. Laplace. A little larger space is left unsutured than when his forceps is used. The forceps is removed as a whole and suture completed.

Besides the dead intestine I have found that a piece of chamois-skin made into the shape of an intestine with the mesentery attached is an exceedingly useful medium for acquiring the necessary technic to understandingly use these forceps. I am under obligations to their artist and to the Chas. Lentz & Sons Surgical Instrument Company, who make this forceps in various sizes.

Note.—The *New York Medical Journal* for January 7, 1899, contains an article by Dr. Louis Y. Genella, of New Orleans, describing a forceps almost identical with mine, as shown in Fig. 1. His method of using the forceps is not, I think, practical, at least not so much so as mine. Dr. Genella does not state whether he had his forceps made without having read Dr. Laplace's article. I am curious to know just when he had his forceps made. It would seem that many minds run in similar channels.

THE STERILIZATION OF INSTRUMENTS WITH FORMALDEHYD.

By H. O. REIK, M.D.,
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In the *Bulletin of the Johns Hopkins Hospital* for December, 1897, Dr. W. T. Watson and myself published conjointly the results of experimental tests with formaldehyd as an agent for sterilizing instruments, and in the number of the same journal for April, 1898, I presented a report of supplementary work. During the past year I have not only continued to use almost daily the apparatus that we then described for the practical application of this method, but I have also been privileged to carry on further experiments in order to test as severely as possible the value of the method, and to try to further extend the scope of its usefulness. It is for the purpose of publishing this later work and of warning against the careless misapplication of our original report that I once more call the attention of the profession to this subject.

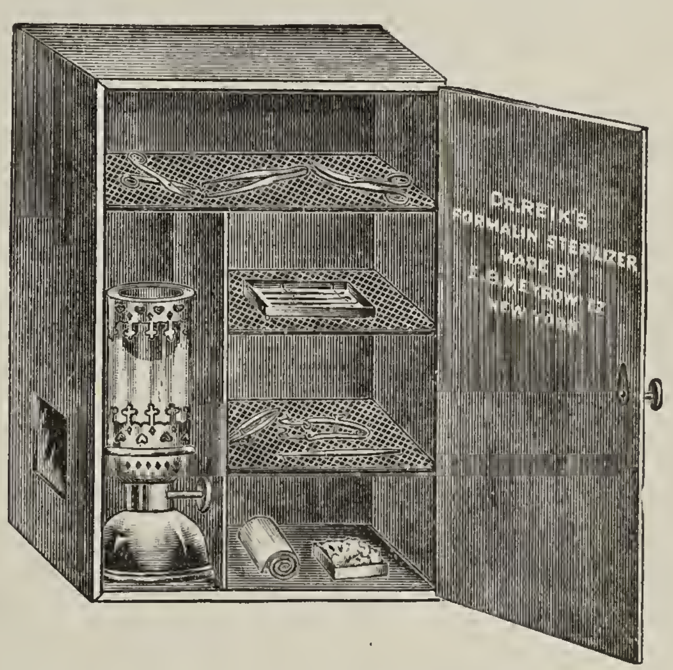
In June, 1897, Dr. E. A. de Schweinitz, of Washington, reported to the Ophthalmic Section of the American Medical Association a series of experiments in the sterilization of instruments, in which he used both the solution of formaldehyd, commercially known as formalin, and the gas as obtained by spontaneous evaporation of this solution. By the first method it was found that an infected instrument required 35 minutes' immersion to secure complete disinfection, whereas in the second method a long period of time was required to generate sufficient gas to secure perfect results. Dr. de Schweinitz's report, however, led us to believe that instruments could be more quickly sterilized by the gas if it could be conveniently and rapidly evolved in a small chamber.

After numerous experiments with the solution we decided to try paraform-pastils, which can, by heat, be entirely converted into formaldehyd gas, and which can be obtained in convenient form; the tablets being made in two sizes, weighing respectively 5 and 15 grains each.

We used in our experiments simply an air-tight oven of 1 cubic foot capacity. Two racks for holding instruments were suspended in the upper half of the box, and the gas was manufactured below. Our efforts to produce the gas outside the chamber and introduce it by means of connecting tubes, etc., were not satisfactory, and we adopted the simpler method of placing the lamp in the lower part of the apparatus. By this means we found it possible to vaporize 35 grains of paraform in 14 minutes, at the end of which time the lamp expires for want of oxygen. This amount of gas was found to be far in excess of the quantity necessary to disinfect a chamber of the given size, and, in order to determine the minimum amount of paraform necessary to secure disinfection of such a chamber within a reasonable time, we made repeated experiments with quantities ranging from 2 to 10 grains.

Our method of experiment was briefly as follows:

Knives smeared with pure cultures of staphylococcus pyogenes aureus, streptococcus aureus, or bacillus anthracis were placed in the chamber, the paraform-tablet dropped in the generator and the door of the apparatus closed. When removed, the time of exposure being carefully noted, cultures were made upon slant agar and placed in the thermostat. Without repeating in detail each of the experiments it will here suffice to say that in no instance was there a growth obtained after a 10-minute exposure to 5 grains of the gas. If 10 grains were used disinfection was accomplished in 7 minutes. Smaller quantities, even 2 or 3 grains, would accomplish the same results in somewhat longer time. We could not, however, increase the amount and diminish the time beyond the points stated, because 10 grains in 7 minutes is about the full vaporizing capacity of the lamp. Nor is it desirable, perhaps, to increase the amount of paraform, for when the chamber is opened there must be some escape of gas into the room, which, while not injurious or particularly objectionable, is yet not desirable. For practical purposes, too, 10 or 15 minutes constitute a reasonable amount of time to give to the sterilization of instruments before each operation.



I now had Mr. Meyrowitz construct a sterilizer for me (see figure) for use in my office, and on its arrival I proceeded to give it a severe test. This sterilizer is made of copper and measures 7 x 12 x 12 inches, and has an air-space of a little more than 1,000 cubic inches. The shelves are made of heavy, wide-meshed wire gauze, the upper one extending entirely across the chamber, while the lower two are only 8 inches long, extending from the right side to an upright standard 4 inches from the left wall, thus leaving a space 4 inches wide by 8 inches high, which is reserved for the lamp used in vaporizing the pastils. This apparatus is of a size suitable for the ophthalmologist, otologist, laryngologist, dentist, or other surgeon using comparatively small instruments. Should the general surgeon or the obstetrician desire to adopt the method a larger sterilizer can be readily made, and special appliances may be inserted for holding his particular instruments; as, for instance, there is figured in the illustration a small tray for carrying such delicate instruments as the cataract-knife, so as to prevent their cutting edges from coming into contact with anything.

One word of warning is necessary. One must be sure that the sterilizer, when closed, is air-tight, for if an interchange of gas and air is permitted, the gas is diluted and fails to produce the expected results. Imperfect copies of this apparatus have been placed upon the market by several firms, and most of them, especially those made of tin, are absolutely worthless. I have heard complaints from several individuals using the so-called Schering's formalin-sterilizer, and an investigation has shown that its failure was due to the fact that little or no attention had been given to having it air-tight in the first place, and as tin bends so easily there was every chance for the door to become distorted and permit free escape of the gas.

Through the kindness of Dr. Welch and his associate, Dr. Harris, I was permitted to carry on my further experiments in the pathological laboratory of the Johns Hopkins University. At their suggestion I not only repeated my former tests, but, in addition, used the more resistant organisms, the bacillus diphtheriæ, the spore-bearing bacillus anthracis and the bacillus subtilis. Even these germs, which show so much resistance to heat, quickly succumbed to formaldehyd, though in the case of the bacillus subtilis we felt that it was safer to make the exposure for 15 minutes instead of 10; the amount of paraform used being 5 grains. A 10 minutes' exposure was sufficient in all but one experiment, but 15 minutes have never failed us with any organism. I may add that we not only used smooth knives, but instruments presenting rough or notched surfaces, such as artery-forceps, grooved directors, fixation-forceps, etc.

In *Dental Cosmos* for July, 1898, Dr. Horton, of the Department of Hygiene, University of Pennsylvania, reports in detail a number of experiments conducted in the same way and with the same results, and says: "We conclude that infected dental instruments can be disinfected without injury in a closed space of less than 1 cubic foot, by an exposure of 15 minutes to the formaldehyd-gas generated from a pastil containing 5 grains of paraform, by heating the pastil over a proper alcohol lamp." Of course what applies to dental instruments is equally applicable to any others in the field of dental surgery.

So far the work done had been purely that of surface-disinfection, however, and it was suggested that we determine the possibility of sterilizing instruments placed in a linen bag or in towels ready to be carried to a distant field of operation. Accordingly, infected instruments were wrapped in linen towels so that two thicknesses presented at the ends of the package, that being the thinnest point. It was soon found that it would be necessary to use more gas, or give a much longer exposure, or, perhaps, do both. We finally succeeded repeatedly in securing disinfection by giving from twenty minutes' exposure to thirty grains of the paraform.

It has been said by many experimenters that formaldehyd has but slight powers of penetration. I cannot say whether or not that is true. I doubt it, although I am not yet prepared to recommend this mode of sterilizing, because the linen, muslin or other cloth used by several surgeons might vary greatly in texture and some of it offer greater obstacles to the penetrating power of the gas.

What advantage does this method of sterilizing instruments possess over those now in use? The use of heat means destruction of instruments as well as of microorganisms. To subject a delicate cataract-knife to dipping in boiling water, even for a brief period, means a perceptible dulling of its edge, and so it is, though less noticeable perhaps, with all other cutting instruments. Submersion in absolute alcohol, is, as Randolph has shown, not reliable, and the same must be said of any other disinfecting solution save possibly formalin. It has been recently suggested by Dr. Lippincott that instruments be left continuously in a solution of formalin, and there can be no doubt that he secures disinfection in that way.

In view of our experience I am inclined to emphasize our former conclusions, which were as follows: (1) A lamp will burn in any absolutely closed chamber long enough to generate more than sufficient formaldehyd for its disinfection. (2) In a chamber of 1 cubic foot space 5 grains of paraform will in 15 minutes accomplish disinfection; (3) The expense of such disinfection, including the cost of paraform and alcohol, will not exceed 1 cent, and the labor involved is almost nothing; (4) For the disinfection of small instruments, such as those used by ophthalmologists, laryngologists, and dentists, it is by far the most convenient and speedy method; (5) this method carries out probably better than any other designed for the work the principles of disinfection,—the absolutely certain destruction of all pathogenic organisms, in the shortest possible time, at the least expense, and with a minimum of injury to the object of disinfection.

The Philadelphia Medical Journal

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The high mortality from diphtheria in New York nd Philadelphia is disgraceful. All over the world he mortality has been reduced to a percentage of ases attacked of from 10 to 15, and in many large cities ar below these figures. Why is it that in New York nd Philadelphia it is twice or three times as great as lsewhere? In answer to an inquiry, Dr. Lee, Secretary f the Pennsylvania State Board of Health, writes concerning the mortality in Philadelphia:

> "I find on reference to the records in this office that durng the year 1898 4,154 cases of diphtheria were reported to he board of health, and 998 deaths. This gives, as you will ote, a death-rate of 24.2%. If, however, we add the cases eported as membranous croup, which in my opinion should lways be classed as diphtheria, we have a total of combined ases of 4,415, with 1154 deaths, or a death-rate of 26.13%. he year 1898 shows an improvement over the previous ear, both in the prevalence of the disease and its deathate. In 1897 the number of cases reported was 5,405, showng a decrease in 1898 of 990 cases, while the death-rate uring that year was 27.28%."

May the explanation of these high mortalities be uggested in the report of the Board of Pittsburg for 896, in which we find in reference to the treatment ith antitoxin the following:

"Treated before the fourth day, 72 cases: mortality, 0 = 13.9%.

"Treated on or after the fourth day, 35 cases: morlity, 10 = 28.6%."

We shall publish an important statistical article next eek in which the relative conditions are made strikngly clear.

The Most Exact and Scientific of the Specialties. -In reference to exophoria we find in a recent contriution published in a New York contemporary the llowing words:

> "Prism-exercises are resorted to with the object of ineasing the strength of the weak muscle. If such a thing possible it is not necessary, since the muscle is not too eak, nor is the opposing muscle too strong, but there is mply an overcontraction, which will be shown by a number cases I shall describe at the close of this paper. It is d practice, not only in that it does no good, but also for e reason that it does harm. Nervous patients, women and ildren, for instance, it sends home exhausted bodily, and thing short of a few hours in bed recuperates them. veral years ago I tried the prism-practice on a few paents, and on their next visit they would tell me how hausted they were, and that they had to go to bed for the st of the day."

But we have seen quite a number of articles by ually competent men during the last year or two in hich are reported cures, nothing except cures, both as to the symptoms and the muscle-imbalance, from these same despised prism-exercises. Moreover, we are dimly conscious that there are many other oculists who would scorn both these sets of "hobby-riders," and commend and command nothing but tenotomies for the heterophoria. And yet, and yet, when all this is admitted, we are confronted with the fact that the conservatives far outnumber the whole set of the protestants and schismatics, and in grim and silent contempt smile sardonically at the follies of the upstarts. What then is the dumbfounded general practitioner to do or to advise? What has become of the pattern specialty of medicine with its mathematic exactness and scientific perfection? *Where ish dot barty now,* O dear Hans Breitmann?

A case of movable third kidney related in the *Lancet* of January 28, by Mr. Watson Cheyne, F.R.S., is of particular interest. A third kidney, well-developed and with independent ureter and blood-supply, was discovered on the right side of the lower part of the spinal column just at the brim of the pelvis, and distant from 3 inches to 4 inches from the right kidney. The patient was a woman aged 22, suffering from indefinite abdominal pain, and the condition was discovered after abdominal section in the middle line. No attempt was made to fix the organ, which was simply returned to its former place in the belly with the hope that its mobility would be checked by the adhesions engendered by the disturbance necessary to expose it. Mr. Cheyne's note is written one year after the operation—would that all medical writers would similarly be sure of the fate of their patients before announcing their cures!—and there had been no recurrence of symptoms. The condition is quite an anatomic rarity.

A Case of Santonin-Vision.—The influence of Yellow Journalism is illustrated by the following letter kindly sent us by Dr. Hare:—

January 27, '99.

Dr. Hobart A. Hare,
Jefferson Med. College.

I have my doubts about that story not being true advertised in to days *Ledger*, "Physicians in the free hospital of Vienna experimenting on people."

What are Phisicians doing to-day in Phila. Cruelty to animals is prohibited, but there is no law to protect cruelty to individuals.

This new invention or scientific experiment is causing much suffering in Phila. Where the invention and people are located, I do not know, probably at the University.

If you have doubt of the wickedness of medical science, inquire what is going on around you, in Phila. Corrupt and inhuman people (titled Doctors) are experimenting on Phila. citizens.

I do not know who you are, but I hope, if you have any pride, for your own character, or honorable standard for your profession, you will endeavor to awaken the people, and establish laws, to prevent this wickedness continuing.

Mind reading and acting on the system by some process, which extends through the atmosphere—and walls of houses. Very wonderful, but very, very sad, as Satan's accomplice's have possession.

I mention three names belonging to the invention. Dr. W. Keen, Dr. J. Da Costa, Dr. Mrs. H. Longshore, who are a disgrace to medical science. I have been to the Public Buildings trying to establish laws, for protection, to protect myself and others, and prevent them experimenting their cruelty on people.

Have met with great insult that is impudence and impolite conduct.

Hoping you are one of the citizens in Phila. having correct principals. Respfy,

M. D. Henszey,
3220 Chestnut St.,
Phila.

Young Tipplers—Old Soaks.—It should seem to prudent and conscientious men a pressing duty to use their influence in opposition to the silly and disgusting fashion of ruining young stomachs and plastic nervous systems by drink. It is considered the proper proceeding for college-boys and young club-men to take their tippling with blase indifference and as a matter of course. It is held *comme il faut* for them to join clubs, and clubs encourage drinking-habits. To watch the wagon-loads of empty bottles depart each day, and in place of them the wagon-loads of full demijohns, kegs and bottles arrive, is a somewhat saddening spectacle for one whose window happens to overlook the alley leading to the young men's club-house. "Glee clubs," "athletic teams," and all the rest, travel about the country, are "entertained" by the local clubs, and the natives teach the missionaries of culture from the distant "seats of learning" the ways of late hours, unequivocal stories, smoke, and champagne. If one goes to a dinner-party of three or a banquet of three hundred, the first duty is held to be to pour a highly alcoholic "cocktail" into an empty stomach—an insult to the digestive organs as brutal as could be offered them, and for three hours these poor structures are stuffed with an excess of nitrogenous food and flooded with many kinds of alcoholic mixtures until in the early morning hours they are at last allowed some chance to repair their injuries. But what an idea of nutrition and of life it all presupposes! If a visitor from some other planet should come among us, and should stumble on our fashionable drinking-habits, he would surely be long in fathoming the mystery of why otherwise sensible and honest men should make themselves such slaves to the drink-fiend. And what the result of it is we all see and know. The reliance upon alcohol once established in youth, the tyranny becomes all the more furious in later years, until a quart or more of whisky is demanded for the jaded and exhausted digestive and nervous system. We are no teetotalers or rabid cynics. When the vital powers are failing in the afternoon and evening of life a moderate use of alcoholic stimulants may often be needed, and of service, but the debauchery and ruin of young bodies by the present customs of social life constitute poor promises of virility and usefulness in later years and for coming generations.

Elementary Forestry.—Some interesting facts and figures relative to the influence of trees on atmospheric and climatic conditions are found in a little book, "Forestry in Minnesota," compiled by Professor Samuel B. Green, of the University of Minnesota, and published by the Minnesota Forestry Association. The title is unfortunate, for the book has more than a local value, since it is in part a very good manual of "Elementary Forestry." Enough is now known, even in this country, of the influences of trees on soil, climate, water-flow, etc., to warrant a wider interest in the effort that is making to establish a policy of forest-protection in several States and by the General Government. A few of the statements made by Professor Green are striking. For instance: "The amount of water transpired by a tree is so large in comparison with the amount retained, that, while an acre of forest may store in its trees in a year 1,000 pounds of carbon, 15 or 20 pounds of mineral substances, and 5,000 pounds of water, it may have taken from the soil and given off to the air 500,000 to 1,500,000 pounds of water. Large deciduous trees undoubtedly give off as much as a barrel of water a day in summer weather." Even in winter, when trees are dormant, it has been shown that they give off water to the air. Again, trees themselves and their litter on the ground greatly retard evaporation and thereby conserve the rainfall, feed the springs and make the soil fit to better withstand extended drouth. As windbreaks to lessen the rate of evaporation, even a thin stand of woodland has been found to have considerable influence. The force of the wind is also lessened by a stand of trees, the extent and value of the interruption depending on the size and closeness of the trees. The utility of forests as sanitary agents is becoming recognized; more information on the subject is needed, however, and the little book is therefore timely and useful.

Journalism, Advertising, Ethics, and all the Rest.—It is difficult to select a title for this note, so many are suggested by the interesting pamphlet headed *An Open Letter, etc.*, distributed by a Mr. John T. Milliken, of St. Louis, Mo. We have no possible means of judging concerning the truth or merits of the controversy; we sincerely hope that a trustee of the American Medical Association will be able to show to the members of that Association, and of the profession generally, that any such charges as these are false

We have no doubt of his ability to do so. It would be a sorry fact for all concerned if disproof were not at once forthcoming and wholly satisfactory. Of course it is psychologically impossible that an American physician would be ungrateful for money loaned, and for "hospitality"; it is impossible that for $200 he would agree to prepare and read a paper on a fraudulent serum before the British Medical Association. No editor in the entire profession, writing to a manufacturing pharmacist, could bring himself to write such sentences as these:—

> "A gilt-edged pharmaceutical product with a connection formed between it and a high class medical journal (said connection under no circumstances to be known outside of ourselves) would be invincible."
>
> "I know that you will agree with me that in business matters we should not allow feeling or sentiment to control us."
>
> "You as an advertiser are entitled to every possible consideration as such and shall receive it."
>
> "Both will be interested in doing all we can to advance the interests of advertisers along the line."
>
> "I received a very pleasant letter from Dr. Milliken reporting to me that he had been received most cordially by the eminent physicians of the East to whom I gave him letters of introduction."

The morbidity of the grammar and English, not to mention the ethics, illustrated by these sentences and of others in the pamphlet, will make it easy, if no better proof is at hand, to convince any skeptic of the innocence of the reputed author. No physician, and assuredly no medical editor, could possibly have written them.

Likewise no physician profoundly interested in lessening disease by serum-therapy would so grievously err as to engage a novice without an illustrative case, to manufacture an article—a literary one, we mean—for $200 in praise of the serum. He could not be so indifferent to the temperature of his horses, as not to provide thermometers for his assistants, *etc., etc.* No doctor could have written, as regards sly advertising dodges, "we must be exceedingly cautious how we handle doctors." We utterly refuse to believe these foul insinuations and contemptible aspersions of the characters of American physicians. This man Milliken should be instantly sued for libel! He is unkind, and even unfriendly!

The Surgery of the Posterior Mediastinum.—At the present time there is an abundance of theoretic studies, although few clinical facts, concerning this interesting field of surgery. Under the title "*Le chirurgie intramédiastinale postérieure*" Potarca, of Bucharest, has written a monogram of 110 pages, which, while it contains no original clinical observations, gives an excellent resume of all that has been written on the subject, together with the results of very extensive studies on the cadaver. Surgical intervention is indicated in mediastinal abscess; in certain cases in which bullets or other foreign bodies are lodged in the mediastinum; in such cases of foreign bodies in the trachea or bronchi as it is found impossible to extract with the aid of the laryngologist, after tracheotomy if need be; it may also be indicated in the case of tumors of the mediastinum or in periesophagitis. But the most frequent source of trouble or inconvenience calling for operation is the esophagus: foreign bodies in the esophagus, stenosis of the esophagus, diverticulums of the esophagus—all are accessible by way of the mediastinum. The advantages of this route are insisted upon in the case of foreign bodies lodged at the level of the second or third dorsal vertebræ, which it would be impossible to extract through the natural passages without violence; then, the expectoration, which is often a source of danger, in case of cervical esophagotomy, is less likely to cause trouble. In the treatment of diverticulums, it is proposed to excise the pouch, suture solidly, and then pack the wound. As to the side on which it is best to operate, Potarca chooses the right, because he thus avoids the aorta and intercostal vessels, as well as some small vessels given off from the anterior aspect of the aorta, the hemostasis of which may be exceedingly difficult because of the depth of the wound. The fold of pleura on the right side he has found to be easily separated away without rupture. In regard to the choice of sides, Potarca is perhaps influenced by Nasilov, who was the first to study the subject. On the other hand, Quenu and Hartmann, who have recently advocated opening the thorax on the left side in order to avoid the fold of pleura which exists on the right side, do not find that the aorta, which is situated to the left and behind the esophagus, offers any difficulty in the manipulations of the surgeon.

The whole subject is one of much interest, and great advances may be expected in so comparatively new a field within the next few years. By his numerous careful dissections and painstaking research, Potarca has done much to call attention to mediastinal surgery, and has rendered a valuable service to the profession.

The Board of Health and Its Yellow Sign.—In this Journal, of recent date, we called attention to the hardships and abuse wrought by the yellow sign. Whenever a case of scarlet fever or diphtheria occurs in this city the Board of Health insists on placarding the premises with an ugly yellow poster, announcing to the world, practically, that the place is a pest-hole, and warning all citizens at risk of their lives, practically, to keep off. We believe, as we said then, that this is a useless, mischievous and antiquated plan, not a whit more enlightened than chalking the doorposts with the sign of the cross, as was done in London at the time of the great plague. Since writing that editorial we have taken pains to ascertain some facts as to the way this scheme is working to-day in Philadelphia, and as to the custom in New York.

In this city it has become so dangerous for physicians to take the Board into their confidence in suspicious cases of sore throat that the law is being constantly evaded. A very mild case of tonsillitis, which ends in recovery in 48 hours on simple appropriate treatment, is likely to be pronounced diphtheria by that time (or the day after) and the house quarantined. After the horse is stolen, the stable-door is shut! A physician, who rashly but conscientiously reported such a case in his own family, was appalled to find that his house would be placarded after the child was to all appearances well. According to the newspapers, a Chinaman was quarantined so effectually for sore throat in his child, that he was soon bankrupted, and had to be fed by the neighbors, while the innocent and healthy child was romping about the house.

A law that is evaded is worse than no law at all. The abuses to which it leads are secret, concealed, and hence all the more deadly. The people of this city, especially the small tradesmen, are thoroughly alive to the hardships put upon them by this law, and are evading it persistently. They do this with the aid of a physician, if they can; without it, if they must. We know authentically of an instance in which a provision-dealer, doing a very active trade, called a physician to see his child ill with a suspicious sore throat. When told that it would be necessary to send a culture to the Board of Health, he promptly discharged the physician, saying that if such a thing were done, he might as well put up his shutters and go out of business, and remarking, confidently, at the same time, that he could obtain a physician who would not be so disobliging. The subsequent history of this case is unknown to us; but our knowledge of human nature convinces us that no law can be effectual that puts a department of the city government in such a terrifying attitude towards the people as this.

To show that the practice in this city is not considered essential elsewhere, we have obtained an official statement of the rule in New York. Houses in that city are not placarded, but only the apartment occupied by the patient. The affixing of a placard is left to the discretion of the medical inspector of the district. This is the practice, especially in cases of scarlet fever and diphtheria. The following diseases—measles, whooping-cough, mumps, chicken-pox, and typhoid fever—are not placarded. Cases of smallpox, yellow fever, typhus fever, cholera, relapsing fever, and bubonic plague, are at once removed to the hospitals of the department and the premises disinfected. The placards are printed in English, German, and Italian. This is a vastly more enlightened law than prevails in this city. The yellow sign should be abolished. It creates alarm, invites to deception and concealment, imposes great hardships, and does not stay the progress of disease.

Leprosy in the Hawaiian Islands.—Surgeon D. A. Carmichael, of the U. S. Marine-Hospital Service, who was appointed by the President to make a special report on leprosy in the Sandwich Islands, has completed his report under date of November 28 last. It is perhaps not quite so complete in details as the one prepared for the Berlin Conference by Dr. Ashburton Thompson, and which was noticed in these columns last year, but it contains items and suggestions of much interest and value. As the United States has now assumed control of these islands, an official report by a surgeon of the Marine-Hospital Service is a paper of considerable importance to the profession in this country. Our only criticism is that the paper is rather short and sketchy and therefore not as fully instructive as we should like an official document to be.

The disputed question of the origin of leprosy in Hawaii is merely stated by Dr. Carmichael, and may be dismissed as probably insoluble and no longer of practical importance. It seems certain, however, that the disease has increased enormously there in recent years, and largely among the native population. This, at least, is the showing of the statistics of the leper colony at Molokai, the population of which has increased from 105, in 1864, to 1,100 in 1897. This increase has been regular from year to year, with few unimportant exceptions. Of course this may be due to the persistent efforts of the authorities to collect all the lepers on the islands in this one settlement. It is said that many are still at large.

The segregation of lepers at Molokai, now practised for 34 years, has furnished a trial of this method superior to any similar plan in the world, and our opinion is that it does not give much comfort or support to those who advocate this method as a means of checking the disease. Certainly, after a third of a century, in a limited and favorable field, it does not seem to have materially controlled leprosy in these islands. It is, of course, difficult to draw conclusions, and from the hygienic standpoint probably few would criticise, and fewer still condemn it. Arning's now historic experiment of inoculating a condemned criminal with a tubercle from a leprous patient in Molokai, is related by Carmichael in full, and the fact pointed out that the criminal came of a leprous family and might have developed the disease anyhow. Such an experiment, under the ægis of the U. S. Government, will hardly be repeated.

Leprosy is studied carefully and diligently by experts at Molokai. Arning, for instance, found the bacillus in the serum and crust of a vaccination-sore on a leprous patient—a discovery which lends plausibility to the theory that the former great increase of leprosy in Hawaii was due to arm-to-arm vaccination. Alvarez in this same colony, demonstrated the presence of the lepra-bacillus in the body of a mosquito which had just drawn blood from a leprous patient. The house fly and bed-bug are also under suspicion in Hawaii.

In the vast experience furnished by this settlement no curative agent has been discovered, though prefer ence is expressed for sodium salicylate, salol, creosote, gurjun and chaulmoogra oils, and a few other so-called specifics.

Dr. Carmichael sounds a timely note of warning against the dangers of importing leprosy from the Sandwich Islands into the United States. The risk is greater from mild early cases in white persons; in these the leprous ulcers in the nose and the eruption under the clothing may easily escape detection. The native population, fortunately, shows little tendency to emigrate. The author's paper would be an important one if it did no more than direct official notice to the danger of importing the disease from our new dependencies over the seas.

The Overcrowding at Blockley.—The Department for the Insane at the Philadelphia Hospital is dangerously overcrowded, and the responsibility for this rests entirely upon City Councils. The public should know the facts and understand the reason for them, and members of the medical profession should use all their influence to remedy the evil. The city stands face to face possibly with some grave calamity, or some wretched scandal, growing out of the way it is to-day compelling the abuse of its indigent insane. Councils have turned a deaf ear for several years to all appeals for adequate relief. The crisis is now so imminent that the authorities at Blockley have written a series of letters on the subject, in which they once more point out the evils, and, very properly, disclaim responsibility for them.

Since 1889 the insane population at Blockley has almost doubled. It has increased from 760 to 1378. During this period the hospital itself has been brought to a high level of clean, effective and intelligent management, which has completely effaced the malodorous record of former years. This has been done in spite of many disadvantages, which are largely due to the location of the hospital and its old buildings—but for these the present administration is of course in no way responsible. So far as it has been possible to remedy defects and bring the hospital to a state of sound hygiene, everything has been done that could be done by energetic and conscientious officials, so that now the city of Philadelphia would have no occasion to blush for her hospital if it were only large enough to accommodate its patients. This greatest of evils, overcrowding, has been gradually forcing itself upon the authorities, until now, no longer able to combat it, and unwilling to bear the responsibility for it, they make a public appeal which should not go unheeded.

Dr. Hughes demonstrates in his letter that the total excess of population, based upon a measurement of hygienic air-space in the wards and corridors, is 533. In other words, with a total population, including attendants, of 1463, in a hospital only large enough to give hygienic air-space to 930, the Philadelphia Hospital has to-day in its insane wards almost 60% excess of its normal rate.

This is a truly deplorable state, and carries with it, as Dr. Hughes points out, the grave risk of epidemic and infectious disease. Even as it is, however, the death-rate has been kept lower than might be expected, and has never been as high (1 in 4) as the *Philadelphia Press* has recently asserted.

City Councils should act at once in this matter. The appropriation of a small sum of money every now and then is a mere stop-gap. Intelligent plans should at once be adopted for the erection of a suitable municipal asylum at some other site, and this new institution should be used for the chronic and incurable cases. Blockley, as it is conducted under the present efficient management, is amply able to care for the better and more hopeful classes of the insane. As part of a great hospital system its insane department could doubtless achieve as good results with this class of patients as any hospital in the land; but it is unfair, even criminal, for City Councils to continue to put upon it the burden of an excessive population of chronic insane paupers for which it is no longer able to care.

Suggestions to Writers: No. 22.—"Immune to," "Immune from," etc. We have been asked as to the proper preposition to use with *immune;* should it be *from*, *to*, or *against?* The original significance of the word *immunis* was, *exempt from public service or charge*, the thought being one of a release from a common duty or obligation. In applying the term in a medical sense, the essential idea of exemption is preserved. It is a matter of indifference whether the condition is of natural or acquired (artificial) origin. Replace the word by its nearest synonym, *exempt*, and the preposition *from* is required.

Editor and Reader: No. 14. Details in letter-writing are often neglected. We referred to this incidentally several weeks ago, but the number of illustrative instances seems to increase rather than decrease. The most frequent consist in failing to give the name of the street and number of the house of the writer. Sometimes the city itself is omitted. In such cases the post-mark on the envelop may be illegible, and Polk may be in error or omit the name altogether. We have received a few letters without signature, and then all we could do was to await the wrathful letter sure to come sooner or later. One writer headed his letter S. F. and nothing more, and a hunt through the directories of Sante Fé, San Francisco, South Framingham, etc., did not help us. A physician sometimes changes his residence or office, forgets to notify the mailing department, and then complains bitterly of our inexcusable blundering because he does not receive his journal. In all kindness may we suggest that before writing an angry letter, with seemingly the best reason in the world, it might be safer, at least more gracious to moderate language, until it is found exactly who the guilty one is.

Correspondence.

CONCERNING THE TREATMENT OF INFLUENZA.

By PROF. ROBERTS BARTHOLOW, M.D., LL.D.,

To the Editor of the Philadelphia Medical Journal :—

Sir :—So much success has attended the plan of treatment herein outlined, that I venture to submit it to the wider publicity of your admirable Journal. The method consists essentially in the adaptation of physiological actions to the relief of pathological processes—in the inhibition of a morbid state by the principle of physiological antagonism.

When an attack of influenza occurs, the initial symptoms are dryness and redness of the mucous membrane, soon followed by increased secretion, and a general "malaise," supposed to coincide with the deposit and vital activity of minute organisms, and the production of ptomaines. The remedy which is best suited to antagonize this local affection and to prevent the systemic disturbance, is pilocarpin. My practice is to administer, at the beginning of the local inflammation, $\frac{1}{6}$ of a grain (adult dose) of one of the salts. The effects of this remedy, whilst on superficial view similar to the disease, nevertheless quite exactly antagonize it. Pilocarpin sets up a brief stage of dryness, immediately followed by increased secretion, and presently the mucous glands, the salivary, and cutaneous sweat-glands, pour forth an abundant secretion. This similarity of action is truly an action of antagonism, for the morbid process and the action of the remedy contend in the tissues, and one or the other must yield. In fact, a sufficient dose of pilocarpin, administered at the right time, will often abort an acute catarrh or a common cold. It is generally best to give one dose of the pilocarpin about two or three hours before retiring for the night, so that the process of salivation and sweating is ended before sleep begins. Besides this action, pilocarpin is essentially a depurative agent, and, through the mucous surfaces and their glandular appendages, on which its acts, secures the excretion of toxic materials. The number of pills to be taken will depend on the results of their action, usually one at night for two or three nights. On the second day, begin the administration of duboisin. Of this the most useful dose is from $\frac{1}{300}$ to $\frac{1}{200}$ of a grain, for it is not desirable to induce its full physiologic effect, and this quantity given once or twice in 24 hours will cause some dryness of the mouth and nasal and faucial mucous membrane, and slight dilatation of the pupil. Duboisin antagonizes in a remarkable degree the morbid action going on in the mucous membrane. Probably, it also inhibits the physiologic activity of the minute organisms at work there. Indirectly the systemic infection may thus be limited. It is important to maintain only a moderate degree of impression by duboisin, for if it proceed beyond that, the result would be disagreeable without contributing anything to the curative action. It may be asked: Why duboisin? Why not hyoscyamin, or atropin, or hyoscin? Identity of chemical constitution does not necessarily imply correspondence in molecular arrangement. Duboisin, although closely allied to hyoscyamin, is not clinically identical, and. especially is this difference shown in this malady.

For the depression which is so marked a feature of many cases of influenza, there is no remedy so effective in my experience as iodid of iron, which is best taken in the form of the official pill—one every four hours.

There is yet another expedient which I should not fail to mention, the inhalation of volatile substances. I do not mention the large number which have been proposed and utilized, but a few that I have found useful. I place pyridin first, as respects convenience and utility. One or two drops placed on a handkerchief can be readily inhaled as often as necessary. Or ethyl iodid may be similarly used, or ethyl bromid when convulsive cough is a symptom.

Treated in this way, ordinary attacks of influenza may be brought to a safe termination, "cito, tute et jucunde." The danger of other maladies arising intercurrent is reduced to a minimum, and complications are infrequent.

PUBLIC PROVISION FOR CARE OF EPILEPTICS.

Historical Memorabilia.

By FREDERICK A. CASTLE, M.D.,

of New York.

To the Editor of The Philadelphia Medical Journal :—

In your issue of October 8, 1898, appears the following statement, as a part of a recent address by the president of the American National Society for the Study of Epilepsy, etc. :

> "From the standpoint of philanthropy, a stigma rests upon society for the absolute neglect of a most pitiable class of unfortunates, [epilepties] which up to five or six years ago had never received any attention whatever in this country."

With no purpose to detract from the credit due those who have lately accomplished much to better the conditions of epileptics, I wish, only, to mention a few of the historical evidences that prove the contrary of that statement. My motive for doing so is to correct misapprehension by others besides the writer above referred to, and to somewhat acquit society of such reputed dereliction. Another motive is to give due credit to those who endeavored, long ago, to do that which has more recently been accomplished, but which then failed because it was premature.

On the 4th of April, 1866—more than 32 years before the above statement was made—the Commissioners of Public Charities and Corrections of the City of New York

> "*Resolved*, That a commission be appointed in conjunction with the resident physician of lunatic asylum, to examine the patients at that institution, and determine who, if any, may be discharged."
>
> "*Resolved*, That the commission do consist of Drs. Taylor [Isaac E.], Stephen Smith, and Echeverria." [Dr. M. Gonzalez Echeverria becoming chairman.]

In the minutes of the Board of Commissioners, for April 24, was noted (and published) the reception of the committee's report, in the course of which was the following:

> "Sixty-three epileptics were pointed out by the resident physician, among the inmates of the asylum. Many of them are without evidence of dementia, or mania, between the fits, and most likely, from want of another institution where to be taken to, were brought into the asylums by their relatives or friends, as relief from anxiety and care. Others, again, are epileptics with the impaired condition of mind peculiar to an advanced stage of the disease; and, finally, the remainder are cases of insanity associated with epileptic convulsions. These latter, of course could not be transferred from a lunatic asylum; but the committee would suggest the propriety of removing the extensive proportion included in the former classes, whereas they are neither lunatics, nor ought to be in common with the insane. No doubt epilepsy leads to insanity, and is one of its results, but it does not follow that loss of mind, stupor, or the exaltation accompanying the fits, constitutes the epileptic a lunatic during their intervening period, although at the time of the attack, he is, indeed, as irresponsible as the insane. In fact, all epileptics labor more or less under such cerebral derangements, and yet they are far from being looked upon as lunatics. The committee would, by consequence, advise: That an independent division be instituted for the epileptics, and also the numerous paralyzed among the inmates of the Charity Hospital, and that it be placed under the management of some of the physicians in Charity Hospital, especially devoted to

the study and treatment of nervous diseases. By thus doing, the lunatic asylum will be relieved from cases improperly sent to it, while the epileptics and paralytics will be situated in a more favorable condition to receive immediate attention, and be submitted to a course of treatment in accordance with the progress achieved to alleviate or cure their distressing state." . . .

"It is demonstrated in the most positive manner that epileptics improve considerably under regular exercise, that the severity and frequency of their attacks decrease when they are kept occupied. . . .

"On which the following resolutions were adopted ;

"*Resolved*, That when the pavilions in course of erection on the grounds of lunatic asylum be completed, one of them shall be assigned to epileptic cases, and the remainder to such other forms of nervous diseases as shall on consultation with the commission of the asylum be deemed expedient."

In October following, the pavilion was occupied by female epileptics, and a distinct department came into actual existence, Dr. Echeverria becoming the visiting physician. In the course of its administration, Prof. Henry D. Noyes examined the visual capacity of its inmates (refractive, ophthalmoscopic, etc.); cranial diagrams were obtained, with the aid of a "conformator," such as is used by hat-makers, and other special modes of study and therapeusis were undertaken.

As illustrative of ways and means, the subjoined form for case-records, then adopted, will well show that *special* attention *was* given to the study of epilepsy at that period.

In subsequent (and nearly related) minutes of the Board of Commissioners, may be seen the reports of examinations of idiotic inmates of the institution on Randall's Island, in whom the existence of epilepsy was evident. In this connection the Board had the cordial services of H. B. Wilbur, M D., Superintendent of the New York State Asylum for Idiots, at Syracuse, N. Y., who, in his letter, said: "A very large proportion are epileptic. These, of course, should be separated from the idiots proper, and receive that medical attention they need, etc."

Omitting much that is of interest, but more related to the care of insane and idiotic patients, although far in advance of current practice, I will, lastly, mention the official report by Dr. Echeverria at the close of the year, published in Vol. VII of the Transactions of the Board, in which may be found even fuller expression of his comprehensive and intelligent purposes regarding the public care of epileptics.

It was quite as much a public as a personal misfortune, when pecuniary embarrassment, ill-health, and discouraged spirit, soon led to the return of Dr. Echeverria to Europe. Lacking his direction, the hospital came under the management of the officers of the adjoining lunatic asylum; then, of the Charity Hospital staff, and, progressively, degenerated until its existence was more nominal than otherwise. Nevertheless, allow him and the good men who then composed the Municipal Board, the scant reward of credit for having done, at that early period, the *right thing*, and of having done it wisely and earnestly, albeit prematurely.

51 West 58th St.

Epileptics—Female Department.[1]

Pavilion . . . . Bed No. . . . . . .
Entered the Hospital . . . .
Discharged . . . .
Result . . . .

Name . . . . Age . . . . . .
Born in . . . . State . . . .
Occupation . . . .
Habits . . . .
Hereditary influences . . . .

Invasion of the disease :
Causes
  Psychical (fear, fright, anger, grief, sight of an epileptic, etc.) . . . .
  Physical (poisoning, injury, onanism, suppressed catamenia, child-birth, critical age, etc.) . . . .
  Not appreciated . . . .
Seasonal influences . . . .
Relations to other diseases and derangements . . . .
Premonitory symptoms of fits (aura, vertigo, glottic spasms) . . . .
  Petit mal . . . .
Time of occurrence and frequency of fits . . . .
Symptoms during the fit :
  Seat of convulsions . . . .
  Biting of the tongue . . . .
  Consciousness in fit . . . .
Sequelæ of the attack :
  Shape of skull . . . .
  Mind . . . .
  Speech . . . .
  Sight . . . .
  Hearing . . . .
  Sensibility . . . .
  Movement . . . .
  Temperature . . . .
  Perspiration . . . .
  Circulation, pulse . . . .
  Respiratory organs . . . .
  Digestive functions . . . .
  Urine (quantity, reaction, density, composition) . . . .
  Uterine functions . . . .

Date.	Remarks and History of Treatment.
. . . . . .	. . . .
. . . . . .	. . . .
. . . . . .	. . . .

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[1] Size of page, 8½ x 14 inches, with four pages to each case.

LEGISLATION IN REGARD TO TUBERCULOSIS IN CATTLE.

By JAMES LAW, F.R.C.V.S.,
of Ithaca, N. Y.

To the Editor of the PHILADELPHIA MEDICAL JOURNAL:—

SIR:—The objection to the New York Antituberculosis bill, on page 187 of your last issue, is in my opinion made as the result of an error in reading. The bill provides that the State official shall pass upon the certificate, and if satisfied as to its value, shall issue a permit for the importation. Should he not be satisfied with the certificate the animals stand to him in the position of untested animals, and the bill provides that they shall be tested. *The bill does authorize the inspector to test every store-animal about which he has the slightest doubt.* To demand more would make it mandatory on the inspector to test all store-cattle, and would introduce an element of antagonism which would probably defeat the bill in the Legislature. Let it be mandatory that all cattle shipped into New York shall be tested there and the condemned killed without indemnity, and our markets would at once suffer; store-cattle would be marketed in other States, or, if marketed in New York, the shipper would have them all tested before shipping, and detain those that react, knowing that they would be tested again on their arrival in New York. The double test would lay a serious expense on the trade for the tests, and would entail a no less objectionable outlay in both time and money, and often the loss of a good market as well by the unnecessary delay. From a long experience with veterinary sanitary work, I have learned that that system will be the most effective which combines with thorough work the least possible interference with private interest. The bill which seriously hampers trade, when there is no absolute necessity, is always "weak" in exact ratio with such interference. It will either be successfully fought in the Legislature, or it will give rise to endless clandestine violations.

I submit that the bill is much better and *stronger* as it stands than it would be by the addition of any mandatory provision. The shipper wishing to sell his stock in New York can submit to the New York official the record of the tuberculin-test, with the signature and affidavit of the tester, and, if satisfied, the New York official can send on the permit which will be their warrant for admission into the State without expense or delay. Breeders and dealers will soon accommodate themselves to this, as a reasonable and considerate measure, which protects equally the interests of both parties to the sale and which is founded on equal justice to all. The other method would be a source of constant annoyance to seller and dealer, and could not fail to maintain an endless antagonism to sanitary work, and to seriously injure the trade in our large cattle-markets.

Magnesium-Sulphate Treatment of Dysentery.—Buchanan (*Indian Medical Gazette*, December, 1898) reports 102 consecutive cases of dysentery treated by magnesium sulphate. A low diet was insisted upon until the stools became solid. But one fatal case was reported. The change in a period of 24 hours was marvelous in the greater number of cases and was marked in all. The drug was given in doses of one or two drams of a saturated solution every hour or two hours, according to the strength of the patient. Treatment should continue one or two days after mucus and blood have disappeared from the stools. [G.C.C.H.]

Society Report.

MEDICAL SOCIETY OF THE STATE OF NEW YORK.

Ninety-third Annual Meeting Held in the City Hall, Albany, January 31, and February 1 and 2, 1899.

FIRST DAY.

Tuesday, January 31.

Inaugural Address.—The President, DR. ROE, in his inaugural address, referred to the large membership, 708, and the satisfactory state of medical education throughout the State. The medical libraries in the State contain a total of 138,110 volumes, over one-third of this large number being in the New York Academy of Medicine. Speaking of medical legislation, he referred to the dispensary bill now before the legislature as the best of its kind yet introduced. The mooted question of the control of midwifes he would have referred to the State Board of Medical Examiners.

State Board of Medical Examiners.—The report of the committee representing the Society was presented by DR. M. J. LEWI, of New York. It showed that of the 809 applicants for license, 29 9% had been rejected, and also indicated that the best qualified men were those coming from our own medical schools.

Committee on Hygiene.—DR. HENRY R HOPKINS, of Buffalo, in a very carefully prepared report, directed attention to the very significant fact, that 49,875 deaths had resulted from diseases which were in all probability communicable, and therefore preventable.

Committee on Legislation.—DR. FRANK VAN FLEET, of New York, the chairman of this committee, declared with some pride that his committee had been instrumental in securing the defeat of quite a number of bills brought before the legislature last year. Among the more important of the bills for whose defeat the committee assumed the responsibility, and claimed credit, was one which deeply interested the profession throughout the State, and which received the support of many of them—*i. e.*, the now celebrated Sullivan Dispensary Bill.

Fracture of the Cervical Vertebræ.—DR. CHAUNCY P. BIGGS, of Ithaca, reported the case of an aged man who had been injured by being thrown out of the back of a wagon on his head. The specimen presented showed that while the direction of the canal had been changed, it had not been obliterated. The cord had been injured by a spicule from the fifth vertebra, the body of which had been crushed forward, thus giving rise to a prominence which made the case appear as if the upper fragment had been dislocated forward. The prominent features were the clear mental condition, the persistent and marked subnormal temperature and the possibilities of surgical treatment. DR. A. M. PHELPS, of New York, advocated active surgical interference in such cases, and DR. MYNTER, of Buffalo, while agreeing with him theoretically, admitted that his own experience with such operative treatment had been discouraging.

An Unusual Injury to the Kidney.—DR. W. D. GARLOCK, of Utica, reported a case of extensive laceration of the kidney as a result of a blow received in a game of baseball. A little blood-stained urine was passed shortly after the accident, but it was not until the following morning that the dulness over the region of the left kidney, the abdominal tenderness and increasing tympanites led to consultation and abdominal section. At the operation, there was found to be some peritonitis, with free blood in the cavity, with a subperitoneal hematoma in the left kidney. Through a posterior incision this hematoma was reached, and the coagulated blood evacuated, and then, owing to the extensive laceration of the kidney, removal of this organ was resorted to. The patient died three hours later. DR. MYNTER said that where the urine was bloody after such an injury, and there was an effusion of blood under the skin of the nates and scrotum, one was reasonably safe in diagnosing rupture of the kidney.

Formaldehyd Disinfection.—DR. W. H. PARK, of New York, presented a communication on this subject. He stated that this gas is exceedingly irritating to the respiratory passages, and that it is, chemically speaking, an unstable substance. For purposes of disinfection this gas is commonly generated from the ordinary formalin, or 40% solution of formaldehyd. It is a deodorizer as well as a disinfectant, and has been shown by experiment to be comparatively nontoxic to the higher animals. For surface disinfection, it suffices to use three ounces for each one thousand cubic feet of space to be disinfected. It has but feeble penetration, and where it is desired to act through only one layer of moderately thick fabric, at least three times this quantity should be provided. Bedding, upholstered furniture, and heavy fabrics generally should be disinfected by steam, or by formaldehyd in special chambers provided with vacuum apparatus to secure the requisite degree of penetration. The time should be at least eight hours, and the quantity of gas at least ten times that used for surface disinfection. Books may be readily disinfected by spreading them out on shelves and exposing them to formaldehyd-gas, and cars and ambulances may be effectively treated in large chambers. For the ordinary disinfection of dwellings about twelve ounces of formalin should be used for each one thousand cubic feet; the temperature of the air in the room should not be below 50° F., and the time of exposure to the formaldehyd should be at least four hours. It costs from fifteen to thirty cents per thousand cubic feet, as compared with a cost of eight or ten cents for disinfection by fumigation with sulphur.

The Dangers of the Long-Tube Nursing Bottle.—Dr. Ernest Wende, of Buffalo, gave in this paper the results of a careful investigation, chemical, bacteriological, and microscopical, into the structure of these rubber tubes, and the feasibility of thoroughly cleansing them. A series of photomicrographs were exhibited to prove that the rubber used in their manufacture is very porous, and that they are full of pits and seams which are admirably calculated to afford breeding-places for bacteria. As a result of this research, and at the suggestion of Dr. A. Walter Suiter, of Herkimer, the State Society passed a resolution calling upon the health authorities of cities and towns to assist in prohibiting by law the sale of these bottles.

The Transmission of Disease by the Use of Second-hand Clothing.—Dr. William G. Bissell, of Buffalo, in a very suggestive communication on this subject, showed that his experiments had demonstrated the presence of virulent tubercle-bacilli in the pocket of a military coat that had been worn at one time by a consumptive officer.

Intestinal Resection.—Dr. W. L. Cuddeback, of Port Jervis, reported an interesting case of extensive intestinal resection that had come within his personal experience, although the operation was done for a strangulated hernia, and when the patient was rapidly passing into a condition of collapse, thirty inches of small intestine were resected and the Murphy button used with complete success. Dr. R. H. M. Dawbarn, of New York, criticised the use of the Murphy button for end-to-end anastomosis when safer methods were at the disposal of the surgeon.

The Close Relation Between the Nasal and the Cranial Cavities, and Between Nasal and Cranial Disease.—Dr. William C. Kraus, of Buffalo, read a paper with this title, in which he took the ground that the nasal passages served as ventilators of the brain, and insisted that all children should be taught to cleanse the nose with warm Dobell's solution as a part of the ordinary daily toilet.

The Importance of Early Examination and Treatment of Catarrhal Mouth-Breathing in the Public Schools.—Dr. Clarence C. Rice, of New York, read this paper, one object of which was to direct attention to the probable danger arising from the daily association in our schools of a large number of children suffering from disease of the nose and throat. In his experience, about 90% of mouth-breathing children had permanent nasal obstruction, chiefly the result of enlargement of the pharyngeal tonsil. Although the diagnosis could often be made by exclusion, he was in the habit of using for this purpose a small post-nasal curet, which is much more easily used for purposes of exploration than the finger in a struggling child. Unless there is hypertrophy of the adenoid tissue in the pharynx the curet will not remove any tissue.

How to Treat Shock.—Dr. R. H. M. Dawbarn, of New York, presented this paper, which, in spite of its title, dealt not so much with the treatment of shock as with its prevention. This preventive treatment consisted in the use of saline infusions at the right time and at the right temperature. As a result of experiments in the physiological laboratory he had learned that the right temperature for the infused fluid is 120° F., instead of about 100°, as is usually employed. These very hot injections exert a far more potent influence on the flagging heart. Dr. A. T. Bristow, of Brooklyn, remarked that no one need fear to use these hot infusions, as they did not injuriously affect the albumins in the blood. Dr. Walter B. Chase, of Brooklyn, discussed the important part played by fear and nervous apprehension in the causation of shock, and also of the shock unnecessarily inflicted by a thoughtless prolongation of the period of anesthesia.

Fever in Aseptic Surgery.—Dr. B. Farquhar Curtis, of New York, presented a paper on this subject, in which he stated that the kind of fever to which he had reference was often the result of absorption of fibrin-ferment or nuclein from the broken-down tissue and coagulated blood in the wound. To make the subject clear, temperature-charts were exhibited to show the temperature-range after infection of an operation-wound, after clean, aseptic wounds and in pure shock. The temperature in absorption-fever rises within twelve hours after the infliction of the wound, while in cases of moderate infection this rise of temperature is usually somewhat longer delayed. Aseptic fever is characterized by a relatively slow pulse and but little constitutional disturbance. Dr. A. Vander Veer, of Albany, spoke of a number of recent operative cases, occurring during the epidemic of la grippe, in which the temperature had risen to 104° or 105° F., but with no evidence of infection of the wounds.

The Use of Streptococcus-Antitoxin in Phlegmonous Inflammation.—Dr. A. T. Bristow, of Brooklyn, read a paper on this subject, in which he reported 14 cases in which the remedy had been tried. He concludes from these observations: (1) That cases of idiopathic erysipelas may be quickly controlled by the serum, giving rarely more than two injections of 10 cc. each; and (2) that in phlegmonous inflammations the serum does nothing more than check the extension of the process.

Puerperal Insanity—A Cursory Review for the General Practitioner.—Dr. Carlos F. MacDonald, of New York, read this paper. He spoke of, and recommended the old, familiar classification of this disorder into mania, melancholia, and dementia, and stated that in most instances the third variety was only observed as the terminal stage of the other two forms. Among the causes of puerperal insanity were mentioned heredity, prolonged anxiety during pregnancy, severe postpartum hemorrhage, fright or shock from the death of the child, and sepsis.

Military Medicine and Surgery.—The general discussion on this subject was opened with a paper on **Cardiac degeneration as observed in the soldiers of the late war,** by Dr. Henry A. Fairbairn, of Brooklyn. Of the 272 of the soldiers that had come under his care after their return from Cuba, 155 exhibited disturbance of the vascular system, 133 giving auscultatory signs indicative of a weakened heart-wall.

Hygienic Camps.—Dr. H. R. Hopkins, of Buffalo, discussed this part of the subject, fortifying his statements with carefully selected statistics. He stated that the first step in securing a healthful camp was to abolish the abominable camp-sink. For a regimental camp, a good system of piping and sewerage could be provided for $1,000; the water-supply would cost about $4,000, and the balance of $5,700 would be expended in protecting the soil in such exposed parts as the kitchen and sinks with a covering of concrete. Those persons who are inclined to look upon such an expenditure as extravagant, should think of the costliness of disease, and also remember that for the one item of fitting up the ventilating system of the *Oregon* the government expended over $30,000. Dr. Vander Veer, of Albany, and Dr. W. Warren Potter, of Buffalo, continued the discussion, relating their personal experience with camp life in the Civil War.

The Relations of Preventive Medicine to Political Economy.—Dr. George W. Brush, of Brooklyn, read a paper on this subject, in which he asserted that consumption was responsible for the death of 13,000 persons every year in New York State. As yet, Massachusetts is the only State which has established a State Hospital for consumptives, although history shows that efforts in the past, by stringent legislation, to check the progress of this grim specter have always resulted in a very decided diminution in the number of its victims.

The Relation of the Consumptive to the State.—Dr. John H. Pryor, of Buffalo, in a paper with this title, reinforced the arguments of the preceding speaker. He asserted that, according to conservative estimates, more than 50,000 consumptives are to be found within the borders of New York State, and that ideal isolation can be best secured by State care of these citizens. Such an institution, if reserved for incipient cases, should be almost self-supporting, and should yield 60% of recoveries. Taking the moderate estimate that each citizen is worth at least $1,000 to the State, it follows that 13,000 deaths from consumption means a pecuniary loss to the State of thirteen millions of dollars annually. Surely the State can well afford to take care of its consumptives.

After listening to the preceding papers, the Society voted to send immediately to the Governor and to each member of the Legislature a communication urging the establishment of State sanatoria for consumptives.

Second Day.—Wednesday, February 1.

Section in General Surgery.

The Treatment of Uterine Hemorrhage with Stypticin.—Dr. Herman J. Boldt, of New York, gave the results of his experience with this remedy, which is a derivative of narcotin. It somewhat resembles digitalis in its action on the heart. It apparently has no oxytocic properties. It was found of service in uterine hemorrhage associated with perimetritis occurring after abortion and full-term deliveries, and in certain other hemorrhagic conditions of obscure origin. By the mouth it is given in doses not exceeding 3 decigrams, and hypodermatically in doses of 20 minims of a 10% watery solution.

The Relations of Movable Kidney and Appendicitis to Each Other, and to the Practice of Modern Gynecology.—Dr. George M. Edebohls, of New York, presented this paper. He said that as a result of his method of palpating the vermiform appendix, he had ascertained that 4% of all women have appendicitis; that 3.5% have both appendicitis and symptom-producing movable kidneys, and that 20% of all women have chronic appendicitis associated with a symptom-producing movable right kidney. Large abdominal tumors often, by their mechanical support, cause a temporary disappearance of the symptoms referable to movable kidney.

Conservative Treatment in Diseases of the Ovary and Vermiform Appendix.—Dr. Robert T. Morris, of New York, read this paper. Regarding appendicitis, he said that early operation on cases of appendicitis in which the infection is confined to the appendix had yielded a mortality of only a fraction of 1%, and in cases in which the infection had spread further, a death-rate of about 5%. This should be contrasted with a mortality of over 25% by all methods of medical treatment. Dr. A. Palmer Dudley, of New York, said that an experience in 114 cases of conservative surgery on the ovary had convinced him of the value of such work, and if further evidence were asked for, it was only necessary to add that in this series of cases there had been 18 subsequent pregnancies with 12 living children.

An Experiment in Ovarian Transplantation.—Dr. J. H. Glass, of Utica, in this paper described a case in which a woman having become run down in her general health following a double oophorectomy, he transplanted into her a healthy ovary from another and younger woman. A few days thereafter the recipient of the ovary experienced erotic dreams, and then had a menstrual flow. Now, after a period of eight months she has completely regained her mental and nutritive equilibrium. In the discussion, Dr. Edebohls attributed the result to the influence of the imagination, and warned operators in this field that if this were not the case they would have to be very careful about the women from whom the ovaries were selected, as many with apparently healthy ovaries had little or no sexual instinct. Dr. A. Palmer Dudley maintained, on the other hand, that the feasibility of such transplantation had been demonstrated experimentally.

The Advantages of the Suprapubic over the Vaginal Celiotomy.—Dr. J. W. Whitbeck, of Rochester, discussed this subject by reporting 9 cases, in which the suprapubic route offered superior advantages.

The Advantages of Vaginal over Suprapubic Celiotomy in Certain Diseases of the Uterus and Appendages.—Dr. H. T. Williams, of Rochester, favored the vaginal route in many operations, because by this method the operation can be done more rapidly, with less shock, and with better results.

Lateral Curvature and Pott's Disease of the Spine; the Improved Aluminium Corset for their Treatment.—Dr. A. M. Phelps spoke on this subject, illustrating his remarks with plates and specimens. He considers the aluminium corset the perfection in bracing. Dr. L. A. Weigel objected to aluminium on the ground that it could not be protected even by varnish from the corrosive action of the perspiration.

Four Unique Cases of Vesico-Vaginal Fistula.—Dr. John O. Polak, of Brooklyn, reported these cases, with the special method of operating employed in each.

Diagnosis and Surgical Treatment of Gall-Stones.—Dr. E. W. Mulligan, of Rochester, read a paper on this subject, in which he emphasized the importance of tenderness over the gall-bladder on deep pressure as a diagnostic sign. Of the operative procedures, he considered cholecystotomy the safest and best, but preferred the use of an S-shaped incision.

The Management of Lateral Curvature of the Spine.—Dr. Reginald H. Sayre, of New York, discussed this topic. He is of the opinion that rickets is responsible for many of these cases, and that many others are the indirect result of infantile paralysis. Having corrected the position, it must be maintained by apparatus and by development of the muscles.

The Treatment of Umbilical Hernia.—Dr. William B. De Garmo, of New York, read this paper. He said that in operating on umbilical hernia, the incision should ordinarily be made to one side of the median line, otherwise firm and troublesome adhesions between the sac and the skin or between the intestine and sac might be encountered. Personally, he considered an elliptical incision preferable. The wound should be carefully closed in layers, and an elastic belt should be worn by the patient for some time after the operation.

Panas' Operation for Strabismus.—Dr. D. B. St. John Roosa, of New York, presented a communication on this comparatively new operation. Of the 210 cases of convergent strabismus upon which Professor Panas had operated by his method, 180 were complete and immediate successes, and in the remainder only a moderate degree of convergence remained. The method is as follows: The patient having been anesthetized, the conjunctiva is opened by a horizontal incision, and the tissues thoroughly divided about the sheath of the muscle in the usual manner. The muscle is then pulled well outward with the hook, so that the inner margin of the cornea is on a line with the external canthus. The tendon is then thoroughly divided, the wound sutured, the operation repeated on the other eye, and both eyes bandaged for 24 or 48 hours.

Glioma of the Retina.—Dr. Herman Knapp, in this paper, gave a detailed account of what is known regarding this affection, particularly regarding its pathological anatomy.

Membranous Cataract.—Dr. Henry D. Noyes, in this paper, reported certain types, and described the treatment appropriate for each.

The Surgery of Mammary Cancer.—Dr. Daniel Lewis, of New York, read this paper. He said that although he had operated on 211 cases of mammary cancer, by opening the axilla, only two of the patients had died, and both of these had been septic at the time of the operation. He was skeptical about the danger of infecting the operation-wound with cancerous elements as a result of division of the cancerous tumor. Since the drainage-tube had been discarded in these cases, healing had been more satisfactory. It was desirable to use as few ligatures as possible.

Further Study into the Nature and Frequency of Cancer.—Dr. Roswell Park, of Buffalo, described in this paper some of the results achieved in the State laboratory at Buffalo in the matter of investigation into the nature of cancer. He called attention to the undoubted and alarming increase of cancer, particularly in this State, and took issue with Dr.

Lewis regarding the alleged lack of evidence regarding the communicability of cancer. An item of extreme interest and importance was the constant finding at the Buffalo laboratory of numerous peculiar bodies in specimens of cancer, which were almost certainly parasites. Dr. H. R. Gaylord, of Buffalo, supplemented the remarks of Dr. Park by a detailed description of these supposed parasites, and the work that had led up to their discovery. Dr. Joseph D. Bryant gave a historical sketch of cancer and its treatment.

Some Problems Associated with Typhoid Fever.—Dr. William Osler took this as the theme for his address, which was delivered before a large and interested audience. He remarked that one fact stood out in bold relief, *i. e.*, that where there is a clean soil and pure water, typhoid fever does not flourish. It is one of the best understood of the acute infectious diseases. One cannot but read with chagrin the recent statement of Dr. Smart, an authority on hygiene, to the effect that in the matter of water-supply the cities of these United States are at least a century behind the cities of Europe. Unfortunately, the great mass of our people was more easily led by a Perkins or a Munyon than by a Lister or a Koch.

The Disinfection of the Intestinal Canal.—Dr. Abraham Jacobi, of New York, delivered an address on this subject. He brought forward much evidence to show the existence of autoinfection from the intestinal canal, and called special attention to the fact that putrefaction in the colon is characterized by the formation of such compounds as indol, phenol, skatol, and hydrogen sulphid. Because bacteriologists had proved that certain so-called intestinal antiseptics, under the conditions in which they are used medicinally, are incapable of killing the bacteria, constitutes no valid argument against such medication, for it is well known that very dilute solutions of such substances are often capable of inhibiting the activity of bacteria so as to prevent them from forming toxins. It is important for the physician to remember that where albuminoid putrefaction is going on in the colon the diet should consist principally of farinaceous food.

Anniversary Address by the President on the Relation of Medicine to Civilization.—Dr. John O. Roe, of Rochester, delivered this address. He stated that the general advance in scientific knowledge had resulted from simultaneous discoveries in the various departments, yet no other department had contributed so much to civilization, the prolongation of life and the general happiness of mankind as had that of medicine. The beneficent influence of modern medical science was to be seen in the lowering of the death-rate. In the past fifty years the average duration of human life had increased from 38 to 45 or 50 years. The speaker predicted that a new day for medicine was about to dawn—a day when tradition, theory, and authority would no longer be potent barriers to human perception, a day when the charms of empiricism, the perplexities of individualism, the enigmas of prognosis and the dark mystery of those protoplasmic laborers of the economy would vanish before the bright search-light of the X-rays, bacteriology, and physiological chemistry.

Section on General Medicine.

Chlorin in the Treatment of Enteric Fever.—Dr. Reynold W. Wilcox, of New York, read a paper with this title. It had been demonstrated, he said, that chlorin does not irritate the gastro-intestinal tract, and that it was not wholly converted in the stomach into a chlorid, and excreted as such. The severe cases recently observed in the soldiers at Porto Rico and Montauk Point were not pure cases of typhoid fever, but those in which another element was added, *i. e.*, starvation. Notwithstanding this fact, recovery had been very rapid under the administration of chlorin.

The Nervous System in the Pathogenesis of Albuminuria.—Dr. J. H. Brownlow, of Ogdensburg, in this paper made the suggestion that both the parenchymatous and interstitial forms of nephritis arose from autotoxemia, the toxins acting primarily on the highly sensitive neurons and, by their control over the processes of metabolism, leading to the development of the well-known pathological states found in the kidneys, brain, and arterial system. Dr. A. Jacobi said that he was of the opinion that not only the nervous system, but also exposure to cold, were potent influences in the production of nephritis.

Poliomyelitis Anterior Acuta.—Dr. Charles Mason, of Peekskill, read this paper, and in it called attention to the singular fact, that within a period of four years and within a radius of five miles he had seen five cases of this affection. No age is exempt from it, though it is most commonly met with at the age of two years, and more often in males. Most commonly there is at first a paraplegia affecting chiefly the extensor muscles. In one-fourth of the cases both legs remain affected, and in one-half, one leg. Not much further improvement is to be expected after the lapse of one year. The chief features of the attack are: (1) The age; (2) the abrupt onset and rapid supervention of the paralysis; (3) the tendency to improve; (4) the absence of bladder and rectal symptoms, and of anesthesia; (5) rigidity and pain in the affected limbs; (6) the electrical reaction of the muscles; and (7) the arrest of growth in the limbs. The suggestion was made that the disease might be occasioned by the tardy development of the anterior horns of the spinal cord, and that the straightening of the feet, without mechanical or other appliances, during the first few months of life might be wholly due to this development. Regarding the treatment, Dr. Brownlow said that the local pains should be relieved by the application of ice and by absolute rest, and that the limbs should be kept warm.

Some Clinical Thoughts of Cancer, Hodgkin's Disease, and Consumption.—Dr. H. H. Deane, of Watertown, read a paper with this title. He said that from the fact that in cancer and lymphadenosis the vitality steadily succumbs to some influence other than the direct effect of the new growths, one is forced to the conclusion that something must be circulating in the blood which is steadily poisoning the sufferer. Our efforts at treatment would remain vacillating and futile until the discovery of the specific bacterium. Cancer seems to be indigenous and extremely prevalent in northwestern New York. The paper concluded with an earnest plea for the State care of consumptives.

Lithemia.—Dr. B. C. Loveland, of Clifton Springs, in this paper made the assertion that lithemia is responsible for nearly half the functional troubles afflicting humanity, as well as for a large proportion of more serious diseases. He divided lithemics into two classes, *i. e.*, (1) the plethoric or over-nourished; and (2) the asthenic or poorly nourished. The plethoric lithemic is usually of robust habit, with a stout and ruddy appearance. He usually excretes less than three pints of urine daily, having a rather high specific gravity and color. As the finger-nails are far from the center of circulation, it is well to look here for earthy deposits, and note their smoothness and brittleness. These individuals require more exercise and more water; they should take less albuminous food, and cereals, vegetables or fruit causing indigestion should be excluded. The asthenic lithemic is the reverse of the other in his physical make-up, and the most common manifestation of his disease is rheumatic gout, together with muscular rheumatism and neuralgia, and sometimes neurasthenia. The urine is much the same as in the other type, but the blood is poorer in hemoglobin. These persons must be made to drink water freely, and should also take small doses of salicylate or benzoate of soda in hot water. Bread, potatoes and starchy foods generally should be taken sparingly, and all sweets and all very sour fruits or vegetables avoided. Outdoor exercise, cool bathing and freedom from nervous strain are important adjuvants.

Weak Heart.—Dr. C. M. Rexford, of Watertown, in this paper, emphasized the modern view that the cause of heart-failure is not chiefly valvular impairment, but weakness of the myocardium. Malnutrition and anemia, in both the young and in overworked adults, produce heart-weakness, and this, if neglected, terminates in cardiac dilatation. Iron and oxygen and hygienic measures generally will accomplish wonders in weak heart.

Nervous Dyspepsia.—Dr. Grace Peckham Murray, of New York, read this paper. She said that undoubtedly there was much truth in the two principal theories regarding the causation, *i.e*, that the dyspepsia is solely of nervous origin, and the theory that the stomach itself is the point of departure. It is well recognized that the nervous action of the stomach is threefold: (1) the vasomotor control of the blood-supply; (2) the adjustment of the peristaltic motions, and (3) the action of the nerves on the glands. Among the prominent symptoms may be mentioned vertigo, eructations of gas, anorexia and nausea, but rarely vomiting. Bromid of sodium, especially when combined with a bitter liquid tonic containing nux vomica, is usually of benefit unless anemia is marked. For the flatulence and sinking sensations, tincture of capsicum or cardamom, or ginger or peppermint are beneficial, and for the irritability due to hyperacidity sodium bicarbonate and bismuth are excellent. The diet should be simple and easily digested.

Pneumonia in Infants.—DR. W. P. NORTHRUP, of New York, read this paper. He gave the following as the three important diagnostic signs: (1) the change of the respiration-pulse ratio from 4 to 1 to about 3 to 1; (2) persistent fever, whether remittent, intermittent or uniform; and (3) the presence of crepitant or subcrepitant râles over a circumscribed area. The three important points in the treatment are: (1) a bountiful supply of fresh air; (2) the care of the digestion; and (3) the use of baths to stimulate the nerve-centers.

Medical Education; Its Relation to Classical Literature.—DR. C. DE LA MONTAYNE, of Port Ewen, read a paper on this topic, in which he referred to many authors, notably Holmes, Holland, Darwin, and Huxley, whose work had been assisted by their knowledge of medicine.

Tonsorial Hygiene, and State Control of Barber-Shop Sanitation.—DR. A. WALTER SUITER, of Herkimer, in this paper called renewed attention to the dangers lurking in the utensils of the barber-shop, and advocated the adoption in this country of regulations similar to those recently promulgated by the Board of Health for the province of Quebec.

Hydrotherapy in Chronic Diseases.—DR. SIMON BARUCH, of New York, read this paper. He said that it was well known that cold water stimulates muscular fiber, and that when it is applied to the skin the cutaneous arterial capillaries are contracted, while the veins are unaffected. He had been able, by experiment, to demonstrate alterations in the corpuscular elements of the blood, and in the hemoglobin as a result of the application of water. Strasser has shown that hydrotherapy causes a greatly increased elimination of urea and uric acid in healthy individuals. The skin is the heat-regulating organ of the body. The wide range of hydrotherapy was well illustrated by the fact that he had records embracing 100,000 treatments in neurasthenia, chloro-anemia, phthisis, gout, rheumatism, dyspepsia, certain cardiac diseases, asthma, sciatica, and other neuralgias, and in neuritis.

THIRD DAY.—Thursday, February 2.

Officers Elected.—The following officers were elected: President, DR. WILLIS G. MACDONALD, of Albany; vice-president, DR. JOHN GERIN, of Auburn; secretary, DR. FREDERIC C. CURTIS, of Albany; treasurer, DR. CHARLES H. PORTER, of Albany.

A Form of Suture for Abdominal Surgery.—DR. R. J. WILDING, of Malone, in this paper described a form of silk suture, which is threaded with a needle at each end, and is then inserted so as to produce a result somewhat resembling the lacing of a shoe. It gives good apposition and is removed with great facility.

The Limitations of Surgical Work in Country Practice.—DR. GEORGE M. MCCOMB, of Frankfort, took up the cudgels in defence of the country practitioner who is so commonly sneered at and frowned upon by his exalted brother, the hospital physician, on the alleged ground that he is not up to the times. The speaker showed the absurdity of the convenient doctrine now so assiduously inculcated into the lay mind that no good surgery can be done in private practice, and predicted that in the near future there would be a strong reaction against this heresy.

The Differentiation of the Chronic Forms of Rheumatism.—DR. LOUIS FAUGÈRES BISHOP, of New York, read this paper. He said that the first differentiation should be between rheumatism and non-rheumatic inflammation of the peripheral nerves, and that the next important differentiation was between the various forms of arthritis in which the rheumatic poison is not active. Chronic rheumatism is rather a disease dependent upon the circulation in the blood of some toxic element of the nature of an infection.

The Scientific Aspect of the Mind Cure.—DR. S. A. RUSSELL, of Poughkeepsie, in this paper, gave instances of the influence of the mind on the human economy, and claimed that they constituted a sound basis, within certain reasonable limits, for curing disease through mental impressions.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending February 18, 1899:

Monday, February 13—College of Physicians, Section on General Medicine.

Tuesday, February 14—Pediatric Society.

Thursday, February 16—College of Physicians, Section on Gynecology.

Dr. Henry W. Cattell has been elected pathologist to the Pennsylvania Hospital.

Dr. John H. W. Rhein has been appointed neurologist to St. Agnes' Hospital, Philadelphia.

Dr. Boardman Reed, of Philadelphia, has been elected a foreign member of the French Society of Electrotherapy.

Dr. Joseph F. Neff, medical director of Jefferson Medical College Hospital, has been appointed by Mayor Warwick, a member of the Board of Charities and Correction.

The W. W. Keen Surgical Society of Jefferson Medical College held its annual meeting and banquet last week at the Hotel Lafayette. Toasts were responded to by Drs. W. W. Keen, J. C. Wilson, H. A. Wilson, W. M. L. Coplin, H. A. Hare, and Melville B. Post.

Philadelphia Academy of Surgery.—At the annual meeting held Monday, February 6, the following officers were elected: President, Dr. J. Ewing Mears; vice-presidents, Dr. W. W. Keen, Dr. John Ashhurst, Jr.; secretary, Dr. William J. Taylor; treasurer, Dr. William G. Porter.

Dr. Florence E. Watson, for several years pathologist to the State Insane Asylum at Norristown, Pa., has recently resigned. She will be succeeded by **Dr. Edith Baker,** pathologist to the Delaware State Hospital for the Insane, located at Farnhurst, who in turn will be succeeded by **Dr. Jean Wilson.**

The State Board of Medical Examiners of New Jersey.—According to the recently issued report for 1898, it is shown that during the past year 96 candidates were examined for license to practise medicine and surgery in the State. Of the number examined, 9.3% were rejected, and 12.9% obtained a general average of 90 and upward.

The Organization of School-Directors as Boards of Health.—A bill has been introduced into the Pennsylvania legislature, by Dr. S. S. Towler, providing that the school-directors of each township in Pennsylvania shall annually organize themselves into a board of health and appoint a reputable practising physician as their agent and assistant. The board shall have power to abate all nuisances, to arrest and punish all offenders found guilty of violating any of the sanitary laws of the Commonwealth, to inspect all houses and barns suspected of being not in a sanitary condition. The physician appointed by the board shall be entitled to compensation for his services. All fines collected by the legal proceedings under the Act shall go toward the school-fund of the township. Any rabid animal shall be considered a nuisance under the Act.

The Atlantic City (N. J.) Academy of Medicine.—At the annual meeting, held in the Atlantic City Hospital January 13, the following officers were elected: President, Dr. W. Blair Stewart; vice-president, Dr. Wm. Edgar Darnall; secretary, Dr. E. C. Chew; treasurer, Dr. Walter Reynolds; corresponding secretary, Dr. J. B. Thompson; board of governors, Dr. W. Blair Stewart, Dr. J. Addison Joy, Dr. A. D. Cuskaden.

Dauphin County (Pa.) Medical Society.—At the annual meeting held in Harrisburg, January 24, the following officers were elected: President, Dr. David S. Funk, of Harrisburg; first vice-president, Dr. M. M. Ritchie, of Harrisburg; second vice-president, Dr. C. H. Saul, of Steelton; secretary, Dr. Paul A. Hartman, of Harrisburg; treasurer, Dr. Eli H. Coover, of Harrisburg; censor, Dr. C. E. Pease, of Middletown.

The Northwestern (Phila.) Medical Society.—At the annual meeting and banquet, held February 7, the following officers were elected: President, Dr. John A. Boger; vice-president, Dr. Samuel P. Gerhard; secretary, Dr. W. C. Robertson; treasurer, Dr. H. Hanna; censors, Drs. Charles Herwirsch, Howard S. Kinne, D. A. Modell; executive committee, Drs. Wendell Reber, chairman; J. M. Koch, and Frank Massey.

The Medico-Legal Society of Philadelphia.—At the regular quarterly meeting, February 1, these officers were elected: President, Dr. E. B. Wheeler; first vice-president, Dr. A. M. Eaton; second vice-president, Dr. L. H. Adler; treasurer, Dr. G. M. D. Peltz; secretary, Dr. C. H. Clewell; librarian, Dr. J. D. Nash. Dr. Hirsh read a paper entitled "Physician's Book-keeping."

The Pathological Society of Philadelphia.—A stated meeting was held Thursday, February 9, at the College of Physicians. The following program was carried out: Dr. Henry L. Williams, "Primary carcinoma of right suprarenal gland;" Drs. H. C. Masland and W. W. Babcock, Jr., "Paget's disease of the nipple of thirteen years' duration, without carcinomatous involvement of the mammary gland;" Dr. John B. Shober, "Villous tumor of the rectum;" Drs. Llewellan and Sailer, "Meningitis and endocarditis;" Dr. H. F. Harris, (1) "Some remarks on the technic and relative value of paraffin and celloidin embedding;" (2) "An easy and rapid method of preparing hematein solution."

Alumni Association of Jefferson Medical College.—The annual meeting was held at the college Saturday evening, February 4. A discussion of the present epidemic of influenza was held, in which part was taken as follows: "Upper respiratory passages," Dr. D. Braden Kyle; "Aural manifestations," Dr. S. MacCuen Smith; "Ocular Symptoms," Dr. Howard F. Hansell; "Nervous symptoms," Dr. F. X. Dercum. The following officers were elected: President, Dr. A. H. Hulshizer; vice-presidents, Drs. Hobart A. Hare, Joseph S. Neff, Cochran McClelland, and William Carroll, of Philadelphia; corresponding secretary, Dr. Thomas G. Ashton; recording secretary, Dr. Wilmer Krusen; treasurer, Dr. William M. Sweet; chairman of executive committee, Dr. Orville Horwitz.

The Allegheny County (Pa.) Medical Society held its fifth annual meeting in Pittsburg, February 2, Dr. J. A. Lippincott, the newly-elected president, presiding. The guest of the evening was Dr. James T. Whittaker, of Cincinnati, who read a paper on "Arterial Sclerosis." The society passed unanimously the following:

"Whereas, The medical profession has been called upon to bear a most arduous part in the recent war with Spain, and

"Whereas, In a series of unfortunate calamities to our brave soldiers no small effort has been made to throw unjust blame upon our profession; and

Whereas, A member of this society has been called upon to defend himself and the medical profession from incriminating charges; therefore, be it

Resolved, That the Allegheny County Medical Society extends its warmest congratulations and full moral support to Major W. H. Daly for his manly and professional bearing in this controversy, into which he has been thrust by his official position."

Dr. Daly thanked the society for the expression of confidence and related a few observations and incidents of the Porto-Rican campaign, paying a high tribute to General Miles as a man and an officer.

Vital Statistics of Philadelphia, for the week ending February 4, 1899:

Total mortality		518
Children under 5 years of age		128
Diseases.	Cases.	Deaths.
Pneumonia 86, congestion of the lungs 2		88
Pulmonary tuberculosis 48, laryngeal tuberculosis 1, intestinal tuberculosis 1		50
Typhoid fever	361	38
Nephritis 22, uremia 9, kidney-disease 1		32
Heart-disease 23, inflammation of the heart 5		28
Inanition 16, marasmus 8, debility 3		27
Senility		25
Apoplexy 22, paralysis 1		23
Diphtheria 16, membranous croup 6	84	22
Gastroenteritis 18, cholera infantum 2		20
Carcinoma		18
Influenza		18
Inflammation of the brain 13, congestion of the brain 4		17
Convulsions		15
Bronchitis		11
Scarlet fever	33	0
Small-pox	1	0
Peritonitis 6, diabetes 5, dropsy 5, erysipelas 4, alcoholism 3, casualties 3, diarrhea 3, dysentery 3, insanity 3, septicemia 3, abscess 2, hepatic cirrhosis 2, cystitis 2, suffocation 2, suicide 2, asthma 1, parturition 1, cyanosis 1, gangrene 1, pleuritis 1, appendicitis 1, jaundice 1, poisoning 1, teething 1, pertussis 1.		

College of Physicians of Philadelphia—Section on Gynecology.—At a meeting held January 19, Dr. J. M. Baldy read a paper entitled **A report of two cases of malignant uteri,** advocating the advisability of removing the uterus in all cases when it is found necessary to remove both tubes and ovaries. He claims that the uterus is a useless organ after the removal of the adnexa, and that when left behind it may necessitate a secondary operation. Dr. C. P. Noble, in discussion, said that he had for a long time removed the uterus in all cases requiring double oophorectomy, especially in pelvic inflammatory cases, thus lessening the chance of pelvic adhesions, the formation of exudate, etc., but he does not admit the argument of possible development of cancer as sufficient upon which to do hysterectomy in these cases, because otherwise we would be obliged to do pan-hysterectomy on account of the possibility of carcinoma developing in the cervix. Dr. B. C. Hirst described **A method of closing the abdominal wound** with specially prepared catgut, showing a metal cylinder which can be hermetically sealed by a screw cap. Drs. J. B. Shober, C. P. Noble, J. M. Baldy, J. B. Deaver,

H. D. Beyea and J. C. DaCosta discussed the paper, giving their several methods of preparing and using catgut.

College of Physicians of Philadelphia.—At a meeting held February 1, Dr. James Tyson, Dr. James C. Wilson, Dr. Arthur V. Meigs, and Dr. B. Franklin Stahl, read papers on: **"Experience in the hospitals of Philadelphia with typhoid fever originating among the soldiers of the late war."** The papers will be published in a future number of the Journal, with the discussion.

The Vaccination-Law, the "Antis," and the Judge.—A citizen of this Commonwealth being aggrieved that his child is refused admission to the public schools on the ground that it has not been vaccinated, and therefore in so far has not complied with the law, has instituted suit to test the validity of the law. According to the *Evening Telegraph*, Mr. Beasley, the attorney for the plaintiff, is reported to have said: "We want this court to give an expression of opinion as to the validity of the Act of Assembly which gives the principal of a school the right to refuse admission to the school to a child unless it has been inoculated with the filthy and loathsome disease known as smallpox." Judge Sulzberger and Judge Wiltbank both said that there was no doubt that there was such a disease as smallpox, and that it was generally considered contagious, and that the majority of people were of the opinion that vaccination would prevent an inoculated person from contracting the disease, or at least escape with only a slight form of it. Mr. Beasley, however, contended that the medical authorities of the world declared that vaccination was no safeguard to the disease." "Well, then," said Judge Sulzberger, "just begin with some Philadelphia medical authority, county or State. Then you can go through the United States, and when we hear from our own experts you can take up those in the other parts of the world." Mr. Beasley was not ready to quote any local authority on his side of the question, and neither was he able to find in any of the law-books for which he called anything to show that the law relating to the vaccination of would-be pupils of our public schools was unconstitutional. It was at this point that Judge Sulzberger suggested that the case be continued until next Saturday, so as to give Mr. Beasley a chance to present affidavits in support of the petition.

Philadelphia Neurological Society.—At a meeting January 23, Dr. J. W. McConnell presented two cases of **tabes in the negro,** one being in a colored woman. Dr. F. A. Packard presented two children, a brother and sister, who had been afflicted with **anterior poliomyelitis** at the same time. He gave a resume of the epidemics of this disease reported in the literature. Dr. Burr mentioned that an affliction resembling anterior poliomyelitis was known to occur in pigs, sometimes attacking a whole litter.

Dr. F. X. Dercum presented a man who had **anterior poliomyelitis with involvement of the bulbar nuclei.** He reported also a case of hemiplegia with hemianesthesia not of a hysteric nature, persisting many years. Dr. Spiller referred to the views held in regard to the location of the sensory tract in the inner capsule. Dr. Mills spoke of a case coming under his own observation similar to the one reported by Dr. Dercum.

Dr. S. Solis Cohen exhibited a woman with **anomalous dystrophy of the hands and feet.** The hands, especially, were large, but the enlargement affected only the soft parts, and the fingers were not club-shaped as in akromegaly The face also presented some of the features of this disease. Dr. C. W. Burr and Dr. G. Hinsdale agreed with Dr. Cohen that the case was not one of akromegaly. Dr. A. A. Eshner spoke of the possibility of the disease being some form of adiposis dolorosa or lipomatosis. Dr. D. Riesman referred to the enlargement of the hands sometimes seen in syringomyelia, a condition known as chieromegaly. Dr. W. G. Spiller spoke of the *main succulent* described by Marinesco, and thought that the description might apply to Dr. Cohen's patients, to some extent at least. The *main succulent* is not pathognomonic of syringomyelia, though it was at first believed to be. Dr. W. Sinkler said that the hands of Dr. Cohen's patient were strikingly like those of a patient with syringomyelia in the Philadelphia Hospital.

Drs. J. H. Musser and J. Sailer reported a number of cases of **meralgia paresthetica.**

NEW YORK.

The Fifth District Branch of the New York State Medical Association.—The 15th annual meeting will be held in Brooklyn on Tuesday, May 23.

New York Academy of Medicine—Section on Obstetrics and Gynecology.—At a meeting held January 26, the following officers were elected: Chairman, Dr. Brooks H. Wells; secretary, Dr. A. Ernest Gallant.

New York Academy of Medicine—Section on Laryngology and Rhinology.—At a meeting held on January 25, Dr. W. Kelly Simpson spoke of **the uses of the Bernays sponge in nasal surgery.** Owing to the fact that this so-called sponge absorbed fluid very rapidly, it exerted, in a confined space like the nose, very considerable pressure, and was accordingly very useful in controlling epistaxis, and as a splint in the Asch operation. These sponges had hitherto been placed on the market in the form of circular disks, but as these were inconvenient for use in the nose, the manufacturer had just begun making them of an irregular shape, so as to adapt them better to the nasal passages. The speaker said that where very rapid action was desired, it was advisable to tear off the outer layer of compressed cotton fiber. In the discussion, Dr. Walter J. Chappell said that he had found the Bernays sponge exceedingly useful in nasal surgery. To obviate the tendency to hemorrhage from the rupture of adhesions at the time of the removal of the sponge, he had adopted the plan of covering these nasal plugs, at the time of their insertion, with the thin gutta-percha sheets used by dentists. Dr. J. E. Newcomb remarked that he had accomplished the same purpose by using a covering of the ordinary rubber or gutta-percha tissue used by surgeons.

Dr. H. D. Chapman read a paper on **Pharyngitis and tonsillitis in infants.** In discussing the diagnosis, he said that if the physician did not succeed at the first attempt in satisfactorily inspecting the throat, he was not likely to get another opportunity in an infant. For this reason, the mode of making the examination was important. To simplify it as much as possible he had devised a small tongue-depressor, the chief feature of which, aside from its small size, was the curving forward of its blade over the base of the tongue. Tonsillitis in infants was often dependent upon improper feeding and the wearing of an excessive amount of clothing, thus inducing perspiration, and making the child liable to get chilled. An uncomplicated pharyngitis was rarely important in itself, but often led to chronic conditions, or afforded a nidus for diphtheria-bacilli. In the discussion, Dr. H. Koplik brought out the fact that follicular tonsillitis was quite common in infancy, but was often overlooked because of the minuteness of the tonsillar crypts in such little patients. Dr. C. C. Rice thought there was an unfortunate tendency to consider the faucial tonsils apart from their intimate relations with the naso-pharynx. Dr. Chappell brought out the fact that tonsillitis was much more common in the infants of the poor than among the higher classes.

Dr. Wolff Freudenthal read a paper on **The treatment of dysphagia and cough, especially in tuberculosis.** He said that in spite of a rather large experience with curetage in cases of dysphagia, he did not yet feel capable of stating clearly the indications for this operation. A few of his cases had been greatly benefited by curetage, but the larger number had either been unimproved or actually made worse. He had recently made use of orthoform, a remedy which possessed marked analgesic properties and was peculiarly free from toxic effects. By its application in the form of powder, or in an emulsion (25%) with yolk of egg, to the affected parts, the pain of deglutition was relieved for periods varying from a few hours to a few days, thus affording a better opportunity to nourish the patient. He had found another new remedy, heroin, a useful substitute for opium and its preparations in the relief of cough in cases of pulmonary tuberculosis. It was effective in small doses, did not usually excite nausea or vomiting, and could be used for long periods without detriment to the health.

New York Academy of Medicine.—At the meeting held February 2, Dr. Louis Livingston Seaman, Major Surgeon U. S. Vol. Engineers, read a paper on **The United States Army ration, and its adaptability for use in tropical climates.** The daily ration referred to, he said, was as follows: Fresh meat, 20 oz., or salt beef, 22 oz., or pork or bacon, 12 oz.; bread or flour, 18 oz.; potatoes, 16 oz.; peas or beans, 2.4 oz., or tinned tomatoes, 5.33 oz.; rice, 1.6 oz.; sugar, 2.4 oz.; coffee, 1.6 oz.; and salt, 0.25 oz. Dr. Seaman said that the general experience of the inhabitants of the tropics was that the food should be largely vegetable, thus avoiding an undue proportion of heat-producing articles. The meat supplied to the British soldier in India was from 4 to 6 ounces less, and the rice greater by over 4 ounces than the ration given to our soldiers, even during their midsummer campaign in Cuba. The soldiers in his command were fed chiefly on fat bacon, tinned beef, hardtack and tomatoes, often in a state of fermentation. The hospital-records showed that the best results followed the adoption of an exclusive milk-diet, and that the number of cases of diarrhea was increased after each issue of beans. He was of the opinion that for soldiers serving in tropical countries the beef component and the salt pork should be reduced one-half, that fresh meat should be available, that salt meats should not be issued oftener than once or twice a week, and that rice and hominy should take a prominent place in the daily ration. The ration of the Japanese soldier was 36 ounces of rice, with a money allowance equivalent to about 6 cents, with which he was expected to purchase such meats, tea, and other articles as he might need. In many countries he thought it would be far better to substitute for our common white bean the much more digestible red bean growing freely in the tropics. In the discussion, Dr. J. Mc. G. Woodbury expressed the opinion that about 40% of the illness among the troops in Porto Rico was fairly attributable to their own carelessness and their ignorance regarding cooking and the proper care of the camp and of themselves. As military inspector he had had occasion to see much of the volunteer and of his ways, and that many of them survived seemed to him a miracle. Colonel Charles Woodruff, an authority on the army-ration, said that the large meat component in the United States ration was simply in deference to the national taste. The ration of our army was by no means so inflexible as would appear from the list of articles given by Dr. Seaman. Any company commander could, according to his judgment, vary the diet by drawing all rice, hominy, or peas instead of beans, and the salt meat could be sold back to the department at its full value, and the proceeds of the sale used to purchase other foodstuffs. Our Government ration was more flexible than that of any other country. Major S. Kilbourk said that the difficulties experienced with the ration in Cuba was not one of quality, but of quantity, and this was entirely due to the quagmires called roads, and the impossibility of transporting the food so quickly as it was needed. Dr. W. D. Bell, surgeon of the 71st regiment, said that he had noticed that the men craved rice while in Cuba, and that they drank altogether too much coffee for their good. The issues of green coffee had almost invariably been followed by increased diarrhea. Dr. N. S. Jarvis, of the Army, said that experience had long ago demonstrated the unfitness of the Anglo-Saxon for service in the tropics. A great deal of the sickness among the volunteers was undoubtedly due to their wretched cooking; in the British army, prizes were offered for the best cooking. The whole subject of the ration was involved in another intricate one, *i. e.* habit, or the personal equation, and every attempt to modify the ration must take this into consideration. Dr. A. L. Gihon said that the navy-ration contained a much larger number of alternates, and, in his opinion, was perfection itself. He believed it was a great mistake to tinker with the Government ration. Dr. Andrew H. Smith spoke of what he had seen during the Civil War regarding different methods of cooking, and the results on the health of the troops.

NEW ENGLAND.

Recommendation of a New Insane Asylum for Connecticut.—The special commission on insane-asylum affairs appointed two years ago has made a report recommending the building of a new State asylum for 1,000 patients on the east side of the Thames River, two miles below Norwich. Ex-Governor Coffin, of the commission, dissents and suggests the enlargement of the present asylum at Middletown, now overcrowded with some 2,000 patients.

CHICAGO AND WESTERN STATES.

Correction.—We have been informed that the item in reference to Cooper Medical College, San Francisco, published on page 138 of our issue of January 21, is incorrect. Dr. R. H. Plummer has not resigned, and Dr. Abrams has resigned the chair of pathology, not the chair of clinical medicine, as stated.

The Hendryx Pathologic and Bacteriologic Laboratory of the Medical College of the University of Southern California was formally dedicated January 3. The building has been erected by Dr. Wilbur A. Hendryx as a memorial to his wife, the late Mrs. Lucy Shepherd Hendryx. The address of presentation was made by Rev. W. M. Jones, of Pasadena, Cal.; the address of acceptance, by Dr. H. G. Brainerd, dean of the Medical College; the special address of the occasion, on "The Knowledge of Pathology," by Dr. C. L. Bard, president of the California State Medical Society.

Dr. J. C. Corbus has been appointed by Governor Tanner superintendent of the Kankakee (Illinois) Insane Asylum, to succeed Dr. Stearns, who has resigned. Dr. Corbus has been president of the Illinois State Board of Charities for the past 27 years, with the exception of 4 years during Governor Altgeld's incumbency.

Kalamazoo (Mich.) Medical Society.—At the annual meeting held recently the following officers were elected: President, Dr. C. Van Zwaluwenburg; vice-president, Drs. R. McNair and J. E. Maxwell; secretary, Dr. A. D. Lake; treasurer, Dr. O. B. Ranney; librarian, Dr. E. H. VanDusen; censors, Drs. S. H. O'Brien and J. W. Bosman.

Pure Food Bill in California.—A bill has been introduced into the California legislature creating a commission to inspect all articles of food, drink, or medicine produced in the State. As at present amended, however, the bill places upon the State Board of Health the duties that in the original ordinance devolved upon a commission. It further provides that $25,000 be given the Board of Health to defray the cost of inspections.

Cook County Hospital, Chicago—Correction.—We have been informed that there are several inaccuracies in our editorial regarding the internes of the Cook County Hospital, printed on page 178 of our issue of January 28. We are informed that the number of applicants for the interneship is rarely more than 50 or 60, instead of from 60 to 80, as we stated, and that ward-class instruction has been conducted in the hospital during the past nine months.

Medical Society of City Hospital Alumni, St. Louis, Mo.—The following is the scientific program of the meeting held February 2:—Dr. Ernest H. Cole, "Remarks upon an Ear and Throat Infection with subsequent involvement of the Neck;" Dr. John P. Bryson, "Report of two Cases which have sustained the Bottini Operation.—Presentation of a Prostate (and bladder) which has undergone the Bottini incision;" Dr. L. Bremer, "A contribution to the Morbid Anatomy of Paretic Dementia."

Suspension of a Chicago Professor.—It is reported that Dr. Twing B. Wiggin, Professor of Physiology in the College of Physicians and Surgeons of Chicago, has been suspended from the faculty on complaint of the young women of the freshman class that the professor was guilty of unnecessary bluntness in demonstrating his lectures. The truth of the accusation is denied by the male members of the class, and at a stormy meeting, February 2, a demand was made on the faculty for the reinstatement of the doctor.

Omaha Hotel Quarantined Because of Smallpox.—The spectacle of an entire hotel full of guests quarantined and armed policemen standing at every door and window to prevent the people escaping, was presented in Omaha last week. On February 3, 3 well-defined cases of smallpox were discovered at the Vendome hotel, situated in the center of the city. The health-department was notified, and plans were quickly decided upon for quarantining the place. A squad of armed policemen proceeded to the scene, and when the guests started out to meet their morning engagements they were driven back into the house by force.

Chicago Medical Society.—At a meeting held February 1, Dr. H. T. Byford read a paper upon the **Treatment of hemorrhoids by the plastic method.** He stated that he has discarded the ligature in the treatment of hemorrhoids, and merely cuts them off and sews the raw surfaces together with silkwormgut as in any plastic operation. Three or four wounds are thus sutured, a part of them in a diagonal or transverse direction in order that the lumen of the anus may not be contracted. The bowels are moved at the end of 48 hours, and the sutures removed in 2 weeks. The rectum is douched out with clean water after every bowel-movement. The essential features of the operation are (1) the abandonment of the ligature; (2) the employment of silkwormgut-sutures, left long and tied into bundles to facilitate removal and to guide the douche point; (3) the diagonal or transverse direction of the line of suture; (4) keeping the stools liquid and the rectum douched out.

Dr. M. L. Harris read a paper upon **The relations of the colon to intra-abdominal tumors,** which was discussed by Drs. Bevan, Van Hook, Fütterer and Herrick.

To Annihilate "Diploma-mills."—The following is the text of a bill introduced recently in both Houses of the Illinois Legislature:

A Bill for an Act to amend Section Two of an Act concerning Corporations, approved April 18, 1872, in force July 1, 1872.

Be it enacted by the people of the State of Illinois represented in the General Assembly that Section Two of an Act concerning Corporations, approved April 18, 1872, in force July 1, 1872, be, and the same is hereby amended so that the same shall read as follows:

Section 2.—Whenever any number of persons, not less than three nor more than seven shall propose to form a corporation under this Act, they shall make a statement to that effect under their hands, and duly acknowledged before some officer in the manner provided for the acknowledgments of deeds setting forth the name of the proposed corporation, the object for which it is to be formed, its capital stock, the number of shares of which such stock shall consist, the location of its principal office and the duration of the corporation, not exceeding, however, ninety-nine years; which statement shall be filed in the office of the Secretary of State. The Secretary of State shall thereupon issue to such persons a license as commissioners to open books for subscription to the capital stock of said incorporation at such times and places as they may determine; but no license shall be issued to two companies having the same name. *Provided*, That no corporation shall be organized under this Act unless the persons named as incorporators shall, at the time of filing such statement, pay to the Secretary of State the sum of twenty-five dollars, which fee shall be in full, and in lieu of all other fees for issuing incorporation articles. *And, Provided, further*, That the Secretary of State shall not issue charters to persons, associations or corporations for the purpose of conferring degrees. diplomas or other certificate of qualification in the science of medicine, pharmacy or dentistry unless the application therefor is approved by the State Board of Health, the State Board of Pharmacy or the State Board of Dental Examiners, respectively. *And, Provided, further*, That the Secretary of State is hereby empowered, and it shall be his duty, to revoke charters issued to persons, associations or corporations which authorized such persons, associations or corporations to confer degrees, diplomas, or other certificate of qualification in the science of medicine, pharmacy or dentistry, upon the recommendation of the State Board of Health, the State Board of Pharmacy or the State Board of Dental Examiners, respectively; such recommendation to be accompanied by proof that the said persons, association, or corporation are conducting a fraudulent business, or violating the terms of their charter. *And, Provided, further*, That this Act shall apply to schools, colleges or universities which now are or may hereafter be licensed in this State, notwithstanding any provisions that may exist in their charters.

SOUTHERN STATES.

Eastern State Hospital of Virginia.—Dr. L. S. Foster has been elected superintendent of the Eastern State-Hospital located at Williamsburg, Va.

Austin District (Texas) Medical Society.—At the annual meeting held recently, the following officers were elected: President, Dr. J. C. Anderson, of Granger; first vice-president, Dr. H. B. Hill, of Austin; second vice-president, Dr. J. S. Watson, of Manor; secretary and treasurer, Dr. S. E. Hudson, of Austin.

Smallpox in Washington.—Some concern is being experienced in Washington regarding the continuance of smallpox, several additional cases having been reported during the past week. Although the cases are mild, it is feared that this fact may engender a false feeling of security.

Quarantine against Alexandria, where the disease has existed for some time, is projected.

Sanitary Precautions Against the Development of Yellow Fever in New Orleans.—In the hope of escaping an epidemic of yellow fever during the coming summer, the officials of New Orleans have already begun the work of improving the sanitary condition of the city. There is cooperation in this effort between the State and New Orleans Boards of Health, and the United States Marine Hospital Service. A complete house-to-house inspection has been made of the city, which is very nearly completed, and such cleaning up of houses, filling up of lots, etc., as is needed has been attended to. An ordinance has been adopted requiring that all houses be thrown open once or more daily in favorable cold weather. It is announced that inspectors of the Board of Health will endeavor to secure compliance with the ordinance, and will assist, in other ways, in effecting the sanitation of dwellings.

CANADA.

Students at McGill University.—In the Journal of January 21 there is a paragraph in regard to McGill University, stating that the total number of students is 428. To prevent misapprehension it should be stated that these figures apply to the medical department only. In all departments of the University, exclusive of the normal department, the number of students is 1029.

Montreal Medico-Chirurgical Society.—At a meeting, January 23, instead of the usual program, a discussion was held on **Typhoid fever.** Dr. James Stewart introduced the subject of Medical Treatment, Dr. G. E. Armstrong that of Surgical Treatment. Drs. Finley, Adami, James Bell, and McConnell also participated. Dr. Wyatt Johnston, who was to have dealt with the subject of Incidence and Etiology, deferred his remarks till next meeting. Dr. Stewart opened the subject by referring to the attempts of Benner, Peiper, Klemperer, and Levy to obtain an antitoxic serum. They had partially succeeded in curing the disease in susceptible animals, but as yet similar results had not been obtained in the case of the human subject. A somewhat popular treatment in some quarters was by the use of purgatives and intestinal antiseptics, as in the systems of Thistle of Toronto and Woodbridge in the United States. The reports of cases treated by such methods bore the stamp of inaccuracy in observation, and were of little or no value. To claim for any drug, either antiseptic or cathartic, that it was capable of destroying or removing all noxious microorganisms from the gastrointestinal tract was absurd. As the typhoid bacilli were not present in the intestinal tract prior to the breaking down of the lymph-tissues it was impossible for antiseptics to reach them except through the blood. Dr. Woodbridge claimed far too much. For instance, in upwards of 8,000 cases treated by his method, the average duration of the disease was only 12½ days. As the infiltrated tissue did not commonly break down before the end of the second week, it followed that his remedies had no exposed surface on which to exert their action, hence the action must be through the general tissue-system, a claim which was utterly unworthy of anyone possessing even an elementary knowledge of pathology. The cold-bath treatment on the other hand had been extensively employed for many years on this continent, in Germany, France, and Australia, and it was generally allowed, even by those who did not carry it out in practice, to be the most effective method at present known. The results were uniformly favorable. The mortality at the Red Cross Hospital at Lyons was 7.3% ; at Brisbane 7.84%; at Johns Hopkins 7.8%; at the German Hospital, Philadelphia, 7.8%. During 5 years 408 cases had been treated by the bath-treatment in the Royal Victoria Hospital, Montreal, with a mortality of 4.4%.

In this series the mortality from perforation was 1.47%, from intoxication, 1.22%, from hemorrhage, 0.73%. According to Murchison, cases treated by the old methods gave a mortality of 17.2% ; at the Brisbane Hospital before the bath-treatment, 14.5%, after its introduction, 7.5%. There was no proof that relapses were more frequent in this method than under others. In the Royal Victoria Hospital statistics relapses occurred in 8% of cases which were investigated closely for this point. For hemorrhage the best remedy was opium given so as to cause drowsiness. The use of astringents was, fortunately for the patient, becoming less frequent. When perforation occurred the sooner the case was transferred to the surgeon the better. Keen's figures, 18 recoveries in 83 cases, justified interference. The so-called typical symptoms of perforation were in most cases conspicuous by their absence. With regard to diet the tendency was now to give a more liberal diet than formerly. Often the temperature was kept up from weakness and impoverished blood-supply. Such cases of "starvation-fever" could be relieved by a more liberal diet.

Dr. Armstrong referred to the difficulty in the diagnosis of perforation and thought that the onset of leukocytosis might possibly give a clue. He had operated in 8 or 9 cases, all of which died. Reparative power was so poor that results were poor, but still he thought the operation indicated. One of his cases had lived 3 weeks and he thought would have recovered but that he had three successive perforations. After so long there was no union of the wound. Dr. Armstrong also referred to the treatment of abscesses and osteomyelitis, which were due to the typhoid bacillus alone or to a mixed growth. Dr. Jas. Bell had also had no success in the cases he had operated upon. Dr. McConnell thought that ergotin in the treatment of hemorrhage was an irrational and dangerous treatment. Sir William Hingston made a plea for the recognition of the patient's idiosyncrasy in the matter of baths and milk-diet. Some could not stand a cold plunge, and with many milk disagreed. Dr. Lafleur thought that many had misapprehended the meaning of our modern methods. He himself did not advocate an entirely milk diet, but allowed broths, thin gruel, jelly, or even a soft-boiled egg during the height of the disease. Many, too, seemed to think that the sole object of the cold-bath treatment was to lower temperature. It did more than this, it soothed the nervous system, promoted sleep, and increased elimination. Dr. Stewart, in replying, said that he thought the opponents of the cold-bath treatment had taken a partial view of its meaning. He used graduated baths, gauging the temperature according to the effect produced. He also did not advocate an exclusive milk-diet, and thought that a purge at the onset of the treatment, or perhaps later, by cleaning out the bowel might have some effect in preventing the occurrence of secondary infections.

MISCELLANY.

Condemnation of Meat in Cuba.—The Board of Meat Survey, of which Capt. William L. Pitcher, of the Eighth Infantry, is president, found as the result of an inquiry, February 6, that the contents of 10,848 cans of meat sent to the island are unfit for human food and have recommended the Inspector, Col. Reade, to condemn the meat. Col. Reade has confirmed the board's finding.

Obituary.—Dr. William Penn McMillan, Biloxi, Miss., January 27, aged 68 years.—Dr. J. Sanford Engle, of Susquehanna, Pa., at Birmingham, N. Y., February 1, aged 43 years.—Dr. F. M. Lancaster, Charles County, Md., January 29, aged 70 years.—Dr. Thomas Gibson, Virginia, February 1. —Dr. A. Clark Deakyne, Philadelphia, February 5, aged 66 years.—Dr. Joseph D. Lockwood, Charlestown, S. C., January 21, aged 43 years.—Dr. William J. Lytle, Princeton, N. J., January 22, aged 75 years.—Dr. William C. Campbell, New York, February 5.—Dr. D. D. Spear, Portland, Me., January 21.—Dr. J. M. Riffe, Covington, Ky., January 21, aged 75 years.

Sanitation in Havana.—The first month of American occupation of Havana shows a reduction of 40% in the mortality-rate as compared with the corresponding period of last year. As a consequence of such continued occupation there will doubtless ensue still further reduction in the mortality until the city presents a state of healthfulness equal to or better than that held by any other city of its size in the tropics. The following is the report of Gen. Ludlow, governor of the city: "Death-rate for January reduced 40% below last year. Causes, sanitation of streets and houses, cleaning local points of inspection, vigilance in watching and isolating infectious cases, medicines and supplies to sick, and food to starving."

New Journals—*Progress of Medicine,* a new semimonthly published in San Francisco, by the Progress Company, first saw the light of day, February 1. It is edited by Dr. P. William Nathan, and its object is the exposition of the relations between biologic science and the improvement in medical practice.—*Obstetrics,* a companion journal to *Pediatrics,* and published also by the Van Publishing Company, made its initial appearance during January. It is a monthly journal edited by Dr. Edward A. Ayers, and the following advisory board: Dr. Charles Jewett, R. L. Dickinson, Brooklyn; Drs. Egbert H. Grandin, Austin Flint, J. Clifton Edgar, New York; Drs. Barton Cooke Hirst, Edward P. Davis, Philadelphia; Dr. Edward Reynolds, Boston; Dr. J. Whitridge Williams, Baltimore; Drs. Rudolph Holmes, J. B. DeLee, Chicago; Dr. B. Austin Cheney, New Haven, Ct.; and Dr. Alexander Erskine, Memphis, Tenn.

Changes in the Medical Corps of the U. S. Army.

Major William Dolz, brigade-surgeon, is relieved from his present duties at Gibara, Cuba, and will return to Santiago, Cuba, for duty at the General Hospital.

Major William Stephenson, brigade-surgeon, is detailed medical inspector of the department of Santiago.

Captain R. S. Woodson, A. S., is relieved from duty as medical inspector of the department of Santiago. He will continue in charge of matters in the district of Holguin.

Major E. de la Calle, brigade-surgeon, will report to Major-General William Ludlow, commanding department of Havana, for duty.

The order relieving Major James D. Glennan, brigade-surgeon, from duty at Columbus, Ga., and ordering him to proceed to Fort Myer for duty, is revoked.

Major James D. Glennan, brigade-surgeon, is relieved from further duty at Columbus, Ga., and will proceed to Matanzas, Cuba, for assignment to duty.

Major William B. Winn, brigade-surgeon, is relieved from duty at Anniston, Ala., and will proceed to Havana, Cuba, for assignment to duty.

Major Orlando Ducker; brigade-surgeon, recently appointed, will proceed to Havana, Cuba, for assignment to duty.

First Lieutenant Irving W. Rand, A. S., is relieved from temporary duty in San Francisco, Cal., as examiner of recruits, and will proceed on board U. S. transport "Morgan City" to Manila, P. I., acting during the voyage as attending surgeon to the officers and their families on board.

Hospital Steward Kenneth G. Kincaid will report at the U. S. General Hospital, Presidio, for duty.

Captain Thomas U. Raymond, A. S., medical superintendent transport service, will, in conjunction with the surgeon of the Twentieth Infantry, make an inspection of that regiment and render report of the same.

Captain William F. Lewis, A. S., is assigned to temporary duty as examiner of recruits in Baltimore, Md., until a date not later than March 18. He will on or before that date join his proper station at Puerto Principe, Cuba.

First Lieutenant Charles E. Morrow, A. S., is relieved from further duty on the U. S. hospital ship "Bay State," now at Savannah, Ga., and will proceed to Avila via Havana and Jucaro, Cuba, and report to the commanding officer of the battalion of the Fifteenth Infantry at that place for duty.

Colonel Charles R. Greenleaf, A. S. G., will proceed to Savannah, Ga., and there take passage on the hospital ship "Bay State," to Cienfuegos, Cuba, stopping at such intermediate places as may be designated by the Surgeon-general of the Army, for the purpose of inspecting the medical department at those stations. From Cienfuegos Colonel Greenleaf will proceed to such other places in Cuba as may be necessary for the purpose of inspecting their sanitary condition, and perfecting arrangements for the care of the sick. Officers of the Army at the places to be visited will render every facility necessary to enable Colonel Greenleaf to effect the object of his inspection.

The following changes in the stations and duties of officers are ordered: Lieutenant-Colonel Louis M. Maus, chief surgeon, is relieved from further duty with the Seventh Army Corps, and will proceed to Fort Hamilton for duty; Major Aaron H. Appel, surgeon, is relieved from temporary duty at Fort Hamilton, and will proceed to Fort Clark for duty; Major Henry D. Thompson, brigade-surgeon, is relieved from temporary duty at Fort Clark and will proceed to his home.

First Lieutenant Henry S. Greenleaf, A. S., is relieved from duty at the Josiah Simpson U. S. General Hospital, Fort Monroe, and will proceed to Washington Barracks for duty.

Changes in the Medical Corps of the U. S. Navy.

Passed Asst. Surgeon E. S. Bogert, Jr., ordered to additional duty in attendance on officers of the Navy and Marine Corps at New York.

Passed Asst. Surgeon C. F. Stokes, ordered to duty as member of the Board of Medical Examiners, New York. Feb. 1.

Asst. Surgeon G. L. Angeny, order detaching from the Naval Hospital, Chelsea, Mass., and ordering to the "Indiana," revoked.

Medical Director E. S. Bogert, retired, detached from special duty at New York and ordered home.

Medical Director D. Bloodgood, retired, detached from special duty at New York and ordered home.

Surgeon T. C. Craig, retired, detached from duty as a member of the Board of Medical Examiners, New York, Feb. 1, and ordered home.

Surgeon L. B. Baldwin, detached from the Naval Recruiting Rendezvous, New York, and ordered home to wait orders.

Asst. Surgeon E. G. Parker, ordered to the "Pensacola."

Asst. Surgeon W. H. Garton, order of Jan. 14, detaching from the "Supply" and ordering to the Washington Navy Yard, revoked.

Surgeon G. E. H. Harmon, detached from the "Newark" and ordered to the "Amphitrite."

Surgeon A. C. H. Russell, detached from the Bureau of Medicine and Surgery and ordered to the "Newark." Feb. 8.

Asst. Surgeon J. J. Snyder, detached from the "Wabash" and ordered to temporary duty at the Naval Hospital, Newport, R. I.

Changes in the Marine-Hospital Service, for the week ending February 2.

Surgeon H. R. Carter, to proceed to Havana, Cuba, as Inspector. Jan. 28.

C. E. Banks, to proceed to New York on business connected with the purveying division, and to inspect the service at that port. Jan. 27.

Surgeon A. H. Glennan, detailed by the Secretary as quarantine officer, port of San Juan, Porto Rico, in accordance with executive order dated Jan. 20. Feb. 1.

Passed Asst. Surgeon L. L. Williams, to proceed to Alexandria, Va., for special temporary duty. Jan. 31.

Passed Asst. Surgeon W. J. Pettus, to proceed to Norfolk and Portsmouth, Va., for special temporary duty. Jan. 28.

Passed Asst. Surgeon J. O. Cobb, to report at the Bureau for special temporary duty. Feb. 2.

Passed Asst. Surgeon C. P. Wertenbaker, to report to Gov. Chandler at Atlanta, Ga., for special temporary duty. Jan. 27.

Passed Asst. Surgeon M. J. Rosenau, to proceed to Alexandria, Va., for special temporary duty. Jan. 27. To proceed to Santiago, Cuba, as Inspector. Jan. 31.

Detailed by the Secretary to organize quarantine service at port of Santiago, Cuba, in accordance with executive order dated Jan. 20. Feb. 1.

Passed Asst. Surgeon J. M. Eager, to proceed to Alexandria, Va., for special temporary duty. Jan. 28.

Asst. Surgeon H. S. Cumming, to proceed to Alexandria, Va., for special temporary duty. Jan. 27.

Asst. Surgeon Jos. B. Greene, to proceed to San Francisco, Cal., and report to the medical officer in command for duty. Jan. 27.

Asst. Surgeon C. H. Lavinder, to proceed to San Juan, Porto Rico, and report to Surgeon Glennan for assignment to duty at Ponce, Porto Rico. Jan. 31.

Detailed by the Secretary as quarantine officer, port of Ponce, Porto Rico, in accordance with executive order dated Jan. 20. Feb. 1.

Asst. Surgeon M. J. White, to proceed to Philadelphia, Pa., for duty. Jan. 31.

Sanitary Inspector W. F. Brunner, detailed by the Secretary as quarantine officer, port of Havana, Cuba, in accordance with executive order dated Jan. 20. Feb. 1.

Steward and Chemist Henry Gahn, to proceed to New York, N. Y., for special temporary duty. Feb. 1.

Senior Hospital Steward F. S. Goodman, to proceed to Havana, Cuba, for duty. Feb. 1.

Promotions.

Passed Asst. Surgeon P. M. Carrington, commissioned as surgeon. Jan. 24.

Junior Hospital Steward F. J. Herty, to be Senior Hospital Steward. Jan. 26.

Junior Hospital Steward E. B. Scott, to be Senior Hospital Steward. Feb. 1.

Health Reports.—The following cases of smallpox, yellow fever, plague, and cholera have been reported to the Supervising Surgeon-General of the U. S. Marine-Hospital Service for the week ending February 4, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
ALABAMA:	Clarke	Jan. 27.	Smallpox present.	
“	Clay	“	“	
	Dallas	“	“	
“	Greene	“	“	
“	Hale	“	“	
“	Lowndes	“	“	
“	Marengo	“	“	
“	Mobile City	Jan. 1–27	7	
“	Randolph,		Smallpox present.	
	Wilcox		“	
RKANSAS:	Pulaski Co.	Jan. 27,	Several cases.	1
ISTRICT OF COLUMBIA:	Washington	Jan. 14–21	1	
LLINOIS:	Cairo	Jan. 27	3 suspicious cases.	
NDIANA:	Indianapolis	Jan. 22	3 origin unknown.	
ENTUCKY:	Louisville	Jan. 23	1 on river steamer.	
ICHIGAN:	Detroit	Jan. 7–14	7	
ISSISSIPPI:	Clay Co.	Jan. 27,	Smallpox present.	
“	Jones Co.	“	“	
“	Hattisburg, Perry Co.	“	17 in pest-house.	
“	Lauderdale Co.		Smallpox present.	
“	Noxubee Co.		“	
“	Tisbomingo Co.		“	
EBRASKA:	Omaha	Jan. 17–22	7	
EW JERSEY:	Jersey City	Jan. 15–22	2	
EW YORK:	Dunkirk	Jan. 14–21	2	
EXAS:	Laredo	Jan. 14–21	37	8
IRGINIA:	Alexandria	Jan. 23–29	47	
“	Portsmouth	Jan. 27	16	
“	Richmond	Jan. 25	1	

SMALLPOX—FOREIGN.

ELGIUM:	Antwerp	Jan. 1–7	4	1
DIA:	Bombay	Dec. 20–27		2
“	Calcutta	Dec. 10–17		1
EXICO:	Mexico City	Jan. 15–22		1
OVA SCOTIA:	Halifax	Jan. 28	1 among Russian emigrants.	
USSIA:	Moscow	Dec. 24–31	13	1
“	“	Dec. 31–Jan. 7	7	4
	Odessa	Jan. 1–7	1	1
RKEY:	Constantinople	Jan. 2–9		14
“	Smyrna	Dec. 25–Jan. 1		2

YELLOW FEVER.

LUMBIA:	Barranquilla	Jan. 2–9	1	1
EXICO:	Vera Cruz	Jan. 12–19		2

PLAGUE.

INA:	Hongkong	Dec. 10–17	1	1

CHOLERA:

DIA:	Bombay	Dec. 20–27		2
“	Calcutta	Dec. 10–17		16

Foreign News and Notes.

GREAT BRITAIN.

Sir William McGregor, K.C.M.G., an M.D. of Aberdeen University, is the new British governor of Lagos.

The Metropolitan Hospital Sunday-fund of London has benefited under the will of a Mr. William Vokins by a legacy of securities worth at the present market-price £55,000.

Professor William Osler, F. R. S., of the Johns Hopkins University, Baltimore, has accepted an invitation to deliver the Cavendish lecture for 1899, before the West London Medico-Chirurgical Society.

Dr. Woods Hutchinson, professor of comparative pathology in the University of Buffalo, who is at present studying in London, has been invited to deliver a series of sixteen lectures at the recently-organized Medical Graduates' College and Polyclinic, London.

The Swiney Prize, consisting of a silver goblet valued at $500, and money to the same amount, has been awarded to Dr. J. Dixon Mann, professor of forensic medicine and toxicology in Owens College, Manchester, for his book on "Forensic Medicine and Toxicology." The prize, in accordance with the will of the testator, is awarded on every fifth anniversary of his death to the author of the best published work on jurisprudence.

The late Professor Coats, of Glasgow, who died at the end of January, was known to the medical profession all over the world by his excellent treatise, "A Manual of Pathology." It is not so elaborate a book as some, particularly as some of German origin, but it has long been considered in English and Scotch schools the model of what a student's handbook should be. Professor Coats was, for many years, editor of the *Glasgow Medical Journal*, and the splendidly equipped Pathological Institute of Glasgow University is largely the result of his energy and devotion to scientific study. His death came as no surprise to his friends, for he had long been absent from his duties.

The Prince of Wales and the Medical Profession.—The Prince of Wales, who is already a Fellow of the Royal College of Physicians of London, is shortly to further manifest his sympathy with the medical profession by becoming the guest at dinner of the Royal College of Surgeons of England. His host, Sir William MacCormac, the president of the college and Hunterian orator for the year, was responsible mainly for the expectant treatment of the Prince's injured knee last summer, and this in the teeth of considerable adverse criticism. Sir William's view has been justified by the excellent result obtained, and it is probable that we may see in the Prince's presence at the college dinner a semi-public acknowledgment of his indebtedness to the president's skill.

The names of the official lecturers at the Royal College of Surgeons of England for 1899 have now been announced. The Hunterian Oration will be delivered by the President, Sir William MacCormac. The Erasmus-Wilson Lectures will be delivered by Dr. T. Grigor Brodie, on the "Chemical Pathology of Infective Diseases." Dr. Brodie is lecturer on physiology in St. Thomas' Hospital Medical School. The Arris and Gale Lectures will be delivered by Mr. Berkeley Moynihan, who has taken as his subject the "Anatomy and Surgery of the Peritoneal Fossæ." Mr. Moynihan, who was a gold-medalist at London University in Surgery, is prosector of anatomy in the big provincial medical school at Leeds, and assistant surgeon to the General Hospital.

The Title of Physician in England.—Who is a physician? has recently been made the subject of a dispute in an English Superior Court, and the decision of the judges is likely to lead to developments. A gentleman holding the licenses of the Society of Apothecaries, and therefore a duly registered British medical practitioner, called himself "physician" on his bill-heads. He was, therefore, fined by the local magistrates for wilfully and falsely misdescribing himself. Against this conviction he was moved to appeal by learning that he would have the support of the Society of Apothecaries, but before the case could come up for hearing he died. The General Medical Council, however, who had counted for something in the prosecution of the deceased before the magistrates, agreed with the Society that the case should go on in spite of the death of the nominal plaintiff and be treated as a test of the vexed question, Who has a right to the title of physician? The judges decided that the deceased plaintiff had no right to assume the title of physician, which belonged only to medical men whose diplomas or degrees gave them an academic claim to the style; but they quashed the conviction before the magistrates because they did not consider that there had been any false intent in his action. They were satisfied that he had used the title of "physician," because, being qualified to practise in medicine, he believed that he had a right to do so; and as this is a popular view, thoroughly endorsed by public opinion in England and shared in by all other licentiates in medicine of different halls and corporations, it is unlikely that the decision of the Judges will remain for any length of time unchallenged.

The London water-supply has been made the frequent subject of comment in our foreign notes, and the importance of the matter is well shown by the fact that several bills are already before the British Parliament promoted in the varying interests of the companies who desire to remain unmolested; of the London County Council, which covets the property and patronage of the companies; and of various persons interested in the creation of new reservoirs or the acquisition of new water-sheds. The Royal Commission, now sitting, may possibly hurry through its business and present a report which will be a guide to the House of Commons as to the line to be taken in any new legislation. It has already issued an interim report recommending that the companies should form connections with each other, so that if one runs short the others may be able to come to its rescue. A bill of this sort would certainly please the companies, as the expense when borne jointly would be small and the splendors of their monopoly would remain to them; it would probably appeal to the Government, for with no possibility for some years of a water-famine the bitter cry for reform in the water-supply of the metropolis will be temporarily hushed; and, as we have said, such a scheme has received the blessing of the Commission. All the same, a method of intercommunication between the water-mains is only a makeshift and not a permanent remedy for the ominous position of the London water-supply, and the medical profession may, we hope, be trusted to let the public know that this is so.

The Gonorrheal Joint-Disease of Infants.—According to the *British Medical Journal*, at a meeting of the Royal Medical and Chirurgical Society, January 24, Mr. R. Clement Lucas again drew attention to a form of joint-disease in infants which he originally described in the *British Medical Journal* in 1885. During that year Mr. Lucas published three cases of ophthalmia neonatorum complicated with joint-inflammation, which in some instances was of a most acute kind, and his contention was that the joint-inflammation was secondary to, and dependent upon, the purulent ophthalmia, from which the infants were suffering. He argued that just as gonorrhea in adults is capable of producing sometimes an intense arthritis, and at others a subacute synovitis, so the same virus inoculated during parturition on the conjunctivæ of infants may be productive of analogous joint-affections a few weeks after birth. The observation seems to have attracted little attention in England, where only one additional case appears to have been described, but elsewhere it was at once recognized as a hitherto undescribed disease of infancy, and Mr. Lucas was able to give references to 23 cases, chiefly from foreign sources. The joint-complication is undoubtedly a rare one, but were it better recognized as consequent on the ophthalmia many more cases would probably be published. The direct sequence of one on the other has, moreover, been subjected to bacteriologic proof, for the gonococcus of Neisser has been shown to exist both in the secretions of the conjunctiva and in the fluid aspirated from the inflamed joints. The tendency of the disease is towards resolution and complete recovery if the infecting source be actively treated, but occasionally, as with gonorrheal rheumatism of adults, suppuration takes place, and in one case at least the arthritis began after cure of the ophthalmia. Mr. Lucas raised the question whether, when suppuration occurs, we may not be dealing with the added effects of a second pyogenic microbe, for in two of the published cases in which suppuration took place the gonococcus was found associated in the one with streptococcus and in the other with staphylococcus. Mr. Barker pointed out that it seemed to be the rule that in gonorrheal synovitis there was a mixed infection. These observations open up a very interesting field for bacteriologic inquiry.

CONTINENTAL EUROPE.

Dr. Carbonne has been appointed professor of pathologic anatomy in the University of Modena.

University of Innsbruck.—Dr. Alois Lode has been appointed extraordinary professor of hygiene.

The German Surgical Congress will be held in Berlin under the presidency of Professor E. Hahn, April 5 to 8.

Dr. Johannes Wislicenus, doctor of philosophy and of medicine, and professor of chemistry in the University of Leipzig, has been awarded the Davy Medal by the Royal Society of London.

The San Jose Scale Nonexistent in Germany.—Professor Frank, of the Agricultural University of Berlin, has reported to the Prussian Government, after six months' investigation, that the San Jose scale is nonexistent in Germany, but that a similar insect, the "Aspidiotus ostreæformis," is indigenous.

The German Congress of Internal Medicine will be held in Carlsbad, April 11 to 14, under the presidency of Professor H. Quincke. The subjects announced for special discussion are: "Insufficiency of the heart-muscle," the referees being Professor L. von Schrötter, of Vienna, and Professor Martius, of Rostock; "Leukemia and leukocytosis," the referees being Professor Löwit, of Innsbruck, and Professor Minkowski, of Strassburg.

Obituary.—Dr. Joseph Coats, the distinguished professor of pathology in the University of Glasgow, and pathologist to the Glasgow Western Infirmary, January 24, aged 52 years.—Dr. Henry Alleyne Nicholson, regius professor of natural history in the University of Aberdeen, January 19.—Dr. A. Socin, professor of clinical surgery at the University of Basle.—Dr. Karl Friedrich Claus, professor of zoology at the University of Vienna.

The New Gynecologic Wards of the Broca Hospital, Paris, were recently formally opened by the President of the French Republic. The walls of the wards are covered with frescoes by celebrated artists—Dubufe, Bellery, Desfontaines, and others. There is a long glass gallery covered with frescoes by Clairin. The operating theater is said to be the best of the kind; it is so constructed that it can be flushed by water. There is a special operating-room used for performing laparotomy; this also can be thoroughly washed out; it communicates with the sterilizing-room, which is splendidly fitted up with sterilizing apparatus. The ventilation is effected by means of air from without warmed by a special apparatus; after passing through the wards it is then carried off by exhaust tubes.

The Use of Blue Glass in the Diagnosis of Syphilis.—According to the *Lancet*, at a meeting of the Society of Dermatology and Syphilography in Paris, January 12, Jullien said that since the year 1895 he had been in the habit of employing blue glasses as an aid to the diagnosis of syphilitic eruptions. He uses a simple binocular fitted with lenses made of cobalt-blue glass. Only a moderate amount of light is necessary and the practitioner must remember that all the red and yellow rays are cut off. Owing to this the field is uniformly blue and the matter resolves itself into differences of tint in the depth of the blue coloration. This method is valuable for the diagnosis of eruptions even before they are visible to the naked eye and also for the diagnosis of aborted eruptions. M. Jullien does not affirm that one can absolutely diagnose syphilis in his way by one examination, but insists on the necessity of many and long-continued observations. Weeks, months, ometimes even years after the disappearance of a syphilitic ash, a blush remains visible by means of the blue glass, howing that the skin is still impregnated with germs and pointing to the necessity for continuing treatment. These pots which might be considered as fresh are really only the utcome of the original eruption. This method is not only seful in the diagnosis of tertiary syphilis and the scars left y it, but also in the pathologic anatomy of that disease.

The Italian Academic Insurrection.—We read in he *Lancet* that the phrase "academic insurrection" is fficial and it appropriately describes the undergraduate mutiny and rioting of which the Universities of Palermo and Naples have just been the scene. At the former of these eats of learning the students, indignant at not getting their wn way in the matter of examinations, "demonstrated" in haracteristic fashion and from angry words proceeded to elent deeds, smashing the windows, the lamps, and the classoom furniture. At Naples the Sicilian outbreak had its repca and for some days the Minister of Public Instruction Dr. Baccelli) has been doing his utmost to restore order and duce a *modus vivendi* between the undergraduates and the rofessorial staff. He has not succeed. On the contrary, he has had to issue a telegram sanctioning the temporary closure of these universities—a step taken by their Rectors and their Consiglio Academico. He further commands these authorities to announce publicly to the students that "they have lost their summer session examinations," and also to inform the young men's parents and guardians that if, on the reopening of the universities, the disturbances are renewed the entire academic year will be irrevocably sacrificed. He concludes by ordering the same authorities to assure the young men that so soon as the damage they have done to property has been ascertained they will be made to refund the equivalent in money under legal penalties.

Herpetic Fever.—At a recent meeting of the Société des Hôpitaux, Rénon reported the case of a girl, aged 8 years, who was suddenly seized with headache, nausea, and cough. On the following day the temperature was 100.4° F., and the pulse 120; there were some white points on the right tonsil, the pharynx was a little reddened, and bronchitis existed, and a distinct zone of congestion at the base of each lung. The child complained of intense supraorbital headache. Influenza was diagnosed. On the third day, numerous herpetic vesicles developed about the mouth and on the right cheek; fewer on the tongue, soft palate, and the right tonsil. The general condition improved, the temperature lessened, and the signs of bronchitis disappeared. It was evident that the disease was not influenza, but an infection which had attacked the respiratory and digestive organs and terminated in the outbreak of herpes. Herpetic fever was diagnosed. On the fourth day the general condition was very good except for some nausea; fresh vesicles were seen on the left cheek, below the eyebrows, in the mastoid regions and on the left index-finger. The latter consisted of a group of three vesicles on the dorsal aspect of the last phalanx immediately below the nail. This group was very painful. There was no albuminuria. On the sixth day there were two new vesicles on the left cheek and three on the right eyelid. The other vesicles were completely dried up except those on the index-finger which were very large and very painful. Recovery was not complete until the twenty-fourth day. The interest in this case lies in the localization and persistence for 21 days of herpetic vesicles on the left index-finger.

Examinations in Medicine in Germany.—At a meeting of representative medical men of Germany, held in Berlin recently, the question of examinations of candidates for license to practise medicine was carefully discussed. According to the *British Medical Journal*, it was finally determined to recommend that in future the medical examination should embrace: (1) Pathologic anatomy and general pathology, (2) pharmacology, (3) medicine, (4) surgery, (5) obstetrics and gynecology, (6) ophthalmology, (7) pediatrics, (8) psychiatrics, (9) hygiene. The ophthalmologic examination to be conducted by an examiner in the eye-department of an important hospital, or in a university clinic or polyclinic, and is to last two days. The rhinologic and laryngologic examinations may form part of the surgical examination; the otologic, dermatologic and syphilogic examinations part of the examination in general medicine. The pediatric examination is to be conducted either in the children's department of an important hospital or in a university clinic or polyclinic, and is to last one day. In presence of the examiner the candidate is to examine a sick child, to establish the history, diagnosis, and prognosis of the case, as well as the plan of treatment; to write a report and submit it to the examiner for signature; and finally to pass an oral examination on children's diseases. The psychiatric examination is to be conducted in an exactly similar manner in the mental-disease department of an important hospital or in a university clinic. As regards the hygienic examination, the candidate must prove that he has the necessary knowledge in public hygiene, that he is conversant with the chief hygienic methods of examination, and especially with bacteriologic methods, and that he is at home in the principles as well as the technic of vaccination. The question as to the condition under which foreigners should be admitted to the medical examinations, met with the unanimous answer that they must submit to exactly the same examinations as German subjects. The admission of women to medical university-courses and medical examinations was decided in the negative, the question being pronounced not yet ripe for decision, the majority of German universities, moreover, being against it.

Sanatoria for Tuberculous Patients in France.—Professor Proust in a recent lecture at the Paris Medical Faculty on sanatoria made some statements which are especially interesting at the present time. It was observed some time ago that the bacillus of tuberculosis is less abundant and perhaps less virulent in proportion to the altitude attained. Dr. Spengler, of Davos, noted that there were no cases of tuberculosis where he practised. This fact was made known and cases were sent to this locality, and were cured. The great advantage of altitude was said by M. Proust to be the asepticity of the air: At a height of 1,000 meters hardly any germs are found; at 1,500 meters the air is absolutely pure and is comparable to laboratory sterilized air; thus, secondary infection is avoided. The following sanitary conditions are required: The district chosen must be absolutely healthy; good drinking water is indispensable. Medical men should be in constant attendance, as accidents such as hemoptysis may happen at any moment and require immediate treatment. Cows should be kept; the quality of the milk can thus be supervised. It is desirable to be within reach of a center where provisions are easily obtained, but sanatoria should not be too near a thickly-populated place. A mountainous district ensures a pure water-supply. Notwithstanding the advantages resulting from a site on a height, this is not indespensable. Sanatoria are well placed on the sea-coast, or at a height of only some hundred meters, or in a wide open valley protected by mountains against the north wind. The soil should be permeable, so that drainage may be easy. Proximity to pine forests is desirable. One hundred patients should be the maximum number in a sanatorium. The model sanatorium for rich patients is the one at Hohenhonnef. At present in France there are the Ormesson and Villiers Hospitals for tuberculous children. They contain 350 beds. The Villepinte Hospital, in the Seine and Oise department, is intended for tuberculous women, and can receive 270 patients. At Hyères there is a small hospital, with 18 beds, for patients who are threatened with tuberculosis. The Assistance Publique is building at Angicourt, in the Oise department, a sanatorium for poor tuberculous patients; it is situated at a height of 95 meters above the town of Liancourt, which is 2½ miles from the sanatorium. Lyons will soon have a sanatorium for its tuberculous poor. The Hauteville sanatorium, as it will be called, is situated at a height of 900 meters in a mountainous district in the Ain department; it is protected against the north winds, and is surrounded by a pine forest.—[*British Medical Journal.*]

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

January 21, 1899. [No. 1986.]

1. Pulmonary Abscess. Rickman J. Godlee.
2. On Lateral Curvature of the Spine: Its Prevention and Treatment. Richard Barwell.
3. A Contribution to the Treatment of Pus in the Pelvis. J. Furneaux Jordan.
4. On the Value of Gloves in Operative Work, with a Note on the Cleansing of the Hands. J. Lynn Thomas.
5. Cases of Generalized Septic Infection Treated with Antistreptococcus-Serum. F. Percival Mackie.
6. Effect of Foreign Bodies in the Bronchi. R. Sevestre.
7. On the Hot-Air Bath, with Illustrative Cases. A. S. Myrtle.
8. Filaria Demarquaii in St. Lucia, West Indies. Otho Galgey.
9. A Note on Dracunculus Medinensis. Major V. Harington.
10. A Principle of Treatment of Infected Follicles of the Skin. Alfred Eddowes.
11. Valvular Drainage Tubes in Empyema. E. A. C. Baylor.
12. Hyperpyrexia in Subacute Rheumatic Fever. Robert T. Ferguson.
13. Persistence of Branchial Clefts. Alfred Ellis Vaughan.
14. Minor Conservative Surgery. Richard Cresswell.
15. Operation for Elephantiasis of the Vulva. Capt. J. B. Smith.
16. A Case of Severe Hemorrhagic Diphtheria, with Marked Membranous Development. H. Batty Shaw.
17. Traumatic Separation of the Costal Epiphyses. James Battersby.

1.—Godlee, in discussing **pulmonary abscess,** advises the surgeon before beginning to operate upon such cases, to consider the possibility of the pus coming from any one of the regions from which an abscess has been known to burst into the lung. He advises an attempt at localization of the abscess by exploratory puncture, which is best done by a cannula and trocar attached to it. The varieties of expectoration should be studied. One should search especially for bile-stained expectoration, for fragments of hydatid cysts, for the small yellow bodies met with in actinomycosis; for chocolate-colored expectoration (which is always suggestive of a ruptured hepatic abscess and should be examined while warm for the ameba coli), dark-brown and very offensive expectoration, suggesting gangrene of the lung, for expectoration containing hairs and epidermic fragments suggesting rupture of mediastinal dermoids, for expectoration from the mouth and naso-pharynx which may be due to imflammation of the gums and will show only squamous epithelium. The more common varieties of expectoration contain pus as the essential thing. This is arranged in more or less distinct nummular pellets which sometimes remain distinct when placed together in a cup and sometimes run together. They are non-aerated, are enclosed in or mixed up with a variable amount of more or less aerated mucus and saliva. The pus varies in color, consistence and smell. Such sputa can be met with in almost any form of abscess of the lung, but there are certain distinctions. Thus, if the expectoration separates into 2 or 3 layers it suggests the existence of bronchiectasis. Frequent streaking of the sputa with blood suggests tubercle, new growths or empyema in which much hemorrhage has occurred. Prune-juice expectoration occurs sometimes in tumors, mediastinal abscesses, and aneurysms. The odor of the expectoration in gangrene and bronchiectasis is suggestive. Microscopic examination should always be very carefully made for the presence of elastic tissue, liver-cells, the bacillus tuberculosus and other microorganisms, or of animal or vegetable parasites. Among pulmonary abscesses may be included bronchiectasis, disintegration of a pneumonic lobe, whether tuberculous or nontuberculous, pyemic abscess, hydatids, actinomycosis, or other fungoid disease. The more common types, however, are those following acute pneumonia, the gangrenous variety, the chronic nontubercular abscesses, and those of tuberculous and traumatic origin. The presence of pus having been ascertained and the abscess-cavity located, a free incision should be made big enough to enable the removal of portions 3 inches long, of 2 or more ribs. Injury to the pleura should be avoided. Hagedorn's fully curved needles should then be passed to the depth of ¾ or 1 inch into the substance of the lung through the pleura. Six or 8 such stitches should be placed in a ring around an area sufficiently large to enable one, when the lung is opened, to insert a large drainage-tube. The pleura and lung are then incised with a knife or the deeper part may be done with dressing forceps. The second portion of the operation is sometimes deferred to another occasion. If the hemorrhage is severe the wound should be plugged. Large tubes should be introduced into the abscess and retained in position by means of adhesive straps. Boric lint or a small piece of cyanid gauze surrounded by a mass of wood-wool is usually a sufficient dressing. A series of characteristic cases of various types is given. [S.M.H.]

2.—It should be borne in mind that many cases of **lateral curvature of the spine** are **due** originally **to pelvic deviation.** This may be either an amesiality, or version, or obliquity of the pelvis. It is of course absurd to attempt to correct lateral curvature of the spine attributed to pelvic deviation, until attention is first directed to the pelvis itself. In order to determine whether there are any pelvic defects, the closest examination is necessary, especially in the early stages. Pelvic amesiality or obliquity in nearly all cases originates in a faulty mode of sitting. If the patient is made to stand in the erect posture with heels together, and a plumbline be held 5 or 6 paces behind her, so that it falls over the interval between the feet, the surgeon can tell whether or not the pelvis be amesial, according to whether the rima natium does or does not coincide with the cord. If the patient is told to sit down and write either at a desk or a flat table, the posture of the pelvis may be studied as to whether one side of it is more prominent than the other, and more particularly whether or no equal weight is put on each side. Version of the pelvis is intended to designate a twist or rotation on its vertical axis. This may easily be determined by examining the patient in the sitting posture, with the knees in contact. If version be present the knee of one side will be quite an appreciable distance behind that of the other. [C.H.F.]

4.—For the past year Thomas has used **gloves in operative work** with great satisfaction. Not only does he find that he is not hampered in his manipulations during the operation, but that in many cases the handling of the tissues is easier with the gloves than without. In noninfected cases, the so-called thread-gloves are preferred, while in those cases which are already infected, rubber-gloves are worn, to prevent infection of the operator's hands. [C.H.F.]

5.—Mackie reports **4 cases of general septic infection treated with antistreptococcic serum.** The first case was a mixed staphylococcus and streptococcus-infection. The second and third were pure staphylococcus-infections; the fourth was, like the first, a mixed infection. The treatment was entirely without effect. [S.M.H.]

6.—Sevestre divides the **effects of foreign bodies in the bronchi** into two stages. In the first stage the most noticeable feature is the collapse of the lung. In the second, inflammatory changes predominate. Of these the most important are changes in the bronchial tubes, their dilatation with walls thickened and full of secretion, consolidation of the lung, and, it may be, its final disintegration, and the changes in the pleura, in some cases the formation of an abscess. [S.M.H.]

7.—The Greville method of applying the **hot-air bath** has met with most favorable results in the hands of Myrtle. The sides, top, bottom and ends of the oven supply a steady glow all around from a very large number of small wires fixed to a metallic frame like the strings of a harp, and enclosed in a perforated aluminum case, which is covered with a sheet of aluminum. This admits of a slow, steady heat, which can be regulated and controlled with ease and safety. Every variety of bath, even to full length, has been constructed by Greville, so that any portion of the body can be successfully treated. A feature of the various chambers is that they are all very light. A series of 13 cases, treated by James Myrtle and the author, is attached, in which, with one exception, the results were beneficial. [S.M.H.]

8.—Galgey has found the **filaria demarquaii** prevalent in certain parts of St. Lucia. The similarity between this filaria and the sharp-tailed form of filaria ozzardi is so striking that he is forced to the conclusion that they are one and the same species. [S.M.H.]

9.—Harington in some 200 cases of **guinea-worm** found that in about 75% or 80% the parasite was found in the lower extremities and the greater part below the knee. The other 20% or 25% were found in various positions in the following order: the back and waist, the upper extremity and head, neck and groin. With the exception of a few which had penetrated into the connective tissue between the large muscles of the calf and thigh, none of them were deep-seated. Portions of the majority of them could generally be detected by the finger lying beneath the skin. Harington believes that the sexual maturity of the dracunculus is attained previous to its entrance into the human body, that the female penetrates the skin through the pores when she gets the opportunity and develops in the connective tissue beneath it, giving no sign of her presence until near the full time of her gestation. He doubts whether the young dracunculus, even if taken into the alimentary canal in drinking-water, does or could come to maturity. [S.M.H.]

10.—Eddowes believes that in the treatment of **infected follicles of the skin** the object should be to excite reaction in the follicles by ointments, liniments, plasters, or even medicated poultices, and just at the moment when the effusion is most active, to apply such remedies as carbolic acid in small quantity and with due care to the mouths of a reasonable number of infected follicles at a single sitting, the idea being that the remedy applied penetrates quickly into the follicles thus distended. [S.M.H.]

12.—Ferguson observed a case of **hyperpyrexia in subacute rheumatic fever** in a man aged 32 years, on the sixteenth day of his illness. The temperature when first taken was 106.4° F., and, notwithstanding antipyretic treatment, rose to 107.4° F. The temperature persisted around this point for a period of 12 hours, when it fell rather abruptly and the patient recovered. [S.M.H.]

13.—In the course of an examination of a case of chlorosis Vaughan observed 2 small wart-like projections situated one on either side of the neck, about half an inch in a direct line above the sterno-clavicular joints. Further examination showed them to be 2 small fistulæ which secreted a considerable quantity of mucus. Inquiry showed that they had persisted since birth and that they always discharged in damp weather, or when bathing in cold water. At other times they were dry. Four members of the family in 3 generations, all females, presented this **persistence of branchial clefts.** [S.M.H.]

15.—In operating upon a case of **elephantiasis of the vulva,** the following method is recommended to control hemorrhage: At the base of the tumor, the tissues are ligated in sections, one-half inch from the pubis. The tumor is then divided between the ligatures and the pubis, and during this step of the operation, the vessels on the proximal side of the ligatures may be grasped with forceps as they are divided, while the ligatures, already applied on the distal side, will prevent hemorrhage from the distal ends of the vessels.

16.—Shaw reports a case of severe **hemorrhagic diphtheria** occurring in a girl aged 9 years. In the beginning the condition closely simulated quinsy. On the fourth day of the disease a sloughing membrane was seen covering the roof of the mouth, and even reaching to the right upper gum. There was a pinkish edge to the mucous membrane around the margin of the deposit. The patient was extremely ill. There was a boggy mass at the side of the neck, obscuring the outline of the jaw, and reaching from the mastoid process to the neck in front. There was a bloody discharge from the nose. The faucial aperture could not be observed on account of the space being occupied by a blackish-green sloughy mass which entirely obscured the soft palate, and extended over the mouth as described. The mass rested close upon the tongue, so that neither uvula, tonsils, nor pharynx could be seen. The patient died within a few hours of the development of the membrane. At the necropsy the membrane was shown to extend to the pharyngeal wall and to the laryngeal mucous membranes as far as the vocal cords. The trachea was free, and it was closely adherent to the soft palate, but merely overlay the mucous membrane of the hard palate without being attached thereto. The thickness of the membrane over the soft palate was $\frac{2}{3}$ of an inch. The Klebs-Löffler bacillus together with staphylococci and streptococci was found in cultures taken from the throat. Microscopic sections made from the soft palate showed large pockets of staphylococcic and streptococcic growth on the surface of the membrane with some in the deeper tissues. Large colonies of diphtheria-bacilli were found in other spots, but none were shown in the deeper parts of the section. [S.M.H.]

Lancet.

January 21, 1899. [No. 3934.]

1. Some Points Concerning the Varieties and Diagnosis of Inguinal Hernia. FREDERIC EVE.
2. Transperitoneal Ligature of the Iliac Arteries. BERNARD PITTS.
3. The True Function of the Thymus. J. BEARD.
4. Do We Age More Slowly than Our Forebears Did? W. AINSLIE HOLLIS.
5. Old Age and Rejuvenescence. JULIUS ALTHAUS.
6. Surgery in the Greco-Turkish War. FRANCIS C. ABBOTT.
7. Note on a Case of Bilharzia Disease. EDWARD CURETON.
8. An Interesting Case of Cesarean Section in Private Practice. A. LUCETTE HOME.
9. Writers' Angina. CHARLES D. MUSGROVE.
10. Post-diphtheritic Palsy of the Ocular Muscles. J. PORTER PARKINSON and SYDNEY STEPHENSON.
11. A Case of Acute Purpura Hemorrhagica; Recovery. E. RUMLEY DAWSON.
12. A Case of Acute Pharyngitis due to Streptococcus Pyogenes followed by Septicemia, Deep Glandular Inflammation, and Pericarditis, and relieved by the Administration of Streptococcic Antitoxin. W. G. SPENCER.
13. A Case Illustrating a Method of Treating Extroversion of the Bladder in the Female. CHAVASSE.

2.—Pitts describes **two cases** in which **transperitoneal ligation of the iliac arteries** was performed. In the first case, the operation was performed with a view to arresting the development of a pulsating tumor in the region of the buttock. At the time of operation, it was not quite certain whether the growth of the swelling was an aneurysm or a pulsating sarcoma. The internal iliac artery was ligated, and immediately pulsation in the tumor was arrested. On the 60th day after the operation the patient sustained a spontaneous fracture of the right femur, just below the great trochanter, and at this time it became obvious that the primary tumor of the buttock must be a sarcoma. As union of the bones could not be obtained the patient submitted to a hip-joint amputation, after which he was able to abandon his bed and lived in comparative comfort for nearly 18 months. The tumor proved to be a cavernous sarcoma, and although some time had elapsed between the date of amputation and the death of the patient, yet no recurrence in the stump had taken place. In the second case it was necessary to ligate the common iliac artery on account of profuse hemorrhage from a pelvic abscess. The origin of the abscess, which was of long standing, remained for a long time obscure; it was thought to be associated with either chronic appendicitis or some bone-disease of the pelvis or vertebral column. The hemorrhage which was so alarming and which made necessary the ligation of the common iliac, was due probably to ulceration, involving one of the vessels in the neighborhood of the abscess cavity. The patient recovered from the operation without any unfavorable symptoms. [C.H.F.]

3.—Beard, by a series of experiments on raia batis, the smooth skate, has concluded that **the true function of the thymus gland** is the production of leukocytes. The first leukocytes arise from its epithelial cells, and thus it is the parent source of all the leukocytes of the body. [S.M.H.]

4.—Hollis is inclined to believe that the improved sanitary conditions of modern times and the gradual education of the people in the science of living has already led to some increase in the average **length of life.** As these measures are further developed senility will unquestionably be still further postponed. [S.M.H.]

5.—Althaus believes that in **premature senility** there occur certain changes in the chromaphile substance of the central neurons. Since this condition is sometimes recovered from, he concludes that while other portions of the cell have deteriorated, the nucleus has been spared, and that therefore the degree of development of symptoms as well as the possibility of recovery depends upon the degree of involvement of the cell and its nucleus. **True senility** begins, as a rule, in men at about 60 years of age, in women after the menopause. It is an inevitable consequence of arteriosclerosis, which causes involution of the central neuron. The primary changes are those seen in senium præmaturum. In true senility, however, the lesion displays a tendency to invade the nucleus of the cell and is, therefore, of far more serious import. When the entire substance of the neuron has been attacked by the change, an enormous proliferation of the glia cells necessarily follows, and when these alterations have once been fully established, it is evident that an integral restitution of the neuron becomes impossible. In proportion, therefore, as tissues of a lower type take the place of the neuron, the higher functions of the nervous system are bound to suffer. This theory of senile involution leads to the conclusion that its progress can only be retarded by causing improvement in the nutrition of the neuron. This is best accomplished by careful and appropriate use of the constant galvanic current. In premature senility the results of this treatment are habitually excellent. The neuron is evidently capable of being restored to its normal state. These patients rapidly get well without the aid of any other treatment. The average duration of a course should be a month or 6 weeks. In cases of true senility, more especially in its early stages, the application of a constant current to the vasomotor center in the bulb retards the progress of the arteriosclerosis and the involution of the central neuron. In about 40% of such cases Althaus has noted the results as very good, in 30% as fair, and in the other 30% as insignificant. In no case was the treatment useless, and in every case the function of walking was much improved. The longer such treatment is continued in a given case the better are the results. His method of application can be found in his work on "Failure of Brain Power." [S.M.H.]

6.—Referring to the **treatment of wounds** in the Greco-Turkish war, Abbott advises that in the future the Röntgen rays should always be available at that hospital, nearest the front, in which the wounds can be first properly examined and dealt with. Generally speaking, the less wounds are tampered with before satisfactory surroundings are reached, the better. All difficult bullets should be removed by a fresh incision and the track ignored. Since the modern bullets, on account of their greater penetrating power, will be much less frequently found in the body than their predecessors, and since, should the bullet remain in the body, it is practically aseptic, one should remember that there is no immediate urgency to institute a search for or attempt to remove it. [C.H.F.]

7.—Cureton and Webb report a case of a scavenger, aged 41 years, who suffered for some time before death from shortness of breath and attacks of the nature of angina, but had never received any medical advice. The autopsy showed the following interesting conditions: The appendix was twice its natural size, bulbous or distended at its extremity, and felt gritty. It was non-adherent, bluish in the middle and yellowish at the extreme end. Several hard nodules the size of a mustard-seed projected slightly beneath its peritoneal surface. In making sections from these nodules each one was found to consist of several areas of dense connective tissue, the fibers of which were arranged in a more or less circular manner so as to surround and include certain peculiar bodies, apparently parasites. These lay in groups of 3 or 4, but in some places 15 or 20 were counted in one space. They were mostly oval, one end bluntly rounded, the other more or less pointed, and often terminating in a distinct spike. They were stained only after a prolonged stay in carbolic fuchsin. This enabled the demonstration of a transparent capsule, which only stained very slightly, and coarsely granular contents which were more deeply colored. The parasites were exceedingly brittle and fragile. It was only here and there that there could be found some which still retained the shape characteristic of the ova of **bilharzia**, which made it evident that this was a case of old standing distoma disease. [S.M.H.]

9.—Musgrove describes, under the heading **writers' angina,** a condition which closely simulates angina pectoris, the attacks coming on solely when the subject is engaged in hurried writing. There occurs a sudden pain in the region of the heart, behind and to the left of the sternum, a feeling of tightness and oppression about the chest, and a sensation as though the heart would burst, followed by a number of violent pulsations, and in some cases the face is covered with a cold sweat. After a few moments of rest the condition passes off, to recur only under similar circumstances. It is caused by the concentration of the mental faculties, the posture and cramping of the muscles and the state of respiration, these conditions acting to hurry the heart and render it ineffective, and thus to deprive the coronary arteries of their due amount of blood, this possibly being further aided by a vasomotor spasm of these vessels and a consequent state of temporary malnutrition of the heart. The accelerator nerves of the heart have already been called upon to act, and as this temporary malnutrition is established, there must come a time when the heart ceases to respond to the demand of the augmentor nerves, which precipitates the attack. The intrinsic difference between true angina and this variety lies in the permanent nature of the malnutrition in the former and its temporary character in the latter, due to a distinct and removable cause. The ill effects of this condition are: (1) the development of cardiac irritability and possibly eventual cardiac dilatation; (2) the aggravation of already existing dilatation; (3) increase of cardiac trouble in those the subjects of valvular disease, and (4) the very manifest danger attending upon the condition in middle-aged and elderly persons the subjects of well-advanced atheroma. [S.M.H.]

10.—Parkinson and Stephenson report 2 cases of **post-diphtheric palsy of the ocular muscles.** The first occurred in a girl aged 9 years. About 6 weeks after the attack of diphtheria she developed paresis of the external rectus without affection of accommodation. The second patient was a boy aged 5 years. His eye-symptoms developed about 6 weeks after his attack of diphtheria. Examination showed a complete or almost complete paralysis of the extra-ocular branches of the third nerve, together with impairment of the function of accommodation. Both cases showed signs of a more generalized diphtheria-poisoning, as evidenced by paralysis of the palate and lower extremities, with loss of their reflexes. Under simple tonic treatment both cases recovered. [S.M.H.]

11.—A case of **acute purpura hæmorrhagica** occurring in a girl aged 2 years and 11 months, came under Dawson's observation. The first symptom noticed was the voiding of dark-brown urine at the hour of retiring. The urine voided at 2 A.M. consisted of about half a pint of nearly pure blood. At this time a rash was noticed over portions of the body. At 9 o'clock on the following day epistaxis began and continued at intervals throughout the day. The temperature was normal. There were abundant spots of petechia by midday. At 2 P.M. hematemesis developed and recurred 3 or 4 times afterwards. At 9.30 P.M. the child was much weakened. Her temperature was normal. She was extremely restless and complained of abdominal pain. She was persistently spitting blood from the mouth, the source of which could not be definitely determined on account of the restlessness. The hematuria persisted and eventually induced syncope. The child was in extremis, almost pulseless and very blanched. At this stage she was given a deep injection of 5 minims of ergotin into the left buttock. The hemorrhage stopped almost immediately. There were slight recurrences from time to time, gradually lessening. She made a complete recovery. At the end of 2 years there had been no recurrence. There was no family history of rheumatism or hemophilia. [S.M.H.]

12.—A case of acute **pharyngitis due to streptococcus pyogenes,** followed by septicemia, deep glandular inflammation, and pericarditis, came under Spencer's care in Westminster Hospital. On the eighth day of the illness 10 cu. cm. of streptococcus-antitoxin were injected at 9.30 P.M. A second dose was given at 6 A.M. the next day, a third at 4 P.M., and a fourth on the following day. The effect was remarkable, the patient beginning to rally at once. On the day after the last injection the temperature fell to 98° and never rose above 100.8° F. The pulse was fuller and had greater tension. The patient had regained consciousness. The improvement persisted and recovery was eventually complete, all evidences of pleural and pericardial inflammation having disappeared. [S.M.H.]

13.—**Extroversion of the female bladder** is in itself an extremely rare condition, and the operative results obtained in this case, reported by Chavasse, are worthy of note. An attempt was first made to reduce the deficiency in the abdominal wall by separating both sacro-iliac synchondroses as advocated by Trendelenburg. The immediate results of this operation were all that could be expected, but when the patient left her bed, the defect in the abdominal wall speedily returned to its normal size. As a last resort, transplantation of the ureters into the vagina was carried out with quite satisfactory results. The defect in the abdominal wall was closed by flaps made on Thiersch's plan. Some time has elapsed since the operation, and the patient has remained comparatively comfortable. The urine dribbles constantly from the vagina, but by wearing a urinal, all irritation of the external genitals and adjacent parts has thus far been avoided. [C.H.F.]

New York Medical Journal.

February 4, 1899. [Vol. lxix, No. 5.]

1. Gummatous Periostitis and Osteitis, with Record of a Case of Perforation of the Cranial Vault. William S. Gottheil.
2. An Interesting Case of Hydronephrosis. John S. Pyle.
3. A New Stain for the Bacillus Tuberculosis. Marion Dorset.
4. Preliminary Report on the Results of Blood-Examinations at Camp Wikoff, August and September, 1898. (*Concluded.*) James Ewing.
5. The Electric-arc Bath. A Clinical Report. (*Concluded*) Margaret A. Cleaves.
6. Iodoform as an Internal Remedy in Lupus Erythematosus. Henry H. Whitehouse.
7. The Value of an Absolute Negative Diagnosis in Cases of Suspected Fracture. Charles Lester Leonard.
8. Static Electricity for Sprains. Charles O. Files.

1.—This case of **gummatous osteitis and periostitis** is recorded as demonstrating the fact that very extensive destruction of important tissues can take place in syphilis without any systemic reaction or much personal discomfort. Some years ago, the patient in question had an attack of this description, in which a sequestrum was formed, of considerable size, and including in some places the entire thickness of the skull. The inflammation had not, however, spread to the meninges. At no time did the patient consider herself sick enough to seek medical aid. [C.H.F.]

3.—Dorset recommends the following **stain for the bacillus tuberculosis:** Cover-glass preparations are made and fixed in the ordinary way, and then immersed in a cold, saturated 80% alcohol-solution of sudan III for 5 minutes. Any excess of stain is then removed by washing in several changes of 70% alcohol for 5 minutes. The germs are found stained a bright red, and the beaded appearance is very distinct. Sections of tuberculous lung prepared in the usual manner were stained with this solution and counterstained with methylene-blue, dehydrated with absolute alcohol, cleared with clove-oil, and mounted in Canada balsam. In this preparation the tubercle-bacilli were stained red and could be distinctly seen lying in the tissue. To demonstrate that the sudan III is apparently a selective stain for tubercle-bacilli, an attempt was made to stain numerous varieties of bacteria. The results were negative. In a mixed preparation of tubercle-bacilli and smegma-bacilli, the tubercle bacilli were characteristically stained, while the smegma-bacilli remained unstained. The distinctness of the beaded appearance from this stain is probably dependent upon the droplets of fat-substance present in the body of the germ, for which the sudan III has a distinct affinity. The practical value of this stain will be recognized where a rapid method is desired for staining the organism in tissues, and for the purpose of differentiating, without trouble between the smegma-bacillus and tubercle-bacilli. [S.M.H.]

4.—Ewing presents a preliminary report of the results of **blood-examinations made at Camp Wikoff** for the purpose of aiding in the diagnosis of tropical and other fevers. In all, 800 examinations were made. The following table explains the nature of the blood-findings:

TYPHOID FEVER.	MALARIA.					
159	Estivo-Autumnal.			Tertian.	Double Infection.	No Distinct Organisms.
In recent malarious subjects with evidence of malaria in the blood.	Rings.	Crescents.	Both			
40	88	134	27	74	12	270
	261			74	12	
	335					270
	605					
	645					
Total classified,	764					

From this table, it appears that about 80% of the cases of Cuban malarial fever are of the estivo-autumnal variety, 20% of the tertian type, and of these about 4% show double infection with both varieties, while quartan fever is very rare. As to the etiology, it would seem that a week or 10 days is necessary for the development of the disease, and all the evidence seems to show that the putrid exhalation of the soil is the chief causative factor. The evidences of mosquito-infection were slight. The negro troops withstood the infection much better than the white men. The symptomatology in many respects was similar to that of the more severe cases occurring in this country. In the estivo-autumnal cases, the rise of temperature was often marked by a slowly-progressing nervous disturbance, often reaching coma. Some of the estivo-autumnal cases showed typical weekly-recurring attacks. The blood of such cases usually showed the signet-ring forms for the first 2 or 3 days, young crescents on the third and fourth days, and adult crescents on the fifth to the seventh days. Severe or untreated Cuban malaria is commonly fatal on the third of these recurring attacks. A striking characteristic of the estivo-autumnal fever, observed also in some cases of grave tertian infection, was absence of symptoms during the intervals between the attacks. The tendency to avoid taking quinin during these periods was undoubtedly responsible for many unnecessary fatalities. Crescents were often found during the afebrile periods, and the patients suffered later from severe paroxysms. So long as crescents persist in the blood, and for some time thereafter, the active treatment should be continued. The cerebral type of the disease was the most frequent form of the severe seizures. The crescents alone were found in 33 instances of coma, rings alone in 11, both rings and crescents in 2, tertian parasites in 5, both estivo-autumnal and tertian parasites in 2, and no parasites in 11. The parasites are occasionally very scarce and very difficult to find in the blood during periods of deep coma. Of the 11 cases of coma, in which rings alone were found, 10 died, and the surviving case was only saved by most heroic treatment. Among 33 cases showing crescents only, but 3 were fatal.

It follows, therefore, that coma resulting from the development of a new brood of parasites has a very unfavorable prognosis. The result in cases of coma was seldom in doubt beyond 24 hours. Some of the attacks of coma were mild and of very short duration. Some presented symptoms of typical meningitis. The algid type of the disease was not encountered. The gastric type was illustrated by many cases of violent and persistent vomiting which occurred with or without fever. In a few instances the initial paroxysm was marked by considerable hematemesis. In these cases for some hours after the hemorrhage the parasites were usually scarce and difficult to find in the blood. Intestinal symptoms consisting of simple diarrhea, catarrhal colitis, dysentery or ulcerative colitis were very common. Of the last there were 36 cases. In these, crescents were found in the blood in 9 cases, rings in 6, tertian parasites in 3, and both varieties of parasites in 1 case. In 17 cases the malarial element had been rendered quiescent by quinin, and no distinct parasites were found. In 9 of the active malarial cases the dysentery-ameba was found in the stools. Seven cases were fatal, in all of which malarial infection was severe.

Pulmonary symptoms were infrequent. Nephritis of moderately severe grade was observed in 5 cases. Jaundice was pronounced in 10 cases, most of which were fatal. Slight jaundice or yellowness of the skin was seen in the majority of severe cases. Anemia was noted in all the cases examined. The changes in the blood were mostly those of secondary chlorotic anemia, usually without leukocytosis and of moderate grade. In the severer and more prolonged fevers the changes in the blood were more pronounced, and with the increasing anemia the number of parasites in the blood became distinctly less. Many of these cases showed the early changes of pernicious anemia, and some those of secondary pernicious anemia. The evidence strongly indicates that the anemia of severe malarial infection progresses for some time after the blood has been freed from parasites. The bearing of this fact on prognosis was well illustrated in some of the fatal cases in which recovery was expected when the blood was clear of parasites, but the patients died of progressive anemia.

Of 605 cases of malaria 39 were fatal at the General Hospital, or 6½%. Of these, 25 showed estivo-autumnal infection, 2 tertian, 2 double infection with both varieties, and in 10 no distinct parasites were found. In the estivo-autumnal cases rings alone were found in 12, crescents alone in 9, both rings and crescents in 4 cases. In 6 of this variety there was dysentery, usually, but not always, amebic. Four patients suffered from severe diarrhea with catarrhal colitis. In 8 cases there was intense jaundice and the immediate cause of death in one case was pneumonia, in another nephritis. The 10 patients showing no organisms died from malarial cachexia or from complications.

Parasitology: The earliest forms of the estivo-autumnal parasite seen in the circulation were small spheroidal, hyalin, moderately refractive intracellular bodies, about 1μ in diameter. During nearly all periods of the first 2 or 3 days after sporulation the peculiar signet-ring form of the parasite was seen in the red cells. After the second or third day, or in cinchonized cases, often much earlier, the signet-rings usually disappear from the circulation, and their further development proceeds, if at all, in the viscera, especially in the brain, marrow and spleen. Besides the rings, tissue-smears from these organs usually contain many spheroidal, hyalin, pigmented, intracellular bodies 3 to 5 mm. in diameter, which are probably the next developmental stage beyond the rings. From the pigmented spheroidal body all transition-forms up to adult crescents are to be seen in abundance. From the third to the fifth day after sporulation, elliptical intracellular bodies begin to make their appearance in the circulation. The segmenting forms of the estivo-autumnal parasite are rarely seen in the circulation. In the marrow-smears from a fatal case, however, many estivo-autumnal rosets were seen. In 8 of these the spores were accurately counted and their number was invariably 18. The evidence gathered shows that the fertile estivo-autumnal cycle may require much longer than 48 hours and that sterile forms are not fully developed until the end of 6 or 7 days. The earliest form of the tertian parasite seen in the blood was that usually observed. The Cuban tertian parasite appears to differ in one particular from that seen in the New York cases, namely, they are much more actively ameboid, and on this account in stained specimens the pseudopodia of the larger parasites are extremely long and numerous, so that in some cells the body of the parasite was represented by a series of small blue grains between which no uniting threads could be distinguished. The quartan parasite was only observed in 4 cases.

In most of the cases classified as showing no parasites that could be positively identified, atypical intracellular pigmented bodies were found. Vacuolated pigmented and non-pigmented extracellular bodies were seen in many cases. In the fresh condition the appearance of the cystic extracellular bodies strongly suggests an origin from malarial parasites. In rare instances sluggish ameboid motion may be observed in which their malarial origin can not safely be denied, although pigmented leukocytes sometimes show ameboid motion. The pigmented leukocytes were most abundant in well established cases of estivo-autumnal fever. Free pigment, probably of malarial origin, was seen in many cases, but never in the absence of pigmented leukocytes. The conclusion is drawn from the data that the parasite can always be found if the blood is examined with care and persistence within 24 hours after the beginning of the chill, although quinin may have been administered in large doses. In 30 cases of remittent malarial fever selected as showing fairly continuous pyrexia, rings alone were found in 8, crescents alone in 11, both rings and crescents in 1, tertian parasites alone in 1, double infection in 1, no distinct organisms in 8. In chronic cases, during febrile periods, organisms were usually found in the blood, but they were often missed during afebrile periods. From the study of a group of cases giving evidences of mixed typhoid and malarial infection the following conclusions are drawn: (1) Typhoid fever is to a large extent incompatible with active malarial fever, and during the course of the former the latter infection is usually suppressed; (2) the presence of old malarial infection may alter the course of typhoid fever through the anemia, but active sporulation of the malarial parasite very rarely occurs during the course of established typhoid fever; (3) on the other hand, since malarial paroxysms often reappear during convalescence, a scanty growth of the parasite must often persist during the course of typhoid fever, and it is possible that some of the irregularities of temperature observed in these cases are referable to this partly suppressed growth; (4) the anatomic evidence of a postmortem examination is much needed to demonstrate the existence of typhoid fever in cases showing active malarial paroxysm. Symptoms of malaria developed in 2 cases during convalescence from measles, and parasites were found in the blood, crescents in one, tertian organisms in the other. The eruption was typical, but the course of the disease was not altered by the activity of the malarial infection. [S.M.H.]

6.—Whitehouse reports a case of disseminated **lupus erythematosus** of the superficial discoid variety occurring in a woman aged 52 years. She was given a one-grain pill of iodoform after each meal together with "lotio alba." At the end of 2 weeks the condition was apparently much worse; at the end of the third week the redness and inflammation began to subside. At the end of a month the lesions were fading rapidly and at the end of 3 months from the beginning of the internal treatment there was no trace of the eruption. [S.M.H.]

Medical Record.

February 4, 1899. [Vol. lv, No. 5.]

1. On Re-establishing Surgically the Interrupted Portal Circulation in Cirrhosis of the Liver. Robert F. Weir.
2. Metatarsalgia; Its Treatment by Specially Constructed Boots. V. P. Gibney.
3. Nervous Dyspepsia. Grace Peckham Murray.
4. Three Months' Experience in Camp Thomas. J. Herbert Claiborne, Jr.

1.—The subject of **re-establishing surgically the interrupted portal circulation in cirrhosis of the liver** is not an entirely new one. Already experimental investigations have been carried on by Eck and Hahn. The former, in 1877, made a series of anastomoses in animals between the vena cava and portal vein with disastrous results, almost all the animals dying within a week. In 1892 Hahn experimented with some 50 dogs on the same lines as Eck, and discovered that nearly all animals surviving the operation for any length of time passed through a stage of excitement, and even though they recovered from this, animal food developed a nervous irritation that often terminated fatally. This was accounted for on the grounds that the venous intestinal blood acted poisonously on the general system, when introduced as freely as a direct anastomosis between the vena cava and the portal would permit. The clinical study of this operation is limited to 7 cases, and of these but 2 recovered; 2 recovered from the operative interference, but were not apparently benefited by the operation, and 3 died. Included in these 7 cases is one reported here by Weir who operated upon a patient with hypertrophic cirrhosis of the liver and portal obstruction. He scraped freely with the sharp point of a steel hatpin the anterior superior surface of the right lobe of the liver, the corresponding diaphragmic part of the peritoneum, and the parietal perineum adjoining the wound. After arresting the flow of blood thus produced, the omentum was stitched on each side of the wound by six or eight catgut-sutures, and the operation concluded by introducing a perforated glass drainage-tube into the post-vesical space. The patient died on the fifth day after the operation, and his death was attributed to infection of the peritoneal cavity through the drainage-wound. At the autopsy, it was found that already firm adhesions had formed over the scarified areas. Believing that the risk of the operation may be diminished somewhat by avoiding the chances of infection by means of a drainage-tube, Weir would in the future run the lesser risk of the reaccumulation of fluid interfering with or breaking down the formed adhesions, and do away with drainage. In no case, however, should the operation be attempted until all other measures have proved futile. The purpose of the operation, it should be remembered, is only to give the obstructed portal vein an additional relief, which is not afforded naturally by the collateral venous circulation. The experiments of Eck and Hahn teach that this must be brought about gradually, so as to use the intervening capillary circulation as an assimilator, and thus avoid an overwhelming toxemia. [C.H.F.]

2.—Gibney has yet to encounter a case of **metatarsalgia,** which does not yield to properly constructed shoes. Though he has not been able in all cases to effect a cure, by which he means that the prescribed shoe is no longer necessary, he has always been able to afford almost perfect relief, while the shoe is being worn. In some 57 cases that have been under his observation for several years, 18 were cured, and 39 relieved. The principle underlying a boot for metatarsalgia is a simple one. The heel, arch of the boot, and even the ball must be considered in the building of a boot. The upper must fit well over the instep, and compress in an even manner the proximal ends of the metatarsals. There must be no pressure against the distal ends, and the width must be such as to permit expansion of this portion of the foot. The insoles should be slightly convex across the metatarso-phalangeal region, in order to preserve the transverse arch. If the longitudinal arch is at all weak, then the shank of the shoe should extend down to a point just back of the metatarso-phalangeal articulation. [C.H.F.]

4.—See this Journal, February 4, 1899, p. 245.

Medical News.

February 4, 1899. [Vol. lxxiv, No. 5.]

1. The Treatment of Headache. Joseph Collins.
2. The Care and Management of Pregnant Woman. B. M. Hypes.
3. The Uses and Dangers of Investigation in Public and Private Charities. Josephine Shaw Lowell.
4. Epithelioma of the Penis. William L. Rodman.
5. The *Medical News*' Investigation into the Claims of Christian Science. (*Continued.*) John B. Huber.

1.—Collins divides **headache** into migraine, neuralgia, symptomatic headache, and idiopathic headache. A further classification which is clinically useful divides them into headaches of early life, adult life, and senility. Symptomatic headache may be due to functional nervous disease, organic brain-disease, intoxication, or infectious disturbances of circulation, causes that operate reflexly, as fatigue and exhaustion, traumatism, rheumatic involvement, or a pain-habit. Discussing these in order, the characteristics of the neurasthenic headache are, its localization at the top of the head, the peculiar feeling of pressure or drawing, and finally the fact that it is more severe in the morning, and is made worse by fatigue, intellectual effort, and excitement. Headaches accompany epilepsy and may either precede or follow the attack. The headache of exophthalmic goiter may be toxic or the result of the neurasthenia that accompanies the disease. In brain-tumor, the pain is severe; it may be local or diffuse, and is always peculiarly persistent. Brain-abscess, hydrocephalitis, and encephalitis do not produce characteristic headaches. Meningitis causes headache of an unendurable boring character, involving the whole head, or shooting from one situation to another. In pachymeningitis, the pain is apt to be localized and is not continuous. Headaches due to circulatory disturbance are not so common as was formerly believed to be the case. Reflex headaches may be due to diseases in the eye, nose, or the sexual organs. Toxic headaches may be produced by tobacco, tea, and various drugs which act either directly or by altering the blood-pressure, the blood, or by irritating the gastro-intestinal tract. In children intestinal parasites occasionally produce reflex headache. [The paper is unfinished. J.S.]

2.—**Pregnancy** has been called **a nine months' disease.** Proper care and management lessen many of the discomforts of this period; thus care should begin with conception, and the patient should receive instruction as to the duties and dangers of pregnancy. At the seventh month the physician should make careful examination, both external and vaginal, to determine the presentation and position of the child, and to note any abnormities which may seriously complicate labor. Pelvimetry must be regarded as a most necessary part of this examination. [W K.]

3.—Lowell believes that **investigation in public and private charities** is of advantage to find out what the persons seeking relief really need, to prevent the speedy demoralization of decent people who have temporarily been obliged to ask relief; and, by the discovery of fraud, to therefore discourage deceit. She objects, however, to certain forms of investigation, particularly that which requires the poor to be at a certain place at a certain time for the purpose of receiving a ticket entitling them to relief. The segregation of the poverty-stricken class is disadvantageous to all of them. Furthermore, investigation occasionally interferes with the rightful privacy of the recipients of relief. [J.S.]

Boston Medical and Surgical Journal.

February 2, 1899. [Vol. cxl, No. 5.]

1. The Present Status of the Antistreptococcic Serum. F. J. Cotton.
2. Some Overlooked Causes of Cough. F. E. Hopkins.
3. A New Method for the Operative Correction of Exaggerated Roman Nose. J. L. Goodale.
4. On the Necessity of Removing the Appendix at the First Operation. John Homans.
5. A Case of Puerperal Septicemia Treated by Supportives and Stimulants; Recovery. Charles M. Green.

1.—Cotton contributes an exceedingly valuable and thorough article upon the **value of antistreptococcic serum.** The experimental results have been very contradictory, but, on the whole, indicate that the serum is not highly valuable, either for protective or curative purposes. Clinically, the serum has been used most frequently in puerperal fever. In 107 cases of this disease treated by the serum, 34 deaths occurred, a mortality of 31.7%. The dose varied from 10 to 30 cc. It has also been used in endocarditis, osteomyelitis, pneumonia, septicemia, and pyemia. In erysipelas, Marmorek himself has treated 413 cases with a mortality of 3.87%, which is compared with a mortality of 5 12% in a preceding series at the same institution not treated with serum. It has also been used extensively in scarlet fever. and Baginsky has reported very favorable results. Cotton, in summarizing the results obtained by statistic analysis of the literature, believes that the serum has certainly done good in individual cases, but that there are many cases of streptococcus-infection in which it was useless. At any rate, there is plenty of reason for giving the serum another trial. The complications produced by its use are so few and so slight that they constitute no valid contra-indication. He urges that when the serum is to be used in earnest, larger doses than are employed at present, should be given. So much as 25 cc. may be given at a single injection, and in one case over 1000 cc. was employed altogether. [J.S.]

2.—Hopkins calls attention to the **coughs unaccompanied by expectoration** which are produced by irritation in some part of the body other than the larynx or trachea. He reports a number of cases in which such coughs occurred, particularly caused by enlargement of the lingual tonsil at the base of the tongue, and the presence of varicose veins in this region. The treatment consists of the reduction of this hypertrophy by the galvano-cautery. The following diseases of the lingual tonsil may occur: catarrhal tonsillitis, phlegmonous or suppurative tonsillitis, peritonsillar phlegmon, and chronic hypertrophy. The last condition may be subdivided into the latent form, that causing the nervous reflexes, and finally varicosity at the base of the tongue. [J.S.]

3.—Goodale discusses a **new method for the operative correction of exaggerated Roman nose.** The essential features consist in the excision of the redundant portion of the septum, the separation of the nasal bones from their maxillary articulation, depression of the bony bridge to approximate the newly formed superior septal margin, and finally fracture and depression of the lateral maxillary ridges. The whole operation is an intranasal one, and therefore involves no wounding of the skin. [C.H.F.]

4.—Homans is of the opinion that it is good surgery to remove the **appendix** in every case at the first operation. He recalls cases in which appendiceal abscesses have been opened, but the appendix left in the abdomen, and the patients have had subsequent attacks, sometimes fatal. [C.H.F.]

5.—Green reports a case of **puerperal septicemia** treated by supportives and stimulants which recovered after a severe illness. The treatment consisted of alcohol, quinin, strychnin, and liquid food. While the patient might have recovered more rapidly under the serum-therapy (which may yet prove as successful in selected cases of puerperal sepsis as it has in diphtheria) or surgical interference might have aided the patient, yet this case illustrates the results, in some cases, of the so-called old-fashioned treatment. [W.K.]

Journal of the American Medical Association.

February 4, 1899. [Vol. xxxii, No. 5.]

1. Trachoma. Emanuel F. Snydacker.
2. Pulmonary Tuberculosis. Edward F. Wells.
3. Pollution of the Potomac River. Robert Reyburn.
4. Gynecologic Diseases. J. T. Watkins.
5. Pelvic Suppuration. Byron B. Davis.
6. The Medical Profession. Lewis Schooler.
7. Some Phases of Intestinal Obstruction. A. H. Cordier.
8. Respiratory Paralysis. D. H. Galloway.
9. Syphilis. John M. Batten.
10. Pleuritis Gonorrhoica. J. Rudis Jicinsky.
11. The Function of Brüke's Muscle. V. Fukala, Vienna. Translated by J. W. Sherer.

1.—Snydacker believes that he has discovered the true **microbe of trachoma.** He discusses the claims of the discoverers of the numerous other specific microorganisms which have been supposed to cause this disease, and describes in full his own method. [M.B.T.]

2.—The administration of potassium iodid in order to increase bronchial secretion and produce exaggerated rales, as practised by Vetlesen, to aid in the **early diagnosis of pulmonary tuberculosis,** is advocated. [M.B.T.]

5.—Davis uniformly advocates immediate operation in 2 classes of cases of **pelvic suppuration,** those in which the amount of pus is large and tension great, in which there seems to be danger of perforation into the peritoneal cavity, the bladder or the rectum; and those cases with profound sepsis, whether the amount of pus is great or small, in which the conviction is forced that unless something is done to stop the septic absorption the patient is bound to succumb. In chronic inflammations, easily accessible from the vagina, the vaginal incision is preferred, but unless the collection of pus is low down, celiotomy is considered safer and better. [M.B.T.]

7.—Cordier considers **acute intestinal obstruction** the most fatal of the surgical affections of the abdominal cavity. In discussing the interpretation of symptoms in the differential diagnosis of obstruction it is stated that obstruction of the small intestine is more likely to cause severe shock than that of the colon, owing to the more intimate connection of the nerve-supply of the small intestine with the great abdominal ganglia. Then an opening just large enough to permit the small bowel to creep in will be more likely to firmly compress the gut than a larger opening through which the colon had found its way. In case obstruction is complete, pain will be constant, yet periods of intensified suffering will repeatedly come on. If the obstruction is only partial, the liquid contents and gases will be forced past the constriction, and for a time the peristaltic pains will subside and the patient will be free from suffering until more gas is generated or another reflex wave is excited. In intussusception the constriction, early in the case, is usually incomplete, hence the pain is not so severe, there is no tenderness on pressure, and sometimes firm pressure relieves the pain. Many cases of obstruction develop septic peritonitis, from the passage of microorganisms through the intestinal wall or through perforation above the constriction or sloughing at the site of obstruction. The location of pain does not imply that the obstruction is there. In obstruction of the small intestine pain is apt to be located about 2 inches above the umbilicus at the site of the solar plexus; and if not adherent the small intestines constantly change position. If the obstruction is in the colon, the location of the pain might be of some service in making a diagnosis of the bowel involved, as the colon does not have much latitude of motion; and pain having its origin in the colon is not apt to be referred to the solar plexus. The contents of the intestines do not become feculent until near the ileocecal valve, hence the vomiting of fecal matter would imply obstruction in the colon or the lower portion of the ileum. An obstruction in the upper jejunum is usually attended with profuse vomiting of thin bile-stained fluid, non-feculent in character, yet by rapid decomposition or long distention the odro of the contents of this portion of the bowel may become very offensive. The necessity for early diagnosis and operation is urged and illustrative cases are given. [M.B.T.]

8.—A case of **respiratory paralysis** resulting from chloroform-narcosis is reported in which recovery followed persistent artificial respiration. [M.B.T.]

10.—A case of **pleuritis** is reported occurring in a man of 24 who had had gonorrhea some time previously. It was suspected that the pleuritis was due to pulmonary tuberculosis, but on examination of the sputa no tubercle-bacilli but numerous gonococci were found. [Nothing is mentioned with regard to any attempt to make cultures from the pleuritic fluid. M.B.T.]

Bulletin of Johns Hopkins Hospital.

November, 1898. [Vol. ix, No. 92.]

1. Diagnosis of the Condition of Each Kidney by Inoculation of the Separated Sediments into Guinea-pigs in Suspected Renal Tuberculosis. Edward Reynold.
2. Laparotomy for Intestinal Perforation in Typhoid. Harvey W. Cushing.
3. Spontaneous Hemorrhagic Septicemia in a Guinea-pig, Caused by a Bacillus. Geo. H. Weaver.
4. Antitoxic Relation Between Bee-poison and Honey. G. H. Stover.

2.—Cushing says that "surgical intervention offers practically the only hope" in cases of **perforation occurring in typhoid fever** and gives the following conclusions: The diagnosis of intestinal perforation in typhoid fever may present many difficulties. There are two varieties of perforation, appendicular and those occurring in the free bowel, and these present different courses and prognoses. Many cases show a pre-perforative stage which in some cases calls for a laparotomy in anticipation of a complete perforation with extravasation. Leukocytosis is not an infallible sign of perforation. When the diagnosis is made operation is indicated, whatever the condition of the patient. Even an exploratory incision is more than justified. [G.B.W.]

December, 1898. [Vol. ix, No. 93.]

1. Medicine in the Nineteenth Century. C. W. Allbutt.
2. Refractory Subcutaneous Abscesses Caused by a Fungus Possibly Related to Sporotricha. B. R. Schenck.
3. Edematous Changes in the Epithelium of the Cornea in a Case of Uvetis following Gonorrheal Ophthalmia. Edward Stieren.

1.—See this Journal, Vol. II, page 1295.

2.—The patient had scratched the index-finger of the ight hand on a nail. A small abscess formed from which he inflammation traveled up the arm, and led to the formaion of several refractory abscesses and indurated areas. here was also advanced pulmonary tuberculosis. Cultures rom the diseased areas of the arm yielded a peculiar microrganism resembling fungi and yeasts, and for the time being classed with the genus **sporotricha.** It was pathogenic for dogs and mice, producing local indurative lesions in the former, while in the latter it invaded the internal organs, particularly the lymph-glands. It is interesting to note that the pathologic conditions did not at any time suggest any other than a simple inflammatory process. [D.R.]

3.—Stieren carefully describes the pathologic findings in an eye that had been the seat of **gonorrheal ophthalmia** and had been enucleated to prevent sympathetic ophthalmia. There was a marked degree of **edema of the cornea** which he attributes to obstruction of the lymph-spaces leading from the cornea to the canal of Schlemm, but to some extent also to a probable increase in the outflow of fluid from the blood-vessels consequent to the severe inflammation of the cornea and the neighboring tissues. There was no evidence of augmentation of the intraocular tension. [D.R.]

American Gynecological and Obstetrical Journal.

November, 1898. [Vol. xiii, No. 5.]

1. Closure of Vesico-vaginal Fistulæ following Vaginal Hysterectomy and Other Operative Procedures by the Vaginal Route. Charles P. Noble.
2. Gonorrhea in the Female; Rectal Complications. Joseph B. Bacon.
3. The Coexistence of Fibromyoma and Carcinoma of the Uterus, with a Report of Three Cases. W. Wayne Babcock.
4. Surgery of the Peritoneal Cavity. Edward Nicholas Liell.
5. A Clinical and Pathological Study of Five Recent Cases of Hysterectomy for Fibromata. Reuben Peterson.
6. Sequelæ of Abdominal Operations. Wilmer Krusen.
7. Infective Peritonitis, with Special Reference to a Suggested Method of Improving the Present Methods of Surgical Treatment. (*Concluded.*) J. C. Webster.

1.—See this Journal, Vol. II, page 762.

2.—Bacon believes that the use for an enema of the same syringe that has been used for the vaginal douche is directly responsible for many cases of **rectal gonorrhea.** The treatment for gonorrhea of the rectum is to keep the patient at rest, and use a double tube just within the sphincters for irrigation purposes, gradually inserting the tube with an outlet for the flow of water in order to prevent washing or carrying the infection higher up in the intestinal tract. The bowel should be irrigated several times daily with hot water or with a mild antiseptic solution. [W.K.]

3.—See this Journal, Vol. II, page 762.

4.—The removal of the tubes and ovaries for the purpose of arresting growth of as well as hemorrhage from **fibroid tumors of the uterus,** is an operation seldom performed at present, the comparative result between this and hysterectomy being decidedly in favor of the more radical operation. It is a mistake to regard change of life as an invariable means of producing relief to a suffering woman, or to think that there will be a gradual reduction in size of the growth because of a menopause induced through the removal of the tubes and ovaries. The experience of gynecologic surgeons at present leads to the belief that uterine myofibromas, while not malignant, are not so benign in character as heretofore supposed, since degenerative changes frequently occur, and many assume a fibrocystic, if not a sarcomatous character, while others are attended with complicated ovarian and tubal disease. The importance of diagnosis and early operation is therefore indicated. [W.K.]

5.—Peterson reports 5 cases of **hysterectomy for fibromata.** He prefers panhysterectomy to the supravaginal operation, believing that the better drainage secured is an important factor. Myomectomy is a very much overdone operation, and should be limited to the removal of one or two fibroid nodules. In the use of catgut-ligatures he has found that patients have had a smoother convalescence than when silk was employed. [W.K.]

6.—See this Journal, Vol. II, page 762.

7.—(*Concluded.*) Webster has carried on a series of experiments, studying the **effects of formalin on the normal peritoneum** of dogs, demonstrating that no ill effects follow the free irrigation of the peritoneal cavity of the dog with lotions of formalin in strengths of 1 : 2000 and 1 : 1000.

Moreover, the absorption of a considerable quantity left in the belly is not followed by untoward results. In another series, infectious material (fluid cultures of streptococcus and staphylococcus aureus) was introduced and permitted to remain for several hours in the peritoneal cavity; and later the abdomen was reopened and irrigated with the solution, and the dogs recovered. Webster has used formalin solution in the peritoneal cavity of the human subject in 6 cases, using a solution of 1 : 2000 or 1 : 2500, with good results. In no instance did the application appear in the slightest degree to cause any unusual symptoms. The great desideratum in dealing with the peritoneal cavity is to obtain the greatest amount of benefit with the smallest amount of risk to the peritoneal endothelium. [W.K.]

American Journal of Obstetrics and Diseases of Women and Children.

November, 1898. [Vol. xxxviii, No. 251.]

1. The Evolution of Specialism in Medicine. Charles A. L. Reed.
2. A Second Paper Containing Remarks Bearing on the Surgical Treatment of Intussusception in the Infant: with Cases. H. Howitt.
3. Septic Infection of Ovarian Cystoma. Charles Greene Cumston.
4. The Exanthemata as a Factor in Producing Pelvic Disorders. Joel W. Hyde.
5. Some of the Complications following Vaginal Hystero-Salpingo-Oophorectomy in Pelvic Suppuration; with Remarks on the Objections to this Operation. F. Blume.
6. Some Points in the Technic of the Alexander Operation. Herman E. Hayd.
7. Some Clinical Observations Based upon One Hundred and Sixteen Abdominal Sections for Ovarian Tumors. X. O. Werder.
8. Albuminuria Complicating Gynecological Operations. Rufus B. Hall.
9. Some Facts in Regard to Uterine Fibroids. Henry D. Ingraham.
10. Surgical Treatment of Morbid Conditions involving the Broad Ligaments. Augustus P. Clarke.
11. Injuries of the Gall-Ducts. Miles F. Porter.
12. Floating Kidney. Markley Connell Cameron.
13. Gastro-Enterostomy by a Modified Von Hacker Method. J. D. Thomas.
14. The Graver Nerve-Disturbances Due to Organic Changes in the Genital Organs. W. H. Humiston.
15. Insufficient Menstruation. J. C. Dunn.
16. The Removal of the Cecum. J. H. Carstens.
17. Vaginal Section. W. L. Langfitt.
18. Treatment of Endometritis. William A. B. Sellman.
19. Does the General Practitioner Accord that Confidence to the Surgical Treatment of Uterine Fibroids which our Present Success Justifies? A. Vander Veer.

2.—For all practical purposes there are only four varieties of **intussusception,** namely, colic, enteric, ileo-cecal, and ileo-colic. The colic form, as the term implies, takes place in the colon. It is never acute, seldom causes complete obstruction, and the extent of the bowel involved is always, or at least generally, very limited. Among the causes are polypi and catarrhal affections of the bowel. Phimosis in the young is a frequent cause of hernia, prolapsus ani, and hydrocele; and it is but reasonable to believe that preputial irritation plays a more or less important role in the causation of intussusception. The most common error in diagnosis is calling the condition gastroenteritis or ileocolitis. Howitt reports two cases successfully operated upon. [W.K.]

3.—Cumston discusses **septic infection of ovarian cystoma** and believes we have two kinds of infection, viz., the pathogenic and the saprophytic. Pathogenic and saprophytic organisms enter ovarian cysts in various ways. Puncture, incision and drainage are often the means of their direct invasion from the exterior. We should always bear in mind that the deep layers of the epidermis contain bacteria in large quantities, more particularly the staphylococcus albus, which presents a very great resistance to all manner of disinfection, and which, by operative interference, may be pushed directly into the interior of the cysts. But in a great number of instances, as puncture is discarded by the majority of the profession, the patient contains the agent of the septic process under consideration. The germs did not come from without, but from the interior of the organism, and it may be called a true autoinfection, which can take place in one of three ways: First, by means of the blood, in which case the infection is either direct, produced by phlebitis which extends up to the cyst: or it may be indirect, in which case the infectious elements are carried in the general circulation into the tumor by means of its pedicle. Second, infection may take place by the lymphatics, which may allow a direct introduction of the germs into the interior of the cyst up to its hilum. Third, we have infection through adhesions, which are plentifully supplied in new-formed vessels which are intimately connected with those in the walls of the cysts, and thus allow an easy transportation of the bacteria. [W.K.]

4.—Hyde believes that many cases of **pelvic disease are due to the exanthemata.** He reports a series of nine cases in which the pelvic disease developed prior to marriage and was undoubtedly of exanthematic origin. The mischief frequently antedates the menstrual period and has reached a pathogenic condition of the uterus and adnexa before their legitimate function has been called into activity. Chronic inflammatory conditions produced by the exanthemata are probably responsible later for uterine flexions, tubal displacements and adhesions, defective or partially obliterated tubes, which may entrap the ovum. [W.K.]

5.—Bloom has had a personal experience with **vaginal hysterectomy for pelvic suppuration** in 42 cases. Of these, 18 belonged to that desperate class which, if treated by the abdominal route, are either left unfinished; or, according to the statement of prominent operators, have a mortality of 25 to 30%. The pelvic organs were agglutinated into one mass and could not be distinguished by vaginal or rectal examination. In some instances these masses reached half way to the umbilicus, while on others the peritoneal cavity was less involved and they extended downward into the vagina, pushing the uterus against the symphsis and compressing the rectum so that a rectal tube could be passed with difficulty. The lesions of the remaining 24 patients were not quite so extensive, yet in every instance both appendages were so far involved that a conservative operation was impossible. Blume is totally opposed to vaginal hysterectomy where there is a possibility of saving one appendage. Mainzer, in a report of 200 vaginal hysterectomies for chronic inflammation of adnexa in Landau's clinic, concludes that there is less disturbance of the nervous system after the radical operation than after salpingo-oophorectomy alone. With reference to sexual passion, with but one exception in the Blume series they have much the same sexual condition as before operation. Complications were present in 3 cases reported; the first patient died from tetanus 17 days after operation, the second from intestinal obstruction on the sixth day, and in the third case the convalescence was complicated by septic infection, but the patient ultimately recovered. [W.K.]

6.—Hays believes certain precautions must be taken to secure the best results from the **Alexander operation.** After the ring has been thoroughly exposed and the ligament grasped, care must be exercised to free the now exposed ligament from its tendinous connections to the ring, or the traction-force will be divided and tend to split and weaken the ligament. Drainage is rarely necessary. In approximating the pillars of the ring, bring all parts into perfect apposition and avoid so-called dead space. The patient should wear a well fitting pessary for several months after operation. The cardinal rule for a successful Alexander operation is a freely movable uterus with healthy tubes and ovaries. [W.K.]

7.—Werder reports a series of 116 cases of strictly **ovarian neoplasms** classified as follows:

Ovarian cystomas (oophoritic and paroophoritic)	74
Parovarian cysts (5 of them intraligamentary).....	12
Dermoid cysts (bilateral, 1)........................	10
Fibroid of ovary........................	1
Sarcoma of ovary........................	5
Cancerous tumors........................	13

Suppurative dermoid	1
" oophoritic cyst	1
Torsion of the pedicle	12
Rupture of cyst	6
Ovarian cyst with tubercular salpingitis	2
" cysts complicated by appendicitis	4

There were 9 deaths in the whole series, or 7.8%, 3 of which followed ovariotomy for malignant tumors. [W.K.]

8.—Hall advises that the functions of the kidney be carefully studied before subjecting the patient to a surgical operation. Probably the most frequent cause of albuminuria complicating an operation is **preexisting nephritis.** We may have suppression of urine following an operation in patients with fatty hearts, and examination of the urine several days preceding the operation may be absolutely negative. If there is the slightest evidence of preexisting nephritis, the anesthetic selected, regardless of age, should be chloroform. In 110 cases in which ether was the anesthetic, in 33, or 30%, there was a trace of albumin for the first 24 hours after the operation; in 10 cases, or 9%, there was partial or complete suppression varying from 1 to 4 days. In a few of these cases the patient would secrete 2 or 3 ounces in 24 hours, but in most the suppression was complete. Two of these patients died in coma. In 500 sections in which chloroform was administered, in 85 cases, or 17%, there was a trace of albumin for 24 hours; in 10 cases, or 2%, there was suppression varying from 1 day to 4 weeks. In all these the suppression was complete for 1 or 2 days; 4 of the number were known to have chronic nephritis and died of uremic coma. In the ether list were no patients who were known to have a preexisting nephritis. In the chloroform list were 35 patients who were known to have nephritis before the anesthetic was administered. [W.K.]

10.—**Varicocele of the broad ligament** is sometimes difficult to diagnose. Excision, including portions of the ligament with the tube and ovary, may furnish the only means of a permanent cure. The cordwainer's suture, in which aseptic animal ligatures can be embodied, will be found the safest, easiest and most effectual means for hastening this result. The removal of intraligamentous neoplasms is generally difficult and dangerous because of extensive adhesions which may exist, and the danger of injuring important vessels. [W.K.]

11.—Porter, in discussing **injuries of the gall-bladder,** emphasizes the following points: (1) Fatal inanition may be caused by an injury which results in a complete diversion of the bile from the intestines. (2) Jaundice may be absent, though a large quantity of bile is thrown into the peritoneal cavity. (3) Cholemia and inanition combined may keep the pulse-rate and temperature normal, or even below, in the presence of marked sepsis. Acting singly, these conditions have the same effect, but in lesser degree. (4) Jaundice is not always present in cholemia. [W.K.]

12.—Cameron reports 3 cases in which **nephrorrhaphy** was performed with satisfactory results. [W.K.]

13.—Thomas reports a case of **gastroenterostomy for carcinoma** of the pylorus. The largest size Murphy button was used in making the anastomosis between the jejunum and stomach. The patient died of inanition at the end of five days. [W.K.]

14.—Humiston reports 6 cases of the **graver neuroses** found to be due to **organic pelvic disease,** and believes that a favorable prognosis may be given in these cases if the pelvic difficulty is corrected. [W.K.]

15.—Dunn draws the following conclusions from the study of 6 cases of **insufficient menstruation:** (1) They appear to be due to a lack of proper functional activity of the glandular structures of the uterus and adnexa. (2) Anything that will stimulate the functional activity of these glandular structures will increase the menstrual flow and give more or less marked relief. (3) Direct stimulation of the endometrium and muscular structures of the uterus, by stimulating the terminal nerve-filaments and conveying an awakening impulse to the ganglia in the uterus and adnexa, is the surest means of relief. (4) This stimulation should be only such as is necessary to give relief to symptoms. (5) Unless there be something in the uterus requiring removal, a sharp curet should never be used. (6) The difficulty of effecting a cure increases in direct ratio with the amount of injury done to the endometrium. (7) (Judging from one case) stimulation, such as described, will relieve symptoms at any time between periods without producing at the same time any flow of blood. (8) If Conclusion 7 should prove true in a series of cases, we would be justified in believing that the amount of the menstrual flow is in itself of no particular moment, except in so far as it indicates a normal functional activity of the glandular structures of the reproductive organs. (9) If the symptoms enumerated and the sufferings endured by subjects of insufficient menstruation are due to insufficient functional activity of glandular structures rather than to an insufficient flow of blood, is there not at least a strong probability that they are the result of a form of toxemia? [W.K.]

16.—Carsten reports a case in which nine inches of the small intestine, the whole cecum, and about two inches of the ascending colon were removed for sarcoma. The small intestine was then joined to the ascending colon by the aid of the Murphy button in the usual manner. The patient left the hospital in two weeks in good condition, and no recurrence of **malignant growth** had occurred. [W.K.]

17.—Langfitt believes the advantages of **vaginal section** are as follows: (1) operations of not sufficient gravity for abdominal section will be done by the surgeon with impunity; (2) a patient's consent for operation is easier to obtain, and that at an early stage of the disease; (3) rise in temperature seldom occurs, and convalescence is, as a rule, rapid and uneventful; (4) when drainage is necessary it can best be obtained through the vagina; (5) when exploration of the pelvis is necessary for diagnosis, with no extensive disease or adhesions. [W.K.]

19.—Vander Veer reviews the various methods of dealing with **uterine fibroids,** and concludes that no operation fits every case, no one line of medical treatment will answer any better, and the great majority of fibroids demand an early and prompt operation. [W.K.]

Annals of Surgery.

January, 1899. [Vol. xxix, No. 1.]

1. Treatment of the Intestinal Paralysis of Peritonitis by Enterostomy. WILLIAM WALDO VAN ARSDALE.
2. Contribution to the Surgery of the Kidney; A Report of Cases Treated in the Roosevelt Hospital of New York from January 1, 1890 to October 1, 1898. ALEXANDER B. JOHNSON.
3. Fractures of the Internal Condyle of the Humerus and the Correction of the Resultant Deformity by Operative Measures. GWILYM G. DAVIS.
4. Remarks on the Radical Cure of Hernia. WILLIAM J. MAYO.
5. Permanent Dislocation of the Patella. The Report of a Case of 20 Years' Duration, Successfully Treated by Transplantation of the Patella Tendons with the Tubercle of the Tibia. JOEL E. GOLDTHWAIT.
6. Fistulous Opening between the Ileum and the Bladder; Operation and Cure. HENRY O. MARCY.
7. The Anatomy and Surgery of the Frontal Sinus and Anterior Ethmoidal Cells. Part II. HOWARD A. LOTHROP.
8. Surgical Occlusion of the Cerebral Sinuses. R. T. STRATTON.

1.—For the **treatment of intestinal paralysis attending severe cases of peritonitis,** Van Arsdale considers it justifiable to ensure evacuation of the intestinal contents by performing enterostomy. He cites three cases in which this operation was followed by recovery, although the condition of each patient was, at the time, more or less desperate. [Van Arsdale seems fearful that this mode of treatment may be considered by the profession too radical. This is not likely to be the case, however, as the trend of opinion, in the treatment of intestinal distention, whether due to obstruction or paresis, favors a freer evacuation of the intestinal contents than can be obtained by the trocar or the aspirator. C.H.F.]

2.—Johnson describes 86 **operations on the kidney,** including 15 cases of movable kidney, 12 each of abscess of the kidney, and nephrolithiasis, 9 each of pyonephrosis and tuberculosis of the kidney, 7 of injuries to the kidney and cystic degeneration, and 6 of tumors of the kidney or adrenal capsule. [C.H.F.]

3.—The socalled **gunstock-deformity** may be prevented by treating the fracture with the limb in the extended position, on either a straight or an obtuse splint, with the addition, as Davis recommends, of a short lateral external splint and a pad over the external condyle. The gunstock-deformity can be corrected, however, by performing osteotomy of the humerus above the internal condyle, an operation that Davis carried out in three cases with noted success. [C.H.F.]

4.—The success or failure of operations for the **radical cure of hernia** is so dependent upon primary union that too much attention cannot be paid to the technic. Now that the surgeon can wear gloves during an operation, the skin of the patient should alone cause anxiety, and the tendency has been to subject it to too vigorous preparation. Mayo does not have the parts prepared until the morning of the operation, and then only by scrubbing them with soap and water, using a piece of gauze, not a brush, and covering the parts with sterile gauze. At the time of operation turpentine is used if the skin is oily, and, after this is removed with soap and water, the skin is hardened with alcohol. For the radical cure of inguinal hernia the Bassini operation exhibits in a striking manner the correct application of the principles involved in all hernial operations. Mayo has had experience with over 100 cases in which this method was employed, and he prefers it to the modification of Halsted. Kangaroo-tendon has been discarded, and catgut, sterilized by the Bœckman dry-heat method, substituted therefor, with satisfactory results. The principle involved in the original McBurney operation may be used with benefit in gangrenous hernias, where it is necessary to provide drainage, and a considerable percentage of permanent cures can be thus obtained. In operating upon relapsing hernia, Mayo does not raise the cord from its bed, but dissects the sac from it, sutures the deeper muscles over the cord to the under surface of Poupart's ligament, and over this he sutures the fascia of the external oblique. As a rule, however, relapses do not follow the cord, but are direct protrusions covered with stretched muscular and aponeurotic structures. The method employed by B. F. Curtis has given satisfaction in small femoral hernias, but it is not suitable for very large ones of this variety. The removal of a part of the omentum, which is looked upon by some as the entering wedge, is urged by A. J. Ochsner. In umbilical and ventral hernias non-absorbable sutures should be given preference; probably the best method of securing a radical cure in umbilical hernias, with wide separation of the recti, is that in which aponeurotic flaps are dissected up and mattress-sutures of silver wire are so introduced as to cause overlapping of the flaps. [C.H.F.]

5.—Goldthwait reports a case of **permanent dislocation of the patella** in a patient, now 30 years of age, who attributes the deformity to the fact that she was obliged to run a sewing-machine almost constantly when she was but 10 years old. At the present time she has a well-marked lordosis, causing her much distress and directly traceable to her peculiar gait and the mode of standing made necessary by the abnormal position of the patella. The case illustrates how much operative interference will be tolerated, at the same time preserving a functionally good joint. The knees were operated upon at different times and in different ways. At the first operation upon the right knee the attachment of the patella, after the latter was reduced, was severed and sewed to the periosteum and tendinous expansion of the sartorius on the inner and anterior surface of the tibia. The loose capsule was tightened by quilted sutures and for fear lest the new attachment of the tendon of the patella might be ruptured before union was firm, about three-fourths of the quadriceps extensor was divided. Recovery from this operation was uneventful, and the function of the joint was in no way interfered with. The patient still had difficulty in extending the knees, so that the lordosis was not lessened. To correct this an osteotomy of both femora, just above the condyles, was performed and the limbs straightened. The final operation, that upon the left knee, consisted in chiseling away the shelf of bone to which the ligament of the patella was attached and transplanting it on the inner side of the leg, where it was secured by nails. Suppuration ensued, and for this reason convalescence was somewhat protracted. Goldthwait prefers this mode of operation to the first, and in any future case he would, in order to avoid suppuration or sloughing, save the attachment of the periosteum as much as possible, swinging the fragment around without completely separating it. The series of operations has been successful in every detail, the lordosis and symptoms referable to it have disappeared, the dislocation of the patellas has not recurred, and the patient has for the past 2 years been almost constantly at work. [C.H.F.]

Archives of Pediatrics.

January, 1899. [Vol. xvi, No. 1.]

1. Report on Cases of Measles. WALTER LESTER CARR.
2. Teratoma of Sacrum and Coccyx. FRANCIS HUBER.
3. Gonorrhea in Children: A Frequent Occurrence Amongst Negroes of Baltimore. CHARLES O'DONOVAN.
4. A Case of Intussusception. T. J. ELTERICH.
5. Spontaneous Dislocation of Both Knees in a Child Aged Eight Months. PHILIP F. BARBOUR.

1.—In an investigation of 115 cases of **measles,** 107 of **rubeola,** and 8 of **rubella,** Carr made the following observations: The prodromal period in healthy children was, in no case, accompanied by convulsions. The initial catarrh was more severe in children sick with other diseases than in those in good health. The throat-eruption was observed on the soft and the hard palate from 24 to 48 hours before the appearance of the exanthem. Koplik's sign was regarded as a valuable indication of beginning measles. The average duration of uncomplicated cases from the first prodromal symptoms to the end of desquamation was 26 days. The average duration of the eruption from its first appearance on the face to its last staining (noted in 49 cases) was 7.56 days. In one poorly nourished, bottle-fed infant it lasted 17 days. In another case complicated by broncho-pneumonia, pleurisy with effusion and enteritis, it lasted 19 days. The eruption was of short duration in babies with broncho-pneumonia; 4 children had recurrence of the eruption 4 weeks after the primary attack. There was no case of hemorrhagic measles. The eruption was more evanescent in rubella than in rubeola; 5 children who had rubeola afterward developed rubella. The cases of rubella showed no desquamation. The complication that existed in 4 of the 6 fatal cases was broncho-pneumonia. One fatal case had pertussis, broncho-pneumonia, and gangrenous stomatitis. [S.M.H.]

2.—Huber reports a case of **teratoma of the sacrum and coccyx** in a well nourished child, the growth involving the sacral and coccygeal regions, being centrally situated with the greater part of the mass to the left of the median line, and a slight constriction at the base. There was no malformation of the anus or the rectum. The lower two-thirds of the tumor was cystic in character, while the structures at the base gradually became firm and were intimately and firmly adherent to the deeper bony structures. There was a hairy mole on the left side about an inch from the base. The mass was removed by operation. Intimate fibrous attachments to the sacrum were discovered with the coccyx and a small part of the lower portion of the sacrum, and these structures had to be resected. At the inner sacral aspect 3 small cysts were found, and along the anterior surface of the sacrum at the left side, when the bone had been taken away, a thick, dense prolongation, whose nature was not evident, was discovered running upward. This was ligated and cut below the ligature. It had no apparent communication with the spinal canal. At the bottom of the large wound the rectum could be seen for an inch. The wound was sewed up and the child made a good recovery. Microscopic examination of the main mass of the tumor showed it to be composed of a granular, semi-fluid material consisting of imperfectly developed nervous tissue containing bipolar and multipolar nerve-cells, neuroglia-cells, neuroglia, and non-medullated nerve-fibers. These elements often reproduced the convoluted appearance of the cerebral gray matter. The chromatic substance and nuclei of these cells were imperfectly developed or entirely absent. The central areas of the nervous tissue were largely necrotic. Along the periphery it had pushed its way for a considerable distance among th other tissues of the tumor, but was partially separated from them by a layer of endothelial cells. There were a numbe of irregular spaces throughout the mass, lined with cuboida epithelium resembling the lining cells of the central cana Some of these were lined by long cylindric epithelium sen ing numerous branching processes into the adjacent nervous tissue. Along the edges of other spaces were many ganglionic cells, some resembling the Purkinje cells of the cerebellum. In the pedicle the spaces lined by cuboidal epithelium were abundant and some appeared to be continuous with the spinal cord. The presence at the base of the tumor of several masses and plates of embryonal hyaline cartilage surrounded by connective tissue containing some lobules of fat-cells and glandular alveoli of the type of mucous glands associated with several large spaces lined by cylindrical ciliated epithelium suggested an attempt to reproduce the respiratory passages of the embryo. Some elongated spaces lined by high columnar epithelium resembling that in the ducts of the mucous glands of the stomach were also discovered. There were a few bundles of striated voluntary muscle-fibers. The entire tumor was surrounded by the distended integument of the buttock. [S.M.H.]

3.—O'Donovan calls attention to the frequency of **gonorrhea in children** among the negroes of Baltimore. He refers to the fact that among 12 children presenting themselves at one of the dispensaries in a single day 2 girls aged 4 and 5 and a boy aged 8 years were found to have gonorrhea. They came from different portions of the city and from different families. In 1 case an adult member of the household was found to have gonorrhea. This frequency is accounted for by the great prevalence of the disease among the colored race and their careless, filthy habits of living. [S.M.H.]

4.—Elterich reports a case of **intussusception** occurring in a babe aged 1 year. The child presented the ordinary manifestations of the condition. Hydrostatic pressure was unsuccessful as a remedial measure; celiotomy was performed 26 hours after the beginning of the illness. The intussusception was found to involve the whole of the cecum, which had completely turned on itself and extended down into the rectum within a few inches of the anus. This was reduced with difficulty and the child died 2 hours after the operation, from shock. [S.M.H.]

5.—Barbour reports a case of **spontaneous dislocation of both knees** in a child aged 8 months. The infant was anemic and marasmic, would cry out as if in pain, and the legs would become dislocated outward and backward, and in a moment return to their normal relations. It required considerable force on the part of the manipulator to obtain any abnormal motion in the joint. The ligaments were apparently not relaxed. The explanation is given that the articulating depression of the tibia was less than normal, while the ligaments of the joint were probably relaxed to an inappreciable extent. The displacement gradually lessened as the child grew older. [S.M.H.]

Journal of Nervous and Mental Disease.

January, 1899. [Vol. xxvi, No. 1.]

1. Subacute Combined Sclerosis of the Spinal Cord, and Its Relation to Anemia and Toxemia. CHARLES L. DANA.
2. Report of a Case of Tumor of the Hypophysis Without Akromegaly. CHARLES W. BURR and DAVID RIESMAN.
3. Reflections on the Nosology of the So-called Functional Diseases. JOSEPH COLLINS and JOSEPH FRAENKEL.

1.—Dana reports the case of a man, 50 years of age, who had previously been perfectly well. In 1893, he received a severe injury to the head, but apparently recovered from it. In 1896, he noticed numbness of the fingers of the left hand; later, the right hand was involved. He had a girdle-sensation; pain in the arms, neck, and back; coldness, and muscular twitchings in the legs. Upon examination, it was found that the muscles of the right thigh were almost entirely paralyzed. There was weakness in the arms, and marked impairment of coordination. The reflexes were exaggerated, and there was diminution of the galvanic reaction of the muscles, and sensation was delayed in the feet and legs. In the arms, tactile sense was slightly impaired, but the temperature-sense, pain-sense, and muscle-sense were very seriously affected; particularly the latter. The pupils reacted to light and accommodation, there was no nystagmus, and vision was normal. The patient was profoundly emaciated, and continued to grow worse, finally dying of exhaustion. At the autopsy, degeneration was found in the whole length of the posterior and lateral columns, and there was recent acute softening in the anterior horns and columns in the lower cervical and lower dorsal segments, that is to say, there appeared to have been two foci of disease—one in the lower cervical zone, and one in the lower dorsal region, the latter being the most recent. Combined sclerosis of the cord appears to be more frequent in men; it follows acute infectious processes or chronic poisoning, and bears a very important relation to secondary or pernicious anemia. It begins with a persistent paresthesia of the feet, associated with a good deal of ataxia and loss of motor power. In some cases, the dissociation of sensation may resemble that of syringomyelia. Later, the arms are involved, showing the same sequence of symptoms. The course reaches from six months to a year, and Dana suggests that, as it occurs late in life, it is possibly due to some disease of the blood-making powers. The symptoms are usually characteristic, and render the diagnosis comparatively easy. [J.S.]

2.—See this JOURNAL, Vol. II, No. 19, page 941.

3.—Collins and Fraenkel have endeavored to prove that the various so-called **functional nervous disorders** are "primarily conditioned through the sympathetic system, and are the result of a trophic change" (paper given in abstract). In the discussion of this paper, Dercum said that there was no evidence that the sympathetic system played an important part in functional disease. Mills called attention to a book written by de Fontarce many years ago, in which the same theory had been presented. Sachs stated the known functions of the sympathetic system were disturbed in neurasthenia. Osler remarked that the paper was an exhibition of a retrograde tendency. Worcester argued that the sympathetic system was probably less concerned in functional diseases than the cerebrospinal system. Collins, in reply, stated that some experiments which he had recently performed with Onuf explain "that the implication of the sympathetic system was responsible for the symptoms of sympathetic disorder occurring in the course of cerebrospinal disease." [J.S.]

Glasgow Medical Journal.

January, 1899. [Vol. li, No. 1.]

1. A Case of Dermoid Cyst of the Penis, of Tubular Form. GEORGE HENRY EDINGTON.
2. On Profuse Hematemesis Due to "Pore-like" Erosion of the Gastric Arteries—No Round Ulcer—Exulceratio Simplex of Dieulafoy. JOHN LINDSAY STEVEN.
3. Endemic Goiter and its Occurrence in Lanarkshire, with Some Observations on the Pathology of the Disease. DAN. M'KENZIE.
4. Summary of the Work of the Plague Hospital, Poona, India, in its Clinical Relations. ERNEST L. MARSH.
5. On Movable Kidney. ANDREW F. GALLOWAY.
6. An Unusual Case of Traumatic Separation of Epiphyses. JAMES BATTERSBY.
7. Report on the Bacteriologic Examination of Paisley Water in Connection with the Recent Epidemic of Enteric Fever in that Town. R. M. BUCHANAN.

1.—Edington reports a case of **dermoid cyst of the penis,** of tubular form, in a patient 40 years of age. The cyst extended along the raphe of the pendulous portion of the penis and had no connection with the lumen of the urethra at any point. From a histologic study of sections of the cyst-wall, the author considers it to be a dermoid cyst arising from epithelium included by closure of the raphe. The absence of any glands or hairs usually contained in dermoid cysts may be explained by the fact that, at the end of the third month, when the raphe is formed, there are in the embryo no traces of either hair or glands. [C.H.F.]

2.—Steven records the case of a woman, 26 years old, who had been healthy until shortly before her first hematemesis, when she had had anorexia and pain after taking food. She soon had profuse vomiting of blood, and this was repeated a number of times until the patient was in a grave condition. Improvement took place, but diarrhea, which was uncontrollable, came on and finally caused death through exhaustion. On postmortem examination there was found on the posterior surface of the stomach, 4 inches above the pylorus, and slightly below the lesser curvature, an abraded area, superficial, ¼ inch in length and ⅛ inch in breadth; near its center were two pinhole openings leading directly into one of the primary lateral branches of the gastric artery. Steven reports a second case in which there was likewise profuse hemorrhages, amounting in all to nearly 100 oz. At the postmortem examination there was found a small superficial abrasion near the pylorus, and slightly above the greater curvature. In the center of this was a small opening leading into a large branch of the left gastro-epiploic artery. A point of importance in the diagnosis of this condition is the exceedingly profuse hemorrhage, which is not likely to be so excessive in simple perforating ulcer as a rule, because the disease of the surrounding tissue is then likely to induce some thrombosis, or at least such changes in the walls of the vessels as will lead to rapid arrest of the bleeding; another diagnostic point is the usual absence of previous gastric symptoms. [Unfortunately, however, in true gastric ulcer the hemorrhage may be so excessive as to cause death at the time of its occurrence, and symptoms of gastric trouble may never have been previously noted. D.L.E.]

3.—M'Kenzie notes the remarkable frequency of goiter about Lanarkshire, about 25% of the inhabitants having thyroid glands sufficiently large to attract attention, while in even a larger percentage the gland is found upon examination to be more than normally palpable. About 98% of the cases occur in the mining and laboring classes. M'Kenzie believes the disease to be due to some infection, because it is found endemic in various parts of the world, and in certain well-defined regions, and also because boiling the water of a so-called "goiter-well" renders it harmless. Likewise the disease disappears entirely from a district after drainage is introduced. M'Kenzie cannot, however, conscientiously state that the water-supply of Lanarkshire is the cause of goiter, as the people of Bothwell have the same supply, and do not have goiter; so that he feels inclined to attribute the disease to infection from the soil carried by unclean hands. He believes that the influence of the soil is shown clearly by the fact that the surface-wells are active producers of goiter in those inhabitants who are too conservative to employ gravitation-water. His theory is that the infection giving origin to the disease causes an increased demand upon the thyroid gland, and that the thyroid hypertrophies owing to necessity for excessive work, and he carries this theory further, and states that he believes that if in such districts the thyroid gland is insufficient to meet the extra demand caused by this virus cretinism will result. The only drawback to this theory is, he states, that myxedema is rare in goitrous regions. [D.L.E.]

4.—Marsh publishes a record of the hospital at Poona, including only the period from June 1, 1897, to March 31, 1898, from which time 4,179 patients were treated for **plague.** The cases were admitted in increasing numbers up to November, after which the decrease was very marked. Of these 2,836 patients died, the mortality being slightly greater in males than females, and distinctly lower in children. Of the fatal cases 74% were bubonic. Of the hospital staff, which included at various times from 140 to 300 persons, 26 contracted plague, and 14 died. The non-bubonic forms, which were largely pneumonic or septic, were of the malignant class and showed a very high mortality—about 75%. Buboes occurred most frequently in the femoral region. The main sequels were infiltration and sloughing of the skin, and necrosis of bone. Disturbance of speech was very common, however, particularly a peculiar drawl and inability to articulate certain words, and the voice often resembled that of a boy at the age of puberty. Haffkine made about 100 inoculations with very disappointing results, inoculating every alternate case and comparing these with the uninoculated. Of 61 uninoculated the mortality was about 17%, while of 61 inoculated the mortality was 80%. Two patients who had been inoculated with Haffkine's prophylactic were admitted with plague, though in both cases about nine months had elapsed between the inoculation and the infection. [D.L.E.]

5.—Galloway first reports a case of **movable kidney** which seemed to be due to marked loss of flesh and chronic bronchitis, the latter by the coughing efforts causing stretching and weakening of the renal attachments. An injury probably, finally loosened the kidney. In several cases he reports there were records of uremic attacks during paroxysms of pain in movable kidney. He then followed with a history of several cases illustrative of this affection. [D.L.E.]

6.—Traumatic separation of the epiphysis of ribs is of unusual occurrence. This lesion was revealed at an autopsy at which the heads of four ribs were found to be separated at the epiphyseal line. As the patient, who had been buried underneath a fall of coal from the roof of a mine shaft, was only 14 years of age, the head of the ribs were only cartilaginous, ossification not beginning here until after puberty. [C.H.F.]

Berliner klinische Wochenschrift.

December 19, 1898. [25. Jahrg., No. 51.]

1. The Liver and Glycosuria. Strauss.
2. Upon Diphtheria-agglutination and Serum-diagnosis. J. Bruno.
3. Total Extirpation of the Uterus and its Appendages without Ligatures and without Clamps Remaining. L. Thumim.

1.—The relation of the liver to glycosuria is extremely complicated and far from settled. Strauss' contribution to the subject is based on clinico-experimental studies on the production of alimentary glycosuria in 38 cases of hepatic disease, and on experiments on hepatectomized frogs. All of the patients received 100 grams of glucose in 500 c.c. of water on an empty stomach. In two only of the 38 (both cases of trauma to the hepatic region) did glycosuria develop. The animal experiments showed that frogs deprived of their liver were able to consume practically as much glucose as normal frogs. From these facts it may be concluded that the importance of the liver in preventing glycosuria after the rapid introduction of large quantities of carbohydrates is slight unless other functions are simultaneously disturbed. In the two patients with hepatic trauma it is probable that the injury exerted some effect on the general nervous system by which the assimilating power for sugar was lessened. The reason that several observers noted the frequent occurrence of alimentary glycosuria in diseases of the liver, is attributed to inadequate methods of testing for sugar. The fact is also pointed out that in psoriasis alimentary glycosuria is often readily produced; psorias not rarely precedes the development of diabetes mellitus. Anatomic studies have shown that lesions of the liver are not at all constant in diabetes, and in some instances those that are found are accidental, in others due probably to the same cause as the diabetes. In a third group the liver-disease is a consequence of the diabetes. A disease localized solely to the liver is probably never capable of producing, unaided, diabetes mellitus; some additional disturbance is necessary to render insufficient those functions which normally take up the carbohydrate-metabolism when the function of the liver is impaired or entirely in abeyance. [D.R.]

2.—Bruno found that the **serum of persons suffering from diphtheria** as well as **artificial antitoxic serum** was capable of producing **agglutination** of diphtheria-bacilli. But the phenomenon was not constant for all cultures nor for all sera, hence a clinical sero diagnosis of diphtheria is impossible. It is likewise not possible to separate the diphtheria-bacillus and the pseudodiphtheria-bacillus by means of the agglutination-reaction. Pure, undiluted diphtheria-antitoxic serum has an inhibitory but not a bactericidal action on the diphtheria and the pseudodiphtheria-bacillus. [D.R.]

3.—There are two methods of **arresting hemorrhage,** with ligatures or with clamps. In Landau's clinic the clamps are preferred. In spite of the excellent results reached by the clamp-method, every simplification is greeted as a great advance. Doyen has taught us systematically a new third procedure, a means to extirpate the uterus by the **progressive clamp-method,** without ligatures or permanent clamps. By this method 26 cases of carcinoma, myoma, and double pyosalpinx have been successfully operated on without secondary hemorrhage. Thumim has devised an instrument which he claims is superior to that used by Doyen. It is much lighter, the blades are narrower and their length is greater (8 cm.) than Doyen's instrument. The length permits the inclusion of the broad ligament at one application. [W.K.]

December 26, 1898. [25. Jahrg., No. 52.]

1. Bronchial Asthma. S. Talma.
2. Pathogenesis of Facial Paralysis following Confirmed Muscle-Tremor. E. Remak.
3. A Case of Migraine Beginning with Hemorrhage in the Eye-socket. M. Brasch and G. Levinsohn.
4. Treatment of the Lungs with Assurance of Convalescence. Pielicke.

1.—Talma believes that many **asthmatic patients** and even normal persons are capable of voluntary control to a limited extent of the diameter of the air-passages. This of course is accomplished chiefly by means of the nonstriated muscular fibers in the posterior wall of the trachea and main trachea. This narrowness, however, cannot of itself account for the severe dyspnea. The therapeutic indications are, therefore, to take advantage of this more or less voluntary control, and teach the patient the best method of overcoming the spasm. Talma's system of respiratory gymnastics is perhaps the most satisfactory means of accomplishing this object. He places one hand upon the breast, another upon the abdomen, and by alternate pressure gives the patient the correct rhythm of the movements, at the same time urging him to breathe deeply. Sometimes the attack will cease at once. [J.S.]

2.—Remak reports the case of a woman, 55 years of age, who suddenly was attacked by vertigo, paralysis of the face, vomiting, and finally pain in the neck. When examined, it was found that there was a complete left-sided paralysis of all the branches of the facial nerve with reactions of degeneration for the muscles. The left eye was drawn over towards the nose; the right eye could not move towards the left. The lesion, therefore, must be located in the posterior portion of the left half of the pons. As improvement occurred, sudden contractions of the muscles in the left angle of the mouth became from time to time apparent, which, upon investigation, were found to be synchronous with a physiologic closure of the eye-lid. It is, perhaps, most rational to suppose that this curious **conjoint spasm** is the result of irradiation in the region supplied by the facial nerve, due to stimulation of the nucleus. Similar disturbances have also been observed in cases of purely peripheral paralysis, thus, in the case of a woman, who developed a left-sided facial paralysis, and, 10 years later, developed a similar paralysis on the right side; spontaneous twitchings appeared in the right face, also synchronous with the movements of the eye-lid. It was also observed that closure of the left eye-lid caused conjoint movements of the left half of the face. It is probable that the nucleus becomes more irritable as a result of retrogressive changes. [J.S.]

3.—Brasch reports the case of a man, 23 years of age, who had had in the course of two years four attacks of migraine. In the last attack he had noticed in an afternoon first the secretion of tears from the left eye. Then headache in the left frontal region, then swelling of the eye-lids, and suddenly, while straining at stool, a hemorrhage into them, with loss of vision in the left eye. Both lids, but particularly the lower one, were infiltrated with dark blood. The conjunctiva also showed hemorrhages, and the veins of the retina were intensely congested, and there were numerous retinal hemorrhages. Pain disappeared as soon as the hemorrhage had taken place. In the course of 8 days, almost complete recovery had ensued, although vision in the left eye was still slightly impaired, not recovering completely for four weeks. Brasch calls attention to the infrequency with which cases of non-traumatic hemorrhage into the eye have been reported. He discusses the question whether the migraine of itself is sufficient to determine the effusion of blood, and after an investigation of the literature finds that, although infrequent, migraine with hemorrhage has occurred. In a case, such as this, the prognosis is always favorable as far as the immediate attack is concerned, but the liability to relapse is considerable. [J.S.]

Münchener medicinische Wochenschrift.

December 20, 1898. [45. Jahrg., No. 51.]

1. Physical Diagnosis of Pleural and Pericardial Gatherings of Fluid. Schule.
2. The Reasons for Healing After Laparotomies When There is Tuberculosis in the Abdomen. Hildebrandt.
3. Finding of Stone in the Kidneys by Radiographs Before Operation. Alsberg.
4. Pathology of Nerve-Cells. Heimann.
5. The Question of Disinfection by Formaldehyd. Schlossmann.
6. A Report of the Smallpox Outbreak in the Kingdom of Bavaria in 1897. Stumpf.

1.—In two cases of **pleurisy** in which the physical signs pointed to the existence of a pleural exudate, a friction-sound suddenly developed within the dull area. Exploratory puncture proved the presence of fluid. Schule explains this coexistence in the same locality of a dry pleurisy and an effusion on the ground that despite the accumulation of exudate, circumscribed portions of the lung were still in contact with the costal pleura and were movable during respiration. The observation teaches that in cases of friction-sounds over a dull area we should not only think of pleurisy with fibroid thickening, or of pneumonia with occluded bronchus, but also of exudative pleurisy. Regarding the **diagnosis of fluid in the pericardial sac** Schule states that the discovery of dulness at the manubrium is not sufficient, as dulness may be produced by edema of the mediastinal tissues. Only when the impairment of resonance at the base of the head is associated with an extension of dulness beyond the apex-beat and with an enfeeblement of the cardiac impulse, can the existence of pericardial effusion be asserted. The characteristic triangular dulness is produced in the cadaver by injecting 250 cu. cm. of fluid into the sac. With larger amounts—700 to 800 cu. cm.—the outlines are not as generally given in the textbooks, *i. e.*, a triangle the sides of which are diverted from the jugulum to the right mammillary and the left axillary line. There is, on the contrary, very little extension toward the right. In extreme degrees of filling of the pericardial sac the dulness just reaches a finger's breadth beyond the right sternal margin. The dull area has the contour of a right-angled triangle, the hypothenuse of which extends from the jugulum to the anterior axillary line, the inner side corresponding with a vertical line dropped from the right sternoclavicular junction. [D.R.]

4.—Presents nothing new; is a good resume of the achievements of recent years (since Nissl) in the domain of neuropathology. [D.R.]

5.—Schlossmann has found Schering's **formaldehyd-disinfection** apparatus as well as others entirely inadequate. Essentials of success for formaldehyd-disinfection are the employment of large quantities of formaldehyd and the presence in the room of an abundance of watery vapor. The addition of glycerin increases the disinfecting power; the fineness of the spray and the rapidity with which it is produced are also factors. He has had an apparatus constructed in which glycoformol, composed of formaldehyd, water, and glycerin, in the proportion of 30 to 60 to 10, is used. [D.R.]

Deutsche medicinische Wochenschrift.

December 22, 1898. [24. Jahrg., No. 51.]

1. The Manner of the Absorption of Hematin and the Importance of Hemoglobin Preparations. von Starck.
2. Essay on Treatment of Empyema of the Thorax. A. Tietze.
3. Blepharitis Acarica. E. Raehlmann.
4. A Further Inquiry into the Tuberculin Treatment. Bandelier.
5. A Research into the Use of Tuberculin for Older Children and the New-born. Schreiber.

1.—Von Starck has found by experiments on animals that of hematogen, hemoglobin, and **sirup of the oxid of iron** (an inorganic preparation), the last is best absorbed. He does not think hemoglobin-preparations have much value in supplying the system with iron, and prefers the true ferruginous compounds, the absorbability of which has been proved. [D.R.]

2.—Tietze reports two interesting operations **for empyema of the thorax.** In the first case the debilitated condition of the patient was such as to make it unjustifiable to carry out a Schede operation at one sitting. The first operation therefore involved a resection of the anterior thoracic wall, from the second to the ninth ribs, and after an interval of some weeks, during which time the patient's condition had very much improved, the operation was completed by resecting the posterior thoracic wall. This method of carrying out the Schede operation can claim no advantages, except when, as in this case, the shock of such a procedure might prove fatal. The danger of the operation may be diminished somewhat by previously throwing ligatures around each rib to control hemorrhage from the intercostal arteries. In the second case a modified Schede operation was carried out with, as in the first case, good results. From 2 to 4 centimeters of each rib, from the second to the sixth, and 8 centimeters from the seventh and eighth ribs were resected. The hemorrhage was controlled by tamponing with sterile gauze. [C.H.F.]

3.—Raehlmann, in this article, deals with the **clinical importance of the demodex folliculorum,** the cause of **blepharitis acarica.** This form of blepharitis is characterized by a diffuse hyperemia of the edge of the lid just above the roots of the cilia, with a thickening or swelling of the margin by reason of the presence of a secretion resembling inspissated vaselin or dirty honey. This secretion is gelatinous, and adheres pretty closely to the roots of the cilia. This form of blepharitis is quite stubborn, and often extends over the edges of both lids, though, at times, only a portion of one lid is affected. The presence of the demodex induces certain morbid changes in the cilial hairs, characterized by pigmentation, torsion, and annulation. The root of the hair may be attacked and completely permeated by parasites; in some cases the inflammation may extend to the conjunctiva and the skin of the face. The parasite can be seen on the epilated hair with the naked eye as a small dot. Most of the methods of fixation are not applicable, as by drawing water they distort the demodex so as to render it unrecognizable. The author has found the parasite on perfectly healthy lids, but only in 2% of the cases examined; in trachoma it was seen in 25%; in this disease blepharitis acarica is common. In the treatment the best results have been obtained with an ointment of one part balsam of Peru and three parts lanolin. This is irritant to the conjunctiva, but produces a complete cure within 6 or 8 days. [D.R.]

4.—Bandelier has treated 12 patients with the **new tuberculin.** Prior to the treatment the patients were carefully observed for one or two weeks to determine the amount of lung-involvement and the absence of fever. The initial doses were very small and the increase was gradual. All but the twelfth case—which was one of rather advanced phthisis—were benefited, some even to the extent of a cure. Improvement was also secured in several cases of tuberculous bone and joint disease. [D.R.]

Wiener klinische Wochenschrift.

December 29, 1898. [11. Jahrg., No. 52.]

1. A Case of the Persistence of the Duct of Botalli. Drasche.
2. The Iron Salts in the Dorna Springs. V. Ludwig and Ritter v. Zeynek.
3. Concerning Gonorol. Riehl.
4. An Inquiry Into the Literature of Congenital Pyloric Stenosis and its Treatment. Karl Stern.
5. Remarks on the Above. Pfaundler.

3.—Santal-wood oil is useful in gonorrhea, but often has secondary effects, such as erythema, gastritis, colic, hematuria, acute nephritis, etc., which are probably due to the admixture of by-products to the oil during its preparation. Riehl has experimented with a preparation, called **gonorol,** which represents the parts of the raw oil soluble in alcohol. It is a colorless oil, soluble in 3 parts of 70% alcohol, and boiling at between 303°—306° C. It has the same antiblennorrhagic properties as pure santal-wood oil, without possessing its disadvantages.

Sundry French Journals.

1. Vesical Infections. Albarran, Hallé, and Legrain. (*Gazette Hebdomadaire de Médecine et de Chirurgie*, November 3, 1898. 45. année, No. 88.)
2. Delirium from Sodium Salicylate. Bendu. (*Gazette Hebdomadaire de Médecine et de Chirurgie*, November 3, 1898. 45. année, No. 88.)
3. Diarrhea and Urinary Infection. Carlier. (*La Médecine moderne*, October 22, 1898. 9. année, No. 73.)
4. Dilatation of the Right Heart in Pulmonary Tuberculosis. César Maisonneuve. (Paris Thesis No. 591.) (*Gazette Hebdomadaire de Médecine et de Chirurgie*, October 30, 1898. 45. année, No. 87.)
5. The Parasitic Heredity of Human Tuberculosis. George Küss. (Paris Thesis No. 210.) (*Gazette Hebdomadaire de Médecine et de Chirurgie*. October 30, 1898. 45. année, No. 87.)
6. Paradoxic Frequency of the Pulse. Bradycardia with Diminished Tension or Tachycardia with Increased Tension. J. Grasset. (*Semaine médicale*, August 24, 1898. 18. année, No. 44.)
7. Placental-Retention after Abortion. Budin. (*Journal de Medecine de Bordeaux*, November 20, 1898.)
8. Lesions of the Nervous System in a Fatal Case of Sydenham's Chorea. Silvestrini. (*Semaine médicale*, October 12, 1898. 18me Année, No. 51.)

1.—Microorganisms, to be considered the cause of a **vesical infection,** should be found in pure culture in the infected urine when the infection is localized to the bladder; and the injection of a pure culture ought to reproduce one of the forms of vesical infection, at least when reinforced by one of the predisposing causes of cystitis. The microorganisms most frequently found in vesical infections are the bacillus coli communis, in 131 cases of 304; the staphylococcus pyogenes, in 70 cases out of 304; the proteus of Hauser, the streptococcus pyogenes, in 18 reported cases; and the gonococcus of Neisser. The bacillus typhosus, the diplococcus of Fränkel, and the diplobacillus of Friedländer are occasionally found. The tubercle-bacillus is one of the most frequent causes of vesical infection. Microorganisms may reach the bladder by direct invasion, through the normal openings, or through wounds; or by indirect invasion, through the bloodvessels or lymphatic vessels. Cystitis may be set up by the invasion of microorganisms from the urethra. The microorganisms may be (1) those of the air, (2) those from the normal urethra, and (3) those from the pathologic urethra. Microorganisms may reach the bladder through the ureter as a result of superficial alterations of the renal capillaries and of the epithelium of the glomeruli, without signs of well-marked nephritis. They may come from a diffuse infectious nephritis or from a nephritis with localized lesions, such as microbic emboli or cortical abscesses. Infection by the blood-paths is also known as vascular or embolic auto-infection. When microorganisms reach the bladder they may not produce appreciable effect; they may infect the contents of the bladder only—bacteriuria—or they may give rise to cystitis. In cystitis the lesions are nearly entirely epithelial at first; suppuration is next seen; and, finally, the entire thickness of the muscular wall is involved in the process, giving rise to an interstitial or total cystitis. Pericystitis, in which the perivesical connective tissue and the peritoneum are involved, is seen as a further extension of the same process. There is a pseudomembranous variety of cystitis. The diagnosis of vesical infection is made solely by histobacteriologic examination of the infected urine. [J.M.S.]

2.—Rendu has reported the case of a young woman, who was taking daily 6 grams of sodium salicylate in divided doses, for acute articular rheumatism. On examination the urine was found to contain neither albumin nor indican. On the next evening the patient was violently delirious and had visual and auditory hallucinations and she seemed to be suffering from acute mania. Her temperature was 38.2° C. (100.5° F.), her pulse 110; the swelling of the joints had completely disappeared, and they were absolutely indolent. The right pupil was smaller than the left, there was no sweating, and the urine was scanty and contained a large quantity of albumin and an enormous proportion of indican. The beginning of cerebral rheumatism, uremia, and salicylic-acid poisoning were the possibilities of diagnosis. The sodium salicylate was stopped, and, in 2 days, the cerebral symptoms had disappeared; but the albumin was still present in the urine, although the indican had disappeared. The patient was cured, after having demonstrated that the sodium salicylate was capable of producing nervous phenomena with renal complications. [J.M.S.]

3.—Carlier has observed severe **urinary infections** that developed in the course of **diarrhea.** One case was that of a man, aged 52 years, free from urinary defect, who was attacked with dysenteriform enteritis. Several days after the intestinal symptoms had improved, the patient developed a severe attack of hemorrhagic cystitis that was cured in about 3 weeks. Seven years previously the man had suffered from a similar attack consecutive to an attack of diarrhea that was completely cured. A second case was in the person of a man, aged 67 years, who had a hypogastric wound as the result of an operation for the removal of a vesical calculus. At the time of operation the 24-hours' urine contained 12 grains of albumin. The case progressed rapidly for 3 weeks, at which time the urine still contained a small quantity of albumin. Two months later the patient was seized with an attack of diarrhea that produced a lowering of the general tone of the system and foul-smelling urine, but unattended with pain in the bladder. The patient was cured by a combination of disinfection of the bladder and intestinal antisepsis. In the first case, the microorganisms contaminated the bladder by passing through the rectovesical wall. In the second case, the microorganisms were absorbed from the intestine and produced serious bacteriuria. [J.M.S.]

4.—According to Maisonneuve **dilatation of the right heart** without tricuspid insufficiency is a frequent complication of **pulmonary tuberculosis.** It seems to be without notable influence on the course of the constitutional disease, and seems, sometimes, to prevent hemorrhage from the lung. The condition is due, not only to the increase of the pressure in the pulmonary artery on account of the diminished area of hematosis; but also to a fatty degeneration of the cardiac muscle. The dilatation of the right heart will be facilitated and aggravated by effort. Cough following deep inspiration increases the pressure in and around the heart and the vessels; cough during inspiration lowers the external pressure and allows the heart to dilate while forcibly aspirating the contents of the veins. Dilatation of the right heart with tricuspid insufficiency is rare. It is due to the extension of the distention of the right ventricle to the auriculoventricular orifice of the same side. Such a condition is generally of grave prognostic import. [J.M.S.]

5.—Küss concludes, with regard to **tuberculosis,** that hereditary contagion cannot possibly be demonstrated. The theory of the latency of the microorganisms, defended by Baumgarten, is not exact. Although so many cases of tuberculosis in infancy and in adult life depend upon autoinfection from latent foci, it is not proved that the development of these foci dates from fetal life. These latent foci do not exist before the age of 3 months; they are rare before the first year, when they increase progressively. In fact, to accept the theory of Baumgarten it would be necessary to admit of a so-called resistance of the young tissues to the bacillary infection, and that cannot be accepted for the first portion of extrauterine life. Nevertheless, the fact that the microorganisms may reach the individual a short time after, or even at the moment of birth, and only produce appreciable macroscopic foci at the end of several months may be understood. Küss shows that the direct study of infantile tuberculosis connects the evolution of the disease with the former existence of a latent tuberculosis that, in the majority of cases, is set up by inhalation. This inhalation-tuberculosis is, in its typical form, absolutely analogous to the inoculation-tuberculosis of the guinea-pig. It is represented by a small pulmonary nodule, generally isolated, that first produces an interbronchial adenopathy, and then a similar mediastinal disturbance of varying degree, depending upon the intensity of the reaction of the lymph-nodes in the infant. The age of the lesions indicates a simultaneous infection of the parenchyma and of the mediastinum, and the topography eliminates the hypothesis of a retrograde infection. Thoracic tuberculosis, thus developed, constitutes the first step in the infection of the organism. In many cases the disease never progresses beyond the initial stage, and manifests a tendency to cease. Frequently, there is a danger of infection and the production, sooner or later, of one of the clinical forms of tuberculosis. Ingestion-tuberculosis, much more rarely than inhalation-tuberculosis, presents an anatomic form for which it is not logical to hold heredity responsible. The immense majority of cases of infantile tuberculosis, then, are acquired, and contagion is the essential element in the propagation of the disease, heredity playing a secondary part. The protection against bacillary invasion, therefore, becomes a duty; and, in placing the children of tuberculous parents, from their birth, in media exempt from all bacilli the protection may be a little more certain. Undoubtedly exposure to the bacilli in the future may produce the disease, but the contagion will not have the same gravity, the subject being more resistant; and the late contagion may be so restrained that it will not produce a very formidable latent tuberculosis; while early contagion nearly always produces latent tuberculosis that is grave in the present and unconquerable in the future. [J.M.S.]

6.—According to Grasset, the physiologic relation between the frequency of the pulse and its tension should be maintained in pathologic conditions. If this relation is disturbed the frequency of the pulse may be said to be paradoxic in relation to the tension. Such a condition is seen when there is **bradycardia** with diminished tension or when there is tachycardia with excessive tension. The occurrence of either of the conditions mentioned points to an abnormal condition of the central neuromuscular apparatus of the circulation. [J M.S.]

7.—In case of **abortion** in which the **placenta remains after the expulsion of the fetus,** Budin advises, first, the administration of chloroform, as the complete relaxation of the abdominal and vaginal walls and perineum is most important. After taking the most rigid antiseptic precautions, the operator dilates the cervical orifice by introducing the index, then the middle finger. If the uterine tissue resists too much, Hegar's bougies are used, the uterus having been lowered by a double tenaculum. When the dilatation is sufficient, one hand should be placed upon the abdomen, maintaining the uterus firmly in place, while one or two fingers introduced into the organ detach the placenta slowly and completely. Sometimes the placenta can be drawn out by seizing it between the two fingers, or by one curved finger. If these attempts fail, one should not yield to the temptation to use the placental forceps; but, having divided the placenta, he should proceed by abdomino-vaginal expression in the following manner: The fingers of one hand are introduced into the posterior vaginal culdesac, the palm directed toward the pubic symphysis; the other hand is placed upon the hypogastric region and presses firmly downward the relaxed abdominal wall. The curved fingers and the palm of the hand pressing upon the fundus and the anterior face of the uterus, the pieces of placenta and the decidua pass the cervix and fall, as the stone from a cherry, into the hand that is in the vagina. After ascertaining that nothing remains in the uterine cavity, it should be thoroughly irrigated with a sublimate-solution, 1 to 4000. Then with two or three sponges dipped in a solution of sublimate, all the walls of the uterus should be successively cleansed until there no longer remains any debris of the placenta, after which two sponges dipped in a solution of glycerin and creasote, 1 to 5 or in equal parts, should be applied; and immediately following this, the vaginal cavity should be washed with a sublimate-solution in order to remove the excess of caustic creasote. If the uterus contracts well and there is no hemorrhage, no tampons will be needed; but in the contrary case, tampons of iodoform-gauze should be employed.

8.—Silvestrini gives a summary of the lesions found in a **fatal case of chorea.** The patient was a young girl who died on the sixth day of an attack of chorea that was accompanied by marked hyperpyrexia. Examination of the central nervous system showed varicose swelling of the dendrites, disaggregation of the chromatic substance in the cells of the cerebral cortex, with occasional almost complete disappearance of this substance, swelling of the cellular body, and displacement of the nucleus. In the cells of the spinal cord and of the medulla the substance of Nissl did not form prismatic blocks, but small granulations scattered throughout the cell-body; while it retained its normal position in the processes it was absent when the nucleus was displaced. No particular change was manifest in the cerebellum. [J.M.S.]

Original Articles.

A CLINICAL STUDY OF THE RELATION OF THE BLOOD, THE URINE, AND THE GASTRIC CONTENTS IN DISEASES OF THE STOMACH.[1]

By JOHN A. LICHTY, M.Ph., M.D.,
of Clifton Springs, N. Y.

A year ago, at a meeting of this Association, in the discussion following a paper by me upon "The Uses of the Stomach-Tube in the Practice of General Medicine," expression was given to the opinion that the study of the urine and the blood, associated with a thorough physical examination, is rather more satisfactory in establishing a diagnosis, and in determining the treatment, in diseases of the stomach, than is a study of the gastric contents, associated with an equally thorough physical examination. In other words, it was suggested that a clinical study of the urine and the blood in diseases of the stomach would furnish information that would equal, if not exceed, in importance the information derived from a study of the gastric contents. The literature bearing upon this subject, at least that at my command, has been far from giving any assurance that such a constant relation exists between the blood, the urine, and the gastric contents that when the first two are known the other can be safely approximated. In fact, the results of nearly all the work done in this line of investigation have been indefinite and of no practical value to the clinician. It is the object of the present communication to show whether there is any foundation for this opinion, and whether there is such a definite and constant relation as has been mentioned.

It has occurred to me that the study of one hundred or more cases with special reference to these points, would furnish some practical information upon the question under consideration. The cases that are reported are taken from my records as they appeared in regular succession, and are not selected with special reference to prove, or disprove, any preconceived ideas, or theories, of my own. In arranging them, I have attempted to follow that classification of diseases of the stomach which is accepted by those who are recognized generally as authorities upon the subject. No endeavor has been made to dwell upon the niceties of diagnosis into which it is possible to enter. On the other hand, it was desired to show that in establishing a diagnosis, the data derived from the physical examination were considered, as well as those derived from the chemic examination.

The tests employed in determining the condition of the blood, the urine, and the gastric contents were those ordinarily used by the general practitioner in preference to more elaborate ones which can only be carried out in well-equipped laboratories. It was thought better to do this than to include in the tables that will be presented later other tests which were made in the study of these cases, but which are still of doubtful value and would only tend to obscure the principal results.

In the urine, only the specific gravity, the reaction, the approximate degree of acidity, and the presence and character of the sediment, if any existed, were determined. While it would have been more satisfactory, probably, to have determined the accurate degree of acidity, yet this is not often done in the hurry of making a urinary analysis, and the object of this paper is to take the *ordinary* tests usually made by the general practitioner and decide whether the approximate condition of the gastric contents can be determined from them.

In the blood, only the percentage of hemoglobin and the number of red corpuscles were determined. For the same reasons as already given, neither the estimation of the white corpuscles, nor a differential count of these corpuscles, is included in the tables. It may be well to state that in determining the hemoglobin I considered the normal to be from 85 to 90% with the Fleischl hemometer instead of 100% as always given by physiologists and sometimes by clinicians. I base this upon the results of more than 3,000 examinations made in the laboratory to which I have access, and upon the personal statements of Professor Ehrlich that from 80 to 90% is about the normal. Musser[2] says that both Gowers' and Fleischl's hemometers "are graduated for a higher per cent. of hemoglobin than is the average with Americans;" and Cabot[3] says: "For a woman, a hemoglobin of 75% or more means practically normal blood."

In the gastric contents, the free HCl, the total acidity, the time required by the pure filtered juice to digest a definite amount of egg-albumin, and, in certain cases, the time required when HCl was added to the juice, were determined and are included in the report of cases. The Ewald test-meal was always employed. The degree of acidity is expressed by the number of cu. cm. of a decinormal solution of NaHO that would be required to neutralize 100 cu. cm. of the filtrate. The power of digesting is determined by observing the time (in the tables always expressed in minutes) required by a definite amount of the filtrate to digest a definite amount of hard white of egg at body-temperature.

I am aware of the fact that there are numerous conditions almost beyond one's control that might materially change the results in these examinations, but every effort was made to eliminate such factors. The specimen of urine was always obtained in the morning, the first passed upon arising, and instructions were given to the patient to partake of the usual kind and the accustomed amount of food and drink the day previous to the examination. The blood was always taken about 2 or 3 hours after breakfast, and the gastric contents were always drawn one hour after the test-breakfast. Repeated examinations were made of the same patients.

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[1] Read at the 31st Annual Meeting of the Medical Association of Central New York, held at Auburn, N. Y., October 18, 1898.

[2] *Medical Diagnosis*, p. 685. [3] *Clinical Examination of the Blood*, p. 69.

The first table includes 39 cases of hyperchlorhydria.

TABLE I.

Hyperchlorhydria.

(Cases from 24 to 39, inclusive, also have dilated stomach.)

		Gastric Contents.				Blood.		Urine.		
Number.	Sex.	Free Hydrochloric Acid.	Total Acidity.	Power of Digesting Albumin.	Power of Digesting Albumin when HCl is added.	Hemoglobin.	Red Corpuscles.	Specific Gravity.	Approximate Acidity.	Sediment, etc.
1	M.	40	62	30	. .	85	5,840,000	1037	ac. ++	
2	M.	50	74	30	. .	112	6,320,000	1028	ac. +	Uric-acid.
		50	77	25	. .	100	7,200,000	1022	ac.	" "
3	M.	40	64	20	. .	100	7,200,000	1029	ac. +	
		45	77	28	. .	100	5,840,000	1022	ac.	
4	F.	40	69	40	. .	87	5,280,000	1020	ac. +	
5	M.	38	64	27	. .	92	6,000,000	1026	ac. +	
6	M.	46	70	. .	. .	100	6,400,000	1020	ac. +	Phosphates.
7	M.	40	68	25	. .	92	5,520,000	1014	ac. —	
8	M	47	70	30	. .	95	6,560,000	1026	ac. +	
9	M.	59	78	30	. .	105	6,000,000	1028	ac. +	Uric-acid Crystals.
10	M.	55	84	30	. .	75	4,960,000	1026	ac. +	
11	F.	55	92	25	. .	85	5,120,000	1020	ac. —	
12	M.	61	86	25	. .	68	5,040,000	1014	ac.	
13	M.	52	75	35	. .	80	5,440,000	1018	ac.	
14	M.	39	68	50	. .	95	6,160,000	1028	ac. +	Uric-acid.
15	M.	42	77	18	. .	100	6,560,000	1030	ac.	Indican +
16	M.	56	78	20	. .	92	6,160,000	1017	ac.	
17	F.	34	66	40	. .	70	4,320,000	1024	ac.	
18	M.	42	74	35	. .	105	6,450,000	1025	ac.	Uric-acid and calcium oxalate.
19	F.	40	72	37	. .	80	4,960,000	1012	neut.	
20	M.	46	71		. .	93	5,520,000	1024	ac.	
21	F	46	75	35	. .	83	5,360,000	1014	alk.	
22	M.	35	50	. .	. .	95	4,440,000	1030	ac. +	
23	F.	55	90	30	. .	80	5,440,000	1026	ac.	
24	M.	50	70	23	. .	97	5,200,000	1012	ac.	
25	F.	45	77	20	. .	88	5,120,000	1026	ac.	
26	F.	36	70	23	. .	90	5,120,000	1025	ac.	Indican +
27	F.	38	67	25	. .	85	4,880,000	1028	ac.	
28	M.	50	80	25	. .	100	5,600,000	1012	ac.	Indican +
29	M.	48	93	28	. .	90	5,600,000	1026	ac.	Indican and Uric-acid Crystals.
30	M.	42	75	30	. .	90	6,880,000	1018	alk.	
1	F.	36	77	30	. .	90	5 120,000	1026	ac. +	
32	M.	50	70	30	.	100	5,200,000	1030	ac. +	Uric-acid.
33	M.	43	75	35	. .	93	4,880,000	1026	ac.	
34	M.	37	80	25	. .	95	5.500,000	1038	ac.	
35	M.	68	83	45	. .	95	6,0[illegible]0,000	1034	ac.	
36	F.	40	73	40	. .	70	3,920,000	1022	ac.	
37	M.	93	127	55	. .	95	5,600,000	1026	ac. +	
38	M.	68	102	33	. .	90	5 040,000	1023	ac.	
39	M.	40	65	.	. .	90	4,880 000	1012	ac.	
v.		51.8				90.9	5,556,000	1023.3		

It is readily seen by comparing Cases I, II, XII, XXII, XXVIII, and XXXVII, that the highest perentage of hemoglobin, 112, is here associated with a ree acidity of the gastric juice represented by 50, which s about the average of the cases of hyperchlorhydria n this table; whereas the lowest percentage of hemolobin, 68, is associated with a free acidity of the gastric uice represented by 61, which is much above the verage free acidity. The lowest free acidity of gastric uice, 35, is associated with 95% hemoglobin, which is lightly above the average; whereas the highest free cidity given, 93, is associated with the same percentage f hemoglobin. The high specific gravity and acidity of the urine, 1037, acid ++, are associated with an average hemoglobin-percentage, 85, and a free acidity of the gastric juice of 40, which is much below the average of this table; whereas the low specific gravity and reaction of the urine, 1012, acid, are associated with a free acidity of the gastric juice, 50, and a hemoglobin percentage of 100.

The second table includes 7 cases of hypochlorhydria.

TABLE II.

Hypochlorhydria.

(Cases from 8 to 13, inclusive, also have dilated Stomach.)

		Gastric Contents				Blood.		Urine.		
Number.	Sex.	Free Hydrochloric Acid.	Total Acidity.	Power of Digesting Albumin.	Power of Digesting Albumin when HCl is added.	Hemogolbin.	Red Corpuscles.	Specific Gravity.	Approximate Acidity.	Sediment, etc.
1	M.	0	16	40	25	95	5,120,000	1025	ac.	
2	F.	0	26	0	45	65	6,560,000	1021	ac.	
3	F.	0	26	90	. .	90	6,880,000	1024	ac.	Calcium oxalate.
4	F.	0	30	0	. .	85	5,760,000	1008	alk.	
5	M.	0	8	0	. .	80	5,200,000	1024	ac.	
6	F.	0	24	0	25	85	5,080,000	1018	ac.	Indican.
7	F.	0	35	0	90	80	5,680,000	1020	ac.	
8	F.	0	19	0	.	80	4,480,000	1026	ac.	
9	M.	0	34	0	45	80	5,120,000	1022	ac.	
		0	26	90	. .	80	4,560,000	1026	ac.	Uric-acid crystals.
10	F.	0	27	0	. .	87	5,200,000	1019	ac.	Indican +
11	M.	0	26	. .	. .	87	6,000,000	1012	ac.	
12	M.	0	26	90	. .	80	4,560,000	1029	ac.	
13	M.	0	22	0	90	95	5,840,000	1025	ac. +	
Av.		0				83.5	5,431,000			

While the average hemoglobin-percentage, 83, is lower than the average in the cases of hyperchlorhydria, 90.9% yet it is only a few points below the normal. The lowest is 65%, the highest 95%.

The third table includes 6 cases of gastric achylia, 3 of which are associated with dilated stomach.

TABLE III.

Gastric Achylia.

(Cases 4, 5, and 6 also have dilated stomach.)

		Gastric Contents.				Blood.		Urine.		
Number.	Sex.	Free Hydrochloric Acid.	Total Acidity.	Power of Digesting Albumin.	Power of Digesting Albumin when HCl is added.	Hemoglobin.	Red Corpuscles.	Specific Gravity.	Approximate Acidity.	Sediment, etc.
1	F.	0	10	0	0	95	6,560,000	1028	ac. +	
2	M.	0	13	0	0	95	5,600,000	1033	ac.	
3	F.	0	6	0	0	103	5,36[illegible],000	1012	ac.	
4	M.	0	8	0	0	85	5,600,000	1036	ac. +	
5	M.	0	10	0	0	90	5,760,000	1028	ac.	
6	M.	0	14	0	0	85	5,200,000	1020	ac.	
Av.		0				92.1	5,680,000	1026		

In these cases in which there is an entire absence of gastric juice the average hemoglobin-percentage, 92.5, is higher than the average in the cases of hyperchlorhydria. The highest specific gravity of the urine in this group, 1036, is associated with the lowest hemoglobin-percentage, 85, and the lowest specific gravity, 1012, is associated with the highest hemoglobin-percentage, 103.

The fourth table includes 11 cases of dilated stomach.

TABLE IV.

Dilated Stomach.

		Gastric Contents.				Blood.		Urine.		
Number.	Sex.	Free Hydrochloric Acid.	Total Acidity.	Power of Digesting Albumin.	Power of Digesting Albumin when HCl is added.	Hemoglobin.	Red Corpuscles.	Specific Gravity.	Approximate Acidity.	Sediment, etc.
1	F.	25	47	40	. .	90	5,920,000	1027	ac. +	
2	F.	27	60	30	. .	87	5,440,000	1018	ac.	Indican +
3	M.	28	60	35	. .	85	6,160,000	1032	ac. +	
4	M.	25	62	35	. .	75	5,440,000	1013	ac.	Indican +
5	F.	26	57	45	. .	82	4,800,000	1021	ac.	Indican +
6	F.	32	64	32	. .	73	5,300,000	1019	ac.	
7	M.	30	60	45	. .	90	5,200,000	1022	ac. +	
8	M.	30	60	25	. .	102	6,960,000	1028	ac. +	
9	F.	24	48	. .	. .	90	6,000,000	1013	ac.	Uric-acid.
10	F.	20	66	28	. .	88	5,600,000	1010	ac.	
11	M.	28	46	30	. .	80	5,040,000	1018	ac.	
Av.		27				85.6	5,623,000	1020		

In these cases the gastric contents are within the normal range of acidity, while the hemoglobin ranges from 75 to 102%, the specific gravity of the urine from 1010 to 1032, and the acidity of the urine from a decidedly diminished to a decidedly increased acidity.

The fifth table includes 13 cases of gastric neurasthenia.

TABLE V.

Gastric Neurasthenia.

		Gastric Contents.				Blood.		Urine.		
Number.	Sex.	Free Hydrochloric Acid.	Total Acidity.	Power of Digesting Albumin.	Power of Digesting Albumin when HCl is added.	Hemoglobin.	Red Corpuscles.	Specific Gravity.	Approximate Acidity.	Sediment, etc.
1	F.	16	47	32	. .	87	4,640,000	1010	ac. +	
2	M.	25	56	28	. .	100	5,700,000	1020	ac.	
3	F.	20	57	30	. .	77	5,040,000	1010	neut.	
4	M.	23	48	30	. .	100	6,080,000	1020	neut.	
5	M.	23	64	28	. .	88	5,840,000	1014	ac. +	
6	M.	20	42	45	. .	90	5,360,000	1010	ac.	
7	F.	15	40	60	. .	80	5,760,000	1020	ac.	
8	F.	15	45	25	. .	80	5,760,000	1020	ac.	Indican +
9	F.	12	60	25	. .	85	4,480,000	1027	ac. +	Indican, Uric-acid Crystals.
10	M.	10	20	. .	. .	87	5,120,000	1024	ac.	
11	M.	10	27	25	. .	87	4 610,000	1030	ac.	
12	F.	8	44	46	. .	90	5,020,000	1030	ac. +	
13	F.	15	30	50	. .	83	4,960,000	1011	ac.	
Av.		14.3				87.2	5,274,000	1019.3		

The sixth table includes 13 cases of chronic gastritis.

TABLE VI.

Chronic Gastritis.

		Gastric Contents.				Blood.		Urine.		
Number.	Sex.	Free Hydrochloric Acid.	Total Acidity.	Power of Digesting Albumin.	Power of Digesting Albumin when HCl is added.	Hemoglobin.	Red Corpuscles.	Specific Gravity.	Approximate Acidity.	Sediment, etc.
1	M.	12	58	45	. .	95	5,200,000	1031	ac.	
2	M.	17	37	35	. .	105	7,120,000	1020	ac.	
3	M.	32	58	30	. .	97	5,200,000	1028	ac.	
4	F.	23	54	30	. .	60	5,280,000	1027	alk.	
5	F.	18	45	40	. .	85	5,040,000	1030	ac. +	Calcium oxalate.
6	M.	18	63	33	. .	102	5,840,000	1026	ac.	
7	M.	17	50	35	. .	97	5,840,000	1030	ac.	
8	F.	16	50	32	. .	87	4,640,000	1016	ac. +	
9	M.	0	20	0	60	100	6,320,000	1016	ac.	
10	M.	0	19	0	30	92	5,200,000	1010	ac.	
11	M.	12	60	45	. .	95	5,200,000	1031	ac.	
12	M.	0	43	90	. .	73	4,680,000	1013	ac.	Uric acid.
13	M.	16	48	75	. .	95	5,920,000	1024	ac.	
Av.		14				91	5,498,000	1023.2		

By comparing cases II and IV, it will be seen that the highest hemoglobin-percentage 105, is associated with a low free HCl, and the lowest hemoglobin-percentage 60, with the highest free HCl, and that in cases in which there is an absence of free HCl the hemoglobin may vary from 100% to 73%.

The seventh table includes 5 cases of carcinoma of the stomach.

TABLE VII.

Carcinoma of the Stomach.

		Gastric Contents.				Blood.		Urine.		
Number.	Sex.	Free Hydrochloric Acid.	Total Acidity.	Power of Digesting Albumin.	Power of Digesting Albumin when HCl is added.	Hemoglobin.	Red Corpuscles.	Specific Gravity.	Approximate Acidity.	Sediment, etc.
1	M.	12	33	33	. .	75	4,240,000	1024	ac.	
2	M.	0	32	33	. .	105	6,240,000	1024	ac.	
3	M.	0	10	0	. .	73	5,520,000	1024	ac.	
4	M.	0	13	0	0	32	4,240,000	1026	ac. +	Calcium oxalate.
5	M.	0	10	0	. .	45	3,440,000	1028	ac.	
Av.		2.4				66	4,736,000	1015.2		

The diagnosis in 2 of these cases has been confirmed by autopsy, and in one by the gastrodiaphane. In the other 2 cases the diagnosis was confirmed by physicians in whom I have the utmost confidence. Case II is most remarkable for the high hemoglobin-percentage, 105. The carcinomatous mass over the anterior wall of the stomach in this case was easily palpated.

The eighth table includes 11 cases in which an examination of the gastric contents was made for the purpose of excluding possible disease of the stomach.

TABLE VIII.

(Cases 1, 2, and 3, lithemia; 4, 5, and 6, chronic constipation; 7 and 8, gallstone; 9, 10, and 11, mucous colitis.)

		Gastric Contents.				Blood.		Urine.		
Number.	Sex.	Free Hydrochloric Acid.	Total Acidity.	Power of Digesting Albumin.	Power of Digesting Albumin when HCl is added.	Hemoglobin.	Red Corpuscles.	Specific Gravity.	Approximate Acidity.	Sediment, etc.
1	M.	25	45	25	. .	100	6,320,000	1019	ac.	
2	F.	25	75	30	. .	80	5,200,000	1016	ac.	
3	F.	22	56	30	. .	90	4,900,000	1025	ac. +	
4	F.	28	67	50	. .	88	5,440,000	1011	ac.	
5	M.	24	50	. .	. .	85	6,000,000	1029	ac. +	
6	F.	28	56	46	. .	80	5,600,000	1010	ac.	
7	M.	24	41	30	. .	100	6,000,000	1032	ac. +	
8	M.	32	61	30	. .	95	5,120,000	1010	ac.	
9	M.	20	50	30	. .	85	5,600,000	1018	ac.	Indican +
10	F.	28	62	45	. .	95	6,500,000	1015	ac. +	
11	F.	18	50	30	. .	85	5,600,000	1023	ac.	Uric-acid.
Av.		24.9				89.3	5,661,000	1019		

I have added these cases to show, if possible, whether the relation found to exist between the blood, the urine, and the gastric contents is peculiar to diseases of the stomach alone.

In studying these tables, and making averages of he various groups, and comparisons of the cases in he same group, I think the following conclusions can be drawn :

(1) The average hemoglobin-percentage is slightly above the normal in cases of hyperchlorhydria, and lightly below the normal in cases of hypochlorhydria.

(2) The average hemoglobin-percentage is higher in ases of gastric achylia than in those of hyperchlorydria.

(3) The average number of red blood-corpuscles, hough differing slightly in the groups of cases of yperchlorhydria, hypochlorhydria, and gastric achya, nevertheless vary as the hemoglobin varies.

(4) The average specific gravity of the urine, aside om its being highest in the cases of hyperchlorhydria, oes not sustain any definite relation to the blood and he gastric contents in the various forms of disease of he stomach.

(5) The study of the degree of acidity of the urine the various groups has not revealed any definite inrmation.

(6) While in averaging the cases, there may be a cerin relation between the blood and the gastric connts, yet, in each group, individual cases show without doubt that there is no such definite relation as will able one to determine the condition of the gastric contents from the study of the blood and the urine one.

(7) The absence of any definite relation between the blood, the urine, and the gastric contents is not peculiar to diseases of the stomach.

The foregoing conclusions meet the purposes of this paper; but the study of these 111 cases has presented other conclusions, which, though they may not be germane to the proposition first stated, are of sufficient importance to be included in this study. In diseases of the stomach, as in other diseases, the diagnosis is not the only aim in making an examination of a case. The examination must yield, in addition, sufficient data to determine the course of treatment and the prognosis. It is often not a difficult matter to detect the presence of a valvular lesion of the heart, but it requires a thorough study of the entire patient before one is able to prescribe the remedy and advise a course of treatment. In diseases of the stomach it may be easy to acquaint oneself with the fact that there is an existing "gastric dyspepsia," but the thorough physical examination, and the study of the chemistry of the gastric contents, of the blood, and of the urine, will furnish the data upon which to base a course of treatment.

The physical examination must yield facts beyond that of a dilated or a displaced stomach. It must give an idea of the general nutrition, of the condition of the other organs, and especially of the sufficiency, or insufficiency, of the musculature of the stomach.

The study of the chemistry of the stomach, while yielding no pathognomonic sign, yet furnishes an important factor which must be considered when "properly weighing and considering all the elements which the clinical course of the disease furnishes." The study of the blood and the urine furnishes important facts in determining the state of nutrition. They do not indicate the therapeutic remedies, and the kind of diet to be prescribed, as much as they record the success of the treatment instituted.

THE EPILEPTIC CHILD AND HIS FUTURE FROM A MEDICAL STANDPOINT.[1]

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From an institutional standpoint the epileptic child is a problem; from the medical standpoint he is despair. Not one in twenty of these patients is permanently cured, and most of them, in spite of the best the physician can do, go gradually from bad to worse, until total disability, imbecility or idiocy prepares the way for death. It is an honest confession to say that the results of medical treatment are generally so imperfect and unsatisfactory that every time an epileptic child is brought to me, I secretly wish, for my peace of mind, that some other physician might have the case. That the colony-treatment of epileptics is the best treatment, in fact the only one deserving the name, has become so palpably apparent to those interested in the welfare of these unfortunates, that to advocate the colony-plan seems almost as superfluous as it would seriously to assert to an intelligent audience the rotundity of the earth: it places the speaker in the awkward position of pleading a truism.

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[1] Read before the Illinois State Conference of Charities, November 16, 1898.

Let us recall for a moment the general and necessary status of epileptics. In the nature of things they are debarred the privileges of education; the comforts of the church are hardly for them because they rarely venture there; shops, offices, stores turn them out, and no general hospital will receive them. Few persons seek the society of an epileptic, and the poor victim himself, not oblivious like the happy insane, but realizing to the full his sad condition, shrinks within himself and suffers in solitude. No penal institution in the land inflicts upon its criminal inmates a tithe of the suffering endured by the innocent possessors of this "sacred disease." In contrast to this what has a colony to offer? It combines all the advantages of hospital-care, home-environment, social intercourse, industrial training, intellectual development, and moral control; with, what is most important to the practical statesman, the best economic advantages; for after the plant is founded, a colony need not be expensive. Indeed, it may be largely self-supporting.

It may be said by those not conversant with the subject that this is mere assertion, and they may ask how we are to know that a colony can do all this, and question if provision for the State's epileptic is, after all, a crying need. The first doubt is quieted with superlative ease. By far the largest and next to the oldest colony in existence has been a monumental success for many years. The most skeptical could not visit the wonderful settlement at Bielefeld (Germany) without becoming an enthusiastic convert. Here is a busy, happy village-life. There are schools for the different grades of intelligence, and industrial instruction for all. The boys are shoemakers, carpenters, machinists, designers, potters, draftsmen, blacksmiths, printers, bookbinders, gardeners, farmers. The girls are tailors, seamstresses, cooks and housekeepers. Each is an integral part and an active factor in this social community. Instruction is given and duties are assigned in accordance with the talents and capacity of the child, and the benefits of association, occupation, ambition and emulation are denied to none. The matters of diet, exercise, mental hygiene and medicinal treatment are easy to manage.

The colony at La Force, France (which is the oldest of all), the Craig colony in New York, the Ohio institution, and several others are making splendid records, and if there has been a failure anywhere I have not heard of it. In short, the plan is a demonstrated success, and it is only a question of time when every State in the Union will have its own settlement. To show the urgent need of these institutions is as easy for the statistician as for the humanitarian, and their desirability is as patent to the statesman as to the sociologist. On this point I wish to speak purely as a practising physician, and it occurred to me that to briefly mention some personal cases taken from my records of the last year or two might be to place you near the physician's view-point and to allow you to see at once why we are as a unit in favor of the State care of epileptics and why we favor the colony-plan.

A young man, a lithographer's apprentice, was sent to me by his employer. He had had his first epileptic fit about a year before. As a workman he was industrious, faithful and competent, but the attacks were becoming so frequent as to interfere with his work, and something had to be done. Under treatment he improved, but not for long. He began again to have epileptic fits at his work, at home and on the street. He lost his situation and was unable to procure another; he felt his mental grasp slipping and the future promised nothing. Customary recreation and pleasures were taken from him. A member of the —th regiment and a crack shot, his marksmanship failed because of trembling hands, he had seizures in the armory, fell in a parade and was forced to resign. It was dangerous for him to go about alone, and yet he shrank from thrusting himself upon his friends. Add to this that his mother was dead, the home one of poverty, the father a drinker and of irascible temper, and remember too that the boy was honest, ambitious, sensitive to the destitution and the turbulent scenes at home and as keenly alive to his condition as you or I could be. Is it not apparent that every existing influence combined to make worse his incurable disease? Without occupation, without recreation, cut off from associates, the saddest occupant of a most unhappy home, is it any wonder that an indescribable gloom settled upon this young soul? He gradually grew worse and died after a series of attacks, some 22 months from the time when I first saw him. His is but one case among hundreds in this State. A colony would have given him occupation, friends and associates, a harmonious home, a perfect hygiene, a true usefulness and the peace of mind that goes with all of these, not to mention the better chance of a prolonged life.

An intelligent clergyman brought to me his son, a lad of 17 years. At 13 the boy had had his first fit, and attacks had continued, although he was constantly under the best medical care. As the attacks occurred only at night they did not directly interfere with any occupation, but their effect upon the boy's mind was such that he had been unable to keep any of the several situations that had been procured for him. As a physician I could give the distressed father no consolation and but little advice. Steady work and systematic control being practically out of the question, the prospects were that even with good home-influences the boy would go on to vagabondage or worse.

A girl of 14, from a distant town, had begun to hav epileptic seizures at 5. When she was 9 years old treatmen caused their cessation for a year, but they had begun agai and increased in frequency until she had as many as 12 o 14 in the 24 hours. In consequence, she had become a dul and cheerless imbecile, could not attend school nor be truste alone to do work about the house. On account of the dis ease she wet the bed every night and her clothes by day. O rather heroic treatment (that of Flechsig) she improve remarkably. The seizures stopped, she became bright an cleanly and with great delight started to school. But th pleasure was short-lived. The malady returned, and, as could only advise repetition of the former treatment, sh passed from my observation. To read the series of letters received from the father of this child is to follow a touchin tale. First, the desperate hope of a last resort and th tender appeal that I do something for his poor daughte then, the simple joy and heartfelt gratitude, the burde lifted and visions of a happy future for his child; finall the old despair, the hellish present and the future th showed only gloom—these told the story that is older than Hippocrates.

Another girl of 14 years, long an epileptic, brought all the way from California in the hope of finding relief, had about 3 seizures a week. On a slender chance of improvement a serious operation was performed without avail. Indeed, these stricken people and their friends gladly embrace the most heroic, hazardous and absurd remedies if there be even the semblance of a ray of hope. Owing principally to this pressure from the patient, thousands of useless operations have been performed and doubtless thousands more will yet be done. In the present instance the little patient was sent back to her home no better than when she came. What was her outlook? She could not be educated, for she could not be sent to school. Not one of the useful trades or professions open to other girls was open to her. The sweet dream of marriage, of motherhood and of home was not for her. To be an outcast, an innocent pariah of society; that was to be her fate.

The following 20 cases may be grouped as having been seen only a few times and as having quickly passed from observation, probably to consult other physicians, as they had generally left other physicians to come to me. This unceasing migration of the epileptic is an eloquent comment on the reigning futility of medical and surgical treatment.

At about the same time I saw two girls, aged respectively 16 and 18 years. The first had had attacks of *petit mal* from the age of 3 months until she was 12 or 14 years old, when general convulsions appeared and had since continued. The second had had fits since her third year.

A little tot of 4 had had attacks from once in 6 weeks to many in one day ever since she was 18 months old.

Another bright little girl of 6 had been the subject of *petit mal* for 3 years. What might not a proper institution do for such a child and what in the name of probability is her future at home?

A boy of 14, not free from epilepsy since his second year, was unclean and mentally slow, and a girl of 9 had had as many as 10 seizures in a night, beside some during the day. The mother of the latter child was compelled to support herself and family by daily labor away from home. Under such circumstances what could a doctor or anyone else do for the little daughter?

A pleasing girl, 15 years old, had had her first attack at 3 years, the second 9 months later, the third a year after the second; then they came 2 or 3 in a year, then 6, then once a month and so on until when seen she was having them at intervals varying from a few hours to 4 days, this increase taking place in defiance of treatment by different physicians. Examination of the blood showed a high degree of anemia, for which she should have had the best hygienic surroundings, plenty of out-door exercise and an abundance of proper food—all of which were practically unattainable at her home.

A girl of 9 and a boy of 5 had both had attacks almost since birth and will probably have them until death.

A lad of 13 had had convulsions as an infant and epilepsy began in the form of *petit mal* at the age of 7. The attacks increased rather rapidly in frequency and severity, although modified at times by treatment. The boy developed normally and learned well at school until the last few years, when the baleful influence of the disease made itself felt and he degenerated in every way. When brought to me he was having about 3 fits a day, was wilful, quarrelsome, disobedient, rapidly becoming vicious, of poor memory and worse morals, and absolutely uncontrollable by his parents. As I assured the mother that I could not cure her son, a trial, quite naturally, was not accorded me, but I happen to know that treatment for 5 months by a deservedly prominent neurologist was fruitless.

A young man of 24 years, an only son and a watchmaker by trade, had an occasional fit as a child and at 21 began to have slight attacks, which gradually increased in severity and frequency until, when he consulted me, he was having a bad convulsion every 2 weeks, and numerous slight attacks in the intervals. In consequence, he was compelled to stop work. His own distress and the concern of the parents, who were partly dependent on his wages, were harassing in the extreme. The results of treatment were only partially gratifying, and I soon lost sight of him. How well he would fit into the economy of a colony. He could still be busy at his trade and the labor would be lucrative. How easy, too, for him to have a class of younger boys to whom his useful handicraft could be imparted. Who better fitted to patiently and tenderly teach the young afflicted than he who bears himself the stigma of the same disease. Truly, none better than the epileptic knows that "a fellow-feeling makes us wondrous kind."

A lad of 17 was seen but twice. Although his attacks were not very frequent, they recurred sufficiently often—once in from one to three weeks—to seriously interfere with regular occupation. Largely as a result of this enforced idleness, the boy was already becoming depraved and often drank as many as 15 or 20 glasses of beer a day. It requires but little medical imagination and no large knowledge of social tendencies to picture the future of this citizen, ruined by the combination of incurable disease and State neglect. In the healthy moral atmosphere of a properly managed colony and aided by the perfect medical supervision that belongs to such an organization, what might not his future be? Can fertile philanthropy discover a more fruitful field than this?

To mention a girl of 13, a charming child, but gradually succumbing to the malign influence of repeated fits to which she had been subject for nearly 2 years, is only to reiterate repetition. In every State are hundreds such as she.

From a town in Michigan a fond father brought a bright and attractive boy of 12, whose seizures dated from an attack of severe convulsions when he was only 11 months old. His mentality seemed absolutely normal and his disposition perfect, but the character of the seizures showed that they were caused by an irreparable injury to the right side of the brain. Under these circumstances I could honestly give no hope of recovery, nor could I indicate a single trade, business or profession to which the boy could be trained. Imagine yourself a father in such a strait.

In a case like the following even a layman can see how impotent a physician must feel. A mother who was subject to fainting fits and also had attacks that were probably hysteric, brought to one of my clinics a 2-year-old babe. The father was a drinker, a brother of the father had died of epilepsy, and his sister was an imbecile, an epileptic and partially paralyzed. The 2 children immediately preceding this baby had died of convulsions; the first 2 children still lived, but one of these had also had convulsions. The babe in question had, for the last 18 months, that is, for three-fourths of its brief life, had attacks that were not typically epileptic, but promised to become such if the infant survived sufficiently long. A squalid home and wretched care made it likely that death would early close the scene. For such an organism perfect rearing is the only salvation, and in any event such a spore of the submerged strata should be the well-guarded ward of a wise commonwealth.

A boy of 15, afflicted for 4 years, a young lady of 20 with fits for the last 7 years, a young man of 19 whose attacks began at 14, and who improved under treatment, but not sufficiently to keep him in attendance, and a nice girl of 17 whose attacks were reduced only one-half or two-thirds by the medicine she received, are simply further examples of the doctor's despair and the State's odium.

From one of the poorer neighborhoods a mother brought a bright little chap of 5, who was subject to atypical epileptic attacks. In these attacks the child lost consciousness to a large extent, but was not disabled and always walked or ran from the place where he happened to be. Having no just appreciation of his surroundings he was in great danger of falling down stairs, running in front of a car and the like. Seeing but slight change for the better after 2 or 3 weeks of treatment, the mother was no doubt discouraged, and I saw the patient no more.

It is not to be supposed that results of treatment are uniformly so discouraging as is indicated by the foregoing cases. Most physicians of experience can point to a few patients who have been practically or absolutely cured, but even these gratifying results may be adduced as arguments in favor of a properly organized institution, for such results are attained by the addition of good physical, mental and moral hygiene to the medicinal treatment. Obviously, such important adjuvants can be obtained, in the vast majority of cases, only in a broadly founded and liberally managed home for epileptics.

To relate a case like the following is surely to plead for a colony:

The patient is a young woman of 23 years, who began to have the lesser attacks at 9 and severe attacks at 13 years of age. After this she had for a long time a general convulsion almost daily, sometimes several in a day. Her home-surroundings being far from ideal, friends secured her admission into a home for epileptics. The establishment was anything but a model of its kind, and yet at this place, without any medicinal treatment whatever, she was free from attacks for a year. However, they returned, and at about the same time she was forced to leave the home. When brought to me, a year ago, she was having several seizures a day, had grown thin and weak, her memory was gone, and, indeed, to call her an imbecile was to state the case mildly. On constant treatment her condition has greatly improved, but she is not cured and never will be.

In this case there are several points worthy of mention and which will serve to illuminate, to some extent, the subject under discussion. After some of her attacks and while in a semi-conscious or automatic state, the girl is irritable and quarrelsome. Aside from the danger of doing herself or others a serious injury at this time, a danger that is real, this ugliness of temper makes her exceedingly trying to those who do not understand or who are unwilling to make allowance for her malady. In consequence, her only home with a married sister became intensely unpleasant for all concerned and she is now forced to live with others. This worries and depresses her, and such a frame of mind has a bad influence upon her disease. Then, even the kindest of friends are not fond of an inmate of the home who may at any moment fall in convulsions and who does the most outlandish and senseless things in the semi-conscious state that succeeds an attack. Altogether, the girl is intolerable in the home where she naturally belongs; she is insupportable as a servant or a companion; she is a danger to herself and a menace to her friends. What shall be done with her? Medicine cannot cure her and no door is open to her. And yet, when well enough, she is industrious, cheerful, efficient and of a sweet disposition.

With malice prepense have I attempted to adduce cases *ad nauseam*, for if I have done this, then truly have I succeeded in placing my hearers alongside the physician, so that they may see with his eyes. If you will kindly bear with me while I relate one more example I shall have finished.

A lad of 11 years had come into the world burdened with an overpowering family incubus. His mother, his mother's mother, and his mother's two brothers were all epileptics. His father had migraine, which is a cousin-german to epilepsy. The paternal grandfather was an epileptic, one sister of the father had epilepsy and another had migraine. The maternal grandparents were cousins and a paternal uncle and aunt were tuberculous. What could a child do with such an heredity? He was a sickly baby and began to have fits at 6 or 8 months of age. After 6 months or a year they stopped for a time. The boy did not talk until he was 3 years old, he wet the bed until he was 9, he was cross-eyed and the left eye was nearly blind. The convulsions returned when he was about 8 and since then he has had from 2 to 4 a day, except when under active treatment, when he once went as long as a month without an attack. Mentally he is slow and poor of comprehension.

What hope can a physician hold out to such a subject and what niche in the social economy can such a beloaded creature expect to fill? If it is ever the duty of the strong to care for the stricken, there is a very flower for Charity to pluck, and if ever it is the duty of the State to protect itself from degeneracy there is a seed to be rendered innocuous by isolation. The unknowing victim of ancestors and progenitors, sinned against in his birth by the State that allows such matter to propagate its kind, this child belongs by right to the commonwealth and has every claim upon it; the claim of retribution, the claim of pity, the claim to be protected from himself. Just as valid is the claim of the people for freedom from physical and moral pollution, and above all is that higher claim,—"Inasmuch as ye have done it unto one of the least of these my brethren, ye have done it unto me." Are such as these alone to be neglected among the countless homes, schools and churches of a happy people? Is their welfare alone to remain forever outside the legislative halls and sapient courts of a just people, and are they to stand forsaken over against the commodious refuges for the insane and the comfortable, busy prisons for the criminal that belong to a merciful people? In the name of good statesmanship, of humanity, of mercy, of progress and the higher evolution, let this happy and just and merciful people answer.

LECTURES ON ORTHOPEDIC SURGERY.

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of Liverpool.

Sacro-Iliac Disease.

Disease at the sacro-iliac articulation is of comparatively rare occurrence. Existing apart from spondylitis in the lower lumbar spine, it is of still rarer occurrence, and the diagnosis is so obscure that there ar surgeons, careful observers and of extended experienc in joint-diseases, who affirm that they have never me with it. For the most part, and perhaps always, th disease is tuberculous, and is governed by the sam laws of pathology, symptomatology, and treatment tha govern articular tuberculosis elsewhere.

Traumatism frequently appears to be the excitin cause, especially when the disease is found in youn adults, but there can be no question that the disea occurs without any remembered injury, especially i those predisposed by heredity to tuberculous infectio and rendered susceptible by debilitating diseases and the infectious diseases of childhood.

The disease may commence in either of the bones that go to form the joint, or in the synovial tissue within the joint. The bones more frequently appear to be the seat of the infection than the synovial tissue —there being no true synovial sac at this joint, but on account of the peculiar relations of the bones and because of the strength and thickness of the posterior ligaments and the absence of definite subjective symptoms in an early case, the disease is rarely recognized before suppuration has occurred, and all of the structures of the joint are involved. The disease may be of the so-called moist form and show early suppuration; or of the dry form, and run its course without suppuration; or the dry form under certain circumstances may at any time become suppurative.

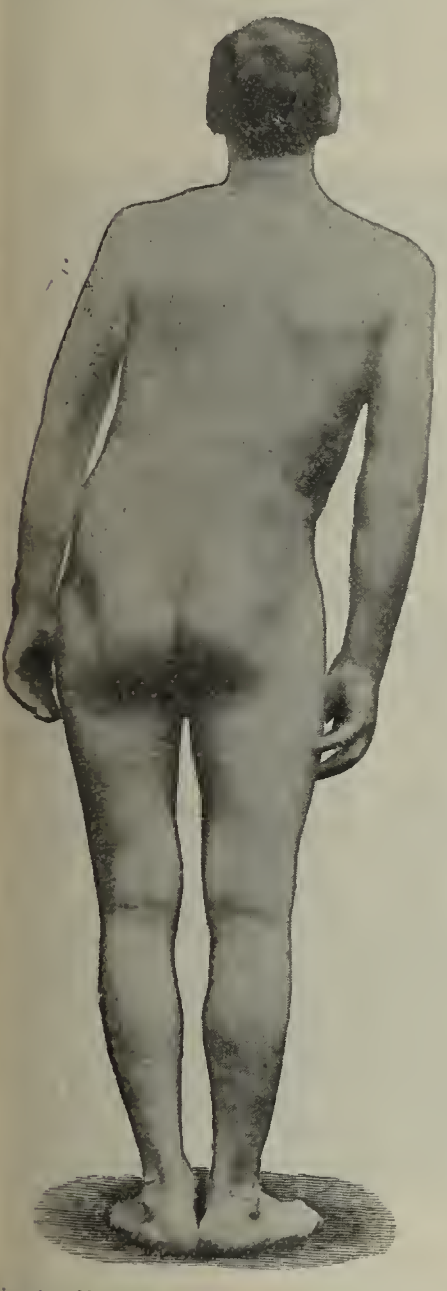


Fig. 1.—Characteristic attitude of sacro-iliac disease. From a photograph loaned by Dr. S. L. McCurdy.

Van Hook, who has made a most careful study of the literature of the subject, believes that the dry, non-suppurative form rarely imperils life and that the prognosis is in every way good, but that in the suppurative form the prognosis is exceptionally bad. It appears to us, however, that the symptoms detailed of many of the non-suppurative cases hardly warrant the diagnosis of sacro-iliac tuberculosis, and by that much detract from the weight that they would otherwise give to a favorable prognosis; and that the fatal termination and consequently unfavorable prognosis of the suppurative cases have more frequently been due to the character of the operative interference than to the nature of the affection.

There seems to us to be no good reason for believing that tuberculosis of the sacro-iliac articulation is governed in its fatalities by other laws than those governing the fatalities of tuberculosis of other joints, whilst our limited clinical experience of the disease goes to confirm this view. As in spondylitis, deaths occur from tuberculous infection of other organs quite as frequently in the dry as in the moist form of the disease, provided there be no operative interference. Death from prolonged suppuration is exceedingly rare when tuberculous abscesses are subjected to the let-alone treatment, and rarer still is death from septic infection. On the other hand there can be no reasonable doubt that any operative interference increases the risk of general tuberculous infection; and, unless the operation be strictly aseptic, and the prolonged subsequent dressings be kept so, the risk from septic infection of a large cavity connected with carious bone is considerable. In a word, any operation that fails to remove all tuberculous material and to close the cavity by primary union without drainage, though demanded as a last resort, should be recognized as distinctly adding to the risks of the patient's life. The records of the cases observed show that fatal termination is usually due to septicemia, simultaneous or intercurrent tuberculosis elsewhere, or general miliary tuberculosis.

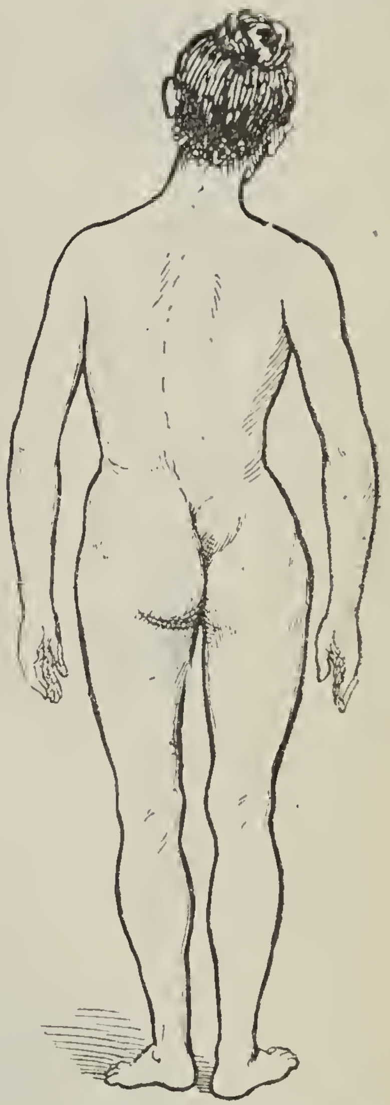


Fig. 2.—Right sacro-iliac disease. Leg abducted and gluto-femoral crease lowered and nearly effaced.

The first symptom to appear is usually a peculiar attitude, a "listing" of the trunk toward the unaffected side, or, more properly speaking, a shifting of the hips toward the affected side; and as this progresses the spine assumes a long, sweeping curve, with the convexity to the sound side. Before the peculiar attitude has become sufficiently marked to cause comment, the patient usually finds himself fatigued on comparatively slight exertion, and has experienced difficulty in bending forward and rising up again. Ultimately, stooping is quite impossible. The gait becomes of a shuffling character, and as the disease advances the patient usually is unable to walk at all. In the early stage there is generally no flexion of the thigh, but, later on, this frequently appears and, with some degree of abduction or of adduction of the limb, simulates hip-disease or psoas-contraction of lumbar spondylitis. The abduction causes an apparent lengthening of the limb; the adduction an apparent shortening. The patient, standing, rests the heel upon the floor, but places nearly all his weight upon the sound leg.

The distant or referred pain, characteristic of tuberculous arthritis elsewhere, is usually present here, but may be absent. It is more frequently found in this affection than in disease of the hip or spine; if present, it is usually felt in the lower abdomen, but may be complained of anywhere along the front of the thigh and also along the area of distribution of the sciatic nerves.

At first the swelling of the joint-structures is more easily made out by palpation through the rectum, probably owing to the anterior sacro-iliac ligament offering much less resistance than the powerful and thick posterior ligament, and the swelling, therefore, is directed toward the interior of the pelvis. Sooner or later the external swelling appears and in most cases advances to true fluctuation, and the tuberculous abscess is present as a complication. Such an abscess may extend in any direction; upward in the multifidus spinæ, into the lumbar region, downward along the psoas muscle, or into the buttock, to the right or to the left, or directly inward, to open into the bowel.

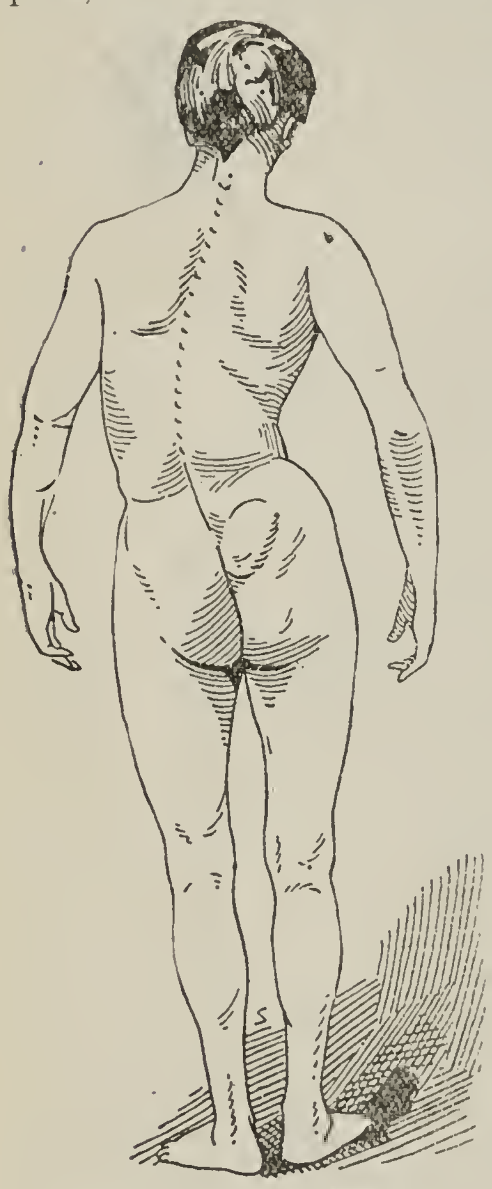


Fig. 3.—Right sacro-iliac disease. Leg adducted and gluto-femoral crease raised.

The direction in which the pus travels may be: (1) Through the anterior ligament, keeping outside the pelvic fascia; (*a*) following the course of the sacral nerves and pyriformis out through the great sacro-sciatic foramen and forming an abscess under the gluteus maximus; (*b*) following the curve of the sacrum behind the rectum to point in the ischio-rectal fossa, causing inflammation and adhesion of the rectum and ultimately bursting into it; (*c*) coursing under the lumbo-sacral ligament into the psoas muscle and thence to the thigh; (*d*) or into the iliacus muscle and thence into the groin. (2) Through the back part of the joint into the multifidus spinæ, creeping along this and pointing in the lumbar region or directly over the joint itself.

Muscular atrophy of the muscles of the buttock and thigh is uniformly present. Deep pressure over the articulation often causes pain before much, if any, swelling is noticeable, and pressing together or pulling apart the pelvic bones also induces pain. This pain appears to be due more to the motion imparted than to the direct pressure exerted. At times there is a tilting of the bones one upon the other, so as to form an oblique kyphosis, or a depression; or one bone may be elevated and the other depressed. Spasmodic contraction of the psoas muscle is a pretty constant symptom and may be found early in the disease; in consequence of this the thigh becomes somewhat flexed on the pelvis and rotated outward; hence the frequent confusion with hip-disease. Motion at the hip-joint may appear to be restricted in all directions, but if the pelvis be steadied and the manipulations be conducted with such gentleness as not to disturb the sacro-iliac joint, it will be found that, when the thigh is slightly flexed to relax the tension upon the psoas, all the hip-joint motions are normal except those that put the psoas on the stretch, namely, extension and inward rotation during extension. In the same way the contracted psoas muscle restricts the bending in the lumbar spine, and the resulting condition simulates lumbar spondylitis.

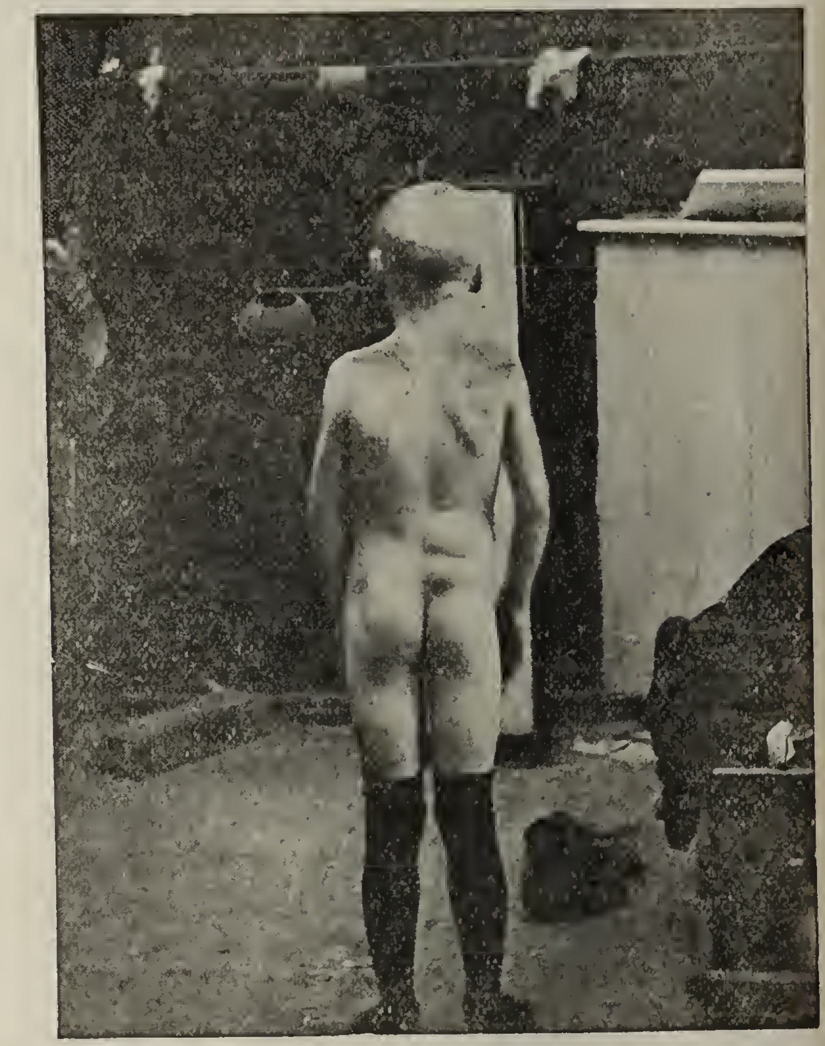
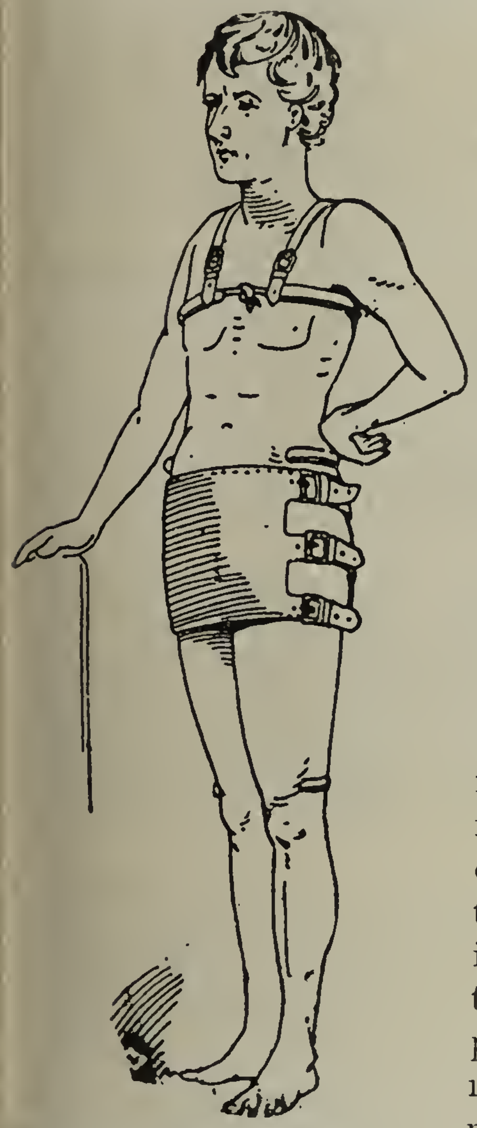


Fig. 4.—Abscess in right sacro-iliac disease.

Passive bending of the spine toward the affected articulation or forward when the patient is recumbent, i practised with great gentleness and with the pelvi steadied, will, by the freedom of movement, exclud spondylitis from the diagnosis.

The differential diagnosis is, for the most part, mad from hip-disease and from spondylitis, and it can onl be made by remembering that disease in any joi restricts not some but all of its normal movements t some extent. In some cases of sacro-iliac disease i which the muscular spasm and pain are intense, it ma not at once be possible to differentiate, especially as th disease has been seen coincidently with hip-diseas and as it is more frequently found in conjunction wit lumbar spondylitis than existing alone. The conditic may be mistaken for sciatica, or for intrapelvic inflammation, or for abscess in connection with old recurrent appendicitis, but a careful examination and a consideration of the history of the case should clear up these points.

The mechanical treatment of sacro-iliac disease is not one of the most encouraging of orthopedic problems. It consists in a more or less successful attempt at immobilization, but it is found far less easy to immobilize this joint than the hip or the spine, and satisfactory immobilization by an ambulatory apparatus is practically out of the question. The ambulatory apparatuses that have seemed most successful have aimed at the accomplishment of two things: Immobilization by circumferential compression by a broad girdle, and limitation to voluntary motion by a spinal apparatus that restricts forward bending. There is no question that motion in the lumbar spine is contraindicated and there should also be no question that motion at the hip-joint is also contraindicated, but restriction of the latter has not been attempted by an ambulatory apparatus, as it would prevent the patient from sitting. The fact that the girdle, in a certain number of cases, relieves pain, which is not relieved, but too often aggravated, by traction, points very suggestively in the direction of the true and of the false principles of the treatment of all joint-disease, namely, that a force that tends to immobilize, even when associated with a orce that crowds together the articular surfaces, relieves ain, whereas a force that tends to separate the joint-urfaces without immobilization fails to relieve, and ften increases the suffering.



ig. 5.—Patient in apparatus. Brace should be bandaged to the thighs just above the knees.

The mechanical treatment that we employ is some ne of the modifications of the Thomas double hip-plint. The main stems should be separated at such a istance as to pass to the outer side of the posterior uperior spines of the ilia, and lateral wings should be ttached to the stems to pass around the flank on either ide. One of us (R. J.) is accustomed to use the form f splint depicted in Figs. 5 and 6, and the other J. R.) uses the same frame, but adds a broad sling of leather stretched from one stem to the other and reaching from the coccyx to the mid-lumbar region; both of us bandage the thighs to the stems. This is not depicted in the illustrations. The patient is to be kept continuously recumbent for so long as any active symptoms remain; after that he may be allowed to stand and to make such attempts at walking as his brace will permit; but the hips must not be released, so that sitting is possible, until the surgeon is reasonably sure that he has fully recovered.

Inasmuch as this disease usually appears in adult life and but rarely in children, and inasmuch as the joint is fairly accessible, we are of the opinion that as soon as suppuration occurs, operative measures looking to the removal of all tuberculous matter are to be considered, and that such measures are justifiable in a larger percentage of cases than when disease attacks any of the other joints. It is of advantage to prevent, when possible, intrapelvic burrowing, and this can be done without our having to reflect, as we are forced to in the case of the hip or the knee, upon an ankylosis that would be harmless, or a shortening of limb that cannot occur.

The operative procedures are determined by the facts learned from palpation externally and by way of the rectum. If an abscess can be detected within the pelvis, the incision is made directly down upon the ilium externally to this point, the bone trephined, the abscess-cavity gently and thoroughly cleansed, more bone removed, if necessary, with cutting-forceps or chisel, all cut bone-surface thoroughly seared with the actual cautery and the wound closed. If no point of fluctuation can be made out, the incision is determined by the edema, or, in the absence of edema, by the tender point. The bone is trephined for a caseating center, and the subsequent steps of the operation are as have been indicated. Recently Dr. L. L. McArthur has recommended an operation over the main articular portion of the joint in all instances as being the region likely to be chiefly diseased. The posterior inferior spine of the ilium and the sciatic notch are the guides, and that part of the ilium which goes to make up the anterior inferior portion of the joint is removed by saw and chisel. After any operative procedure the joint should be immobilized in the Thomas double hip-splint, and the patient confined to bed until all local tenderness has passed away.

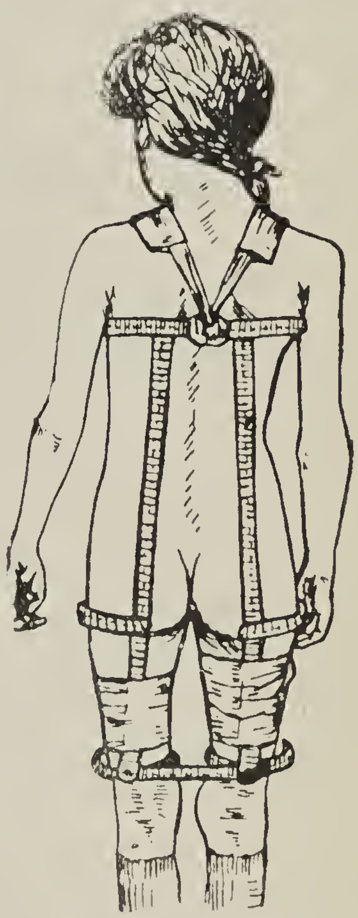


Fig. 6.—Apparatus for sacro-iliac disease. A leather sling may be stretched between the bars from waist to hips.

It is possible that there are more reasons to justify the use of the drainage-tube after operations upon this joint than upon others, but we believe that a second or several repetitions of the operation entail less risk than the insertion of the tube.

THE TREATMENT OF OPHTHALMIA NEONATORUM.[1]

By NORTON L. WILSON, M.D.,

of Elizabeth, N. J.

Ophthalmologist, Otologist, and Laryngologist to Elizabeth General Hospital and Dispensary, etc.

Shall we use the Credé method of treating the eyes of all newborn infants? is a question that is uppermost in the mind of the obstetrician of this institution, and it is at his earnest solicitation that I present for your consideration to-night a resume of the current literature on this subject, together with some personal observations and facts.

In order to have a clear understanding of just what the Credé method is, permit me to quote from a translation of the original paper:

"After severing the umbilical cord, the infant's skin is to be freed in the usual manner of its sebaceous coat, and the blood, mucus, etc., adherent to it. The infant is then placed in the bath, and while there the skin of the eyelids is thoroughly cleansed of vernix with a cloth, or, better still, with absorbent cotten wet with clean water taken from a separate vessel, but not with the water in the bath-tub. The child is then transferred to a table, and while there, before it is dressed, each eye is slightly opened by means of two fingers, and a single drop of a 2% solution of silver nitrate, hanging from the end of a glass rod, is brought close to the surface of the cornea and made to fall on its central part. Nothing further is done to the eyes. A second application of the silver nitrate must never be made during the following 24 or 36 hours, even if slight redness and swelling of the eyelids with mucous secretion should follow the first application."

Since the publication of this treatment by Credé in 1884, ophthalmologists and obstetricians have banded together to disseminate this knowledge, and thereby prevent many cases of blindness.

At the annual meeting of the Medical Society of New Jersey in 1893, the committee appointed to obtain legislation for the prevention of blindness in this State secured the enactment of the following statute:

Chapter CXVIII, Laws of 1895.

An act for the prevention of blindness in the State of New Jersey.

1. *Be it enacted by the Senate and General Assembly of the State of New Jersey,* That should one or both eyes of an infant become inflamed, swollen or reddened, or show any unnatural discharge at any time within two weeks after its birth, and no legally qualified practitioner of medicine be in attendance upon the infant at the time, it shall be the duty of the midwife, nurse, attendant or relative having charge of such infant to report the fact, in writing within six hours, to the local board of health of the city, township, or other municipality in which the parents of the infant reside.

2 *And be it enacted,* That the said local board of health shall direct the parents or persons having charge of such infant suffering from such inflammation, swelling, redness, or unnatural discharge of the eyes to immediately place it in charge of a legally qualified practitioner of medicine, or in charge of the physician of the city, township, or other municipality if unable to pay for medical services.

3. *And be it enacted,* That every local board of health in the State of New Jersey shall furnish a copy of this act to every legally qualified practitioner of medicine, and to each person who is known to act as a midwife or nurse, in the city, township, or other municipality for which such board of health is appointed; and the secretary of State shall cause a sufficient number of copies of this act to be printed, and to supply the same to such officers for distribution.

4. *And be it enacted,* That any failure to comply with the provisions of this act shall be punished by a fine not to exceed two hundred dollars, or imprisonment not to exceed six months, or both, upon conviction, under prosecution-proceedings to be brought by any local board of health.

5. *And be it enacted,* That this act shall take effect and be in force on the first day of May, one thousand eight hundred and ninety-five.

A similar statute is now in force in New York, Maine, Rhode Island, Minnesota, Ohio, Maryland, Connecticut, Missouri, Pennsylvania, Iowa, Illinois, and Michigan, covering a population of over 34,000,000. It has also been proposed by some of the profession in the State of New York to prevent blindness by making the Credé method obligatory in public institutions.

The ophthalmologists, not only in this country but abroad, are nearly all in favor of the use of the Credé method in every case. This, I presume is due to the fact that they see so many cases of blindness resulting from ophthalmia neonatorum that they feel constrained to impress upon the profession the importance of this method of treatment.

On the other hand, many of the obstetricians in this country and abroad do not use this method, except when a vaginal discharge is present before the birth of the child. It is interesting to read the articles of Credé,[2] showing how ophthalmia neonatorum was diminished by the various methods of treatment from 13.6% in 1874 to 0% in 1883.

I have divided the profession into two classes: (1) Those who use or recommend the use of this method in every case; and (2) those who use it only when, in their judgment, there are special indications for its use, In the first class are such men as Kipp, Howe, Weeks, Webster, Würdemann, Fox, de Schweinitz, St. John. Holt, Allport, Burnett, and many others in this country. Professor Runge, of Göttingen University, always uses it and never has any ophthalmia.[3] All of those named have never seen a case develop after use of the method.

On the other hand, Professor Ahlfeld, of Marburg only uses it when suspicious of his case or when the microscope reveals the presence of the gonococcus This can also be said of Ill, Robins, Chisolm, Thomson, Knapp, Risley, Randall, Noyes, and many others in this country.

The official *Royal Prussian Handbook for Midwives* i the kingdom of Prussia directs that the silver-solutio be used by the midwife when leukorrhea is present, an she must send for a doctor. Haussmann[4] says that immediately after confinement, before the eyes are opened, he washes the eyelids with pure or distilled water and wipes them with absorbent cotton. He has had most excellent results. Kaltenbach, Korn, and Nebel do the same. Broese, of Berlin, uses mercuric chlorid solution instead of pure water.

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[1] Read before the Clinical Society of the Elizabeth, N. J., General Hospital, May 10, 1898.

[2] *Archiv f. Gynäkologie,* vol. xvii, xviii, and xxi.

[3] *Die Krankheiten der ersten Lebenstage.* Von Max Runge. Enke, 1898.

Most of the public institutions in this country adopt the Credé method as a routine practice, the Sloane Maternity using a 1% solution of silver instead of a 2%.

Dr. Henry D. Noyes, of New York, thinks the Credé treatment of great value, especially in public institutions and among the less cleanly population. It is by no means imperative in all persons. He has lately seen a case in which ophthalmia developed, notwithstanding its employment, but it took a mild course, and no harm was done to the cornea.

Dr. Hermann Knapp, of New York, considers the Credé method excellent. So long as the gonococcus is still on the surface, it can be destroyed by a 2% solution of silver nitrate. In a day or two this is no longer possible, and the 2% solution of silver nitrate does harm.

Dr. B. A. Randall, of Philadelphia, advises the use of the Credé method in suspicious cases, but he has seen purulent ophthalmia follow its use, not only in gonorrheal cases of virulent infection, but even in cases of mere malnutrition. He says a single drop of silver may cause marked conjunctivitis, not only painful, but alarming.

Dr. S. D. Risley, also of Philadelphia, says: "I am not in favor of the indiscriminate use of the Credé method in all cases of childbirth, but only when there is cause to suspect specific infection. I think that a 2% solution of silver nitrate, except in the presence of a profuse discharge, will do harm to the corneal epithelium."

Hirst[5] says: "Of course, this treatment should not be recommended in general midwifery-practice except when there is evidence or strong suspicion that the mother has gonorrhea." On the other hand, many professors, especially ophthalmologists, teach their students to apply it to the eyes of each and every child shortly after birth.

In this institution 162 children have been born since the obstetric ward was opened in 1894. Out of that number we have had 9 cases of ophthalmia neonatorum as follows:

Case I.—Baby K., female, white child of American parentage, was born in the hospital, December 25, 1896. The mother was apparently healthy. She had previously had one illegitimate child. It was not known whether a vaginal discharge existed or not. Credé's method was employed. On December 28, the third day after birth, the eyes looked red, and there was a watery discharge. The discharge continued until February 10, the lids became edematous, pus formed, and all the symptoms of gonorrheal conjunctivitis developed. The usual treatment was employed: Irrigations of mercuric chlorid, 1 to 5,000; 2% silver-solution. The child made a good recovery. The cornea did not become involved.

Diphtheria was prevalent in the pavilion at the time of delivery.

Case II.—Baby McG., a boy, was born in the hospital, February 4, 1897, an hour after the arrival of the mother. It is not known whether a vaginal discharge existed or not. The mother was very unclean. The Credé method was employed. The baby looked healthy at birth, except that the lids were edematous and a watery discharge was perceptible. In two hours after birth the discharge became distinctly purulent. The pus was never very thick, but watery and yellowish. Membrane, resembling diphtheria-membrane, formed on the lids. The cornea became infected late on the fourth day. The usual treatment was employed: mercuric chlorid irrigations; silver painted on the lids after pus formed; atropin was dropped into the eyes. Both eyes were destroyed. The baby would not nurse; and it died February 11.

No diphtheria was present in the pavilion at the time of the birth of this child.

Case III.—Baby M., a boy, was born in the hospital, February 12, 1897. The mother came into the hospital when six months pregnant and was treated for abscesses of the breasts. When cured she was employed as a domestic in the hospital. It is not known whether a vaginal discharge existed or not. No douche was given at the time of birth. The Credé method was employed. About four hours after birth the eyes looked inflamed and the lids were distinctly edematous. The discharge was watery. Cold compresses and half-hourly irrigations of boric acid were immediately instituted. The inflammation steadily grew worse and the discharge became purulent. The lids were painted with 2% silver nitrate once daily. The irrigations were changed to mercuric-chlorid solution, 1 to 4,000. On the fourth day opacity of the corneæ was noticed. Instillations of atropin sulphate were now commenced. A membrane had formed on the lids. The silver was discontinued. Atropin and mercuric chlorid were used, with silver later, until March 3, when the conjunctivitis ceased, but the child lost the sight of both eyes.

A case of diphtheria was in the pavilion when this baby was born.

Case IV.—Baby W., a colored boy, was born March 2, 1897. It is not known whether a vaginal discharge existed. The Credé method was employed. The eyes became swollen and red the day after birth. Cold was applied to the lids. Irrigations with boric acid were instituted. There was no discharge from the eyelids except a slight watery one. The child had a convulsion and died March 11. This case was probably one of an acute catarrhal conjunctivitis due to silver.

Diphtheria was present in the pavilion at the time, and also a case of puerperal septicemia.

Case V.—Baby J., a colored boy, was born in the hospital, March 22, 1897. The Credé method was employed. On the seventh day after birth the left eye became red and swollen. Cold was applied. The eye was irrigated every hour with boric acid, which was changed the next day to mercuric chlorid, 1 to 5,000. The discharge became purulent on the 31st, and silver in 2% solution was painted on the lids. The cornea became involved and atropin was instilled. The inflammation was confined to the left eye. Sight was lost. The child was under treatment one month.

Diphtheria was present in the pavilion at the time.

Case VI.—Baby B., a girl, was born May 4, 1897. The Credé method was employed. The day after birth the eyes became swollen and red, with a slight watery discharge. Cold compresses were applied, with irrigations of boric acid every hour. The case was evidently one of acute catarrhal conjunctivitis produced by the employment of the silver. The condition yielded rapidly to treatment, and the child was discharged, cured, May 15.

No diphtheria was present in the pavilion at the time.

Case VII.—Baby M., a boy, was born in the hospital, November 26, 1897. The Credé method was employed. Three hours after birth, the lids became red, the conjunctivæ edematous, and a slight watery discharge was present. Cold compresses and irrigations of boric acid were continued until the seventh day, when the eyes were again normal. This, like the last case, was, in my judgment, one of acute catarrhal conjunctivitis due to the employment of the Credé method. The condition yielded to the treatment and the child made a good recovery.

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[4] *Centralblatt f. Gynäkologie*, 1881, p. 76.

[5] Obstetrics, vol. ii, p. 709.

Diphtheria was present in the pavilion at the time of birth.

CASE VIII.—Baby B. was born November 28, 1897. The Credé method was employed. On the first day after birth the eyes became red, but there was not much edema; the discharge was of a watery nature. On the next day the eyes became edematous and cold applications were made. The discharge did not become thick and purulent. The case was evidently one of acute catarrhal conjunctivitis due to the employment of the silver. The condition yielded to treatment readily and the child was discharged cured on the twelfth day.

Diphtheria was present in the pavilion at this time.

CASE IX.—Baby P. was born February 6, 1898, outside of the hospital, and came in with the mother shortly after birth. The Credé method was not employed. Ophthalmia developed in three days. The usual remedies—cold, mercuric chlorid, irrigations and 2% solution of silver nitrate, applied to the lids—apparently mitigated the symptoms. The child made a good recovery, and was discharged March 24.

Diphtheria was present in the pavilion at this time.

In these 9 cases it will be remembered that no positive diagnosis of a prenatal vaginal discharge was made. The Credé method was employed in all but the last.

Our bacteriologist made cultures from the discharges taken from the eyes of 6 of these children. The gonococcus was not found in any case. Diphtheria was present in the pavilion at the time Cases I, III, IV, V, VII, VIII, and IX were born, and at that time a committee was appointed to investigate the connection between these cases and the diphtheria. The committee could not trace the cause to the diphtheria, as other children were born in the same wards at the same time who were not infected. The committee, however, suggested that the wards be fumigated and scrubbed with mercuric chlorid, and that the physician in attendance upon the diphtheria-cases be kept out of the obstetric wards. This recommendation was adopted. The two cases that presented the appearance of a diphtheritic conjunctivitis were Cases II and III. At the time Case II was born no diphtheria was present in the house, so that I am inclined to think they were instances of pure and simple purulent ophthalmia, probably of gonorrheal origin, and infection may have taken place *in utero*, inasmuch as Case II had some watery discharge from the eyes when born, and Case III developed a watery discharge four hours after birth.

Cases IV, VI, VII, and VIII were, in my judgment, instances of acute catarrhal conjunctivitis brought about by the use of the Credé method. It may be that the method was not properly applied, but, be this as it may, I think you will agree with me, after a perusal of these cases, that they were probably due to the irritant introduced into the eyes after birth.

Notwithstanding the employment of the Credé method, the other cases developed purulent ophthalmia, and several lost their eyesight.

It is evident from the foregoing remarks that Credé, in giving to the medical profession at large his silver-treatment of the eyes, is the saviour of the sight of many who would now be sightless, and were it not for the firm conviction that I hold that this treatment is not unattended with some danger (as we have seen in the cases in this institution), I would not presume to trespass upon your valuable time. I think the cases that have occurred here, together with those mentioned by Noyes, Randall, Risley, and Knapp, show that the indiscriminate use of this method does harm, and it seems to me that this most valuable of remedies should be used just as intelligently as any other remedial agent.

Fritsch is opposed to vaginal injections just before labor, because, as he states, they remove the benign bacteria, mucus, and epithelium, which stand as barriers to the entrance of pathogenic germs, and unless leukorrhea, gonorrhea, or fever exist, they should not be given; and, notwithstanding the advice given by Hirst to inject every case, I think the weight of opinion is to avoid every possible means of introducing infection.

Just as the pendulum has swung to its extreme limit in surgery and obstetrics, and is now finding its equilibrium, so is it with treatment of the eyes.

To what is ophthalmia neonatorum due? It is the result of the entrance into the conjunctival sac of bacteria; not necessarily the gonococcus, but any bacteria of a pathogenic nature. In other words, I am of the opinion that the degrees of this disease may be, and probably are, produced by the virulence and variety of the bacteria present, the gonococcus and Klebs-Lœffler variety producing the most serious forms. Not only may infection take place during parturition, but there is danger after birth, and especially if the epithelium of the conjunctiva has been destroyed by silver, thereby making an open wound for the infectious material to be absorbed. We know that the secretions from the conjunctivæ are alkaline. We also know that the gonococcus and other germs grow most luxuriantly in blood-serum, which is alkaline. If a drop of silver nitrate is put into the eye, not only is the surface-epithelium destroyed, but the alkaline secretion is increased and makes a most suitable nidus for the lodgment of bacteria.

Finger[6] states that silver nitrate (1 to 1,000) does not kill the gonococcus in two minutes. I believe the reason for this is because the germicidal effect of silver is due to its cauterization of the upper layers of the conjunctiva, and 1 to 1,000 is not strong enough to produce this chemic change.

I think the term ophthalmia neonatorum should embrace all cases of purulent or mucopurulent conjunctivitis that are present at birth or develop within 7 days after birth, not including the cases due to mechanical irritation. The cases occurring after thi period are probably infected after birth.

Finger says the gonococcus grows better in an acid medium than in a strongly alkaline one, but we a know that it grows best in alkaline blood-serum. In letter from Dr. Buxton, of the Loomis Laboratory dated May 7, he says the gonococcus is supposed to grow best in an acid medium made up with urine, but I have not succeeded myself in raising it in this way. Serum is alkaline, and the gonococcus will grow in that all right.

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[6] *Archiv f. Dermatologie und Syphilis*, vol. xxviii, 1894.

I am under the impression that one of the lecturers in one of our medical schools advises the student to urinate freely after exposing himself to urethral infection, and thereby kill the gonococcus with the acid urine, as well as to wash it out of the urethra.

All this goes to show that the gonococcus does thrive in an alkaline medium, and that the secretions from the conjunctiva are alkaline and they are not made acid by the application of silver nitrate.

One of our duties in the practice of medicine is to disseminate knowledge among the masses, and I believe this to be especially true in the case of the infant's eyes. The State has made it obligatory upon parents and attendants upon infants to protect them from blindness, and we should see to it that this law is enforced. Is it our duty to drop a 2% solution of silver nitrate into the eyes of all the newborn? I say no, except in hose cases in which the mother has a discharge or vhen we are cognizant of the unfaithfulness of the ather. It is quite enough to instruct the nurse to bathe he eyelids and lashes with sterilized water and to be areful not to get the water with which the infant's ody and face have been washed into the eyes. After he external parts and cilia are freed from the vaginal nd uterine secretions, the conjunctival sac may then e washed with a 2% solution of boric acid or a 0.5% olution of sodium chlorid.

In conclusion, permit me to say that we now have a ase in the obstetric ward, born at 12.30 A.M., May 5. he Credé method was employed, and within 24 hours marked catarrhal conjunctivitis showed itself. Boric cid was employed, and the secretions were thereby nade neutral. The question that I hope to determine ter, is whether or not salt-solution is not better for rrigating the conjunctival sac than boric acid, as one is trongly acid while the other is neutral.

I am not prepared to advise the use of the Credé ethod in every case, even in public institutions. Alhough I have never seen a cornea lost from the effects f the silver, I have seen some severe cases of conjuncvitis, with haziness of the cornea, and Cases I, II, III nd V already mentioned show conclusively that ophalmia neonatorum may develop notwithstanding the mployment of the Credé method.

I do not believe in the indiscriminate use of any rug; therefore my advice would be, when infection is spected, to choose the least of two evils and use this ethod. If, in the physician's judgment, there is no ason to suspect infection, the method of cleanliness ould be followed.

If protargol proves to be the success that is claimed, think it will supplant silver nitrate in these cases, and justly so, inasmuch as it is a true bactericide and does not set up a conjunctivitis.

[Since writing the foregoing I have had another case of ophthalmia develop in the hospital, which may be of interest:

Mrs. B. was delivered upon the steps of the hospital August 15, 1898. Baby and mother were carried into the ward and a 5% solution of protargol was instilled into the child's eyes with the same care as recommended by the Credé method. The house-physician was suspicious of infection and was therefore particular about the treatment of the baby's eyes. Notwithstanding all this precaution, signs of ophthalmia neonatorum appeared on the fifth day. This child was under treatment for several weeks, when it was discharged cured.

I cite this case to show that ophthalmia may develop notwithstanding the use of protargol.]

THE HYPODERMIC INJECTION OF SILVER NITRATE OVER THE COURSE OF THE VAGI IN THE TREATMENT OF PULMONARY CONSUMPTION.

A Preliminary Report.

By THOMAS J. MAYS, A.M., M.D.,
of Philadelphia.
Professor of Diseases of the Chest in the Philadelphia Polyclinic; Visiting Physician to Rush Hospital for Consumption, Philadelphia, etc.

ABOUT 12 years ago it occurred to me that the lung-lesions which are found in pulmonary consumption do not represent the primary morbid changes in this disease, and that they are part of a series of superficial manifestations which are fundamentally dependent on a neurotic basis in which the vagi are seriously implicated. Further study has gone far to substantiate the correctness of my original impression, and has led to the conviction that a rational therapeusis of this most formidable affection naturally rests on a nervous pathology. Hence my armamentarium in the treatment of phthisis has for some years consisted principally of nervous stimulants, like strychnin, electricity, phenacetin, etc. More recently I began giving local attention to the vagi in the region of the neck by massaging, kneading, and compressing them through the overlying textures. These measures seemed to be of benefit so far as the cough, expectoration, and oppression in the chest were concerned, but it soon became evident that their influence was not far-reaching enough to be of decided value. About this time I learned of the usefulness of vagus-stretching[1] in severe cough associated with exophthalmic goiter, and also in epilepsy, and had thought of testing this operation in the treatment of phthisis, when it appeared to me that probably the subcutaneous introduction of some active although conservative irritant like silver nitrate immediately over the course of the nerves in the neck might furnish the stimulus necessary to arouse them out of their abnormal condition. An effort was made to carry out this idea, and after many trials and failures it was found that from 4 to 7 minims of a 2.5% solution of pure silver nitrate (Merck's) answered the purpose best in the greatest number of instances, although several cases required so much as 5 minims of a 5% solution to bring about the desired inflammatory reaction. The point which has been selected for its administration is immediately over, or slightly behind, the pulsating carotid artery in the region of the neck, midway between the angle of the lower jaw and the clavicle. Other points along the artery have also been chosen. In order to avoid puncturing the carotid artery, or the neighboring jugular vein, it is important to lift the skin between the thumb and forefinger of the left hand and introduce the needle just under the elevated skin.

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[1] Stretching of the Pneumogastric Nerve. M. Jaboulay, *N. Y. Med. Journal*, May 7, 1898. Abstracted from *Lyon Medical* of April 17, 1898.

The silver solution alone produces considerable local pain immediately after its introduction, and in order to avoid this it is very necessary to precede its use with the injection of 5 minims of a 2.5% solution of cocain hydrochlorate. The following plan has thus far been found the most practical for the introduction of these agents: Inject the cocain-solution, detach the syringe from the needle and let the latter remain in the puncture. Wash out the syringe with water, draw the silver-solution into the syringe, attach the latter to the needle and throw in the required amount.

The local visible effects of the injections show themselves in nodular, sometimes in diffuse, swelling, and in redness and pain; but in no instance have these products become extremely pronounced. Small abscesses have occurred about a dozen times, and a slough once in about 300 injections, and 2 of these were produced by using too strong a solution of silver in the early stage of the experiment. Neither the rupture and discharge of the abscesses, nor the small slough in one instance, had any detrimental influence on the patients.

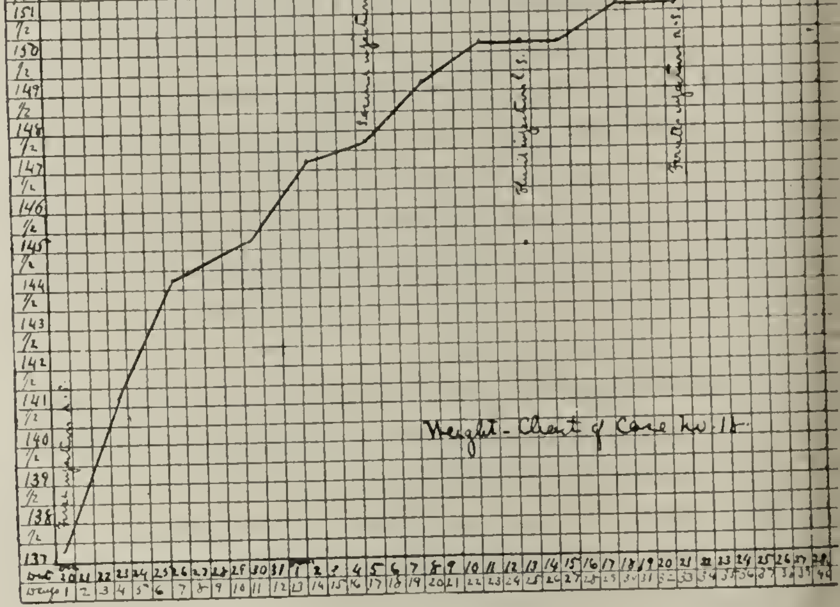
The number of injections necessary depends on circumstances. As a rule it is a good plan to begin by giving one injection on the side of the neck on which the affected lung is situated.[2] In a week or 10 days this is to be repeated, unless the original or previous injection is followed by too much irritation. In urgent cases due to excessive coughing I have repeated the injections in three or four days. As a rule it seems best to concentrate the injections on the affected side, and to give an occasional one on the opposite side.

During the last 5 months I have used silver-nitrate injections on 40 phthisical patients who were treated longer than a month, and who for convenience' sake are divided[3] into incipient (7), advanced (18), and far-advanced cases (15). The general effects of the injections on some of the symptoms and conditions of these cases are briefly described in the following analysis :

COUGH AND EXPECTORATION.—When these injections were first undertaken it was entirely with a view of benefiting the cough and expectoration in this disease, and it was therefore gratifying to find that they fulfilled this anticipation. With but few exceptions these symptoms improved in a marked degree not only in the incipien and advanced cases, but in the great majority of the far-advanced cases. This was so striking that it could not be mistaken. Besides relieving the cough anc expectoration the injections had a good influence or dyspnea and oppression in the chest, and, as severa patients expressed it, gave greater freedom in breathing

SLEEP.—It was noticed that many of the patient slept better. This was probably due to the fact tha they did less coughing during the night than previously

APPETITE.—This function was improved in most o the patients and in many to a marked extent. Thi was of course most noticeable in the incipient and th advanced cases, although in nine of the far advanc cases the appetite was remarkably increased.



GENERAL STRENGTH.—This was greatly benefited most of the incipient and advanced cases, and also a number of the far-advanced ones. This is probab accountable on the score of a betterment in the digesti function.

PHYSICAL SIGNS.—In many of the incipient and some of the advanced cases there was noticed a ra improvement in the physical signs. This was so f quently observed that it could hardly have been mer coincidental.

WEIGHT.—As has already been stated these injectio were solely begun for the purpose of alleviating phthisical cough and expectoration, and it was surp ing therefore to find that they also exerted a m beneficial effect on the weight. The gain in wei was observed chiefly in the incipient and advan cases, but was by no means confined to these, as will seen in the following table. The internal medication in all these cases was as simple and kept as uniform as possible throughout the experiment—a number of the patients receiving nothing but peppermint-water.

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[2] On investigation it will be found that pressure over the course of one vagus in the region of the neck produces more pain on one than on the opposite side in most phthisical persons, and that this supersensitiveness usually corresponds with the side having the affected lung.

[3] Incipient: Cases with beginning physical signs, some emaciation, cough, expectoration, etc. Advanced: Cases without excavation, but with emaciation, much cough, expectoration, loss of appetite, etc. Far-advanced: Excavation, with marked emaciation, cough, expectoration, etc.

The foregoing chart graphically illustrates the immediate effects of the injections on the weight.

It will be seen that in this example, which refers to patient No. 18 in the list of advanced cases, the weight increased 10½ pounds in 16 days after the first injection; at this time another injection raised the weight 2½ pounds more in 6 days, when it came to a standstill. The third injection on the twenty-fifth day

TABULAR VIEW OF THE CONDITION OF FORTY PHTHISICAL PATIENTS BEFORE AND AFTER RECEIVING SILVER-NITRATE INJECTIONS, DIVIDED ACCORDING TO STAGES. NO PATIENT TREATED FOR A MONTH OR LESS IS INCLUDED.

No.	Age.	Time Under Observation.	Weight when First Seen.	Loss or Gain.	Cough and Expectoration.	Physical Signs.	Remarks.
INCIPIENT CASES.							
1	38	6 weeks.	145 lbs.	Neither.	Disappeared.	Very few dry rales remained.	Asthmatic phthisis. Lost 8 lbs. in month before treatment.
2	36	2½ mos.	109 lbs.	G. 4 lbs.	Very much improved.	Disappeared.	
3	18	2 mos.	117½ lbs.	G. 9 lbs.	Very much improved.	Improved.	Rheumatic element in this case.
4	25	5 weeks.	119½ lbs.	G. 3 lbs.	Much better.	Improved very much.	Colored patient. (It is well known that phthisis in this race does not respond well to treatment.)
5	25	4 mos.	109 lbs.	G. 16 lbs.	Disappeared.	Disappeared.	Hemorrhagic form.
6	27	6 weeks.	119 lbs. at time of first injection.	G. 10 lbs.	Disappeared almost wholly after first injection.	Very much improved.	Had lost 1 lb. in 3 days preceding first injection, afterwards gained rapidly. Previous to third injection weight at standstill, after which gained 3 lbs. in 2 days. Patient colored.
7	60	16 weeks.	137 lbs. at time of first injection.	G. 32 lbs.	Very much improved.	Disappeared.	Lost 2½ lbs. in 4 days preceding first injection.
ADVANCED CASES.							
1	23	2 mos.	106½ lbs.	L. 7 lbs.	Very much better.	Improved.	Extremely erethistic case.
2	18	3 mos.	113 lbs.	L. 6 lbs.	Improved.	Improved.	Attendance irregular.
3	29	2½ mos.	113 lbs.	G. 2 lbs.	Improved greatly.	Improved.	Marked family-history of phthisis.
4	44	3 mos.	149 lbs.	L. ½ lb.	Marked improvement.	Improved.	Five weeks after first injection weighed 155 lbs.
5	24	2½ mos.	149 lbs.	L. 2 lbs.	Improved much.	Improved much.	Hemorrhagic case.
6	30	3 mos.	126 lbs.	Same.	Almost entirely relieved for the time, not permanent.	Improved.	Profuse night-sweats also ceased, while he received injections.
7	38	4 mos.	105 lbs.	Same.	Almost entirely relieved.	Very few signs remaining.	Improved very much in general strength.
8	29	1½ mos.	125 lbs.	L. 2 lbs.	Almost entirely relieved.	Markedly improved.	Asthmatic phthisis.
9	30	2 mos.	114½ lbs.	L. 7 lbs.	Very much improved.	Improved greatly.	Although she lost in flesh she is doing very well.
10	52	2 mos.	125½ lbs.	L. 1 lb.	Marked improvement.	Marked improvement.	At first lost in weight, then rapidly regained.
11	28	2½ mos.	133 lbs.	G. 7 lbs.	Improved greatly.	Improved very much.	From last account had a return of hemoptysis and is not so well.
12	65	2 mos.	139½ lbs.	L. 1 lb.	Improved much.	Improved much.	Is doing remarkably well.
13	21	2 mos.	134½ lbs.	G. 4½ lbs.	Cough subsided after first injection.	Markedly improved.	Is working.
14	42	3 mos.	133 lbs.	G. 3½ lbs.	Very much improved.	Improved much.	During first month's attendance this patient reached 140 lbs.
15	38	4 mos.	96½ lbs.	G. 13 lbs.	Entirely eliminated.	All gone except dulness.	Abscess formed at seat of injection. Is at work now.
16	41	3 mos.	130 lbs.	G. 6 lbs.	Relieved entirely.	Very much improved.	Lost in weight at first, then rapidly increased.
17	69	3 mos.	132 lbs.	G. 11 lbs.	Almost entirely relieved after first injection.	Disappeared almost.	Rapid recovery.
18	42	5 weeks.	137 lbs.	G. 16 lbs.	Practically relieved. Cough unusually severe.	Markedly improved.	First 6 days gained 7 lbs. No change in food or residence. Marked gain after each injection.
FAR-ADVANCED CASES.							
1	23	2 mos.	117½ lbs.	L. 4 lbs.	Relieved some.	Remained same.	Complicated with laryngeal tuberculosis. Lost 5 lbs. during 2 weeks before he received injections.
2	38	5 weeks.	102½ lbs.	G. 2 lbs.	Improved.	Improved.	Night-sweats, vomiting, and appetite improved at first.
3	25	5 weeks.	108 lbs.	L. 2 lbs.	Improved much at first.	Remained about same.	Vomiting, appetite, night-sweats, general strength, sleep, dyspnea, very much improved during first 4 weeks. Patient died recently.
4	41	2 mos.	110½ lbs.	G. 1 lb.	Improved.	Improved.	Much improved during first month in appetite, flesh, strength, night-sweats, but lost all and died a month ago.
5	34	3 mos.	118 lbs.	Loss not known.	Improved very much and remained so until he died.	Improved.	Injections improved appetite, increased strength at first, and checked night-sweats. Died.
6	38	4 mos.	111 lbs.	L. 9 lbs.	Very much improved.	Improved.	Improved for 3 months in every way, then exhausting diarrhea set in, and caused death.
7	36	4 mos.	80½ lbs.	Loss not known.	Improved. Also relieved the persistent tickling in her larynx.	Improved.	Improved greatly during first 3 months. Has an exhausting diarrhea and will probably die.
8	43	2 mos.	102½ lbs.	Loss not known.	Very markedly relieved after first injection, and remained so until death occurred.	Improved much at first.	Diarrhea set in and he died from exhaustion.
9	55	3 mos.	106 lbs.	G. 1 lb.	Very much improved at first.	Remained same.	Gained much in general strength.
10	16	2 mos.	105½ lbs.	G. 2½ lbs.	Very much improved after each injection.	Remained same.	Complicated with laryngeal tuberculosis.
11	19	3 mos.	131 lbs.	L. 4 lbs.	Very much improved.	Remained same.	Appetite and general strength improved.
12	36	2 mos.	98 lbs.	G. 1½ lbs.	Improved.	Improved.	Appetite and strength better.
13	39	2½ mos.	95 lbs.	G. 2 lbs.	Improved.	Improved.	Better, although a strong tendency to diarrhea.
14	32	3 mos.	103½ lbs.	L. 1 lb.	Improved very much.	Improved.	Doing remarkably well.
15	47	2½ mos.	117½ lbs.	G. 5½ lbs.	Improved very much.	Improved.	Doing very well.

raised it a pound higher in 3 days, when it came to another standstill. The fourth injection on the thirty-third day raised it 1½ pounds more in 3 days, when the last observation was taken. None of the other patients gained so rapidly as this one did, although No. 6 of the incipient cases gained 7 pounds in 12 days after the first injection, and 3 pounds in 2 days after his third injection; yet the direct effects of the injections on the weight and other conditions were just as apparent in most of the cases that did well. This was especially true of Nos. 3 and 7 of the incipient cases and Nos. 11, 15, 16, and 17 of the advanced cases. Whether their effects are lasting, time alone can determine, but the above histories show that they are at least of decided temporary value.

The deductions which may be drawn from this limited experience with the silver-nitrate injections are (1) that their best results are obtained in incipient cases, both in regard to the symptoms and physical signs of phthisis; (2) that in most of the advanced cases of this disease they have a good, and in some instances an exceptional influence on the symptoms and physical signs; and (3) that in the great majority of the far-advanced cases they ameliorate the cough, expectoration and some other symptoms temporarily, but have little or no influence on the local condition of the lungs.

In conclusion I believe there is much reason for expecting that when this method, even in its present undeveloped state, is combined with other good hygienic, dietetic, and medicinal treatment, such as most of my patients did not receive, the practical benefit will be greater than that represented above. And, moreover, this investigation incidentally points out that the silver-injections may play an important part in the therapeutics of asthma, chronic bronchitis, and in the pre-phthisical stage in the young, which is indicated by a poor and capricious appetite, loss in weight and strength, anemia, etc.; thus verifying the practice of the eminent Dr. Graves, who, more than 50 years ago, advised the employment of setons beneath the clavicle at the age of puberty whenever phthisis was apprehended.

THE USE OF GLOVES IN SURGERY.

With a Report of an Investigation as to the Efficacy of Cotton Gloves.[1]

BY W. R. LOCKETT.

Student in the Jefferson Medical College, Philadelphia.

GLOVES were first used in surgical operations by Professor Halsted, of Johns Hopkins Hospital, Baltimore, in the spring of 1889. They are now employed by many of the most eminent surgeons of this country and Europe, and it is claimed that their use is of great benefit, if not an absolute necessity.

In the present state of surgical asepsis all sources of infection may be practically excluded except the skin of the patient and the hands of the operator and his assistants. The belief that the skin of the patient is not usually the source of infection is strengthened by the fact that the disinfection of the field of operation is usually much more prolonged and thorough than is that of the hands of the operator and his assistants, and by the fact that operations in which the hands do not come in contact with the wound are apt to be followed by excellent results, notwithstanding that the cut and bruised condition of the skin decreases its vitality and resistance to infection. It should also be remembered that the skin of the patient can hardly be said to come in contact with the wound.

Professor Halsted, as a result of his experiments on the disinfection of the hands, came to the conclusion which is now held by many observers, that it was practically impossible to secure absolute disinfection of the hands by existing methods. Even after a condition of surface-sterility is obtained. the deeper layers of the epidermis contain bacteria which by prolonged maceration, such as is involved in a long operation, are set free. However careful the surgeon may be, the fact remains that infection may occur from his hands or from the hands of his assistants. It is believed that this difficulty can be, in a great measure, overcome by covering the hands with a material which can be made absolutely sterile and which while impermeable to bacteria, does not materially interfere with the sense of touch, the handling of instruments, ligatures, etc., or the manipulation of such delicate tissues as the peritoneum and intestines. These considerations led to the use of gloves. The characte of the glove to be used is of the utmost importance and should have careful consideration.

Halsted has used rubber gloves from the first. Professor Mikulicz, of Breslau, introduced the use of th cheaper cotton gloves; he does not now use them i their original state, but incorporates in them some impermeable material or employs a glove made o impermeable material. Professor Keen has use cotton gloves in his clinics at the Jefferson Hosp tal, but, not being satisfied that they would prevent a infection occurring from the hands, he suggested series of bacteriologic investigations to determine the value. These experiments were conducted in the laboratories of the Jefferson Medical College Hospital, unde the supervision of Professor W. M. L. Coplin, Directo of the Laboratories, to whom I am indebted for man valuable suggestions.

1. The hands were disinfected according to th method practised at Professor Keen's surgical clini The finger-nails were cut short and cleansed, the han were then scrubbed in hot water with green soap an a brush. They were then rubbed with a mixture equal parts of calcium chlorid and sodium carbonat

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[1] From the Laboratories of the Jefferson Medical College Hospital.

especial care being taken to cleanse the finger-nails, the paste formed by the mixture being pushed around the edges and under the nails by a blunt-pointed orange-wood stick kept for this purpose. The hands were then washed in sterile water and scrubbed in bichlorid solution, 1 : 1000.

A glove sterilized in a steam sterilizer for one hour was drawn on the disinfected hand, and one finger of the hand was held in a large-mouth test-tube containing beef-peptone bouillon, the glove-finger being moved around in the bouillon for 5, 10, and 15 minutes respectively. A different finger and a different glove were used in each instance, as was also done in the experiments below. The mouth of the test-tube was passed through a flame before introducing the finger. The tubes of bouillon were incubated at a temperature of 37° C. for three days, at the end of which time they remained sterile.

2. A sterilized glove was drawn on a non-disinfected hand and a glove-finger held in bouillon for 5, 10, and 15 minutes respectively. The tubes of bouillon were incubated and all sooner or later showed infection, the bacteria of suppuration predominating.

3. A non-disinfected finger was held in a bouillon-culture of bacillus prodigiosus 5 minutes. A sterilized glove was drawn on and the finger moved around in a wide-mouth test-tube containing bouillon for 5, 10, and 15 minutes respectively. The three tubes of bouillon were then incubated; the tubes quickly showed infection in each case.

4. A sterilized glove was drawn on a disinfected hand and a finger moved around in a bouillon-culture of bacillus prodigiosus for 5, 15, and 30 minutes respectively. The glove was taken off and the finger moved around in a tube containing bouillon for the same length of time as in the previous experiment. These tubes were then incubated and were found to contain in all cases the bacillus prodigiosus.

5. A sterilized test-tube and a sterilized glove were taken and one finger of the glove placed in the test-tube. A bouillon-culture of prodigiosus was poured into the finger of the glove; the pigmented bouillon passed through the glove at once; incubation showed that the glove in no wise prevented the passage of the germ.

6. Gloves were also paraffined according to the method of C. Menge, as follows:—Dry gloves were immersed in alcohol, then in pure xylol, then in xylol containing 10 g. of paraffin in solution to each 100 cc. of xylol. This solution was kept slightly warm and the gloves allowed to remain in it 15 minutes, when they were wrung out and dried. A finger of one of these sterilized, paraffined gloves was placed in a sterilized test-tube and a bouillon-culture of prodigiosus poured into the finger. The bouillon-culture passed through the glove and was found to contain the bacteria in question.

7. Thinking the fibrin of the blood might so fill the meshes of the glove as to prevent the passage of bacteria, sterilized, paraffined and non-paraffined gloves were immersed in fresh blood (bovine), wrung out and allowed to dry. A bouillon-culture of prodigiosus poured into a finger of each glove passed through and was found to contain the bacillus prodigiosus.

8. In addition to the experiments with paraffined gloves just mentioned, the same experiments were made with them as with the unparaffined gloves, and with the same results. Both the thin German gloves procured by Professor Keen and the heavier gloves purchased in this country were used in all the foregoing experiments. It was found that these gloves could be sterilized in the autoclave for 20 minutes at a temperature of 111° C. or in a steam sterilizer for 1 hour, and that when so sterilized were found to be free from germs. It was also found that the paraffined gloves could be sterilized 1 hour in the steam sterilizer without any apparent damage to the paraffin.

The results of the above experiments seem to us to prove the absolute inefficiency of cotton gloves; both in their original state, and when paraffined, they fail to prevent infection from the hands. It therefore becomes necessary to look further for a glove which may accomplish the purpose desired.

Perthes, of Leipsic, uses rubber gloves or silk gloves with a rubber covering, and with these on the hands one can feel even the light touch of a brush. Halsted uses India rubber gloves, which, after boiling, are dropped into large basins containing mercuric-chlorid solution, filled with this solution by the surgeon who is to wear them, and drawn on while full, the hands having been previously disinfected as if the gloves were not going to be worn. The same chain of reasoning already presented in this article led Dr. Charles McBurney, of New York, to adopt the use of rubber gloves. His gloves are prepared by washing them with soap and water, to which a little aqua ammoniæ has been added. They are then boiled for 15 minutes in a 1% sodium carbonate solution and laid in the center of a sterilized towel. The towel is folded over the gloves and not opened until the operator and his assistants are ready to put them on. If the dry hands are rubbed with dry sterilized starch, the gloves can be drawn on with ease even if their interior is moist. If the hand is moistened with glycerin or lubrichondrin, wet gloves may be easily drawn on. Filled with any sterile fluid, the gloves permit the ready entrance of the hand. If the latter method of putting them on is adopted, the hands must be previously as thoroughly disinfected as they would be if gloves were not going to be worn. If the hands are not disinfected, and the accident of tearing or puncturing the gloves occurs during the operation, the wound will most likely become infected, because such accidents may occur without being recognized in time to prevent infection. Previous disinfection of the hands is most important to the operator who has just adopted the use of the gloves, for, on account of not being accustomed to their use, tears and punctures are more likely to occur. When one has become accustomed to gloves, the probability of such accidents occurring is slight; but unless want of time forbids, the hands should always be as thoroughly disinfected as possible. Inasmuch as rubber gloves can be boiled they can be rendered absolutely free from germs, and as they are non-absorbent they must remain so, unless they come in contact with septic material. It is claimed that they are impermeable to bacteria, and if occasion demands, a surgeon having a suppurating lesion upon his hand may operate without danger to the patient from this source, provided tearing or puncturing of the glove does not occur.

To the army surgeon rubber gloves are a great aid in securing asepsis. On account of the varied duties incident to his office, his hands are not infrequently rough, and there is, therefore, greater difficulty in disinfecting them. He may be compelled to operate continuously for a number of hours, and may not have time for prolonged disinfection of his hands; and even if he has the time, the repeated scrubbing and immersion in disinfecting solutions might greatly irritate them. In each surgeon's operating chest which went to the front during the late conflict there was placed a package containing three pairs of rubber operating gloves sterilized and wrapped in rubber tissue. It is known that they were used to some extent after the battles in Cuba, but no great number of operations were performed.

At first there is some difficulty in manipulating instruments, ligatures, etc., but with constant use this is soon overcome; and it is claimed that one wearing rubber gloves can easily recognize adhesions, slight differences of consistency, irregularities of surface, or feel a feeble pulse. Those who have adopted their use are most emphatic in their praise.

Our conclusion is that rubber gloves are of great service to the surgeon, and enable him to more certainly obtain aseptic results, but that no other form of glove with which we are familiar is of material use.

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Med. News May 14, 1898. (Editorial: Gloves for Army Surgeons.)

Centralbl. für Chir., May, 1898, p. 32. Report of German Surgical Congress.

Acute Gonorrheal Urethritis.—Chapman (*Columbus Medical Journal*, January 3, 1899) depends upon the microscope as the only sure test in the differentiation of simple from specific urethritis. In treatment he prefers copious injections of a mercuric-chlorid solution at 110° F. or more. He begins with a 1 : 40,000 solution, gradually increasing to 1 : 20,000 and injects at least 3 quarts at a sitting, twice a day. He concludes that the heat and the mechanical action of the stream are the important elements in the irrigation-treatment. [G.C.C.H.]

Selected Formulas.

A Painless Blister:

Menthol	15 grains.
Chloral hydrate	14 grains.
Cacao-butter	30 grains.
Spermaceti	30 grains. Mix.

Make a paste. Spread on linen or diachylon-plaster and apply locally. —*Journal des praticiens.*

For the Cough of Pulmonary Tuberculosis:

Fluid ext. of hydrastis canad.	of each 1 fluidounce. Mix.
Fluid extract of ergot	

Dose: From 30 to 40 drops to be taken in a little water from three to five times daily after food.

—*Journal de Médecine de Paris.*

For General Debility:

Strychnin sulfate	$\frac{1}{60}$ grain.
Dilute phosphoric acid	5 minims.
Iron phosphate	1 grain.
Glycerin	30 minims.
Elixir of orange to make	4 fluidrams. Mix.

To be taken before each meal.

—Winslow Anderson.

For Amenorrhea:

Strychnin sulphate	$\frac{1}{2}$ grain.
Iron peptonate	20 grains.
Magnesium lactate	20 grains.
Scammony	20 grains.

Mix and divide into 40 pills.

Dose: From two to four pills to be taken at bedtime.

—Gutaud.

For Securing Intestinal Antisepsis:

Naphthol	45 grains.
Chloroform	10 minims.
Castor-oil	3 fluidounces.
Oil of peppermint	5 minims. Mix.

Dose: One tablespoonful (one teaspoonful to children) in port wine, beer, or hot and sweetened black coffee.

—de Mazimovitch.

For Pruritus:

Menthol	1 dram.
Simple cerate	2 ounces.
Oil of sweet almonds	1 fluidounce.
Carbolic acid	1 fluidram.
Powdered zinc oxid	2 ounces.

Mix. To be applied night and morning.

—C. B. Kelsey.

An Emetic for a Child:

Powdered ipecac	$7\frac{1}{4}$ grains.
Antimony and potassium tartrate	$\frac{1}{6}$ grain.
Oxymel of squill	$2\frac{1}{2}$ drams.
Distilled water to make	1 fluidounce. Mix.

Dose: For a child from 6 to 10 years of age, one teaspoonful every ten minutes until vomiting occurs.

—Baginsky.

For Malaria:

Quinin hydrochlorate	2 drams.
Dilute hydrochloric acid	4 fluidrams.
Dilute hydrobromic acid	1 fluidounce.
Sirup of lemon	4 fluidrams.
Water	1 fluidounce. Mix.

Dose: One teaspoonful thrice daily. —Eshner.

For Hematemesis from Gastric Ulcer:

Picrotoxin	1 grain.
Morphin hydrochlorate	1 grain.
Atropin sulphate	$\frac{1}{5}$ grain.
Ergotin	15 grains.
Distilled water	4 fluidrams.

Brandy, sufficient to make a solution. Mix.

Dose: From 8 to 10 drops in a little water. —Robin.

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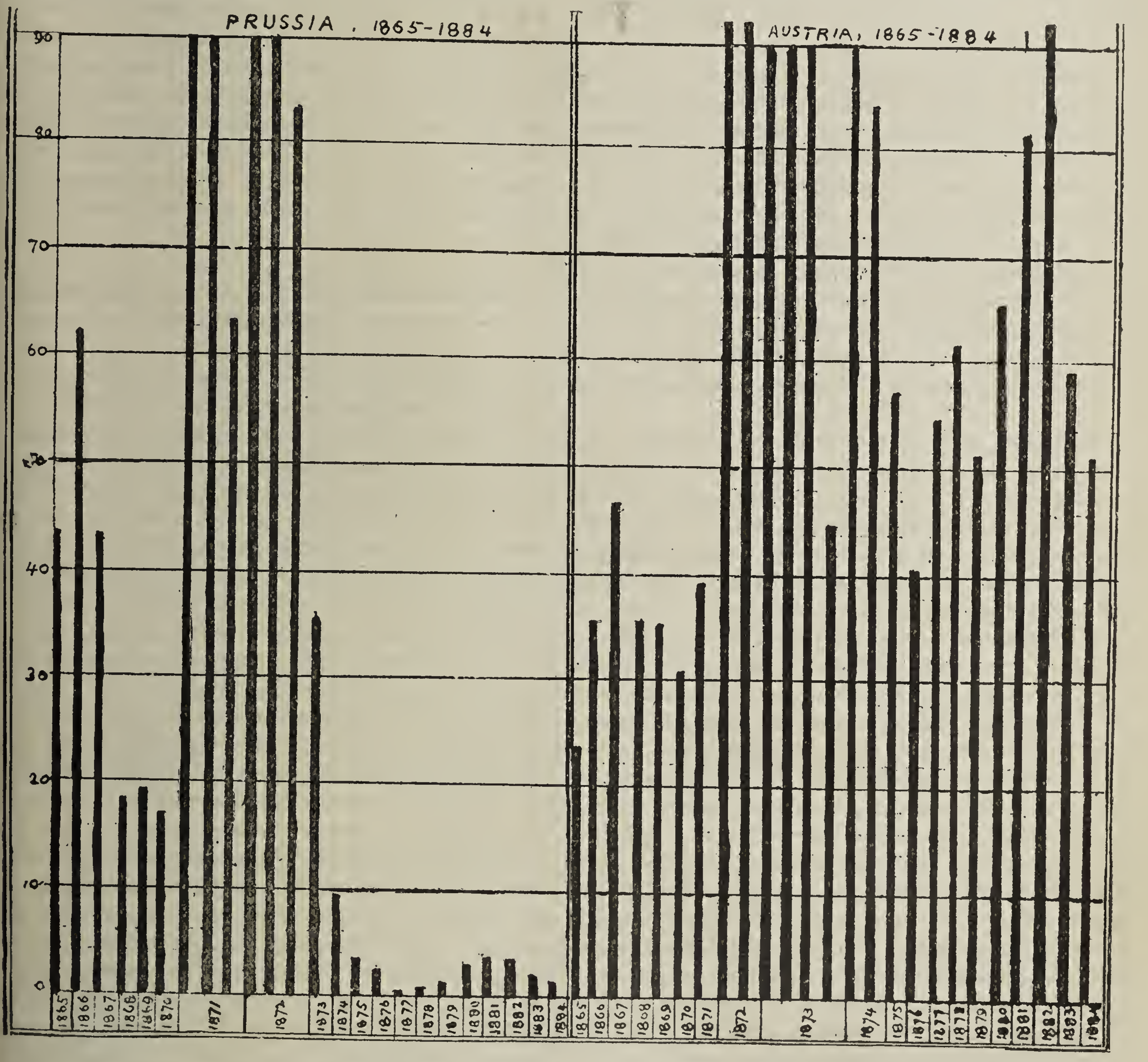
Another Illustration of What Vaccination Has Done.—It seems almost a wasted effort to attempt to convince of the error of their way those who contend that vaccination has not restricted the ravages of smallpox; but the following figures from Flügge's *Hygiene*, third edition, Leipsic, 1894, are so demonstrative that we cannot refrain from reproducing them. They have especial significance because they represent a comparison between countries that have much alike in population, extent, intelligence, and customs.



Comparative mortality per 100,000 from smallpox in Prussia and in Austria in the twenty years from 1865 to 1884. In 1874 revaccination was made obligatory in Prussia.

The mortality from smallpox in Prussia as compared with Austria, and in Dresden as compared with Prague, was per 100,000 inhabitants, from 1865 to 1884, as follows:

Year.	Prussia.	Austria.	Dresden.	Prague.
1865	43.8	22.8	2.	21.
1866	62.	35.9	7.9	25.4
1867	43.2	46.9	28.5	83.9
1868	18.8	35.5	38.	26.9
1869	19.4	35.2	1.8	19.
1870	17.5	30.3	8.9	26.4
1871	243.2	39.2	326.6	15.
1872	262.4	189.9	84.1	396.5
1873	35.6	314.7	13.	281.6
1874	9.5	174.3	4.2	30.
1875	3.6	57.6	2.6	10.9
1876	3.1	40.2	0.5	78.4
1877	0.3	54.5	0.9	395.8
1878	0.7	61.6	0.	86.8
1879	1.3	51.7	1.9	84.4
1880	2.6	64.7	3.6	290.2
1881	3.6	81.4	2.7	64.6
1882	3.6	94.8	1.3	57.8
1883	2.	59.2	0.9	225.5
1884	1.4	50.8	0.4	359.9

Vaccination was employed in Germany from 1835, but there was still considerable mortality from smallpox in the community at large. In the army, however, *revaccination* was made obligatory in the year 1834, with the result that from this date the mortality from smallpox almost entirely ceased. In 1874 revaccination was made obligatory also in the community and the figures show eloquently the results that were accomplished, not alone absolutely, but also in comparison with those in countries and cities where compulsory revaccination was not in force. The extent of the reduction in mortality is strikingly shown in the accompanying diagram.

The report of the Whitewashing Committee in reference to the conduct of the war is exactly what was expected. What a pity that we cannot have a serious and thorough-going investigation! Congress is bribed or has sinned itself to silence, so that ferreting out the mischief cannot be expected from that body, and on the other hand the investigation of oneself by one's friends and subordinates will, of course, and as has been proved, be an opera-bouffe proceeding. In the face of the hundreds of testimonials of Gen. Miles as to the "embalmed beef," a can of beef, furnished by the accused in time of peace and investigation, was opened, in the presence of President and Secretaries, and lo, it was good! The writer, last week, had a recently discharged soldier as a patient, who during the last year has been on duty within ten miles of New York City. This man's truthful and modest descriptions of the food served and of the management of the men furnished a clear glimpse into the official inefficiency, venality, and nepotism, that was at once pitiable and appalling. Among other things, we were amused at his description of the "canned salmon" often furnished the men. The pink coloring matter used to give the fish something like the outside appearance of salmon was all washed off by a simple douche of water, leaving the "salmon cutlets" in white dismay. What a chance for Diogenes and his lantern!

Graduate Women-nurses in the hospital service of the United States Army are recommended in a bill now before Congress, and the measure, with modifications, is also advised as one of the needs of the Medical Department by the President's Investigation-Commission which has just made its report. There can be no doubt of the wisdom of the measure and of the good a properly organized official corps of trained women-nurses would effect both in time of peace and of war. We think that these nurses should not be called to the front in time of active campaigns, but our recent experience has amply demonstrated the great value of their work in permanent camp-hospitals. The voluntary organizations proved this during the last summer and fall, but we should not longer rely on them for the emergencies that may arise, and some systematic governmental provision should be assured. If we are to have Expansion and Imperialism, the lives and health of the soldiers should be cared for with all the skill and solicitude given the patients in our city hospitals. We fear in the rush of the closing days of Congress, and the pressure of selfish interests, the bill may fail to pass. Physicians should do what they can to bring it to vote.

The Imperative Need of Private Pay-Hospitals for Contagious Diseases.—The value of private hospitals as adjuncts to the resources of medicine is growing more evident every day. Large institutions presided over by a small exclusive band of physicians and surgeons doubtlessly have their uses, but can not serve those important and practical ends as modern needs increase, as do those hospitals in which patients may take lodging, secure the use of specially trained nurses, and have the assistance of a qualified house-physician on call night and day, and above all, where they may be attended by the physician of their choice. In such must the private medical as well as surgical work of the future be largely conducted. In no branch is this more important than in that of contagious diseases. If physicians could only be brought to realize the truth of this fact for themselves, they would leave nothing undone to acquire such accommodations, for they and their patients may need them at any moment, and in the experience of most busy physicians the need arises not less, on an average, than monthly. To be sure, such opportunities would not be welcomed warmly till practical acquaintance with its advantages had time to grow into favor with the conservatism of the community. This has been the case in Boston, and is rapidly doing so in New York, where splendidly equipped private quarters are in constant use by the best people and foremost physicians. One should consider what conspicuous advantages are to be had, for example, in the treatment of diphtheria in a specially constructed institution equipped with all the apparatus, steam supply, etc., required in the emergency work of intubation and tracheotomy, should complications arise rendering these operations suddenly imperative. The boon of qualified assistants, of internes familiar with this work, and nurses experienced in caring for such cases, should not be forgotten. Moreover, in the case of diphtheria and scarlatina it is peculiarly needful to have at hand large complete sterilizing ovens to disinfect all clothing, excreta, etc., from the patients—things most expensive and only procurable by large cooperation.

Why should these opportunities exist in, and be enjoyed by, New York, Boston, and many of the smaller cities, and Philadelphia be without them? And yet the movement to secure all this has been organized for two years, but is scarcely recognized, much less realized and encouraged.

"Divvying the Swag."—We trust our readers will pardon the use of thieves' jargon in the title of this note, but any other language hardly seems apropos. The occasion is suggested by an editorial in the *Medical Examiner*, of which Geo. W. Wells, A.M., M.D., is the editor and proprietor. Dr. Wells is very bitter against the antiquated medical ethics which would reprobate the custom of the specialist giving the general physician a percentage of the fees for and in consideration of referring the patient to him. We shall quote only two paragraphs of the editorial.

> "The tendency to specialize has been very marked in the medical profession for many years. Surely the general practitioner has a right to protect himself against the decrease in income which this change tends to produce. At the same time the patient has a right to expect that his family physician will see to it that he is directed to the proper specialist in all cases where he cannot himself treat the case with as good prospects of success. We question if under these circumstances, which did not exist when the old code of ethics came to be adopted and which it was not intended to meet, the equities of all parties will be as well cared for as they will be if doctors receive a commission for referring patients. This is like a consultation-fee to lawyers and as competition will tend to keep the specialists from over-charging, the patients will in the end receive better treatment and not pay any more than they otherwise would have to."
>
> "We know it is like throwing a firebrand into a haystack to say anything against medical ethics, but we think it is high time the profession broke the eggshell of its self-sufficiency and learned a little from the experience of men whose success in commercial enterprises surpasses anything that former generations ever dreamed of. What are we practising medicine for? Is our profession a business or a pastime?"

Evidently to this Master of Arts and Doctor of Medicine there is no alternative other than that medicine is either a business or a pastime. We have a dim recollection of having heard or seen something spoken or written in the past concerning "the science and art of medicine," but doubtless we are either dreaming or are very "old fogy." The master of arts and expert in medical science, it seems to us, judging from the tone of his writing, by the repeated sneers, and from its curbstone style, might have snapped his dreary six columns into a fitting and characteristic expletive: "To hell with medical ethics!"

A Person's Right to Step into a Hole in a Bridge.—The doctrine of contributory negligence so often affects the interests of medico-legal experts that we offer no apology for occasionally digressing into this domain of the courts. A recent decision of the Court of Errors and Appeals in New Jersey is a case in point.

A woman, riding a bicycle, started to cross a drawbridge over the South Shrewsbury River. There was a carriage in front of her and another behind her, and when the procession reached the draw they found it open. Being obliged to dismount and at the same time keep a lookout on the carriage in front and the horse behind, the woman turned to the heavy timber guard, about one foot square, separating the two roadways of the bridge. She stepped off with one foot on this piece of timber and, dismounting, brought the other foot down upon the floor of the bridge. At this very spot there happened to be a hole in the floor, and her foot slipping into this, the plaintiff was injured. She did not see this opening, but might have seen it if she had looked for it. In the court below a non-suit was granted on the ground that the danger was an obvious one and that the plaintiff did not exercise due care in selecting a place to dismount.

In the Court of Errors and Appeals this judgment was properly reversed and the case remanded to a jury for trial. Mr. Justice Hendrickson delivered the opinion, in which he expounded the principles of common law governing public highways. We are glad that common law in the case coincides with common sense. The judge said that it is necessary for a person traveling to keep such a lookout for patent defects as is usual with prudent drivers, but what is ordinary care under the circumstances is a question for the jury. In the case at issue it seems absurd, from a lay standpoint, to expect a bicycler, under the given circumstances, to exercise much choice of a place for dismounting or to examine critically the floor of a public bridge in order to see if there are any dangerous holes in it. Hemmed in between two carriages in a narrow roadway on a bridge, a woman has not much choice, and if she steps into a hole in a rotten plank, the Board of Freeholders (in New Jersey) should be held responsible.

The doctrine of contributory negligence has sometimes defeated the ends of justice and seriously embarrassed the workings of medico-legal science, so we are pleased to be able to note in this case the exercise of a sound judicial discretion.

Frost-bite.—The sudden advent of the unusually severe cold weather of the past week, with its accompanying frost-bites and deaths from freezing, brought forcibly home to the minds of many people the serious consequences which may result from extreme cold. As has been shown by the experiences of Arctic explorers, the human body is capable of enduring intense cold without harm resulting, if it becomes gradually accustomed to low temperatures and if other conditions are favorable. Sudden exposure to extreme cold or the concentration of cold on an exposed part of the body is responsible for most of the serious effects arising from this source. Napoleon's brilliant surgeon, Larry, who had such exceptional opportunities for studying the effects of low temperatures during the memorable retreat from Russia, when so many hundreds of lives were sacrificed, notes that those soldiers who warmed themselves at the fires suffered worse than those not subject to alternating extremes of heat and cold. The presence of a large amount of moisture in the atmosphere is also an important factor in causing serious effects. It is stated that during the Crimean war there were in the French Army 2,500 cases of frost-bite and 800 deaths resulting directly or indirectly from cold; no doubt many of the deaths resulted secondarily from hospital gangrene, erysipelas, and other infections which would now be avoided. The degree of cold resulting so disastrously was not intensely severe, the thermometer having never registered lower than 5° F.; its effect was probably due to the great humidity of the atmosphere. Intemperance or other sources of constitutional weakness need hardly be mentioned as predisposing causes. The treatment of frost-bite said to be in use among the Esquimaux includes all the important essentials, although it is doubtful if it resulted from a study of scientific medicine. It consists in immersing the part in ice-water and gently rubbing it for about two hours; it is then wrapped in furs for about four hours, then in a bird-skin with the feathers inside, and then alternate frictions with snow and wrapping in furs for 24 hours.

The wrapping in furs corresponds to our use of flannels with soap-liniment or other stimulating application, to bring about reaction after the temperature of the part is nearly normal, and the second application of snow takes the place of our cooling and astringent lotion of lead-water and laudanum in case the reaction is too great. The point of greatest importance seems to be careful, gentle friction, in the cold, long continued so as to avoid excessive reaction, which would produce inflammation and endanger the tissues in their condition of lowered vitality by the pressure of the inflammatory exudate.

The Increase of Smallpox is a fact that has not sufficiently aroused the attention of the profession and the public. We have repeatedly warned that there is a carelessness as to vaccination and revaccination that is not only a terrible danger, but that is already commencing to foot up alarmingly. Every true physician should use his utmost endeavors to arouse his patients to a consciousness of the danger and the certainty of the action of the one preventive measure. Dr. Arthur R. Reynolds, the Commissioner of Health of Chicago, has issued a timely circular, which we reproduce:

> To the Public.—Smallpox is spreading throughout the world to an extent not equalled since 1893. *Public Health Reports*, the official organ of the Marine-Hospital Bureau, our national health-service, records the recent invasion of 19 States and 63 localities by the pestilence in this country alone, and the newspapers add daily to the number. Some of these localities are within a few hours' distance of Chicago, and it is not only possible that there are concealed or unrecognized cases of the disease in the city at the present time, but it is more than probable that persons from infected localities are daily riding in our street-cars, associating with our citizens in public places, and even visiting in our homes.
>
> When the contagion becomes so widespread as it now is, it is obviously impossible to prevent its introduction into a new city like Chicago, with its numerous means of communication with the rest of the country. Sooner or later the disease is sure to find its way into the city by some unsuspected and unpreventable method. Once introduced—especially at this season of the year—its spread among the susceptible is inevitable.
>
> No degree of cleanliness of the individual, or of hygiene in the household, or of municipal sanitation will protect the susceptible against contracting smallpox if exposed to its contagion. The one certain and only safeguard—tested by the experience of the century—is effective vaccination.
>
> As commissioner of health, charged with the protection of health and life, upon which our municipal welfare and prosperity depend, I earnestly urge upon every citizen to see to it that he himself and those dependent upon him are thoroughly and promptly protected against this loathsome pestilence. Parents and guardians cannot escape the charge of blood-guiltiness if, failing to secure this protection for their charges, death follows an attack of smallpox—a disease of all diseases the most positively preventable.
>
> Employers and others having charge of wage-workers, especially garment-makers and textile-fabric handlers, should give this matter attention, from pecuniary considerations if no other. Similarly as to railway employes, who are particularly exposed, and the employes of manufacturing establishments, department stores, etc. It should be made a condition of further employment that all such persons present satisfactory evidence of protection against smallpox by recent successful vaccination or revaccination.
>
> The remembrance of the late smallpox epidemic, that of 1893–4, should be still fresh in the public mind; but few, probably, realize its cost to the community. The 3,076 cases and 1,033 deaths of that epidemic represent, according to the eminent authority, Dr. Benjamin Lee, a money-loss of $2,581,000, to which must be added the enormous losses from damage to business, suspension of industries, interruption of travel and traffic, and injury to commercial reputation.
>
> It only remains to add that the glycerinated vaccine of the health department is now at the highest standard of purity and efficiency; that its proper use causes the minimum of discomfort and insures absolute freedom from any danger of infection of other diseases as well as from the painful "sore arms," unsightly scars, and other drawbacks which attended the former use of vaccine "points."
>
> While the department prefers that the vaccination should be done by private physicians, it is ready and anxious to vaccinate without charge all who are unable to pay for the operation.

The Water-Supply of a Great City.—"Water boiled for ten minutes is absolutely free from typhoid fever germs. Boil water in the evening, set aside in a clean place over night, keep free from dust, and use the following day." In issuing this notice to householders the Philadelphia Board of Health virtually pronounces guilty those charged with the responsibility for the disease and death resulting from a contaminated water-supply. It is universally admitted that the most common medium for the transmission of typhoid fever (and some other diseases as well) is the water-supply, and the one way to correct the evil and obviate the danger is to prevent contamination of the water used with that which alone is known as the cause of the disease, namely, the typhoid bacillus, or to effect its removal when present.

The duty of a municipality to supply its inhabitants with water carries with it the obligation to maintain that supply above suspicion. Prevention is better than cure, and it is, therefore, incumbent upon those charged with that function to prevent, so far as possible, contamination of water that is to be used for domestic purposes. But with this alone we cannot be content; as it is to be feared that, under existing conditions, freedom from contamination cannot be absolutely assured.

The most certain method of effecting the destruction of typhoid bacilli in water is that recommended by the Board of Health, viz., thorough boiling, and this should be practised in every emergency. The universal and permanent adoption of this method, particularly at the hands of individual householders, is, however, beset by numerous obstacles, among which may be mentioned ignorance, indifference, carelessness, incompetence, as well as mechanical difficulties incident to the process. Whatever the means adopted of preventing contamination, it should not be entrusted to the hands and caprice of the individual, but should remain under municipal control. The remedy consists in purification of the water in some efficient way before it is delivered to consumers. Of all the available methods that have been proposed none is demonstrably more practicable and more effective than filtration. It may be that there is no unanimity of opinion as to what particular method of filtration is the best; but shall we sit with folded hands and permit the sacrifice of life to go on while we are quibbling over trivialities? There is no agreement as to the best quality of pens, ink and paper, but do we therefore forego the use of these several articles. Shall we decline to save some lives because of a fear that even the poorest form of filtration will not at once prevent the development of any case of typhoid fever. Would it not be wiser to use some plan that experience has shown to be useful—and such experience is neither wanting nor contradictory—and perfect our plans as we learn how.

To sum up then, we would submit the following indisputable propositions: Typhoid fever is largely conveyed by water; contamination of the source of supply is to be prevented so far as possible; the bacilli that cause the disease can be most feasibly and most effectively removed by filtration. The manifest duty of the hour is, therefore, filtration, and immediate filtration by any good method.

The influence of filtration upon the mortality from typhoid fever is forcibly illustrated by statistics quoted by the *Indian Medical Record* for January 11, 1899. The following table, prepared by Verekoundow, shows the mortality from typhoid fever per 10,000 inhabitants in a number of the larger cities of the world between the years 1870 and 1896:

Year.	St. Petersburg.	Vienna.	Berlin.	New York.	Paris.	London.	Moscow.	Odessa.	Munich.	Frankfort.
1870	17.3	9.5	. .	. .	. .	. .	. .	. .	14.9	10.3
1871	14.9	15.1	. .	. .	. .	. .	. .	. .	12.9	5.9
1872	16 5	11.8	. .	. .	. .	. .	. .	. .	24.0	6.1
1873	11.1	11.3	. .	. .	. .	. .	. .	. .	13.1	6.5
1874	13.9	5.6	. .	. .	. .	. .	. .	40.1	15.9	11.3
1875	14.5	7.4	. .	. .	. .	. .	. .	17.7	12.1	4.2
1876	19.7	3.9	6.4	2.7	. .	. .	. .	?	6.7	3.6
1877	19.7	5.2	6.1	2.6	. .	. .	. .	9.2	8.4	1.3
1878	31.2	2.8	3.1	2.3	4.3	2.8	5.1	13 2?	5.5	1.8
1879	15.5	2.6	2.1	2.0	5 6	2.2	3.4	7.5?	10.9	2.2
1880	23.0	2.3	4.6	3.0	9.4	1.8	5.5	5.8	7.2	2.0
1881	24.0	2.0	3.0	4.7	9.4	2 5	5.7	4 6	1.8	1.2
1882	13.0	2.0	3.0	4.0	14.9	2.5	6.2	5.2	1.8	1.6
1883	10.8	1.9	1.8	4.7	9.1	2.4	4.4	4.4	1.9	0.9
1884	9.3	1.2	1.9	3.4	7.1	2.3	1.8	2.2	1.4	1.2
1885	8.2	1.3	1.6	2.8	6.2	1.5	2.4	2.4	1.8	1.3
1886	9.0	1.0	1.3	2.9	4.5	1.5	2.8	3 1	2.1	1.2
1887	8.2	0.9	1.4	2.8	6.5	1.5	1.9	2.3	1.0	0.6
1888	9.1	1.2	1.3	2.3	3.6	1.6	1.6	2.4	0.9	0.8
1889	8.1	1.2	1.9	2.5	4.7	1.3	2.2	2.1	0.9	0.9
1890	3.7	0.9	0.9	2.1	3.0	1.4	3.6	2.9	0.8	0.8
1891	5.2	0.6	1.0	2.2	2.2	1.3	3.2	3.3	0.6	0.6
1892	3.5	0.8	0.8	2 1	3.2	1.0	2.4	3.4	0.2	0.8
1893	4.0	0.7	1.0	2.0	2.3	1.6	1.7	2 4	1.5	0.5
1894	3.7	0.5	0.4	1.7	2.9	1.4	1.6	1.9	0.3	0.8
1895	8.5	0.6	0.6	1.7	1.1	1.4	3.1	3.0	0.4	0.5
1896	11.4	0.5	0.6	1.5	1.1	1.3	2.6	2.6	0.3	0.5

Typhoid fever has always prevailed largely in St. Petersburg. In 1880 sanitary police inspection was instituted in the city, and the mortality from typhoid began to decline after two years. In 1889 municipal filtration of the water-supply for the most populous parts of the city was begun, and the reduction in mortality from typhoid was much more pronounced, and especially so in the district to which the improved supply was furnished, that upon the left side of the river, while the mortality from the same cause among those who received unfiltered water—upon the right bank of the river and in the suburbs except the barracks—continued unchanged, as shown by the following figures:

Mortality from Typhoid Fever Per 10,000 Inhabitants.

	Left Bank.	Right Bank.	Suburbs.	Barracks.	Total for St. Petersburg.
From 1886 to 1889.........	5.78	5.30	5.93	48.83	7.63
" 1890 to 1894.........	2.36	5.48	6.80	22.52	4.08

From 1895 to 1897 the filter worked imperfectly, so that a large amount of unfiltered water was used, and there was a recrudescence of typhoid fever. During the prevalence of cholera in 1892, 1893, and 1894, the disease was less common on the left than on the right bank of the river. The extension, subsequently, of the filtered water-supply to the right bank of the river was followed by a marked reduction in the prevalence not only of typhoid fever, but of all gastro-intestinal affections as well. Stronger proof of the utility of filtration in the prevention of water-borne diseases, of which typhoid fever is a type, cannot be asked or given, unless it be that furnished by the contrast between the adjoining cities of Hamburg and Altona several years ago, when cholera committed such ravages in the former, while the latter measurably escaped, although both derived their water from the Elbe, but with this difference—that of Altona was filtered, while that of Hamburg was not. Hamburg has, however, since instituted filtration, with the most gratifying results. Surely, the experience of many cities besides Philadelphia has been bitter and costly enough to stimulate those who have her interests at heart to take immediate steps to insure speedy filtration of the water-supply.

Suggestions to Writers: No. 23.—The "endless confusion" argument as to spelling chemical words will hardly avail, but those who oppose rational (and we might add, *national*) progress in these things are themselves the greatest creators of the confusion they appear to detest. We refer to the courteous letter of Dr. Wood, published in another column. This matter is an old stumbling-block of Dr. Wood; five years ago he remonstrated with the *Medical News* concerning the same question, and we think so far as logic goes he was most effectively answered. In his letter in this week's issue he spells the word *pharmacopeia* in two different ways, and in the proof-sheets of his excellent original article in the present issue he changed the spelling of *strychnia* in his manuscript to *strychnine.*

In fact this contention as to the spelling of alkaloids and glucosids is old straw long ago thoroughly threshed out. In 1891 the American Association for the Advancement of Science, after a four-year investigation advised that the *e* be dropped from all such words as *bromide*, *chlorine*, *quinine*, etc., and the logical reasons for the advice have never been successfully met by the conservatives. The latest and most thoroughgoing and scholarly dictionary of the English language, *The Standard*, adopted the recommendations of the association and spells *bromid*, *chlorin*, *quinin*, etc., and such journals as the *Journal of Analytical and Applied Chemistry*, such chemists as Professors Caldwell of Cornell University, Witthaus (in his *Manual of Chemistry*), Leffmann of Philadelphia, T. Sterry Hunt (*Systematic Mineralogy*) and many others, use and advocate the simpler spelling. The pharmacopeia itself is unable to be consistent, as, *e. g.*, in *lupulin*, *naphthalin*, etc. The argument that in such small things we must follow the antiquated usage of the pharmacopeia is a boomerang emphatically asking why it perpetuates the "endless confusion" by not catching up with the accepted advances of progressive chemical and general science, and of wideawake men who do not think that philology is the single branch of science untouched by change and progress. The pharmacopeia always follows, never leads. If we should await its order we should never have any progress of any kind. Hundreds, we had almost written thousands, of words ending *in* or *ine* are being forced into the language regardless of glucosidal or suicidal logic, so that any attempt to establish a distinction between glucosids and alkaloids by a terminal *e* is—well, let us say, simply laughable. The naming of a drug is solely to differentiate it from any other drug, and this is effectually done without the terminal *e* contended for. We have no desire to constrain contributors in their spelling, because, among other reasons, progress is helped by such a parade of their inconsistencies and redundancies. Those who do not like railway-trains are privileged to employ stage-coaches, and they should not be too openly smiled at or frowned upon, but we advise our readers that in this affair they may trust and follow the advice of the *Association for the Advancement of Science*, with hundreds of progressive scientists and philologists; they may safely order *sulfate of quinin* without endangering their patients' lives by the terrible chance of getting a dose of a "glucoside" from the druggist. May we not beg contributors to allow this useless and wornout controversy to die, or rather to be buried?

Editor and Reader, No. 15. The Value of Certain Exchanges.—One of our "esteemed contemporaries," has been very flattering to *his* "highly esteemed contemporaries," and very abusive of us who denied the right of others to coerce us in the matter of "swapping even." The flatterer is most sure of the tremendous value of the exchange system, in keeping up "friendliness," and especially in keeping medical editors in close and intimate relations with medical progress and news in different parts of our great country. Of course we thought one who thus rates his exchanges so highly must glean them most conscientiously. Sincerity and truthfulness are admittedly part of the outfit of all medical editors. Happening to call at the office of the flattering editor, we noted a cartload or more of valued exchanges heaped in a corner of the room, not one of the wrappers of which had been broken. They were awaiting the waste-paper wagon. The value of this fact, like that of every other, lies in the application of it. Who in the long run pays for this wasted and extremely valuable literature? The medical profession. If physicians who subscribe for medical journals will demand that these journals shall give the subscriber twice or three times the amount of strictly professional literature that in the past has been customary with the lay millionaire proprietors of these journals, then their cant and flattery as to the value of the exchange system, with many other abuses of medical journalism, will disappear as if by magic. To be as frank as we have promised to be, let us add that the Philadelphia Medical Journal has demonstrated the possibility of giving fully this three times the amount of medical literature, and it now rests with you, subscribers, to say whether you prefer the old-time one-third of the ancient lay publishers. Your answer will consist in the additional subscriptions you secure or do not secure for this Journal from your friends. The fact and the logic is actually what we have stated.

Correspondence.

CREDÉ'S METHOD OF TREATING THE EYES OF NEWBORN INFANTS.

By G. E. de SCHWEINITZ, M.D.,
of Philadelphia.

To the Editor of The Philadelphia Medical Journal :—

Sir :—In Dr. Norton L. Wilson's important and interesting communication, entitled "The Treatment of Ophthalmia Neonatorum," and published in your Journal, February 11, 1899, occurs the following sentence : "I have divided the profession into two classes : (1) Those who use or recommend the use of this method (Credé's method) in every case ; and (2) those who use it only when, in their judgment, there are special indications for its use." Together with a number of other ophthalmologists I am placed in the first class, although for some years I have taught and advocated persistently the opposite doctrine, or, in other words, the doctrine of Dr. Wilson's second class. Again it is stated : "All of those named (those of the first class) have never seen a case (of ophthalmia) develop after the use of the method." On the contrary, I have seen marked conjunctivitis neonatorum appear after the employment of Credé's method, and have also observed, like Dr. Wilson, "severe cases of conjunctivitis with haziness of the cornea," and one case of persisting conjunctival hemorrhage which nearly proved fatal, follow the instillation of a two per cent. solution of nitrate of silver into the conjunctival sac of a newborn child. With Dr. Wilson "I do not believe in the indiscriminate use of any drug," and am firmly convinced as the result of ample experience —an experience which at one time you, Mr. Editor, shared with me—that Credé's method should be reserved for the eyes of those children who have passed through a birth-canal known to be infected, or from which the suspicion of infection could not positively be eliminated prior to the birth. Whenever infection, or the suspicion of infection, can be excluded by suitable examination, Credé's method is not necessary, milder measures of prophylaxis being sufficient.

SOME OF THE WAYS OF SOME OPTICIANS.

By M. V. BALL, M.D.,
of Warren, Pa.

To the Editor of The Philadelphia Medical Journal :—

Two men recently came to our little town and commenced a house-to-house canvass, for the purpose of selling spectacles. Not content with merely supplying those who required glasses, they endeavored to work on the fears of old women by informing them that a cataract was growing over one eye, or that in a few months they would suffer a stroke of paralysis and would become hopeless invalids unless they immediately purchased glasses. When asked concerning themselves, these men would give the names of responsible physicians or merchants in our town with whom they claimed a close acquaintance. One mother was told that her child would soon be an incurable idiot if not fitted with spectacles. A friend coming to me with the information that his mother had been worked upon by these swindlers, I went to the hotel and warned them to leave town at once, and also to refund the money they had received from my friend's mother. They were considerably frightened, did refund the money, and went away the next morning. Had I known at that time all the tricks they had played, they would be in limbo now. As it was, they left for another county and for several days I continued to hear of their practices in the surrounding towns. A few months before I had a man arrested for pretending to treat diseases of the eye, cure cataract by absorption, etc., who was simply a spectacle-peddler ; he made no defense, paid the costs, and promised never to return. The district attorney advised me not to push the case because the man had not yet practised his tricks. I reluctantly let him off, but the next man will not escape so easily. It is high time that physicians should begin to make an active crusade against such quacks. The cities as well as the small towns are overrun by all manner of frauds, and it is the business of medical societies to protect the interests of their members by vigorously attacking all violators of the medical laws. Such a crusade would undoubtedly arouse the county societies from the lethargy in which so many have fallen.

One other point is necessary, and that is to make it unmistakably clear to the general practitioner that hypermetropia, astigmatism, and myopia are diseases or "bodily infirmities" according to the law, and require for treatment something more than the training necessary to sell spectacles. Too many physicians send their patients to the optician—yes, even in preference, saying to the patient, "it is cheaper." So long as otherwise reputable physicians endorse in this practical way the optician, the general public will be slow in recognizing the value of a careful examination by ophthalmologists.

CONTAGION OR INFECTION.

By H. M. BRACKEN, M.D.,
of Minneapolis, Minn.

To the Editor of The Philadelphia Medical Journal :—

In the Philadelphia Medical Journal for January 21, 1899, p. 120, *et seq.*, Dr. Lawrence L. Flick devotes considerable space to "Contagion,—Its Meaning and Limitations." After quoting many definitions from the dictionaries he sums up by saying, "The definitions given are somewhat obscure and savor of old-time ideas about the etiology of disease. All, however, agree on certain points, namely, that the word contagion has a broader meaning than the word infection. . . . In current literature we frequently find the position of the two words reversed and a limited meaning given to the word "contagion" and broad meaning to the word "infection."

It seems to me current literature, rather than the dictionaries quoted, is in the right. The word infection covers not only contact, but other means of transmission of disease from one individual to another. The word contagion conveys the idea of contact only. It gives to the average mind a feeling of safety that does not exist.

On p. 122, it is stated : "In contagion the environment under which communicability is operated is limited, while in infection the environment under which communicability is operated is general." This is sufficient reason for giving the word infection the broader meaning.

Even the word *contagium* is limited in its meaning as compared with infection. Ziegler [1] states that "When the infection is carried directly from man to man it is termed a *contagium*, and it is consequently understood that the place in which the organism grows is within the human body, or it may be also in some inferior animal, while outside of the human or animal body, neither production nor multiplication of the infecting material takes place." But[2] "*Infection* has to do with diseased vital phenomena *which are dependent solely upon the character of the infecting agent.*"

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[1] American Edition, 1895, page 29.

It thus appears that the word infection has to be used even to properly define what a contagium is. A contagium can neither produce nor multiply outside of the human or animal body, but infection is not thus limited. In other words, a contagium must act as an *infection* in the human or animal body. If the term contagion was used only in the broadest sense, namely: "Immediate *or mediate* contact between a person or animal suffering from the disease and a person or animal free from it," it would not be so bad, but the *mediate* contact is apt to be lost sight of and the "limited environment under which communicability is operative" only recognized.

In all contagious diseases there must be an *immediate contact of the contagium with the person or animal to become diseased.* In other words, there must be an infection. If the word contagion is still to be used, it should only be as synonymous with infection. The intermediate agency in the transmission of the contagium would not then be lost sight of.

January 30, 1899.

THE SPELLING OF CERTAIN WORDS.

By H. C. WOOD, M.D.,
of Philadelphia.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

DEAR SIR:—Probably none of your readers has watched with more pleasure the brilliant career of the PHILADELPHIA MEDICAL JOURNAL under your original and able management than I have, but I have long been a little annoyed by what may seem a very trifling matter, but which, in my thought, has very definite importance.

The vagaries of scientific nomenclature are perhaps only equaled by the vagaries of the metaphysics, and the reasonableness of any system of nomenclature apparently depends simply on whether it is in accordance with what the last man has said or not. In obedience with what I suppose may be considered the latest "fad" in scientific nomenclature, the PHILADELPHIA MEDICAL JOURNAL habitually drops the "e" from such names as "quinine" and "strychnine," printing them "quinin" and "strychnin." The importance of this matter grows out of the fact that the medical profession of the United States owes allegiance to the U. S. Pharmacopoeia, and in leading the profession away from the Pharmacopoeia, even in the slightest thing, the PHILADELPHIA MEDICAL JOURNAL is doing a great harm.

In Continental Europe, obedience to the National Pharmacopoeias is enforced by law. The U. S. Pharmacopoeia has a certain amount of legal authority, but the general obedience of the profession to it is voluntary; if this obedience, however, be withdrawn, endless confusion must arise. The reason that if a practitioner of medicine anywhere in the United States writes for tincture of nux vomica he gets a preparation of a known definite strength, is chiefly based upon a custom founded upon voluntary obedience to the Pharmacopeia.

The U. S. Pharmacopoeia gives as the official name of quinine "quinine," not "quinin;" "strychnine," not "strychnin;" and so on through the whole list of alkaloids. In this it is in conformity with the British Pharmacopoeia, both Pharmacopoeias agreeing that alkaloidal substances shall have the terminal "e," glucosides and resinous principles shall drop the terminal "e." Hydrastine is an alkaloid; hydrastin is a resinous extract; and when the practitioner writes "hydrastine" he gets or ought to get the alkaloid; when he writes "hydrastin" he gets or ought to get the resinous precipitate. It seems to me perfectly plain that this dropping of the final "e" is not only a breaking away from supreme authority and an undermining of that voluntary submission to the Pharmacopoeia, which is the basis of the practice of medicine in the United States, but that it will also lead directly to endless confusion.

Whether the nomenclature of the Pharmacopoeia is or is not scientifically correct seems to me a matter of small moment, and entirely beyond the present question. In 1900 the convention for the revision of the U. S. Pharmacopoeia meets. If the nomenclature be incorrect let us have it changed at the revision of the Pharmacopoeia; but so long as the Pharmacopoeia exists, just so long should the physician use in his prescribing and in his writing the official name of the substances written about, and not some name which he judges to be in accord with the latest fad of the day. The revisors of the U. S. Pharmacopoeia and the experts who worked upon the British Pharmacopoeia are among the foremost chemists, pharmacists, and therapeutists of the world, and the probabilities are that what they have adopted is the better thing after very careful consideration and wide discussion. Scientific accuracy in medical nomenclature has never been aimed at by the Pharmacopoeia as a chief good; it is often very properly sacrificed to practical utility, that is, to obtaining a unity of usage in regard to names. Thus Wild Cherry Bark was originally named Prunus Virginianus; but when it was discovered that it was the product of the Prunus Serotina, the Pharmacopeia Committee retained the old name because it was in universal use, although it (the old name) was proven to be a misnomer.

Now, if the ultra-scientific or would-be ultra-scientific physician wants to be superior to authority, alters the spelling of all his alkaloids, calls Prunus Virginiana, Prunus Serotina, invents new names to suit his scientific tastes for various drugs and preparations, and so starts on his flight away from standard authority, the medical profession and the people of the United States must eventually suffer.

I sincerely hope that your JOURNAL will see its way hereafter to conform to the national standard, using its influence, if you please, to change the national standard whenever the latter is wrong, but bowing always in this as in other general governmental matters to the will of the majority when that will has been exercised through the proper legal channels.

THE STERILIZATION OF INSTRUMENTS WITH FORMALDEHYD.

To the Editor of the PHILADELPHIA MEDICAL JOURNAL:—

IN your issue of February 4, Dr. H. O. Reik, of Baltimore, makes the following statement in an article entitled, "On the Sterilization of Instruments with Formaldehyd:"

> "I have heard complaints from several individuals using the so-called Schering formalin sterilizer, and an investigation has shown that its failure was due to the fact that little or no attention had been given to having it air-tight in the first place, and as tin bends so easily there is every chance for the door to become distorted and permit free escape of the gas."

We quite agree with Dr. Reik in his statement that a formalin sterilizer must be air-tight. The Schering sterilizer is made of extra heavy tin; the door projects almost half an inch over the walls of the oven, and is especially protected with a wire flange. It requires very rough handling indeed to bend it out of shape. The hasp of the door is of brass, and is so constructed that it closes the aperture very tightly. The apparatus is perfectly air-tight, and its closure cannot be rendered imperfect by any ordinary or proper use.

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[2] American Edition, 1895, page 28.

As regards the material of which our sterilizer is made, it was selected for good and sufficient reasons. That made by Mr. Meyrowitz for Dr. Reik is for small instruments, such as those that oculists use, and is not large enough for the general physician and surgeon. Our own is large enough to contain the obstetric forceps, the instrument in general use that of all others most commonly needs sterilization. To have made so large a sterilizer of copper would have made its price prohibitive, as was found from an estimate furnished us by Mr. Meyrowitz. Besides this, the Schering Chemical Works, who have had a large experience with formalin sterilization, have advised us that tin is better than copper for the purpose, since it is a poorer conductor of heat, besides being cheaper. This former property insures a steadier maintenance of temperature in the box at the desired level and diminishes the condensation rate of the gas contained in it. Besides all this, the flexibility of copper sheathing makes it quite inappropriate for a sterilizing box as large as ours.

Dr. Reik refers to the investigation made by Dr. E. G. Horton, of the Department of Hygiene of the University of Pennsylvania, which appeared in the *Dental Cosmos* of July, 1898. Dr. Horton concludes that infected dental instruments can be disinfected without injury in a closed space of less than one cubic foot, by an exposure for fifteen minutes to the formaldehyd gas generated from a pastil containing five grains of paraform. The pastil is to be vaporized over a proper alcohol lamp. The fact is that Dr. Horton undertook his work at the request of Dr. Edward C. Kirk, Dean of the Department of Dentistry of the University of Pennsylvania, who furnished him for that very purpose a *Schering formalin lamp, five-grain formalin pastils*, and a *Schering sterilizer made of tin.*

In fact, Drs. Reik and Watson, in their report published in the *Bulletin* of the Johns Hopkins Hospital, December, 1897, make the following statement:

> "After using two ordinary alcohol lamps we abandoned them for the Schering formalin lamp, which we found far more efficacious, generating far more gas with the oxygen at our disposal, and being much more economical in its use of alcohol."

Dr. Reik found that producing the gas outside the sterilizing chamber and leading it in by means of tubes, etc., was not satisfactory; and he himself adopted the simpler method of placing the Schering formalin lamp in the lower part of the chamber employed. It is a well-known fact that dry formaldehyd has very little disinfecting power. The gas evolved by simply heating the paraform pastils is, in the small quantities in question, almost valueless for disinfection, and its production is not unattended by risk. It is an essential part of the Schering process that a sufficient quantity of watery vapor and carbonic acid should be mixed with the formalin vapors evolved by heat to prevent repolymerization. These are formed by the combustion of alcohol, and this fact is utilized in the Schering formalin lamp in the most direct and practical manner. The construction of the lamp is such that formaldehyd gas, carbonic acid gas, and watery vapor are necessarily evolved together and mixed, thus insuring an absolutely safe and thorough disinfection.

The latest investigations of Professor Flügge, published in the *Zeitschrift für Hygiene und Infectionskrankheiten*, Vol. XXIX, No. 2, December 9, 1898, show the preeminent importance of the presence of watery vapor together with the formaldehyd. He found that the disinfecting power of Schering's formalin lamp was greatly enhanced when the amount of watery vapor present in the air was increased.

Dr. Reik stated in his first report that instruments could be sterilized in a small chamber within fifteen minutes if three grains of paraform to the cubic foot of air-space were vaporized. Inasmuch as the Schering sterilizer is of one cubic foot capacity and five grains of paraform are volatilized, it is evident from his own statements that 40% of the gas evolved might escape, and there would still be enough left to effect the sterilization. Our own experiments, and those of many well-known physicians, show that no odor of formaldehyd is noticeable within a few inches of our cabinet in which five grains of paraform have just been volatilized. The gas does not escape from the Schering sterilizer whilst the door is closed. Of this the abundance with which it comes out when the door is opened is an additional proof.

It is evident from the above that the Schering japanned tin sterilizing box answers the purpose as well as the copper one, and possesses the additional advantages of being cheaper, of not conducting heat so rapidly, and of lessening the amount of condensation of the formaldehyd vapors. In any case the mere construction of the metal cabinet is a very subsidiary matter. We have frequently advised physicians who have consulted us on the matter, that any ordinary tightly-fitting box would answer, providing that the formalin pastils are vaporized in a lamp that prevents the repolymerization of the formaldehyd. The experiences of Drs. Reik, Watson, and Horton have shown that the Schering lamp is the only one that will do this.

Yours respectfully,

Schering & Glatz.

Inter-Relation of Nervous Affections and Diseases of the Female Generative Organs.—Sherwood-Dunn (*Annals of Gynecology and Pediatry*, January, 1899) discusses the relation of the diseases of the female generative organs to nervous and mental affections. In operating for diseased conditions in the pelvis, one does not expect to remove the symptoms of the neuroses, but only the symptoms properly belonging to the pelvic disease itself. Disease of the pelvic organs and affections of the nervous system are so frequently concomitant and interdependent that the neurologist is, by far, less likely to give due consideration to the pelvic troubles than the gynecologist to the neuroses, because of his lack of practice and natural repugnance to propose and pursue vaginal examinations upon the patients that come to him. There is perfect truth in the claim of the neurologists that ill-health in women is frequently the cause of her uterine troubles; but it is even more true that the various diseases of the uterus and its adnexa are the exciting cause of the ill-health that frequently induces morbid changes in her central nervous system. The exact knowledge that exists of their physiologic action compels a belief that these organs form the most prominent links in the chain of woman's health of both mind and body. It is unreasonable and unscientific to style a woman neurotic, hysteric, hypochondriac, and treat her accordingly, ignoring the while local disease of her pelvic viscera, which aggravates and accentuates, and in many instances is the exciting cause of these neuroses. All gynecologists have seen cases with gross pelvic lesions and markedly grave hysteric symptoms dating from or after the commencement of the pelvic lesions, and which at first sight seemed the result of pelvic disease, and it is only logical to think that the removal of the evident source of irritation would correct the nervous trouble. [W.K.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending February 25, 1899:

Monday, February 20—Neurological Society.
Tuesday, February 21—College of Physicians, Section on Ophthalmology.
Wednesday, February 22—County Medical Society.
Thursday, February 23—Pathological Society.

Dr. Jacob M. DaCosta has been elected a member of the Board of Trustees of the University of Pennsylvania.

St. Agnes' Hospital, Philadelphia.—Dr. Francis M. Perkins was recently elected president, Dr. J. P. Crozer Griffith, vice-president, and Dr. A. O. J. Kelly, re-elected secretary of the medical staff.

Dr. Horace Ladd, who was recently summoned to appear before the coroner to explain the cause of the death of a lady whom he had attended professionally, and who died under somewhat suspicious circumstances, was fully exonerated from all blame in the matter.

Atlantic County (N. J.) Medical Society.—At a meeting held February 8th, the following officers were elected: President, Dr. A. D. Cuskaden; vice-president, Dr. Walter Reynolds; secretary and treasurer, Dr. Wm. Edgar Darnall; reporter, Dr. E. Marvel.

For the Better Prevention of Measles.—In a communication to the Board of Health, recently, Dr. Benjamin Lee, Health Officer, states that while last year's statistics show 114 deaths from scarlet fever, 234 were credited to measles. In view of the fact that in addition to this large death-rate a case of measles generally leaves a patient with permanent disability, Dr. Lee thought that the preventive measures usually enforced in regard to scarlet fever and other contagious diseases should also be adopted with regard to measles. The matter was referred to the Sanitary Committee.

Vital Statistics of New Jersey for 1898.—According to the recently issued report of the State Board of Health, it appears that there were 27,337 deaths in New Jersey during the year ending June 30, 1898. This is 2,485 less than the preceding year, and 2,699 less than the average for 8 years, notwithstanding the increase of population. The death-rate per 1,000 population was only 15.10, the lowest shown in 20 years' record. There has been a general diminution in preventable diseases. The lowest death-rate was in Ocean County, 10.34 per 1,000; Cape May County is second with 11.08; Bergen and Sussex Counties are a tie for third place, with 11.09. The rate in Passaic County is 15.63. Essex County has the highest death-rate, 18.87.

Sand-Filtration in Pittsburg.—After two years of investigation a commission on water-supply in Pittsburg has recommended a system of sand-filtration, estimated to cost $1,700,000. The commission says that the investigation narrowed itself down to a recommendation either of the sand system or a mechanical system. An examination of the relative efficiency of the two methods in the light of experience showed that, so far as the removal of bacteria from the water is concerned, the sand-filter leaves but little to be desired. In addition to bacterial efficiency is the question of the adaptability of the effluent for steaming purposes. The effluent, which yields a minimum scale-formation, and shows no corrosive action upon the points in the boiler generally first exposed to the attack, is, all other things being equal, to be preferred. Here again the sand-filter appears to have given the best satisfaction.—[*Evening Post.*]

In Re "Embalmed Beef."—According to the New York *Evening Post*, more evidence of the use of boracic acid as a meat-preservative comes from Philadelphia. A soap-maker in that city, who purchases the excess-fat from the market-stalls, says that, about five years ago, he noticed that something in connection with the tallow was preventing its union with the lye in the soap-making process. He concluded that there was an acid of some kind in the tallow, and, on making that statement to the firm that supplied the tallow, it was admitted that the meat-men were using a wash for the meat, and that it was boracic acid. He asked if the fluid was injected in the meat, and was told that it was used only on the surface before the meat was put into the ice-chest. The soap-manufacturer adds that he has often since that time noticed in butcher-shops that meat that had been undeniably washed with a preserving liquid or powder was avoided by the flies, while they would swarm on untreated meat. He had observed also that he had less trouble with the acid in cold weather, when it was presumable that less of the preservative was used.

Vital statistics of Philadelphia for the week ending February 11, 1899:

Total mortality		569
Children under 5 years of age		149
Diseases.	Cases.	Deaths.
Pneumonia 90, congestion of the lungs 7 . .		97
Pulmonary tuberculosis 67, intestinal tuberculosis 2		69
Typhoid fever	339	41
Heart-disease 34, fatty degeneration of the		28
heart 5, inflammation of the heart 2 . . .		41
Nephritis 30, uremia 6		36
Apoplexy 22, paralysis 9		31
Diphtheria 20, membranous croup 6 . . .	78	26
Marasmus 11, inanition 8, debility 3		22
Inflammation of the brain 16, congestion of the brain 3		19
Senility		18
Carcinoma 16, tumor 2		18
Gastroenteritis 15, cholera infantum 2 . . .		17
Influenza		15
Convulsions		14
Bronchitis		12
Scarlet fever	35	2
Cerebrospinal meningitis		1
Casualties 7, peritonitis 7, pertussis 7, cyanosis 5, cirrhosis of the liver 4, hernia 4, suicide 4, abscess 3, erysipelas 3, pleuritis 3, suffocation 3, asthma 2, diabetes 2, malaria 2, hemorrhage 2, alcoholism 1, diarrhea 1, dropsy 1, dysentery 1, puerperal fever 1, gangrene 1, homicide 1, laryngitis 1, appendicitis, 1, measles 1, gunshot wounds 1.		

The Municipal Hospital of Philadelphia.—In his annual report, recently submitted to Director Riter, Dr. William M. Welch states: "The occurrence of smallpox in the city warrants my calling attention again to the inadequate accommodation at the hospital for the care of such patients. The principal buildings are constantly occupied by diphtheria and scarlet-fever patients, leaving only a small and cheaply constructed building, with bad ventilation and not sufficiently tight to exclude the rain, for the accommodation of smallpox patients. The capacity of this building is only twenty-four beds, which would be filled in a very short time should smallpox once commence to spread in the city. I would suggest that the proper time for a large city like Philadelphia to make preparation for smallpox epidemics, which have prevailed frequently, and are sure to recur from time to time, is when the disease is absent. In such cities, it is important that ample provision should be made to take care of the scattered cases which first make their appearance, and which are usually the precursors of an epidemic. If this is done effectively, the epidemic may be arrested, or, failing such complete success, its extent and duration may be greatly diminished. To undertake to improve accommodations after an epidemic has established itself, is not only very extravagant, but commonly ineffective.

"The number of patients admitted to the hospital during the year was 1,797. This is considerably less than during the preceding year, in which the number admitted was 2,179. The decrease is to be accounted for by scarlet fever having been less prevalent in the city than in 1897. The number of cases of this disease admitted during 1897 was 858, as against 380 for 1898.

"The diphtheria patients, which have constituted the bulk of admissions for some years past, did not differ considerably in number from the preceding year. The difference, however, was in favor of 1897, when 1,295 cases were admitted, while in 1898 the admissions were 1,229.

"After an absence of three years, smallpox made its appearance in the early spring of the past year. Only two cases occurred at that time. The infection was received from cotton, which came from an infected port. In the latter part of November five cases were discovered in the southern part of the city. The infection, in this instance, was brought from Norfolk, Va., where smallpox was prevalent. The patients all lived together, and were all sent to the hospital. In the family were two children, aged 10 years, who were not sick, but were sent to the hospital as a precaution. Both had been recently vaccinated, and, as neither took the disease, it proves the efficacy of vaccination as a protective agent against smallpox."

Pathological Society of Philadelphia.—At a meeting held February 9, Dr. H. F. Harris read a paper entitled, **Some remarks on the technic and relative value of paraffin and celloidin embedding.** He described at length the modifications of the paraffin embedding that he had found most useful, and stated that he preferred the use of cedar-oil prior to embedding in the paraffin. He believed that in general work and in class-work, paraffin would be found much more desirable than celloidin. The various manipulations were stated to be less tedious, results more accurate, and the cutting of thinner sections much facilitated. Celloidin is to be preferred when very dense tissues are to be cut, or very large sections are desired. The requisites necessary to secure good results in cytologic research were minutely described. Dr. Harris also described **an easy and rapid way of preparing hematein solution.** This consists of the addition of mercuric oxide to ordinary hematoxylin to facilitate the oxidation of the latter to hematein. In the discussion, Dr. A. O. J. Kelly stated that despite the arguments advanced by Dr. Harris, he much preferred celloidin to paraffin for general work, but admitted that the question is largely a matter of personal likes and dislikes. Paraffin is to be preferred in the very finest cytologic work, when certain microchemic reactions are to be investigated, when it is desirable to cut very thin sections or serial sections, or for purposes of photomicrography. Dr. M. V. Ball asked whether paraffin or celloidin is to be preferred in studying bacteria in tissues. Dr. M. B. Hartzell stated that hematein had given unsatis-actory results in his hands, and that he much preferred the acid hematoxylin stain of Ehrlich, this being a most precise nuclear stain. Dr. W. M. L. Coplin referred to the great advantages possessed by paraffin in class-work, in that one is enabled to store the embedded tissues for years, and by the use of a proper index to always have the desired tissue at hand with little difficulty. Dr. David Riesman spoke of the differences in the ripening of hematoxylin solutions and thought the recommendations of Dr. Harris worthy of trial. He stated his belief that celloidin-blocks kept in alcohol did not deteriorate because of the alcohol per se, but because of the presence of extractives from the wooden blocks. These disadvantages may be obviated by the use of vulcanized fiber. He thought it also an easy matter to keep an index of specimens embedded in celloidin. Dr. Harris replied that paraffin is to be preferred for the study of bacteria in tissues. He believes that nuclear figures of mounted celloidin-specimens kept for some time in alcohol, are demonstrated with difficulty.

Dr. H. L. Williams reported a case of **primary carcinoma of the right suprarenal gland,** in a woman aged 49 years. An abdominal growth being considered an indication for operative intervention, it was found on opening the abdominal cavity that the tumor did not permit of removal. A small section of it, however, was removed, examined microscopically, and a diagnosis of carcinoma made. Subsequently at the necropsy a large, hard, nodular mass was found outside the peritoneum and occupying a considerable portion of the right abdominal and pelvic cavities. Both adrenals were found enlarged, the right kidney affected, and the growth extended along the ureter into the pelvis. Microscopically the tumor was thought to present the appearances of a carcinoma, though it was admitted that it might possibly be an endothelioma. Dr. A. O. J. Kelly stated that he regarded the tumor as an instance of a combined interfascicular plexiform and alveolar endothelioma. The correctness of this view was considered confirmed not only by the general histologic appearances of the tumor, but also by the fact that the tumor-cells were rather of the connective tissue than of the epithelial type, by the intimate association existing between the tumor-cells and the connective-tissue stroma, and other characteristics. It was thought that the tumor did not originate in the right adrenal, because of the implication of both adrenals, and because tumors of the adrenal do not present appearances similar to the tumor under consideration. Dr. L. M. Allen mentioned some interesting facts related to the clinical history of the case. Dr. Williams admitted the possibility of the tumor being endothelial, but thought that it probably originated in the right adrenal, though there was more or less speculation concerning this point.

Drs. H. C. Masland and W. W. Babcock, Jr., presented a specimen of **Paget's disease of the nipple of 13 years' duration without carcinomatous involvement of the mammary gland.** The patient was a woman, aged 55 years. Microscopic examination of the breast after amputation failed to detect any carcinomatous involvement. It was thought that this immunity might be explained by the absence of milk-ducts consequent upon a small abscess of the nipple, which the patient had suffered during early life. The microscopic lesions and the probable nature of the affection were dwelt upon at length. Dr. H. F. Harris commented upon the presence of mast-cells in the epiderm as of interest, and asked if many plasma-cells were present in the round-cell infiltration. Dr. M. B. Hartzell stated that Paget's disease has been known to occur in the scrotum, and that the absence of milk-ducts in the case reported cannot be held accountable for the non-involvement of the breast by carcinoma. He said that histologically there is nothing characteristic in the condition, and that the preferable name is malignant papillary dermatitis. DR. BABCOCK replied that the majority of the cells of the round-cell infiltration were polynuclear leukocytes, and he thought a considerable number were plasma-cells. He stated that in cases of Paget's disease occurring elsewhere than in the breast, the subsequent involvement is rather epithelioma, whereas in the breast it is likely to be glandular carcinoma, and he thought that the absence of the milk-ducts in the case reported might with reason be held accountable for the non-occurrence of carcinoma in the breast.

DR. JOHN B. SHOBER reported a case of **villous tumor of the rectum.** Clinically the patient had complained of rectorrhagia and rectoralgia. On examination a semi-solid globular tumor-mass was found attached to the wall of the rectum about 2 inches from the anus. Upon microscopic examination, by Dr. H. L. Williams, the growth was found to be a villous tubular papillary adenoma. DR. H. L. WILLIAMS presented microscopic preparations of another similar case. DR. W. W. BABCOCK referred to another case that he had observed.

DR. SHOBER presented also microscopic preparations of a **carcinoma of the male nipple.**

NEW YORK.

New York School of Clinical Medicine.—Dr. Wm. L. Leszynsky has been elected professor of diseases of the nervous system; Dr. Ludwig Weiss, professor of dermatology, has been elected president of the Society for Medical Progress. Dr. Wm. Hutson Prioleau has been appointed assistant to Prof. Ferd. C. Valentine.

A National Health-Commission.—The Board of Trade and Transportation adopted a few days ago a resolution again appealing to Congress to enact the Spooner bill for the establishment of a National Health-Commission. It asserts that this commission would be a great help towards preventing the annual slaughter of 150,000 persons by communicable, and, therefore, preventable diseases. The resolution goes still further and blames the Marine-Hospital service for "being constantly present at Washington to interfere with every change that in any way interferes with its supreme control in health-matters."

Work of a Red Cross Auxiliary.—A final meeting of Auxiliary No. 3 of the Red Cross was held the other afternoon at the home of its president, Mrs. James Speyer, 257 Madison Avenue, New York. The other members of this committee are Mrs. Whitelaw Reid, Mrs. Edmund L. Baylies, Mrs. Charles B. Alexander and Mrs. W. S. Cowles. Besides sending out thousands of garments, these ladies have paid for the services of upwards of 600 nurses, for longer or shorter periods, during the late war; they have cared for hundreds of convalescent soldiers at Peekskill and Atlantic Highlands, and they kept the hospital cars "Wayne" and "Franconia" running last summer between Camp Wikoff and Long Island City.

Opposition to the Pharmacy Bill.—There is at present before the New York legislature a measure which has been before the public a good deal during the past year or two, and which is ostensibly intended to relieve drug-clerks from long hours and excessive work. At a dinner of the Alumni Association of the Brooklyn College of Pharmacy, February 8, this bill was severely denounced by Dr. William Muir, and he was loudly applauded at the conclusion of his speech. He is a member of the Municipal Board of Pharmacy and of the Kings County Pharmaceutic Society, and an ex-president of the association. He declared that the pharmacists, as a body, were opposed to the measure, the real object of which was to degrade the pharmaceutic profession to the level of a labor organization. It had been presented by a league in favor of shorter hours for pharmacists, but was opposed by every pharmaceutic organization in the district which would be affected by it if enacted, *i. e.* Greater New York.

Disease-Germs in Telephones.—There has been a revival of interest in the question of the possible danger of the dissemination of disease by telephones. In 1894, Dr. Walter T. Sheele examined many telephones in New York City to determine whether or not pathogenic germs were commonly present in these instruments. His method was to wash the telephone transmitter with a mixture of two parts alcohol, one part ether, and one-half part glycerin, and then, after the evaporation of the alcohol and ether, to examine the residue under the microscope. He claimed to have discovered in this way the presence of various disease-germs, such as of tuberculosis and influenza, together with particles of decaying food, which furnished an admirable culture-medium. Many complaints having recently reached the Board of Health regarding the dirty condition of public telephones, President Murphy ordered an inspection to be made, and it is said that several cultures taken from prominent public telephones are now being examined at the bacteriologic laboratory of the department. Anyone who has noticed the quantity of moisture that condenses within the transmitter of a telephone after a prolonged conversation, or who has reflected on how easily such an instrument may be contaminated by a dirty mustache, will feel little surprise if these bacteriologic examinations confirm the reports from Europe regarding the common lodgment of germs in such places.

Corrections by Dr. Paul F. Mundé.—In reference to our correspondent's report of the meeting of the Section on Gynecology and Obstetrics of the New York Academy of Medicine, held January 26, JOURNAL of February 4, Dr Mundé writes:—

"In the discussion of Dr. S. S. Jones' paper on 'Unguentum Cred in Puerperal Sepsis,' I am made to say that 'puerperal sepsis wa purely a surgical disease, and demanded surgical measures. H would operate in nearly all cases, but he thought unguentum Cred might be used in some cases.'

"This report not only fails to convey the substance and meanin of what I said, but is so utterly incorrect that I cannot, in justice t Dr. Jones and myself, allow it to pass. What I believe and said was that 'puerperal sepsis is, in many instances, a surgical disease, dependent on a local focus of infection, and no one would hesitate fo a moment to remove such a source of infection by surgical means a soon as it was detected, whether it be a decomposed bloodclot, a putrid piece of decidua or placenta, a pelvic abscess, a suppuratin tube, or the septic uterus itself. The difficulty was to decide whe the uterus was so diseased as to warrant its removal, a decisio which could often be made only at the autopsy.

"'But there are many cases of puerperal sepsis where no loca cause of infection can be discovered, and these are the worst case and a majority of them prove fatal. It is for these mysterious case that a remedy which will destroy the septic germs is sought, and f that reason I hailed with joy the streptococcic antitoxin, and we comed the unguentum Credé, and would certainly give the latter trial.'"

"This, and more, is substantially what I said, and evidently di fers materially from your reporter's version, condensed even as necessarily had to be. Even if condensed, it might have been correc

"Your reporter further makes me say, in his abstract of my p per on 'Torsion of the Ovarian Pedicle,' read at the same meetin that 'the frequency of twisted pedicles is 29 in 430 cases of ovari tumor,' or 2 per cent. What I did say was: 'I have met with instances (of twisted pedicle) in 438 abdominal sections for ovari disease, or about 6 per cent.'"

[The correspondent responsible for this report is no long connected with the JOURNAL.—ED. PHILA. MED. JOURNAL].

New York Neurological Society.—At the meeting of February 7, Dr. William Hirsch read a paper entitled, **The relation of infantile spinal paralysis to spinal diseases of later life.** He said that, among the theories that had been propounded to explain the relation between infantile paralysis and later spinal disease, was that of Charcot, which assumed that the old "scar" (like a tubercular focus) produced by the inflammatory process in the gray-matter of the anterior horns constituted a latent, but permanent, inflammatory focus, which might light up again in adult life. The speaker then reported a case that he had very carefully observed, and which, he thought, bore out this theory. The record was complete, as it included an autopsy, and a minute description of microscopic examination of a series of sections throughout the cord. The left anterior horn of the second cervical segment showed marked shrinkage and but few ganglionic cells. Throughout the cord there were proliferation of the bloodvessels and enlargement of the perivascular spaces. Beginning at the third cervical segment, and extending down to the third lumbar segment, was a fan-like proliferation of connective tissue, chiefly in the left anterior horn. At the sixth dorsal segment, all of the gray and white matter had been replaced by connective tissue. The fact that the cortical cells were normal pointed to this being a myelitis rather than a systemic disease. The order of development of the symptoms seemed to point to the origin of the later spinal affection from the so-called scar in the left anterior horn.

Embalmed Foods for New York City.—Following close upon the public excitement over the embalmed beef scandal come reports from all directions regarding the embalming of milk, butter and other articles of food intended for New York city consumption. Governor Roosevelt has already instituted inquiries, through the State Board of Health and the Department of Agriculture, regarding these abuses, and Senator Ambler has introduced into the Legislature a bill prohibiting the sale in this State of any dairy-product containing a preservative. The discussion over this proposed law has brought out certain interesting facts. At the hearing in Albany on February 6, the representatives of the Pacific Coast Borax Company endeavored to show that borax, as used in embalming food, is not injurious to the health. Prof. R. H. Chittenden, of Yale, upheld them in this contention, on the ground that the small quantity used for embalming (1%) did not interfere with the assimilation of food. He admitted, however, that borax was injurious in larger doses, and also that at times so much as 8% of borax was added for preservative purposes. The use of such preservatives in dairy-products was vigorously opposed by the butter exporters, who showed that the added chemicals retarded, but did not wholly prevent, putrefaction, and that such adulteration was wholly unnecessary, as cold and cleanliness sufficed to satisfy all reasonable demands for preservation. They also showed by statistics that this country was suffering a great loss by such adulteration of its dairy-products, for, with the exception of Great Britain and France, no foreign country would permit preserved butter to enter its markets.

The Commercial Sins of the New York Board of Health.—A new impetus has been given to the old dispute regarding the right of the New York Board of Health to sell vaccine and various antitoxins, by the recent editorial in the Philadelphia Medical Journal, and following this, the introduction, by Assemblyman Collier, of a bill into the legislature, the object of which is to prevent the sale of antitoxin by the Board. The Board of Health has already sent to Albany a committee, consisting of Drs. W. T. Jenkins, J. B. Cosby, Alvah H. Doty, and Herman Biggs, with instructions to oppose the passage of the bill. At a hearing given in Albany, February 6, Mr. J. J. Russell, of New York, stoutly maintained that there were several good reasons why the New York Board of Health should be taken out of business as a "commercial purveyor of remedies," and no good reason why it should be allowed to continue as a competitor in the market against a dozen other manufacturers of the same product. He added, that the Board, by reason of its large subscription of $30,000 (referring presumably to the antitoxin-fund) was in a position to undersell competitors. Not only this, but it sold its antitoxin to the physicians of Chicago at a lower price than to physicians and others in New York City, who pay the taxes to run the health department. Dr. Paul Gibier, of New York, is also prepared to fight the health board to the bitter end, as he claims that it has practically forced him out of business by its illegitimate competition. At one time, he asserts, he had 50 horses for use in the manufacture of various antitoxic serums, and was doing a good business. All is changed now; only one of the 50 horses remains, and if the legislature does not afford relief from this unhealthy competition of the health department, ruin will stare him in the face. In this connection, it may not be amiss to recall the fact that some years ago a prominent physician of New York City, and the editor of an influential medical journal, had a thriving vaccine-farm, but was compelled to give it up through the action of the same health department which still seeks to stifle private enterprise in order that it may satisfy its own greed.

New York's Pauper Children.—At a recent meeting of the State Charities Aid Association of New York, Miss Mary Clark gave some facts relating to homes for the homeless and the pauper children of the city. She said:

> "There are a great many young mothers with babies sent out daily from the maternity hospitals who have no one to care for them. There are only about one-third of these mothers unmarried, but it seems to be the fashion for some men to disappear just as soon as they are out of work. There are only two things for a deserted mother to do—put her baby in an institution or take it with her and try to support it. If she tries the first she intends to take the little one out as soon as she can, but she soon becomes accustomed to being separated from it, and leaves it there.
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> "Babies cannot stand the life of an institution; they need the individual care that the mother gives. We have collected statistics at Randall's Island, and 98 of every 100 babies under six months old taken there without their mothers die, and there is a larger death-rate among the foundlings, for they all die. A baby that is not reclaimed or adopted within the first few months dies. The institution-child with one parent is more desolate than an orphan, for there is no chance of its being adopted, the parent will not consent to that, and when it is 16 it goes out all unprepared to fight life's battle.
>
> "If the mother takes the baby it is very hard for her, for she is not strong, and is not apt to be a skilled workwoman. To meet the needs of all these women the association to which I belong has started an agency to obtain positions for young mothers with babies. In farmhouses back in the State, where domestic servants are difficult to obtain, they are willing to take these women. Ordinary maids will not stay, because they are lonely, but the mothers do not find life dull, for they have brought their own amusement with them. Since June, 1893, we have filled 1,150 positions with women taking babies. The babies thrive with the life, and the death-rate is less than 1 per cent.
>
> "It costs us $4.25 each, and, as these are cases which would come on the city's destitute list and cost over $300 annually for support, we save them a great deal. And it is the salvation of the women to have the responsibility of the child's life. We find it matures and develops them. It is dangerous to stifle the feelings of motherhood, and if the mothers do not have that they are apt to go to the bad altogether.
>
> "There is no city in the world that pauperizes its children like New York. We pauperize 35 out of 117 in the population, while in Philadelphia the proportion is about 1 in 2,000, in Boston 1 in 850 and in London sonething like 1 in 450. We have double the number of paupers of any city in the world."

Buffalo Medical Club.—At a meeting held January 18, Dr. Carleton C. Frederick read a paper upon **Subinvolution of the uterus,** in which, after stating that normally the involuted parous uterus should be but slightly larger than the nonparous, he reviewed the studies of Dr. Helme, calling attention to the early cloudy degeneration, to the presence of giant-cells, to the equally diffused atrophy and absorption of the muscle and connective tissue by a method akin to peptonization and absorption in the alimentary tract, and to the rapid obstruction of the blood-supply owing to the contraction of the uterine muscles upon the vessels. He drew attention to the uncertainty of the pathology of subinvolution because of the many conditions affecting, *i. e.*, age of patient, length of time since pregnancy, if suffered from subinvolution since delivery, cause of death, condition of health before final illness, and associated pelvic morbid conditions; and said that all must be known to determine whether an enlarged and unhealthy uterus was primarily one of subinvolution, or secondarily one due to other causes than pregnancy; in this connection he referred to the investigations of Klebs and of Kolb. Dr. Frederick believes that contraction of the uterus favors the process of involution by stimulating the activity of vascular and lymph circulation, literally squeezing out waste material; if there is imperfect contraction from any cause there is liable to be retarded and imperfect involution, therefore he thinks the proper administration of ergot good practice. Imperfect contraction follows postpartum hemorrhage, rapid succession of pregnancies, and retention of placental debris or of membranes; while lactation and nursing favor contraction; puerperal fever, especially if due to pelvic infection and its accompanying local inflammation, is a prolific cause of retarded involution because it lowers general vital activities and because the circulation and nutrition of the uterus are particularly disturbed. The essayist did not believe that premature delivery *per se* is a cause of subinvolution, but rather that the constitutional or local conditions necessitating or inducing such delivery are the causes, *e.g.*, general weakness, placenta prævia, renal or heart-lesions, and that these induce imperfect contraction, imperfect metabolism, or fever. He believes that more or less severe lacerations of cervix and of perineum are indirect causes of subinvolution, because of more or less grave sepsis following such injuries, and, therefore, asepsis should be the motto of all obstetricians while the immediate closure especially of perineal rent in a careful, clean and accurate manner should be accomplished. He believes that the subinvolution especially following induced abortion must be laid at the door of sepsis principally, and also to that of the absence of contraction due to undeveloped muscle-fibers, and also to that of retained membranes and that of profuse bleeding. He reminded his hearers that Thomas's chronic areolar hyperplasia may simulate subinvolution and be due to excessive venery, sexual starvation, gonorrhea, diseased appendages, and backward displacements; that chronic metritis and subinvolution are not synonymous from his standpoint, unless the uterus was chronically inflamed from previous pregnancy, when such inflammation was probably a complication accompanying the subinvolution. Dr. Frederick believes that the symptoms accompanying a subinvolution are rather due to such conditions as endometritis, salpingitis, perimetritis, adhesions, especially tubo-ovarian, and particularly to an easily impressed nerve-system with neurasthenia, than to the simple enlargement of the uterus; he quoted from Dr. Herman's writings in support of this position; consequently recognition and treatment of these states would be the treatment of the subinvolution. The essayist here detailed cases illustrating each condition. The prognosis in subinvolution is dependent upon the period of its existence and the recuperative powers of the patient, being in direct ratio thereto; in cases of long standing and poor recuperative ability only the menopause will completely cure. The only sure cure for subinvolution is pregnancy and a normal puerperium, but unfortunately these cases are usually sterile. In recent cases Dr. Frederick advises hot douches, ergot, hydrastis and general tonic treatment; in indicated cases local depletion by tampons or puncture, repair of lacerations, curettage, amputation of the cervix, correction of retroposition by pessary or operation; any or all combined with the rest-cure are likely to improve if not to cure the patient. Local should never supplant general treatment, but should always be rather secondary; if made the only treatment it is certain to end in failure.

NEW ENGLAND.

Harvard University.—It is announced that Harvard University has been enriched by a large sum of money for the endowment of a professorship of hygiene from one who withholds the publication of his name.

Thurber Medical Association of Milford, Mass.—At a meeting held February 2, Dr. J. M. French read a paper on the The Evolution of a Local Medical Society, in which he sketched briefly the development of the Association from its organization in 1853. A discussion ensued on the advisability of changing the local association to a district medical society, which would be a branch of the Massachusetts Medical Society. After a careful consideration of the advantages and disadvantages arising therefrom, it was unanimously decided not to make the proposed change.

"The Liberal Consultation Fee."—A "maternity and gynecological hospital," of Boston, in its widely distributed circulars, says that it is not the duty of the physician to inquire whether the patient is married or single, etc., and follows this with the usual "infants adopted, or good houses provided for them," and the rest. In harmony with this, the following copy of a letter to a physician is in order:

CONFIDENTIAL.

Dear Doctor:—In calling your attention to the superior advantages of our Private Maternity and Gynæcological Hospital, and inviting your valued co-operation, we are not unmindful of the fact that the family practitioner usually obtains the minimum fee for the maximum service; and we, therefore, deem it but a matter of equity and justice that the physician sending us a patient is at least entitled to a liberal consultation fee. As your patients necessarily come through the recommendation of the profession, we feel it not only our duty, but a pleasure, to set aside as a compensation for such consultation, 20 per cent. of all fees received by us from patients thus recommended, remitting the same immediately in all cases.

All correspondence strictly confidential, and will receive personal attention.

Very respectfully yours,

——— ——— ——.

CHICAGO AND WESTERN STATES.

Michigan College of Medicine and Surgery.—Dr. John E. Bennett has been appointed lecturer on military hygiene and dietetics, and Dr. Hiram A. Wright, lecturer on psychology.

The South Dakota State Insane Asylum, located at Yankton, was destroyed by fire, February 12. Of the 40 patients and 12 female attendants in the building when the fire broke out, 17 patients—all women—were burned to death. The money loss approximates $18,000, with no insurance.

For the Prevention of the Spread of Smallpox in Arkansas.—The Arkansas Legislature has passed a bill appropriating $5,000 to the Board of Health for use in combating the spread of smallpox. It is proposed to establish quarantines, compel vaccination, and introduce other sanitary measures.

Physical Examination of the Chicago Public-School Children.—An investigation of the physical condition of the children attending the public schools of Chicago is about to be undertaken by the Board of Education. About 1,000 children, attending the elementary schools will at first be examined, and the results taken as a standard for the capacity of the children for physical exercise and mental endurance.

Illinois State Board of Health.—The annual meeting was held January 17, at which the following officers were elected: President, Dr. C. B. Johnson, of Champaign; secretary, Dr. J. A. Egan, of Springfield; treasurer, Dr. R. F. Bennett, of Litchfield. The additional members of the board are Dr. M. Meyerowitz and Florence M. Hunt, of Chicago; Dr. P. H. Wessel, of Moline; Dr. L. Idelsberger, of Waterloo; and Dr. J. C. Sullivan, of Cairo.

Indiana State Board of Medical Examiners.—At the annual meeting held during January, the following officers were elected for the ensuing year: President, Dr. W. A. Spurgeon, of Muncie; vice-president, Dr. J. C. Webster, of Lafayette; secretary, Dr. W. P. Curryer, of Indianapolis; treasurer, Dr. James M. Dinnen, of Fort Wayne. Licenses were issued to 30 applicants. Various amendments of the Medical Examiners' Law were considered, and are to be submitted to the legislature for enactment.

Medical Legislation in Michigan.—Another attempt is being made to induce the legislature to enact some law regulating medical practice. The bill at present being considered provides for the appointment by the Board of Regents of the University of Michigan of an examining board, the members of which shall conduct examinations in a manner similar to that which obtains generally in other States. There shall be three examiners in materia medica and therapeutics — one regular, a homeopathic, and an eclectic.

The Palmar Arch of Cleveland, Ohio, is an organization of licensed medical practitioners that meets semimonthly for the discussion of medical topics and for social enjoyment. At the annual meeting and banquet held February 1, the following officers were elected: President, Dr. L. E. Siegelstein; vice-president, Dr. W. H. Gifford; secretary-treasurer, Dr. Lester E. Siemon; speaker of the supreme council, Dr. Jacob Schneider; executive council: Drs. W. G. Meredith, G. Glenn Frost, J. C. Anderson, A. C. Buell, John T. Frawley, Wm. A. Mansfield, Chas. A. Bingham.

Special Courses of Lectures at the University of Michigan.—During the last few years it has been customary for the members of the medical faculty of the University of Michigan to give special lectures to the students of the department on subjects included in their original researches. The course begins this year February 25, when Dr. Dock will give the first of three lectures on malarial-fever, its course, and its pathology. Dr. Cushing will continue this course with four lectures on the mammalian heart. These lectures will be followed by four on military surgery, by Dr. Nancrede. The series will be closed by four lectures on yellow fever, to be delivered by Dr. Nory.

Chicago Medical Society.—At a meeting held February 8, Dr. F. Kreissl presented a patient 20 years old, with **vitiligo of the perineum** extending up to the perineoscrotal junction and down to the anus, the diameter in each direction about an inch. Corresponding with it was a congenital stricture which occupied all the tissues under the skin, down to the bulbomembranous urethra, causing a narrowing of the canal, and incontinence. Perineal operation and excision cured both conditions promptly.

He presented also a patient with **impassable traumatic stricture produced by a fall** on the edge of a board. It was made passable by electroysis, and cured by subsequent dilatations. At present a No. 29 sound passes without difficulty.

He also showed a patient with **prostatic hypertrophy and urine-retention** cured by Bottini's galvanocaustic radical treatment. The patient, 64 years old, suffered from hypertrophy of the prostate for 9 years, with calls to urinate every 15 minutes, day and night, residual urine 6 to 8 ounces; catheterizing was difficult, right and median lobe enlarged and projecting into the viscus; length of urethra 9½ inches, posterior 3 inches. Bottini's operation, Dec. 26. At present, 5 weeks after operation, calls to urinate every 4 hours during the day, once during the night, about 10 to 20 drops of residual urine. Patient feels well.

He showed also a patient with **pyelitis complicated by a plug of pus in the left ureter, causing temporary hydronephrosis and simulating renal calculi.** The plug was dislodged and removed by ureter-catheterization, after which all morbid symptoms disappeared immediately. There was a recurrence at the end of 3 weeks. Similar treatment was followed by equally favorable results.

Dr. Edward H. Ochsner presented a case of **syringomyelia.** The patient, aged 16, gave the following history: Family-history good. Perfectly well for eight years. Had severe attack of measles. One month following a blister formed on the inner surface of the metacarpo-phalangeal joint of great toe of right foot. A few weeks later a similar blister formed on the left foot. In a few weeks these developed into ulcers which persisted constantly until operated upon April 12, 1898. The wound healed kindly. A few months later an ulcer developed on the plantar surface of right foot opposite the metacarpo-phalangeal joint of second and third toes. Operated January 9, 1899. Present condition: Patient fairly well developed; cheerful disposition; heart, lungs and abdomen negative; muscles of neck, chest, trunk, and upper extremities well developed, and of normal strength; thigh-muscles slightly atrophic, leg-muscles markedly so; feet considerably deformed, marked flat-foot; ligaments having lost their tonicity and there being subluxation of all of the metacarpo-phalangeal joints; wounds have healed kindly, cranial nerves intact, and coordination good, tactile sense and muscle-sense unimpaired, but patellar reflexes lost; pain and temperature-sense of head, neck, chest, trunk, upper extremities and greater portion of thighs intact; pain and temperature-sense of both feet and ankles absolutely lost; passing upward pain-sense improves from middle of leg upward, and becomes normal at knees; temperature-sense normal a few inches above knees. The case is noteworthy, because, first, of the marked deformity of the feet; second, because of the tendency to the formation of ulcers over joints liable to pressure, and because of the rapid and complete healing of ulcers after removal of projecting bones and infected tissue; and third, because of the involvement of lumbar cord.

Dr. Jas. Nevins Hyde presented a case in which **carcinoma, syphilis and lupus coexisted.**

Drs. Hyde, Bevan and Hektoen presented a case of **blastomycetic dermatitis** with dermatologic, surgical and pathologic reports.

Dr. J. Homer Coulter presented a case of **pharyngomycosis,** in which **tonsilectomy** was performed with the cautery-snare in November, 1897. The follicles in which are usually found the mycosis were therefore absent. The growth seems, however, to be embeded in the mucous membrane covering the former location of the tonsils. Apparently therefore these germs do not necessarily require a pathologic crypt for their growth and maintenance. In the way of treatment silver nitrate, 180 grains to the ounce, was used and the cautery-point inserted in each center of infection. The use of H_2O_2 has proved of little advantage in the two cases thus far coming under observation. The cautery is, in Dr. Coulter's opinion, the only reliable treatment for the condition.

SOUTHERN STATES.

A serious epidemic of cerebrospinal meningitis is reported as prevailing in Morgantown, a town of 1,000 inhabitants in the western part of Kentucky.

Meningitis at Albany, Ga.—During the past few weeks 13 cases of meningitis have developed in Albany, Ga. Most of them affected negroes, and 11 have already proved fatal.

Clinical Society of Maryland.—At a meeting held February 3, Dr. Carey Gamble reported 4 interesting cases of **erythema exudativum multiforme,** which had come under observation during the past two years. Of the 4 cases 2 were males, aged 21 years and 25 years, respectively. The other 2 were sisters, one aged 7, and the other 14 years. Urticaria and purpura were present in all the cases. In one of them there was angio-neurotic edema. All the patients, particularly the two males, had suffered from severe nausea and vomiting. The joint-manifestations were marked in only one of the cases. Headache was severe in the two girls. Dr. Gilchrist objected to the disease being called erythema multiforme, and held that all such cases should be classified as cases of purpura hæmorrhagica. He had treated a case with calcium chlorid, with good results.

Dr. Winslow reported a case of **sarcoma of the kidney,** with nephrectomy, on which he had operated. The kidney was removed through an abdominal incision, as it was too large to be taken out through the usual lumbar incision. The patient is still living. It is one year since operation, but there are now evidences of secondary recurrences.

Dr. W. B. Platt read a paper on **Vertebral abscesses.** He stated that it is estimated that about 50% of all cases of tuberculosis of the vertebræ are accompanied by abscess-formation. The treatment was specially dwelt on, and that by placing the patient in bed in a horizontal position, with proper extension, was strongly advocated. Absolute rest thus obtained, with fresh air and good food as adjuncts, effected a cure of the disease in many cases, without resort to operation. Opening of the abscess with injection of a 10% suspension iodoform in glycerin was imperative when the abscess-formation had become extensive.

Memphis (Tenn.) Medical Society.—At a meeting held February 7, Dr. Edwin Williams read a paper on the **Diagnostic significance of vomiting,** describing the different diseases of which it may be a symptom. In the absence of a local cause, uremia is to be thought of. In vomiting of pregnancy, daily gastric lavage with a normal salt-solution containing oxalate of cerium and a small quantity of cocain was suggested. Vomiting after an anesthetic may be relieved by the inhalation of vinegar. Dr. E. C. Ellett said that Dr. Gunby of Sherman, Texas, has suggested gastric lavage as a means of preventing nausea after anesthesia. It is performed as soon as the anesthetic is withdrawn. Dr. Wm. Krauss said that while cocain relieves vomiting, an habitue will suffer from it if he takes more than his usual dose. Dr. G. G. Buford said the causes of vomiting act centrally or peripherally, and some act both ways. Anesthetics and narcotics arrest metabolism and the retained toxins cause vomiting by their central action. Dr. E. M. Holder had seen much seasickness, but knows very little of its cause or cure. Dr. Richmond McKinney has seen it relieved by atropia and strychnia. The President thought emesis should be more often used as a therapeutic measure, as in children many disorders are due to overloaded stomach. Dr. Williams thought sweating an instance of the continuation of metabolic activity during anesthesia.

Dr. R. B. Maury reported some cases from the gynecologic clinic at the City Hospital during January. Three cases of **cystitis** had been operated on by cystotomy with excellent results. Pain in the bladder, painful, difficult, and frequent urination, and deterioration of general health were present in all the patients. In one the cystoscope showed but slight cystitis, while the ureteral catheter showed pus in both ureters. In making cystotomy a fold of the vaginal wall is excised down to the mucous membrane of the bladder, which is then slit and united to the vaginal mucous membrane by a continuous catgut stitch. Medicinal treatment of cystitis is unsatisfactory. A case of **retroversion of the uterus** was operated on by suspension of the uterus after a pessary had failed to afford relief. Of the four operations: suspension of the uterus, ventrofixation, folding the round ligaments, and shortening the round ligaments, the first is usually the best. Convalescence from the operation is generally good and prompt. The last case reported was an **abdominal pregnancy of one year's duration.** Fetal movements ceased at term, and the patient's general health began to fail. The fetus was delivered through an abdominal incision. The placenta was desiccated and attached to the right broad ligament. The sac was tied off and enucleated. The uterus was pushed up and to the right. The patient did well until the thirteenth day, when she developed a bronchitis and died on the eighteenth day. In two similar cases Dr. Maury found the sac absent in one and the placenta attached to the intestines. In the other the sac developed between the layers of the broad ligament.

The Johns Hopkins Hospital Medical Society.—At a meeting held February 6, Dr. Hurdon reported a case of **primary carcinoma of the appendix.** The appendix had been removed by Dr. Kelly. The patient was a young woman aged 24. The proximal half of the tube was normal. The growth, which was very small and not yet bound down by adhesions although it had just invaded the serosa, was situated behind the expanded tip of the appendix. Microscopic examination of the diseased portion showed the characteristic features of an adeno-carcinoma Dr. Hurdon had been able to find records of 11 cases o primary carcinoma of the appendix. Three of these were of the colloid variety. Dr. Kelly, in discussing the paper said that in gynecological work he met with diseases of the appendix which could be classified into at least 3 groups. First, those in which the appendicular disease was independent, as in this case. Second, those in which the disease is dependent on affections of the pelvic organs, as for instance, when the appendix becomes bound down by pelvic adhesions. Third, where it becomes adherent to the scar at the seat of a former operation on the pelvic organs.

Dr. Laplace, of Philadelphia, demonstrated his now well-known **instrument** for facilitating the operation **for intestinal anastomosis.** He performed a lateral and an end to-end anastomosis before the Society, thus showing the ease with which the operation can be performed by the aid of his forceps. The instrument was intended to serve the purpose of Murphy's button and Halsted's rubber bag. Dr. Halsted, in the discussion, said that he believed the instrument would be of great assistance in the performing of intestinal anastomosis and intended giving it a trial.

Dr. Kelly described a new operation which he had performed on a patient suffering from an intractable **vesico-vaginal fistula.** The case was completely cured.

Dr. Flexner exhibited the pathological specimens from a case of **lymphatic leukemia,** as well as those from a patient with **adeno-carcinoma of the pancreas.** Dr. Futcher gave a brief account of the clinical histories of the cases. The patient with leukemia was 60 years old, and had noticed enlargement of his inguinal glands for the first time in September, 1895. He was admitted to the Johns Hopkins Hospital in March, 1896, with marked enlargement of the inguinal, pelvic, axillary, and posterior cervical glands. Even at that time the glands were more closely matted together than is usual in simple lymphatic leukemia. On admission, the leukocytes were 24,000 per cu. mm. and 94% of these were small mononuclears. Since that date the patient has been readmitted twice. The glandular enlargement had become enormous. The highest leukocyte-count during the last admission was 139,000, when the small mononuclears were 76%. A few days previous to this the latter were 84%. The patient had a terminal streptococcus-infection. Dr. Flexner was inclined to the view that the case was probably one of primary Hodgkin's disease, with the leukemic blood-changes as a secondary condition. A number of such cases had been reported. The liver contained nodules, the histologic appearance of which was identical with that of the lymphatic glands. The specimens of adeno-carcinoma of the pancreas were from a colored woman, aged 41. The symptoms had commenced in March, 1898, with intense, persistent jaundice, associated with nausea and vomiting. These, with the appearance of tumor in the umbilical region, enlarged gall-bladder and clay-colored and greasy stools, were the main symptoms during life. At autopsy the tumor in the umbilical region proved to be made up of two separate masses, the size of an orange and hen's egg respectively. They were situated in the body of the pancreas, and the larger caused a dilatation and obstruction of the common bile-duct. On microscopic examination the tumor proved to be an adeno-carcinoma resembling closely the structure of the pancreas. Dr. Flexner was of the opinion that these tumors originated in aberrant pancreatic glands included within the substance of the pancreas proper. There were metastases in the liver.

MISCELLANY.

Obituary.—Dr. and Mrs. Henry Elmo Keyes were accidentally suffocated by illuminating-gas in their apartments in New York City, February 6. Dr. Keyes was 29 years, and Mrs. Keyes 27 years, of age.—Dr. George H. Rohé, the distinguished alienist and superintendent of the Maryland State Insane Asylum, at New Orleans, February 6, aged 48 years.—Dr. Robert C. Stewart, Shippensburg, Pa., was asphyxiated by illuminating-gas, February 10, aged 49 years.—Dr. James Henry Etheridge, professor of gynecology in Rush Medical College, February 8, aged 54 years.—Dr. Joseph B. Goodenough, Long Branch, N. J., February 1, aged 73 years.—Dr. Alvin C. Henderson, New York, February 6, aged 50 years.—Dr. A. J. Kantz, Berrysburg, Pa., February 2, aged 62 years.—Dr. Rufus W. Peacock, Jersey City, N. J., February 7, aged 73 years.—Dr. Edward North, president of the Board of Health of Hammonton, N. J., was killed at a railroad crossing, February 11.—Dr. Harry A. Young, of Salt Lake City, sergeant in Battery A, Utah Light Artillery, was killed at Manila, P. I., during the engagement, February 8. He was 33 years of age, and a nephew of Brigham Young.

Changes in the Medical Corps of the U. S. Army.

Russell, First Lieutenant Frederick F., assistant surgeon, will proceed to Ponce, P. R., for duty.

Torralbas, Federico, acting assistant surgeon, will report for duty to Major-General William Ludlow, commanding department of Havana.

Pascoe, James B., acting assistant surgeon, will proceed from Bedloe's Island, N. Y., to Fort Adams for duty.

Byrne, Colonel Charles C., assistant surgeon, will proceed to Fort Slocum on public business and on completion thereof return to station.

Maus, Lieutenant-Colonel Louis M., chief surgeon, (major and surgeon U. S. Army), is honorably discharged from the volunteer service, to take effect March 31.

Ingram, Thomas D., acting assistant surgeon, is relieved from duty at the U. S. General Hospital, Fort Myer, and will proceed to Fort McIntosh for duty.

Jones, Robert F., acting assistant surgeon, leave granted is extended one month on account of sickness. Feb. 3.

Groff, Major George G., brigade surgeon, the part of the order of Jan. 23 which honorably discharges him, to take effect March 22, is revoked.

Harris, Major Henry S. T., brigade surgeon, upon the closing of the Second District Hospital, is relieved from further duty at Huntsville, Ala., and will proceed to Fort Sheridan for duty.

Wilson, Captain Wm. H., assistant surgeon, is granted two months' leave, to take effect upon the closing of the hospital at Bedloe's Island, N. Y. Feb. 4.

Williamson, First Lieutenant Lewellyn P., assistant surgeon, is relieved from further at Jefferson Barracks and will proceed to Havana, Cuba, for assignment to duty.

Buford, Oliver H., acting assisting surgeon, will proceed to Fort St. Philip for duty.

Griffin, Bertrand H., hospital steward, now at Camp Forse, Huntsville, Ala., is transferred to Anniston, Ala., for duty with the hospital corps detachment, Second Infantry.

Nelson, William H., acting hospital steward, now at Camp Forse, Huntsville, Ala., is transferred to Anniston, Ala., for duty with the hospital corps detachment, Second Infantry.

The following changes in the stations and duties of officers are ordered:

Mearns, Major Edgar A., chief surgeon, is relieved from his present duties and will proceed to Fort Adams for duty.

Gandy, Major Chas. M., chief surgeon, is relieved from further duty at the Josiah Simpson U. S. General Hospital, Fort Monroe, and from further station at Fort Mason, and will proceed to Fort Slocum.

Kendall, Major William P., brigade-surgeon, is granted leave for 15 days. Feb. 6.

Swift, Major Eugene L., brigade surgeon, is honorably discharged, to take effect Feb. 10.

Edmonston, Raphael A., acting assistant surgeon, is relieved from further duty at the Josiah Simpson U. S. General Hospital, Fort Monroe, and will proceed to New York City, and report to Major Alfred E. Bradley, brigade-surgeon, commanding U. S. hospital ship "Relief," for duty, and on arrival at Manila, P. I., will report for assignment to duty.

The following transfers are made:

Weyrauch, Paul, hospital steward, Fort Monroe to Hilton Head, S. C.

Stewart, Lyell R., hospital steward, Fort Monroe, to Fort Columbus, for transportation by the U. S. transport "Clearwater" to Havana, Cuba.

Echeverria, Major Rafael, brigade-surgeon, will report for temporary duty at Military Hospital No. 1, Havana, Cuba.

Bratton, First Lieutenant Thomas S., assistant surgeon, upon the expiration of his present leave, is relieved from further duty with the Third Cavalry, and will return to his proper station, Tybee Island, Savannah, Ga.

Church, First Lieutenant James R., assistant surgeon, is assigned to duty in command of the Officers' Hospital, Santiago, Cuba.

McGuire, William A., hospital steward, is hereby relieved from duty at the U. S. Army General Hospital, Santiago, and assigned to the Officers' Hospital, Santiago, for duty.

Waters, Joseph, hospital steward, is relieved from duty in the office of the chief surgeon, department of Santiago, and assigned to the U. S. Army General Hospital, Santiago, for duty.

Bushnell, Major George E., surgeon, will proceed to New York City on official business pertaining to the medical department of the Army, and on completion of his duty will return to his proper station.

Gibson, Major Robert J., surgeon, on the expiration of his present leave, is relieved from further duty at Anniston, Ala., and will return to his proper station, Fort Meade.

Kernachan, Major William J., brigade-surgeon, now at Fort Crook, will return to his proper station, Anniston, Ala.

Cleave, John W., hospital steward, now supposed to be at the Presidio, will proceed on the U. S. transport "Centennial" to Manila, P. I.

Woodruff, Major Charles E., brigade-surgeon, is assigned to duty at Benicia Barracks, and as attending surgeon at Benicia Arsenal, Cal.

Raymond, Captain Thomas U., assistant surgeon, medical superintendent transport service, will make an inspection of all troops ordered to sail from San Francisco, Cal., on U. S. transports for service in the Hawaiian and Philippine Islands.

Cleave, J. W., hospital steward, who was accidentally left behind at the time of sailing of the U. S. transport "Ohio" for Manila, P. I., will daily be in readiness to proceed on the next transport to Manila, P. I.

Bannister, Major John M., surgeon, is appointed a member of a board of officers to meet at West Point Feb. 13 for the physical examination of the cadets of the graduating class at the U. S. Military Academy, and such other cadets as may be ordered before it.

Duval, First Lieutenant Douglas F., assistant surgeon, is appointed a member of board of officers to meet at West Point Feb. 13 for the physical examination of the cadets of the graduating class at the U. S. Military Academy, and such other cadets as may be ordered before it.

Changes in the Medical Corps of the U. S. Navy,

for the week ending February 11, 1899.

Herndon, C. G., surgeon, detached from the "Columbia," when put out of commission, and ordered home to wait orders.

Drake, N. H., surgeon, detached from the "Minneapolis," when put out of commission and ordered home to wait orders.

Byrns, J. C., surgeon, detached from the "Puritan," when put out of commission, and ordered to continue duty at the Norfolk Navy Yard.

Stepp, J., assistant surgeon, detached from the "Justin," when put out of commission, and ordered immediately to the "Independence."

Blackwell, E. M., assistant surgeon, detached from the "Franklin" and ordered to the "Abarenda" immediately.

Sughrue, D. F., assistant surgeon, detached from the "Abarenda" and ordered home.

Berryhill, T. A., passed assistant surgeon, detached from the "New York" and ordered to the "Panther," by steamer of February 15.

Riggs, C. E., passed assistant surgeon, detached from the "Topeka" and ordered to the "New York" immediately.

McCullough, F. E., assistant surgeon, detached from the Naval Hospital, Mare Island, Cal., and ordered to the "Nero" immediately.

Stepp, J., assistant surgeon, detached from the "Independence" and ordered to the Naval Hospital, Mare Island, Cal., temporarily.

Wentworth, A. R., surgeon, relative rank of lieutenant, from October 9, 1898.

Sughrue, D. F., assistant surgeon, order of February 4, detaching from the "Abarenda" and ordering home, modified to temporary duty on the "Topeka," and when that vessel arrives at Boston, Mass., detached and ordered home.

Herndon, C. G., surgeon, ordered to temporary duty on the "Richmond."

Bogan, F. M., assistant surgeon, detached from the "Sterling" when put out of commission, and ordered to temporary duty on the "Wabash."

The following order was issued from the headquarters of the Army February 4:

Ross, John W., surgeon U. S. Navy, retired, having been assigned to duty under the War Department will proceed from Clarksville, Tenn., to Havana, Cuba, and report in person to the commanding general, division of Cuba, for assignment to duty.

Changes in the U. S. Marine-Hospital Service,

for the week ending February 9, 1899.

Purviance, George, surgeon, granted leave of absence for 10 days. Feb. 7.

White, J. M., surgeon, to represent service at a conference of health officers to be held at New Orleans, La., February 3, 1899. Feb. 9.

Guiteras, G. M., passed assistant surgeon, granted leave of absence for 10 days. Feb. 3.

Rosenau, M. J., passed assistant surgeon, to proceed to New York City for special temporary duty. Feb. 2.

Comfort, N. C., junior hospital steward, to report to acting assistant surgeon in temporary charge, Cincinnati, Ohio, for duty and assignment to quarters. Feb. 8.

Davis, Henry E., junior hospital steward, to report to medical officer in command, Boston, Mass., for duty and assignment to quarters. Feb. 8.

APPOINTMENTS.

McGinnis, R. H., of Florida, to be acting assistant surgeon for duty at the port of Jacksonville, Fla. Jan. 28.

Comfort, Newton C., of Pennsylvania, to be junior hospital steward. Feb. 4.

Davis, Henry E., of Massachusetts, to be junior hospital steward. Feb. 4.

The Value of Vaccination.—Apropos of our note of last week relative to the suit brought by a citizen of Philadelphia to compel a principal of a public school to admit his child to the school despite the fact that he had not complied with the law in regard to compulsory vaccination of school-children, some interesting statistics have recently been published in a brochure by Dr. W. H. Sanders, State Health Officer of Alabama, and are reprinted in the *Public Health Reports*, issued by the U. S. Marine Hospital Service. Dr. Sanders states:

There died annually, from smallpox, to every million of inhabitants—

Localities.	Before Vaccination.	After Vaccination.
Sweden	2,050	158
Austria	3,095	841
Trieste	14,046	182
Moravia	5,402	255
Silesia (Austrian)	5,812	198
Prussia (Eastern)	3,321	56
Berlin	3,422	176
Copenhagen	3,128	286

In other words, the mortality from smallpox in Copenhagen, after the introduction of vaccination, was only one-eleventh of what it was before; in Berlin it was but one-twentieth; in Sweden one-thirteenth.

In Boston, in 1721, with a population of 11,000, there were 5,989 cases of smallpox, with 850 deaths; in 1730, with a population of 15,000, there were 4,000 cases of smallpox and 500 deaths.

After the introduction of vaccination there were in Boston from 1811 to 1830, with a greatly increased population, only 14 deaths from this disease, and from 1881 to 1887, only 18. That is to say, in two separate years before the introduction of vaccination, there were in Boston 1,350 deaths from smallpox, the population for those years being 11,000 and 15,000, respectively. After the introduction of vaccination, from 1811 to 1830, and from 1881 to 1887, two periods covering 25 years, and with a vastly increased population, there was a total of deaths from this disease of only 32.

The figures quoted show beyond dispute that vaccination diminishes to a marked degree, both the liability to, and the fatality from, smallpox. Could people who refuse vaccination be left to the consequences of their own folly they would incur a penalty that would in time make them wiser, but unfortunately they can not be so left. In bearing the consequences, they inevitably inflict them upon others, and their right to do this should be circumscribed.

Some entertain the idea that compliance with hygienic rules is sufficient to furnish exemption from smallpox, but history and current facts abundantly disprove this position. The disease has made its way into some of the cleanest households of the country; and no amount of personal cleanliness will protect one from the poison should he come in contact with it.

Association of American Medical Colleges.—Chicago, January 20, 1899.—*To the Editor:* During the past four years, since the extension of the medical course to four years, the question of advanced standing has been repeatedly brought up by students who have taken the so-called "medical preparatory courses" in literary and scientific colleges and in private normal schools and academies. The same subject has been brought up again by the application of two literary colleges for membership in the Association of

American Medical Colleges, under Article III, section 7, of the constitution of the society, which reads as follows :

A college not giving the whole four courses of the medical curriculum, and not graduating students, but otherwise eligible, may be admitted to membership.

This provision of the constitution was made to meet the requirements of the University of Colorado and the University of North Carolina. The matter now seems finally settled, and justly so, as will appear from the following decision.

DECISION OF THE COUNCIL.

Denying recognition to preparatory medical instruction in certain colleges; none but regular medical colleges eligible for membership.

For final answer to interrogatories concerning the application of the Hiram College, of Ohio; the Marion Normal College and Business University, of Marion, Ind.; and other similar institutions :

First, the Association of American Medical Colleges can not accept into its membership any but regularly organized and properly conducted medical colleges.

Second, the Judicial Council of the Association of American Medical Colleges is not sufficiently informed as to the merits of the several institutions having preparatory medical courses, to justify an expression of opinion as to which, if any of them, are entitled to recognition by the Association of American Medical Colleges.

Third, the only claim for advanced standing which can be recognized by the members of the College Association must be the degree of A.B., B.S., or equivalent degree from reputable literary colleges, homeopathic or eclectic colleges, reputable colleges of dentistry, pharmacy, and veterinary medicine, and such official credentials issued by medical colleges of equal requirements, as members may choose to recognize; excepting, however, the requirements of the curriculum for the last year's work, in colleges conferring degrees.

Fourth, the practice of colleges in small towns of adding a preparatory medical department, open to all students, the entire course in anatomy, physiology, chemistry, and materia medica being conducted by one professor, is entitled to no respect, and should not be encouraged, or in any way recognized by members of the Association of American Medical Colleges.

(Signed)
Dudley S. Reynolds,
Albert R. Baker,
Starling Loving,
John B. Roberts,
Randolph Winslow,
Jas. H. Etheridge,
Victor C. Vaughan.

January 20, 1899.

Bayard Holmes, Secretary,
404 E. 40th Street, Chicago.
—[*Journal American Medical Association.*]

The U. S. Liberty League.—Wishing to help advertise this organization and its work, we insert the following widely-scattered notice :—

JUSTICE TO DOCTORS, DENTISTS, PHARMACISTS, LAWYERS, AND OTHER PROFESSIONAL WORKERS.

Absent undergraduate practitioners furnishing affidavits from County or State officers, or other satisfactory proof of skill, competency, or years of successful practice in their respective professions can have the degree of M.D., D.O., D.D.S., or other appropriate degree lawfully conferred at once by a chartered institution.

Those in attendance graduated when qualified, independent of time. Students can enter at any date. Also courses by correspondence. For Announcement and Declaration of Principles address

U. S. Liberty League, People's Institute Chicago, Ill.

OBJECTS OF UNITED STATES MEDICAL LIBERTY LEAGUE.

The objects of this organization are :

First. To protect competent progressive physicians, who are being prosecuted, because they will not comply with the unjust rules of tyrannical medical boards, made in the interest of one or two medical sects. The work of the League in this respect is not wholly confined to its members.

Second. To work for the repeal of unconstitutional medical laws, which give certain schools a monopoly of the right to heal. These laws were all framed by doctors in their own interest. They are selfish, opposed to public policy and are working ruin to the people, depriving them of the liberty of employing the physician of their choice and recompensing him for his service.

Third. To prevent the passage of more oppressive medical laws, which the monopoly ring proposes to have enacted next session of the legislature. It is said that large sums of money have already been pledged for this purpose.

Fourth. To enlighten and educate the people regarding the great amount of malpractice constantly going on in their midst by supposed highly educated regular physicians.

Fifth. To place competent, progressive, scientific, and skilful physicians in fields where the lamentations of the people ascend to heaven in prayer, to be relieved from the torture of the barbarous methods of poison and knife, and for the blessing of more humane and reasonable methods of treating their diseased bodies.

Sixth. To investigate and report cases of malpractice by unscrupulous physicians, who are protected by these unjust laws.

Reports of good work the league has already done, and is still doing in these capacities, are published continuously in the Medical Liberty News.

Send for sample copies, subscribe and help break up this form of slavery.

Headquarters of the League, Suite B, People's Institute,
Chicago, Ill.

Hon. L. H. Piehn (*President First National Bank,*
Nora Springs, Iowa), *President.*

Foreign News and Notes.

GREAT BRITAIN.

What London Drinks Every Year.—According to recently compiled statistics, the inhabitants of London consume yearly 275,000,000 gallons of water; 153,000,000 gallons of beer; 4,400,000 gallons of neat spirits; 50,000,000 gallons of aerated waters; 1,250,000,000 pints of tea infusion (25,000,000 pounds of tea); 1,370 tons of coffee-beans.

Dr. F. J. Waldo, who has been selected by the Royal College of Physicians of London to deliver the next **Milroy Lectures,** is the medical officer of health for Southwark, and has been a fearless advocate of the cause of sanitation despite the opposition of a singularly ill-educated and penny-wise vestry. He has chosen as his subject "Summer Diarrhea,with special relation to Causation and Prevention."

Medical Matters in the English Parliament.—"Before this reaches you," writes a frequent English correspondent, "Parliament will have opened, and medical men as well as all other classes of society will be agog to see what good they are going to get out of the lucky-bag of legislation. Certain definite promises the government has made or implied, *e. g.*: That there should be a bill provided for compulsory revaccination and that a new bill should be introduced dealing with the subject of food-adulteration. A bill for the betterment of the London water-supply should surely be the outcome of the arduous labors of Lord Llandaff's commission; while the frequency of the crime of procuring abortion together with the capricious uncertainty of the penalties exacted from the offenders appear to call for an amendment of the existing criminal statute. The old question of the registration of midwives will crop up for this reform—(or abuse as many general practitioners in England roundly term it)—has a strong backing. It is not easy to prophesy whether the bill to be put forward this session will pass if a day is found for its discussion, but it has a better chance than any of its predecessors has ever had; for to a certain extent it has been blessed in its present shape by the General Medical Council, and the General Medical Council may be taken by Parliament to represent general medical opinion—which it does not."

The Pay of Mining Surgeons in England and Wales has long been felt by the surgeons to be inadequate. The scale was arranged when the miner was much poorer and when the medical men's expenses were light, while it was easy for him to obtain assistance. Now the miner's wages have increased from 50 to 100%, but the medical man's fees remain the same while his expenses have doubled. It costs him much more to get his education than it did; new drugs and antiseptic dressings have enormously magnified his liabilities to the chemist, while the decision of the General Medical Council to do away with unqualified assistants precludes him from getting any help at the former cheap rate. For all of these reasons the surgeons to mines and miners' associations in many parts of the country have decided to make a stand for higher remuneration, and in one great mining county—the county of Durham—an organized medical union has been started, the members of which pledge themselves only to work for higher pay. In other places, notably in Wales, the move has come from the men, and is towards a still lower rate of pay for medical attendance; but the men have here been led astray by miners' agents—persons who are supported out of the workmen's wages to look after the workmen's interests—and as soon as they understand what they are being pledged to will probably repudiate the things that are being done in their name. If any attempt should be made at lowering the present medical fees as a retaliatory step to the attempt in Durham and elsewhere to raise these fees, the miner will assuredly be left with little or no medical service.

The Choice of an Anesthetic.—At a recent meeting of the English Society of Anesthetists, the important subject, "The Choice of an Anesthetic," was under discussion, and was treated in a broad spirit. That is to say, the Society did not foolishly divide itself into "etherists" and "chloroformists," but every speaker allowed that all the circumstances of the case must dictate the anesthetic to be used. From this it follows that the anesthetist, to come up to the ideals of the Society of Anesthetists, must be a physician and surgeon of great, if only theoretical, knowledge, for how otherwise is he to appreciate all the circumstances of the cases that may pass under his hands? Certainly, the man who has been anesthetist for some time at a general hospital, and who also has been frequently asked by the staff of that hospital to give anesthetics for them in their private practice, does acquire a remarkable experience of surgery in its preoperative stages, and can readily detect the best methods for individual cases; but such wide experience is not the lot of all anesthetists, nor are such anesthetists at the beck of all operators. The practitioner in an outlying rural district must still depend on whoever he can get to "keep the patient under" while he operates; and the house-surgeon will continue to ask the nearest nurse "to give the kid a smell of chloroform," while he performs the rite of circumcision. Therefore, the debate at the English Society of Anesthetists, while in its conclusions it tended to dignify the position of the anesthetist, had its outcome in impracticable counsels of perfection. Every anesthetist ought to be experienced and skilful; but the supply of such adjuvants to the surgeon is very limited, and, if it were greater, they would lack regular employment to keep from starvation.

The Prevention of Phthisis.—The movement which has become so lively in England during the last few months needs to be a little more definite in its objects if it is to attract the pecuniary support of the public. The public is known to applaud abstract moralities, but its tendency is to put its money only into schemes whose real benefit it can appreciate. Now, under the heading of "The Prevention of Phthisis," are sanitarian calls for a general slaughter of all cows; (this one forgets the expenses of compensation); another—(this one is regardless of the number of mouths to be fed in England)—would preclude the importation of cattle into England; a third clamors for immediate demolition of all insanitary buildings, which, if the word "insanitary" were taken strictly, would leave fifteen millions of English people without a roof to their heads; and a fourth wants the marriage of a phthisical subject made a criminal offence. The National Association for the Prevention of Consumption should be quick in issuing its first program to the public, and should point out in that program exactly what it is proposed to do first and how much money will be required to do it. Also difference of opinion between medical authorities on the medical question involved should be avoided for the present. It is known that certain medical officers of health believe that some system of notification should be adopted for the stamping out of phthisis; but it is equally well known that the Local Government Board believe as the clearest grounds possible that any attempt to make phthisis the subject of notification is bound to end in failure. For the present the gentlemen who disagree with the Local Government Board should hold their tongues. Just at this time when the public are to be asked to subscribe to the movement all appearance of disagreement among those in medical authority is most ill-timed.

CONTINENTAL EUROPE.

Obituary.—AUGUST SOCIN, professor of surgery at the University of Basle, January 22, aged 62 years.

Professor Helferich, of Greifswald, has been appointed to the chair of surgery at the University of Kiel, in succession to Professor v. Esmarch, who retires on account of age.

Rare Symptoms of Iodism.—At a recent meeting of the Société Médicale des Hôpitaux, of Paris, Danlos described some rare manifestations of iodism that had developed in a man, aged 60 years. Seven and a half grains of potassium iodid taken one day, and 15 grains taken the next, were followed by coryza; unpleasant taste, and painless symmetric suprahyoid tumefaction, not reaching to the parotid. On palpation, there was slight tenderness, no edema, and the submaxillary glands were found swollen and somewhat tender. The administration of the iodid being interrupted, the manifestations subsided, but recurred on two subsequent occasions, immediately following the exhibition of the drug. Elimination of iodid by the patient was very slow, a trace appearing in the urine only at the end of two hours. Danlos also detailed notes of a syphilitic, who was given 45 grains of potassium iodid daily. After the lapse of ten days, violent itching and an erythematous and bullous eruption developed. The iodid being discontinued, the eruption persisted, the itching being so intense at the end of twelve days that the patient was prevented from sleeping. The eruption remained for six weeks after the cessation of administration of the iodid, disappearing after a ten-days' exhibition of sodium arsenite. The eruption was a typical dermatitis herpetiformis, affecting the hands, face, ears, feet, trunk, and arms.

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

January 28, 1899. [No. 1987.]

1. A Study of the Epidemic of Typhoid Fever in Belfast, 1898. J. Lorrain Smith and John Tennant.
2. On the Value of the Treatment of Diphtheria by Antitoxin. E. W. Goodall.
3. Four Series of Cases of Sewer-gas Poisoning. W. Gifford Nash.
4. On the Action of Some Essential Oils and other Volatile Substances on the Growth of the Bacillus Tuberculosis and in the Treatment of Phthisis. (*Illustrated.*) William Murrell.
5. Uric Acid and Gout: Some Points in the Physiology of Uric Acid. Chalmers Watson.
6. On Belladonna in the Treatment of Broncho-pneumonia in Children. J. A. Coutts.
7. The Control of Hemorrhage in Operations for the Removal of Labial Elephantiasis. Col. K. Macleod.
8. A Case of Acute Sulphonal Poisoning. Fred. Tresilian.
9. Toxic Effects of Boracic Acid. J. Jameson Evans.
10. Aortic Aneurysm; Rupture into Esophagus. J. C. McConaghey.

1.—Smith and Tennant, in a study of the 1898 **epidemic of typhoid fever in Belfast,** failed to find typhoid bacilli in the water-supply, but were able to isolate a large number of varieties of the bacillus coli communis. They consequently studied the relation of these bacilli to those directly obtained from cases of typhoid fever in the epidemic and also investigated the relation of these bacilli to the process of infection in typhoid fever. Many of the varieties of the bacillus coli communis obtained from the water conformed to the ordinary intestinal type. Occasional races were isolated which, when tested with the serum of typhoid patients, showed by their reactions that they possessed special relation to the typhoid disease. The presence of serum-reaction to various races of this bacillus has an important bearing on the question of it as an element of infection in typhoid fever. An attempt was made to interpret observations on patients in regard to this subject. When compared with the classical type of the bacillus the varieties here concerned conformed in general to the accepted description: Compared in some detail with a number of races isolated from the healthy human intestine, it was found that these bacilli differed from many of the latter in that they all possessed a high motility, were more rapid in the production of indol in peptone solution, and of gas-bubbles in gelatine shake cultures. As to the pathogenicity, on the whole these bacilli appeared to have a greater pathogenicity for small animals than is possessed by the varieties commonly present in water. In over 200 cases examined for the serum-reaction in a large proportion, the serum possessed the power of clumping one or other of these bacilli. After a careful investigation of this matter they concluded that the occurrence of the reaction of the bacillus coli communis, though subordinate to that of the bacillus typhosus, is yet independent, and that the serum-reaction is in itself probably insufficient for the discrimination of the races of bacillus coli communis which possess the power of invasion in typhoid fever. From experiments on animals the conclusion is reached that the typhoid bacillus has a mutual reaction well marked with certain varieties of bacillus enteritidis, less distinct with other varieties, and still less with races of the bacillus coli communis. They believe further that in the patient's serum the bacillus coli reaction in many cases depends on something else than a pure typhoid infection. Attempts to reproduce in animals typhoid fever as a disease have been on the whole unsatisfactory. The first stage of the process must consist in obtaining bacilli of such virulence that they can invade the tissues of animals, and this difficulty has been overcome by the use of adjuvants. The further stages in the process of reproducing this disease are still unknown. The object of this study has been to show that in patients there can be obtained from the serum indications of coli-invasion during the process of typhoid fever. [s.m.h.]

3.—Nash observed 4 series of cases of **sewer-gas poisoning** in which the following diseases were apparently caused from exposure to the gas: One case of pelvic cellulitis, 1 case of diphtheria (?), (no bacteriologic examination), 10 cases of follicular tonsillitis, 5 cases of otitis media, 1 case of erysipelas, 1 case of pleuropneumonia, 1 case of lobar pneumonia, 1 case of poisoned wound of the thumb and septicemia, 4 cases of acute arthritis, 1 case of acute nephritis, 1 case of gastroenteritis, and 1 case of abscess. [s.m.h.]

4.—Murrell, in order to test the **action of the essential oils and other volatile substances on the growth of the bacillus tuberculosus** and in the treatment of phthisis, made some clinical and bacteriologic examinations, using a pure variety of the oils of cinnamon and peppermint. The clinical observations were carried out on 20 patients suffering from phthisis in various stages, none of whom were confined to bed. In some cases the patients were made to inhale, once or twice a day, air impregnated with one or the other of these oils, while in other cases, the patient was given a supply of the material and instructed to inhale it almost constantly both night and day. A bib was devised on which the oil was sprinkled, and this was worn suspended from the neck so that the air taken into the lungs was thoroughly impregnated with the vapor. The results were uniformly unfavorable. In the bacteriologic examinations neither of the oils showed any deleterious influence on the growth of the tubercle-bacillus. Experiments were made with formaldehyd in 40% aqueous solution, the patients inhaling a spray containing one part of this solution in 16 of water; at the same time bacteriologic examinations were undertaken with a 6% solution of formaldehyd and the results proved most satisfactory as regards its action on the bacillus tuberculosus. The results were as follows:

No contaminations occurred in any of the tubes. All the controls grew well except in one agar-agar tube sealed with paraffin in a jar. In this case the block had been forced out and loosened and no growth occurred. Neither the tubes kept under the influence of formaldehyd-vapor for 40 hours, 96 hours, or 10 days showed any growth whatever. Subcultures were made from several tubes of the solid media and from all the tubes of the fluid media. All of these failed with the exception of one glycerin beef-broth tube exposed for 48 hours, which, re-inoculated on blood-serum, began to grow feebly after 3 weeks. A repetition of these experiments gave the same results. Thus it is shown that even a weak solution of formic aldehyd exerts a very marked retarding and inhibiting influence on the growth of the tubercle-bacillus inoculated on favorable culture media and that this influence, prolonged over 48 hours, entirely prevents the growth and future development of the bacilli. The clinical results with this medication are quite in accord with the results of the bacteriologic observations. The 6% solution was usually employed, being decreased or increased according to the idiosyncrasy of the patient. The drug was inhaled either once or twice a day, compressed air by a simple mechanical arrangement being made to bubble through the solution. The bib-method was used in some instances. In many cases there was some irritation at the back of the throat which occasionally induced violent paroxysms of coughing. Twenty cases were treated. In 6 of them the results were inconclusive either because the patient was lost sight of or because additional methods of treatment were used. In the remaining 14 cases nothing but the formic aldehyd was administered, with the exception of an occasional pill of $\frac{1}{60}$ of a grain of picrotoxin to check the night sweating. Of these 14 cases 12 were much benefited, while 2 were slightly improved. The disease was treated in all its stages. Probably the best method of treating tuberculous phthisis is to obtain bacilli from the expectoration, cultivate them, pass over them various volatile substances until one is found which will arrest their growth and then administer it by inhalation. [s.m.h.]

5.—Watson made an examination of the blood of birds, that of a snake, and also the viscera of birds, snakes, and various mammals, hoping to ascertain the seat of **formation of uric acid** in health. The results of these investigations show that in birds uric acid is found in the blood, liver and kidneys; the absolute amount is greater in the liver than in the kidney. In the snake uric acid is found in the heart (which contains a relatively large amount of blood), liver, kidneys, and intestinal contents, the absolute amount being greater in the liver than in the kidney. A relatively large amount is found in the intestinal contents.

Mammals.—(*a*) A dog and a rabbit.—In the dog, the blood, kidneys and spleen contained no uric acid. A similar result was found with the kidneys of the rabbit. (*b*) A sheep and a calf.—Mere traces of uric acid were found in the blood and the liver. In regard to the viscera of these animals 3 points were noted: (1) The absolute amount in the liver was greater than that in the other organs; (2) the kidney contained less than the spleen both as regards absolute amount and percentage; (3) the spleen seemed to contain a higher percentage than the other two organs. No conclusions are drawn from these results as to the seat of formation of uric acid, but the following points are considered to be beyond question: That uric acid is present in the blood of birds, and that so far as these observations go, there is no evidence in support of the view advanced by Garrod and Luff that the kidney is the main seat of formation of uric acid. [S.M.H.]

6.—Coutts has found that in **the treatment of broncho-pneumonia in children** no remedy has nearly the value of large doses of belladonna. The use of this drug in full doses was suggested by the observation of Ringer of the marked effect atropin had in limiting or diminishing secretion into the bronchial tubes and the pulmonary tissues. Out of about 60 cases treated by this plan only 2 deaths occurred. In addition to the decreased mortality it was found that a very few doses, in most cases, relieved the dyspnea and the temperature fell to normal soon after the beginning of the treatment. The cases which under former treatments would have lasted several weeks were terminated in a corresponding number of days. In addition to the large dose he especially recommends the extract of the late British pharmacopeia. This is given in ¼ grain doses every 3 or 4 hours irrespective of the age of the infant. In a very few cases these doses induce slight delirium, which is quickly relieved by lessening the dose. In a large majority there is some flushing of the skin, in some a definite scarlet rash. The children under this treatment are irritable. [S.M.H.]

8.—Tresilian reports a case of **poisoning following the administration** of 35 grains of **sulphonal** in 2 doses of 20 and 15 grains each at an interval of 24 hours. The doses were taken in the evening. On the morning following the second dose the patient was ataxic and reeled about, suffered from headache and tinnitus aurium. At 2 P.M. she thought she was dying. Both the face and body were livid. She was unable to speak. She fainted and vomited several times; the respirations were extremely slow and shallow. The heart's action was feeble and occasionally intermittent. The pupils were dilated and reacted feebly to light. She had severe headache. Under the use of stimulants, hot water-bottles and hypodermic injections of strychnia, she rapidly improved. There was some retention of urine. The urine was dark in color. [S.M.H.]

9.—Evans observed an **erythematous rash** of the neck, face and head in a patient who had been receiving from 10 to 20 grains of **boric acid** 3 times daily for a period of 3 weeks. There was some subcutaneous edema and a fine scaly dermatitis. The salivary glands later became enlarged and eventually the hair on the face and head fell out, inducing complete baldness. The hair began to grow in again at the end of 6 weeks and eventually was fully restored. Similar symptoms have been observed in other people taking boric acid. [S.M.H.]

Lancet.

January 28, 1899. [No. 3935.]

1. Opinion the Salt of Fact. JAMES F. GOODHART.
2. Medical London. E. BAXTER FORMAN.
3. A Case of Movable Third Kidney. W. WATSON CHEYNE.
4. Notes on the Demonstrations of Methods in Gastric Therapeutics. FENTON B. TURCK.
5. The Present Position of the Question of Operation in Uterine Fibroids. E. STANMORE BISHOP.
6. On the Treatment of Various Inflammatory Processes by the External Application of Alcohol. THEODORE ZANGGER.
7. Ten Cases of Vaginal Hysterectomy. ARNOLD W. W. LEA.
8. A Case of Protrusion of the Small Intestine Caused by Laceration of the Abdominal Wall: Recovery. J. R. JENKINS.
9. Three Cases of Congenital Deficiency of Both Patellæ in Related Individuals. MAURICE G. PEARSON.
10. A Note on a Case of Swallowing False Teeth. J. S. SHARMAN.
11. Three Cases of Diphtheric Conjunctivitis. SYDNEY STEPHENSON.
12. A Case of Bradycardia Occurring in a Young Man; Necropsy. C. DICKIE MURRAY.
13. A Case of Enteric Fever with Severe Periosteal Lesions; Injections of Anti-streptococcic Serum; Rapid Recovery. ASTLEY V. CLARKE.

1.—Goodhart recognizes a very marked change in the type of many diseases during the last century. [S.M.H.]

3.—An **independent and well-developed third kidney** is a very rare anomaly. It was discovered at an exploratory operation and found to be retroperitoneal and resting on the right side of the lower lumbar vertebræ, just at the brim of the pelvis. It had its own ureter and blood-supply, and was about 3 or 4 inches below the right kidney. The other kidneys occupied respectively their normal positions. In this case the symptoms were no doubt due to the mobility of the kidney and to slight pressure on, or kinking of, the ureter.

4.—Turck gives a **demonstration of the methods in gastric therapeutics,** including a description of the gyromele, the intragastric reagent capsules, and the intragastric resuscitator. The advantages claimed for the gyromele are the determination of, first, the exact outline of the stomach and the abdominal walls, second, the character of the stomach-walls, and third, the recognition of atrophy and its differentiation from functional achylia. The intragastric reagent capsule is so constructed as to admit of the testing of the chemical nature of the contents by means of the introduction of 3 papers colored with litmus, congo-red, and dimethylamidoazo-benzol. The intragastric resuscitator consists of a double stomach-tube, to one end of which is attached a soft rubber bag. The bag, when collapsed, fits closely around the stomach-tube and is easily introduced into the stomach. Its advantages are, first, it admits of the uniform and diffuse application of heat at a much higher temperature than dare be used with water in direct contact with the mucous membrane. The temperature used is 130° or 135° F., which is essential in order to secure proper stimulation. Second, the exhaustion produced by passing large quantities of warm water directly into the stomach is avoided by this method. Third, the removal of the necessary secretions and nutrient material is entirely avoided. Fourth, the degree of temperature as well as the quantity of water used within the bag is under the complete control of the operator. The method of applying pneumatic gymnastics to the stomach consists in the introduction of a double stomach-tube, which is connected on one side with a manometer and on the other with a compressed-air cylinder, the cylinder being previously filled with air at a rather high pressure. By then opening the stopcock of the cylinder air is allowed to distend the stomach until the manometer connected with the closed exit-tube indicates the desired pressure. The stopcock is here closed and the exit-tube opened. The compressed air in the stomach rushes out and the gastric muscles contract vigorously, aided by the contractions of the abdominal muscles. This exercise can be repeated from 20 to 30 times within a few minutes, and a regular course of such exercise will frequently produce a rapid improvement in motor-power of the organ. Another effect of this treatment is the improvement of the local and general circulation. [S.M.H.]

5.—Bishop discusses the various methods of **operating for uterine fibroids,** and concludes that since all fibroids, however large, must at one time be small, and since the risks of removal increase pari passu with the size of the tumor and the amount of blood lost, it would seem that now we have arrived at this: So long as fibroid tumors give rise to no marked symptoms and show no tendency to enlarge they may be ignored; if, however, they are definitely increasing in size it is wiser to remove the entire uterus, leaving all the ovarian tissue possible, while the tumor is yet fairly small. In this way the risks of the operation will be minimized so far as possible, the patient will be in the best condition to ensure success, and will be saved most of the miserable but inevitable results of this disease. [W.K.]

6.—Zangger reports a **method of treating inflammatory processes by the external application of alcohol,** which is performed in the following manner: The inflamed part is washed with soap and water, dried, covered with some gauze, and then a layer of from $\frac{1}{2}$ to $\frac{3}{4}$ inch of cotton-wool is bound around the part by means of a gauze bandage. This is saturated with a strong solution of alcohol. Over this bandage, well saturated with the alcohol, but not so that it drips, a cover of guttapercha-paper, containing small holes at intervals of about an inch, is fastened by means of a gauze bandage so that it overlaps the bandage by one inch on every side. This bandage is removed every 12 to 24 hours, according to the circumstances. He reports the successful use of this method in the treatment of whitlow, lymphangitis, localized furunculosis and sycosis. While the treatment has been successful in acute glandular swellings, it has no effect in the chronic, probably tubercular, forms of glandular enlargement. [S.M.H.]

7.—Lea reports 10 cases of **vaginal hysterectomy:** 5 for carcinoma of the uterus (cervix 4, body 1), 3 for multiple fibroids, and 2 for chronic inflammatory affections. In this series one death occurred, due to intestinal obstruction, 9 days after operation; all the other cases made rapid recoveries. Ligatures were used instead of clamps to control the hemorrhage. The ends of the ligatures are left long, and these come away ultimately, leaving no foreign material, and a sound scar results. [W K.]

9.—Pearson reports 3 cases of **congenital deficiency of both patellas in related individuals.** The first case was a girl aged 5 months, in which there was a very noticeable transverse groove in the position of each patella, and the finger could be pressed in deeply between the condyles of the femur. Movements and limit of movements were natural. The second case was her sister, aged 4 years, who was said to have had exactly the same condition as an infant. When examined, the patellas were only slightly smaller than the average. A cousin of these children, aged 7 months, had transverse grooves in the region of the patellas, but less well marked. [S.M.H]

10.—There came under Sharman's care a woman who had **swallowed 3 false teeth** attached to a gold plate. At one end of the plate there was a sharp hook to fit around the adjacent tooth, and at the other end 2 sharp points. The longitudinal measurement was $1\frac{6}{16}$ inches and the transverse $\frac{6}{16}$ of an inch. The patient was awakened from sleep by feeling the teeth pass down her gullet. There was no discomfort and the teeth were passed 5 days after having been swallowed. An attempt to locate them by means of skiagraphy was unsuccessful. [S.M.H.]

11.—Stephenson reports 3 cases of **diphtheric conjunctivitis** occurring in children aged 18 months, 3 years, and 8 months respectively. There was distinct membrane in all. The cervical, submaxillary, and preauricular glands were enlarged in all. The Klebs-Löffler bacillus was isolated in two cases. There was no extension of membrane to any of the other mucous membranes, and bacteriologic examinations, in 2 cases, of the throat and nose were negative. All the cases received and were benefited by antitoxin-serum injections. The disappearance of the membrane was quite rapid, but the inflammatory condition of the eyes persisted for some weeks in all the cases, eventually disappearing entirely. [S.M H.]

12.—Murray had under his care a **case of bradycardia** in a man aged 21 years, who had been ill for 4 years. One day after running he was seized with a sudden pain over the heart, followed by severe dyspnea, which continued for some days. This was followed by a sensation of something bursting. Ever since this time he had more or less pain and dyspnea, which was increased by exertion. Since this first attack he had had several convulsive seizures, which occurred with little or no warning. During the past year his pain and dyspnea had been gradually augmenting. When examined by Murray he had marked pain in the precordia, with dyspnea and dizziness. The dyspnea interfered with his sleep. Eating caused precordial pain and was followed by a feeling of distention in the epigastrium. The examination of the heart showed the apex-beat pushed downward and to the left and the heart-beats from 26 to 28 per minute. Percussion showed enlargement of the heart downward and to the left, and auscultation revealed a loud, rough systolic murmur in the mitral area, mildly transmitted to the axilla but not heard in the back. It was also heard in the tricuspid area and over the whole of the heart, but was loudest in the aortic and pulmonary regions, where there was also heard a slight diastolic murmur. The murmurs were transmitted to the carotids and subclavians. There was no cyanosis or edema or any abnormal condition of the superficial vessels. No medication had any influence in increasing the heart's action. During a leave of absence from the hospital the patient became intoxicated; he returned after 3 days in a very enfeebled condition. Within a few days of his return he suddenly fell dead after going to the wards from one of his meals. The autopsy showed the heart to weigh 14 ounces; the valves were in perfect condition and free from vegetations. The left heart was hypertrophied, the muscle hard and resistant. The right was soft and flabby. Microscopic examination of the friable heart-muscle showed the evidences of fatty infiltration, with possibly some true degeneration. The pleura of the left lung showed adhesions extending from the second rib to the base of the lung. The right also showed less extensive adhesions. All the other organs of the body were normal. The bradycardia in the light of these facts was attributed to the presence of fatty changes in the heart-muscle. [S.M.H.]

13.—A case of **enteric fever with severe periosteal changes,** in a boy aged 13 years, came under Clarke's care. By the 25th day he developed some swelling in the first phalanx of the right ring-finger. Two days later an incision was made, but no pus discovered. The patient grew more apathetic and the temperature, which had fallen, began to rise again. Further incisions were made a few days later. Between the second and third weeks after the development of the swelling the condition was so severe that the finger was amputated. It was found that the whole of the periosteum had become separated from the bone, but the metacarpal-phalangeal joint had not been affected. As there was no improvement at the end of a week another incision was made. Five days later he was unconscious and delirious and the temperature was fluctuating. At this time he was given 10 c.c. of anti-streptococcic serum hypodermically. Shortly afterwards the temperature fell as if by crisis to the normal, delirium vanished, and consciousness returned within 24 hours. Other injections of 5 c.c. each were given on the first, second, and fourth days following. The improvement was so marked at this time that they were abandoned; recovery was complete. [S.M.H.]

New York Medical Journal.

February 11, 1899. [Vol. lxix, No. 6.]

1. Functional Neuroses and Their Relation to Diseases Peculiar to Women. H. J. Boldt.
2. The Treatment of Typhoid Fever. William L. Stowell.
3. Copper Arsenite and Nuclein Solution for Typhoid Fever. John Aulde.
4. The Early Diagnosis, Prognosis, and Treatment of Septic Infection of the Hand. J. L. Andrews.
5. The Hypodermic Injection of Silver Nitrate Over the Course of the Vagi in the Treatment of Pulmonary Consumption. A Preliminary Report. Thomas J. Mays.
6. Five Rare Cases of Tuberculous Ulceration of the Soft Palate and Adjoining Soft Tissues, with Mention of Other Cases of Tubercular Ulceration of the Upper Air-passages. Edgar D. Smith.

1.—Boldt considers that the bountiful nerve-supply of the genital organs from the great sympathetic through the hypogastric plexus, and from the cord through the internal pubic, gives sufficient reason for the causation of reflex neuroses. Functional neurosis is a depraved condition of the nerve-substance which cannot be demonstrated anatomically. He believes that surgical interference should never be employed in these cases except under the most positive indications; the operation of oophorectomy for the relief of an intense disturbance of the nervous system, is a serious matter and should never be undertaken without the utmost scrutiny of all associated conditions. The result of practical observation shows that the specialist must be qualified in general medicine, and not alone in his specialty, and be a physician in the true sense of the word, if his object to relieve the afflicted is to be attained. [W.K.]

3.—Aulde has given $\frac{1}{100}$ of a grain of **copper arsenite** with one minim of **nuclein solution** in the form of tablet triturates at intervals of 3 hours from 6 A.M. to 9 P.M daily in cases of typhoid fever with seemingly remarkable results. The duration of the fever was invariably shortened and its character changed. The patient's strength was improved, his comfort increased and the tongue rapidly cleansed. Where the stomach is rebellious or when the anticipated medicinal effect is not observed the nuclein should be given hypodermically in doses of 5 minims, once daily. The copper arsenite exerts an important influence upon the cellular structures and nerve-supply of the small intestine while the nuclein stimulates the leukocytic function. [S.M.H.]

5.—See this Journal, Vol. III, No. 6, page 339.

6.—Smith reports 5 rare cases of **tuberculous ulceration of the soft palate and adjoining soft tissues.** The majority of cases of this nature are probably secondary to a tuberculous infiltration of the lungs, the infection occurring through the excretions from the lungs. A few of them may be primary. The nasal mucous membrane is not often infected, owing doubtless to the possession of a special resistance-power against the bacillus tuberculosis. The appearance of these cases, when seen early, is first one of congestion which is followed by an unnatural paleness. Later there develop small seed-like grayish nodules the size of a small pinhead. Within a few days these break down and form small ulcers, which, in bad cases, are very numerous. Unless checked at this stage the disease extends, the patient emaciates and weakens rapidly and dies in a short time from exhaustion. The only remedy that seems to give satisfactory results in the treatment of this condition is a mixture of equal parts of lactic acid and glycerin, applied freely to the ulcer. [S.M.H.]

Medical Record.

February 11, 1899. [Vol. lv, No. 6.]

1. The Practical Application of Asepsis in Normal Labor. J. Clifton Edgar.
2. Ulcer of the Stomach; Perforation; Acute Diffuse Peritonitis; Operation; Recovery. Frank Hartley.
3. A Case of Phlebitis and Thrombosis of the Sigmoid Sinus and the Jugular Vein of Aural Origin. Carl Koller.
4. A Case of Osteomyelitis of the Inferior Maxilla with Septicemia following Perialveolar Abscess; Resection of One-half of the Inferior Maxilla; Recovery. Moses S. Kakels.

1.—Edgar makes the following practical deductions from a study of **asepsis in its relation to obstetrics.** The present is an age of germs, just as the last was one of venesection. Thoughtful men are not carried away by popular enthusiasm, either in science or elsewhere. The best authorities are coming around to the belief that venesection when indicated is a most valuable measure; just as bacteriologists are now directly contradicting the views which were held a few years ago. Clinical experience long ago convinced many practical physicians of the folly of interference in natural labor, and recent bacteriology confirms this view. This shows that we should not always accept bacteriologic research as infallible. It takes a long time to prove anything in medicine, and clinical experience is, after all, the final test. Lawson Tait with his "water from the tap" long ago demonstrated clinically what bacteriologists have lately discovered from another standpoint,—namely, that there is much virtue in macroscopic cleanliness, and that irritating antiseptics do harm, unless positively indicated. The practice of the last century was to regard sepsis as a visitation of Providence, or as something at all events which it was useless to combat. When, however, the true source of sepsis was discovered, and the occasion of sepsis was yet unknown, the pendulum swung so far in one direction that the whole uterovaginal tract was considered to be a nidus for septic germs and therefore to be disinfected. This irrational view was due to the fact that the occasion of sepsis, the introduction of germs from without, was only imperfectly appreciated. It remained for modern bacteriologic research to demonstrate that infection comes from without, and even if we agree with Dührssen and Ahlfeld, that auto-infection is occasionally possible, the instances are so rare that the general truth is by no means invalidated. [W.K.]

2.—The successful issue of an operation for **perforation of a gastric ulcer,** which had already caused a general **diffuse fibrino-purulent peritonitis,** is attributed to these several points; the early diagnosis and immediate operative interference, the comparative emptiness of the stomach, and the care with which the peritoneal lesions were handled. The method employed was as follows: The omentum and small intestines were removed from the abdominal cavity and carefully cleansed, with the aid of gauze pads saturated with a decinormal salt-solution, of the fluid exudates as well as fibrinous plaques. The pelvis, parietal peritoneum and fossæ, between and to the outer side of the ascending, descending, and transverse colon, the surfaces between the diaphragm and liver, and beneath the liver and over the kidneys, were treated in precisely the same way, strips of sterile gauze being temporarily introduced after the cleansing was accomplished. In the meantime, while the perforation was being closed, the intestines had remained without the cavity, and before returning them, they were again washed with salt-solution, and the various cavities, where packing had been left, were again treated, as in the first instance, before the abdominal wound was closed. The importance of keeping the intestines moistened with salt-solution is based upon the hypothesis, that the resisting power of the peritoneum is diminished by exposure to air; under its influence evaporation takes place, the peritoneum becomes dry, and the peritoneal fluid, as well as the peritoneal cells become so altered that if a slightly virulent organism is introduced a local or general peritonitis will follow. Even when no infection is present, mechanical, chemical, and thermic (including air) irritations, produce localized adhesion-peritonitis and localized aseptic purulent peritonitis (pus here meaning an aseptic collection of serum, suspending broken-down epithelia, leukocytes, and a few red blood-cells). For these reasons dry asepsis, chemical antiseptics, mechanical injuries, will all interfere with the activity of the cells and should be avoided, since in aseptic operations adhesions are left, while in septic ones a great chance is given for constitutional and local infection. The removal of the fibrinous deposits depends largely upon whether they are septic; if this be the case they should be removed gently, rapidly, preferably with the finger, and salt-solution. When it is necessary, as in the case above reported, to cleanse the various fossæ, one should not hesitate to practise evisceration, taking care to avoid evaporation from the intestinal surface. If the latter precaution be not taken, sufficient will be evaporated during the operation to cause a fall of 2° to 4° in temperature, to diminish the blood-pressure and to diminish peristalsis. These phenomena are usually attributed to the shock induced by manipulation of the intestine, but Hartley attributes them to the effects of evaporation, and for this reason intravenous injections of salt-solution are so clearly indicated. When the intestines are very much distended, they should be relieved by evacuating the gaseous or semi-solid contents by means of small incisions, through which a solution of magnesium-sulfate may be injected into the bowel in order to ensure an early movement. As regards the toilet of the peritoneal cavity, the technic carried out in this case is recommended. Irrigation with large quantities of solution is not considered necessary, since the cleansing of the intestines and peritoneum is best obtained by the aid of gauze-pads soaked in salt-solution. The salt-solution should always be preferred to antiseptics which cannot be used sufficiently concentrated to have any bactericidal effect. In cases in which the peritoneal cavity is already infected, drainage should be introduced. [C.H.F.]

4.—Kakels reports a case of **osteomyelitis** of the inferior maxilla with septicemia following **alveolar abscess.** Incisions were made on two occasions to evacuate the pus, but the child's condition went from bad to worse, and finally osteomyelitis of the inferior maxilla developed. Resection of the infected area of bone was clearly indicated, but had to be postponed for some time owing to the constitutional disturbance. To overcome the deformity following the operation, an intradental splint, constructed of gutta percha, was anchored up against the upper jaw and the remaining half of the lower jaw by silk sutures. This was allowed to remain until the involucrum was sufficiently firm to hold the jaw in place. With the exception of the resulting scar there were no traces of the operation left. [C.H.F.]

Medical News.

February 11, 1899. [Vol. lxxiv, No. 6.]

1. The Treatment of Typhoid Fever by Chlorin. Reynold W. Wilcox.
2. The Treatment of Headache. (*Illustrated.*) Joseph Collins.
3. The *Medical News'* Investigation into the Claims of Christian Science. John B. Huber.
4. The Garrisoning of Our Tropical Possessions. No. 4.—The History of Spanish Military Occupation, Statistics of Morbidity and Mortality. Seneca Egbert.

1.—Wilcox alludes to the history of the Brand treatment of typhoid fever. The earliest theory was that it reduced temperature. When this was found to be incorrect in many cases, it was asserted that it stimulated the nervous system, and finally, its advocates concluded that it must increase the elimination of ptomains. Wilcox suggests that this theory cannot be proved because we have no means of estimating ptomains quantitatively. Death from typhoid fever may be caused by toxemia, perforation, hemorrhage, or intercurrent affections. He urges that even if the statistics of the Brand advocates are correct, only 9 persons in 100 are saved by this method, and that, therefore, 91 patients are uselessly subjected to its extreme annoyances. He believes that chlorin is capable of disinfecting the intestinal tract. He reports 5 cases, in soldiers, extremely debilitated by their experience in camp, treated with chlorin, all of whom recovered promptly and efficiently. All showed cleansing of the tongue, improvement in appetite and digestion, and diminution in the fever. There was improvement in the general strength, the mind was clearer, and there was less nervousness, and finally, the duration of the disease was shortened, and the recovery more rapid and complete than usual. [J.S.]

2.—Collins continues his article upon the treatment of headache. The habitual or idiopathic form resembles that due to neurasthenia. Much information may be obtained as to the nature and cause of headache by studies of the locality at which it is most severe, and he gives a diagram, modified from Dana, indicating the usual situations of the various chronic forms. In studying headache, after neuralgic pains, migraine, and disease of the cranial bones have been excluded, it is necessary to consider the possibility of the disease of the membranes or of the brain itself. Headache due to these conditions is nearly always associated with general symptoms, such as vomiting, convulsions, paralysis, and inflammation or atrophy of the optic nerve. The organs of special cases, that is, the eye and nose, should always be carefully examined in any event. It is also important to study the blood and the secretions of the body, although this is sometimes done without result. The treatment of headache should always be based upon a diagnosis that recognizes its cause. The drugs that may be used are either analgesics derived from coal-tar, such as phenacetin, exalgin, etc.; vegetable derivatives, such as caffein, and opium; minerals, such as bromids; and antispasmodics, particularly belladonna. Drugs of the first group are usually used for the temporary amelioration of the pain. If the vascular tension is lowered, caffein is indicated, and if increased, cannabis indica. The bromids are to be used chiefly in epilepsy, and perhaps migraine, and the salines in those cases due to autointoxication. The most common form of headache is that associated with neurasthenia. General measures are of the utmost importance in this condition, particularly exercise, change of environment, hydrotherapy, electricity, massage, etc. The author gives a number of formulas that he has found particularly useful in various forms. [The paper is unfinished. J.S.]

4.—Egbert calls attention to the great danger to which the garrison at Cuba is subjected, on account of the occurrence of yellow fever and malaria in that island. It is exceedingly important that the environment of the soldiers be adapted to a tropical climate, and that they should not be subjected to too much fatigue. It is, however, possible by proper sanitary measures to improve greatly the health of the island, and it is probable that the infection of military garrisons with yellow fever can be wholly prevented. [J.S.]

Boston Medical and Surgical Journal.

February 9, 1899. [Vol. cxl, No. 6.]

1. A Case of Cerebral Sarcoma of Great Extent; Extirpation; Marked Amelioration of Symptoms; Recurrence and Death at the End of Six Months. Remarks on the Advantages of Palliative Operations in Cerebral Tumors. James J. Putnam and Maurice H. Richardson.
2. The Hypodermic Injection of Silver Nitrate Over the Course of the Vagi in the Treatment of Pulmonary Consumption. A Preliminary Report. Thomas J. Mays.
3. Studies in Serum Diagnosis. Richard C. Cabot and F. L. Lowell.
4. Intravenous Infusion in Shock and Hemorrhage, with a Report of Eight Cases. Daniel Fiske Jones.
5. Removal of Fibroid from Pregnant Uterus Without Resulting Miscarriage. Joseph F. O'Shea.

1.—This case of **cerebral sarcoma,** for which operative interference was twice resorted to, presents many interesting features. The symptoms clearly indicated an exploratory operation; accordingly a large bone-flap was turned back and a thorough inspection made. The presenting brain-surface was mottled and dark in color, but these changes, as was afterwards revealed, were due to the pressure of the subjacent mass and not to any malignant infiltration as was at first supposed. Believing the tumor to be too diffuse for removal the operation was carried no further. The patient's condition improved somewhat, but three months later he returned to the hospital because there was some bulging at the seat of the old operation, due, it was supposed, to the upward pressure of an intracerebral growth. The original osseous flap was again laid back and an encapsulated tumor, with the gross appearances of a sarcoma, and filling almost completely the left half of the cranium, presented itself. The tumor with most of its capsule was removed and the cavity packed with gauze. There was a gradual improvement noted after the second operation, which continued until a few days before his death, seven months later, when he passed into a comatose state and died. The possibility of securing relief from pain and optic neuritis is illustrated by the results of the primary operation, which also paved the way for a relatively successful secondary operation by giving a chance for the tumor to grow towards a large opening in the skull. It is interesting to note how wholly inaccessible at the first operation was the tumor which was so successfully removed at the second operation. Regarding the impairment of sensibility, the most striking defect was that involving the sense of position and change of position of the limbs, then the power of recognizing contacts, and of localizing impressions. The fact that a considerable degree of sensibility remained, in spite of the extensive destruction of the cortex of the transverse and parietal convolutions, may be explained by the preservation of the gyrus fornicatus. The question as to how far operation is justifiable and how far it should be urged to the patient's friends is suggested by this case, in which the patient was relieved from pain and made comparatively comfortable up till the end. [C.H.F.]

2.—See this Journal, Vol. III, No. 6, page 339.

3.—Cabot and Lowell as the result of some **studies in serum-diagnosis** made in the outpatient department of the Massachusetts General Hospital make the following deductions: (1) The Widal test can be easily carried out in outpatient work; (2) the results were negative in 204 cases of disease other than typhoid; (3) in 39 cases of sure typhoid tested at periods of from 1 to 18 months after defervescence 13 reacted positively, 1 at a dilution of 1 to 100; (4) in 9 cases tested quantitatively 1 reacted at 1 to 1,000 for several weeks. No data of prognostic value was obtained. [S.M.H.]

Journal of the American Medical Association.

February 11, 1899. [Vol. xxxii, No. 6.]

1. "Quo Vadis?" J. T. Happel.
2. Lymphosarcoma of the Mesentery. Maximilian Herzog.
3. The Variability of Disease Germs. J. F. Peavy.
4. Care and Repair of the Female Perineum. E. L. Larkins.
5. Paralysis in Children. Alex. C. Wiener.
6. Mortality in Abdominal Surgery. Is It Too High? A. H. Cordier.
7. Appendicitis. Augustus P. Clarke.
8. Ocular Tension; Peripheralism; Foreign Clinics. William B. Meany.
9. A Day in the Country with a General Practitioner. George C. Highsmith.
10. Chronic Phthisis. Samuel F. Brothers.

2.—Herzog has collected from literature 57 cases of solid mesenteric tumors of which 10 were sarcomas. He reports a case occurring in a physician, 62 years old, whose illness was of about 3 months' duration. Before death a diagnosis of cirrhosis of the liver had been made, based on the presence of a large amount of free fluid in the abdomen and inability to palpate the liver or outline it on percussion, etc. A detailed description is given of the necropsy-findings, the most important features of which were: A tumor involving the mesentery and mesenteric glands, with metastases in the head of the pancreas, the greater and lesser omentum, the lymphatic glands at the neck of the gall-bladder, the pleura, and the bronchial and inguinal glands. There was also compression-atelectasis of the lower lobe of the right lung, chronic passive congestion of the spleen, cirrhosis of the liver and general anasarca. On microscopic examination of the tumor-masses from the mesentery and omentum a diagnosis of **lymphosarcoma of the mesentery** was made. [M.B.T.]

5.—The surgical treatment of **paralysis resulting from cerebral paralysis and anterior poliomyelitis** are discussed; tenotomy and myorrhexis are advocated in place of mechanical appliances in the treatment of the former affection, while tendon-transplantation is advocated in the treatment of the paralysis resulting from infantile paralysis. [M.B.T.]

6.—The importance is urged of careful nursing, good sanitary surroundings, strict asepsis, one assistant and few instruments and a short period of anesthesia as means of lessening the mortality from abdominal operations. Cordier describes some of the details which are carried out in his clinic with regard to the preparation of the patient and materials to be used, the operative technic, and the after-treatment of patients. [M.B.T.]

10.—Cases are reported in which tuberculin was used in the treatment of tuberculosis and the method of administration is described. Brothers concludes that the tuberculin-treatment has no apparent advantages over creasote. [M.B.T.]

American Gynecological and Obstetrical Journal.

December, 1898. [Vol xiii, No. 6.]

1. Abdominal *versus* Vaginal Section in Pelvic Surgery. Joseph Price.
2. The Indications for Interference by Way of the Vagina in Pelvic Diseases. (An answer to Dr. Joseph Price.) Fernand Henrotin.
3. Complete Inspection of the Rectum by Means of Newer Mechanical Contrivances. (*Illustrated.*) Thomas Chas. Martin.
4. The Preventive Treatment of Children Predisposed to Pulmonary Tuberculosis. (*Illustrated.*) John A. Robison.
5. Forcible Straightening of Spinal Curvatures. (*Illustrated.*) John Ridlon.
6. Results of the Extended Operation for Carcinoma of the Uterus. Emil Ries.
7. Myomectomy During Pregnancy: Report of a Case with Successful Removal of Eleven Fibroids and an Ovarian Cyst. (*Illustrated.*) Andrew J. Downes.
8. Abdominal Section on a Patient Suffering from Exophthalmic Goiter. Charles P. Noble.

1.—Price advocates the **suprapubic method** in operating for **pelvic disease.** The drainage of one or more pus-pockets, when many exist in a large, tortuous, pyriform tube or tubes, and when we have one or more ovarian abscesses, never cures; the only cure is the removal of the diseased organ. He believes that vaginal drainage is not the most perfect, because the abnormal conditions existing above have not been given sufficient attention to favor drainage. Sinuses are just as frequent and distressing in the vaginal vault as in the abdominal incision. The four great dangers of the vaginal route are (1) peritoneal, (2) vesical, (3) ureteral, or (4) intestinal fistulas. [W.K.]

2.—Henrotin is in favor of the **vaginal route for pelvic operations** when the same results can be obtained as by the abdominal incision, as it avoids the abdominal scar, lessens the shock, and is much less frequently followed by hernia. The early vaginal incision by those who understand it and have the skill to perform it, is the ideal of conservative surgery. By early vaginal incision is meant the incision that cures the localized septic pelvic infection in its incipiency, the woman remaining thereafter not only symptomatically but physiologically perfect. It is particularly applicable in the treatment of acute ovarian abscess. Ovarian tissue is necessary for the proper physiologic preservation of woman's sexual life, and should never be sacrificed unless the abolishment of the sexual function is distinctly indicated. Henrotin presents a table of 180 operations for clearly defined pelvic disease, and of these 40 were vaginal operations. [W.K.]

3.—Martin believes that special paraphernalia and much practice in their use are necessary for a rapid and **painless inspection of the rectum.** Cases in which there is no apparent lesion at the anus, and which are in a perfunctory way sometimes called catarrh of the rectum, will at once have diagnosed positively their real cause, such as a high-up rectal polypus, congenital organic stricture or ulceration, and will be made accessible for intelligent treatment. New growths or ulceration may be seen, and curet scrapings made in order that microscopic examination may determine their exact character. The writer describes the chair, illuminating apparatus, instruments, and technic employed. [W.K.]

4.—Robison describes the diet, clothing, hygienic training, physical and mental education of children predisposed to **pulmonary tuberculosis.** In regard to the medicinal treatment, normal nutrition is the foundation-stone. The remedies which assist in restoring normal nutrition are iron, the sodium salts, iodin and its compounds, the phosphates, cod-liver oil, and the nucleins. [W.K.]

5.—In regard to the **forcible straightening of spinal curvatures** Ridlon's conclusions are as follows: (1) In all cases where the deformity is progressing, and in all cases where the duration of the disease renders it certain that consolidation is not far advanced, it is justifiable to make a reasonable attempt to correct or reduce the deformity, provided, of course, that the patient is not suffering from tuberculosis of the lungs or of the meninges. (2) All cutting operations and all attempts to completely obliterate the deformity at once by means of great force must be regarded as of doubtful utility, since such operations add at least 10% to the mortality risk. (3) Sinuses and unopened abscesses are no bar to the operation, provided the straightening be effected with reasonable gentleness. (4) Sinuses and abscesses should not be interfered with surgically unless the patient is suffering from symptoms of sepsis. (5) In all cases where paraplegia is present the operation is imperatively demanded. After the operation the paraplegic symptoms frequently subside at once and in almost all cases within a few hours. (6) If the jacket be put on with the patient resting on the bridge-support and with the spine hyperextended, a repetition of the forced straightening with the patient anesthetized will rarely be necessary. (7) When the disease is located at or above the ninth dorsal vertebra the head must be supported; this can usually be most comfortably managed by building the jacket high under the chin while the head is bent far back and the patient resting upon the bridge. (8) The period of recumbency depends upon the amount of straightening accomplished, the stage of the disease, and as to whether the disease is progressive or retrogressive; it will be rarely less than three months and will often extend to eight months or more. (9)

The question of relapse of the deformity has not yet been settled; but it is probable that there will be some return of deformity. It appears to depend wholly upon whether the patient is kept recumbent until the gap produced by the straightening has become filled with osseous material. (10) A cure cannot be asserted until all symptoms of the disease, particularly the symptom of reflex muscular rigidity, have long been absent. [W.K.]

6.—Ries details the further employment of his method of operation for **carcinoma of the cervix uteri** and the removal of the diseased lymphatic glands, although this necessitates a very extensive operation, the removal frequently of glands lying in close proximity to important structures. The immediate mortality is low. On account of the frequent invasion of the lymphatics at a time when the primary carcinoma of the cervix is quite small, nothing short of the removal of the lymphatics will afford the slightest degree of security against recurrence; in other words, their extirpation along with uterus, tubes, ovaries, and ligaments, is an absolutely necessary step in any operation for cancer of the cervix which aspires to the presumptuous title of a "radical operation." [W.K.]

7.—See this Journal, Vol. II, No. 20, p. 995.

8.—See this Journal, Vol. II, No. 20, p. 995.

Münchener medicinische Wochenschrift.

December 27, 1898. [45. Jahrg., No. 52.]

1. A New Material for Orthopedic Demonstrating-Apparatuses. Oscar Vulpius.
2. A Case of Noma. A. Klautsch.
3. An Inquiry into the Advisability of Operation in Abdominal Tuberculosis. Hildebrandt.
4. A Report of the Smallpox Epidemic in Bavaria in 1897. L. Stumpf.

1.—Rawhide, when properly prepared, makes an excellent substance with which to make various **orthopedic apparatuses.** The hide is prepared by having the hair taken off, impregnated with varnish, and dried. When used, a portion of proper size is cut out and soaked in cold water for 12 or 15 hours. It is then stretched over a well-dried plaster-of-paris model and the edges of the skin fastened to the cast with nails so that it cannot shrink. The hide and cast are then put in a drying oven for 6 days, while at various intervals the hide is painted with varnish so that it may become thoroughly saturated with it. So soon as the hide is dry it is trimmed up, varnished with 3 or more coats and made ready for use. The advantages of this material are lightness, durability, strength, and its being absolutely waterproof. [G.B.W.]

2.—This **case of noma,** occurring in a child not quite 2 years old, began as a swelling, the size of a half-dollar, in the right cheek. The lump was hard and indurated, not especially tender or painful. An opening developed in the center of this area which gradually grew in size until 2 incisor teeth, the eye-tooth and 1 molar were laid bare. The treatment consisted in excision and cauterization with silver nitrate, but the child died from cerebral complications on the fourteenth day of the disease. [G.B.W.]

3.—Hildebrandt closes his articles on the **influence of laparotomy on tuberculosis of the abdominal cavity** with some very instructive observations. When the abdominal cavities of dogs were infected with tubercle-bacilli, they died in from 4 to 5 months from a tubercular peritonitis without any signs of a general infection. If laparotomy was performed in about 24 days after inoculating the peritoneum, *i.e.*, when the tubercular process was represented only by scattered minute gray nodules, there was no improvement, nor even a lessening of the rapidity of the disease. But if the laparotomy is deferred until the tuberculosis is further advanced, say 4 to 6 weeks after inoculation, a very marked benefit is manifested, and often an absolute cure is effected. The examination of the peritoneum then shows the disappearance of the tubercular disease with a substitution of a greater or less amount of fibrous tissue. These results were also obtained in experiments on the rabbit, though not to so marked a degree as with dogs, because of the greater susceptibility of the rabbit to tubercular affections, which not only caused a more virulent local disease but sometimes a general infection ending in death. The good results of laparotomy in tubercular peritonitis is due to congestion of the peritoneum. This congestion, which is at first arterial and later venous, lasts for several days or even a week after the operation. [G.B.W.]

January 3, 1899. [46. Jahrg., No. 1.]

1. Chloralb-acid—Its Therapeutic Uses in Gastric Disorders and Its Role in Promoting Nutrition. W. Fleiner.
2. A Special Experiment in the Disinfection of Dwellings with Formaldehyd. W. Prausnitz.
3. Epididymitis as a Complication in Typhus Fever. J. Strasburger.
4. Concerning Operation for Basedow's Disease. P. J. Mobius.
5. Concerning the New Local Anesthetic "Nirvanin." August Luxenburger.
6. On the Parasacral Incision for Perityphlitic Abscess Pointing to the Douglas Culdesac. Carl Koch.
7. Concerning Congenital Rupture Through the Diaphragm. Ernst Schwalbe.
8. Sir William Jenner. Weber.

1.—Chloralb-acid is a **compound of chlorin and albumin,** which is obtained from cow's milk by treating the albumin with chlorin and removing the HCl, which is formed during the substitution. It was found that if animals deprived of chlorids, and therefore suffering from chlorin-hunger, received chloralb-acid, they lived 5 or 6 weeks longer than the control-animals. Chlorids also appeared in the urine. As the strongest reducing agents are unable to split off chlorin from chloralb-acid, the appearance of chlorids in the urine must be attributed to the oxidizing action of protoplasm. It is possible that some of the chloralb-acid in the stomach gave rise to the formation of HCl. Therapeutically, Fleiner obtained good results with a soluble preparation of chloralb-acid, given in 1 to 2-gram doses before meals in cases of organic and functional diseases of the stomach in which HCl was absent from the gastric juice. The good effects, as experiment demonstrated, were not due to the production of free HCl. There was, however, a reduction in total acidity, *i.e.*, a diminution of the fermentative organic acids, probably through a stimulating action exerted by the remedy on gastric peristalsis. This influence on the motility of the stomach explains the diminution of the dyspeptic symptoms and increase of appetite. Chloralb-acid has also a good effect on the intestine, and is most useful **in cases of atony** accompanied by anorexia, anacidity, excessive formation of organic acids, deficient intestinal absorption, and constipation. [D.R.]

2.—Prausnitz has devised a simple spraying apparatus in which **formol** (40% solution of formaldehyd) is vaporized. It is efficient and much cheaper than others on the market. [D.R.]

4.—Möbius reports a case of **Basedow's disease treated by operation** in which marked benefit resulted as far as the general condition of the patient was concerned. A portion only of the goiter was excised, the electrothermic snare being used for its removal. After the operation, the patient gained 20 pounds in weight, the appetite increased, and the general appearance and strength of the patient was much improved. But the pulse still remained very excitable and the trembling did not altogether disappear. Also, there was no atrophy of the remaining portion of the gland Möbius gives 3 reasons for operating in cases of exophthalmic goiter and 1 reason against it, as follows: (1) The ineffectualness of medicines. (2) The wearisomeness of the disease, and, (3), the danger of the disease. On the other side stands the danger of the operation. [Lately the employment of extract of spleen in Basedow's disease, followed as it has been by most encouraging results, tends to throw some doubt on Möbius's first reason for the practice of operative procedures in these cases. G.B.W.]

5.—The new **local anesthetic, nirvanin,** is a most complex chemical substance, but promises to be of great value in that it possesses antiseptic as well as analgesic properties. When injected under the skin it produces a small circumscribed wheal from which radiates a greater or less zone of anesthesia, according to the strength of solution used. The length of the anesthesia is in direct ratio with the strength of the solution, a 1% solution giving anesthesia lasting about 5 minutes, while a 2% solution gives insensibility for 23 minutes after the injection. The bactericidal action of nirvanin is shown by the fact that a 7% solution injected with bacillus pyocyaneus became sterile in 12 hours, a 2% in 6 hours, and a 4% in 3 hours. [Conclusion to follow. G.B.W.]

6.—When **perityphlitic abscesses** point down in the pelvis, the most practical route for reaching them is by a **parasacral incision.** Koch obtained excellent results in his three cases, both locally and generally. The incision is about the same as in excision of cancer of the rectum. By dull dissection the operator proceeds along the lateral and anterior wall of the rectum until the abscess is reached. [G.B.W.]

7.—**Hernias** taking place through the **diaphragm** occur in two forms; the true form, in which there exists an enveloping sac; a "false" form, in which there exists no sac. Another analogous condition is "eventratio diaphragmatica," which consists in a high arching of one side of the diaphragm with a thinning and atrophy of the top of the arch. These hernias are again divided into congenital and acquired varieties. Of the 4 cases of congenital diaphragmatica reported by Schwalbe 1 was hernia vera and 3 were herniæ spuriæ. In the case of hernia vera a lobe of the liver, the stomach, spleen and the greater portion of the intestines were found in the chest-cavity. Likewise in the 3 cases of hernia spuria a large part of the abdominal organs were found in the chest, with compression and displacement of the thoracic viscera. As a rule these hernias give their possessors little discomfort, but occasionally they may become strangulated. [G.B.W.]

Berliner klinische Wochenschrift.

January 2, 1899. [36. Jahrg., No. 1.]

1. Views on the Gaining of Weight and Strength in Infants Through Different Methods of Feeding. O. Heubner.
2. Theory of the Action of the Lysins. P. Ehrlich and J. Morgenroth.
3. Remarks upon the Blood-Changes in Chlorosis. O. Schaumann and E. Willebrand.
4. An Argument Concerning Recovery from Cases of Solitary Tubercles in the Cerebellum of Adults. Br. Kallmeyer.
5. Concerning Hemorrhages from the Lungs in Consumption. G. Gabrilowisch.

1.—Heubner, in conjunction with Rubner, has studied the **metabolism of infants** in a way hitherto never attempted. Three infants were placed in glass-walled chambers connected with a respiration-apparatus, and all the excreta, gaseous, fluid, and solid, collected. The amount of food taken was ascertained in the case of the nursling by weighing the child after suckling; the bottle-fed children, by weighing the bottle before and after feeding. The apparatus and the infant were watched day and night by young medical men. During the observation the mothers, who entered willingly into the project, were kept in the Hygienic Institute. The first child was 9 weeks old, and weighed 5,230 grams at the beginning, and weighed 5,250 grams at the end of the nine-day period. It was entirely breast-fed. The second child was 7 months old, and weighed 7,570 grams at the beginning and 7,700 at the end of the seven-day period. It was bottle-fed. The third infant was an atrophic child 3½ months old. During 4 days it was fed on cow's milk, and then for 3 days on an artificial food (Kufecke-flour). At the beginning it weighed 2,935 grams, at the end of the milk-feeding 2,990, at the end of the flour-feeding 2,920 grams. The caloric value of the food in all three cases was carefully estimated, and it was found that in the first it was 72 calories per kilo of body-weight, instead of the 100 required at the age of the child. Yet the infant held its own, but did not grow. In the second case the food exceeded the required amount in caloric value, but the infant utilized only the quantity proper for its age. The third child received a large excess of calories, but made poor use of it, and grew at a lesser rate than a normal child of the same age. This was due to an intestinal disturbance from which it suffered. Heubner's studies shows the importance of the **nonnitrogenous foods**; these favor growth by protecting the albumins from useless decomposition. The growing infant retains albumin, but as soon as the nonnitrogenous foodstuffs sink below a certain level, the albumin is no longer retained. Which of the two nonnitrogenous foodstuffs plays the greater role cannot be readily determined from the experiments. In the healthy infant the fats are probably as useful as the sugars. In cases of intestinal weakness, the carbohydrates are more important. The experiments showed further that albumin, in the form of casein, is readily digested, and that casein is not, as some claim, a substance the digestion of which is difficult. Only when through overfeeding or through gastric disorders it stagnates in the intestinal canal it may prove harmful through decomposition. The amount of albumin necessary is not entirely governed by age and body-weight, but depends also on the condition of the infant. Studies on the CO_2 excretion developed the interesting fact that it was greater the larger the quantity of albumin ingested, which shows that if the food is abundant the albumins are the most energetic augmentors of heat-production. The experiments also demonstrated that an excess of albumius is of little service, but, on the contrary, leaves the body in the form of decomposition-products. An excess of proteid, therefore, throws more work, and unnecessary work as well, upon the infant organism. When an excessive amount of water is administered, as is especially the case in artificial feeding, it also taxes the energies of the organism unnecessarily. [These patient studies will do much to establish infant-feeding, the crux of medical practice, on a scientific basis. The three children were not in the least harmed, and throve well; the atrophic infant made a complete recovery under careful feeding. D.R.]

2.—Bordet had pointed out the analogy between Pfeiffer's phenomenon and the fact observed by himself, that the blood of guinea-pigs repeatedly injected with defibrinated rabbit's-blood exerted a solvent action on the blood-corpuscles of rabbits *in vitro*, the solution preceded by marked agglutination of the erythrocytes. If the guinea-pig serum is warmed to 55° C. for half an hour, the hemolytic function is destroyed, but the agglutinating property is not affected. The serum rendered inactive by heating regains its hemolytic property on the addition of a little normal guinea-pig serum, or even normal rabbit-serum. Active guinea-pig serum is strongly toxic when injected into the ear-vein of a rabbit. Ehrlich and Morgenroth have made similar experiments with the blood of a goat, that for a period of 8 months had received subcutaneous injections of sheep serum. The serum of this goat rapidly dissolved the erythrocytes of sheep's blood *in vitro*. It had, however, no agglutinating property. Warmed for half an hour to 56° C., it lost its hemolytic action, which was restored on the addition of normal goat or normal sheep serum, the latter being somewhat weaker. Normal serum rapidly loses its "activating" power. It is necessary to assume for hemolysis, as Pfeiffer has done for bacteriolysis, the existence of two substances, one specifically active and resistant, which the authors call **immune-substance** (*Immunkörper*), and another, normally present and very unstable, to which they give the noncommittal name of **addiment.** The fact that there is no antecedent agglutination proves that agglutination is not a prerequisite of the hemolytic process. The bacteriolytic substances (**lysins**) have no relation to the agglutinating substances (**agglutinins**). The authors apply Ehrlich's lateral chain-theory to the explanation of the origin of the hemolytic substances, and come to the conclusion that the dissolved immunkörper in the goat-serum is fixed by the red corpuscles of the sheep's blood. That this was the case they were able to prove by direct experiment. The immunkörper possesses a specific haptophorous group by which it is fixed to the red corpuscle. The latter takes up no addiment whatever, while the immunkörper combines with more or less of it. When the red corpuscle combines with the immunkörper, it also fixes more addiment, and the latter causes the solution after the manner of a digestive ferment. The immunkörper thus acts as a link by which the red corpuscle is brought under the influence of the addiment. The various phenomena can then be explained as follows: The immune substance combines in the blood with a small amount of normally present ferment and transmits it to the bacteria or red corpuscles. This explains why the digestive action becomes manifest only on the addition of the immunkörper. It is probable that the blood contains but few digestive substances, perhaps only one, but that it can contain countless different specific immunkörper. The lysins, on Ehrlich's lateral chain-theory, are, like the antitoxins, lateral-chain complexes that are thrown into the blood, and are a product of normal cell-activity under the influence of those bacteria solution of which they produce. [D.R.]

4.—Kallmeyer reports a case of **tumor of the cerebellum,** in a woman of 30, probably **tuberculous** in nature, that produced all the symptoms of cerebellar growths. The woman was under observation, off and on, for 8 years, during which time the symptoms of tumor gradually subsided, and the pulmonary tuberculosis which was present, proceeded also to practical recovery. The patient died of a purulent meningitis following influenza. At the autopsy the dentate nucleus of the cerebellum was found indurated and traversed by cicatricial bands. Microscopically neither giant-cells nor caseation was found, which Kallmeyer explains by assuming that the original tumor was small and had time to heal completely. [D.R.]

5.—Of 380 patients 213 or 56% had **hemoptysis.** Slight losses of blood do no harm; they are the so-called capillary hemorrhages. They cease without treatment, even without confinement to bed. If there is a dry cough, it should be controlled with codein and morphin; talking should be forbidden, also the ingestion of hot drinks and food. Large hemorrhages are of two kinds—acute and subacute. The first may be fatal in less than 10 minutes; the patient seems to die of suffocation rather than the actual loss of blood. Subacute hemorrhages are also sudden, but there are shorter or longer pauses between the succeeding hemorrhages. The amount of blood lost may be greater than in the acute, and yet the patient may survive. The treatment consists in absolute rest, injections of ergotin and of morphin if the cough is dry, but in doses that will not check expectoration. Sometimes there is a rise of temperature just before the hemorrhage. Digitalis might be of use prophylactically. After the hemoptysis Gabrilowisch administers extract of hydrastis for a period of 4 weeks. A careful record of the hemorrhages in his patients showed a marked seasonal influence—they were most numerous in March and October—none at all occurred during the warm months, from April to July. [D.R.]

Deutsche medicinische Wochenschrift.

December 29, 1898. [24. Jahrg., No. 52.]

1. Typhus and Trichinosis—Trepanation. H. Fischer.
2. Clinical Consideration of Peptic Ulcer of the Duodenum. O. Burwinkel.
3. Unusual Location of Psoriasis Lesions. Jul. Heller.
4. Conjunction of Double Hemianopsia and Diabetes Insipidus. A. Spanbock and J. Steinhaus.
5. A Research Into the Treatment of Empyema of the Thorax. A. Tietez.
6. A Case of Hysterical Muscle-Atrophy With Reversal of the Electric Reaction. C. Siebert.
7. Technic of Formaldehyd-Disinfection. Schumburg.

3.—Heller reports 3 cases of psoriasis that are characterized by the unusual distribution of the lesions. The first occurred in a girl of 16 years who had scratched the backs of both forearms, particularly in the region of the elbows. In these scratches, the plaques of a recurrent attack of psoriasis had developed. The second patient, a young man, had a general eruption of the disease, one of the involved areas corresponding exactly to a tattoo-mark upon the forearm. The third patient, a man 20 years of age, had had an attack of psoriasis from which he had partially recovered when he was vaccinated. The vaccination-scar was covered with an absolutely typical psoriasis-plaque. This last case is particularly valuable as showing that the previous disease, and not the vaccination, as is popularly believed, was the cause of the development of the psoriasis. [J.S.]

4.—Spanbock and Steinhaus record the case of a woman, 33 years of age, who at the age of 19 had had a **luetic infection** that was insufficiently treated. Subsequently she bore 2 dead and 4 living and healthy children. 12 years later, she began to lose flesh, to pass large quantities of urine, and noticed that she could not see objects lying on either side of her without turning her head completely. Examination of the form-fields showed the existence of typical **bilateral hemianopsia.** On the left side the divided line was exactly vertical. On the right the visual field projected slightly over the median line. The urine varied from 6 to 7 liters per day. The specific gravity was 1002 or 1003, the urea was between 0.4 and 0.7%, the chlorids about 0.2% and there was neither albumin nor sugar. Under vigorous antisyphilitic treatment, the ocular condition disappeared completely. Later all the other symptoms also disappeared, and the patient was perfectly well,—thus confirming the diagnosis of the syphilitic lesion, situated in the middle of the chiasm. The authors have collected altogether 11 similar cases from the literature; 6 of these were either incompletely observed or reported, and must be regarded as doubtful and in 4 others, not only is the polyuria uncertain, but it does not appear that the temporal hemianopsia was really bilateral. The eleventh case reported by David appears to be unquestionable. [J.S.]

5.—A. Tietze reports two cases of **tubercular empyema** which had been treated by aspiration and injection of iodoform into the pleural cavity. The first recovered entirely from the empyema, but died later on from tubercular bronchopneumonia. The second, after being treated returned to hospital apparently well, but a small quantity of a clear serous fluid was withdrawn from his chest. He, however, finally made a complete recovery. In both cases 11 punctures were made, at intervals varying from a week to a month. The first puncture for evacuating the pus was made with an ordinary trocar and cannula, but the subsequent injections of iodoform were made through a hollow needle. From 10 to 25 cu. cm. of a 10% glycerin-emulsion of iodoform were injected each time. Toxic symptoms are always possible after these injections, though they did not occur in the two reported cases. The next injection, however, should not be given until the iodid-reaction had been absent from the urine for several days. [G.B.W.]

6.—Siebert reports the case of a woman 42 years of age who, 7 years before examination, noticed a weakness in the left arm. This disappeared in the course of 3 or 4 months. Six years later, she noticed a feeling a numbness in the right leg, arm, and the right half of the head. After the birth of twins, severe pains were felt in these regions, but improvement gradually occurred. Later, after exertion the right hand felt numb. Afterwards there were several attacks of cramp in the hand, both of the tonic and clonic, followed by gradual contraction and loss of power of the fingers. When examined, the hand was found with the first phalanges extended, and the second flexed. An effort to overcome the contraction caused pain. There was stiffness in the wrist-joint, and very distinct **atrophy of the right forearm.** In some of the muscles the reaction-formulas of degeneration were obtained. Sensation was diminished. A year later, it was noted that atrophy had somewhat diminished. Siebert diagnoses the case as one of hysteria, partly on account of the variability of the symptoms, partly because otherwise it would be necessary to assume a coexistence of a central lesion to account for the contractions, and a peripheral lesion to account for the atrophy. The disturbance of sensibility, moreover, stopped at a transverse line passing completely around the limb at the shoulder. He excludes progressive muscular atrophy on account of absence of fibrillary twitchings, puerperal neuritis, because some of the symptoms occurred before parturition, and then calls attention to the similarity of the symptoms to those of the cases reported by various members of Charcot's school. [J.S.]

Wiener klinische Wochenschrift.

January 5, 1899. [12. Jahrg., No. 1.]

1. An Inquiry into the Mechanism of Agglutination. R. Kraus and W. Seng.
2. I. An Aseptic Operation-stitch. II. A Modification of Tiemann's Elastic Forceps for Removing Foreign Objects from the Bronchial Tubes. III. The Bottini Treatment of Prostatic Hypertrophy not destitute of danger. Rydygier.
3. Modification of the Methods of Apposition in Uranoplasty. Ottokar Chiari.

1.—Various theories have been advanced to explain the **mechanism of agglutination.** Gruber ascribed the process to a swelling and "glabrification" of the envelope of the bacteria. Pfeiffer contended that the swelling of the bacterial envelope was not demonstrable microscopically, and Bordet also considered it purely hypothetic. The latter attributed agglutination, (which has nothing to do with motility since it also occurs in dead bacteria) to a molecular attraction, but this, however, is likewise hypothetic. Kraus has shown that the addition of serum to a filtered culture produces a precipitate, and Paltauf, on the strength of this, elaborated the theory that the microorganisms are carried down mechanically by a precipitate and thus are agglutinated. Nicolle in a manner confirmed this by showing that if in the filtrate of a bacillus coli culture, talc or some other indifferent substance is suspended, the addition of specific (colon) serum causes an agglutination and precipitation of the talc-particles. Kraus and Seng suspended India ink, cinnabar, ultramarine, etc., in bouillon, and found that on the addition of alcohol, chrysoidin, caustic soda and other chemic substances, the suspended particles were agglutinated and precipitated just as microorganisms are by homologous serum. When water instead of bouillon was used agglutination did not occur. The authors conclude from these facts that **agglutination is a mechanical process** conditioned on the formation of precipitates. The precipitate is an absolute requisite of agglutination; in specific agglutination it is the specific agglutinizable substance which, partly in solution in the bouillon, partly adhering to the bacteria, forms a precipitate on the addition of the homologous serum; in nonspecific agglutination it is chiefly albuminous substances, which are precipitated by alcohol, chrysoidin, etc., and agglutinate the microorganismal or inorganic particles. [D.R.]

2.—III. **Bottini's method** of treating **prostatic hypertrophy** is not without more or less danger as exemplified by the case reported by Rydygier. Death from sepsis following extravasation is greatly to be feared in those cases where there is little or no hypertrophy of the middle lobe. If the lack of growth of this part can be detected the backward incision made with the cautery should not be extensive nor deep. Unfortunately this condition cannot always be detected and the accident which befell Rydygier's patient is always a possible occurrence. [G.B.W.]

3.—The modification in the introduction of sutures in uranoplasty, described by Chiari, consists essentially in the knotting of two separate ligatures posteriorly and then pulling the knot through one of the suture-punctures. After making two muco-periosteal flaps a long-handled needle with the end sharply curved and the eye very near the point, penetrates from behind forwards through the edge of one of the flaps. The needle is then threaded and the suture drawn through. The other side is treated in a like manner and the two posterior ends of the two sutures tied together. The knot is pulled anteriorly through one of the needle punctures and the suture is completed. [G.B.W.]

Neurologisches Centralblatt.

January 15, 1899. [18. Jahrg., No. 2.]

1. The Development of the Filet and Its Central Attachments. A. Döllken.
2. Changes in the Spinal Cord After Occlusion of the Abdominal Aorta in Dogs. Max Rothmann.

1.—Döllken has prepared a great number of series of sections of the brains of various animals and human beings, either before or just after birth. He uses a modification of Pal's method, leaving the section 4 or 5 days in a cold hematoxylin solution, then 2 hours in the incubator, then thorough washing and differentiating in potassium permanganate and oxalic acid. In a 7 months' human fetus, he found the olfactory lobes very clearly marked by the arrangement and form of the cells; this appearing to be the first region developed. The earliest trace of the filet was found in a cat 6 days old, and in a newborn rabbit, and consisted of a bundle of fibers passing from the interolivary space to the trapezoid body. There appears to be some difference in the rate of development, however, for a cat 3 days old showed these fibers even more distinctly. The filet appears to bend dorsally at the upper border of the pons; it then seems to acquire new fibers, and at the posterior end of the crus divides into 3 bands, the most lateral ending in the formatio reticularis and the corpora quadrigemina. A few fibers also pass to the substantia nigra, but it is not certain that any enter the red nucleus. The median bundle ends in the center median of the thalamus. Its fibers are fine, and probably arise from Goll's nucleus. The remaining band passes to the hilus thalami. In a 7 months' human fetus, Döllken has observed a band of fibers that pass from the lateral band of the filet into the globus pallidus, some of them also passing to the globus on the other side. In some of the lower animals a band of fibers pass from the ganglion of Luys between the two portions of the globus pallidus. Sections also show that the sensory fibers begin to acquire their myelin sheaths from the most peripheral portion of the central nervous system. that is, in the direction in which impulses are conveyed. [J.S.]

2.—Rothmann continues his paper upon the changes in the lower part of the spinal cord. Six hours after the ligation of the aorta, the Nissl bodies of the cells of the anterior horns appear to be paler and less sharply circumscribed. In some the nucleus is central; in others, it is distorted, and may be nearer the periphery. After 12 hours the Nissl bodies are no longer recognizable. The protoplasm in some cells is diffusely stained, and shows a fine, reticular structure. Many of the cells have lost their protoplasmic processes, and some have become mere colorless vesicles. After 28 hours, the Nissl bodies begin to reappear, and are grouped chiefly around in the nucleus. With the oil-immersion, they can be seen to form a fine, granular layer. The periphery usually remains unstained. After 4 or 5 days, the cells begin to recover, but some still appear to be shrunken, are granular, and the nucleus can scarcely be distinguished. Usually by this time there is dilatation of the vessels in the lower portion of the cord, and at the same time some vascular proliferation. At the end of 16 days, the conditions are nearly normal, showing that the majority of the cells have recovered. [J.S.]

Centralblatt für innere Medicin.

January 7, 1899. [20. Jahrg., No. 1.]

1. Clinical Diagnosis of the Size, Form, and Position of the Stomach. Georg Rosenfeld.

1.—Rosenfeld protests against the common conception of the **position of the stomach.** He states that his own investigations show that the lesser curvature. instead of running horizontally from left to right, is really directed first downward and to the left until the pyloric portion of the stomach is reached, when the lesser curvature sweeps about at an acute curve, runs slightly upward and toward the right, producing somewhat the form of an upright, reversed C. The general position of the stomach itself is, he believes, vertical, until the pyloric portion is reached, when it is nearly horizontal, but with a direction slightly upward and toward the right. The word gastroptosis does not please him, as he believes the condition is not one of simple descent of the stomach, but is really a dilatation of the stomach in its long axis, being merely the position of the stomach that he describes as normal. He describes two forms of dilatation, one vertical and the other horizontal, the latter giving rise to the more common variety of dilatation. There may be a form halfway between these two, in which there is some vertical and some horizontal dilatation, and an especial dilatation of the fundus minor. He protests against the use of the word gastrectasia to describe conditions in which there is simply stagnation of food and no increase in the size of the stomach, and insists that this word should be limited to conditions in which the stomach is enlarged. He describes his own method of investigating the size, shape, and position of the stomach, which consists in introducing a special sound made of soft rubber, resembling the ordinary tube, except that the lower end is entirely closed and there are small holes along the sides. The sound is filled with large shot, and introduced as usual; he then uses the fluoroscope, or takes radiographs of the region of the stomach, thus demonstrating the position occupied by the sound; then he inflates the stomach with air, and again uses the X-rays, and thus, he says, demonstrates the position of the organ with great clearness, the stomach appearing as a bright zone, whose limits may be clearly seen. [D.L.E.]

Sundry French Journals.

1. Influenza in Paris and the Concomitant Meteorologic Conditions Since 1895. The Epidemic of 1897–'98. P. Dignat. (*Jour. de Méd. de Paris*, Nov. 9, 1898. 18me. Année, Vol. x, No. 45.)
2. The Toxicity of Appendicitis. G. Dieulafoy. (*Presse Med.*, Nov. 9, 1898, No. 92.)
3. Typhoid Pleurisies. Ch. Achard. (*Sem. Méd.*, Oct. 19, 1898. 18me. Année, No. 52.)
4. The Culture of the Bacillus of Hansen and the Serum Diagnosis of Leprosy. C. H. H. Spronck. (*Sem. Méd.*, Sept. 28, 1898. 18me. Année, No. 40.

1.—Dignat considers an abnormal increase in the barometric pressure, abnormal temperature ranges, lowering of the electric influence, abnormal predominance of northern winds, and weakening of the actinometric degree to be the **meteorologic conditions** that precede the appearance of epidemics of **influenza.** [J.M.S.]

2.—Dieulafoy has studied the **toxicity of appendicitis** and closes his paper with the following conclusions: (1) The toxicity of appendicitis is confirmed by clinical facts and by laboratory experiments. (2) This toxicity may be slight, grave, and even fatal. (3) In the most common form, the toxicity manifests itself by a subicteric tint, with urobilinuria and albuminuria. (4) Jaundice, as the alteration of the liver-substance witnesses, is sometimes the indication of an extremely grave intoxication that affects the nervous system and that manifests itself by cerebral symptoms, by medullary symptoms, and by typhoid symptoms. (5) The only way to prevent the severe forms of appendicular intoxication is to do away with the toxic focus. (6) Operation should be performed early, in order to ward off the complications. (7) The patient should not die from appendicitis. [J.M.S.]

3.—Achard reports 2 cases of **pleuritis following typhoid fever.** The first patient was a young man, aged 26 years, who was suffering from undoubted typhoid fever. On the 18th day of the disease the patient became dyspneic and dulness was obtained at the left base of the thorax. An exploratory puncture showed the presence of a serous fluid that contained a few red blood-corpuscles and numerous leukocytes. Two days later, the fluid had increased and a second puncture resulted in obtaining 150 gm. of blood-stained fluid that contained white blood-cells in abundance. A third exploratory puncture was practised 6 days later, and this time the fluid was serosanguinous and contained fewer leukocytes. Then a small area of bronchopneumonia developed on the right side, and phlebitis in the left leg appeared. These complications disappeared and the patient recovered. Before full return to health was established, however, a fourth exploratory puncture revealed the presence of a small amount of fluid. Bacteriologic examination of the fluid always resulted in the development of a pure culture of the typhoid bacillus. The second case was that of a young girl, aged 20 years, who had been sick for 3 weeks with ambulatory typhoid fever. The temperature fell soon after admission to the hospital, but thoracic symptoms persisted that led to an exploratory puncture of the left pleura. This puncture showed the presence of a bloody fluid. Following this operation the temperature rose again and the patient's general condition became worse. A second puncure, 8 days after the first, resulted in obtaining a chocolate-colored fluid, containing many pus corpuscles and microorganisms that proved to be the bacillus of Eberth. Several days later, pain in the left hypochondrium with bulgng of the base of the thorax led to a third exploraory puncture, and this disclosed a greenish, purulent fluid. This fluid was freely aspirated, but the operation for mpyema was deferred, so that the patient might recuperate; ut she continued to grow worse, so that the surgical intererence was necessitated, weakened as her condition was. After the operation, complete recovery gradually took place. t is thus seen that the typhoid bacillus may give rise to a erofibrinous or a purulent pleuritis. In the first case the lood-serum of the patient agglutinated the typhoid bacillus in dilutions of 1 to 10, while the serous effusion agglutinated he bacillus in dilutions of 1 to 100; this latter fluid was also rongly bactericidal. In the second case the blood-serum gglutinated the typhoid bacillus in dilutions of 1 to 100 after the general infection was cured and when the pleural lesion was the only typhoid manifestation in the body. The therapeutics of pleurisy due to the bacillus of Eberth does not differ in its main points from that of pleurisy from any other cause. [J.M.S.]

4.—The following conclusions are published by Spronck, after a study of the bacillus of Hansen and the **serum-diagnosis of leprosy:** (1) The bacillus of Hansen may be cultivated and transplanted in successive colonies. (2) The attempt to cultivate the bacillus from 3 cases of mixed leprosy have, in 2 of the cases, given bacilli resembling the lepra-bacillus morphologically and capable of making the serum-diagnosis of the disease. (3) These bacilli adapt themselves with difficulty to the artificial culture-media, and, at first, they derive their nourishment from the leprous tissues that are inoculated with them into the medium; neutralized potato with glycerin is, so far, the only medium upon which colonies have been obtained at the end of 10 days, at 38° C. (4) These colonies cannot be reinoculated upon potato, but they grow readily in the gelatin horse-serum of Löffler. (5) The organisms are immobile, chromogenic, facultative, aerobic, not growing in meat-bouillon, but multiplying actively in simple fish-bouillon. (6) Artificial culture gives rise to a modified species of the lepra-bacillus; Flemming's solution does not turn them black, and the bacilli from cultures are decolorized more quickly by Ehrlich's process than are the organisms that are developed under normal conditions. (7) The modified species resembles the diphtheria-bacillus and the pseudo-diphtheria bacillus more closely than it does the bacillus of Koch. It is not pathogenic for animals. (8) The serum of non-leprous individuals, whether they are well or sick, behaves with the modified bacillus of Hansen in about the same manner that the serum of patients without typhoid fever acts towards the bacillus of Eberth-Gaffky. It is exceptional to find a non-leprous patient whose serum will agglutinate in dilutions of 1 to 20 or 1 to 40. (9) The serum of leprous patients, so far as examined, will agglutinate the bacillus in dilutions of 1 to 60 or 1 to 1000. (10) Three cases of old anesthetic leprosy (15 to 32 years) in which the spots had completely disappeared were exceptions to this rule; the agglutinating power in 2 was between 20 and 30, and in the other, was between 30 and 40. (11) There is probably no relation between the agglutinating power of the blood and the clinical symptoms, the form, or the intensity of the leprosy. (12) Serum-diagnosis seems to be able to render valuable clinical service: as a case of leprosy of Baeltz's type witnesses. (13) Leprous serum, with the addition of an equal quantity of 1% carbolized bouillon, preserved free from air and light, will retain its agglutinating power for at least 6 weeks. Dried serum retains its agglutinating properties for at least a month. (14) For the serum-diagnosis of leprosy it is necessary to employ young living cultures (an emulsion of a culture on gelatin-serum or a culture in codfish-bouillon); emulsions of dead bacilli, whether they have been killed by heat or by the addition of antiseptics (formalin or carbolic acid), cannot be utilized; because, after a time the reaction cannot be produced. (15) The modified bacillus of Hansen, thus produced, has, probably, been already isolated from leprous products by Bordoni-Uffreduzzi, Gianturco, Babes, Levy, and Czaplewski. [J.M.S.]

Insanity Following Surgical Operation.—Clarke (*Albany Medical Annals*, January, 1899) cites a number of cases of insanity following surgical operations, notably upon the generative organs in women. He does not think that insanity following such operations is due to the absence of the internal secretion of the ovaries, since it is seldom benefited by the use of ovarian extract and may occur following operations in which the ovaries are not involved. Yet the cause usually assigned for such resultant complication, that of "shock," is also inadequate to explain all the conditions. The type of insanity is almost invariably acute delirious mania. Clarke considers the insanity as expression of a form of autotoxis, but sounds a warning note on the dangers of indiscriminate operative procedures, particularly in the line of operation for removal of neurasthenic conditions. [G.C.C.H.]

Practical Therapeutics.

Under the charge of

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The Present Status of the Antistreptococcus-serum.—In the *Boston Medical and Surgical Journal* for February 2, Cotton presents a critical review of the literature relating to the use of antistreptococcic serum in the treatment of sepsis. After noting the difficulties in the way of drawing just conclusions, he summarizes as follows: The mortality, 32.3%, cannot be called low, even granting that the series includes many desperate cases. It is perhaps not fair to compare this with any ordinary series of cases of puerperal sepsis, but certainly on such figures as a basis there can be no talk of any considerable reduction of mortality.

In individual cases the use of the serum would seem to have helped definitely, but these are more than counterbalanced by cases of streptococcus-infection alone, where no effect whatever is to be attributed to the serum. The irregularity of course in puerperal fever, the difficulty of distinguishing the results of other treatment from those of serum, cannot be too clearly borne in mind. In a proportion of cases, however, there does appear, apparently as a definite result, a marked improvement in the subjective condition. This is by no means constant, and apparently bears little, if any, relation to the general course of the infection, but it seems definite and must mean something.

This seems reason enough to give the serum further trial—as a symptomatic treatment, if no more. There seems to be no good reason against its use. Urticaria, erythema, joint-pains, etc., are of not uncommon occurrence, but of no great moment. Abscesses at the point of injection, sometimes containing streptococci, are not rare, and would indicate care in using a bacteriologically tested serum.

If the serum is to be used in earnest, it should be used in considerable doses. Probably in many cases the dosage has been too small. The potency of different makes of serum varies, and they seem to lose notably by keeping. While there are no accurate data for dosage in man, yet the problem is not to protect against an infection, but to cope with an infection in full swing, and that with a serum of doubtful efficacy; the needed dose will probably be large if anything is to be accomplished. The limit of dosage must vary, but the untoward effects above noted are not frequent, and plenty of cases have borne 25 cc. doses.

There seems, then, some reason for continuing the use of the serum in cases of demonstrated streptococcus-infection; care is needful in selecting the serum to be used; it should be used, if at all, in considerable amount; and, above all, until more evidence of its power is forthcoming, it should be used as an adjunct only, and never to supplant or modify other treatment of the case.

In discussing the paper, Pratt states that the results in puerperal septicemia treated with antistreptococcic serum have been as follows: Cases 118; recoveries 76; deaths 42; percentage of recoveries 64.4; percentage of deaths 35.5. Of course the cases of most value are those in which streptococci were demonstrated in the uterine discharge. Of the 11 cases reported since January 1, 5 recovered and 6 died, a mortality of 54.5%. In 38 cases in which streptococci were not demonstrated there were 7 deaths, 18.4%.

Urotropin in the Treatment of Cystitis.—T. Gordon Kelly considers that the main indication in the treatment of cystitis is to render the urine antiseptic. The only drug that, in his experience, proved perfectly satisfactory for this purpose was urotropin. According to Kelly, urotropin is a non-toxic and non-irritating derivative of formic aldehyd, formed by the action of ammonia on formaldehyd. It was first introduced by Nicolaier for the purpose of dissolving uric-acid concretions, and for preventing the development of bacteria in the urine. While Kelly has had no opportunity of testing its power of dissolving calculi, he states that he has been satisfied beyond all expectations with its action in cases of cystitis and of phosphaturia. In no case did the patient complain of a burning sensation in the bladder, which is said sometimes to follow the use of the drug. When the urine is very acid a little potassium citrate or acetate, or if it is very alkaline, a little dilute mineral acid should be given in addition to the drug. Among several cases in which the drug proved valuable, there was one regarded as beyond medical aid, in which urotropin was brilliantly successful. The author believes that we have in urotropin the most thoroughly reliable urinary antiseptic and astringent, and the one nearest approaching to a specific for cystitis and allied affections.—*Therapist*, October 15, 1898.

Arsenic Iodid in the Treatment of Lymphatic and Scrofulous Infants.—Saint-Phillippe has found arsenic iodid of great value in various affections of childhood associated with the scrofulous diathesis, such as dermatitis, occurring between 6 months and 3 years, and when the most acute stage has passed; in obstinate ophthalmias; in coryza, with swollen nose and excoriated lips; in nasopharyngeal catarrh persisting after removal of adenoid growths; in recurring bronchitis, accompanied with pseudo-asthma, where the bronchial glands are the seat of tumefaction; in chronic bronchitis; in enteritis without pain; in fetid diarrhea; in dyspepsia with abdominal enlargement. The stable anhydrous iodid of arsenic is recommended. A solution of 1 part to 100 parts of cold water keeps indefinitely. Five to 20 or even 30 drops a day may be given before meals, in water, milk, or, in older children, in a glass of water and wine. The initial dose should be small. There is rarely any disturbance excited by its use; if, however, diarrhea, anorexia, excitement, or insomnia develop, the drug must be suspended for a time. The dose should be cautiously increased and held at the maximum for a time, and then gradually diminished, and finally suspended entirely for a few days.—*Annales de Médicine et Chirurgie Infantiles*, August 15, 1898.

Functional Arrhythmia.

℞.—Ferri valerianatis ....
Zinci valerianatis................................ āā. gr. xxx.
Strychninæ sulph................................ gr. j.
Pulv. digitalis..................................... gr. viii.
Ft. capsulæ No. XXX.
Sig.—Take one after meal-time. —ANDERS.

The Temporary Relief of Toothache.

Ackland recommends that the gum be dried, and painted with the following mixture:

℞.—Iodid liniment, } of each .... 1 minim.
Tincture of aconite, }
Chloroform.. 10 minims.

Migraine.

Frieser directs the patient to drink a quantity of hot water during the attack, and administers valerianate of menthol. The following formula may be employed:

℞.—Menthol valerian................................ ʒj.
Aq. dest....................................... ℥v.
Syr. capillor. vener............................ ℥vj.
M. Sig.—Fifteen drops every two hours.

When the pupils are contracted the following prescription may be given every two hours:

℞.—Caffein. citrat...................................
Menthol .... āā gr. vijss.
Quinin. sulph..................................... gr. xv.
Div. in chart. No. X.
Sig.—One every two hours.

Menthol valerianate should also be given between the attacks of migraine. Ferratin and somatose are useful in anemic patients. The diet of constipated patients must be carefully arranged. —*Münch. med. Woch.*

Nervous Vomiting.

℞.—Asafetidæ .... gr. xxx.
Ext. valerian .... gr. xviij.
M. Ft. in suppos. No. VI.
Sig.—One every two hours. —VAN VALZAH-NISBET.

Dropsy of Chronic Nephritis.

℞.—Spartein. sulph. .... gr. vi.
Caffein citrat. .... gr. xxiv.
Lithii benzoat. .... ʒjss.
M. Ft. chart. No. XII.
Sig.—One powder every three hours.

Original Articles.

JUDICIAL METHODS.—MEDICO-LEGAL TESTIMONY.—THE ZELNER CASE.

By HORATIO C. WOOD, M.D.,
of Philadelphia.

Probably every one who has mingled extensively with what may be called the upper middle classes in England and the Continent of Europe must have been impressed with the fact of their general belief that the greatest blot upon American civilization is the extraordinary number of homicides in the United States. That this feeling is well founded cannot be gainsaid. It is one of the evils of our system of government that the United States authorities of necessity take little interest in the question of crime, because criminal acts come under the jurisdiction of the individual States. Few of our individual State governments have reached that degree of civilization which makes a government take an intelligent, broad view of general questions; and so we have practically in the United States no official statistics in regard to homicides. The Chicago *Tribune* attempts to supply the deficiencies of government in this respect, and although it is not probable that the statistics which it gathers together are entirely accurate, they are the best we have, and are sufficiently near the truth to show the general drift of affairs.

According to these statistics, there were, in the 5 years ending with 1898, 48,312 homicides in this country, an average of a little under 10,000 a year. It may well be that there is some duplication in the gathering of the statistics by the *Tribune*, but it is certain that there are many murders which never come to the knowledge of the *Tribune* statistician, so that it is probable that 10,000 is not above the annual number of murders in the country.

Hangings being comparatively few, and a matter of official record, the statistics given by the *Tribune* are probably nearly accurate. There were, according to these statistics, 623 hangings in the 5 years; in other words, the executions in these 5 years amounted to a little over 1% of the total number of homicides of all grades.

The causes for the enormous annual slaughter amongst us are various, but that one of the efficient causes is the failure of our juridical system seems to me beyond cavil. Probably three-fourths of murderers go unpunished, and each man who plans murder or kills without premeditation hopes to be one of the great majority that escape the consequences of their acts.

The legal machinery provided by the law for the conviction of the murderer is composed of a district attorney or prosecuting legal officer, a grand jury, a petit jury, and judges, besides detectives, expert witnesses, etc. It is apparent that for the proof of the murder and the determination of the causes of death medical testimony is essential, and that, whatever may be the faults of medical testimony as given in the United States, the processes of the law cannot be carried out without it. It has become fashionable to abuse the medical expert, and, indeed, the whole medical profession, on account of expert testimony given in our courts. There is undoubtedly great reason for complaint, but the abuse should be directed not toward the medical profession but toward the present system of trial and the legal and legislative professions that have made it what it is. The medical profession in the United States comprises within its ranks every kind of man, from the criminal to the individual of highest character, from the semi-imbecile to the man of extraordinary intellectual power. It probably does not differ essentially in its personnel from the average educated classes of the whole community, but in so far as it does differ it is distinctly superior rather than inferior, the whole tendency of medical education and the stimulating force of medical *esprit de corps* being toward the elevation of the character of the individual. The existing scheme or plan of expert testimony, which is the outgrowth of legislation and not of any acts of the medical profession, either in its solidarity or its individuality, puts the greatest possible pressure upon the individual doctor to give inaccurate testimony, and affords the greatest possible latitude to the defendant, through his lawyers, to hunt up the ignorant and pliable and to avail himself of individual idiosyncrasies or dishonesties. From doctor to doctor, with a large fee in hand, the counsel goes, until at last a man is found who is willing to give the opinion that is wished. Of course, a fee is paid for an opinion rendered, whether that opinion be favorable or unfavorable to the desires of the lawyer, and by the acceptance of the fee the mouth of the physician consulted is absolutely sealed; so that the public never knows that the lawyer has consulted, it may be, a dozen doctors and received a dozen adverse reports before he has found one opinion that has suited his purpose, or one man who will bend to the lust of gold. Under these circumstances the question offers itself to every self-respecting member of the profession—"Shall or shall I not allow myself to be called into court?" As, however, the expert is an absolute necessity, and as the refusal of the honest and capable would leave the field even more open than it is at present to the dishonest and incapable, I cannot see that members of the profession are justified in refusing to testify concerning subjects within their immediate knowledge. There should be some way, however, by which the courts should make more distinction than they do at present between the true and the false experts. How honesty is to be probed it is difficult to say; but would it not be possible to have men licensed to practise as experts in the courts after examination, precisely as men are licensed before the courts to practise at the bar?

While, however, allowing the evils of expert testimony in criminal trials, I want to assert my opinion that it is no worse than the other features of our present system. I heard it once said in a public assembly, by one of Philadelphia's most famous lawyers, quoting the words of a famous English jurist, that there was no greater mistake than the supposition that the jury-system was conceived for the purpose of doing justice; that it was after all only a system, which by replacing the ordeal of battle should prevent men from flying at one another's throats, and which should also in a measure protect the rights of individuals against those in superior stations.

On the face of it there can be nothing more absurd than the leaving of questions of sanity, or of chemistry or other abstruse sciences, to 12 unlearned men. The constitution of the jury must be an embodiment of the prejudices of the community out of which it is formed. In a frontier settlement, where public opinion justifies the shooting of a man who has insulted the shooter, a jury can hardly be expected to convict one who murders upon what public opinion believes to be sufficient provocation. We have heard it stated by eminent counsel that in the State of Pennsylvania no man has ever been executed for even the most deliberately planned and premeditated murder of a man who has invaded his household-circle. I have known a man arm himself, travel some hundreds of miles to kill an individual such as just alluded to, and the jury acquit on the ground of instantaneous insanity. For less justifiable and often extremely recondite motives the deciding 12 sometimes reach conclusions most illogical. In the Meyer case, not long since tried in New York City, a conspiracy was entered into in Chicago to defraud life-insurance companies. It involved impersonation and taking out of policies in Chicago, the subsequent hiring of a flat in New York City, and the daily administration of poisonous doses, first of tartar emetic, afterward of arsenic, for some weeks, and when death resulted the attempt to secure the insurance-moneys. Yet the jury brought in a verdict of unpremeditated murder. But it would be an endless task to cite individual cases of unwarranted verdicts given by juries. While this article has been in proof the daily press has discussed several verdicts, which, according to the press itself, were wilful departures from the right.

Perhaps an even more serious obstacle to justice than the ignorance, the illogical mentality, and the prejudices of jurors, is the so-called process of "fixing the jury." That this exists in this city (Philadelphia) I have heard asserted by authorities who were most experienced in the practice of our criminal courts; and the recent introduction and passage by the State Senate of an Act which it is affirmed in the daily press and upon the floor of the Legislature is practically to render "fixing" of a jury less difficult, has led to public assertions by responsible men. Thus State Senator Weller, as reported in the Philadelphia *Public Ledger*, said:

> "Too often attempts are made by abhorrent means to fix the jurors or influence them in behalf of the accused, especially in our large cities. The inducements to work in behalf of the person charged are often very-potent. In our large cities there exist regularly arranged fraternities of professional jury fixers, bound together by secret oath, whose exertions are always put forth in behalf of the defendant, from whom, or his friends, they get their means of livelihood."

We are so accustomed to the position in which the law places the judge in a murder-case that its anomalous character fails to be perceived. Probably as a long-continuing result of the bloody assizes of England (when at the order of judges English blood flowed like water) if the life of a prisoner is imperiled, the law and the custom, which is almost more constraining than law, practically instructs the judge to favor the accused in his rulings—instructions which are often fortified by the enforced absence of the murdered person and the presence of the alleged murderer, especially if it so be that the latter be a female of prepossessing appearance. Under these circumstances the law further proceeds to make the decisions of the judge that are against the prisoner open to revision by the superior court, but declares that the decisions that are in favor of the prisoner shall be final; so that, however outrageous they may be, they cannot be revoked by any superior tribunal. The law puts it in the power of a single judge, through ignorance or prejudice, or worse motive, practically to free the prisoner; and holds the judge responsible only to a public opinion, which is usually paying no attention to the matter. The Zelner case, recently tried in Philadelphia, shows that the possession of this power by the judges is not merely a dead theory, but a living, active factor of our criminal juridical system; since, in that case, the presiding judge assumed the whole responsibility, practically taking the decision out of the hands of the jury and setting free the accused.

When it is remembered that the extraordinary opportunities offered for the defendant by the jury trial ar to be taken advantage of by men of the highest menta acumen and technical skill, who with single eye struggl in the criminal courts for the purpose of acquittin prisoners, it seems a wonder that every criminal doe not escape through the various openings, and that th convictions are so frequent as they are.

So far, then, as concerns expert testimony in ou courts, I desire to make the claim that it is only pa and parcel of a juridical system which has been d veloped under circumstances essentially different fro those now existing, and that with all its faults it neither better nor worse than other similarly integra portions of that system, and that its serious reformatio or change is probably impossible without a change the whole method of trial; to drop it out of the ju trial would be simply to make the latter more of a far than it is at present. It is interesting to note that at least one State has begun to break away from that archaic fetichism which has so long led Anglo-Saxon legal and legislative minds to worship the jury-system, and that in Maryland a murderer may be tried at his own option by a bench of judges instead of by a jury. The writer had the privilege to act in one such trial as expert, and the revolution in the manners and methods of the court-room were a revelation; no contention of what was or was not evidence, no attempt to introduce material to bewilder the juror, no speeches to inflame prejudice or soften the sympathies; nothing but a straightforward common-sense procedure, which in a single day finished very satisfactorily a difficult case that under the older methods would have involved the court for nearly a week and ended in a verdict the character of which no man could predict.

Under existing circumstances judicial decisions that are unusual become a matter of public interest, and especially of interest to the medical profession when they are connected with the giving of expert testimony. Further, the only check that there is upon the medical expert, over and beyond the control of his individual conscience, is his feeling of responsibility to the general medical profession.

It is evident that if medical testimony reaches not beyond the confines of the court-room, the feeling of responsibility to the profession on the part of the giver holds no sway; and therefore when medical testimony is unusual it is a matter of public interest that it be known to the general profession.

It is over 30 years since I was engaged as expert in my first case of alleged poisoning, the notorious Schoeppe case, in which I had the pleasure of hearing he medical expert say that "the woman must have died of compound poisoning, because he had taken from a drug-store a little of every poison which was in t and given it to a hawk, which died with the same ymptoms the woman had shown." During the whole of his long experience there has been no trial in which tatements of the experts and the methods of the court ave seemed more worthy of record than in the Zelner ase, recently tried in Philadelphia. With this much of pology I shall proceed to give a succinct account of his case, using an official copy of the stenographic otes as the basis of the article.

Case.—According to the testimony of his friend and ong-time physician, Dr. Wm. A. Burns, Mr. Zelner was a man of about 60 years of age, very robust and free from istory of past illness. He was taken sick suddenly in he night of April 12, 1897. The chief evidence concerning his illness was that of police-officer John H. offman, who stated that Mrs. Zelner came to him bout 5 o'clock in the morning, on the street, saying at Mr. Zelner "had a stroke;" that he then went into r. Zelner's room, and that Mr. Zelner appeared to be great agony, saying:

> "'I have got cramp in my legs.' We took the covers off him and we rubbed his legs for quite a while. He kept crying 'Whoo, whoo, my, whoo, whoo, my,' just about that way.
>
> "Q. Convulsive and rigid?
>
> "A. Yes. He said, 'I think I am dying.' I said, 'No, Reub, you are not dying; you have got cramps, I suppose.' 'Whoo, whoo,' he says, 'such pains.' I said to his wife, who came upstairs, 'Go and get some hot cloths; probably that will relieve him.' She brought the cloths up. We laid them on his legs, and he says, 'Whoo, I think I am dying.' I said, 'No, you are not dying; you are frightened, that is all; you have got great pain.' We put these cloths on, and while we were at it he turned his head over towards the right, towards Eleventh Street, and he says, 'Dying'; he straightened out and was dead. [Witness here threw his head upwards and backwards, imitating actions of a man who dies in a tetanic spasm.]"

Cross-examination of Mr. Hoffman failed to elicit anything of importance, unless it was that he had not observed lividity of the face, risus sardonicus, and certain other of the minute symptoms usually present in strychnia poisoning. The time of observation was very short; to use the words of the witness, "He [Mr. Zelner] did not live long enough after I got there to complain of much."

Dr. Henry W. Cattell, coroner's physician, testified that he had made two autopsies on the body of Reuben Zelner, one before and one after burial, and had found no cause of death; some congestion of the brain and a little increase of the cerebral fluids being, however, noted; that the body was that of a man weighing about 150 lbs., and that he (Dr. Cattell) had taken about 20 lbs. of the soft tissues and put them in the hands of the chemists, being careful to choose a great variety of places from which to select portions so as to have samples of the whole body. He selected the stomach, a portion of the intestines, a portion of the liver, one kidney, a large piece from the muscles of the region of the thighs, another piece from the muscles of the shoulders and the arm, and a portion of the brain; the whole representing one-sixth of the weight of the soft parts, calculating the bones at 30 lbs.

The chemical examinations for the Commonwealth of the portions of the body selected by Dr. Cattell were made independently of each other, by Dr. John Marshall, Professor of Chemistry in the Department of Medicine of the University of Pennsylvania, and by Mr. William C. Robinson, Jr., Chemist to the Philadelphia Board of Health. At the time the chemical examination was being made Dr. Marshall was in entire ignorance of Mr. Robinson having been engaged to make a chemical examination, and likewise Mr. Robinson was in entire ignorance of Dr. Marshall having been engaged to make an examination.

Dr. Marshall produced in Court the strychnine that he had obtained in the body, saying of it (page 148):

> "I am satisfied that the substance which I have here, and which I have tested, is strychnine and nothing else."

The evidences relied upon by the chemists as proof that the substance finally obtained from the material submitted for examination was strychnine were as follows:

Dr. Marshall's Conclusions:

(1) The crystalline form of the colorless residue.
(2) The intensely bitter taste.
(3) The response to the color-test with sulphuric acid and potassium bichromate.
(4) The physiologic test, *i.e.*, the production of spasmodic muscular contractions after the injection of a dilute aqueous solution of the residue into the backs of frogs.

Mr. Robinson's Conclusions.

(1) The crystalline form of the colorless residue.
(2) The intensely bitter taste of the residue.
(3) The response to the color-test with sulphuric acid and potassium bichromate.
(4) The production of characteristic crystals of strychnine chromate upon the addition of potassium chromate to a solution of the crystalline residue obtained from the material examined.

The amount of tissue operated upon by Dr. Marshall was about 2 lbs. of liver, 6 lbs. of muscle, 5 lbs. of intestines, and $1\frac{1}{2}$ lbs. of brain. These tissues were examined separately, and from the liver was recovered strychnine equivalent to 0.0217 grain strychnine sulphate; from the muscle, strychnine equivalent to 0.0079 grain strychnine sulphate, equivalent in the aggregate to 0.0296, equal to $\frac{1}{43}$ grain strychnine sulphate; from the intestines, strychnine equivalent to 0.0236 grain strychnine sulphate which, added to the 0.0296 grain strychnine sulphate of the liver and muscle, would equal 0.0532 grain strychnine sulphate, or $\frac{1}{18}$ grain strychnine sulphate. The quantity of strychnine recovered from the brain was insufficient to be weighed, but was quite sufficient in quantity to permit of the application of the tests as to taste, the color-test with sulphuric acid and potassium bichromate, and also the physiologic test.

Mr. Robinson recovered from the contents of the stomach 0.23 grain strychnine, equivalent to 0.2947 grain strychnine sulphate, or $\frac{1}{4}$ grain strychnine sulphate. From portions of the kidney, liver, and brain, which were examined together, Mr. Robinson recovered strychnine equivalent to 0.1067 grain strychnine sulphate, and from the muscle, strychnine equivalent to 0.1153 grain strychnine sulphate, a total of 0.222 grain strychnine sulphate, or $\frac{1}{5}$ grain strychnine sulphate.

Considering only the alkaloid that was absorbed, namely, that recovered from portions of the liver, muscle, kidney, and brain, by Dr. Marshall and Mr. Robinson, there was recovered 0.0296 grain plus 0.0222 grain strychnine sulphate, or in the aggregate $\frac{1}{4}$ grain strychnine sulphate. This, then, was the amount of absorbed alkaloid calculated as strychnine sulphate recovered from the twenty wounds of tissues examined by the chemists. The quantity of unabsorbed alkaloid recovered from the intestines was equivalent to 0.0236 grain strychnine sulphate, and from the contents of the stomach was equivalent to 0.2947 grain strychnine sulphate, making the quantity of unabsorbed alkaloid recovered equivalent to 0.3479 grain strychnine sulphate.

After the conclusion of the other expert testimony I was put upon the stand. In answer to the direct question, I said (page 209):

> "My opinion is that the death (Reuben Zelner) was due to strychnine-poisoning. The cause of death was strychnia."

In answer to another question, I said (pp. 209–210):

> "The minimum toxic dose of strychnia that has taken life in the adult is from $\frac{1}{3}$ to $\frac{1}{2}$ grain. According to the testimony here given, $\frac{1}{2}$ grain of strychnia was obtained from the body of the deceased, and was obtained from only a portion of the soft tissues, which were so scattered and so selected that it is a practical certainty that only a portion of the strychnia that was in the body was obtained by the chemists. So that there was present, without doubt, more than the minimum fatal dose of strychnia in the body of Mr. Zelner."

Also, in regard to the cumulative effect of strychnia, (page 210):

> "My experience is that no evidence of the accumulation of strychnia can ever be obtained. On the other hand, it usually loses its influence, so that when used continuously with good effect, we have to give it in ascending or slightly increasing doses. There are some authorities, especially some of the Germans, who believe that strychnia accumulates. As the result of very wide study and enormous experience and much reading, I do not believe that this occurs."

Further, in reply to questions asked, I stated with details the differences between the symptoms of tyrotoxicon-poisoning and those of strychnia-poisoning and in answer to the following direct question gave the appended answer:

Page 212. (Official stenographic report.)

> "Q. Referring you again to the symptoms as described by Sergeant Hoffman, to the actual finding of a toxical dose o strychnine in this body, and to the negative results of the post-mortem examination, can you say that death was due here to strychnia-poisoning, and exclude tetanus and tyrotoxicon?
>
> "A. I don't think the symptoms resemble tyrotoxicon-poisoning; not according to all experience does it resemble it at all. When the question comes between tetanus an strychnia-poisoning, the symptoms are more consistent wit those of ordinary strychnia-poisoning than they are wit tetanus-poisoning, in their greater abruptness and greate rapidity. There are no post-mortem lesions, either fo strychnia or in tetanus, which are characteristic, leaving out of course, the question of the cultivation of the fluids an the finding of the bacillus. As the symptoms were consisten with those of strychnia-poisoning, and more consistent wit those of strychnia-poisoning than any other disease, a tetanus, and as the post-mortem lesions were consistent wit strychnia-poisoning, and as a fatal amount of strychnia, or sufficient amount to cause death, was found in the body o the deceased, I can't get away from the conviction that th case was one of strychnia-poisoning."

With the guilt or innocence of the prisoner at th bar the expert has really nothing to do, and so I shal say in this article nothing whatever concerning th testimony given at the trial for the purpose of connec ing the prisoner with the alleged poisoning. Probabl no case of strychnia-poisoning in the world's medic legal annals has been better demonstrated than i the present instance. Dr. Marshall produced in th court-room, in several glass dishes, a quantity crystalline strychnine, equivalent to $\frac{1}{18}$ grain of stryc nine-sulphate. If our legal methods of trial we constructed for the purpose simply of finding out th truth in accordance with the dictates of common sens these crystalline residues would have been referred a third chemist, who in the presence of the chemists of the prosecution and the defence would have either confirmed or overthrown the statement that these residues were pure strychnine. Under the ægis of the law, however, very properly from their point of view, the counsels of the defendant proceeded to refer the testimony and not the residues to experts, or persons willing to appear as experts. Dr. Hobart A. Hare was consulted by the attorneys for the defence, but gave the positive opinion that the case was one of strychnine-poisoning and consequently he was not called upon to testify. Of the experts who were willing to appear upon the stand, Dr. George H. Meeker, Professor of Chemistry in he Medico-Chirurgical College, impugned the testimony of the chemists; while Dr. J. V. Shoemaker atacked that of the medical expert. The testimony of hese gentlemen is, of course, too long to be quoted in journal article, and under the circumstances a prolonged analysis of the testimony is hardly called for. Dr. Meeker said of the alkaloidal residues that Dr. Marhall and Mr. Robinson had sworn to be pure strychine (Official Testimony, pp. 381-382):

> "I say that it is not a justified conclusion to say that it is ll strychnine. I will go further in that and say that it is *ot a necessary conclusion that there is any strychnine there at ll.* My reason for saying that is this: Alkaloids are divided ccording to their genesis—the sources from which they are btained—conveniently into two classes, termed the vegetokaloids and the animal alkaloids. Among the vegetable kaloids, of which strychnine of course is one, being obtained om the Strychnos nux vomica—among these vegetable kaloids there is one alkaloid, which, according to some ithorities gives the same tests as strychnine. This alkaloid the alkaloid aspidospermine."

Later in his cross-examination Dr. Meeker named ellagrosine as an animal alkaloid (ptomains) that gave e strychnine color-reactions.

Dr. Meeker went still further than this in his testimony at least giving the impression that there are no nown tests to distinguish quinine in such an alkaloidal sidue as was obtained by Dr. Marshall and Mr. Robson.

He said, see O. T., p. 405, in answer to a question from e district attorney:

> "A. To discover in this alkaloidal residue that it was tly composed of quinine. I can't outline any satisfactory t.
> Q. You cannot?
> A. I cannot.

P. 406:

> Q. Before passing away from the present point of inquiry, ant you to tell me 'yes,' or 'no,' whether there are tests which the presence or absence of quinine can be disclosed he chemist. I want an answer 'yes' or 'no.'
> A. I can't answer differently from what I did before."

The examination of Dr. Shoemaker, through no fault ll of his, was proceeded with in a manner that, if it mitated, must in itself destroy the value of expert imony in any case. The opinion of Dr. Shoemaker the case was not made out to be one of strychnine-soning, appeared, according to his own statements on the stand, to be based upon the consideration of the whole testimony; for in answer to the question of the district attorney, he said (pp. 612–613):

> "Q. Are you aware that it has been testified that $\frac{23}{100}$ of a grain of strychnine was found in the stomach of this man?
> A. I read that testimony, and then I read what Dr. Meeker said, or rather I heard Dr. Meeker take into question the accuracy of this test and the accuracy of the other tests. In fact, I observed him making this demonstration, pointing out that possibly there might be some quinine in combination with the strychnine.
> "Q. Is that what affects your judgment?
> "A. Is that what affects my judgment?
> "Q. Yes. In what way? Do you first assume to pass upon the two kinds of testimony and determine which is right and which is wrong, and then formulate your opinion based upon the result?
> "A. I am not formulating an opinion."

Further, in another place (p. 617), Dr. Shoemaker said in reply to a question by the district attorney:

> "Q. I am asking you one point at a time. What influence upon your judgment would the finding in the stomach of $\frac{23}{100}$ of a grain of strychnia have?
> "A. I would want to be certain that strychnia was found.
> "Q. But when you come here to testify upon this question you must assume that the evidence you have read is true.
> "A. But I don't assume that."

It is plain that when there is conflict of chemical testimony if the expert gives medical testimony upon the whole case he must take upon himself the function of the jury, because he must assume, as the basis of his opinion, that one set of alleged facts is true and the other false—that one chemist is right and the other wrong. It is further evident that so long as this is allowed in the courts there can never be anything but confusion. Dr. X, in a case like the present, will assume that the chemist who said there is strychnine present was correct; he will conclude that the death was due to strychnine. Dr. Y will assume that what the chemist who denied the existence of strychnine said is true; to him the death was not by poisoning. So soon as there are antagonistic assertions and denials of alleged facts the expert opinions should evidently be given upon at least two hypothetical questions, one question being framed in accordance with one alleged set of facts of the case, the other in accordance with the other allegations. Which of the contradictory statements as to facts is proved by the testimony to be true it certainly is the province of the jury, not of the expert, to determine; and the application to the case in hand of the opinion of the expert should stand or fall as the jury finds the hypothetical question is or is not in accord with what it believes to be the facts of the case. The opinion of the expert should always be correct, but may or may not be applicable to the case.

Besides the main question of whether or not Mr. Zelner's death was due to strychnine, Dr. Shoemaker was called to prove that a man might be taking strychnine in ordinary therapeutic doses when suddenly toxic and even fatal symptoms might occur. On this point he said (Examination in Chief, p. 609):

"A. I believe that strychnia is very slowly eliminated from the body. As to whether it is destroyed within, I am unable to say. My impression is it is stored up, and often it will burst suddenly upon the system and give rise to this toxic effect."

In his cross-examination he said (p. 621):

"Q. Have you had a case of fatal poisoning from the accumulation of strychnine administered medicinally?
"A. I have not, sir. I know of a man ——
(Objected to).
"Q. (Question repeated).
"A. I have said I have not, but I have seen the toxic action of strychnine from what, in my experience and belief, was its cumulative effect in the system.
"Q. It didn't cause death?
"A. It didn't cause death, but probably it might have caused death.

In cross-examination the district attorney attempted, among other things, to make Dr. Shoemaker acknowledge that the finding of $\frac{1}{4}$ grain of strychnine in the stomach would show that more than the medicinal dose of strychnine had been recently taken by the subject. His success is indicated by the following excerpts from the official record, page 625:

"Q. I want to know, sir, whether the fact that strychnia was found in the stomach here wouldn't indicate to you, as a reasonable man and as a physician, that strychnia had been recently administered, and only a portion of it had been absorbed into the system. Isn't that so?
"A. Wouldn't I assume? Under no circumstances.
"Q. Wouldn't it indicate that to your mind?
"A. That would depend upon the surrounding circumstances, sir, and the condition of the patient."

Page 626:

"Q. Wouldn't that be the natural thought that would come from such a condition as that?
"A. It would be if I had prejudged the condition and wanted to come to the conclusion you want me to come to.
"Q. Wouldn't it be the fact, unless there was some exceptional circumstances existing?
"A. Why should there be some exceptional circumstances existing?
"Q. Answer my question first. Wouldn't that be the fact, unless there were some exceptional circumstances existing?
"A. I should want to take into consideration the whole condition before I would agree with you on that point.
"Q. What would you require to take into consideration in order to answer that simple question?
"A. I would want to know if this patient had been upon strychnine, who had been administering, whether he had been taking strychnine himself, and the quantity of strychnine he had been taking."

Page 627:

"Q. Wouldn't the finding of $\frac{23}{100}$ grain in the stomach, not taken into the system, indicate to you that more than a medicinal dose had been administered to that man?
"A. It would not, because as much as that has been administered to some individuals."

The next point in the district attorney's inquiry was an attempt on his part to have Dr. Shoemaker trace the distribution of poison through the system by the circulation after the absorption of the poison. As this piece of testimony seems to me worthy to rank among the curiosities of medico-legal literature I give it in full.

Dr. Shoemaker's Testimony.

Page 631:

"Q. When the blood goes charged with its load to be carried through the system from the digestive organs, where does it carry it first?
"A. Carried it through the system by the circulation.
"Q. The system is the whole body. I ask you what part does it carry it to first, if you know. If you don't know, say so frankly.
"A. If I don't know?
"Q. You don't know.
"A. You wanted me to say I didn't. I told you it was returned to the heart and then distributed by the circulation.
"Q. Where?
"A. It is taken up by the lymphatics and lacteals, and it is distributed and carried into the circulation, and carried to the different parts of the body. I don't assume it goes to one particular spot, and neither do you.
"Q. Can't you tell where it goes first?
"A. I don't assume where it goes first.
"Q. Do you know?
"A. I have told you what I know.
"Q. Answer me directly. Do you know where it goes to first?
"A. I told you it came back to the heart and from the heart, and from the heart it is distributed to the different organs.
"Q. Comes from where to the heart?

Page 632:

"A. It is taken up by the lacteals and lymphatics and carried into the circulation, and from the circulation it is distributed into the different organs.
"Q. You can't tell me, then, where it goes to first, in the course of circulation?
"A. I tried to tell you.
"Q. No; you simply gave me the general system. You said 'It goes back to the heart.' Of course it goes back to the heart, and it comes back from the heart.
"A. When does it reach the stomach by the circulation?
"Q. From the heart to the stomach, how many points does it pass?
"A. It reaches the stomach by the circulation.
"Q. I ask you how it does that?
"A. It is distributed by the cœliac plexus. It is back of the stomach; supplies the stomach. I'll tell you, if you want to know.
"Q. What vein is it that feeds the liver?
"A. The portal vein.
"Q. Where does it come from?
"A. It is given off the vena cava.
"Q. Where?
"A. From the vena cava.
"Q. That is what?
"A. That is a part of the portal circulation; part of the veins.

Page 633:

"Q. What is that?
"A. I told you it was given off the vena cava. That i part of the portal circulation.
"Q. Won't you describe in plain English what that is, s that a layman can understand it?
"A. In the first place, we have what is called the arteria circulation. Then we have what is called the venous circu lation, and from the venous circulation we have the distribu tion of the blood through the veins, and from the venou circulation we have the portal vein going to the liver.
"Q. You cannot tell, then, whether there is an even di tribution through the body or not?
"A. Can you tell me?
"Q. I am not an expert like you, Doctor, and a great ma
"A. Well, you want to put an answer in my mouth.
"Q. I will ask you this question. Can you or can yo not tell whether there is an even distribution through th circulation, of strychnine poison?
"A. I wouldn't undertake to say."

So far as the question of whether the death of M Zelner was due to strychnine or not, when the defen rested its case, the situation was, that the prosecuti claimed to have proven by its witnesses, (1) that the was in the body of Mr. Zelner more than a fatal do of strychnine: ¼ grain of strychnine (calculated as sulphate) in the stomach : ¼ grain in one-fifth of the soft tissues; (2) that the death had been sudden, with symptoms that were consistent with strychnine-poisoning, without cause having been found at the autopsy; (3) that the death was due to strychnine; whilst the defence, through its experts, claimed that the substance produced in court as strychnine by the chemists was not proved by them to be strychnine, but might be a mixture of quinine and strychnine, or even contain no strychnine whatever, being simply aspidospermine or an animal alkaloid, because these substances would respond like strychnine to the tests relied upon by the Commonwealth's chemists, and that there was no proof that the death of Mr. Zelner was caused by strychnine.

In rebuttal the district attorney attempted to show by Dr. Marshall, (1) that it was possible to recognize quinine if it had been present in the alleged strychnine, and that it was not present; (2) that the statement of Dr. Meeker that aspidospermine gives reactions like those of strychnine is not correct; Dr. Marshall had the aspidospermine in court, and proposed to demonstrate the difference before the court and the jury. It is somewhat questionable whether such demonstration ought to be allowed in a court of justice, but as Dr. Meeker had been permitted to demonstrate that the color-reaction would occur in a mixture of strychnine and quinine as well as with pure strychnine no objection would seem to hold against a counter-demonstration by Dr. Marshall; in fact, no objection was made to such demonstration because the court refused to allow the rebuttal testimony before the district attorney had gone that far with Dr. Marshall. Whether the district attorney could or could not have gotten his rebutting testimony in evidence by putting it in some different form I am not lawyer enough to know; but evidently he thought the attempt useless, because he made no further effort. The following excerpt is from the official record :

Examination in rebuttal of Dr. Marshall by the district attorney.

Pages 643, 644 :

"Q. You have been sworn and testified at length in this matter. I want to direct your attention to one or two particular points. Mr. Meeker was examined, and gave some illustrations which were intended to show that quinine might be present in these tests which you made with the alkaloidal residue that was pronounced by you to be strychnine, and that in that way the question of the weight which you had given would be attacked. What have you to say as to the presence of quinine in the alkaloidal residue.

"(Objected to by Mr. Stevenson.)

"Mr. Graham. I propose to show that there was no quinine in the alkaloidal residue. I propose now, in the interests of truth and justice, to show before this jury by a test that there was no quinine in that residue. That removes the criticism absolutely, and it is in reply to the criticism made by Mr. Meeker.

"(Objection sustained.)

"Q. Have you any knowledge of aspidospermine?

"A. I have.

"Q. Was there any of this alkaloid in the residue which you found?

"(Objected to by Mr. Stevenson. Objection sustained.)

"(No cross-examination.)"

The allegations—that quinine when mixed with strychnine can not be recognized in an alkaloidal residue; that strychnine is liable to accumulate in the stomach or system and produce a sudden fatal outburst of symptoms; that aspidospermine gives the same color-reaction with sulphuric acid and potassium bichromate as strychnine; that the portal vein arises out of the vena cava—are equally correct, none of them being true; nevertheless, rebuttal was not permitted.

It must be evident to every thinking expert that if the method of procedure and rulings that were followed in this case are to be followed in the future in the Philadelphia courts, it will be impossible, except under the rarest circumstances, to give that demonstration of death by poisoning which should be the basis of conviction for murder by poisons. It will always be possible for defending lawyers to find some one who, through ignorance, inadvertence, love of lucre, or other reason, will deny the simplest facts of toxicologic science. As stated by the district attorney in the course of the case, the law does not allow the contradiction of such statements by books; if, therefore, it be not allowable to rebut such allegations as those given in the present case, how is the truth to be made out? It is impossible for any chemist in the primary evidence to foresee and guard against all lines of attack by incorrect statements to be made by the defence. If the validity of the tests relied upon by the chemist for the recognition of a certain alkaloid is called in question by the defence, which asserts that another alkaloid will respond to the same test, the Commonwealth must have the right to show that this is incorrect, or the truth cannot be established.

The present difficulties surrounding medical expert testimony are great, but if the alternately loose and strict rulings given in the Zelner case are to be the pattern for the future, these difficulties have to my thinking become insuperable and another long step has been taken to the *reductio ad absurdum* of trial by jury.

The Frequency of Gallstones.—J. McArdle (*Medical Press and Circular*, December 21, 1898) contends that gallstones cause death without being diagnosed, more frequently than is generally known, the secondary effects of the blocking of the hepatic ducts often being ascribed to other causes. Gastric and intestinal disturbances that arise from adhesions starting from the gall-bladder as an inflammatory center are rarely referred to the proper source. Mechanical interference with the functions of the liver, stomach or intestines may simulate malignant disease, and this is a somewhat frequent source of error, often because the constitutional symptoms—epigastric pain after ingestion of food, increased by exertion; increasing emaciation; flatulence; prostration—do not generally appear until so long a time after the attack of colic attendant upon the passage of gallstones. A number of cases are cited to sustain this view. [G.C.C.H.]

THE DEATH-RATE FROM DIPHTHERIA IN THE LARGE CITIES OF THE UNITED STATES.

By EDWIN O. JORDAN, Ph.D.

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THE remarkable decline in the total number of deaths from diphtheria which has followed the introduction of the antitoxin-treatment in Berlin, Paris, and other European municipalities (Table I) suggests the inquiry whether a similar degree of success has been obtained in this country.

TABLE I.

Berlin.*			266 German Towns of over 15,000 Inhab.*		Paris.†	
Year.	Cases Reported.	Deaths.	Year.	Deaths.	Year.	Deaths.
1886	6968	1662	1886	12211	1886	1472
1887	5438	1392	1887	10970	1887	1585
1888	4190	1195	1888	10142	1888	1729
1889	4220	1210	1889	11919	1889	1706
1890	4586	1601	1890	11915	1890	1659
1891	3504	1106	1891	10484	1891	1361
1892	3683	1342	1892	12365	1892	1403
1893	4315	1637	1893	16557	1893	1266
1894	5220	1416	1894	13790	1894	*1009*
1895	6106	*987*	1895	*7611*	1895	*435*
1896	4345	*559*	1896	*6262*	1896	*444*
1897	3723	*546*	1897	*5208*	1897	*268*

The conclusive figures published over two years ago by the American Pediatric Society (*New York Medical Journal*, July 4, 1896), sufficiently attest the value of the antitoxin-treatment under American conditions whenever diagnosis is sure and application of the remedy timely, and the records of the Department of Health of the city of Chicago, as well as the similar records in New York and other places, furnish important additional testimony to the same end.

The antitoxin-treatment of diphtheria by the Chicago Department of Health was begun October 5, 1895. In the succeeding 26 months 3,822 cases of bacterially verified diphtheria have been treated by the physicians of the Department. Out of this number 3,563 recovered and 259 died, making a mortality-rate of only 6.77.

It is probably true that the basing of the diagnosis of diphtheria upon a bacteriologic examination has led to the inclusion of cases which would formerly have been classed as simple "sore-throat," but in the opinion of several careful observers this tendency has been more than balanced by the exclusion on similar bacteriologic grounds of a still larger number of cases that would in former times, on a purely clinical basis, have been counted as diphtheritic. However this difficulty may be finally settled, the important question from the point of view of public health really is, how far the total number of deaths ascribed to diphtheria and croup has diminished since the serum-treatment began to be employed, and its answer will, perhaps, throw some light on the extent to which diphtheria-antitoxin is being used, as well as upon the broader question of how far public-health authorities can safely rely upon individual initiative and cooperation on the part of parents and physicians.

An additional reason for such an inquiry is found in the facts adduced by Cobbett (*Lancet*, December 3, 1898, p. 1457), who shows that in London (Table II) the diminution in the number of deaths from diphtheria has by no means kept pace with the decline on the Continent.

TABLE II.—(LONDON.)

Year.	Cases Reported.	Deaths.*	Deaths* in 10,000 Population.	Deaths* in 1000 Deaths from All Causes.
1886	......	1381	3.4	16.8
1887	......	1579	3.9	19.2
1888	......	1812	4.4	22.9
1889	......	2075	5.0	27.3
1890	6420	1877	4.5	21.0
1891	6412	1174	2.8	13.0
1892	8345	2182	5.1	24.9
1893	13694	3484	8.1	38.0
1894	11180	2861	6.6	37.1
1895	11222	*2479*	5.6	28.5
1896	13808	*2793*	6.3	33.4
1897	13192	*2328*	5.2	28.7

The "marked and deplorable contrast" between London and the Continental cities seems to be attributed by Dr. Cobbett partly to a greater prevalence and severity of the disease, partly to the use of an inferior quality of the antitoxic serum, but in large part also to a less general employment of the remedy. Does a similar condition exist in any part of the United States, and if so, what causes have been at work?

The lack of general and comparable notification-statistics is a serious barrier to any attempt at close comparison, since only a few cities possess in an available form information regarding the number of cases. In comparing the tables given below with those concerning Berlin and Paris it must be remembered that while some of the European cities show the influence of the introduction of antitoxin in 1894, the use of the serum in this country can not be said to have become in any way general until 1895.

In all the tables but one (Table XI) the figures under the heading "cases reported" refer to the cases of "diphtheria" regarding which the local board of health was notified. Under the heading "deaths" are included all deaths reported from "diphtheria," "croup" and "membranous croup." The second and third columns contain respectively the ratio of the "deaths" from these causes to the population and to the total mortality.

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* These figures are taken from Kossel's paper: *Zur Diphtherienstatistik, Dtsch. Wochenschr.*, 1898, No. 15.

† From figures furnished Dr. Cobbett by Dr. Bertillon, Chief of the Statistical Department in Paris.

TABLE III.—(NEW YORK CITY.)

Year.	Cases Reported.*	Deaths.†	Deaths† in 10,000 Population.	Deaths† in 1,000 Deaths from all Causes.
1886	......	2695	18.7	72.1
1887	......	3056	20.6	78.5
1888	6491	2553	16.7	63.5
1889	6489	2291	14.6	57.7
1890	4350	1783	11.0	44.4
1891	4874	1970	11.8	45.1
1892	4654	2106	12 3	47.5
1893	6468	2558	14.5	57.5
1894	9155	2870	15.8	69.7
1895	9925	*1976*	*10.5*	*45.5*
1895	11241	*1763*	*9.1*	*42.3*
1897	......	*1591*	*7 9*	*40.9*
1898	......	*843*	*4 4*	*20.2*

TABLE IV.—(BROOKLYN.)

Year.	Cases Reported.*	Deaths.†	Deaths in 10,000 Population.	Deaths in 1,000 Deaths from all Causes.
1886	......	1185	15.8	75.0
1887	......	1453	18.6	85.0
1888	......	1285	15.8	71.1
1889	......	1467	17.4	79.3
1890	......	1283	14.6	64.7
1891	......	1180	13.0	55.7
1892	......	1137	12.0	54.6
1893	1672	878	8.9	41.7
1894	3812	1660	15.8	78.3
1895	4277	*1454*	*14.0*	*64.4*
1896	4898	*1310*	*11.6*	*58.2*
1897	......	*998*	*8.6*	*48.2*
1898	......	*745*	*6.3*	*33.9*

TABLE V.—(STATE OF NEW YORK.)

Year.	Deaths.†	Deaths† in 10,000 Population.	Deaths* in 1,000 Deaths from all Causes.
1886	......	......	64.48
1887	6490	......	67.24
1888	6710	......	61.73
1889	5930	......	56.12
1890	4954	......	42.07
1891	4844	......	40.78
1892	5970	......	46.86
1893	5942	8.90	48.00
1894	6616	9.60	*55.77*
1895	*5696*	*7.85*	*41.00*
1896	*4640*	*7.15*	*38.00*
1897	*4115*	*6.02*	*35.15*
1898	*2612*	*3.90*	*21.50*

TABLE VI.—(CHICAGO.)

Year.	Deaths.†	Deaths† in 10,000 Population.	Deaths* in 1,000 Deaths from all Causes.
1886	1303	18.5	95.1
1887	1405	18 5	91.2
1888	1297	15.6	82.2
1889	1509	15.6	89.0
1890	1261	10.5	57.6
1891	1358	10.8	48.9
1892	1548	10.8	59.0
1893	1467	9.7	54.2
1894	1406	8.1	58.8
1895	*1632*	*10.2*	*67.3*
1896	*1098*	*6.7*	*46.6*
1897	*774*	*4.7*	*35 5*
1898	*680*	*4.1*	*29 5*

* Diphtheria. † Diphtheria and croup.

TABLE VII.—(PHILADELPHIA.)

Year.	Cases Reported.*	Deaths.†	Deaths† in 10,000 Population.	Deaths† in 1,000 Deaths from all Causes.
1886	......	1061	10.9	53 0
1887	......	858	3.6	39.5
1888	1170	523	5.1	36.0
1889	1455	727	6.9	35.4
1890	1820	748	7.1	42.9
1891	......	1362	12.8	58.5
1892	5051	1707	15.6	60.0
1893	3149	1238	11.1	52.3
1894	3159	1452	12.7	64.0
1895	3351	*1398*	*12 0*	*58 8*
1896	3191	*1201*	*10.1*	*49 8*
1897	5031	*1514*	*12.4*	*64 3*
1898	......	*1175*	*9.5*	......

TABLE VIII.—(ST. LOUIS.)

Year.	Cases Reported.*	Deaths.†	Deaths† in 10,000 Population.	Deaths† in 1,000 Deaths from all Causes.
1886	2826	879	21.1	106.3
1887	3108	1112	26.0	121.4
1888	1658	731	16.7	81.1
1889	1243	439	9.8	54.8
1890	667	244	5.3	29.0
1891	771	340	7.0	35.6
1892	671	286	5.6	28.0
1893	613	371	7.06	36.0
1894	751	379	6.9	43.5
1895	2877	*693*	*12.2*	*73.5*
1896	1755	*377*	*6.4*	*38.0*
1897	......	*240*	*4.0*	*25.1*

TABLE IX. (BOSTON.)

Year.	Cases Reported.*	Deaths.†	Deaths† in 10,000 Population.	Deaths† in 1,000 Deaths from all Causes.
1886	1188	423	10.5	45 6
1887	1049	410	9.9	40.7
1888	1411	589	13.8	57.7
1889	1814	683	15 6	66.5
1890	1475	462	10.3	45.3
1891	831	285	6.2	27.0
1892	1353	481	10.2	42.8
1893	1465	546	11.4	46.6
1894	3019	878	18.0	762.
1895	4059	*654*	*13.0*	*57.7*
1896	4489	*572*	*11.0*	*49.1*
1897	3398	*458*	*8.6*	*40.8*

TABLE X.—(STATE OF MASSACHUSETTS.)

Year.	Deaths.†	Deaths† in 10,000 Population.	Deaths* in 1,000 Deaths from all Causes.
1886	1558	7.8	41.8
1887	1628	7.9	39.9
1888	1831	8.7	43.5
1889	2214	10.2	53.0
1890	1626	7.3	37.4
1891	1218	5.3	27.0
1892	1455	6.2	29.8
1893	1394	5.8	28.4
1894	1801	7.4	38.5
1895	*1784*	*7.1*	*37.5*
1896	*1677*	*6.6*	*34.0*

* Diphtheria. † Diphtheria and croup.

TABLE XI.—(Baltimore.)

Year.	Cases Reported.*	Deaths.*	Deaths* in 10,000 Population.	Deaths* in 1,000 Deaths from all Causes.
1886	......	318	8.0	38.1
1887	......	302	7.8	36.0
1888	......	216	5.5	24.1
1889	......	208	5.1	23.9
1890	......	319	7.7	33.9
1891	961	394	9.2	39.1
1892	996	428	9.7	40.4
1893	346	210	4.6	22.0
1894	409	231	4.9	24.3
1895	629	*310*	*6 4*	*30.1*
1896	653	*281*	*5.7*	*28 3*
1897	1620	*360*	*7.1*	*38.5*

TABLE XII.—(Milwaukee.)

Year.	Deaths.*	Deaths* in 10,000 Population.	Deaths* in 1,000 Deaths from all Causes.
1886	242	14.7	80.10
1887	154	8.8	47.28
1888	140	7.6	40.86
1889	209	10.7	65.87
1890	300	14.7	80.01
1891	454	21.2	96.82
1892	484	21.7	107.10
1893	273	11.7	61.18
1894	247	10.2	58.07
1895	*179*	*7.1*	*46.07*
1896	*254*	*9.7*	*65 05*
1897	*138*	*5.0*	*35.49*

These tables are perhaps all open to some criticism on the ground of a certain lack of comparability with the European data. The varying prevalence of diphtheria during the period under consideration is probably not always correctly indicated by the number of cases reported, and in the later years of the period the relative proportion of cases reported is almost certainly larger than in the earlier years.

It is difficult, too, to gauge the precise influence of possible fluctuations in diagnosis. It is worthy of remark that in several cities, notably New York (Table III) and Boston (Table IX), a considerable increase in the number of notifications of diphtheria has occurred in recent years and is nearly coincident with the introduction of the method of "bacterial verification"; a similar epidemic onset is shown in the figures for London (Table II), but is not indicated by the cases reported in Berlin (Table I). On the other hand the large number of cases recorded in St. Louis in 1895-1896 (Table VIII) is closely paralleled by an epidemic of apparently similar proportions in 1886-1887, a fact that in this instance would invalidate objections based on a supposed change in recent years in the method of diagnosis.

The factor of population is a peculiar elusive one so far as the cities of the United States are concerned, and there is reason to believe that the various estimates, as well as the computations made by Farr's formula, are by no means of precisely equivalent value in the different cases. In several instances (*e. g.* Chicago) it is generally recognized that the rate of increase of the population has not been so rapid since 1890 as it was in the decade 1880-1890. In such instances the generally conservative estimates of the local boards of health have been used, and, with the possible exception of Milwaukee, where the estimate employed is perhaps high, it will be found that where an apparant decline in the death-rate from diphtheria is observed such decline cannot in great part be attributed to an overestimate of population.

TABLE XIII.

City.	Average Death-rate from Diphtheria and Croup per 10,000 Population, 1886-1894.	Average Death-rate from Diphtheria and Croup per 10,000 Population, 1895-1897.
266 German towns	10.6	4.4
Berlin......	9.3	4 0
Paris.........................	6.1	1.5 (2.1)*
London	6.0	5.8
New York	15.1	8 0† (7.1)‡
Chicago	12.0	6 4† (5.2)‡
Brooklyn	14.7	10.1† (8.8)‡
Philadelphia................	10.1	11.0† (10.7)‡
St. Louis	11.7	7.5
Boston........................	11.8	10.9
Baltimore....................	7.0	6.2
Milwaukee	13.5	7.3

The tables as they stand tell their own story. The comparatively high death-rate from diphtheria and croup that ruled in American cities prior to the introduction of the antitoxin-treatment in 1895 has not declined in the same proportions in all municipalities, and it is possible in at least two cases to select three consecutive years during which the death-rate in the preantitoxin-period was lower than in the years 1895–1897. In Boston the death-rate in the years 1890–1892 averaged 8.9, while in 1895–1897 it was 10.9. In St. Louis the death-rate in the years 1890–1892 was 6.0 as compared with 7.5 in the years 1895–1897. In both cities, however, the number of cases recorded indicates the presence of a very considerable epidemic in the latter years, and if the notifications be taken as a criterion the case-mortality in both cities was much lower in the later than in the earlier period.

While it is thus true that local epidemics may have been responsible for the maintenance of a high death-rate in some cities, it is equally true that we can say of two or three of our American cities what is said of Paris and Berlin, that there has been a remarkable fall in the total number of deaths from diphtheria, "a fall which commenced abruptly with the introduction of the serum-treatment, has steadily continued since, and has had no parallel in the previous eight years."

Inspection of Table XIII reveals a very considerable divergence during the antitoxin-period as well as during the preantitoxin-period. The lowest rate for the preantitoxin-period was in London (6.0), the highest in New

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* Diphtheria and croup.

* 1894-1897. † 1895-1898. ‡ 1896-1898.

York (15.1); the lowest for the antitoxin-period was in Paris (1.5), the highest in Philadelphia (11.0). The greatest actual diminution occurred in New York, the largest percentage decrease in Paris. In only one instance (Philadelphia) has an actual increase taken place, although in London, Baltimore, and Boston the decline is slight and within the limits of natural yearly variation.

If we attempt to explain the instances in which no fall can be noted, Dr. Cobbett's suggestions to account for the conditions in London deserve consideration. These are: "(1) There was more room for improvement on the Continent than in London." This suggestion does not apply to any of our own municipalities. The death-rate in the preantitoxin-period in all the American cities included in our tables, with the single exception of Baltimore, was higher than in Berlin and nearly twice as high as in Paris. The opportunity for improvement in all our cities was certainly great and it is still great, since in no American cities has the average mortality from diphtheria and croup fallen to as low a level during the antitoxin-period as prevailed in Paris during the preantitoxin-period. "(2) The prevailing type of diphtheria has been very severe in London during the past three years." This is a matter upon which it is difficult to obtain convincing evidence in this country, and I am at a loss to know to what extent high mortality in recent years can be attributed to the prevalence of a malignant type of the diseases. The possibility of simple variation in degree of epidemic prevalence without reference to degree of malignancy is a separate question and has already been touched upon. "(3) The serum used in this country is inferior to that used abroad." While perhaps the quality of the serum used in parts of the United States leaves something to be desired, no great stress can be laid upon this as a likely source of failure, since with few exceptions the records of hospitals, health-authorities, and individual physicians agree in testifying to the efficacy of the standard antitoxins employed. So far as evidence can be secured our cities have not been so badly off as London in this regard. "(4) The remedy is more extensively used there than here." In this last suggestion is embodied, I believe, the explanation of our own situation. It can not be doubted that a more general use of the antitoxic serum would, even in the face of an epidemic, not only materially diminish the present excessive number of deaths from diphtheria in parts of this country, but would also lower to the European level the mortality in those towns where marked improvement has already taken place. The progress already made in some municipalities certainly furnishes a spur to action on the part of all local authorities.

Professor T. R. Fraser, of Edinburgh, has been elected an associate fellow of the College of Physicians of Philadelphia.

ELECTRICITY AS A THERAPEUTIC DERNIER RESSORT.[1]

By HENRY W. COE, M.D.,
of Portland, Oregon.
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The marvelous achievements of modern electricians in electro-physics, electro-chemistry, and practical electro-mechanics stand forth as the most striking phenomena of the present age. As a transmuter of forces, a solvent for mechanical substances, metals and their salts, or organic substances, electricity has attained a position of such prominence that the grosser chemistry of the world, as well as the more delicate transactions in metallurgy, under the methods of to-day, without its aid are almost powerless. We see its wonderful action upon fluids, modifying conditions, and producing changes that would have been deemed miraculous if attempted by any means a few decades ago. It changes solids into liquids, and liquids into gases; condenses gases into liquids and converts liquids again into solids. It transposes iron into steel, rearranging the molecules, and transforms a metal into a salt. It changes the forms of vegetable life, maturing the unripe fruits and hurrying onward the growth of shrub and flower. We see it bring into motion dead animal tissues, and we note that it may bring death to the animal.

With all these facts undisputed, there are those in the medical profession, even to-day, who either believe that there is no therapeutic value in electricity, or that, when results are attained after such use, the influence which has favorably operated has been psychic altogether. These doubters will see an inert piece of steel, transformed by a flow of electric current in its neighborhood into a living active agent, with such a state or power of tension imparted to it that it will attract and retain many times its own weight of other metal; these and thousands of other results, incontrovertible, are acknowledged, yet the power for good in animal tissues is altogether denied. They see animal tissue so altered that it becomes but a charred residue; yet they deny an influence powerful enough to do material good. They acknowledge the applicability of electric activity to inanimate substances, and that electricity may locally anesthetize animal tissues by cataphoresis, locally destroy by electrolysis, or even totally destroy animal function by grosser currents, but at the same time they question the ability of electric currents to modify for good the deeper tissues and the organs within the body.

Some of these pessimists along electro-therapeutic lines may even have been users of "batteries" and their accessories upon the bodies of their patients, having finally abandoned them as useless and cumbersome appliances, good only for the moral effect that they might produce upon the minds of their patients.

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[1] Presented before the American Electro-Therapeutic Association, Buffalo, N. Y., September 15, 1898.

Although the application of electricity in medicine has materially increased during recent years, yet the fact that so many physicians have discontinued this agency after its use for a longer or shorter period of time, must have a reason.

The greatest agents during the past in the education of the medical profession upon electro-therapeutic lines have, without doubt, been the makers of electric appliances. These people have had a commercial interest in advancing the use of their own wares, and their various catalogs, books of instruction, extracts from lectures and papers published by them, used in selling their own goods, have started out a vast number of medical men and women along the road of electro-therapeutics. It is a hard road to travel, however, and in the vast majority of cases the physician who seeks, while ministering to a large practice, to study out its devious wanderings, has great trouble before him. He will meet so many obstacles and discouragements, that it is not to be wondered at if he wanders by the wayside time and time again, and that sometime, when his "battery" does not work well, he discards its use altogether.

The fact is not always appreciated that the practice of electro-therapeutics is a science in itself, that it has medical journals of its own, supports clinics and medical colleges devoted to its own development, and boasts of medical societies before which nothing else is discussed but its own scientific work; that its scientific mastery, even in its present crude state, involves months and years of patient investigation, and that the ability to make a patient suffer and squirm is not an evidence that the owner of any particular battery is an electro-therapist. Again, one cannot do good work without good batteries, giving various kinds of currents, measured and controlled at the will of the operator.

Recently, in conversation with a medical acquaintance who was expending the usual stock vernacular against electricity, I was informed that the speaker knew what he was talking about, for he "had tried electricity, and knew that it was useless." Inquiry as to the batteries and currents that had been employed elicited the information that this critic either had never known or had forgotten the different forms of current found in the ordinary galvanic and faradic batteries, while the theories and facts of induction and the variation in inductive currents over winds of different lengths and sizes of wire, the volt, the ohm, and the ampère, were terms and descriptions in a vocabulary which was a foreign tongue to the critic; yet the public in this man's neighborhood must receive its impressions regarding electricity either from him, or else from a blatant advertising quack whose newspaper statements stamp him as a medical charlatan, and whose ignorance of electricity is no more dense than is that possessed by my thoughtless, yet well-intending, friend who so stoutly maintained that he "had tried and discarded electricity" from his practice. The quack does his greatest injury to scientific medicine by throwing a certain amount of odium upon electro-therapeutics with the better class of laymen, yet the good-natured ethical gentleman whom I have described, in the impression that he gives to the younger men in the profession with whom he comes in contact, produces a more vital and lasting effect; for his opinions are honored and his advice taken, and rational electro-therapeutics may be denied a trial by younger men who are in the footsteps of this older man of practice.

The quotation of ordinary cases or conditions or results in practice has no effect upon persons who assume to have tried this important agency for the removal of pathologic states, and therefore it has occurred to me that a reference to some cases showing bodily ailments most difficult to relieve, some ordinarily classed as incurable, in which either improvement or cure has followed the use of electricity, would, at this time, not be out of place.

In order to induce activity in a paralyzed muscle or to retain a certain percentage of vitality and strength in it, although nervous impulses may not travel from the cord to it, even our pessimistic friend must admit that we offer him, in electricity, the only means that he can command. To combat that state of atrophy certain to follow absolute disuse, no other agency is applicable, and while awaiting a restoration of normal nerve-functions (waiting, too, with much patience), there comes into play some one of the numerous currents from the medical battery, preferably a faradic or some other interrupted current, offering exercise and activity to the parts involved. While this form of electricity is being brought into play for its local power in exercising the muscle, the rational therapist is reestablishing nervous electric phenomena through the injured nerve-tissues. If a small clot be present in the brain, too small to warrant surgical intervention, if there be an injury in the cord or the peripheral nervous structure, the few remnants of uninjured nerve-fibers are asked to transmit impulses of the greatest possible force, and the process of repair and the outgrowth of fibers is accelerated by multiplied vital activity in the neighborhood of the injury, so that if repair is possible, restored functions will ensue. This phase of electro-therapy brings up the whole subject of paralysis, the paraplegias, pareses, and spastic states, a vast field in which alone electricity offers sufficient encouragement in what would otherwise quite often be a scene of doubt and discouragement. Some recent cases are here given as illustrations of what electricity can do in this class of ailments.

M. L., a wholesale grocer, aged 51, married, father of several children and of excellent family-record, with no specific history, had two years before begun to notice a difficulty in locomotion which had increased until at the time he came under my care he could walk only with great difficulty, aided by a cane. For lack of time, the history in this case and other cases mentioned in this paper must be brief, but suffice to say that the ataxia, the pain and the intention-tremor, together with other well-marked symptoms, identified it as a case of multiple cerebrospinal sclerosis, extremely rapid in its course and presaging in the prominent rectal and cystic disturbances and increasing inability for locomotion, an early death.

Various methods of treatment had been employed, but the disease continued to make rapid progress. Practically, all other methods of treatment were finally abandoned, and electricity given a thorough test. The result was extremely gratifying. The currents employed, contrary to the advice of some authorities, were not confined to galvanic, but included high-tension induction and static applications, including the static spark. Central galvanization, however, was a prominent feature of the treatment. The patient's general health greatly improved. Digestion, which had been impaired, was bettered, and sleep, which had been interrupted on account of pain, became good. The character of the gait improved markedly and the patient could now walk for miles. In this case, ordinarily a hopeless one, the course of the disease was stayed and the patient's condition so improved that he was able to return to his mercantile establishment, and, although not well, to follow his work with a large degree of comfort.

H. G., a patient with an affection of much more chronic character, had resided in the same city as the former patient, coming 2,000 miles for treatment, in the hope that a change of climate might be of much help in the relief of his case. He was an attorney, aged 49, married, of good family and without specific history. For 15 years he had noticed some difficulty in walking, which had gradually increased until he was seriously handicapped in his professional labors, which were extremely large. He also suffered much from pains in the lumbar region and in his lower extremities. The patellar reflexes were exaggerated and there was some rectal disturbance. This case had been seen by Brower some years previous and a course of treatment then advised, but none had been entered into until the man came under my charge. The diagnosis made by Brower, lateral spinal sclerosis, evidently a correct one, gave little promise of marked improvement under any treatment, yet within a few weeks, this man's manner of locomotion had so improved that he insisted that he was so nearly well that he could again handle without distress his professional work at home. Although counter-irritation over the cord, rest in bed and massage were features in the treatment, the principal reliance was placed upon electricity. Electric baths and electric-light baths, galvanism and faradization were pushed to the limit, and the sinusoidal current was made a special feature in the case, as it was in the former.

It has been taught that in spastic states interrupted currents are not indicated, and that an exaggerated knee-jerk counter-indicates a faradic current. While the faradic current of slow interruption may not be desirable in these cases, the sinusoidal current, with its alteration of 150,000 per minute, as used in these cases, certainly did much good. It might also be said that in this and similar states the immediate effect may be such that the patient will not walk as well or use other muscles involved as freely immediately after treatment, yet improvement the following day generally will, as it was in this case, unmistakably be present. This is especially noticeable when the rapid alteration is employed and the larger ampèrage made use of.

A third case now in mind is of a physician who had been under my care for about a year, drugs of all kinds being employed in doses of varying strength from the extremely heroic to the infinitesimal, while the patient had rapidly grown worse. It was a case of locomotor ataxia of two years' duration. Vesical disturbance was severe, and on two occasions the man had been two weeks in bed on account of attacks of cystitis. The ataxia had become so marked that general work had been abandoned and only occasionally a few office-patients were seen. Static electricity was given a fair trial, but accomplished little, while the effect of the sinusoidal current was almost wonderful. The patient regained such control of his legs and feet that he is again able to look after his usual practice without serious discomfort. He is still taking this electricity three times a week, which, with static insulation, has proved a boon of health to this sufferer from what is ordinarily classed as a very unpromising disease.

Several cases of locomotor ataxia have been treated with static sparks, in which improvement has taken place, and I have been pleased at the result in the case of a young druggist who was sent me by Dr. Gillespie, of Portland, and who has been so much better during the last 6 months that he has been able to get about so spryly that I doubt if anyone notices trouble in his locomotion, although formerly he was exceedingly ataxic. Another case, referred me by Dr. J. F. Dickson of Portland, on account of the Argyll-Robertson pupil elicited upon an examination of his eyes for glasses, under static sparks to the spine and legs and general insulation, carried out for some days at a time during the past 3 years, has resulted in the actual removal of all ataxic symptoms, which were slight, and the crises of fulminating pains that had occurred at varying intervals during the past 10 years, have also altogether abated.

In other chronic nervous troubles, electricity has been found of indisputable value. Dr. F. A. Kraft, of Milwaukee, Wis., has reported the cure of a pronounced case of epilepsy by the use of static electricity, and Dr. Arthuis, of Paris, has recorded the case of a boy who was relieved of seizures that had been present for 10 years, by the use of the static current. Dr. Monell, in discussing this question, in his work upon *Static Electricity*, says that as static electricity improves the general nutrition of the patient, this may account for the benefit in these cases. In petit mal this form of electricity is certainly beneficial in some cases.

Dr. W. H. Cake, of Portland, referred a case of this kind to me 3 years ago. It was that of a young lady who had been rather below par in general health for some years, in consequence of over-study and other mental strain, and who had during the preceding year become subject to attacks of minor epilepsy. She would suddenly lose consciousness, but had not, I believe, ever fallen; a moment later she would return to her normal mental state, although drowsy and weak for a day following. These attacks had increased in frequency, until at the time she came under my observation, she was having several attacks each month. The static breeze was the principal feature of her treatment, being employed for nearly a year, at first daily, and gradually reduced to once a week. She was discharged from treatment 1½ years ago, and she has had no sign of the disease for nearly 2 years.

In a case of grand mal referred to me by Dr. Andrew C. Smith, of Portland, whose surgical advice had been sought, the attacks had become so frequent that the reason of the child was much impaired. The static breeze has been made an important feature in the treatment, and the change in the condition of the child has been most marked. Attacks had occurred as often as 10 times in 24 hours; yet after 2 months' treatment, an interval of 6 weeks was allowed to elapse without treatment of any kind, the mother having decided that the child was well and did not need it further, although she was told, as relatives should be in most of these cases, that a cure is but a remote possibility, and then only after treatment extending over from 1 to 5 years. At the end of the 6 weeks referred to, another attack occurred, bringing the case again under my care. It had taken the entire time of one person to restrain the child from breaking and destroying whatever came in his way at the time of first treatment, while now he is a bright, well-behaved child. What the ultimate outcome may be, it is of course not possible to say at this time, but I have hope for his recovery.

If time permitted I might narrate several cases showing the service that electricity has rendered to insane patients while under my care, and especially from static insulation in cases of melancholia, while in some cases of neurasthenia in which the nerve-cells have been in a state of nervous bankruptcy, electricity has been the groundwork of the treatment employed. But I think the cases already narrated are enough to demonstrate why I believe in electricty.

There are many cases that will not be benefited by the use of electricity, and this paper is not written to controvert such a fact. In most diseases of the nervous system, however, electricity can be made use of with decided advantage to the patient, and it is therefore in this department of practice that indisputable proof of the efficacy of this agency may be adduced by any one who has fairly employed it.

ETHER-LEUKOCYTOSIS.

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Aside from well-known physiologic and pathologic conditions a temporary increase in the number of white blood-cells spoken of as leukocytosis occurs in circumstances of the most varied kind, *e. g.*, cold bathing, exercise, and as a result of giving many drugs either by the mouth or intravenously. Under all these conditions we are, generally speaking, unable to predict if a certain drug or procedure will cause leukocytosis or not. There seems to be no reason why extract of gentian, acetic ether or anise-oil should have a positive chemotactic action while ethyl-alcohol, coffee and quinin, in medicinal doses at least, should be without such effect. So long as we are unable to say from theoretic grounds whether a given substance will bring about leukocytosis, and are obliged to rely upon empiric data, experiments made for the purpose of finding out the behavior of the blood-cells under the influence of various conditions will continue to be of value by adding to the facts from which general conclusions may, in the future, be drawn. With this in mind I have counted the leukocytes in a number of cases, before, during, and after etherization.

According to Lerber,[1] Rieder quotes several authors who found a large increase of leukocytes after giving ether by the mouth. Pohl,[2] on the contrary, gave 5 cu. cm. of ethyl-ether to a dog, without increasing the number of white blood-corpuscles. These results are too contradictory and too few to enable one to form any conclusion as to what would happen upon the inhalation of ether-vapor, even if the two things were quite analogous. Etherization is, however, so common a procedure that a certain interest will attach to its influence upon the white blood-cells upon its own account, aside from the theoretic considerations involved.

At the time I began this experiment I was unaware that any such counts had been made before, and now that I have finished them I find upon comparison that, although rather extensive work has been done by Lerber for instance, my own method differs enough from those of others to give, I think, some value to my figures in a supplementary way.

Ewing[3] gives counts from the jugular veins of three rabbits before and during etherization. He found a small increase, 3.8%. Ames,[4] in speaking of dogs, says that the administration of ether alone causes an increase in the number of leukocytes over that found in the circulation before its administration, but no figures are given. DaCosta[5] examined the hemoglobin, the red and white blood-corpuscles in 29 cases, and gives in detail the results in 5 or 6. He concludes that the hemoglobin is diminished; but the hemoglobin and the red blood-cells are not affected in blood previously diseased.

> "The white blood-corpuscles show irregular changes not characteristic, and exhibit variations not more pronounced than would be found in the same number of samples of normal blood upon different examinations."

It is not quite clear if he refers to the morphology or to the number of the leukocytes. The few counts given show generally a small increase.

Lerber has done the most and his figures as to the presence of an ether-leukocytosis are most convincing. He examined the hemoglobin and counted the red and white blood-corpuscles in 101 cases. He found that the hemoglobin was not altered; that the red blood-cells were increased 55 times, were decreased 45 times, while 4 times no change could be made out. The white blood-cells were increased 96 times. In 5 cases, which could be objected to as anomalous, opening of abscesses, etc., in which high counts were found previous to the operation and due to the suppuration, there was a decrease. Thirty-five times the increase was double and 23 times treble the count before ether. Lerber anesthetized nearly all his cases himself, with the result that his counts were made some time before and some time after the anesthesia. Usually one count was made the day before, one on the day of the clinic after the operation, and one or two upon succeeding days. Only 5 times did he count the corpuscles on the same day before and after the etherization, and even these few times the second count was made after the operation was completed. In no instance were the counts made during etherization, before the beginning of the operation. Lerber concludes that ether-narcosis occasions a marked leukocytosis which reaches its maximum several hours after anesthesia.

If a leukocytosis can be brought about by massage, by exercise, or as Schultz has noted in dogs, by aseptically opening the peritoneum or breaking a leg, or by tying a rabbit to the operating table (Löwit) it is quite essential that the effects of the operation itself be ruled out before one can claim that any increase in the number of white cells is due to the anesthesia.

As the subsequent protocol shows my own counts were made, one immediately before the beginning of the anesthesia, and the second after the full etherization just before the beginning of the operation. Usually a third count was made at the close of the operation and frequently others during the succeeding days. I used the Thoma-Zeiss apparatus exclusively, taking an average of several fields from each of 2 or 3 drops. Patients were invariably anesthetized after 3 o'clock in the afternoon. They had breakfast and were allowed milk until 10 o'clock, after which no food was taken, so that a digestion-leukocytosis usually reaching its maximum in 3 hours may, I think, be fairly excluded. There was no selection of the cases.

Of the 21 cases all showed an increase, sometimes marked. It can be said, therefore, that any effect of the operation was eliminated and that there was a leukocytosis due entirely to the procedures connected with etherization, inhalation of the vapor, struggling, etc. Only once, in Case XI, was the second count made after the operation.

As stated, the second count, that is, the one after ether had been given for a time averaging $16\frac{3}{5}$ minutes in 20 cases, was invariably higher than the first. The lowest percentage of increase was 6 (Case V), the greatest 73 (Case XV), the average for 21 cases being 37.3%. These percentages are not so high as some of those of Lerber. The amount of increase seems not to depend upon the duration of the anesthesia, as an attempt to find a relation between the two ended only in confusion, but probably upon the way in which the organism reacts to the stimulus.

Lerber claims that the maximum is only reached several hours after the end of the administration of the vapor and in 9 cases that he counted more than once upon the same day after the etherization the second count was each time greater than the first. In 11 of the cases that follow in which counts enough were made, 6 times the number of leukocytes was less at the end than at the beginning of the operation, and in the other 5 the increase was much less rapid during the operating than during the etherization that preceded it, showing that the factors producing the leukocytosis are more active in the beginning. It is interesting, too, to note the promptness with which the leukocytosis came on—40, 50, and even 70%, in a few minutes.

As regards the duration of the leukocytosis it was usually much diminished upon the next day. Once Case I) it lasted altogether 4 days. This coincides with Lerber's experience; in his cases the count was generally normal on the first or second day if no complication existed. It is hard to say how much influence the operation had upon the count. The nature of the operation seems to have made very little difference. Frequently the count sank, even during abdominal operations; though more often it was higher at the end, whether due to a continuance of the action of the ether, or to the manipulation, it is impossible to say.

DIFFERENTIAL COUNTS.

No.	Count.		Increase per cent.	Time: minutes.	Differential count.		Number counted.	
	Before.	After.			Before.	After.	Before.	After.
9	21,290	27,220	23	25	Poly. 83.8 % Mono. 14.0 % Eosin. 0.2 %	82.4 % 17.6 %	500	500
13	7,600	13,150	72	18	Poly. 71.1 % Mono. 28.4 % Eosin. 0.5 %	69.4 % 30.5 % 0.1 %	1,000	1,000
14	12,950	20,690	21	12	Poly. 76.6 % Mono. 23.2 % Eosin. 0.2 %	69.8 % 29.8 % 0.4 %	500	500
15	12,350	21,360	73	18	Poly. 82.8 % Mono. 16.0 % Eosin. 1.2 %	77.6 % 21.6 % 0.8 %	500	1,000
18	14,000	17,000	21	15	Poly. 83.2 % Mono. 16.8 % Eosin.	85.8 % 13.8 % 0.4 %	1,000	500

In order to see if the cells after the ether were of the same sort as before, differential counts were made before and after etherization in 5 cases. If we accept the view that the different forms of leukocytes represent these cells in their different stages of development in the blood, and that they grow in the circulation from lymphocytes to polynuclears, the second count should show a marked increase in the percentage of young cells. This should be the case whether the leukocytosis is merely a redistribution of the cells in the sense that the lymphocytes are poured out from the lymphadenoid tissue, increasing the number in both the central and the peripheral circulation, or if there is an actual increase of white cells in the body due to cell-division in the hematopoietic organs. (Römer,[6] Buchner.[7]) It seems as if this proportional increase of the young cells must surely take place, because one can hardly imagine that the cells circulating in the blood pass through their stages of growth from lymphocytes to polynuclears fast enough to keep up the percentage of the latter, when we remember how promptly the total increase takes place—72% in 18 minutes in Case XV.

In the 5 cases the percentage of lymphocytes was 4 times increased, once slightly; once it was diminished. The increase, however, seemed to bear no direct relation to the total increase, and it was far less than one would expect if most of the new cells in the total count were lymphocytes, as they should be on the hypothesis already stated; but we evidently have to do with an ordinary leukocytosis, that is, one with a proportionate increase of all the forms of cells, the variations certainly not much exceeding the limits of possible error. The results of the differential counts were

No.	Disease and treatment.	Date.	Hour.		Count.	Increase per cent.	Remarks.
1 R.	Tuberculous peritonitis. Abdominal section. Drainage	Nov. 29, '96	2.30 P.M.		9,170	35	Healing by first intention. June, 1897, patient was apparently well. Sections from peritoneum contained tubercle-bacilli. Operation not begun when second count was made.
			3.00 P.M.	Ether begun			
			3.30 P.M.	Operation	12,420		
			5.00 P.M.		15,600		
			5.30 P.M.		14,140		
		Dec. 2, '96	4.00 P.M.		16,110		
		Dec. 3, '96	6.00 P.M.		15,520		
		Dec. 4, '96	4.00 P.M.		14,450		
		Dec. 5, '96	. . . . .		8,300		
		Dec. 6, '96	. . . . .		7,890		
2 M.	. . . .	Dec. 10, '96	3.00 P.M.		11,080	55	Operation not begun when second count was made.
			5.35 P.M.	Ether begun			
			5.55 P.M.		17,130		
3 Y.	Appendicitis. Abdominal section	Dec. 12, '96	3.00 P.M.		24,880	47	Operation not begun when second count was made.
			3.15 P.M.	Ether begun			
			3.25 P.M.		35,670		
4 G.	Thumb-injury	Dec. 14, '96	3.15 P.M.		8,680	47	Operation not begun when second count was made. Moderate excitement.
			3.39 P.M.	Ether begun			
			3.55 P.M.		12,740		
			4.20 P.M.	End of operation			
			4.20 P.M.		14,900		
		Dec. 15, '96	3.30 P.M.		14,460		
5 M.	Rectal abscess. Incised	Jan. 11, '97	3.30 P.M.		16,370	6	Operation not begun when second count was made. Last count ½ hour after operation.
			3.30 P.M.	Ether begun			
			3.42 P.M.	Operation	17,320		
			4.40 P.M.		16,430		
6 G.	Appendicitis. Operation	Jan., '97	3.00 P.M.		16,700	32	Operation not begun when second count was made. Temperature 103.2°.
			3.55 P.M.	Ether begun			
			4.10 P.M.		22,100		
7 S.	Strangulated hernia. Radical operation . .	Feb., '97	3.00 P.M.		7,490	38	Operation not begun when second count was made. The third count just at the end of operation 2 hours and 10 minutes after beginning of etherization.
			3.50 P.M.	Ether begun			
			4.00 P.M.		10,340		
			6.00 P.M.	End of operation			
			6.00 P.M.		8,780		
8 Y.	Necrosis of tibia. Cureting	Feb. 12, '97	3.15 P.M.		12,480	16	Operation not begun when second count was made. The third count some time after operation was finished.
			4.08 P.M.	Ether begun			
			4.20 P.M.		14,440		
			5.45 P.M.	Operat'n finished			
			5.45 P.M.		15,000		
9 C.	Appendicitis. Cavity drained	Feb. 18, '97	. . . . .	Before ether	21,290	23	Operation not begun when second count was made. Patient struggled a great deal and became quite cyanotic.
			3.35 P.M.	Ether begun			
			4.00 P.M.		27,220		
			5.30 P.M.	End of operation			
			5.30 P.M.		24,590		
10 S.	. . . .	Feb. '97	. . . . .	Before ether	9,330	14	Operation not begun when second count was made.
				Ether 15 minutes	10,660		
11 L.	Tuberculous knee. Cureting	March 17, '97	. . . . .	Before ether	14,465	70	Second count at end of operation. Patient struggled a great deal. Cachectic patient.
				Ether 30 minutes			
				After operation	24,520		
12 S.	Hemorrhoids. Tying operation	March 4, '97	. . . . .	Before ether	7,750	44	Second count before operation was begun. Struggled a good deal.
			3.50 P.M.	Ether begun			
			4.10 P.M.		11,170		
			4.40 P.M.	End of operation			
			4.40 P.M.		10,850		
		March 5, '97	3.00 P.M.		9,650		
13 M.	Cureting. Forearm-bone	March 8, '97	2.55 P.M.		7,600	72	Operation not begun when second count was made. The third count at end of operation.
			2.55 P.M.	Ether begun			
			3.13 P.M.		13,150		
				Op. facta.	16,240		
14 C.	Anal fissure	March 8, '97	. . . . .	Before ether	12,950	60	Operation not begun when second count was made. Patient very quiet.
				Ether 12 minutes	20,690		
		March 9, '97	4.00 P.M.		9,270		
15 B.	Ischiorectal abscess. Incised	March 15, '97	. . . . .	Before ether	12,350	73	Operation not begun when second count was made The third count ¾ hour after operation.
			4.12 P.M.	Ether begun			
			4.30 P.M.		21,360		
			5.40 P.M.		19,050		
		Feb. 16, '97	. . P.M.		10,025		
16 E.	Carcinoma mammæ	March 25, '97	. . . . .	Before ether	8,380	46	Operation not begun when second count was made
				Ether 12 minutes	12,270		
17	Removal serous cyst from neck	March, '97	. . . . .	Before ether	10,720	57	Operation not begun when second count was made Patient apparently in good health.
				Ether 12 minutes	16,880		
18 S.	Appendicitis. Abscess opened	April 1, '97	11.25 A.M.		13,580	21	Cachectic patient with moderate fever. The third count before operation was begun; the fourth shortly after opening large abscess.
			3.10 P.M.		14,150		
			3.25 P.M.	Ether begun			
			3.40 P.M.	Operation	17,000		
			5.45 P.M.		14,160		
		April 2, '97	. . P.M.		11,485		
19 W.	Wired ununited fracture of tibia	April 5, '97	. . . . .	Before ether	9,050	12	Both counts before operation begun.
				Ether 12 minutes	10,190		
20 D.	. . . .	May 20, '97	. . . . .	Before ether	18,400	7	Operation not begun when second count was made.
				Ether 12 minutes	19,440		
21 McC.	Suprapubic cystotomy	May 24, '97	2.45 P.M.		9,645	16	Second count just before operation was begun; third, some time after end of operation.
			. . . . .	Ether begun			
			3.25 P.M.	Operation	11,245		
			5.10 P.M.		12,270		
		May 25, '97	. . . P.M.		14,850		Temperature 100.8°.

somewhat confusing, in consequence, perhaps, in part, of the rather small number of cells counted. The relations seem to fall in much better with the view championed by Ehrlich[8] and Ribbert[9] that different forms of leukocytes have different origins, viz., lymph-tissue and bone-marrow. If this is true the proportions might remain unchanged, or one might find now the polynuclears more numerous, now the lymphocytes, according to the way in the stimulus which governed their pouring out from the tissues in which they were stored. The same thing might happen even if there is a new formation of leukocytes, which, however, seems less likely on account of the promptness with which the leukocytosis occurs. The claim for a redistribution in favor of the peripheral at the expense of the central vessels is, to be sure, not affected by these considerations, and Schultz[10] indeed bases his claim that leukocytosis is merely such a redistribution upon he fact that most of the cells in leukocytosis are not young ones; but this theory does not altogether commend itself, as Goldscheider[11] has been able to show, at least in leukocytosis due to some chemical substances, that there is an increase in both the peripheral and the central vessels.

It seems, then, most reasonable to suppose that the arious kinds of cells are poured into the circulation rom their different places of origin. The rather large ercentage of polynuclears may be accounted for by he fact that most of the patients had an inflammatory eukocytosis to begin with.

The results of the counting are in accord with those f other similar experiments and show that ether-nhalation of itself causes a marked leukocytosis. This ncrease in the number of white cells is most rapid uring the first part of the etherization. The leuko-ytosis is probably due to the irritation of the ether-apor upon the mucous membrane of the respiratory act.

Finally, my thanks are due to Dr. C. B. Nancrede r his kindness in placing at my disposal the material his surgical clinic.

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ratuitous Medical Services of School-children.

t is reported that that the City Council of Würzburg, Bava-has taken action, in accordance with which the teeth of poor pupils of the public schools of the city are to be ex-ined and cared for gratuitously. It is also reported that, ase this experiment prove successful, diseases of the throat nose will be similarly treated. Prior to the treatment, parents of the children must give their consent.

PICHI.[1]

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With the advance made in the knowledge of sepsis, surgery has extended beyond the illusory dreams of the most hopeful; with the increased number of perfected instruments of precision, we have progressed wonderfully in the capacity for diagnosis. Bacteriology and the microscope have revealed to us knowledge of which our predecessors never dreamed, and could not have anticipated. The developing revelations of modern chemistry have given us antiseptics and analgesics without number, which may be administered in almost any form of acute illness, and are so prompt in producing physiologic results that the imagination is almost staggered, falling short only of admiration, and we wonder where this progress will end.

Enterprising, visiting representatives of manufacturing chemists constantly offer us new remedies at the rate of a dollar per ounce, yet many of these new chemic preparations possess only questionable, if any, physiologic properties, although they are used by our best physicians to the exclusion of our well-tried and worthy friends, the galenic preparations, which are becoming obsolete and remain dust-covered on the shelves of the dispensing apothecary.

In this rush for the modish use of foreign importations, it is with hesitation that I venture to call attention to a comparatively new and unknown remedy. The impelling motive that has induced me to do so is the esteem that the remedy has gained for itself during the 12 years of time that I have used it, more or less constantly, and the results that have been attained. At the same time I am deeply sensible of the fact that many drugs are brought to notice, which, upon investigation of their merits, and after a brief trial, are found wanting and, justly, are considered unworthy of confidence.

What will be said concerning pichi comes as a result of actual personal experience in the use of the drug, which was first begun during the earlier part of the year 1886, while in the city of Valparaiso, Chile, South America, before having read any account of its medical properties which may have since appeared.

Pichi is found growing as a shrub, in ample abundance, on the arid hillsides of the northern provinces in Chile, extending into Peru, where it also grows on waste plains of sand-covered country, and forms one of the striking features of the desolate landscape, with its greenish-blue, plume-like leaves, which when crushed emit a balsamic odor that lingers in the nostrils in that dry, pure atmosphere.

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[1] Read before the 24th Annual Meeting of the Mississippi Valley Medical Association, at Nashville, Tenn., October 13, 1898.

In the southern portion of Chile, where there is a rainfall and the air possesses more moisture, the size of the shrub changes into that of a small tree, which bears in abundance the peculiarly-shaped, barley-pointed broadly ovate, thick leaves, densely crowded together on small twigs and branches. These are used in the crude form by the natives of Peru and Chile, among whom the plant enjoys an extensive and excellent reputation as a panacea for all diseases of the mucous surfaces. It was through them that my attention was first called to pichi.

The flowering season is earlier in Peru than in Chile, where, in the southernmost part, it may continue until June, about which time the natives prefer to collect the leaves; although the branches having the coniferous leaves may be taken at any season of the year farther north, where the atmospheric dryness induces a greater abundance of the gum-resinous deposit. The small branches are collected into bundles, dried and transported to Valparaiso, where they may be purchased. Upon inspection, the impression is gained that pichi belongs to the coniferous family instead of being a solanacea. After drying, the leaves are easily detached from the stems, and unless securely wrapped, are lost during transportation.

Pichi has a peculiar balsamic odor, pungent and disagreeable, due to an abundance of resinous material, blue or gray-green in color, found in the bark, twigs and leaves. The taste is as characteristic as the smell, being bitter, unpleasant, and lingering resinously upon the tongue. Those who may become interested in the botanic description of the plant will find an excellent detailed account of it in the *Therapeutic Gazette*, for December, 1885, page 810, by Dr. Henry H. Rusby, Ph.G.

No doubt the active principle of the drug resides in the balsamic resin, which has been chemically examined by various investigators; but, so far, without satisfactory results in determining its chemic composition. Its medical properties may be described as slightly astringent, bitter, tonic, terebinthinate, diuretic, and hepatic stimulant.

As empirically established by the Peruvians and Chilianos, the remedy is readily available for diseases of the mucous surfaces, to all of which it is applicable except in structural nephritic lesions, the only condition in which it is contraindicated.

Mastication of the bark, branches, etc., produces increased salivary secretion and a sensation of stimulating warmth in the mouth, which, after the saliva has been swallowed, extends along the esophagus and into the stomach. The administration of a full dose of the fluid extract creates a sensation of agreeable warmth in the stomach, which, upon larger dosage, gives way to nausea and vomiting.

The continued use of pichi causes the appetite to improve; the gastric secretions evidently being stimulated, digestion is assisted and assimilation increased. A noticeable feature of the effect of the drug is the feeling of personal comfort and well-being. Sensations of buoyancy take the place of lassitude and mental depression—conditions frequently observed in diseases of the liver and kidneys. Under the benign influence of pichi the chronic dyspeptic loses his feeling of oppression and distress after eating. Gaseous fermentations and eructations cease; flatulence is prevented, or, when present, cured. The large, white-coated and flabby tongue changes to one of a clean, pinkish hue. The red, glazed, stretched, fresh-meat looking tongue occasionally seen, assumes a normal color. Ballooning of the small intestines is prevented; borborygmus is relieved; the pale, pasty, chalk-colored, putty-like, or scybalous stools become darker in color, softer in consistency, and are expelled with ease and comparative comfort. Intestinal endosmosis is accelerated and the deficient mucus in the intestinal canal is increased to a normal approximate, and a daily stool, becoming intensely colored, of a pungent odor, usually is voided.

Within 2 hours after the ingestion of the initial dose of pichi, the drug is present in the urine, which rapidly increases in quantity. Pathologic urine, offensive in odor and of high specific gravity, quickly approaches the normal standard. The remedy seems peculiarly happy in its effect when administered during cystitis, and, under its administration, ropy, alkaline and fetid urine soon loses its turbidity and within a few days becomes clear, regaining its normal acid reaction and specific gravity.

Chronic cystitis with enlarged prostate yields its annoying symptoms to the action of pichi, as may be illustrated by a case that was treated during the past year:

> A male, 72 years of age, after having been treated by two physicians of excellent reputation, without appreciable benefit, sought relief. He had lost flesh during 6 months. Under the most favorable conditions he had been compelled to void his urine 4, 5, and 6 times during the night; more recently he was called so frequently that it became impossible to obtain necessary sleep. Straining effort was required to expel the water, which came slowly and occasionally caused pain. The urine was turbid, alkaline in reaction and of high specific gravity. Mucus was abundant, rising to about half the height of the fluid in a bottle; the odor was heavy and sickening in character. After passing the urine through a filter, to free it from sediment, albumin was found to be present to the amount of about 0.5%. Examination revealed a prostate enlarged to twice the normal size. The man was constipated; the tongue was furred; the appetite was poor; and he was daily growing more feeble.
>
> Elixir of sodium citro-phosphate was administered, to relieve the constipation. During the night codein was ordered in ¼-grain doses, to be repeated sufficiently often to induce repose, during 3 nights, then withdrawn. Fluid extract of pichi was given every 4 hours, in half-teaspoonful doses. Within 48 hours the urine had improved in quantity, color, specific gravity and odor; the mucus and albumin disappearing in due time, when the reaction again became acid. At the expiration of 14 days of treatment, the man declared himself well, and could sleep comfortably from 10 P.M. until 5 A.M. With the improvement the lost appetite returned and the patient regained strength and weight. At the present time he is well.

Cystitis complicating specific urethral infection, involving the prostatic urethra, is a combination that, under favorable circumstances, does not readily respond to treatment. Under the influence of pichi, the conditions become more tractable and tolerable. Frequently the annoying symptoms are relieved, and the patient, after a few days of treatment, enters upon rapid convalescence.

As far as it is possible to estimate the action of the drug, it has no direct effect upon the circulation or the blood-pressure.

Increased diuresis, evidently, is the result of some active principle in the gum-resin, which, absorbed into the circulation, acts as a stimulant to the kidneys after the manner of the terebinthinates. From analogous reasons there is manifest hepatic activity, which results in an increased quantity of bile being discharged into the intestines and passed through the urine as well.

Whatever the nature and chemic composition of the active principle of pichi, when it is admitted to the hepatic circulation, it induces such cell-activity that a greater quantity of bile is excreted into the intestinal canal, and this coming in contact with the digestive process there, in some undiscovered manner, soon corrects the deficient or faulty metabolism, so that the kidneys are soon relieved of their excessive waste-products, and the urine becomes normal. I believe hat many of the functional disturbances of the liver are induced by the absorption from the alimentary canal of ptomains, resulting from faulty digestion, and his, when long continued, causes many of the simple nterstitial hepatic enlargements that cannot otherwise be explained. In such instances, pichi is, par excellence, he remedy to be relied upon. This is also true in simple icterus, for which it is an elective remedy of the rst importance, seldom disappointing those who are ortunate enough to employ it.

Occasionally the therapeutic value of pichi may be ncreased advantageously by the simultaneous administration of other drugs; such as jaborandi, to assist in timulating glandular activity, and sodium phosphate s an additional hepatic stimulant and laxative.

The quantity of water consumed is an important facor in the treatment of hepatic and renal diseases, and hould always be taken into consideration when outning the method of treatment. An increased quantity pure water should be daily consumed, to assist the uretic and laxative effects. Various chalybeate aters are available, and, when possible, they may be ken with helpful encouragement.

In all of the various forms of diseases of the liver, is sterling remedy is indicated. It has produced relts more satisfactory than any other remedy that has us far come to our knowledge.

Faithfully used for a sufficient length of time during e earlier stages of cirrhosis, pichi has proved emintly successful.

Among the earlier experiences with the drug, I used it in a case of alcoholic cirrhosis, in the person of a naval officer, who, in his official capacity, had spent much time in China and the tropics, when, as was his habit, he consumed an inconceivable quantity of alcoholic beverages of all kinds, giving especial attention to cognac and soda. At the time he began the use of pichi, the outlines of the liver were well defined, and the organ was hardened and projecting beneath the border of the ribs. He possessed all the feelings of discomfort and the symptoms incident to the disease, among which may be mentioned, loss of appetite, persistent constipation, headache, scanty secretion of highly colored urine, morning cough which was accompanied by eructation of gastric fluid.

The method of treatment adopted included sodium phosphate to overcome constipation, occasionally alternating with blue mass. Alcohol was interdicted, and its use was discontinued; but the patient was ordered to consume daily large quantities of distilled water, which he had hitherto never drank, except in small quantities. Pichi was given 4 times daily. This method of treatment was continued faithfully during 2 years. Notwithstanding the fact that the man was at sea much of this time, and compelled to live upon an unsatisfactory diet, he improved rapidly, the liver became soft, and at the expiration of 3 years, when he left the ship, it was impossible to say that there remained any cirrhosis.

Another case of simple, chronic hepatic enlargement, resulting from chronic indigestion—presumably ptomain-absorption—may be mentioned. A major of artillery, serving during the War of the Rebellion, became a victim of chronic indigestion attended with obstinate constipation. He had sought relief from various reliable sources, but without success. His liver was hard; his stools were light-colored, and were never evacuated without the use of cathartics and enemas. The skin was dark-colored and muddy, and occasionally jaundiced; the breath was intensely offensive, and foul in odor; the appetite was fitful; the tongue coated and white. The man was morbid in disposition and retrospectively inclined. He was incapable of prolonged mental effort without being unnecessarily fatigued. He consumed daily much black, strong coffee, and secreted a small quantity of red, offensive urine of high specific gravity. He never consumed alcoholic beverages. To him were administered large doses of sodium phosphate and tincture of colchicum-seeds, until the constipation was relieved, and then occasional doses were given; after which fluid extract of pichi, in half-teaspoonful doses, 4 times daily, was the only remedy used. Coffee was interdicted; the man was placed upon a restricted diet and ordered to swallow large quantities of chalybeate sulphur-water. Within 6 months, the whole character of the man had changed, because of the steady improvement in his condition, appearance and feelings. At various intervals during the past 3 years he has resumed treatment. He now has a good appetite and can eat almost anything, although the liver is yet perceptibly larger than normal.

In gallstones, pichi has proved a valuable remedy in assisting the secretion of bile, and theoretically in aiding the discharge of the stones. At all events, the continuous use of this remedy has seemingly lessened the frequency and severity of attacks, and those who have taken it uniformly agree that they feel better as a result.

In the uric-acid diathesis, gout, chronic rheumatism, sciatica, lumbago, and in persistent headache, with faulty secretions and excretions, this remedy is equally applicable, and as a corrective agent for these conditions it should be preferred to the salicylates, since it is less distressing in its effects upon the patient, and is free from annoying symptoms; moreover, it possesses the desirable capacity of increasing the appetite and assisting the digestive functions.

Uric-acid formations rapidly disappear from the urine under the corrective influence of this remedy, and the general condition of the patient improves.

The terebinthinate principle of the gum-resin, as has been indicated, evidently contains an active substance that, introduced into the circulation, effects a combination in some manner favorable to the solution, excretion and elimination of the products of metabolism, which a sluggish, enlarged and overworked, inactive liver would, otherwise, be incapable of transforming. Whatever its chemic nature, the stimulating effect upon the kidneys and liver is sufficiently active to relieve a clogged liver. It is impossible to say that pichi has any appreciable effect upon the action of the skin.

As a reconstructive bitter tonic, pichi has proven itself valuable in chronic alcoholism, on account of the stimulant effect on the digestive function and the excretory apparatus. In a few instances that I can recall, the effect of the drug appeased the desire for stimulation; but in no way can it be considered as a remedy possessing any antidotal qualities against alcohol.

Of the preparations used, the fluid extract is the one mostly employed. Owing to its resinous qualities, however, it is incompatible with water. To overcome this objection, the addition of a small quantity of an alkali is recommended. It has also been found that glycerin prevents precipitation, and for its other qualities this substance, in teaspoonful-doses, is an admirable addition. The alcoholic tincture of pichi has never been used.

The taste and smell, being objectionable to most patients, was a detriment. This objection has been overcome by having the powdered extract compressed into a tablet. These tablets have proved that they possess the full value of the drug, and are satisfactory. They are readily taken by fastidious patients, who would not take the fluid preparations.

If others, possessing an extensive range of therapeutic application, may be induced to employ this remedy, I confidently believe that they will not be disappointed in its effects.

THE "GRADUATE OPTICIAN."

By ALFRED W. HERZOG, M.D.,

of New York City.

WHENEVER I pass a jeweler's shop or walk through a department-store; whenever I see the numerous peddlers' carts in the neighborhood of Fulton Street, in the city of New York, all displaying the well-known sign: "*Graduate Optician—Eyes Examined Free of Charge, Spectacles and Eyeglasses Adjusted Scientifically,*" — I pause, to wonder and consider whether it is right whether it is lawful, that every jeweler, every watchmaker, every clerk in a dry-goods store, and every peddler,—yes, everyone that wishes to, should be permitted to examine and treat so sensitive and valuable an organ as the human eye, without having any knowledge to warrant such examination or treatment. I wonder whether it is right that anyone should be permitted to deceive the public into the belief that he has any knowledge of the eye and its diseases, by flashing before the eyes of an unsuspicious and uninformed public such fake titles as "Graduate Optician." I claim, and in this claim I will be upheld by every physician in the United States, that the eye, being an organ of the body, should not, when it has deviated from strictly physiologic into pathologic lines, that is to say, when it has become diseased, be treated by any one but a person licensed to practise medicine and surgery. It is well recognized by medical science that eyeglasses and spectacles are instruments to be used not only for the purpose of enabling people with deficient sight to see better, but that besides their being used for this purpose in presbyopia, hypermetropia, myopia, and astigmatism, they may be used also for the relief of eyestrain and its consequences. Headaches, neuralgias, chorea, uterine symptoms, sleeplessness, dyspepsia and vomiting, fainting spells, nervous prostration and many other nervous and reflex symptoms may be caused by eyestrain. Eyestrain, however, may be caused not only by the sufferer not wearing glasses when he ought to do so, but also by his wearing improper glasses; and the chances are that of 100 different pairs of eyeglasses or spectacles fitted either by a so-called "graduate optician," or by any other individual who is not a physician and has not made the study of the eye and its diseases a part of his practice, 99 pairs will not be suited to the eyes of the wearer. If the only harm done, when a person is fitted to unsuitable glasses, were that the glasses would be useless and that he could not see well with them, the evil would be slight indeed; for just in this would reside the remedy. A person disappointed in getting well-fitting spectacles from a jeweler or a department-store, would at last go to a physician, an oculist, who would, after careful examination, be able to prescribe for his patient glasses of proper strength. The great trouble lies, however, in the fact that the patient will in most cases be unable to find out what lenses suit him and which do not, what lenses cause eyestrain and which benefit him, and will receive at the hands of the graduate optician a pair of lenses entirely unsuited to his needs. Whatever is wanting in the lenses he will instinctively, or rather, involuntarily, try to overcome by using his power of accommodation, and in this way he will strain his eyes, with possibly the development of many distressing nervous symptoms.

Again, a person with the prodromal symptoms of glaucoma, a disease, that, if not properly treated by means of iridectomy, invariably ends in total blindness or, suffering from some other ocular disease, may notice that his eyesight is failing and enter a jeweler's shop to have his eyes examined. The graduate optician in attendance, who knows nothing of eye-diseases, nothing of ophthalmoscopic or in fact any other examination of the eye—whose optical education seems to be limited to the knowledge of the dozen-price of his eyeglass frames—will naturally try to fit his "customer" with a pair of eyeglasses and is likely to tell him that if the glasses do not fit at once, it is because his eyes are strained, but by wearing the glasses for some time the eyes will become stronger, and so on. The consequence is that when this sufferer at last reaches the office of a physician, an oculist, he may have lost his eyesight beyond repair.

In my practice I often meet cases that take up my time for hours, and whom I examine on possibly three or four different days, before I finally prescribe the eyeglasses to be worn; but I still have to find a "graduate optician" who is not able to fit any case with glasses within 15 minutes after the poor deluded lamb has entered his store. Besides, these "graduate opticians" are able to do this without the use of any mydriatic, as atropin or homatropin, without ophthalmoscopic or retinoscopic examination, in fact with hardly any examination at all. This evil of other persons than physicians examining and treating eyes ought to be stopped; not only for the reasons already mentioned, but also in justice to those physicians who have made a study of the diseases of the eye and are competent, and the only ones competent to examine and treat eyes properly, be it by means of surgical operations, medicines or lenses.

I can see very little difference between the man who puts on his sign "Graduate optician, eyes examined and eyeglasses fitted scientifically," and the man who would advertise "Throats examined and antitoxin injected scientifically," or "Lungs examined and tuberculin injected scientifically." The one practises one branch of medicine without a license, the same as the other. I see no reason, further, why the oculist should be less protected in the pursuit of his lawful calling han the general practitioner who treats the throat or ungs. The fact, however, is, that up to the present ime the physicians in the United States have failed to how any interest in this phase of medical quackery, or if they had done so it could not exist.

In looking over the laws regulating the practice of medicine and surgery in different States, I find that most of them define the limitations so that the practice f prescribing eyeglasses and spectacles is comprised within the law, as I may show by quoting section 8 of hapter 190 of the laws of the State of New Jersey, enacted in 1890, and which reads as follows:

> "And be it enacted, that any person shall be regarded as ractising medicine or surgery, within the meaning of this ct, who shall append the letters M.D. or M.B. to his or her ame, or prescribe for the use of any person or persons, any rug or medicine, or other agency, for the treatment, cure or elief of any bodily injury, infirmity or disease."

The words that apply in our case, are:

> "prescribe for the use of any person or persons, any drug or medicine or other agency for the treatment, cure or relief of any bodily injury, infirmity or disease."

All that is necessary, therefore, in the State of New Jersey for the purpose of showing that the so-called "graduate optician" is included in this act as practising medicine without a license, is, first, to show that eyeglasses, spectacles and lenses of any kind are comprised in the word "agency"; and this we can prove, firstly, by Webster, who defines "agency" as "the quality of moving or of exerting power; the state of being in action; action; operation; instrumentality; and, secondly, by the context of the law itself, which states: "drug, medicine or other agency," and shows thereby that the intention of the law is to include in the word "agency" all those substances that cannot be classified as either drugs or medicines. Lastly, we must show that eyeglasses, spectacles and lenses of other kinds are used for the treatment, cure or relief of any bodily injury, infirmity or disease. This is easy, and, in fact, we can show that, while drugs, medicines or other agencies used in medicine or surgery may sometimes be used for other conditions than included in this act; eyeglasses and spectacles are never used for anything else than the treatment, cure or relief of bodily injury, infirmity or disease, as the only cases in which lenses are used are in eyestrain, caused either by muscular insufficiencies or errors of refraction; in hypermetropia, myopia or astigmatism, for presbyopia and for aphakia. So there is no question that the New Jersey medical-practice act fully covers the class of cases here considered, and I find that the law in other States differs only very slightly from that of New Jersey.

In New York State, for example, the law which applies can be found in the laws of 1895, vol. i, p. 258, §153: Penalties and their collection. I quote as follows, the italics being mine:

> "Any person who, not being then lawfully authorized to practise medicine within the State, and so registered according to law, shall practise medicine within this State without lawful registration or in violation of any provision of this article; and any person who shall buy, sell or fraudulently obtain any medical diploma, license, record or registration, or who shall aid or abet such buying, selling or fraudulently obtaining, *or who shall practise medicine* under cover of any medical diploma, license, record, or registration illegally obtained or signed, or issued unlawfully or under fraudulent representations, or mistake of fact in a material regard, or who, after conviction of a felony *shall attempt to practise medicine or shall so practise*, and any person who shall append the letters M.D. to his or her name, or shall assume or advertise the title of doctor (*or any title which shall show or tend to show that the person assuming or advertising the same is a practitioner of any of the branches of medicine*), in such a manner as to convey the impression that he or she is a legal practitioner of medicine, *or any of its branches*, without having legally received the medical degree, or without having received a license which constituted at the time an authority to practise medicine under the laws of this State, then in force, shall be guilty of a misdemeanor, and, on conviction thereof, shall be punished by a fine of not more than two hundred and fifty dollars, or imprisonment for six months, for the first offense, and on conviction of any subsequent offense, by a fine of not more than five hundred dollars, or imprisonment for not less than one year, or by both fine and imprisonment. . . ."

The Revised Statutes of New York, vol. v, p. 3470, Laws 1890, ch. 507, paragraphs 9 and 10, prescribe that no one shall practise medicine and surgery in the State of New York after a certain date, except he has received a license from the regents of the university, etc. Paragraph 10 excepts from the provisions of this act manufacturers of artificial eyes, limbs, or orthopedic instruments, or trusses of any kind from fitting such instruments on persons in need thereof.

In Pennsylvania the matter is covered by the Medical Practice Act of 1893, and the only persons excepted are mentioned in section 15, as follows:

> " . . . or shall interfere with or prevent the dispensing and sales of medicines or medical appliances by apothecaries, pharmacists, or interfere with the manufacture of artificial eyes, limbs, or orthopedic instruments or trusses of any kind for fitting such instruments on persons in need thereof."

In New York, therefore, the fact itself of a man advertising himself as graduate optician would be sufficient for a conviction according to the words of the law:

> "Shall attempt to practise medicine, or shall so practise . . . or shall assume or advertise . . . any title which shall . . . tend to show that the person assuming or advertising the same is a practitioner of any of the branches of medicine."

Besides, it might be necessary to disprove, if this point should be raised by the defendant, that eyeglasses are neither artificial eyes, nor orthopedic instruments, nor trusses; yet this should be easy.

EXOPHTHALMIC GOITER IN IOWA.

By J. FRED. CLARKE, A.M., M.D.,
of Fairfield, Ia.

MOST of our statistics and medical data come from large hospitals in large cities. I have long thought that by some concerted study the country-doctors could do valuable work of aid to science and of more value to their rural practice. To test the truth of such surmises letters of inquiry were sent into all the counties of Iowa asking for data in regard to exophthalmic goiter. From the courteous replies to these letters it has been possible to tabulate 49 cases of this disorder—47 of which have never been reported. Both my faulty methods in this first attempt at collecting data and the failure of so many doctors to keep full case-records in therapeutics has made these results of much less value than they might have been.

Cases No. 2 and No. 7 have been published. During the correspondence the existence of 16 other cases of exophthalmic goiter was also learned, that have occurred in Iowa in the past 10 years, but the reports of which were too indefinite to tabulate. After much correspondence I believe that these 65 cases represent a large proportion of all the cases of exophthalmic goiter that have occurred in Iowa in the past 10 years.

Dr. Heustis, of Dubuque, writes: "In 6 years' practice I have had no case of exophthalmic goiter."

Dr. Throckmorton, of Chariton, says: "There has been no case in this county for several years."

Dr. Farnsworth, of Clinton, writes: "I have not had one case in thirty years' practice."

Dr. Hill, of Independence, writes: "In 22 years in the Iowa Hospital for the Insane I have seen but 2 cases."

Dr. McClure, of Mt. Pleasant, says: "There have been but 3 cases in Henry County in 10 years."

Dr. Rawson, of Corning, writes: "I have had but one case in 45 years' practice."

Such reports from physicians of long practice and education show the disease to be rare in Iowa. None reports more than 6 cases.

From a study of the 49 tabulated cases the following conclusions can be drawn:

(1) In geographic distribution the cases have been from all parts of the State in proportion to the density of population.

(2) As to sex, 36 patients were females and one a male. The remaining 12 did not have the sex reported, but judging from the context of the reports all were females.

(3) The ages range from 15 to 45 years, the greatest number in any one decade being in that from 20 to 30 years.

(4) There was exophthalmos in all but one case. In one case only but one eye protruded. In 2 cases the right eye was the more prominent and in 2 the left eye protruded the more.

(5) The pulse ranged from 96 to 180 beats in a minute. In but one case was an organic heart-lesion reported,

(6) The thyroid gland was enlarged in all cases. In 9 cases the right lobe was larger than the left, and in but one case was the left lobe the larger.

(7) As to the etiology: In 22 cases the cause was reported "unknown;" heredity was noted in 5 cases; anxiety and grief in 2 cases, and fright in 3 cases. Over-study, exhaustion from disease, masturbation, and ovarian and uterine disease were reported as less frequent causes.

(8) The treatment varied widely. Thyroid extract, rest, strophanthus, digitalis, ergot, belladonna, strychnin, iodin locally and by injections, arsenic, iron, electricity, and nuclein, were all used, with varying results. Case 25 is reported as "cured" and Case 42 as "improved" without drugs.

(9) As to the result: Of the 49 cases 18 recovered and 16 more improved. There were 5 deaths from the disease and 3 from intercurrent affections.

My personal experiences with regard to treatment leads me to believe that the Weir Mitchell "rest-cure" without drugs is successful.

CASE.	PHYSICIAN.	SEX AND AGE.	PULSE.	EYES.	THYROID.	ETIOLOGY.	TREATMENT.	RESULT.	REMARKS.
1	Dr. H. E. W. Barnes, Creston, Ia.	F. 25	Rapid.	Both prominent.	Right lobe enlarged.	Not known.	Thyroid extract; no rest.	Cured.	. . . .
2	Dr. R. E. Buchanin, Independence, Ia.	F.	Rapid.	Both prominent.	Both lobes enlarged; followed exophthalmos.	Masturbation and disappointment in love.	Desiccated thyroid 7 months with no improvement; then nuclein and rest.	Cured.	Reported in *American Therapist*, June, 1895; acute melancholia appeared after exophthalmic goiter subsided; recovered.
3	Dr. S. W. Clark, Oskaloosa, Ia.	F.	140–148.	Both prominent.	Both lobes enlarged; right much the larger.	Unknown.	Ergotin, veratrum; potassium iodid injections, tr. iodin, Mxxv, twice a week, one year.	Cured; pulse 90; no exophthalmos; goiter $\frac{1}{3}$ former size.	. . . .
4	Dr. J. Fred. Clarke, Fairfield, Ia.	F. 45	120–150.	Both prominent; l. eye the more.	Both lobes enlarged; right the larger.	Family-history excellent; death of husband; daughter of one paternal cousin had a goiter.	Tr. strophanthus and rest (partial).	Marked improvement; still under treatment; p. 75.	Poor and cannot have rest continuously.
5	Dr. J. Fred. Clarke, Fairfield, Ia.	F. 20	120–180.	Both prominent; followed struma.	Both lobes enlarged.	Heredity (?); no other cause discovered. Two sisters had goiter at 14 and 30 years; no eye-symptoms; both recovered.	Belladonna and rest; grew progressively worse; strophanthus, Mv, t. i. d., 6 months.	Cured.	Fourteen years later well; eyes slightly prominent; all treatment in the East by other physicians.
6	Dr. J. Fred. Clarke, Fairfield, Ia.	F. 23	110–130.	Both prominent.	Both lobes enlarged.	No cause discoverable; pregnancy (?)	Strophanthus and rest (partial).	Much improved; under treatment; p. 100.	Not yet delivered.
7	Dr. J. Fred. Clarke, Fairfield, Ia.	F. 22	96–120.	Both prominent; left much more than right.	Right lobe enlarged.	Heredity; over-study; fright.	Complete rest in bed; strophanthus; 3 months.	Cured; left eye slightly prominent.	Five years later, well.
8	Dr. J. Fred. Clarke, Fairfield, Ia.	F. 35	120.	Both prominent; right the more.	Both lobes prominent; r. the larger.	No cause discoverable; good family-history. Was doing hard house-work, church-work and lodge-work.	Rest in bed; digitalis; 6 months.	Much improved.	Two years later, well, except for "nervousness" and small goiter.
9	Dr. J. H. Darey, Northwood, Ia.	F. 38	140–160.	Both very prominent; left first; right the more prom.	Both lobes enlarged moderately; followed exophthalmos.	Anxiety and grief.	Potassium iodid, gr. x, t. i. d.; 18 months.	Complete cure.	Four years later prefectly well.
10	Dr. S. K. Davis, Libertyville, Ia.	F.	120.	Both prominent.	Both lobes enlarged.	Could not determine.	Locally ung. hydrarg. oxid. rub.; strophanthus; digitalis; ergot; belladonna; potassium iodid; Fowler's sol.; "tr. strophanthus and cascara and ung. hydrarg. best;"	Cured; slight enlargement of thyroid remains.	. . . .
11	Dr. P. J. Farnsworth, Libertyville, Ia.	F. 30	Intermittent.	Both prominent.	Both lobes enl'rg'd slightly.	General debility; followed death of baby.	Rest; tonics; digitalis and nux vomica.	Cured in one month; 6 years later is well.	But the one case seen in 30 years' practice; seen in 1890.
12	Dr. Gershom H. Hill, Independence, Ia.	F.	. . . .	. . . . . .	. . . . . .	. . . .	. . . .	Death; in hospital 2 months; in bed constantly; delirious.	In 22 years in Iowa Hospital for the Insane but two cases seen.
13	Dr. Gershom H. Hill, Independence, Ia.	F.	Very rapid.	. . . . . .	Both lobes enlarged.	. . . .	. . . .	Improved; in hospital 7 months.	Goiter and rapid heart action remained when discharged.
14	Dr. Edw. Hornibrook, Cherokee, Ia.	. .	180.	Both prominent.	Both lobes enlarged.	Not known.	Galvanism, strophanthus, hemoglobin, and arsenic.	Improved; exophthalmos and goiter remain.	Has since married and borne one child; general health now good.
15	Dr. Edw. Hornibrook, Cherokee, Ia.	. .	150.	Both prominent.	Both lobes enlarged.	Not known.	Tr. aconite and general hygiene.	Relieved; lived well 4 years; then cardiac symptoms returned and died of "heart-disease."	Had left the county and not seen by Dr. Hornibrook.
16	Dr. J. W. Kime, Des Moines, Ia.	F.	. . . .	Both prominent.	Both lobes enlarged.	Shock on learning of husband's infidelity.	Cardiac sedatives.	No improvement 4 years later.	Seen in consultation.
17	Dr. E. H. King Muscatine, Ia.	F. 23	144.	Both prominent.	Both lobes enlarged.	Disappointment in love.	Digitalis, iron, quinin, and strychnin; galvanism; partial rest.	Improved for 3 months; then disappointment in love, grew worse and died in one month.	In last week, acute and violent delirium.
18	Dr. L. W. Littig, Iowa City, Ia.	. .	120.	Both prominent.	Both lobes enlarged.	Not known.	Sedatives; iron; ergotin; electricity.	Death from intestinal obstruction.	. . . .
19	Dr. L. W. Littig, Iowa City, Ia.	. .	130.	Both prominent.	Both lobes enlarged.	Not known.	Sedatives; iron; ergotin; electricity.	Passed from observation.	. . . .
20	Dr. L. W. Littig, Iowa City, Ia.	. .	115.	Both prominent.	Both lobes enlarged.	Not known.	Sedatives; iron; ergotin; electricity.	Passed from observation.	. . . .
21	Dr. L. W. Littig, Iowa City, Ia.	. .	135.	Both prominent.	Both lobes enlarged.	Not known.	Sedatives; iron; ergotin; electricity.	Passed from observation.	. . . .
22	Dr. L. W. Littig, Iowa City, Ia.	. .	140.	Both prominent.	Both lobes enlarged.	Not known.	Sedatives; iron; ergotin; electricity.	Passed from observation.	. . . .
23	Dr. A. W. McClure, Mt. Pleasant, Ia.	F. 45	160.	Both prominent.	Both lobes enlarged.	Family affliction.	Rest; aconite; Fowler's sol.; iron; strychnin; galvanism.	Death in one year; heart-exhaustion.	Only 3 cases in county in 10 years.
24	Dr. A. W. McClure, Mt. Pleasant, Ia.	F. 35	140.	Both prominent.	Both lobes enlarged.	No cause found.	Aconite; rest; Fowler's sol.; iron; strychnin; galvanism; 10 years' duration.	Improved.	"Rest is necessary in the treatment."

CASE.	PHYSICIAN.	SEX AND AGE.	PULSE.	EYES.	THYROID.	ETIOLOGY.	TREATMENT.	RESULT.	REMARKS.
25	Dr. Allen A. Rawson, Corning, Ia.	F. 45	. . . . .	Both prominent.	Right lobe enlarged.	Anemia.	Rest; quiet; no drug.	Cure in 6 months.	But one case seen in 45 years' practice.
26	Dr. Albert Reynolds, Clinton, Ia.	. .	120–160.	Both prominent.	Both lobes enlarged.	Hard mental and physical work.	Strophanthus; strychnin: digitalis; galvanism; rest; one year.	Cured.	Five years later; well.
27	Dr. Albert Reynolds, Clinton, Ia.	F.	120–130.	Both prominent.	Both lobes enlarged.	Malaria.	Strophanthus; strychnin: digitalis; galvanism; rest; 2 months.	Improved; changed physicians; 5 years later, about the same.	No case seen in 25 years' practice until these 3 cases seen in one year.
28	Dr. Albert Reynolds, Clinton, Ia.	. .	130–140.	Both prominent.	Both lobes enlarged.	Prostration following typhoid fever.	Tonics; 2 months.	Cured.	. . . .
29	Dr. M. W. Richey, Le Mars, Ia.	F.	Rapid murm.	Both prominent.	Both lobes enlarged.	. . . .	. . . .	Death from "Bright's disease."	Albumin in urine.
30	Dr. M. W. Richey, Le Mars, Ia.	F.	Rapid.	Both prominent.	Both lobes enlarged.	. . . .	. . . .	Death from pulmonary tuberculosis.	. . . .
31	Dr. Lewis Schooler, Des Moines, Ia.	F.	140.	Both prominent.	Both lobes enlarged.	Uncertain.	Thyroid tablets and digitalis; one year.	Cured; eyes still prominent.	. . . .
32	Dr. Lewis Schooler, Des Moines, Ia.	F.	136.	One prominent.	Both lobes enlarged.	Uncertain.	Thyroid tablets; digitalis; 6 months.	Cured; eyes still prominent.	. . . .
33	Dr. Lewis Schooler, Des Moines, Ia.	. .	148.	Both prominent.	Both lobes enlarged.	Uncertain.	Thyroid tablets and digitalis now one month.	Now under treatment.	. . . .
34	Dr. A. G. Shellito, Independence, Ia.	F.	. . . . .	. . . .	. . . .	. . . .	. . . .	Death from exhaustion.	Treated by Dr. Shillito only 3 weeks before death; could not retain any food.
35	Dr. Frederick S. Thomas, Council Bluffs, Ia.	M. 28	130.	Both quite prominent.	Both lobes enlarged.	Unknown.	Desiccated thyroid; strychnin; rest not enjoined after first week.	Improved 3 months; then lost sight of.	. . . .
36	Dr. Frederick S. Thomas, Council Bluffs, Ia.	F. 38	135.	Both prominent.	Both lobes enlarged; right the larger.	Unknown.	Desiccated thyroid; strychnin; galvanism; 2 months; rest not enjoined.	Improved much.	Under treatment.
37	Dr. Frederick S. Thomas, Council Bluffs, Ia.	F. 15	120.	Both slightly prominent.	Right lobe only; quite large.	Unknown.	Desiccated thyroid only; colorless tr. iodin as placebo; rest not required; 2 months.	Cured.	Slight enlargement of thyroid left.
38	Dr. Frederick S. Thomas, Council Bluffs, Ia.	F. 43	128.	Both very prominent.	Both lobes quite large.	Unknown.	Desiccated thyroid; strychnin; worked hard every day; 6 months.	Cured.	Despondency changed to cheerfulness.
39	Dr. Frederick S. Thomas, Council Bluffs, Ia.	F. 29	120–140; systolic aortic murm., transm. to carotids.	Both prominent; palpebral fissure not closed.	Whole gland enlarged.	Unknown.	Digitalis and strychnin; galvanism 3 times a week; 1 month.	No improvement.	Changed physicians; lost sight of.
40	Dr. Frederick S. Thomas, Council Bluffs, Ia.	F. 24	120–130; irregular.	No exopthalmos.	Right lobe only enlarged.	Chronic metritis; catarrhal salpingitis; ovaries enlarged, and in Douglas' culdesac.	Curettage; thyroid pills; not well borne and discontinued; strychnin and hot vaginal douches.	Improved; did not persist in treatment well; thyroid reduced; heart still rapid, but regular.	All but No. 39 treated in 1896.
41	Dr. Mary B. Tuttle, Burlington, Ia.	. .	140.	Both prominent.	Both lobes enlarged.	Fright.	Blaud's pill; digitalis; arsenic; strychnin; partial rest.	Cured.	Presistent cough.
42	Dr. Mary B. Tuttle, Burlington, Ia.	. .	120.	Both prominent.	Both lobes enlarged.	Unknown.	In bed 3 months.	Improved.	. . . .
43	Dr. A. M. Vail, Rock Rapids, Ia.	F. 17	90.	Both prominent.	Both lobes enlarged.	Over-study at school; diminished menstruation.	Electricity; iodin; hot vaginal douches; 3 months.	Greatly improved; 3 years later, well.	Three other cases seen, but not treated.
44	Dr. F. E. Whitley, Webster City, Ia.	F.	100–120.	Both prominent.	Both lobes enlarged.	Fright and prolonged anxiety.	Ergot; belladona; 4 months.	Cured completely.	. . . .
45	Dr. F. E. Whitley, Webster City, Ia.	F.	110–140.	Both prominent.	Both lobes enlarged; one more than other.	Heredity.	Thyroid extract, 3 months.	Great improvement.	Disappeared from observation.
46	Dr. F. E. Whitley, Webster City, Ia.	F.	105–110.	Both prominent.	The r. chiefly.	Severe nervous shock produced by an accident	Thyroid extract, 1 month; iron and ergot 3 months.	Grew worse on thyroid extract; Some improvement with iron and ergot.	. . . .
47	Dr. F. E. Whitley, Webster City, Ia.	F.	98–106.	Both prominent.	Both lobes enlarged.	Unable to state.	Thyroid extract, 5 months.	Cured.	. . . .
48	Dr. F. E. Whitley, Webster City, Ia.	F.	110–118.	Both prominent.	Both lobes enlarged.	Heredity.	Thyroid extract; ergot; iron; potass. iodid; one year.	No improvement.	. . . .
49	Dr. F. E. Whitley, Webster City, Ia.	F.	115–125.	Both prominent.	Left lobe enlarged.	Heredity and anemia.	Iron; ergot; digitalis; 3 months.	Much improved.	Disappeared from observation.

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"**Osteopathy,**" says the official exponent of that remarkable delusion, "in its general practice, makes specialism, particularly in eye, ear, nose, and throat troubles, unnecessary. *Astigmatism, for example, does not need an adjustment of glasses to the eye, so much as it needs an adjustment of the eye to the field of vision.* This adjustment we easily make, and often makes (*sic*) glasses unnecessary when treating for other troubles."

We have often called attention to the fact that ignorance of the most common laws of English grammar is a sign of more deplorable ignorance in the writer concerning the things whereof he speaks. It is seldom, however, that quacks are so lacking in all sense of cunning as the editorial writer in this *Philadelphia Journal of Osteopathy*, whose words we have quoted. The foregoing italicized words about astigmatism, taken evidently as the most obvious illustration of his dogma, betray that he has not the faintest conception of the meaning of the word, such as any quiz-compend, for instance, would have given him. But science-scorners are *super scientia*, and also, like the old Rex Romanorum, "*super grammaticum.*" The abysmal ignorance of the man who could write that in astigmatism the eye needs only an adjustment to the field of vision, is certainly wonderful. The same crass empty-headedness glares out of every written line of their writings. And these are the men who have wheedled and bullied several Western legislatures to become their servants, and are to-day seeking a legal status in Eastern States.

Gonorrhea and Sterility.—Benzler has recently given this subject careful investigation, following the histories of 3,000 soldiers of the German Army who were infected with gonorrhea during their time of service. Out of 474 authenticated marriages of those who had been affected with simple gonorrhea, he found that 10% were without children after 3 years of married life; of 111 marriages of men who had had epididymitis of one testicle, 23.4% were sterile: of 24 marriages of men who had had epididymitis of both testicles, 41.7% had no children and 52.5% had only one child. Unfortunately sterility is only one of the many evils following gonorrhea. Abdominal surgeons of many different countries have frequently called the attention of the profession to the large number of cases of pelvic diseases of gonorrheal origin. It is well known that the gonococcus may lurk in the urethra long after the cessation of discharge, and in this way many women are infected by husbands who believe themselves to be free from disease. It is time that the public came to know from some source that an attack of gonorrhea does mean more than a hard cold. Certainly physicians, who are supposed to be moral as well as educated men, should at all times discourage the loose state of morality which results in so many disastrous consequences.

Multiple Reciprocity.—During the past year we must have received a hundred or more letters like that copied below, written to physicians, and sent by them to us with the comment, "For example," "What do you think of this?" etc., etc. The receipt of these letters has grown so tiresome that in order to give our readers notice that we already have an abundant supply on hand, we copy the last one received in full:—

OFFICE OF
THE —— —— ——,
Drs. —— ——, *Editors.*

—— ——, Feb. 6, 1899.

DR. L. PIERCE CLARK, Sonyea, N. Y.

Dear Doctor:—We have just read with much interest the paper you presented to the Livingston County Medical Society, entitled, "Report of Two Cases of Hysteria Major Associated with Epilepsy." Your style of writing is certainly very attractive. We would like very much to get you to write an article of about a thousand words for our Journal on one of the enclosed subjects. We will need the article within the next sixty days. If you will do this for us, we will send you our Journal complimentary for three years.

Under separate cover we send you several copies of the Journal for your inspection. If you need any special literature on the enclosed subjects, you can get it by writing to the manufacturers, or if you need any of the preparations for experimental use, they will take pleasure in sending you all you want. Please let us hear from you by return mail.

Thanking you in advance for a favorable reply, we are,

Very truly yours,

—— ——.

Resinol Ointment in Eczema. Prepared by Resinol Chemical Co., Balto., Md.

Kryofine in any disease in which it is indicated. Manufactured by C. Bischoff & Co., 89 Park Place, New York, N. Y.

Maltine in any disease in which it is indicated. Manufactured by The Maltine Mfg. Co., 8th Ave. & 18th St., New York, N. Y.

Protonuclein in any disease in which it is indicated. Manufactured by Reed & Carnrick, New York, N. Y.

Eulexine in Diabetes. Manufactured by The Thomas Pharmacal Co., 95 Broad St., New York, N. Y.

Antibrule in any disease in which it is indicated. Manufactured by The Antibrule Chem. Co., 708 Pine St., St. Louis, Mo.

Terraline in any disease in which it is indicated. Manufactured by the Hillside Chemical Co., Newburgh, N. Y.

Phenozone Bougies in Gonorrhea and Gleet. Manufactured by The Standard Chemical Co., 1016 Cherry St., Philadelphia, Pa.

Hydroleine in any disease in which it is indicated. Manufactured by The Chas. N. Crittenton Co., 115 Fulton St., New York, N. Y.

The Pocono District as a Health-Resort.—From a report to the State Board of Health of Pennsylvania, it would seem that Mt. Pocono, in Pennsylvania, might more frequently be recommended by physicians as a sanatorium for many patients who are sent farther away to secure conditions no better than are thus obtainable much nearer home. An abstract of the report made by Dr. Lee shows that during the year the entire district has been free from epidemics of a serious character. Only two cases of typhoid fever occurred, and both of these were unquestionably of foreign origin, the patients returning from a distance to be taken ill at home. Four cases of diphtheria and 5 of scarlet rash constituted the entire list of contagious diseases. Malarial affections were conspicuous by their entire absence. The total permanent population of this region is 3,950, but, as it contains within its borders a large number of summer resorts, the population during that season is greatly increased. The altitude at Mt. Pocono, which may be called the central station of the Delaware, Lackawanna, and Western Railroad, is 1,800 feet above the level of the sea; while within a radius of 2 or 3 miles from this point, at altitudes varying from 1,400 to 2,200 feet, accommodations can be found ranging from first-class hotels to comfortable farm-houses, with a corresponding tariff of expense. The soil, being composed of sand, gravel and stone, constitutes a natural filter-bed. For this reason, the drainage is generally perfect; all surface-water. disappearing with great rapidity after a heavy rain. Streams of crystal clearness and uniformly cold abound in the valleys, and the hillsides are full of springs. Bacteriologic examination of a sample of spring-water proved it to be, to all intents and purposes, sterile, not even containing germs of a harmless nature. Hygrometric tests indicate that the average humidity of the atmosphere in the valleys of this region is distinctly below that of our seaboard cities. The temperature in summer ranges about 10 degrees below that of New York and Philadelphia. Phthiscal cases are found to do well in this pure atmosphere, and there are many cases on record where those who have gone there in the early stages of the disease have been restored to health.

An Antivivisection Method.—Senate Document No. 78 (55th Congress, 3d Session) consists of a "Statement of Dr. Albert Leffingwell, of New York. Being a critical examination of various objections to Senate Bill No. 1063 and other papers and facts relating to the subject of vivisection."

"Critical!" Bah!

It was, of course, presented by Senator Gallinger ("Dr." Gallinger, of homeopathic origin), and its critical examination is the usual farrago of prejudice against the method (animal experimentation) whereby much of the progress of medicine has been secured, and against the results (lessened disease and mortality) obtained in therapeutics. Scientific men need not be told of these. We revert to the matter to call attention to the fact that the Government machinery (printing-office) is being used to disseminate the literature of the enemies, not only of the profession, but of hygienic progress. Why cannot it also be used by us in the same way, but for our beneficent purposes? We suggest that a committee be appointed to prepare a document setting forth our side of the question. Surely some "Allopath" can be found to "present" it in Congress, and to press the order for its printing and millionfold distribution. In the meantime Dr. Sternberg has written the following letter:

War Department,
Surgeon-General's Office,
Washington, February 13, 1899.

Hon. James McMillan,
Chairman Committee on District of Columbia,
U. S. Senate.

Sir:—I have the honor to request, as a matter of justice, that the following brief statement may be published as a "document" in connection with Senate Bill No. 1063, in reply to certain allegations reflecting upon me personally in Senate Document No. 78.

The fact is recognized by well-informed physicians throughout the world that the great progress made by scientific medicine during the past thirty years has been to a great extent due to experiments upon the lower animals, and that our exact knowledge with reference to the cause and prevention of infectious diseases of man and domestic animals is based largely upon inoculation-experiments, made for the most part upon small animals, such as mice, guinea-pigs, and rabbits.

Those who have engaged in such experiments insist that the pain attending the inoculation is trifling and does not call for the administration of an anesthetic. But no one, so far as I know, has ever denied that as a result of such inoculations there may at times be more or less pain. To give an anesthetic to an inoculated animal during the time it is under observation to determine the result of the experiment would entirely neutralize the value of the experiment, and a law requiring this would effectually arrest all investigations of this kind.

Dr. Leffingwell, in Document 78, has referred to certain experiments upon rabbits made by me in the laboratory of the Johns Hopkins University nearly twenty years ago. Those experiments resulted in a very important scientific discovery—that of the germ of pneumonia. If Dr. Leffingwell had consulted a modern textbook of bacteriology he would have found that in the experiments referred to, the fatal result in the rabbits experimented upon was due to the accidental presence in my salivary secretions of a pathogenic micrococcus which has since been proved to be the usual cause of inflammation of the lungs. Also that it has since been found temporarily present in the salivary secretions of many other healthy individuals, as well as in the pulmonary secretions of persons suffering from pneumonia. Dr. Leffingwell's incomplete account of my experiments, and his incorrect statement as to the cause of the death of the rabbits experimented upon, have been published in the daily newspapers with a view to presenting me to the public as a man of cruel instincts, and also as one who carried in his mouth "a venom more deadly than that of the viper or the rattlesnake." Both allegations are false. If I had hunted rabbits with dogs there might have been some foundation for the charge of cruelty. But no one has proposed that the Congress of the United States shall legislate to prevent the wounding and killing of animals for sport, while my experiments made in the interest of science and of humanity are characterized by Dr. Leffingwell and his associates in this crusade against scientific investigation as cruel, and an effort is being made to convince the Senate of the United States that the Government laboratories in this city should be placed under surveillance other than that of the Bureau officers who under present laws and regulations are in charge of them.

Very respectfully,
(Signed) Geo. M. Sternberg,
Surgeon-General, U. S. Army.

The Newspaper vs. the Medical Profession.—We are delighted to find two or three journals in the United States which do not admit medical advertisements of any kind to their columns. One is *The American Traveler.* This general exclusion is the safest plan, as there are few (we had almost written *no*) preparations having any therapeutic value that can ethically be advertised in lay journals. This is illustrated by another journal whose attitude we wish to commend. Of all sinners in this respect the religious press is the most guilty. Every quack has a long tail of D.D.'s and Reverends to his testimonial-kite. Yet here is one religious journal and the only one we know, *The Evangelical Episcopalian*, which keeps its pages free from the quackery-infamy. Heaven bless it! We have subscribed for it. Quoting in full an editorial from the Philadelphia Medical Journal as to newspaper medical advertisements, *The Evangelical Episcopalian* adds the following remarkable words:

> Advertising Nostrums.—The accompanying article from the Philadelphia Medical Journal, the editors of *The Evangelical Episcopalian* desire cordially to indorse. If the scorching, but deserved, reproof administered to the press generally be a just judgment, what shall be said of the *religious* journals that sell their advertising space to those who deliberately deceive, with falsehood, the sick and the dying? *The Evangelical Episcopalian* could long ago have been placed upon a more secure financial basis had it not, through its nine years of existence, peremptorily declined thus to corrupt its columns. We solicit the attention of the advertising public to this fact, and ask our business friends to note that in this journal no proper commercial announcement will be found touching elbows with the conspicuous advertisements of quackery and fraud.

When shall we find anything like this in any other religious journal?

(It is parenthetically interesting to note the ease with which the best-informed and best-intentioned lay-judgment errs in all medical matters. *The Evangelical Episcopalian* in pure innocence advertises an "Eyes-examined-free" optician, a kind of quack as contemptible and as harmful as the purveyor of "Golden specifics," "Infallible headache-cures," or "Wizard oils.")

We feel it our duty to commend the lay journals which show recognition on the part of their editors of the fundamental principles of medical and hygienic civilization. Because, and this should be got clearly into our minds, one of the greatest enemies the profession has is the newspaper, and one of the bitterest struggles it has before it is the war against quackery in control of the newspaper. When D.D.'s, LL.D.'s, public officials, revered social leaders, and educationalists, as editors, draw their income from the deviltry and rottenness of whole pages of their advertising space, it is bad enough; when they support this corruption by reading-notices and editorial comments it is worse; but when they attack the medical profession in the following style (by an ex-cabinet officer turned editor), it is surely time that we should wake up:

> "Hundreds of boys and girls have been sentenced, doomed to go through life with spectacles on their noses when not, in the first instance, required at all. The oculist and optician pull together. The itinerant optician and oculist, combined in one humbug, infests every little and big city of the republic. He is busy everywhere. Credulity and a desire to be in fashion pay him five, ten, and fifteen dollars a pair for spectacles worth from twenty-five cents down to nothing. The habit of wearing glasses, once formed, is difficult to break. Seventy-five per cent. of the spectacles put upon children are unnecessary. They invariably impair the eyes. They engender catarrh. They spoil noses. They mutilate nature. They are a wicked fraud upon youth and beauty and vigor."

Lastly, when newspapers unite in corporate power and by their official voice to vilify the profession and prevent legislation in the interest of the public welfare, is it not evidence enough that in them we have a powerful and unscrupulous enemy,—an enemy not only to the profession, but to the people, as scornful of the people's health as it is eager for illicit profit? We are indebted to our brave contemporary, *The Cincinnati Lancet-Clinic*, for the following quotation taken from a report of the transactions of a recent meeting of the Association of Illinois Editors, published in *The Chicago Times-Herald* of February 9:

> "Efforts to modify or repeal laws which directly affect the interests of country publishers received special attention. President Boechenstein emphasized the necessity of concerted effort on the part of the members to defeat a pending bill providing for the licensing of physicians by a board of medical examiners, intimating that the measure was inspired by that class of medical men which fears the competition of advertising physicians. Other proposed laws tending to affect the advertising income of the publishers were referred to by the president as unnecessary."

The Pathologic Pathologist.—We wish to give an illustration, drawn from life, of the danger and disgrace which one man may bring upon several distinct professions by his unprofessional conduct. Suppose that a pathologist for revenue only imposes a false report upon a reputable medical journal concerning the therapeutic action of a drug: it is plain that he injures and disgraces not only the journal he hoodwinks, but all journals; not only the pharmaceutist who reaps a short advantage, but all pharmaceutic manufacturers; not only the deluded physician who trusts the lying report, but the whole medical profession; not only also the patients not benefited by the preparation, but the health and confidence of the lay world. That certain editors of medical journals are careless, nay, utterly indifferent to the character of their contributors, and of their articles in praise of drugs, has long been evident to the astute observer. But to our illustration! Several months ago we received an excellently written article in which remarkable therapeutic results were said to follow the exhibition of a widely advertised preparation. Our suspicion was aroused, and was confirmed by the receipt the next mail of an order for 100,000 copies of the journal containing the published article if we concluded to accept it. The article was declined, and within a month appeared in full in one of the best of our most esteemed contemporaries, sample copies of which are alluded to by the writer of the following letters, copied accurately from the originals lying before us:

—— ——, Dec. 31, 1898.

—— —— ——.

Gentlemen:—Under separate cover I mail you this day a copy of the —— —— of Dec. —— containing an article written by me in behalf of ———. Should you undertake to push ———, I would be pleased to show you a way to do it most effectively. Yours very truly,

—— —— ——.

—— ——, January 5, 1899.

—— —— ——.

Gentlemen:—In reply to your favor of the 3d inst. I beg to say that my belief is, that ——— should be tested in clinics and hospitals under the immediate supervision of a pathologist furnished by you. In this way you get accurate data of a number of cases before doctors as well as senior students. Data thus obtained can be used for publication in journals, in a similar manner as my articles in the journals I send you. Should you desire such methods I beg to offer you my services. Yours very truly,

—— —— ——, M.D.

To another firm was sent the following letter:—

Should you desire to have some clinical work done with — —— —— in hospital or amongst the best physicians, I beg to offer you my services. I have a complete laboratory to conduct such observations (*sic*). Based on such researches I compile and get others to write journal reports."

Not only did the pathologist write to these firms, but to others offering to place his services at their disposal. We are on the lookout for further evidences of this man's work, and the next literary article we see by him in praise of a drug we think will suggest the use of some very plain words. When a traitor sells genuine information to an enemy he wrongs only one side. When he sells lies he wrongs both armies. But our medical traitor is able to injure three professions,—and yet is caught in the act, so awkwardly does he go about his trade! Woe to the pharmaceutic manufacturer who in the future may be thus duped!

Strangely enough, here as everywhere, there is good and gain to be got out of the evil experience:

1. The rabidly virtuous of medical men will, let us hope, be less superciliously scornful of the drug-manufacturers. Their own professional members, their own professional journals have in this case (and in others) been the offenders, and the drug-men, in refusing the pathologic M.D., have been the virtuous.

2. At least one medical journal has learned that laxity as to the admission of papers in praise of a single proprietary preparation is dangerous folly.

3. Drug-men will learn to stop the encouragement of and reliance upon the testimonials of physicians.

4. Physicians will not learn to refuse to give testimonials, but the astute will learn to ignore both the testimonials and the testimonial-givers.

Shall the Nostrum-Trade be Wide Open Forever?—The persistent efforts which have been made from time to time to throttle the nostrum-evil are beginning to tell at last; the laws which have been framed, the orations declaimed and the vast amounts of midnight oil and printers' ink have not all been wasted in the attempts to blot out this curse. The latest development of the evil threatened the very existence of legitimate medicine and pharmacy. When the great department-stores took up, as many of them did, the sale of nostrums and applied to it the same energy and business methods which have made many of the proprietors multimillionaires, it required no prophet to foresee the enormous extension of the nostrum-traffic. In the State of Illinois, however, for three years past, efforts have been made to prevent the sale of medicines in department-stores. House Bill No. 231 was introduced by Mr. Kettering, January 31, 1899, and is entitled, "A bill to regulate and restrict the sale of compounds or preparations of drugs or chemicals which may be poisonous or deleterious to health." The bill provides that "it shall be unlawful for any person to sell at retail any chemical or pharmaceutical preparation to be used as medicine unless it shall have been compounded or prepared by the person making such sale, or unless the manufacturer of such preparation shall have filed with the Board of Pharmacy: (1) The name of the preparation; (2) the name and quantities of the ingredients in the preparation; (3) the process used in making the compound; (4) the dose." Section III provides for the issue of a certificate (fee $25) to the manufacturer by the members of the Board of Pharmacy, setting forth the fact that such manufacturer has complied with the law of the State of Illinois, and that such preparation may be sold at retail by persons other than such manufacturer, without the written order of a physician or surgeon, for a period of one year. Prescriptions of physicians are exempted. The certificate is to be renewed annually (fee $5) if the Board is satisfied that no change has been made in the ingredients, quantities, or method of compounding the preparation. If the Board has reason to believe that the statement of the manufacturer is untrue in any particular, it may order an analysis, and if the results prove that the manufacturer has made a false statement, the certificate shall be refused or revoked, and such manufacturer can receive a certificate only by filing a true and correct statement and paying a penalty of $100. The fees, fines, and penalties are to be equally divided, one-half going to the Board of Pharmacy to defray the expenses of enforcing the law, and the other half to the University of Illinois to defray the expenses of the examinations. Due provision is made for the noninterference of existing laws governing the practice of medicine by physicians and the business of the wholesale druggists. Manufacturers doing business outside of the State of Illinois shall be entitled to the same privileges as those in the State, and the preparations found in the United States Pharmacopeia, the Homeopathic Pharmacopeia, or the National Formulary, are exempted from the provisions of the law. The penalties for any retailer violating the law are a fine of not less than $25, nor more than $200, for each offense. The manufacturer who fraudulently affixes upon his medicine a label setting forth that he has "complied with the laws of the State of Illinois" shall be fined not less than $100, nor more than $500, for each offense.

No certificate shall be issued by the Board of Pharmacy for any preparation which is poisonous in the quantity or dose in which the preparation is to be administered, or if the manufacturer fails to disclose the ingredients or process to the Board; it will thus be seen that secret remedies will be unmasked. There is nothing in the law providing a penalty for the manufacturer who fails to affix a "State label" upon his medicine, but, as will be seen, the retailer and department-store proprietor will be heavily punished for selling a manufacturer's product which has no such label upon it.

That this bill will be vigorously fought with the veapons so successfully wielded in the past by the nosrum-makers, goes without saying, but, throughout the State, the bill will have an enormous number of friends *vho are voters*, and in Illinois the average legislator egards the wishes of his constituents and a "battle oyal" is in prospect. In the meantime the friends of egitimate medicine and pharmacy may take heart; the irst gun has been fired. Let us fervently hope for a ictory which will rend from top to bottom that *veil of ecrecy* which has hidden for centuries the iniquities nd mysteries of nostrums, and which has ever been he most powerful ingredient in their composition.

The New York City Board of Health and Its ompetition with Private Enterprise.—Too late for nsertion in our last issue we received the following etter:

New York, February 15, 1899.

o the Editor of The Philadelphia Medical Journal :—

My attention has been called to an editorial comment in ie issue of The Philadelphia Medical Journal for February 4, in relation to the work of the laboratories of the New York City Department of Health. It has always been my habit to abstain from any replies to attacks or criticisms on the work of the New York City Department of Health, as it has seemed to me that the results obtained are sufficient answer to any criticism. The article referred to, however, so grossly misrepresented the facts; its deductions are so absolutely untrue, and the conclusions so unjust, that I cannot refrain from directing your attention to it. I cannot believe that you, as the responsible editor of a respectable medical journal, would knowingly countenance such misrepresentations. The matters in question are more inexcusable, because the facts are a matter of public record, and can be obtained by any person, if he desires to know the truth, on application to the department, or by consulting the records. The true figures have been undoubtedly wilfully changed and misinterpreted.

A further note in the last number of The Philadelphia Medical Journal referred to the mortality from diphtheria in New York City and Philadelphia as disgraceful. The true facts are shown in the table below. The case-fatality from diphtheria and croup for 1898 for the boroughs of Manhattan and the Bronx (old New York), in which this work has been going on for a number of years, was 12.2. Your editorial comment makes it 27.59; the case-fatality for Greater New York for the year 1898 is 15.8 (the work here commenced, to a limited extent, in January, 1898); the case-fatality in the boroughs of Brooklyn, Richmond and Queens being 23 7, nearly twice as much as in the boroughs of Manhattan and the Bronx.

DIPHTHERIA AND CROUP.

Boroughs of Manhattan and Bronx.

	Cases.	Deaths.	Case Fatality.	Death-rate per 100,000 population.
1891	5,364	1,970	36.7	118.7
1892	5,184	2,196	40.6	123.3
1893	7,021	2,558	36.4	145.5
1894	9,641	2,870	29.7	158.5
1895	10,351	1,976	19.1	105.5
1896	11,399	1,763	15.4	91.2
1897	10,896	1,590	14.6	79.9
1898	7,213	923	12.2	45.1

The diminution in the death-rate per 100,000 population in New York City from diphtheria and croup has been greater than that of any of the great capitals of Europe—Paris, Berlin, London, Vienna, etc.; and, as you very well know, the Department of Health of New York City has contributed more to the advance in the methods of dealing with infectious diseases during the last ten years than any sanitary board in the world.

I have referred to only these data in the article in question, but would add that other data equally misrepresent the facts. As further example, in the estimated expense the writer has added to the salary account of 1898 the salary account of 1897, and given the total as the cost of the bacteriological laboratories for 1898. Such errors as these are apparently malicious, and, as I said, I cannot believe that you would knowingly allow such an article to be introduced into your journal I see a note that a further statistical article is to appear in the next Journal. If this refers to New York, I would suggest that you see that authentic figures are obtained.

Very sincerely yours,

Herman M. Biggs.

In our criticism of the law authorizing the city of New York to compete with private citizens in the manufacture of an article of commerce and of the materia medica, we copied all our figures from *The City Record*, or official journal of the administration of the city. With the *Record* before us we have again gone over the figures, and, except in two very subordinate aspects not referred to by Dr. Biggs, we have nothing to modify or retract. In the letter just quoted, charges of "malice," "disgracefulness," "injustice," "misrepresentation," etc., are flung at us too recklessly. In the personalities, and the personal relations of the whole matter we have not the slightest interest: it is principles for which we contend; we are opposed to the law under which the New York City Board manufactures antitoxin for sale. "The only wise course is for Government to rigorously abstain from any attempt to intervene directly in, or in any way to supersede, the operations of private trade." These words are quoted from the report of the British Imperial Commission on the prevention and relief of famine in India. In reference to the same the Viceroy of India wrote: "Although Government may be able to do more than one trader, it cannot do as much as all the traders of a country taken together; while the fact that it can do so much more than one trader must render every trader unwilling to cope with so powerful a rival."

This is as true in New York as it is in India. The Collier bill has been introduced in order to take away from the Board of Health the power to sell its surplus lymph and antitoxins. At least three times the hearing before the City's Committee of the Assembly has been postponed because the official opponents of the bill did not appear, nor were they represented by the corporation counsel. Why this disinclination to meet the arguments of those advocating the Collier bill?[1]

Dr. Biggs states that the percentage of diphtheria-mortality in New York is 12.2% instead of 27.59%, as we estimated it. Our figure is derived from the reports for the first six months of 1898, for the city of New York. But Dr. Biggs derives his figure from only a fraction of the city. From January 1, 1898, New York has consisted of five boroughs, — Manhattan, the Bronx, Queens, Brooklyn, and Richmond. The Health Board had full charge of the whole city and each of its boroughs during the period from which we derive the percentage. But Dr. Biggs selects from the whole scope of his duties only that part which has the lowest rate. If he is permitted to select the most favorable boroughs on which to make a record, why might he not pick out the most wholesome ward in any borough and establish a percentage of one eighth of one per cent on the strength of its record? We are examining the concerns of the whole city, and, as as an officer of that city, Dr. Biggs must be judged by the results in the whole city.

We deny the statement that we have added two years' pay-rolls together; that is not so if we understand the *City Record's* official figures; and that the New York City Board is at the head of the world in dealing with infectious diseases is a ludicrous affirmation.

We cannot leave the discussion without allusion to one thing that appears so strange that it needs either confirmation or disproof so clear and strong as to convince every citizen of New York. There lies before us a pamphlet, entitled *Points at Hearing Before Cities' Committee, Favoring the* [so-called] *Collier Bill*, and signed by *James McKeen for Taxpayers, Manufacturers and others.* If the statements made in this pamphlet are true—and for ourselves we have no knowledge or prejudice concerning them—it would seem that instead of the Board manufacturing the diphtheria-antitoxin, as we have supposed, the business is farmed out, and the Board "has not now nor never has had a single horse in its own laboratories." The toxins, it is said, are supplied to a private veterinary surgeon who injects the horses, etc., in a word, manufactures the antitoxin and supplies it to the Board. He is said to receive for this the magnificent sum of $35.00 a month. The animals, moreover, are said to be kept in a veterinary college stable, under the usual filthy and unhygienic conditions of a common livery-stable, and under the additional unhygienic conditions of contiguity to diseased horses sent to the stable for treatment. Dr. Biggs is the president and his cousin the treasurer of this veterinary college. If there is any truth in these reports, and we trust there is none, it is surely time that the Collier Bill should be passed.

Suggestions to Writers: No. 24.—Sympathectomy is a word which appears in an editorial of our esteemed contemporary, *The Boston Medical and Surgical Journal*, of date February 16. Whether coined by the writer or borrowed, we cannot say. It is altogether new to us—and, we may add, hideous. The word is intended to designate the operation of excision of the superior cervical sympathetic ganglion, or briefly, sympathetic-excision, but it cannot etymologically cover more than sympathy-excision, and even this coinage would be not a venial philologic sin. Συμπάθεια means *sympathy*, and from συμπαθητικός is derived the designation of the sympathetic nerve or system. Sympatheticectomy might be admissible, but why not be satisfied with *excision of the sympathetic?* We see no possible reason why the poor epileptic should be deprived of *his* sympathy—or of *ours!*

Dr. Vanderpoel Adriance has been appointed attending physician to the New York orphan asylum.

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[1] At the fourth meeting held February 21, though present, Dr. Biggs made no statement in reply to the statements and figures of those advocating the passage of the Collier Bill.

Correspondence.

MEDICAL OFFICERS OF PUBLIC HEALTH IN PENNSYLVANIA.

By S. S. TOWLER, M.D.

To the Editor of The Philadelphia Medical Journal:—

I notice in the Journal of the 11th inst., under the head of "American News and Notes," that you give me more credit than I deserve. The bill making school-boards a board of health was not introduced by me, but simply reported by me from the Committee of Public Health and Sanitation. This action causes a bill to be printed, and thus can be sent out for information to the public. That bill may do, with some amendments, provided we can get nothing better. There are serious objections to it, however, and it is very doubtful if school-funds can be diverted for health-purposes. The bald fact, however, is that at present the rural districts are without any protection whatever against contagion, etc. The enclosed bill, formulated by the "Associated Health Authorities," has been introduced by me, and I will do all in me to get it passed. It affords protection, and is a start in the line of a system for obtaining vital statistics, something that this State badly needs. The bill will be *vigorously opposed*, and it is incumbent on every doctor to *at once* write to the members from his district to support it loyally. Our profession is very slack in doing its duty in this line. A united profession can have this law and others to follow passed, but a careless indifference loses prestige and gives the winning cards to the ignorant, the prejudiced opposition.

The following is the wording of the Act:

AN ACT

To provide for the appointment of medical officers of public health in the counties and townships of the Commonwealth of Pennsylvania.

Section 1. *Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met and it is hereby enacted by the authority of the same* That the State Board of Health of this Commonwealth shall after the passage of this act appoint a physician as medical health-officer for every county in the State who shall have the general supervision over the sanitary affairs of the county and report monthly to the State Board of Health. The said health-officer shall receive an annual salary to be paid out of the county treasury, the amount of which shall be fixed by the county commissioners.

Section 2. The county commissioners of every county in the State shall after the passage of this act appoint in every township or sanitary district of their county, as provided in Section 3, a reputable physician as township officer of public health.

Section 3. Wherever it is deemed advisable by the county commissioners they may combine two or more townships into one sanitary district and shall then appoint one health-officer to this combined district.

Section 4. The medical health-officer of townships shall enforce the sanitary laws of the State and the regulations of the State Board of Health, and shall make monthly returns of vital statistics to the county commissioners and to the State Board of Health, and shall report to said board the sanitary conditions of the township. The health officers of cities and boroughs shall make like returns.

Section 5. The fee to township health-officer for making such returns shall be ten cents for every birth, death, or case of infectious or contagious disease so reported, and shall be paid by the county.

Section 6. All physicians, midwives, or some one other person present at a birth shall report the same to the township health-officer within thirty days from time of birth. All deaths shall be reported by physicians in attendance to township health-officers. All cases of infectious or contagious diseases occurring in the township shall be reported to the township health-officer by physician in at-endance. Blanks for making these returns shall be furnished to he township health-officer by the State Board of Health.

Section 7. Any violation of or failure to comply with the provi-ions of Section 6 of this act shall subject the person so offending o a penalty not exceeding fifty dollars.

[By writing or other means every physician in Pennsylvania should bring his influence to bear upon the members of his district to help secure the passage of Dr. Towler's bill. —*Editor of* The Philadelphia Medical Journal.]

NOTE ON A CASE OF PHRENIC DYSPNEA.

By ALBERT ABRAMS, A.M., M.D.,

of San Francisco.
Physician for Diseases of the Chest in the San Francisco Infirmary.

To the Editor of The Philadelphia Medical Journal:—

The following case emphasizes the importance of the Röntgen rays in the diagnosis of thoracic diseases. The history of the case is succinctly as follows: The patient is a female, aged 27, dating her trouble from her fifteenth year. After a severe sore throat, presumably diphtheria, she would have paroxysmal attacks of short breathing on the slightest exertion. Of late the paroxysms have become frequent, even when she is at rest. Her condition has resisted all kinds of treatment. Her affection has been variously diagnosed as phthisis, chronic pneumonia, valvular disease of the heart, etc. At night when she retires the paroxysms of dyspnea are accompanied by certain sounds not unlike the familiar hiccough. The objective examination after the conventional methods shows no anomaly of the heart and lungs. The position of the diaphragm is particularly high, especially on the right side. The diaphragm-phenomena of Litten are absent, although the condition of the thorax is most auspicious for their observance. There is an exaggerated costal type of respiration. During inspiration, the epigastric and hypochondriac regions are drawn slightly in, whereas during expiration they are pushed outward; in other words, there is a reversal of the normal thoracic movements. The reaction of the phrenic nerves is found to be normal. After powerful galvano-faradization of the phrenic nerves, the patient is able to conduct temporary forced inspirations without any appreciable embarrassment, which before the application of the electricity was impossible. There are no stigmata of hysteria.

An x-ray examination of the chest confirms the results of the physical examination, showing the integrity of the lungs and normal dimensions of the heart. The diaphragmatic movements are practically suspended, and this phenomenon is noted even after the patient is instructed to breathe deeply. Suddenly during the radioscopic examination, the patient becomes dyspneic and is in great distress. Coincident with the dyspnea, the diaphragm on both sides, particularly the left side, is observed to contract suddenly and to descend to a distance of several inches below its normal descent, even after forced inspiration. The diaphragmatic contractions were so evanescent, that it was found impossible to measure accurately the extent of the diaphragmatic excursions. These phenomena recurred frequently during the course of the examination, and were unaccompanied by the usual inspiratory sounds of singultus. During the time of the spasm of the diaphragm, the patient became dyspneic and cyanotic, and the epigastrium continued prominent. The diagnosis was therefore phrenic dyspnea dependent on diaphragmatic inactivity alternating with spasm of the same muscle—neurosis of the phrenic nerves.

784 Geary St.

Unappreciated Facts Concerning Adenoid Growths.—Howard S. Straight (*Cleveland Journal of Medicine*, January, 1899) speaks of the general neglect of deafness or disease of the middle ear as a symptom of adenoid growths. He thinks these growths constitute the all-important etiologic factor in almost every case of disease of the ear or upper air-passages in childhood; and that the effect upon the ear bears no relation to the quantity of adenoid tissue present. The majority of children with laryngitis, acute or chronic, have adenoid growths, and any treatment short of removal of the growths is unsatisfactory. [G.C.C.H.]

Special Report.

EXPERIENCES IN THE HOSPITALS OF PHILADELPHIA WITH TYPHOID FEVER ORIGINATING AMONG THE SOLDIERS IN THE LATE WAR.

The College of Physicians of Philadelphia, Meeting of February 1, 1899.

AT THE UNIVERSITY OF PENNSYLVANIA.

By JAMES TYSON, M.D.

During the late summer and autumn of 1898, there were admitted to the Hospital of the University of Pennsylvania 112 cases of typhoid fever from the various military camps of the country. A few of the cases admitted as typhoid fever are omitted from this report because of the absence of distinctive symptoms or because convalescence was so far established that they illustrated no symptoms and required no treatment.

The average age of 105, whose age was secured, was 23¼ years. Of the 112 cases, 107 recovered and 5 died, say 4.5%, actually a little less, leaving 95.5% of recoveries.[1] Of the cases admitted 77, or 68%, reported headache among the earlier symptoms; 19, or 16%, vertigo; 19, or 16%, nosebleed, and 19, or 16%, nausea and vomiting. In 61, or 54%, there was diarrhea; 29, or 26%, were constipated in the beginning and more or less throughout, while in 22, or 19%, no allusion is made to these states. There was so much confusion in the reports of chills and chilliness that they cannot be regarded as reliable. Pain in the back and limbs was reported in 57, or 50%. Rose-colored spots were noted by us in 60, or say 53.5%, absent in 52, or 46.5%. Hemorrhage of the bowels occurred in 9, or 8%, and perforation followed by peritonitis and death in 1 case. Of the cases of hemorrhage 2 died and 7 recovered, and the perforation alluded to was the cause of death in 1 of these. Tympanitic distention of the abdomen was present in 96 cases, or 85%; dryness of the tongue and sordes in 6, or 5.3%. Delirium was noted in 18, or 15%. The spleen was enlarged appreciably to percussion or palpation in 62, or 55%.

The Widal reaction was found in 71 cases out of 92 in which it was tried, or 77%; in 2, or 2.1%, it was doubtful, and in 19, or 20.7%, it failed. In 20 it was apparently not tried. In 10 cases the test was made twice, in 1 three times. Of those tried twice, 7 were positive both times; 2 were negative at first and positive at the second; 1 was positive at first and negative the second. In the one in which it was done three times it was negative at the first and positive at second and third. The tests were made partly in the City Laboratory and partly in the William Pepper Clinical Laboratory. We are inclined to believe that the number of positive reactions in the latter would have been larger but for the fact that one of the cultures used proved to be defective. The stage of the illness at which the test was made was very different, and in most cases it was impossible to ascertain the day of the disease even approximately. The result of our experience with this test has been to increase our confidence in its reliability. It occasionally fails, it may at times appear late, but if obtained by competent, accurate and conscientious observers and is associated with continued fever, I accept it as sufficient evidence of the presence of typhoid fever. Sources of error due to carelessness or incompetency of the person making it should not be regarded as invalidating the test, and I believe that if these elements of error are eliminated the number of cases in which it fails and the number in which it occurs in other diseases likely to be confounded with typhoid fever will be small.

Abscesses or boils were present in 7 cases, or 6.2%; bedsores in none—a happy event which may be laid to the credit of modern nursing. Parotitis, which proceeded to suppuration, was present in one case. This patient died on the 21st day, and during the last week had symptoms of localized peritonitis. There were 8 cases of thrombosis, or 7%, an unusually large proportion when it is remembered the textbooks put it down at 1%. In 6 the left leg was involved; in 2 no mention is made. Some of these cases were quite mild. Localized peritonitis clinically recognized was present in 2 cases, one being associated with appendicitis, of which there was 1 case.

Pneumonia is reported as a complication in 2 cases, 1 of which was fatal: bronchitis in 29, or 26.7%. Albuminuria was noted in but 3 cases, in one of which—a fatal case—it was copious; in 2 it was small, but in one of these it was accompanied by hyaline casts. In a number of cases the urine was not examined, or if examined, the results were not recorded, so that our observations in this direction are defective. The malarial plasmodium was reported present on admission in one case, but was not found at the second examination. In this case there were rosecolored spots, large spleen, and the blood responded to the Widal test. In two cases the malarial organism was found during convalescence associated with other symptoms of malaria. Ulcerative tonsillitis occurred in two cases, orchitis in one case, and otitis in one.

The relapse remains the enigma of typhoid fever. In the first place, opinion is by no means unmixed as to what constitutes a relapse. It is recognized by all that not every rise of temperature in the course of convalescence constitutes a relapse, even if it be of several days' duration. On the other hand few relapses repeat all the events which go to constitute the primary illness. Finally, it is likely that for some time longer one observer will call that a relapse which another will regard as a simple rise of temperature due to a temporary cause. In other words the personal equation will always make itself more or less felt. In recognizing the presence of a relapse we have regarded it necessary: first, that the patient's temperature should have been for a time normal; second, that the recurrent fever should be unaccompanied by an intercurrent complication which could cause the fever; and third, that there should be a return of some one or more of the original symptoms, such as coated tongue, diarrhea, tympanitic distention of the abdomen or other evidence of gastro-intestinal derangement. The duration of the relapse may be very variable, from a few days to several weeks to be followed by a normal period and second relapse, possibly by another and even fatal relapse. Similar increased febrile movements occurring during the decline of the disease, but before the temperature has reached the normal line, are probably due to the same cause, that is reinfection. They are, however, not included among our relapses because of the greater difficulty in separating them from the original disease. For them the usual term recrudescence is appropriate. Thus determined there were 12 relapses among our cases, a percentage of 10.7. In two cases at least there were two relapses. In one a supposed third turned out to be a brewing appendicitis, which at one time threatened the life of the patient but ultimately passed away, seemingly completely, and the patient was discharged after 118 days in the hospital.

The duration of the disease in most cases was very difficult to determine, in some it was impossible because of the circumstances surrounding the initial symptoms. A similar difficulty consequently attends the determination of the *average* duration, to which therefore much importance dare not be attached. As far as could be determined, omitting certain cases in which it was impossible to determine even approximately the onset of the illness, the average duration was 41⅘ days. The average date of the illness at which the temperature first reached the normal in cases of recovery is of much more practical importance and may be set down as nearly as determinable at 18½ days. Of the fatal cases it has been mentioned that one died of perforation and succeeding peritonitis, death occurring on the 21st day. The remaining deaths may be ascribed to exhaustion after long illness or high temperature. The second died on the 10th day after admission and apparently on the 10th day of the disease, having been the subject of high temperature throughout. The third died on the 31st day, also exhausted by high temperature. The fourth died on the 43d day, apparently of toxic adynamia. The case was a nervous one, in which tremor and weakness were characteristic from the beginning. The pyrexia was never extreme and death was preceded by obstinate vomiting. The fifth fatal case was admitted convalescent on what appeared to be the 36th day of the disease; relapse began on the 42d day, pneumonia of the left lower lobe was recognized on the 72d day, and he died on the 77th day of the disease. No autopsies were secured.

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[1] The total number of cases in which a primary diagnosis of typhoid fever was made was 145. Some of these proved to be other affections; others, as stated, were so far convalescent from typhoid that it was thought not fair to include them, though had they been included the percentage of mortality would have been less.

The treatment, outside of the dietetic, may fairly be said to have been the cold tub-bath method of Brand. Not every patient was tubbed, for some did not reach the temperature which called for the tubs, namely, 102.2° F. In the majority of cases on the other hand the hydrotherapy, by reason of late admission, was instituted much later than its advocates hold should be done in order to secure its best results. I do not insist that the very favorable results were due solely to the Brand treatment. There were undoubtedly a good many mild cases. On the other hand quite a number of these were thrown out of consideration altogether. My experience with the Brand treatment in this set of cases has in no way diminished my confidence in it as the best available method for treating typhoid fever, subject to the limitations which good sense and experience may demand.

After all, the burning question in connection with this set of cases is the etiology of the disease, for it cannot be said that the symptomatology, course or termination differ largely from those of any other set. A careful record was kept at the University Hospital of the answers to questions as to the source of water supplied to the soldiers in camp, and they included springs, wells, artesian wells, town-supply, creeks, lakes, reservoirs. No large number partook of water from one source more than another, and while contaminated drinking-water doubtless caused some cases, especially the earlier ones, some other cause must be sought for the majority. It is scarcely profitable to discuss this with the scanty data at hand, but it seems reasonable to suppose that transmission through some other agency than drinking-water was also a factor. The more than usual number of medical officers and nurses attacked points to this, while the insurmountable obstacles in the way of disposal of excreta favored it. So far as I know there was no spread of the disease after the soldiers entered the hospitals, neither nurses nor physicians having been infected. It may reasonably be inferred that the facilities for thorough disinfection and disposal of alvine dejecta were at least in part responsible for this absence of infection. How far that ubiquitous and faithful, though illy appreciated scavenger, the *musca domestica*, is responsible, as has been alleged, for the spread of the disease in camps is undetermined, though I see no reason why such a mode should not be admitted. The influence of predisposing causes must not be overlooked, and it is more than likely that the effects of fatigue, indifferent food, and previous illness were a potent factor in favoring the lodgment and development of the infection.

I desire to express, in conclusion, my acknowledgments to Dr. Alfred Stengel and my son, Dr. T. Mellor Tyson, for valuable assistance in collecting the cases and the various symptoms and pathological states which go to make up the report.

AT THE GERMAN HOSPITAL.

By J. C. WILSON, M.D., Physician-in-Chief.

The total number of soldiers treated in the German Hospital was 275. Of these 147 suffered from enteric fever. The first soldiers were admitted August 21, 1898; the last were discharged January 2, 1899. Of the 147 cases of enteric fever 5 died—a mortality of 3.4%. The average age of the soldier-patients was 23.5 years. They were all volunteers—in a certain sense picked men, who upon enlistment a few months previously had fulfilled the requirements of a fairly rigorous medical examination.

As bearing upon the period of greatest prevalence of enteric fever in the camps the following figures are of interest:

24, or 16.3%, were admitted during August.
28, or 19%, were admitted during September.
89, or 60.5%, were admitted during October.
8, or 5.5%, were admitted during November.

By far the greater number of these cases were brought from Camp Thomas and Camp Meade in two trains organized and equipped by the German Hospital authorities. Some were received by allotment from special trains provided by other hospitals or the city. Some few wandered into the hospital.

95, or 64.6%, were from Camp Meade.
37, or 25.2%, were from Camp Thomas, Chickamauga.
4, or 2.7%, were from Camp Poland, Knoxville.
2, or 1.4%, were from Camp Fernandina.
2, or 1.4%, were from Camp Black.
1, or .7%, was from Camp Wickoff.
1, or .7%, was from Puerto Rico.
5, or 3.4%, were unclassified.

The average duration of the disease upon admission was about 11.3 days.

The date of the beginning of the disease could only be approximately determined in the greater number of the cases. In this respect the cases resembled those encountered in civil practice. The beginning of the attack was reckoned from the day when the patient, having suffered from prodromic symptoms, became incapable of ordinary duty or was known to have fever. In a very large proportion of the cases the facts were ascertained at the time from the patient himself and confirmed by subsequent inquiry during convalescence. In other instances the information was obtained from comrades. In some of the patients the appearance of the rash coincidently with enlargement of the spleen and the subsequent course of the febrile movement were utilized for the estimation of the day of the attack. Some degree of uncertainty attaches in the great majority of instances to the date at which the prodromic symptoms merge into those of the declared disease.

The average day upon which the temperature became normal in 131 cases as recorded was 22.4 from the beginning of the attack, as nearly as could be ascertained. Eleven patients were admitted after the defervescence; 5 died during the course of the fever. The average duration of the stay in the hospital was 31.2 days.

Hemorrhage occurred in 8 cases, or 5.4%. The amount of blood lost in a single stool varied from 30 c.c. to 800 c.c. In one case which terminated fatally 2600 c.c. of blood were voided in six discharges from the bowels.

Relapse occurred in 21 cases, 14.2%. A single relapse in 18 cases, 12.2%; multiple relapse—3 attacks including the primary disease—in 3 cases, 2%. The average length of the single relapses was 11.6 days; the average length of the relapses in the multiple cases 14.3 days. The average length of the afebrile period between the attacks in the cases of single relapse was 5.9 days; the average length of the same period in the cases of multiple relapse was 9.3 days.

Simple toxic or afebrile albuminuria without casts occurred in 84 cases, or 57.1%.

Nephritis as shown by the presence of albumin, free blood, and casts of various kinds, was present in 37 cases, or 25.2%.

The diazo-reaction was studied some time during the course of the disease in 87 cases. The result was positive in 61, or 70.2%; negative in 26, or 29 8%.

The action of the blood-serum upon cultures of the bacillus typhosus—the Widal test—was investigated in all the cases in duplicate, specimens of blood being sent at the same time to the bacteriologic laboratory at the City Hall and to the laboratory of the German Hospital. In some few instances there was want of correspondence in the reports, but in most of these, duplicate specimens sent at a later period gave similar results. In five instances the result from both laboratories was negative. In 4 of these cases, however, there could be no doubt about the clinical diagnosis. In the fifth, a case from Camp Meade, the clinical diagnosis was rendered in the highest degree probable by the general symptom-complex and the course of the attack.

Venous thrombosis occurred in 5 cases, 3.4%. In every instance the veins of the left leg only were involved. This accident occurred invariably after the defervescence and during the early course of convalescence and before the patient had left his bed.

There is a clinical history of directly previous malarial infection in 16 cases, 10.9%. The malarial parasite was found in 35 cases, 23.8%. The form was usually non-pigmented, intracorpuscular bodies and free hyaline bodies, and pigment in the blood. In several of these cases irregular chills developed during convalescence, recovery taking place under treatment by quinin in appropriate doses.

Pleurisy alone occurred in 2 cases, 1.4%.

Croupous pneumonia occurred in 6 cases, 4.1%. In one instance the pneumonia was followed by an empyema, recovery taking place after drainage.

Acute bronchitis, persisting for some time into convalescence, occurred in 2 cases, 1.4%.

Acute lacunar tonsillitis occurred in 2 cases, 1.4%.

Acute laryngitis with aphonia, but without necrosis of the cartilages, and terminating in recovery, occurred in 1 instance, .66%.

Otitis media did not occur in any instance.

Acro-paresthesia occurred in 4 cases, 2.4%.

Severe secondary syphilis, antedating the attack of enteric fever, was present in 1 case, .66%.

An acute gonorrhea was noted in 1 case, .66%.

Of the 5 fatal cases, one patient, aged 28, died upon the 26th day of the attack, and the 20th day after admission, of croupous pneumonia. A second, aged 21, died on the 20th day of the attack, and the 9th day after admission, from intense infection. A third, aged 21, died on the 26th day of the attack, and the 19th day after admission, of peritonitis following repeated profuse intestinal hemorrhage. The fourth, aged 22, died upon the 31st day of the attack, and the 20th day after admission, of peritonitis following repeated hemorrhages, and the fifth, aged 20, was admitted moribund on the 21st day of the attack, and died upon the 3d day with symptoms of perforative peritonitis. In none of these cases was a postmortem examination made.

Of the 147 cases of enteric fever, 121 were treated by systematic cold bathing, the average number of baths administered to each case being 37.8; 26 cases were not systematically bathed for special reasons; the greater number of them were admitted with falling or already normal temperatures; several were admitted with a history of recent intestinal hemorrhage and were therefore not bathed, and one was admitted moribund with the symptoms of peritonitis.

The foregoing statistics have been carefully compiled from the bedside records by Dr. Henry F. Page, Assistant Physician to the Hospital.

AT THE PENNSYLVANIA HOSPITAL.

BY ARTHUR V. MEIGS, M.D.,

THE soldiers suffering with typhoid fever who were sent to the Pennsylvania Hospital by the Government, during the late war with Spain, were in the charge of several physicians. It will, therefore, be impossible for me to do more than to speak in general terms of the whole number of them, confining myself, when I want to illustrate particular points, to the patients who were in my own care. This method of dealing with the subject ought to give a good general idea of the disease as it manifested itself in our hospital, for it is fair to presume, as I had charge of nearly one-fourth of the total number, that my patients presented most of the varieties of the disease and most of the complications that occurred.

The total number of soldiers received into the Pennsylvania Hospital was 326, of whom 21 died, making a percentage of mortality of 6.44. Two of the deaths were from tuberculosis, and all of the others from typhoid fever. Almost all of the men were affected with acute disease, there being very few chronic cases. There were cases of dysentery and malaria, and men suffering from the effects of yellow fever and other acute diseases which they had had in the South.

The total number of cases of typhoid fever was 214, and the number of deaths 19, making a percentage of mortality from this cause of 8.88. This includes all the cases marked upon the records of the hospital as typhoid fever. A few of these were men nearly convalescent, and they remained in the hospital only a few days, but most of them suffered with the greater portions of their attacks after their admission. They were brought in in every possible stage of the disease, but I have thought that in dealing with the subject numerically, the only thing that could be done was to give the total number of cases recovered and the total number of deaths, and from this to derive the percentage of mortality. This is all I shall say about the whole number of cases of typhoid fever in the soldiers received in our hospital except that when I come to speak of the treatment, I shall again make use of the larger figures to illustrate one point.

There came under my own care 48 cases of typhoid fever. Some of the men were brought by ship directly from Porto Rico to this city, others came from Montauk Point, Long Island, and still others were from Camp Meade, near Harrisburg, and from other camps throughout the country. Among the men brought from Montauk Point there were a good many who had served in Cuba. Of the 48 patients who were in my care 2 died, making a percentage of mortality of 4.17. One of these deaths was of a man, 40 years of age, who said he had been for years a hard drinker. While he was in the hospital there were albumin and casts in the urine, and at the autopsy the liver and spleen were found to be enlarged, to have thickened capsules, and to be adherent to surrounding parts. The kidneys were fibroid, and none of the organs were soft as is usual in typhoid fever. The mesenteric glands were hardly enlarged, and there were only a few shallow ulcers in the lower part of the ileum which were not in the Peyer's patches, and which were irregularly round in shape. The other death was of a man, 20 years old, who died in collapse after being in the hospital nine days, and in whom the autopsy revealed the existence of perforations of the ileum, through which feces had escaped into the abdominal cavity.

Hemorrhage from the bowel occurred in 5 cases in the hospital, and another of the patients had had a hemorrhage before his admission. There was bedsore in 2 cases, bedsore and abscesses of other parts of the surface in 2, and surface-abscesses in 3 cases. The rose-rash was noted as present in 33 cases. There was albumin in the urine in 24 of the patients and in many of these casts also were found. In one case casts were found, but no albumin. Tibial periostitis occurred in one case. Crural phlebitis was noted twice, but in neither instance was it severe. Otitis media occurred once. In two cases there was a return of fever after convalescence seemed to have been fully established. As this seemed to be due to malaria, and both of the patients had been in malarial regions, the blood was examined and the plasmodium found. These patients soon recovered under the use of quinin. There can be no doubt, and there never has been in my mind, that typhoid fever and malaria frequently exist in the same patient at the same time. The term typhomalarial fever, therefore, is a good one, for it is descriptive of a condition which is not at all uncommon.

My experience with typhoid fever in soldiers has led me to the conviction that it is in no essential particular different from the same disease as we know it in our city hospitals under ordinary circumstances, and in private practice. There is, however, a great difference in the physical condition of the patients. Most of our patients with typhoid fever in city hospitals are people from the poorest and most ignorant class and they are of very various ages, some very young and some 40 or even over 50 years of age. They are often newly arrived immigrants who have been subject to poverty and hardship all their lives, and many of them have preexisting chronic disease. Consequently a large proportion of them have the disease severely, and a large percentage must die. The soldiers on the contrary were almost all young men who had been selected for military service after a medical examination of greater or less rigidity, to ascertain that they were physically sound. They were, therefore, a picked body of men of the age most likely to be able successfully to resist attacks of acute disease. Typhoid fever was forced upon their naturally healthy bodies by hardship, improper food, overwork in climates to which they were not accustomed, and exposure to various poisonous influences. Under such conditions it might be expected that as soon as the patients were removed from the influences that had given them the disease and were well cared for, a large proportion of them would recover, and every one who has given any attention to the subject knows that this was the case.

One phase of the care of the soldiers afforded me a new experience as a hospital physician, and this was one which probably comes often to military surgeons in war. I entered my ward one morning to find 36 patients I had never seen before, almost all of them very sick, and therefore in need of immediate attention. These men had been only a few hours in the hospital, and were brought in without any written records to indicate what had been their previous condition; there was not even so much as a scrap of paper giving a diagnosis. Had I been obliged to set to work unaided to bring order out of such chaos, the labor would have been vastly greater than it proved; but the system existing in a well-ordered hospital had been at work before my arrival. The executive department had provided in advance everything needed for the care of sick men, and it may be well to say that in our hospital there was at no time any overcrowding. The soldiers were placed only in the regular wards.

There were 14 beds in a ward, which ordinarily contains 12, but in every other respect the quarters of the soldiers were the same as those accorded other patients at ordinary times. The resident physician had already been at work, and had in the short time at his disposal acquired a pretty good idea of the condition of the patients, and there were nurses enough to carry out promptly all directions given. Two or three hours of concentrated labor enabled me to make diagnoses that were sufficiently accurate to permit of the treatment being at once organized. What I saw upon this occasion gave me a better comprehension than I had before of the difficulties that must beset a military surgeon in the field after a battle, or when large numbers of sick and injured men are suddenly taken from one place to another as is often done in war. We should be careful to ascertain the facts before we criticise operations in war, for often what may at first seem to have been the result of neglect will be found to have occurred because military officers were asked to do what was impossible. Nothing but the excellence of the machinery of our hospital organization and the fact that this was not stretched beyond its capacity for immediate expansion enabled the Pennsylvania Hospital to cope successfully with the emergency. Our managers did not at any time receive more soldiers than we were ready for, and in consequence we were able to give them as good care as is given to other patients in ordinary times.

The first of the soldiers who were consigned to our hospital had been brought directly from Porto Rico. Their physical condition was, in one respect, peculiar; they were almost all very anemic, and almost all of them had extremely dicrotic pulses. This was as marked among those who had other diseases as among those suffering with typhoid fever. The condition is one that I had not previously met with, although I believe this form of anemia is well known to military surgeons who have seen service among men of the temperate climates on duty in the tropics.

The Widal test for typhoid fever must not be passed by without mention. I have concluded after careful study of the results obtained from examination of the blood as it is done for us by the health bureau of this city, that as a diagnostic aid it is useless. This conclusion has been forced upon me by the fact that the test has often indicated the existence of typhoid fever in patients who manifestly did not have it, and on the other hand the test has failed to confirm clinical evidence of the presence of typhoid fever.

The Widal test has often reacted positively in cases of tuberculosis.

My discussion of my experience of the typhoid fever of the soldiers would be incomplete if I failed to mention a case in which I fell into the error of mistaking tuberculosis for typhoid fever. A man, 39 years of age, who had served in Porto Rico and had been sick while there for about 3 weeks, was brought to the hospital with almost every symptom of typhoid fever. He had diarrhea and was delirious; the tongue was coated, dry, and brown; there was fever, the pulse was dicrotic and he was emaciated. There were rose-colored spots upon the abdomen which were exactly like the eruption of typhoid fever. He had had a hemorrhage from the bowel before his coming to the hospital and had two more after his arrival. The Widal test gave a positive reaction upon two occasions. This man soon got better. The temperature fell, the delirium passed away, and it seemed as if he was convalescing, but at the end of about 9 days he became worse. It was evident that there was more disease of the lungs than was compatible with the existence of uncomplicated typhoid fever, and he emaciated rapidly. I thought pulmonary tuberculosis had come upon him as he was recovering from typhoid fever. After 23 days in the hospital he died. At the autopsy there were found to be extensive tubercular infiltration of the lungs and numerous minute tubercles in the spleen. The mesenteric glands were little if at all enlarged. The Peyer's patches were not ulcerated, although in the lower three feet of the ileum and the colon there were numerous shallow ulcers. In the ileum these ulcers did not extend in the length of the gut, but were of as great or greater extent around it. The lesions which have been described are those of tuberculosis and not of typhoid fever, and when the case is considered in its entirety it must be classed as having been purely tubercular from the beginning. The similarity of the clinical phenomena with those of typhoid fever was complete and without the light which was thrown upon the case by the postmortem examination the error of classing it as typhoid fever could not have been avoided. The differential diagnosis of tuberculosis from typhoid fever is occasionally impossible during life.

The treatment I pursued with my patients was as follows: Absolute confinement to bed; six ounces of milk every three hours; the administration of five minims of dilute muriatic acid every three hours; and sponging of the surface with cool water every three hours if the temperature rose as high as 102° Fahrenheit. The sponging was continued during fifteen minutes. This was the routine treatment, but it was varied to suit the needs of individual cases. In severe cases, when it seemed desirable to give medicines every two hours, the nourishment also was given every two hours, but in that case only four ounces of milk were given at a time. Three pints of milk I consider to be the proper total quantity, and this amount need seldom be exceeded. The food and medicines should be given at like intervals, either every two, three, or four hours, as the requirements of the cases seem to demand, and the medicine should be given a quarter of an hour after the food. This is as nearly together as it is desirable to give them, and gives afterward the longest period of rest that can be obtained. It is very important that the patient should be disturbed as little as possible, and that the administration of food and medicines at very short intervals should be avoided. The medicines I varied as seemed to be desirable, using turpentine, carbonate of ammonia, digitalis, spirit of chloroform, or other drugs as it appeared likely their effects might be sustaining to the failing powers of the patients. I tried not to give many drugs at the same time, withdrawing one as another had to be given.

Our hospital afforded an opportunity to compare the results obtained by the use the cold plunge-bath with those obtained from such treatment as I have described. This comparison is interesting and I hope may be instructive, although it cannot be expected to yield evidence which will be accepted as conclusive with regard to the merits of the one method of treatment or the other. It will require more than 214 cases of typhoid fever to put this much vexed question at rest. The physicians of the Pennsylvania Hospital are divided in their opinions in regard to the use of the cold plunge-bath. There were certain wards, therefore, in which the bath was regularly used as a routine method of treatment, and others in which it was not. There were admitted to the wards in which the cold plunge was regularly employed 95 patients with typhoid fever, of whom 11 died, and there were admitted to the wards where bathing was not employed 119 patients, of whom 8 died. This made a mortality under the bath treatment of 11.58%, and without baths a mortality of 6.72%.

It so happened that there was a transfer at the end of four days after 17 patients were admitted, of one ward from a bath advocate, to another of our physicians who does not bathe. These 17 patients had, therefore, baths for four days after their arrival at the hospital, and during the rest of their stay they were treated without baths. All of them recovered. In the figures, as they have been given, these cases were classified with those that were treated with baths, but if it be considered that they belong rather to the number of those who were treated without baths, as they received baths only during four days and the rest of the time were treated by the other method, it makes quite a difference in the figures and in the resulting percentages. It would then be as follows: treated with baths, 78, deaths, 11, percentage of mortality, 14.10; treated without baths, 136, deaths, 8, percentage of mortality, 5.88. These percentages speak very eloquently to me, and, although the number of cases is not sufficiently large to prove anything, a consideration of the results does lend strong moral support to those of us who have never been able to think that the cold plunge-bath treatment could accomplish all that its more enthusiastic advocates have believed.

AT THE ST. AGNES' HOSPITAL.

By B. FRANKLIN STAHL, B.S., M.D.

The brief time at my disposal makes it impossible to do more than recite the symptoms common to a large proportion of the patients treated, and to dwell at greater length upon one or more of the unusual complications.

There were received into the wards of St. Agnes' Hospital during August, September and October, the period of my service at the hospital, 413 soldiers. Of this number 144 had typhoid fever. The statements made in this paper are based upon the records of these patients. In addition to the 144 mentioned, we received 33 patients who were so far convalescent from typhoid fever when they came under my care as to make them unsuited for admission to the class from which the statistics offered have been drawn.

There is an especial interest in a study of these cases, for the reason that they are picked men, men selected for army service, and it may be assumed that they were in perfect health. Furthermore, they represent a class that should stand for high physical development, by reason of the number being largely made up of men from the regular army and those recruited from the National Guard. This would seem to justify us in expecting them to be better able to withstand the fever they developed at a later period. This would be a reasonable assumption, were it not for the fact that camp-life, as we know it to have been, induced indisposition and invalidism, with the result that many of the soldiers were seriously sick before they developed typhoid fever. Added to this, when we consider the inadequate hospital equipment, the deficient dietary, and, worst of all, the absence of trained nurses, we are prepared to realize that the men received for treatment were very ill, and unfavorable subjects for a low mortality.

The ages of the patients treated are of interest:

Between the ages of 17 and 20 there were 11 patients.
" " 20 " 25 " 91 "
" " 25 " 30 " 29 "
" " 30 " 35 " 6 "
" " 35 " 40 " 6 "
" " 40 " 45 there was 1 patient.

Taking up the consideration of the temperature of these cases, it is to be noted that a large proportion of the patients had their highest temperature when admitted to the hospital. Thus, 45 of the patients, or 32%, did not have a temperature at any time during their stay in the hospital exceeding that noted on admission. But many of them frequently had a temperature equal to that noted on admission. This would seem to raise the question whether this limitation of the febrile process was due to the stage of the disease at which they were received, or to the better facilities for caring for their needs.

The exceptional pyrexia shown by these cases, makes me wish that I might have an opportunity to show you a number of the charts and have you study these records of a most interesting group of patients. Some idea of the temperature may be had, however, by a recital of the number showing varying degrees of fever.

Thus, there was 1 patient with a temperature of 107°; there were 3 whose temperature on one or more occasions registered 106°, or more; 31, 105°, or more; 53, 104°, or more; 35, 103°, or more; 14, 102°, or more; 7, 101°, or more.

The occurrence of spots was noted in 130 of the cases, being 89% of all the cases. The atypical manifestation of the rash consisted in its persistence when the patient was free from fever, in several instances, and in other cases, the profusion of the spots upon the chest, coupled with the paucity of them upon the abdomen.

It is probable that a better idea of the condition of these patients can be had by tabulating some of the most important facts in the records of the series reported.

No.	Age.	Camp.	T. on Ad.	P.	R.	Highest T.
1	22	Fernandina.	105	110	30	107.2
2	24	"	101	90	20	101.6
3	29	"	102.8	100	30	102
4	27	"	102	98	24	103.6
5	20	"	102.2	100	26	102.2
6	23	"	102.2	98	26	104
7	23	"	102	100	25	102
8	21	"	104	110	26	104
9	22	"	104	100	26	104
10	22	"	102	90	24	104
11	23	"	104	110	26	104
12	22	"	102	88	24	104.2
13	28	"	101	90	24	101
14	24	"	102	90	26	105
15	22	"	103	100	26	104
16	34	Meade.	101	90	22	101
17	24	"	101	90	24	103.4
18	27	Meade.	104	90	28	104
19	27	"	101	70	20	104
20	21	"	101	100	22	101.4
21	27	"	102.4	90	24	103.4
22	22	"	100.6	80	26	103.4
23	19	"	102.4	80	18	106.4
24	20	"	104.2	80	20	104.8
25	21	"	101	80	22	103
26	19	"	100	80	20	103.6
27	24	"	101.4	80	24	103.4
28	22	"	102	100	30	103
29	23	"	103.2	110	24	105
30	25	"	104	100	24	104
31	21	"	104	110	38	104.4
32	19	"	104	100	26	104
33	25	"	104	100	29	104
34	17	"	103	100	26	104
35	27	"	103	100	28	104
36	25	"	101.6	90	24	10.45
37	20	"	103	100	28	103
38	21	"	104	110	26	105
39	22	"	100.8	78	26	102
40	26	"	104	100	24	105
41	20	"	102	110	26	105
42	25	"	102	92	22	103.8
43	22	"	102	88	24	103.6
44	20	"	104.2	108	28	104.8
45	35	"	104	106	22	104.4
46	22	"	102.2	104	24	103.4
47	21	"	104.2	114	28	104.2
48	35	"	102	90	26	103
49	27	"	103	90	26	104.8
50	33	Meade & Black.	104	90	26	104.8
51	35	Meade.	101.8	94	24	103
52	21	"	104	100	24	106
53	24	Meade and Fort Monroe.	103.8	102	24	103.8
54	21	Ft. Monroe, Meade and Black.	100	82	20	103.8
55	34	Black & Meade.	103.6	90	24	103.6
56	19	Atkinson.	104.8	80	24	104.8
57	19	Meade.	100	90	20	103 8
58	26	"	102	85	26	103.8
59	21	"	104.3	100	24	104.8
60	36	"	102	95	24	103.8
61	24	"	104	90	26	104
62	27	"	100.6	86	26	101.8
63	23	"	101.2	80	24	102.8
64	21	"	102	100	20	103
65	21	"	105	102	23	105
66	20	"	103.8	100	30	104.8
67	23	"	104.6	100	20	104.6
68	21	"	102	90	20	102
69	25	"	102.4	95	24	104
70	22	Black & Meade.	104.4	115	26	1804.
71	21	Meade.	103.2	94	26	104.8
72	27	"	102	92	24	104
73	22	"	104.2	100	29	104.2
74	21	Meade & Eaton.	104	100	28	105.
75	26	Meade.	105	100	33	105.2
76	23	Meade & Eaton.	105.2	105	26	105.4
77	28	Meade & Black.	101	84	20	103.6
78	25	Meade & Black.	105.2	110	36	105.2
79	21	Meade.	104 8	112	26	104.8
80	24	"	105	120	30	105
81	22	"	105	110	30	105.2
82	20	"	105.2	100	20	105.2
83	29	"	105.4	120	32	106
84	24	Meade & Black.	105	102	22	105
85	38	"	103	110	26	104.2
86	21	Meade.	101.2	78	24	103.2
87	20	"	102	80	24	103.6
88	21	Meade & Black.	103.4	100	22	103.4
89	22	"	101	100	20	102
90	22	Porto Rico.	101.6	85	20	102
91	20	"	101.4	110	20	102
92	19	Meade.	104	100	26	105
93	19	"	102 4	100	26	105.4
94	42	"	99.	70	18	101.2
95	21	Meade.	103	100	26	103 8
96	20	Meade.	101	90	24	102
97	21	"	104	100	30	104
98	24	"	104	100	28	105
99	19	"	105	110	30	105
100	40	"	102.4	90	18	104.2
101	23	"	105	110	26	105
102	23	"	105	100	30	105.2
103	21	"	102	100	22	103.6
104	23	"	102	90	22	102
105	24	"	104	110	30	105
106	19	"	101	85	24	101.4
107	25	"	102.2	85	26	103.6
108	27	"	101	60	18	104
109	22	?	102	95	28	103
110	25	Meade.	102 2	110	24	103.8
111	24	"	100.8	95	28	104.4
112	22	"	105	60	28	105
113	23	"	101	90	24	104
114	19	"	102.4	80	22	104.2
115	31	"	102.2	100	28	104
116	24	?	102	70	26	103
117	20	?	105	100	26	105
118	27	Meade.	102	102	20	103.2
119	30	Meade & Black.	104	110	26	104
120	28	Meade.	103.4	90	24	104.8
121	21	Meade.	103	100	20	105.6
122	34	?	104.4	110	24	105.8
123	21	?	104	110	26	104.8

No.	Age.	Camp.	T. on Ad.	P.	R.	Highest T.
124	23	McPherson and Wykoff.	104	90	22	104
125	24	?	104	100	30	105
126	18	?	102.4	90	25	102 4
127	24	Black.	102.6	104	24	102.6
128	21	Black & Meade.	104	90	24	104
129	18	Meade.	104.6	100	26	104.6
130	22	"	105	110	24	105
131	24	Meade, Alger, and Zures?	104	120	26	104.2
132	23	Meade.	104	102	23	104
133	25	"	105.2	105	26	105.2
134	20	"	104.4	115	26	104.4
135	21	"	102 2	105	24	103.4
136	21	"	102.4	104	30	104
137	22	"	102.6	100	24	104
138	27	"	102	94	20	102
139	24	"	104.8	104	24	105
140	24	"	102.8	98	22	103.2
141	25	"	105	90	24	105
142	21	"	102	95	24	104
143	23	"	101	90	26	103
144	24	"	104.2	110	26	104.2

No.	Day of Disease.	1st Day Normal.	Days in House.	No. Baths.	Widal Reaction.	Result.
1	?	. . .	13	58	Yes.	Died—autopsy.
2	8	12	10	00	"	Recovery.
3	?	?	11	00	"	"
4	18	23	11	3	"	"
5	18	23	9	00	"	"
6	12	18	9	4	"	"
7	21	24	4	00	"	"
8	14	26	19	21	No.	"
9	9	19	17	7	"	"
10	14	34	39	3	Yes.	"
11	10	33	37	27	"	"
12	14	30	60	13	"	"
13	?	5 days after admission	13	00	"	"
14	13	29	41	46	"	"
15	14	20	21	5	"	"
16	10	14	8	00	Had typhoid 5 years ago.	"
17	9	18	16	1	"	"
18	7	25	43	33	"	"
19	4	16	26	7	"	"
20	7	15	25	00	"	"
21	10	44	51	6	"	"
22	21	35	25	7	"	"
23	21	24	22	5	"	"
24	10	36	42	41	"	"
25	10	22	23	1	"	"
26	11	29	64	9	"	"
27	?	Preceded by Rheumat.	64	16	"	"
28	28	48	25	1	"	"
29	9	35	42	63	"	"
30	14	28	35	32	"	"
31	8	23	43	18	"	"
32	28	39	23	19	"	"
33	21	00	18	36	"	Died—autopsy.
34	14	26	24	10	"	Recovery.
35	21	31	24	11	"	"
36	10	28	38	43	Report Lost.	"
37	8	22	21	15	Yes.	"
38	14	28	42	38	"	"
39	9	19	23	00	"	"
40	31	47	35	55	"	"
41	3	. . .	9	8	No Report.	Died—autopsy.
42	3	21	38	8	"	"
43	4	32	38	3	"	"
44	8	17	21	8	"	"
45	10	28	44	2	Report lost.	Recovered.
46	8	23	26	22	"	"
47	6	25	33	12	Yes.	"
48	14	31	38	3	"	"
49	4	27	39	4	2d test.	"
50	?	?	39	5	"	"
51	5	25	35	8	2d test.	"
52	18	. . .	7	13	Yes.	Died.
53	11	21	25	2	"	Yes.
54	11	26	29	1	"	"
55	6	27	30	3	No.	"
56	15	23	19	1	"	"
57	8	15	23	1	"	"
58	8	34	32	5	Yes.	"
59	10	30	49	14	"	"
60	15	18	46	2	"	"
61	7	21	27	3	"	"
62	9	16	27	00	No.	"
63	10	17	27	00	Yes.	"
64	8	21	31	00	"	"
65	8	20	41	7	"	"
66	8	21	41	28	"	"
67	14	17	22	3	"	"
68	14	20	18	00	"	"
69	14	31	31	9	Report lost.	Recovered.
70	10	24	38	11	Yes.	"
71	14	33	41	33	"	"
72	10	29	46	24	"	"
73	8	21	41	16	"	"

No.	Day of Disease.	1st Day Normal.	Days in House.	No. of Baths.	Widal Reaction.	Result.
74	12	17	47	5	Yes.	Recovered.
75	22	32	46	41	"	"
76	9	32	44	14	"	"
77	10	15	40	5	"	"
78	3	18	38	15	"	"
79	4	20	31	3	"	"
80	10	22	31	15	"	"
81	6	19	45	21	"	"
82	3	17	31	21	2d test.	"
83	4	32	38	42	Yes.	"
84	4	19	38	12	"	"
85	14	23	24	1	"	"
86	14	23	26	1	"	"
87	3	22	38	6	2d test.	"
88	5	20	29	2	No.	"
89	21	24	29	00	"	"
90	14	21	20	00	Yes.	"
91	40	40	16	00	No.	"
92	21	41	115	58	Yes.	"
93	?	7 days after admission[1]	112	[2]	Yes. 3d test.	"
94	53	53	15.	00	"	"
95	10	19	74	13	"	"
96	21	25	12	00	"	"
97	14	30	31	18	"	"
98	7		5	34	"	Died.
99	14	40	56	42	"	Recovered.
100	31	45	35	8	Record lost.	"
101	?	4 days after admission.	9	5	No.	"
102	5	23	36	80	Yes.	"
103	8	21	22	4	2d test.	"
104	12	26	23	00	"	"
105	21	35	26	35	Yes.	"
106	10	19	26	00	"	"
107	28	39	37	13	"	"
108	7	14	16	7	"	"
109	7	18	22	00	"	"
110	21	32	26	2	"	"
111	21	38	35	36	Report lost.	"
112	14	23	45	25	Yes.	"
113	21	39	38	50	"	"
114	10	34	75	21	"	"
115	16	22	12	2	"	"
116	8	16	19	1	"	"
117	3	32	53	9	2d test.	"
118	8	17	55	1	Yes.	"
119	12	27	49	7	"	"
120	8	15	34	2	No record.	"
121	7	45	68	71	Yes.	"
122	6	26	71	16	"	"
123	14	22	18	19	No.	"
124	14	21	25	3	Yes.	"
125	4	16	46	22	"	"
126	7	11	9	1	"	"
127	18	23	15	1	"	"
128	14	17	18	2	"	"
129	8	24	23	1	"	"
130	9	19	43	4	"	"
131	14	28	39	8	"	"
132	14	35	40	5	"	"
133	8	20	40	2	No record.	"
134	6	12	31	6	Yes.	"
135	6	20	39	6	"	"
136	11	17	38	3	"	"
137	10	27	40	2	"	"
138	14	29	27	00	"	"
139	10	27	47	20	No record.	"
140	15	29	27	1	Yes.	"
141	5	20	39	8	"	"
142	7	16	24	4	No record.	"
143	10	19	39	1	Yes.	"
144	10	20	27	6	"	"

The Widal Reaction.—The blood of all of these patients was submitted to the bacteriologic department of the Board of Health, and the results obtained are recorded in the table submitted. In 10 cases we received a negative report, and while the effort was made to secure a second report on all cases reported negatively, I find the record of only 7 cases that gave the reaction with the second specimen of blood submitted, and one case that did not give the reaction until the third trial. This last case is of interest, because the symptoms and the development of hemorrhage by this patient convince me that he was about the tenth day of the disease when the third specimen showed the reaction. I regret that the records of 10 cases have been lost, and thus it is not possible to state the proportion of cases in which the reaction was present. The figures I am able to show, it seems to me, are sufficient to justify the great faith I have in this test as an evidence of the presence of the disease.

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[1] After the temperature had been normal 8 days, the patient was allowed to drive, with other convalescents, in charge of an army surgeon. He returned to the hospital at 11 P.M., and the next day had a temperature of 105, and a most protracted illness developed.

[2] This man had 18 sponge-baths, notwithstanding the temperature was above the tubbing-point. He was then given 28 tub-baths, and sponging had to be substituted because of the circulatory and nervous condition of the patient; 14 sponge-baths were given, making a total of 32 sponge, and 28 tub-baths given this patient.

Effort has been made to determine *the day of the disease*, and, counting from this time, to estimate the first day the patient had a normal temperature. To my mind both of these points are of necessity so inaccurate as to be of no practical value. The reason being the indifferent health of the patient for a varying time prior to the development of the symptoms ushering in the typhoid fever. The figures submitted are based upon the time stated by the patient to be the date of his indisposition.

The symptoms associated with the digestive tract were much less severe than those we were accustomed to see when these patients were treated without baths.

Diarrhea was of comparatively infrequent occurrence. Indeed a frequent need was a safe laxative. There being less demand for opiates to control the bowels, the secretions were less disturbed, and the tongue so thick and dry that it could not be protruded from the mouth remains only as a memory of the days when the treatment did not include hydrotherapy.

Moderate tympany was present in a large number of the cases, but seldom became a serious complicating factor.

The mortality was 5 cases in 144, being 2.8%.

The Treatment.—Every patient having a temperature of 102.2° was bathed every third hour. The only exception to this rule was for a period of a few days when we were pressed by the large number of soldiers admitted, when the bathing-point was made 103. These patients received 1,830 tub-baths. The work implied by these figures will be appreciated as exceptional, and would have been almost impossible of accomplishment without a much larger force of assistants than we had, if it had not been for the kindness of Mr. John L. Morris, who designed and gave the hospital an arrangement that so lessens the lifting work incident to giving a bath, that one or two persons are able to bathe a patient with the expenditure of a minimum amount of strength in lifting. The photographs show better than I can tell the plan followed. The carriage now in use at the hospital is an improvement upon the one shown in the picture, in that it is not higher than the level of the bed. The stretcher on it is the one shown in the picture, and the patient is immersed in the bath without being changed from the stretcher. The carrier is on a railroad, placed near the ceiling, as shown in the picture, and the machinery is so adjusted that a child could do the handling of the patient. The tub is stationary, and thus we are able to change the water for each patient, or bathe with constantly changing water.

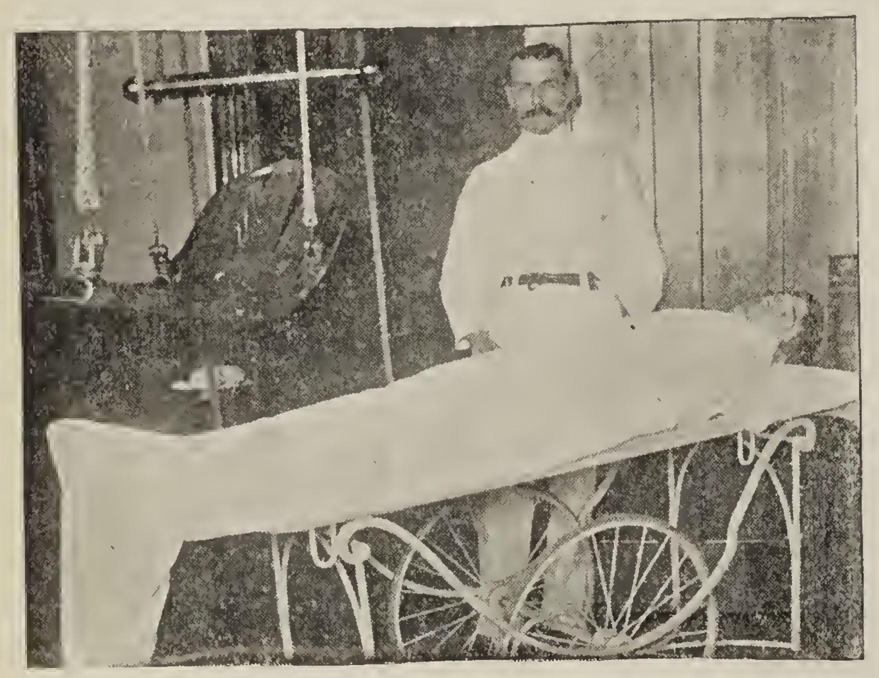

Fig. 1.—Shows the carriage on which the patient is brought from the ward to the bathroom. To the side is seen the bath-tub, and above it the stretcher on which he is lowered into the tub. The stretcher is detachable and can be placed on the carriage, so that the patient does not have to make more than one change instead of two, as was the case before the adoption of this plan.

The patient is given whisky after the bath, and, if it seems indicated, an additional dose is given.

In only two instances was it necessary to decidedly change the rule for bathing. Both were cases that had weak hearts and later developed gangrene. Thus one could only remain in the bath 8 instead of 15 minutes. The other patient had 28 baths, and then became so nervous as the time for them approached, that they had to be replaced by sponging.

An interesting condition, the explanation of which is not perfectly clear to me, is shown in the chart. I refer to the temperature registering a full degree every third hour. That is, it was never 103 or 104 and a fraction. I show you several of a number of charts in which this peculiarity is exhibited. The most probable explanation that has occurred to me is that the heat-production or dissipation was so nearly stable that the same amount was produced in three hours. But this leaves unexplained the difference in the number of full degrees of heat produced.

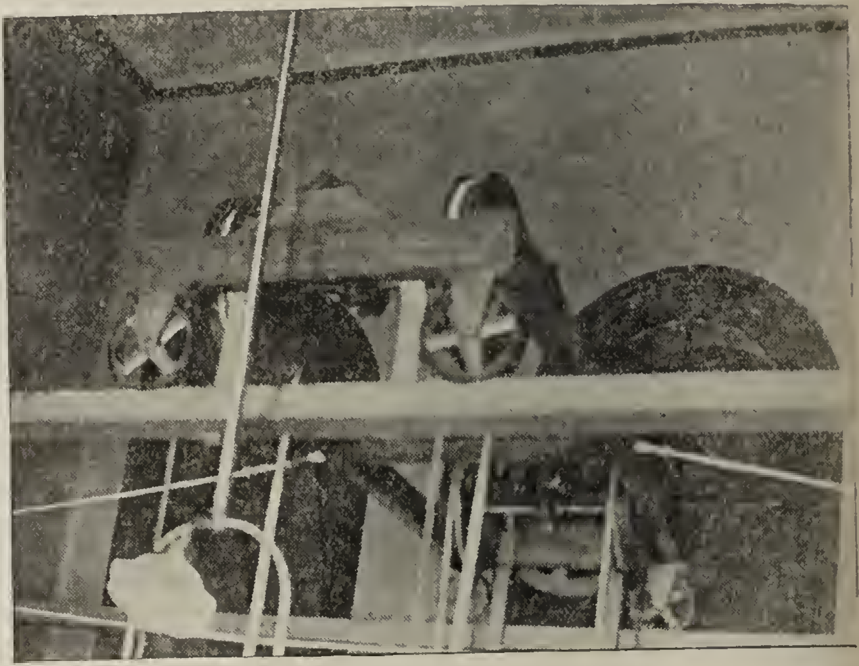

Fig. 2.—Shows the railroad, placed near the ceiling, by means of which the patient is carried horizontally from the carriage to a position over the tub. By means of a separate set of pulleys, the patient is lowered into the tub.

The medical treatment of the cases consisted in the administration of fractional doses of calomel. At a later period salol with bismuth was given when there was a marked tendency to tympanites. Whisky and strychnin were given in the later stages, when the condition of the heart indicated the need of it. Turpentine was given when the tongue was dry, thick, and brown, and the change wrought in 24 hours was usually so pronounced as to make me marvel that any one treating a large number of typhoid-fever patients should question its value.

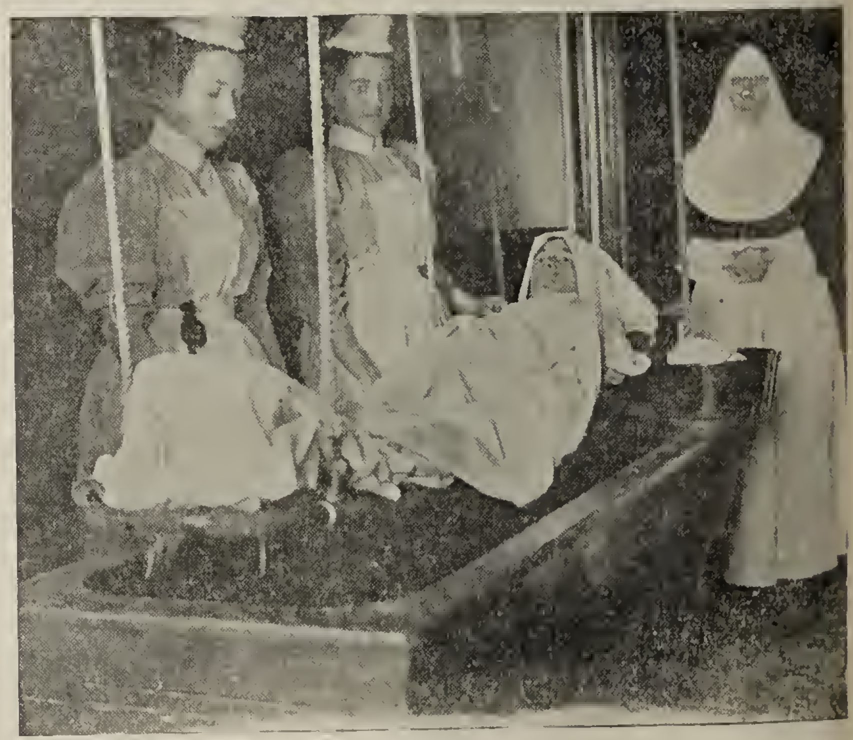

Fig. 3.—Shows the patient being lowered into the tub. The curve in the stretcher serves as a pillow.

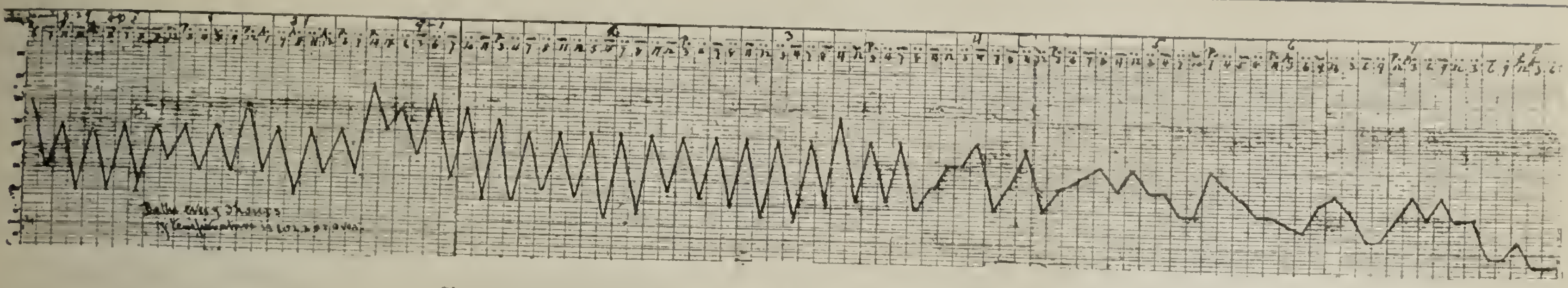

Chart showing a temperature that almost always varied a full degree.

Early in my service I lost one of my patients, and the condition of his tissues on section gave me an important therapeutic suggestion. This patient seemed to have almost no liquid element in him. The liver cut like a piece of dried beef, and of similar character were the other organs of the body. This led me to resort to hypodermoclysis and enteroclysis—using for the purpose a normal salt-solution. The results obtained were most gratifying. The mental and circulatory conditions frequently improved with surprising promptness. The patients were encouraged to drink unusually large quantities of water.

The Complications presented by these patients seemed to run the entire gamut, unless we note the absence of bone-involvement. But since this is usually a later complication, it is likely reserved for others to witness the final manifestation of the typhoid fever contracted in the war of 1898.

The Blood of these patients constantly showed a surprising diminution in the hemoglobin and corpuscular elements. The changes were out of all proportion to the appearance and symptoms of the patient. Dr. Muerleck, the pathologist to the hospital, made a study of this aspect of these cases and will doubtless make a report of his findings.

Lungs.

Case No.		Location.
1	Pneumonia	Both lower lobes.
10	Pneumonia, catarrhal	
14	Pneumonia	Left lower lobe, aphonia, hemoptysis.
86	Pneumonia	Left lower lobe.
38	Pneumonia	Right lower lobe.
40	Pneumonia	Right lower lobe.
41	Pneumonia	Right lower lobe.
54	Pneumonia	Right lower lobe.
72	Pneumonia	Right lower lobe.
75	Pneumonia	Both upper lobes.
76	Pneumonia	Right lower lobe.
92	Pneumonia	Left lower lobe, left upper lobe.
93	Pneumonia	Left lower lobe.
112	Pneumonia	Left lower lobe.
121	Pneumonia, catarrhal	
127	Pneumonia	Left lower lobe.
130	Pneumonia	Left lower lobe.

Bronchitis.

16	Bronchitis	
24	Bronchitis	
32	Bronchitis	
34	Bronchitis	
35	Bronchitis	
36	Bronchitis	
38	Bronchitis	
39	Bronchitis	
40	Bronchitis	
88	Bronchitis	
89	Bronchitis	
95	Bronchitis	
97	Bronchitis	
103	Bronchitis	
79	Bronchitis	
47	Bronchitis	
49	Bronchitis	
56	Bronchitis	

Pleurisy.

74	Pleurisy	Right.
60	Pleurisy	Right, with effusion.
67	Pleurisy	Right, with effusion.

Heart.

64	Pericarditis	
74	Pericarditis	
114	Pericarditis	
142	Pericarditis	
61	Pericarditis	

Irregular or Intermittent.

18	Irregular	
119	Intermittent	Second aortic accentuated.
126		Second aortic accentuated.
114		Second aortic accentuated.
92	Irregular	
93	Irregular	
122	At mitral area	First weak, second accentuated.
96		First weak, second accentuated.

Irregular or Intermittent.—Continued.

Case No.		Location.
97		First weak, second accentuated.
69		First weak, second accentuated.
34		First weak, second accentuated.
76		First weak, second accentuated.
40		First weak.

Vertigo.

19	Vertigo	
92	Vertigo	
96	Vertigo	
100	Vertigo	

Mitral Systolic Murmur.

36	Mitral systolic murmur	
46	Mitral systolic murmur	Quality of first sound changes while listening to it.
54	Mitral systolic murmur	
60	Mitral systolic murmur	
61	Mitral systolic murmur	
72	Mitral systolic murmur	
74	Mitral systolic murmur, and aortic diastolic	
75	Mitral systolic murmur, and aortic diastolic	
77	Mitral systolic murmur	
80	Mitral systolic murmur	
82	Mitral systolic murmur	
184	Mitral systolic murmur	
125	Mitral systolic murmur	
129	Mitral systolic murmur	
130	Mitral systolic murmur	
133	Mitral systolic murmur	
134	Mitral systolic murmur	
137	Mitral systolic murmur	
139	Mitral systolic murmur	
140	Mitral systolic murmur	
44	Mitral systolic murmur	

Mitral Presystolic Murmur.

14	Mitral presystolic murmur	
71	Mitral presystolic murmur	

Relapse and Recrudescence.

18	Recrudescence	Was normal 2 days, then fever for 6 days.
26	Relapse	Was normal 10 days, spots, and baths required.
60	Recrudescence	Was normal 4 days.
77	Recrudescence	Was normal 5 days, then fever for 6 days.
119	Recrudescence	Was normal 9 days, then fever for 8 days.
112	Recrudescence	Was normal 10 days, ate cabbage at seashore.
130	Recrudescence	Was normal 6 days, then fever for 10 days.

Phlegmasia.

18	Phlegmasia	?
31	Phlegmasia	Left leg. Developed 28th day. No murmur.
74	Phlegmasia	?. Mitral and aortic regurgitation.
95	Phlegmasia	Left, developed 18th day. Five days later a mitral regurgitation murmur is noted.
137	Phlegmasia	Both legs, less severe in right. Developed 35th day. Mitral regurgitation.
139	Phlegmasia	Right developed 15th day. Age 27, rigid radials. Orchitis.

Hemorrhage from the Bowels.

12	Hemorrhage from the bowels	No. 2, amount 8 oz.	
52	Hemorrhage from the bowels	No. 5, amount 63 oz.	Perforation. Died.
98	Hemorrhage from the bowels	No. 5, amount 64 oz.	
93	Hemorrhage from the bowels	No. 8, amount 84 oz.	

Furunculosis.

18	Furunculosis	
19	Furunculosis	Cervical glands large and tender.
26	Furunculosis	Most numerous on face.
31	Furunculosis	
37	Furunculosis	Most numerous on hands.
40	Furunculosis	Most numerous on back.
46	Furunculosis	Most numerous on axillæ.
48	Furunculosis	Most numerous on trunk.
55	Furunculosis	Acne in type.
81	Furunculosis	
82	Furunculosis	Acne in type, most on tibiæ.
84	Furunculosis	Acne in type, most numerous on abdomen.
118	Furunculosis	
125	Furunculosis	

Glandular Involvement.

31	Mammitis	

Liver.

60	Liver	Acute hepatitis, jaundice.
86	Liver	Acute hepatitis.
49	Liver	Jaundice.

Case No.		Location.
	PAROTITIS.	
72	Parotitis	
	ORCHITIS.	
75	Orchitis	
139	Orchitis	
	EYE.	
138	Eye	Acute cat. conj.
	EAR.	
70	Ear	Deafness.
141	Ear	Suppurative otitis.
	BOWELS.	
120	Bowels	Ischio-rectal abscess.
	SCURVY.	
47	Scurvy	Gums receding, spongy and bleeding.
53	Scurvy	Gums receding, spongy and bleeding.
77	Scurvy	Gums receding, spongy and bleeding.
84	Scurvy	Gums receding, spongy and bleeding.

TYPHOID-FEVER PATIENTS, CONVALESCENT WHEN RECEIVED.—Thirty patients from Porto Rico gave a clear history of symptoms indicative of or a diagnosis of typhoid. Of this number 6 gave the Widal reaction, The record does not show the exact number tested, but most of them were not tried for the reaction. One had jaundice as a complication; another gave a history of three relapses, and 7 had chills, as a complication. Two of them had spots when admitted to the hospital. In addition to these, there were 3 convalescent typhoids received from Camp Meade.

This makes a total of 33 cases that very certainly had typhoid fever, but who were so far recovered from it when they came under my care as to make them unsuited to admission to the class from which the statistics offered have been drawn.

GANGRENOUS DERMATITIS.—This complication was present in 10, or 6.9% of the cases. I have already made a preliminary report of 3 of these cases in the PHILADELPHIA MEDICAL JOURNAL, October 15, 1898, and shall make a detailed report of the entire group the subject of a separate communication.

An idea of the infrequency of the occurrence of gangrene as a complication of typhoid fever can be obtained from Dr. W. W. Keen's statement, quoted from the Shattuck Lecture, delivered June 6, 1896. He says:

> "While gangrene is an important complication or sequel of typhoid, it is fortunately rare, so that most practitioners, even men of vast experience in large hospitals, have never seen a case: for example, Flint, and Murchison. Holscher, in 2,000 fatal cases of typhoid, does not report a single case, though he records 59 cases of thrombosis of the femoral vein, and Bettke, in 1,420 cases, found only four cases of gangrene, all limited to the toes."

My own experience is in marked contrast with these records. In the cases seen by me the trunk was most frequently the seat of the disease, and the dependent parts were not more often involved than were the anterior parts of the body. The face and neck, the gluteal region, then the genitals and the legs were the order of the frequency of the occurrence of the disease. In only one case were the toes affected, and here the process extended and resulted in the loss of the foot.

It would have added interest to the search for a remote exciting cause for this unusual manifestation of the disease, had all the patients exhibiting the disease come from the same camp. But such was not the case. Neither did the trouble confine itself to patients in one ward or one floor of the hospital, nor to those under the care of any set of nurses.

The patients who had gangrene showed marked circulatory changes, varying from weakened heart-sounds to marked arterial sclerosis and phlebitis. It usually did not develop until the later stages of the disease, when the fever had considerably abated. The rapidity of its development was a marked feature, the skin in some instances seeming to melt while examining the patient. Equally marked was the speedy healing of the necrotic areas and the entire absence of any scarring or deformity.

DEATHS.—There have been 5 deaths in the series reported. Of this number 3 died with gangrene as a complication.

Of the remaining cases:

CASE I.—T. A. S. (hospital No. 1673. In this series No. 52). Age, 21. Admitted 10-16-'98. Died 10-23-98. In hospital 7 days. He had four hemorrhages, and the final symptoms indicated perforation to have occurred.

CASE II.—P. B (hospital No. 1190. In this series No. 98). Age, 24. Admitted 8-29-98. Died 9-5-98. In hospital 7 days. This patient had five hemorrhages.

I desire to acknowledge my indebtedness to Dr. E. D. Mitchell, Dr. W. B. Fetterman, and Dr. J. P. Wales, resident physicians at St. Agnes' Hospital, for valued assistance in the collection of the data contained in this paper. Also to Mr. L. J. Lane, a medical student in the University of Pennsylvania, for the photographs presented.

DISCUSSION OF THE FOREGOING PAPERS.

DR. J. M. DACOSTA referred to 65 cases that had come under his observation at the Pennsylvania Hospital. He noted the marked tendency to thrombosis of the veins of the leg, which developed in 11 of the patients. In 5 of the cases it was left-sided; in 6 double, but in all of the latter it manifested itself first in the left leg. This was considered rather remarkable, particularly when it is remembered that ordinarily but 1% of typhoid-fever patients are affected with phlegmasia. Two of the patients had symmetric ecchymotic spots on the ankles; these slowly disappeared. Various forms of ecchymoses were common during the Civil War and were commonly referred to a form of scurvy. Of this affection there was no evidence in the cases recently treated. The treatment he had employed was the so-called antiseptic treatment and cold sponging. Four deaths occurred, a mortality-rate of 6%. Another series of cases, not soldiers, showed a somewhat higher mortality-rate. Ten of the cases showed a combination with malaria, and in these the tertian organism was found in the blood. Clinically these cases were characterized by unusually long duration, and a tendency to the occurrence of relapses. One patient had three distinct relapses and also a swelling of the knee; Malta fever was eliminated. It was stated that all cases that pursue a protracted course or in which chills develop late should be examined for the malaria-organism, and it was suggested that more frequent examinations would disclose the presence of this organism much more commonly than is suspected. These cases also suggest the employment of quinin in extremely large doses.

DR. R. G. CURTIN spoke of 200 patients that had been treated in the Presbyterian Hospital. The disease was characterized by its mild course, its short duration, and the rarity of sequelæ. Mention was made of some of the interesting features of the cases as contrasted with others observed during the Civil War, such as the anemia, the toxemia, the complications, and the number of deaths.

DR. J. M. ANDERS spoke of 266 patients that had been treated in the Medico-Chirurgical College Hospital. Among them there were many cases of a serious type, and this was thought dependent upon the camp from which the soldiers came. There were 26 cases of hyperpyrexia. The first sound of the heart was frequently weak, and collapse of the circulation was often threatened; 20 patients had an intermittent pulse. Hemorrhage was frequent and severe; 2 cases developed insanity; 2 hemiplegia, and 2 purpura; 3 patients had yellow soles and palms. The Widal reaction was considered reliable, and often enabled one to make a diagnosis at an earlier period than any other symptom; 13 patients died. Combination of malaria and typhoid fever could not be detected, though diligently sought for.

DR. H. A. HARE stated that in cases of combination of typhoid with malarial fever, quinin should be given hypodermically or intramuscularly, as the stomachs of such patients were incapable of absorbing large doses of the drug.

DR. F. A. PACKARD referred to the cheerfulness of the patients and the extreme rapidity of convalescence.

DR. ALFRED STENGEL stated that he had observed two cases in which the malaria-hematozoon (the tertian variety) had been found during convalescence. He had also seen sections in which the capillaries of the heart had been filled with the malaria-parasite. He thought the Widal reaction of distinct diagnostic importance, and that many errors resulted from deficiencies of the observer than of the reaction.

DR. S. SOLIS COHEN referred to the notable asthenia of the patients and the complications, especially parotitis and orchitis. He considered the Widal reaction of secondary importance in the diagnosis, and asserted his belief in the efficacy of the Brand treatment and intestinal antiseptics and of washing out the bowel in intestinal hemorrhage.

DR. A. C. ABBOTT narrated the statistics of the Widal ex aminations made in the Bacteriologic Laboratory of the Board of Health. During the past 20 months examinations had been made of 4,154 cases with 2.8% of error.

DR. J. M. DACOSTA spoke of the necessity of repeated examinations for the malaria-organism in cases of suspected combination with typhoid and mentioned one case in which the hematozoon was not detected until the third examination. He stated that he had often given his patients quinin hypodermically and preferred muriate of quinin with urea.

DR. JOSEPH SAILER spoke of some experiences with the Widal reaction, and of the wet and dry method of making the test.

Society Report.

ASSOCIATION OF AMERICAN ANATOMISTS.

THE eleventh annual session was held in New York City, December 28-30, in conjunction with the "Naturalists" and other affiliated societies. Most of the meetings were held at the Medical Department of Columbia University; 41 members attended and 20 new members joined, making a total membership of 141, of whom 10 are honorary.

The address of the president, DR. BURT G. WILDER, discussed "Misapprehensions as to the Simplified Nomenclature;" the speaker urged especially a fuller recognition of what had been done by the English anatomists, Barclay, Owen, Pye-Smith and T. Jeffery Parker, and hoped the nomenclature of the future would be called the "Anglo-American."

The Association voted that abstracts of papers be required in advance, and that brief abstracts be included in the program; that the time for reading papers be limited to thirty minutes; that the secretary-treasurer be allowed his railroad fare and ten dollars toward his hotel expenses at each meeting. The Association also accepted the propositions of the editors of the (English) *Journal of Anatomy and Physiology* as to making that journal the official organ of the Association, and nominated Prof. George S. Huntington as the American editor. The details of the arrangement will be given in a circular to be issued by the secretary of the Association. Dr. E. W. Holmes, of Philadelphia, was elected member of the Executive Committee, and the president was authorized to fill the vacancy in the Committee on Anatomical Nomenclature caused by the resignation of Dr. Dwight.[1]

"The Teaching of Anatomy in Our Medical Schools," the subject assigned for discussion, was opened by DR. HOLMES, in "The Defects of Our Present Methods," and further considered under ten divisions, viz.: (1) Preparatory education; (2) The value and place of general biology and comparative anatomy; (3) Histology and embryology in the medical course; (4) The relative value of didactic methods; (5) Practical anatomy and how to teach it; (6) The order of topics; (7) The correlation of structure and function in teaching; (8) The use of charts and blackboards; (9) The qualifications requisite for a teacher of anatomy; (10) The desirability of terminologic consistency; by DR. GERRISH (4, 6 and 8), DR. HUNTINGTON (2, 3, 5 and 6), and DR. WILDER (10). In view of the extent and importance of the subject it was suggested that at future meetings a smaller number of divisions be more fully considered.

The following papers were read and discussed; all were illustrated by specimens, and charts or photographs, and several by lantern-slides or enlarged photographic projections:

"The roof and lateral recesses of the fourth ventricle considered morphologically and embryologically," by J. A. BLAKE.

"Preliminary report on the surgical relations of the duodenal orifice of the common bile-duct," by G. E. BREWER.

"An X-ray study of the normal movements of the carpal bones and wrist," by E. R. CORSON.

"Morphology of the digestive tract of the cat," by F. DEXTER.

"The origin of numerical variations of the vertebræ," and "The living model showing the platysma in contraction," by T. DWIGHT.

"Further notes on the relation of the ureters and great veins," by S. H. GAGE.

"An explanation of a new method of cutting gross sections of the cadaver, with demonstration of the technic," by I. S. HAYNES.

"The normal human tibia," by ALES HRDLICKA.

"Morphology and phylogeny of the vertebrate ileocolic junction," "Visceral and vascular variations in human anatomy," and "The sternalis muscle," by G. S. HUNTINGTON.

"The cecum and appendix in 100 subjects," by W. MARTIN.

"The internal structure of the hippocampus," by J. G. MACCARTHY.

"Note on the staining of isolated nerve-cells," and "Preliminary account of the degenerations in the central nervous system of frogs deprived of the cerebrum," by B. B. STROUD.

"Some current misapprehensions as to the objects of the Cornell collection of brains," by B. G. WILDER.

For lack of time there were read by title only Dr. Wilder's paper, "Further tabulation and interpretation of the paroccipital fissure (occipital division of the intraparietal complex)"; three papers by Dr. Huntington, "The genito-urinary system of the American pit-viper," "Contribution to the anatomy of the reptilian vascular system," "Cerebral fissures and visceral anatomy of the Eskimo from Smith's Sound;" and Dr. Haynes' discussion of teaching.

At its closing session, December 30, the Association adopted without dissent the **Report of the Committee on Anatomical Nomenclature** presented by the majority (Gerrish, Huntington, and Wilder). It comprises four divisions, viz.:

A.—Brief statement of reasons for preferring certain terms (about fifty in number) already adopted by the Association.

B.—Recommendation of *mesocœlia* as a name for the cavity of the mesencephalon, with reasons therefor.

C.—Recommendation of 181 names of bones (120) and muscles (61) identical with those in the B. N. A. (Basel Nomina Anatomica).[2]

D.—Recommendation of 17 names of bones and muscles differing from those of the B. N. A.

REPORT.

A.—*Brief statement of reasons for preferring certain neural terms included in the report adopted at the last meeting of the Association.*[3]

Alba (1); cinerea (2); gelatinosa (3); reticularis alba (77); caudatum (89); pallidum (108); albicans (123); entocinerea (143); intercalatum (144); and arachnoidea (208), are neuter or feminine adjectives used as substantives, and comparable in that respect with cases already discussed, viz., callosum (§13) and dura (§15); special points connected with them may be considered hereafter.

Limen (6); caput (90); cauda (91); fimbria (94); splenium (96); genu (97); rostrum (98); corona (110); tuber (124); valvula (148); frenulum (149); lingula (154); arbor (156); calamus (173); ligula (176); pyramis (181); conus (189); filum (190); cisternæ (209); glomus (217); circulus (231); torcular (251), are more or less closely comparable with calcar, chiasma, tentorium, and falx (§§ 9-12) in that, even when not absolute idionyms, their signification would be determined by the context or could be indicated by a word that need not be repeated.

In replacing "substantia corticalis" by cortex (105); "nucleus lentiformis" by lenticula (107); "corpus geniculatum" by geniculum (116, 117,) "lamina terminalis" by terma (128); corpus trapezoideum" by trapezium (165); "nucleus emboliformis" and "n. globosus" by embolus and globulus (170, 171); "corpus restiforme" by restis (184); "formatio reticularis" by reticula (206), we simply replace phrases including adjectives that suggest resemblance to objects

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[1] Dr. E. C. Spitzka, of New York City, has since been selected.

[2] Die anatomische Nomenclatur. Nomina anatomica, Verzeichniss der von der Anatomischen Gesellschaft auf ihrer IX. Versammlung in Basel angenommenen Namen. Eingeleitet und im Einverständniss mit dem Redactionsausschuss erläutert von Wilhelm His. *Archiv für Anatomie und Physiologie*, Anat. Abth., Supplement Band, 1895. Pp. 180; 27 Figs., 2 plates.

[3] This portion was already written last year, but was not printed on account of the supposed necessity of having the last report ready for distribution at a certain date. The numbers in parentheses correspond with the serial numbers in that report (*Proceedings of the tenth annual session*, pp. 9, 47-53). Some of these terms are more fully discussed by the secretary of the committee, in "Neural Terms, International and National," *Journal of Comparative Neurology*, VI, December, 1896, pp. 216-352, including seven tables; parts VII-IX have also been reprinted under the title "Table of Neural Terms, with Comments and Bibliography."

(simile names) by the substantive names of the objects themselves. In so doing we follow the actual example of the B. N. A. in preferring (36) oliva to "corpus olivare," clava to "processus clavatus," vermis to "processus vermiformis," and pyramis to "corpus pyramidale." Indeed, the logical extension of the system embodied in the retention of "corpus restiforme" when restis is available would burden anatomy with gyrus insuliformis, corpus pontiforme, and corpus hippocampoides, none of which, fortunately, has materialized.

Endyma (4). As well stated by Hyrtl ("Onomatologia," p. 200), the initial syllable of "ependyma" is quite superfluous. If, on the other hand, the qualifying genitive "ventriculi" is required, as in the B. N. A., why not "cerebri" also in order to secure absolute explicitness? As a matter of fact both endyma and "ependyma" are idionyms, and the former is as much better as it is shorter.

Habena (120), vallis (153), and acervus (218) are preferred to the diminutives "habenula," "vallecula" and "acervulus" because they are shorter; "acervulus," moreover, is a modern coinage.

Gyrus subcalcarinus (61) and gyrus subcollateralis (60). These terms are recommended in place of "gyrus lingualis" and "gyrus fusiformis" respectively. The difficulty of applying the latter is well known; indeed, so vague are the resemblances implied in them that certainty can hardly be insured without resort to the rather puerile mnemonic device of associating the letter *n* in calcarinus and lingualis. But since fissura calcarina and fissura collateralis are now almost universally employed, and no new words have to be introduced, there seem to us to be several advantages and no disadvantages in designating the gyri just ventrad of the two fissures respectively by terms indicating their relative positions.

Gyrus subfrontalis (46). In the B. N. A. was adopted "gyrus frontalis inferior" to the exclusion of the common synonyms, "convolutio Brocæ" and "gyrus frontalis tertius."[4] The question is therefore narrowed down to the relative merits of "gyrus frontalis inferior" as adopted in the B. N. A., and gyrus subfrontalis as preferred by us; and since this is a type of a large number of cases of difference between the two lists, it will be presented in some detail.

The two terms agree in being both distinctly locative names. The location of a part is a general and comprehensive attribute, and, as remarked by Owen, "signifies its totality without calling prominently to mind any one particular quality, which is apt thereby to be deemed, undeservedly, more essential than the rest." Locative names form two natural groups,—prepositional and adjectival. Prepositional locatives:—With these the qualifying prefix, a preposition or adverb, indicates the location of a part relatively to some other part, more important, more easily recognized, or previously designated. Præcuneus designates a cortical area just "in front of" the cuneus; subcalcarinus and subcollateralis are prepositional locatives. Adjectival locatives:—These indicate either the location of a part within some general region, or its membership of a series. Vertebra thoracalis designates a spinal segment in the thorax. Commissura anterior, cm. media and cm. posterior distinguish members of a series. Subfrontalis is an adjectival locative, and the preposition *sub* is employed as a prefix in the sense of inferior or lower; it is also a true mononymic adjective, and not a quasi-mononym like the hyphenated "inferofrontalis" sometimes employed.

B.—*Mesocœlia (English mesocœle or mesocele). This single word is recommended as a name for the entire cavity of the mesencephalon, the region including the crura and the quadrigeminum.*

The following considerations apply to the general use of cœlia (English cœle or cele) in place of ventriculus:

(1) Its Greek origin renders it compoundable regularly and euphoniously with the characteristic prefixes already employed in the segmental names, *e. g.*, mesencephalon, etc.

(2) These compounds are mononyms, and therefore capable of inflection (*e. g.*, mesocœliæ), derivation (*e. g.*, mesocœliana), and adoption into other languages without material change; *e. g.*, English, mesocele; French, mesocœlie; German, Mesokölie; Italian, mesocelia.

(3) The various national paronyms thus formed are likewise capable of derivation; *e. g.*, mesocelian.

(4) There is classic authority for the use of cœlia in the sense of encephalic cavity. In the lexicon of Liddell and Scott κοιλία ἐγκεφάλου is quoted as in good and regular standing among Greek medical writers. According to Burdach ("vom Baue und Leben des Gehirns," 1819–22, II, 301, 378, 380). Galen designated the "fourth ventricle" as κοιλία ὀπισθίου ἐγκεφάλου, τετάρτη κοιλία, and ὀπισθία κοιλία (De usu partium, Lib. VIII, cxii, p. 170); the "third ventricle" as μέση, τρίτη κοιλία (idem. IX, iii, 172); and the "lateral ventricles" as προσθίαι κοιλίαι (De odoratus instrumento, II, 110). Cœlia is then certainly not "new."[5]

(5) These ancient usages are assumed to be familiar to most anatomists, who therefore should recognize the compounds with little or no hesitation.

(6) The compounds are so euphonious and so obviously correlated with the segmental names as to be learned and remembered easily even by general students and by such as may not have had a classical training.

(7) In recent times cœlia has been independently proposed by two anatomists, teachers as well as investigators.[6]

(8) It has been adopted more or less completely by four of the older American neurologists, C. K. Mills ('97) Henry F. Osborn ('82, '84, '88), E. C. Spitzka ('81, '84), and R. Ramsay Wright (84, '85); and unreservedly by eight of the younger, W. Browning, T. E. Clark, P. A. Fish, Mrs. S. P. Gage, O. D. Humphrey, B. F. Kingsbury, T. B. Stowell, and B. B. Stroud.

(9) Cœlia and its compounds are idionyms, *i. e.*, used in no other sense in normal vertebrate anatomy; hence, unlike ventriculus and its compounds, they are free of ambiguity. This argument is stated last because it seems to the committee of comparatively slight importance. Theoretically, of course, ventriculus (encephali) might be mistaken for ventriculus (cardiæ *s.* cordis). Practically, however, the context would almost infallibly obviate misapprehension. Hence the absolute unambiguity of cœlia and its compounds would not in itself justify its replacement of ventriculus. It would be a *causa vera*, but hardly a *causa sufficiens.*

The special arguments for the adoption of mesocœlia in advance of the other cœlian compounds are four:

(1) There is substantial agreement among anatomists in recognizing a definitive encephalic segment under the title mesencephalon; this cannot yet be said of the other regions.

(2) The cavity of this segment has no common ventricular designation like "quartus," "tertius," and "lateralis."

(3) The terms, ventriculus mesencephali or v. mesencephalicus (English, mesencephalic ventricle or cavity), are seldom used and are somewhat clumsy. Even less convenient are the phrases "aqueductus cerebri Sylvii" and "iter a tertio ad quartum ventriculum."

(4) The abbreviations, iter and aqueduct, while sufficiently descriptive of the adult conditions in man and other mammals, are quite inappropriate to the "vast and spacious cavity" of the embryonic mesencephalon, and to the lateral extensions in frogs, reptiles, and birds.

C.—*Names of bones and muscles identical with those in the B. N. A.*

In the B. N. A the special names under Osteologia and Myologia number about 885 and 350 respectively, total about 1235. Of these the committee recommend the adoption of 181 (120 of bones, 61 of muscles).

In the 17 cases of difference from the B. N. A. the committee believe the terms preferred by them will, upon due reflection, commend themselves to the large majority of English-speaking anatomists.

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[4] Both these names were rejected by the secretary of this committee in 1885, ("On two little known cerebral fissures, with suggestions as to fissural and gyral names," *Amer. Neurol. Trans.; Jour. Nerv. and Mental Disease*, XII: ab·t. in *Neurolog. Centralblatt*, December 15, 1885), the former as an eponym and as including the needlessly long word convolutio, and the latter as a trionym and because the enumeration of the three concentric frontal arches might quite as naturally begin with the "inferior" as with the "superior;" indeed, this was done by Meynert ("Psychiatry," Fig. 9); likewise by Leuret in the analogous case of the arches about Sylvian fissure of Carnivora.

[5] Dr. Achilles Rose, of New York City, informs the secretary of the committee that in the modern Greek treatise on anatomy by Παπαϊωάννου (Athens, 1888–90, 3 vols.) the encephalic cavities are designated by αἱ πλάγιαι κοιλίαι; τρίτη ἢ μέση κοιλία; τετάρτη κοιλία·

[6] The secretary of this committee, March, 1881; Prof. T. Jeffery Parker, of Otago, New Zealand, August, 1882; in addition to the three publications enumerated in the Bibliography of "Neural Terms," there should be named his two papers on Apteryx (*Philos. Trans.*, 1891 and 1892) and Parker and Haswell's "Zoology," 1897.

Columna vertebralis.[7]	Vertebræ cervicales.
Vertebræ thoracales.	Vertebræ lumbales.
Vertebræ sacrales.	Foramen intervertebrale.
Atlas.	Processus spinosus.
Vertebra prominens.	Promontorium.
Thorax.	Costæ.
Sternum.	Cavum thoracis.
Ossa cranii.	Os occipitale.
Condylus occipitalis.	
Os sphenoidale.	Sinus sphenoidalis.
Foramen opticum.	Foramen rotundum.
Foramen ovale.	Foramen spinosum.
Processus pterygoideus.	Fossa scaphoidea.
Canalis pterygoideus [Vidii].	Os temporale.
Pars mastoidea.	Processus mastoideus.
Foramen mastoideum.	Pars petrosa [Pyramis].
Canalis facialis [Fallopii].	Aquæductus vestibuli.
Incisura jugularis.	Fossa jugularis.
Processus styloideus.	Canalis caroticus.
Pars tympanica.	Squama temporalis.
Processus zygomaticus.	Fossa mandibularis.
Os parietale.	Os frontale.
Sinus frontalis.	Os ethmoidale.
Lamina cribrosa.	Crista galli.
Processus uncinatus.	Os lacrimale.
Os nasale.	Vomer
Maxilla.	Sinus maxillaris.
Tuber maxillare.	Processus alveolaris.
Os palatinum.	Mandibula.
Ramus mandibulæ.	Angulus mandibulæ.
Processus condyloideus.	Processus coronoideus.
Os hyoideum.	Cranium.
Calvaria.	Diploë.
Vertex.	Frons.
Occiput.	Palatum durum.
Orbita.	Sutura coronalis.
Sutura sagittalis.	Sutura lambdoidea.
Scapula.	Spina scapulæ.
Acromion.	Incisura scapulæ.
Processus coracoideus.	Clavicula.
Extremitas sternalis.	Extremitas acromialis.
Humerus.	Caput humeri.
Fossa olecrani.	Fossa coronoidea.
Fossa radialis.	Radius.
Processus styloideus.	Ulna.
Olecranon.	Processus coronoideus.
Processus styloideus.	Carpus.
Metacarpus.	Phalanges digitorum manus.
Ossa sesamoidea.	Os coxæ.
Foramen obturatum.	Acetabulum.
Fossa acetabuli.	Incisura acetabuli.
Fossa iliaca.	Os pubis.
Eminentia iliopectinea.	Pelvis.
Symphysis ossium pubis.	Arcus pubis.
Femur.	Caput femoris.
Trochanter major.	Trochanter minor.
Fossa trochanterica.	Linea aspera.
Tibia.	Fibula.
Patella.	Tarsus.
Metatarsus.	Phalanges digitorum pedis.
Ossa sesamoidea.	
Musculus trapezius.	M. levator scapulæ.
M. iliocostalis.	M. longissimus.
M. masseter.	M. temporalis.
M. digastricus.	M. stylohyoideus.
M. mylohyoideus.	M. geniohyoideus.
M. platysma.	M. sternohyoideus.
M. omohyoideus.	M. sternothyroideus.[8]
M. thyrohyoideus.[8]	
M. subclavius.	Diaphragma.
M. rectus abdominis.	M. pyramidalis.
M. cremaster.	Ligamentum inguinale [Pouparti]
M. deltoideus.	M. brachialis.
M. anconæus.	M. pronator teres.
M. flexor pollicis longus.	M. pronator quadratus.
M. brachioradialis [supinator longus].	
M. extensor digitorum communis.	M. supinator.
Musculi lumbricales.	Musculi interrossei dorsales.
Musculus iliacus.	M. tensor fasciæ latæ.
M. quadratus femoris.	M. sartorius.
M. quadriceps femoris.	M. rectus femoris.
M. vastus intermedius.	M. articularis genu.
M. biceps femoris.	M. semitendinosus.
M. semimembranosus.	M. extensor digitorum longus.
M. peronæus tertius.	M. peronæus longus.
M. peronæus brevis.	M. gastrocnemius.
M. soleus.	M. tendo calcaneus [Achillis].
M popliteus.	M. flexor digitorum longus.
M. flexor hallucis longus.	M. extensor digitorum brevis.
M. abductor hallucis.	M. adductor hallucis.
M. flexor digitorum brevis.	Musculi lumbricales.
Musculi interrossei dorsales.	Musculi interossei plantares.
Canalis adductorius [Hunteri].	

D.—*Names of bones and muscles unlike those in the B. N. A.*

Axis *for* epistropheus; Sacrum *for* os sacrum; Coccyx *for* os coccygis; Foramen magnum *for* foramen occipitale magnum; Os malæ[9] *for* os zygomaticum; Zygoma *for* arcus zygomaticus; Ossa membri thoracalis *for* ossa extremitatis superioris; Ossa membri pelvici *for* ossa extremitatis inferioris; Ilium *for* os ilium; Ischium *for* os ischii; Tuber ischii *for* tuber ischiadicum; Spina ischii *for* spina ischiadica; musculus latissimus *for* latissimus dorsi; M. sternomastoideus *for* sternocleidomastoideus; M. biceps *for* biceps brachii; M. triceps *for* triceps brachii; M. accessorius *for* quadratus plantæ.

B. G. Wilder, Secretary of the Committee on Anatomical Nomenclature.

D. S. Lamb, Secretary of the Association.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending March 4, 1899:—

Monday, February 27—Neurological Society.
Wednesday, March 1—College of Physicians.
Thursday, March 2—Obstetrical Society.

Vital statistics of Philadelphia for the week ending February 18, 1899:

Total mortality		527
Children under 5 years of age		161
Diseases.	Cases.	Deaths.
Pneumonia 88, congestion of the lungs 5		93
Pulmonary tuberculosis		50
Heart-disease 41, fatty degeneration of the heart 3, inflammation of the heart 3		47
Nephritis 38, uremia 7, kidney-disease 1		46
Typhoid fever	287	38
Marasmus 19, inanition 6, debility 4		29
Convulsions 21, epilepsy 4		25
Apoplexy 17, paralysis 7		24
Inflammation of the brain 17, congestion of the brain 2		19
Gastroenteritis		16
Diphtheria	57	16
Senility		15
Carcinoma 13, tumor 2		15
Casualties 7, burns and scalds 6		13
Bronchitis		12
Scarlet fever	13	1
Peritonitis 5, hepatic cirrhosis 4, cyanosis 4, asthma 2, diabetes 2, dropsy 2, influenza 2, appendicitis 2, insanity 2, jaundice 2, rheumatism 2, shock 2, suffocation 2, carbuncle 1, parturition 1, malaria 1, hernia 1, suicide 1, teething 1.		

College of Physicians of Philadelphia, Section on Gynecology.—At a meeting February 16, Dr. J. M. Baldy reported a case of **intrauterine sarcoma with myxematous degeneration** and dense bowel-adhesions. Dr. Baldy also showed a specimen of a **dermoid tumor** which was found adherent between the bladder and the uterus. A hysterectomy was done in this case because of the necessity which arose for doing a double oophorectomy. Both tubes were occluded and thickened. The patient was over 40 years of age, and the uterus was enlarged and adherent. A third specimen was of a **multilocular cyst of the left ovary,** and an elongated and occluded tube. The right ovary was healthy and the tube occluded. At the operation he resected the tube about one inch from the cornua. This case was also characterized by dense and universal adhesions.

Dr. B. C. Hirst read a paper entitled, **The clinical his-**

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[7] Read these names across and back.

[8] In the B. N. A. these names are sternothyreoideus and thyreohyoideus. While not questioning the etymologic accuracy of these forms the committee elieve that, as with chorioideus *versus* choroideus, the extra vowel and syl-bl are needless and not likely to be pronounced even if retained.

[9] As in John Bell's "Engravings," etc., First American from second London edition, Philadelphia, 1817, Part I, Plate I, Fig. i, p. 33.

tory of uterine polypi, and also reported **two Cesarean sections** and 9 operations for **extrauterine pregnancy,** and DR. H. L. WILLIAMS (guest) made a pathologic report of several of the specimens of polypi shown. DR. BALDY discussed, and DR. R. C. NORRIS spoke in reference to 8 cases of uterine polypi which had come under his care during the past 10 months. He urged the importance of a digital examination of the cervix and uterus and the value of the curet-forceps in these cases. In reference to the cases of Cesarean section he said that in a series of 1,200 cases of labor at the Preston Retreat he has not found it necessary to do Cesarean section, possibly due to the fact that he sees the cases early and that he has made a practice of inducing labor.

DR. HIRST showed a specimen of a **necrotic and gangrenous uterus removed for puerperal sepsis.** He said that he usually averages 4 hysterectomies for puerperal sepsis a year in addition to the other operations required in these cases. He has done 12 hysterectomies for puerperal sepsis, with one death, and urges the operation in all cases where the uterus is infected.

For a Pure Milk-Supply.—The following bill designed to secure a supply of pure milk has been drafted by Chief Milk-Inspector Byrnes, approved by the Board of Health of Philadelphia, and will be submitted to the Legislature of Pennsylvania for enactment:

SECTION 1. That whoever by himself or by his or her agent or employe sells, exchanges or delivers, or has in his or her custody or possession with intent to sell or exchange, or exposes or offers for sale as whole milk any milk that upon analysis shall be shown to contain less than twelve and fifty-hundredths (12.50) per centum of total solids by weight or less than nine (9) per centum of solids, exclusive of butter-fat, or the specific gravity of which is less than one and twenty-nine one-thousandths (1.029) at sixty degrees (60) Fahrenheit, or skim milk which shall be shown upon analysis to contain less than one and fifty-hundredths (1.50) per centum of butter-fat by weight, or less than nine (9) per centum of solids, exclusive of butter-fat, or evaporated or condensed milk containing less than twelve (12) per centum of butter-fat by weight or impure or unwholesome milk, shall for such offence be deemed guilty of a misdemeanor and upon conviction shall be fined fifty dollars for the first offence and one hundred dollars for the second or subsequent offence and be imprisoned for not less than fifteen nor more than thirty days, both or either at the discretion of the Court.

SEC. 2. That the addition of water or any other substance to milk is hereby declared an adulteration, and milk that is obtained from animals that are fed on distillery swill or upon any substance in a state of fermentation or rottenness or any substance of an unwholesome nature, or milk that has been exposed to or contaminated by the emanations, discharges, or exhalations from persons sick with any contagious disease by which the health or life of any person may be endangered, or milk from tubercular or otherwise sick or diseased or filthy cows, is hereby declared to be impure and unwholesome. Any person or persons offending against the provisions of this section shall be punished as provided in Section 1 of this Act.

SEC. 3. All Acts and parts of Acts inconsistent herewith are hereby repealed.

Pittsburg (Pa.) Academy of Medicine.—At a meeting February 6, DR. THEODORE DILLER read a paper on **Progressive muscular dystrophy.** In a few preliminary remarks the significance of the terms amyotrophy, neural atrophy and myopathy were explained, after which the following types of progressive muscular dystrophy were discussed: (*a*) pseudo-muscular hypertrophy; (*b*) juvenile type of Erb; (*c*) fascio-scapulo-humeral type of Landouzy-Déjérine; (*d*) atrophic or peroneal type. The distinguishing features of each were pointed out and illustrated by the exhibition of photographs. The pathologic conditions found in autopsies upon cases of this kind were mentioned. The disease should be distinguished from spinal muscular atrophy, multiple neuritis and poliomyelitis. In the matter of treatment but little is to be expected from drugs; outdoor life, massage and gymnastics are of considerable value. In late stages the orthopedic surgeon may be consulted with advantage. A man, 20 years old, a mill-worker, was presented as an example of the peroneal type of progressive muscular atrophy. This patient showed marked atrophy of the muscles of the thigh and calf, with fibrillary twitchings and contractures of the tendo-achillis. The knee-jerks were absent and the electric reactions altered. This type of case stands midway between spinal atrophy and the dystrophies. Treatment has been carried out as advocated above and considerable improvement obtained.

DR. E. H. SMALL presented a man of 33, a miner, whose case he reported to the academy some weeks ago, as an example of the efficiency of **thyroid therapy in myxedema.** He called attention to the fact that the patient states that his mother died of a similar disease, and that he has a sister who suffers from symptoms resembling his. The patient is now taking 5 grains of desiccated thyroid daily, and says that if he ceases to take it his wife notices an enlargement of his face in a few days. Before taking thyroid-gland he was compelled to wear shoes two sizes larger than he now wears with comfort. He bleeds readily, and the specific gravity of his urine is low. In discussion DR. DILLER spoke of the frequency of family types of disease, and thought that formerly cases of myxedema were possibly taken for chronic nephritis. DR. W. B. EWING spoke of a case in Dr. Gilchrist's clinic at Johns Hopkins Hospital presenting symptoms of alopecia areata. The disease progressed until myxedema was recognized. The patient recovered under administration of thyroid-gland.

Philadelphia County Medical Society.—At a meeting held February 8, DR. J. TORRANCE RUGH reported **two cases of unusual length of the umbilical cord with, in each case, five turns around the child's neck.** The cases occurred in the practice of Dr. J. W. Rugh, of New Alexandria, Pa., and are the only ones of the kind he has had in an experience of 48 years. The first case was that of a multipara who gave birth to a full-term female child after normal labor. The child had apparently been dead about 10 days, though the mother thought she had felt fetal movements 18 hours before labor began. At birth the cord was found encircling the child's neck 5 times and measured 54 inches in length. There were no signs of strangulation as a cause of death, but 10 days previously the mother had suffered severe shock by an accident to one of her children, and was a day or so in recovering from its effects, and this was thought the probable cause of the child's death. The second case was also that of a multipara, who after normal labor gave birth to a healthy male child. The cord encircled its neck 5 times and also measured 54 inches in length. Dr. Rugh stated that such cases are very infrequent. One case, however, has been reported in which the cord encircled the child's neck 8 times, and there are several cases on record in which the cord encircled the neck a less number of times.

DR. FREDERICK A. PACKARD reported a case of **embolism of the posterior tibial artery by an atheromatous plate.** The patient was a middle-aged woman, without heart disease, who suddenly complained of pain in the calf of the leg. In the course of two days the leg became cold, and later gangrenous, and was subsequently amputated just below the tubercle of the tibia by Dr. Hearn. Upon examination of the amputated leg the tibial artery was found occluded at its point of bifurcation by a white thrombus in which was lodged an atheromatous plate. The aorta was found the seat of extensive atheromatous disease, and was considered the source of the plate found in the thrombus. Dr. Packard dwelt upon the significance of pain in the diagnosis of such embolism, and upon the importance of recognizing that embolism may occur in the absence of any cardiac lesion. Dr. Hearn stated that had he known the location of the embolus he would have amputated above the knee, and thought that he would have thus avoided the subsequent gangrene of the flaps. He believed, in case of such sudden intense pain, it folly to wait for the formation of a line of demarcation; he advised that the leg be immediately amputated, and preferably above the knee. He detailed at length the various varieties of gangrene and the appropriate treatment of each. The president, Dr. S. Solis-Cohen, spoke of the rarity of this variety of gangrene, that is occurring independently of any cardiac lesion. He mentioned also intermittent claudication, which had been stated to be a sign preliminary to gangrene of the toes. Dr. Packard stated that his chief surprise had been the location of the embolus, and that the latter may not be inferred from the location of the pain, as in the case reported the chief pain had been in the heel. He expressed his wonder that gangrene in the elderly with extensive atheroma of the vessels is not more common than it is.

NEW YORK.

The Perils of Commuters.—The other evening a man, while returning to his home in the borough of Brooklyn during the "rush" hours, was carried along by the crowd that was surging into the cars on the Brooklyn bridge, with the result that he sustained a fracture of two of his ribs.

Worms—Not Rabies.—In the early part of this month, the eastern portion of Staten Island was treated to a hydrophobia scare, a number of persons having been bitten by a Newfoundland dog supposed to be suffering from rabies. After a post-mortem study, Dr. H. P. Loomis and his associates at the laboratory of the University announced that the dog's illness and excitement were due to the presence within him of over 60 thread-like worms, from 7 to 10 inches in ength.

Dr. Lange Decorated.—Dr. Frederick Lange, of New York City, who a few months ago presented to his alma mater, the University of Königsberg, Saxony, a completely quipped gymnasium, which, in his honor, has been called alaestra Albertina, was notified by cable recently that mperor William, in recognition of his services, had presented to him the Order of the Prussian Crown of the second ass. This is the highest insignia of honor ever conferred pon an American citizen by the German Emperor.

Increased Cost of Hospital Care.—At the annual eeting of the German Hospital and Dispensary, on Feb- ary 13, the trustees reported that the hospital had been lled upon to treat 97 more patients than in any previous ar, and that the number of days of hospital care had mounted to 4,562. They also called attention to the fact at a great item of expense was to be found in the increas- g fastidiousness of even the simplest people applying for re, together with the more exacting demands of modern eatment and nursing.

A Christian Scientist Censured.—On February 8, Henry Reynolds, a wealthy retired merchant, died suddenly at the age of 65 years. He had refused to summon a physician, preferring the ministrations of a Christian Scientist, named John L. Roberts, living on the upper west side of New York City. The coroner's jury made a searching investigation, and ascertained that death resulted from heart-failure and the rupture of a hepatic abscess into the abdominal cavity. Although the evidence failed to show that Roberts had at any time prescribed for the sick man, the jury censured him for neglecting to advise the family of the deceased to call in a practising physician.

We would respectfully commend to the attention of the New York Board of Health the dangers to which **the traveling public** is subjected at this season of the year by reason of the penuriousness of the street-railways, even in the great borough of Manhattan. In these days of bitter cold and blinding storms, it is no uncommon thing to see crowds of men and women waiting for cars at the various transfer-points without any shelter whatever. We also understand that some of the new electric cars, which were kept comfortably warm last winter, have been run a great part of the present winter with little or no heat. As the health-department waged a successful crusade last spring against the car companies for persisting in running only open cars on chilly days and evenings, we trust it will again champion the cause of public health in an equally practical way.

A Military Fake.—It takes but a little in these days to arouse interest in anyone who claims to have been in the late war. With the object of profiting by the present temper of the people, a certain young man, who gives his name as George Baker, and claims to have been a color-bearer in the Seventeenth Infantry before San Juan, is victimizing the well-to-do residents of West End avenue, New York City. He claims to have been wounded on San Juan Hill, and afterward weakened by fever, so that he is now unable to go to his home in Germantown, Pa. His favorite plan is to stagger and fall on the sidewalk in front of some handsome residence, or in sight of some sympathetic ladies. In this way he has received gifts of money and clothes, but he never seems able to reach the train for Philadelphia. Among his recent victims was a physician, who now states that Baker actually has heart-disease, which he is endeavoring to turn to account in this manner.

Women Criminals and Their Responsibility.—The Medico-Legal Society, at its meeting on February 15, listened to a paper by Dr. T. D. Crothers, of Hartford, Conn., on **psychical palsy.** He took the position that every act committed when the reason failed to control or point out the consequences was the result of psychical palsy, and that, therefore, the treatment of criminals should be abundantly tempered with mercy. As an illustration of what he meant he cited the conduct of Rear Admiral Schley for a few days in the last week of May, 1898. He pointed out that this naval commander had previously been clear-headed and cool, and that subsequently he had shown himself to be both quick-witted and capable, yet during the period referred to Dr. Crothers stated that Schley "seemed to be irresponsible and incapable of doing what good judgment demanded." In the discussion, the text for which was the impending execution of Martha Place, the murderess, Dr. J. Mount Bleyer declared it to be his opinion that capital punishment was one of the greatest crimes that could be committed against public morality, and that while, in the abstract, sex should not be recognized as an excuse for crime, nevertheless he felt sure that those who had scientifically studied the female organism would feel disposed to extend special clemency to women. Personally, he believed that women tried for crimes should be entitled to juries composed of an equal number of women and men.

Adulteration of Food.—The bill introduced by Senator Ambler into the New York Legislature to provide for a general investigation of all food-adulterations is the outcome of the investigations of the chemists of the State Department of Agriculture. That department now has in its possession 125 samples which constitute an excellent object-lesson. Among other exhibits are half a dozen samples of counterfeit coffee-beans. It used to be thought that unground coffee was free from adulteration, but this is no longer true, the making of artificial coffee-beans having become a distinct line of business. The artificial beans are usually made of dough, pressed into the shape of the coffee-bean, and then baked or stained. So perfect is the deception that it is stated that an admixture of from 50 to 75% of these "dough" beans with regular coffee is likely to escape detection. Flour is often adulterated with plaster of Paris, white clay or talc. The chemists of the Agricultural Department also exhibit a strip of paraffin obtained from a sample of butter, and some so-called tomato catsup made of ground pumpkin, flavored with an acid.

The Mercantile Exchange, of New York, has adopted resolutions unanimously indorsing Senator Ambler's bill to prevent the use of artificial preservatives in dairy-products, and the bill has also received the indorsement of the State Grange and Farmers' Congress.

A Physician's Gift to the Senate.—Dr. Octavius A. White, a retired physician of New York City, has just presented to the United States Senate three paintings of scenes in the Revolutionary War. They are from the brush of his father, John Blake White, whose namesake and grandson is at present a prominent physician in active practice in New York City. One of the paintings represents General Marion in the Pedee swamp offering a share of his meager rations to a British officer who had visited the camp to arrange an exchange of prisoners. The second picture represents Jasper and Newton, two of Marion's men, in their unaided rescue of American prisoners who were being conducted by a strong and heavily armed squad of British soldiers to the prison-camp in Savannah. The third painting shows Mrs. Motte, of South Carolina, presenting to Generals Marion and "Light Horse Harry" Lee burning arrows with which to destroy her mansion, and so dislodge the British. The artist, John Blake White, was born near Eutaw Springs, S. C., September 2, 1781, and died on August 24, 1859, in Charleston, where he had long successfully practised law. As both he and his son, Dr. White, were natives of South Carolina, it was thought peculiarly appropriate to make the offer to the Senate through Senator Tillman. The offer has been accepted, and provision made for properly hanging these works of art in the Senate wing of the Capitol.

New York Academy of Medicine.—At the meeting held February 16, Dr. Herman M. Biggs read a paper on **the serum-treatment and its results.** He said that from January 1, 1895, to the beginning of the present year, the records of the health department showed that 3,073 cases of diphtheria had been treated with antitoxin, with 429 deaths, and an average mortality of 13.9%. If 172 cases that were practically moribund at the time of the first injection were deducted, the mortality would be only 8.8%. Experience had shown that the best results were obtained from an initial dose of from 2,500 to 4,000 units, and that if the present high-grade serum were employed, there would be comparatively few rashes. In these statistics no cases had been included in which the diagnosis of false diphtheria had been made by bacteriologic examination. In no instance had serious permanent damage, properly attributable to the antitoxin, been observed. The serum had been used for immunizing purposes on 5,108 persons, and of this number, 26 cases of diphtheria had developed within the first 24 hours, 20 cases between this time and the end of 30 days, and 2 cases after 30 days. At the present time, only about 15 or 20 minims of the high-grade serum need be used for immunization, hence, the treatment could not be considered especially objectionable, and the results fully justified a more general adoption of the serum for this purpose. Ordinarily the protection lasted for 3 or 4 weeks at least. The inspectors had treated 826 cases of laryngeal diphtheria, with a mortality of 26.5%; and in 204 of the cases in which intubation had been done, the mortality had been 36%. There had been, Dr. Biggs said, a steady decrease in the number of cases of diphtheria in localities in which antitoxin had been freely used. Thus, in New York City, in 1894, there had been 2,874 deaths from true diphtheria as compared with 923 in 1898. In the Paris hospitals there had been treated in 1894 2,355 cases, with a mortality of 35.5% whereas in 1897, there had been 1,683 cases with a mortality of 15%. It was claimed that in Chicago, as a result of the antitoxin-treatment, there had been a clear gain of 1,100 lives in two years.

Speaking of the use of serum-therapy in other diseases, Dr. Biggs said that there was no satisfactory evidence that it had accomplished much in leprosy and tuberculosis, but in rabies, tetanus, and diphtheria in the human being, and in rinderpest and anthrax in animals, it had proved very beneficial. It was also probable that the antivenomous serum was capable of affording immunity from snake-venom. There was also strong evidence that the serum-treatment of cholera and the bubonic plague was of value. The serum-treatment of typhoid fever and of pneumonia was, however, still in the experimental stage. In the discussion Dr. W. R. Pryor spoke of the use of antistreptococcic serum in puerperal fever. He said that many of the statistics were wholly unreliable, but it seemed pretty clear that the serum was both harmless and ineffective, and that it might indirectly lead to harmful results by a neglect of recognized surgical procedures. Dr. W. P. Northrup presented the statistics of the New York Foundling Asylum for the year 1898, viz: there had been 67 cases of pharyngeal diphtheria, with 4 deaths; 24 cases of laryngeal, nasal, and pharyngeal diphtheria, with 9 deaths, or 91 cases with a mortality of 14%.

Buffalo Academy of Medicine—Section on Obstetrics.—At a regular meeting held January 31, Dr. C. A. Clements read a paper entitled **Report of 171 consecutive obstetric cases,** in which he stated that in a large number the patient had waited until the last moment before engaging an accoucheur, often sending a child to call him at the time labor was on, and that accordingly he adopted the following as his routine procedure; first washing with soap and hot water, then mustard, cornmeal and water, and then in cases where he goes prepared, in 1 to 20 carbolic solution he washes the vulva with hot soap and water and, if possible with the carbolic solution, after which he makes his exami nations, which are as few as possible. Believing in the high antiseptic value of the secretions of the parturient canal he uses no douching either antepartum or postpartum, unless especially indicated by foul discharges or elevated temperature; even in instrumentation he does not douche unless severe manipulation has been required. In the 171 cases tabulated and treated as outlined he had no deaths and only two cases of sepsis, although the larger number were in anything but aseptic environment, being among the poorer classes; of these, 19 cases were instrumental, in only 4 of which a douche was used. In only 4 cases was ergot administered, he using pressure with the hand over the fundus for at least one hour after the uterus is empty, after the child is born; he then arranges a pad under the abdominal band to continue the pressure. He allows his parturients to be lifted upon the vessel for the evacuation of both bowel and bladder immediately following labor if necessary or unless contraindicated. He believes the routine douching by midwives an extremely bad practice and the cause of much sepsis and subsequent female trouble. In discussion Dr. Frederick stated that he never uses a douche unless especially indicated, always allows the mother to use vessel from the beginning, and he also feeds well and advises personal hygiene as in any convalescent case; he has never had a case of eclampsia or sepsis in his private practice; he takes especial pains to disinfect, avoids bad surgical cases at about the time he expects a confinement and makes as few vaginal examinations as possible. Dr. John Walsh stated that in a series of about 3,000 cases he had no deaths from sepsis and he seldom used a syringe, but was always careful about his hands. He related cases of women having 15, 16, and 18 children who never in all their lives used a syringe and yet they never had septic trouble; he believes that the syringe in the hands of midwives does an untold amount of harm and fills many a grave; he uses the forceps in a large percentage of his cases without bad results and without douches. Dr. Henderson believes it impossible to disinfect the hands, and consequently vaginal examinations should be very few. Dr. Schroeder, from an extended experience in difficult cases with midwives as attendants, believes that internal examinations are practically unnecessary, and that external examinations give all the knowledge one requires. Dr. Dwyer, in a series of 400 cases, has had no sepsis, although he uses the forceps freely he douches after instrumenting only; he gives especial care to preparation of the hands. Dr. Congdon can see no harm in reasonably free examinations if carried out under proper antiseptic precautions; he believes too much manipulation over tubes and ovaries, if seats of old disease, may light up the process anew with disastrous consequences.

Dr. C. C. Frederick read a paper upon a case of **Melæna neonatorum**, and after reviewing the present literature on cause, prognosis, and treatment, detailed the following case:

Female child, 8½ pounds. Father and mother both healthy. First child. Mother 28 years old. Ten hours after perfectly normal delivery; labor 14 hours in duration. The child vomited blood, and this was soon followed by a bloody stool. Hemorrhage increased for six hours before he saw it, and the child was then pulseless, pale, gasping. He gave normal salt-solution in enema of 6 ounces, and repeated often. Gave strychnia $\frac{1}{250}$ every 2 hours, morphia $\frac{1}{150}$ every 2 to 3 hours, q. s. to relieve restlessness. Also gave gelatin-solution, 3%, ½ teaspoonful every ½ hour. Child did not vomit blood after giving gelatin, stools were bloody but smaller for 24 hours; no evidence of further bleeding as child's respiration became better and pulse at wrist discernible after 6 hours. Temperature rose in 36 hours, showing probable intestinal toxemia, when he gave castor-oil, and three copious evacuations of decomposing blood followed. The temperature went down and child went to breast in 48 hours. Did the gelatin do it?

In discussion, Dr. Pomeroy thinks this condition should be called morbus hæmorrhagica neonatorum, as being a more liberal interpretation of the morbid anatomy. Dr. Henderson referred to the use of gelatin in treatment of aneurysm, and he thought that the condition might be due to a disordered internal secretion. Dr. Schroeder thinks that nothing can be done for cases properly classed as melæna neonatorum, that the pathology is obscure and the prognosis hopeless.

Dr. B. G. Long reported a case of **pressure-paralysis** due to pressure **from gravid uterus.** He had confined the woman four times, in three the vertex presented and a paralysis of the left leg existed for a period of time up to six weeks following labor; the last confinement was a breech-presentation and no paralysis followed.

Dr. Dwyer reported a case of **vaginismus** in which spasm of sphincter seemed to be due to erosions at base of hymen, as cure of these corrected the trouble.

Dr. Frederick reported 2 cases of **impregnation with unruptured hymen,** one seen at full term, the other at four months; in both cases no physiologic coitus had taken place.

Buffalo Academy of Medicine—Surgical Section.—At a meeting February 7, Dr. B. H. Grove read a paper upon **Stricture of the lacrimal duct, its treatment by electrolysis and large probes,** in which he stated that the lacrimal apparatus in its normal condition is one of nature's interesting arrangements for supply and waste, that the secreting portion is but seldom the seat of disease, and that the excretory or drainage apparatus of the eye is very liable to disease; all portions may be affected, but the symptom common to all is epiphora or overflowing of the tears. Women suffer more often than men in the proportion of two or three to one. The lacrimal duct bears a close relationship, both anatomically and pathologically, to the nasal cavity. Since the nasal passages are so often subject to acute and chronic inflammations it must follow that lacrimal affections are frequent. The constant epiphora is annoying and may give rise to conjunctival irritation, but it is the dacryocystitis which demands especial attention. In some cases depending upon traumatism, upon exposure to cold, or upon the entrance of microorganisms into the sac, decided constitutional disturbances occur and the external appearances resemble erysipelas. To correct the effects of stricture of the nasal duct three methods have been proposed: (1) Obliteration of the natural passages; (2) forcing a new passage into the nose; (3) restoration of the nasal duct. The dilatation of the natural passages is and has been the plan of treatment for some time; however, the results among ophthalmologists have been by no means satisfactory and are due as a rule to the use of probes of too small a diameter. Dr. Theobald, of Baltimore, has taught the necessity of using large probes. His set of probes comprises 16 numbers, the smallest 0.25 mm. and the largest 4 mm. in diameter. Dr. Grove is certain that his instructions are not generally followed, but his experience is that they are in the main worthy of support. The great objection to the use of these large probes is the pain necessarily produced in passing them, consequently many patients object to a sufficiently long course of treatment. As a decided aid he urges the use of electricity; his attention was called to this method 6 years ago by its use in urethral strictures; since then he has employed it in over 100 cases and speaks of it only with praise. Recent textbooks on the eye either do not mention this treatment or simply refer to it as worthy of trial. He stated that the electrolytic or decomposing property of the galvanic current could be taken advantage of to produce a certain localized chemic action; as the negative pole gathers about it hydrogen and alkalies, and as these latter have a softening influence on the tissues with which they come in contact, so electrolysis has a beneficial action in dilating and overcoming strictures. He argues that in the first place no special appliances in the way of probes are necessary; that the beginning, after opening up the lower canaliculus well into the sac, the treatment is to pass a medium-sized probe, say a Bowman's or Theobald's No. 4 to 6, through the nasal duct, leave this probe in the canal for 15 to 20 minutes and then remove it under the influence of the electric current. He uses an ordinary electrolytic needle-holder fastened to the negative pole and passes its arms over the protruding end of the probe; the positive pole or electrode covered with the moistened sponge he applies to the corresponding cheek or along the side of the nose; his assistant now turns on the rheostat until 2 to 5 milliamperes are registered (decrease the current if at the positive pole there is an unpleasant sensation of burning or if flashes of light are experienced), and after remaining in situ 15 or 20 minutes, although the probe may seem firmly grasped, yet by aid of the electricity it can be removed with ease and without pain to the patient. As it becomes necessary he increases the size of the probes and uses the electricity both during the introduction and the withdrawal. He states that it is surprising to the surgeon and very acceptable to the patient when in those cases where the probe seems to be butting against any yielding tissue and the pain is necessarily severe, by the electrolytic action gentle pressure is sufficient in most cases to cause the probe to slip through the firm fibrous tissue. The use of electricity he believes not only assists materially in passing the probes and thus dilating the stricture, but it seems to have a healing and beneficial influence upon the mucous membrane; in many cases with its aid it does not seem necessary to make use of such large probes as with their use alone; in fact, his experience is that Theobald's probe No. 12, with the aid of electrolysis, accomplishes as much in the final results as the use of No. 16 unaided; the pain and discomfort, moreover, which causes so many patients to become discouraged, is, without any question, considerably lessened. In the beginning of the treatment the probes should be passed 2 or 3 times weekly for about 4 weeks, afterward the time between visits can be extended as seems best for the respective patients.

In discussion, Dr. E. G. Starr stated that his experience was corroborative, but that he thought the effect produced entirely by the pressure exerted by the evolved hydrogen, which relatively was immensely great, and that absorption of either exudate or tissue did not occur; the effect was startling in its rapidity and the action self-selecting. Dr. Hubbel had used electricity but little, as he had no faith in permanent dilating effect of electric current, and he called attention to refractive errors in the production of lacrimation. Dr. Howe also called attention to refractive errors, and related cases to illustrate. Dr. Blaauw stated that he believed properly-sized tubes properly passed would accomplish as much. Dr. Hertwig thought little could be done by any treatment if tissue of duct had atrophied, but if a stricture, at one or more points, the injury by passing probe might unite membrane above and below the stricture and thus correct it.

Dr. William C. Phelps read a paper upon **the treatment of hernia** in which he stated that many cases could be cured by other means than by the knife; that what the people wanted was a cure, and they cared little about the means used; that reducing a hernia by taxis and the fitting of a truss so that it meets the indications often requires as much, if not more, surgical skill than operation with the knife. Dr. Phelps believes that hernias are due to defects in the construction of the "human form divine," that our evolution from a quadrupedal to a bipedal and erect posture allows peculiar continuous pressure of the gut, hung loosely, against the lower segment of the abdomen where pockets are found and where by descent of the testes an opening poorly "stoppered" is ever present. In animals hernia is seldom, if ever, found, although descent of the testes and the anatomic construction is similar to that of man. He emphasized the absolute necessity of making correct diagnosis of the variety present, that treatment other than the knife, as by taxis, should not aggravate but relieve, and called attention to the superior diagnostic advantage of the pubic spine in separating femoral from inguinal hernias even in very stout individuals. Speaking of direct hernias he says: "My experience is that both forms are held by a truss with great difficulty and with much distress to the patient, so that I always advise section, especially if strangulated, for their reduction, and an attempt at their radical cure." He called the general practitioner's attention to the fact that hernias may exist in patients and produce obstruction and even sudden griping pains and yet be so small as to escape notice; to the fact that in young children, especially at the umbilicus, this condition may produce severe suffering which yields to appropriate apparatus. Dr. Phelps expresses himself as strong in the opinion that in infancy and old age taxis with a proper retaining apparatus is the best for all hernias that can be reduced; that during middle life the choice of methods rests with the surgeon and the patient, although taxis should precede operation, as the sooner the gut is returned to the abdomen the better; that if called in to a case where operation was not desirable he would try taxis first, then if he failed, the same under anesthesia; if failure, then in Trendelenburg's position, always mindful of reversed peristalsis; if failure, the operation the only thing left. As hernia is present in about one out of every 20 individuals, the medical man should have well-defined ideas of procedure in each form. Dr. Chauncy P. Smith, in discussion, reviewed the statistics and called attention to the increased ratio with age of failures in cure of hernia, and consequently the importance of early recognition and proper treatment. He related a case of a bitch now pregnant that also has a large inguinal hernia.

Dr. M. Hertwig presented a case of **autographism.**

Buffalo Academy of Medicine—Section on Medicine.—At a meeting, February 14, Dr. Eli H. Long addressed the section upon **The present status of pharmacy and its possible improvement.** The writer sought cause for the present glaring evils in pharmacy in the fact that the average pharmacist is guided by commercial aims rather than professional, the result of training in a business environment without the broadening influence of college training. He argued that the best thought in pharmacy is rising above this and he pointed out hopeful signs for the future in the growth of pharmacal journalism and the great increase in colleges of pharmacy. He believes that pharmacy and medicine should not be too widely separated; as medicine needs the help of pharmacy, so the latter should be able to look to medicine for her ideals and standards. The present excellent revisions of the United States Pharmacopeia were cited as showing the great benefit to come from a cooperation of the two professions. He stated that legislation emanating from pharmacal sources has greatly restricted the practice of pharmacy during the past 20 years, mainly by requiring an examination in order to license; that 39 States have enacted laws governing pharmacy in that time. He made a plea for education as the chief remedy for the commercialism of present-day pharmacy and for legislation requiring the pharmacist to be a graduate of a college of pharmacy, attendance at college to-day being purely voluntary; the earlier the college course is taken after a certain amount of experience the better, as the early development of the professional spirit was thereby the more likely gained; with the pharmacist of to-day lacking a professional training the features of the average store are abominable. In support of the plea requiring a college training the writer declared that the trained men were not those usually engaged in counter-prescribing and substituting. He believes the terms "commercial" and "professional" describe what pharmacy largely is and what it should be. He lamented the rapid decline in independent prescribing by physicians, and stated that prescribing was likely to become a lost art unless medical colleges began to educate better in that branch, and that to this decline could be ascribed to a degree the extensive use of proprietary preparations with a corresponding stimulus to the commercial manufacturer. The pharmacist is brought into competition with the tablet-manufacturer and his ubiquitous agent, and has to endure the discipline of the physician's criticisms and to meet his whims without recourse. The educated pharmacist may justly feel some contempt for the doctor who is ignorant of the resources of the Pharmacopeia, but who calls for the many new proprietary combinations which he often experiments with at the druggist's expense by ordering even expensive new preparations but once and leaving thereby dead stock on the pharmacist's hands. The essayist believes the medical profession should encourage the professional and discourage the purely commercial in pharmacy, and by their aid every city should have a few first-class prescription-pharmacies with the objectionable commercial features eliminated. He believes that the physician should be well acquainted with the resources and preparations of the U. S. Pharmacopeia and the National Formulary. In discussion **Dr. Allen A. Jones** thought that Dr. Long had made for pharmacy a high status, and that it to-day occupied a dignified position due to years of marked progress. He recalled the times when doctors did their own compounding, when they understood the remedies and their effects because they handled them from crude drug to finished product. He believes that to-day one of the great needs of the medical profession is a more intimate acquaintance with pharmaceutic preparations; that the doctor should see, handle, taste, smell, and mix preparations n order that prescribing might be better done; that the prescription-department of drug-stores should be a separate ffair, apart from the commercial necessities of the busiess, and in the care of trained men who should not be ompelled to attend to the needs of the other departments, and that only the best drugs be used in the compounding of prescriptions. **Mr. J. A. Lockie** compared the commercial with the professional end of the business and said that the proper support of the physician would soon take every patented and proprietary article from the druggist's shelves. He analyzed 665 prescriptions sent him and showed that 304 were for some patent or proprietary remedy, while 156 of the remainder called for tablets, triturates, compressed tablets or some special make of fluid-extract. He severely criticised the effect of the statements of the drummer for the preparation-manufacturer and also the commission on prescriptions often expected by the doctor. **Dr. H. C. Buswell** severely criticised the pharmacist for counter-prescribing, and for substituting, and spoke of the wily ways of the manufacturer who blows his name and that of the preparation into the original package so that the patient is educated even though the label is removed. He spoke of the breach of confidence in giving information concerning prescriptions to patients or their friends. **Mr. George Reimann** commended the paper, and thought that a careful adherence to its suggestions would bring about harmony where discord now exists. **Dr. Willis G. Gregory** said that he was a practising pharmacist, and that he looked upon the physician as a law unto himself; that he had a perfect right to do whatever to him seemed wise in the care of the sick and for the relief of suffering. He believed that analogous to political liberty, eternal thoughtfulness was the price of professional liberty, and that while he conceded perfect liberty to the doctor to use anything and everything, he believed that he was controlled by the law of responsibility, and that as his privileges are large, so he should exercise them with thoughtfulness and with regard for all concerned—himself, his patient, the public and the pharmacist. He believes the causes of substitution to be avarice, inaccurate prescribing, *i. e.*, "liquor pepsini" when "essence" was wanted, and the enormous prescribing of proprietary articles, and although not justified, yet they make the temptation great. He believes that demand is a prime cause for counter-prescribing; the druggist must do something to satisfy his customers, and even with the most conscientious, there are times when you cannot reason with or talk to a purchaser; you must either do what they want or turn them away, possibly incensed and never to return. Again, retaliation may be a cause, no matter how unjustifiable. He believes that commercialism is rampant in many stores, where self-medication is stimulated while catering to the doctor; but here again the doctor must decide if he will or will not support such an institution. He concedes that pharmacy is two sided, that it certainly has professional elements in it, and it unquestionably has commercial elements in it. He thinks that the situation can never be changed unless it becomes all commercial, as there is little prospect of its ever becoming all professional; and yet everywhere are found conscientious pharmacists, who are trying to do the right thing by all concerned. In the United States there are some 40,000 drug-stores, engaging the time of some 80,000 men, who, with their families, represent a considerable people, while the capitalization of the retail business is near $100,000,000. He asked if this large element in the civilization of this country, with its political, social and medical influence, be abandoned? Or shall that in it which is worth encouraging be encouraged, and that be discouraged which is unworthy? He called attention to the effort on the part of pharmacy to elevate itself toward the plane of a profession, as shown by its journals and its colleges, and by its securing the enactment of beneficial laws. Speaking of proprietary prescribing, he stated that his statistics compiled by tabulating the first 100 prescriptions for each of the last 6 months of 1898 showed 40% of proprietary articles, that 123 different preparations were ordered, of which less than one dozen were prescribed more than 5 times each, and that he believed that no harm could come of calling the doctor's attention to this one of the many perplexities of the pharmacist. Dr. Edmund Blaauw stated that in Holland no druggist does anything else than the dispensing or making-up of prescriptions. On the other hand, the physician never dispenses. Every physician who takes the State examination goes through a course in pharmacy, practical as well as theoretical, so that if he settles in a place where there is no pharmacy, he has the right to open a drug-store and put up prescriptions. In Germany the number of druggists is limited, and their appointment is in the hands of the government, which also regulates the price of the drugs.

NEW ENGLAND.

The new surgical amphitheater of the Boston City Hospital was formally opened February 15. It is thoroughly modern in every respect, being fully equipped, and has a seating capacity of 200.

Warning.—We wish to disclaim any responsibility for the acts or representations of a Mr. A. W. Orris, whom we are advised has secured payment for subscriptions to the Philadelphia Medical Journal from New Hampshire physicians by representing himself as our agent. Mr. Orris is not authorized to represent this Journal in any capacity.

CHICAGO AND WESTERN STATES.

Dr. W. W. Grant, of Denver, has been appointed by Governor Thomas, Surgeon General of the National Guard of Colorado.

Rush Medical College, Chicago.—A series of lectures on teratology is being delivered to the students by Dr. Henry F. Lewis, under the auspices of the department of pathology.

Chicago Clinical School.—Dr. J. R. Pennington has been elected professor of rectal diseases in the Chicago Clinical School, formerly the West Side Post-Graduate School and Polyclinic.

St. Louis Medical Society of Missouri.—At a meeting February 18, the following was the scientific program: The Surgical Treatment of Trifacial Neuralgia with Report of Case of Removal of the Gasserian Ganglion, Dr. N. B. Carson; Report of a Case of the Removal of the Gasserian Ganglion, Dr. H. H. Mudd; Pathology of Trifacial Neuralgia, with Microscopic Demonstration on the Screen of the Normal and diseased Gasserian Ganglion, Dr. Ludwig Bremer.

Toledo (Ohio) Hospital.—The staff officers for 1899 are as follows: Chief of staff, Dr. Lewis H. Bodman; vice-chief, Dr. James A. Duncan; secretary, Dr. C. William Newton; ophthalmologists and otologists, Drs. Otto Landman, W. H. Snyder, and John H. Curry (consulting); laryngologists, Drs. John North and Thomas Hubbard, Dr. L. B. Lockard (consulting); gynecologists, Drs. W. H. Gundrum and C. A. Kirkley (consulting). Dr. Lawrence C. Grosh has been appointed one of the visiting physicians.

Cleveland (Ohio) Medical Society.—According to the *Cleveland Journal of Medicine*, the annual banquet of the Society was held January 20. The retiring President, Dr. A. F. House, gave some "Reminiscences," while the incoming President, Dr. Howard S. Straight, spoke of "Our Aims." Dr. W. A. Knowlton responded to the toast "The Ladies," and Col. Allen T. Brinsmade to that of "The Lawyer and Doctor." Dr. Dudley P. Allen spoke of "Professional Ideals," making a forceful plea for harmony in professional undertakings and for unity of purpose in raising the standard of knowledge and promoting the true interests of the profession of Cleveland. Dr. Thomas Charles Martin responded to a toast apropos of the following lines from Burns:

> "Withdraw yourself as well as ye can,
> Frae curious dissection,
> But keek thro' every ither man,
> Wi' crafty, sly inspection."

Denver Clinical and Pathological Society.—At a meeting, February 10, Dr. E. R. Axtell exhibited specimens as follows: (1) A large **enterolith,** which completely occluded the intestinal canal, causing death. (2) A tumor, probably **glioma of the left cerebellar hemisphere.** The patient had been treated in another city for hysteria, and had submitted to a gynecologic operation for the relief of her nervous symptoms. Dr. Eskridge, of Denver, correctly diagnosed the case, and accurately located the tumor during the life of the patient. (3) A dissecting aortic **aneurysm** which ruptured into the pericardium.

Dr. C. B. Lyman exhibited: (1) A **kidney weighing 16 ounces** removed from a patient with left femoral thrombosis following typhoid fever. (2) An **osteoma** removed from the thigh-muscles. Dr. Leonard Freeman reported a case of **movable kidney** where the pain closely resembled that of stone in the kidney, except that the pain disappeared during pregnancy. The exact diagnosis was not made until recourse was had to exploratory incision. Dr. F. H. McNaught reported a case of **vaccination in a man previously syphilitic,** in which the sore had the characteristics of a chancre, the condition yielding to antisyphilitic treatment. Dr. C. B. Lyman reported a case of **floating kidney** with the symptoms of chronic appendicitis, complete relief following replacement by manipulation without operation.

Dr. S. D. Hopkins reported a case of **extra-dural hemorrhage** in the lumbar region. Dr. Robert Levy reported three cases of **severe nose-bleed,** the first two in patients with hemophilia, resulting fatally; the other in a patient with beginning hepatic cirrhosis. He called attention to the value of gelatin-injections in controlling hemorrhage, and exhibited a new method of fastening the plug in the posterior nares. He also reported a case of removal of a pin which had passed entirely through the mucous membrane of the arytenoid cartilage. On removing it, such force was necessary as to bend the pin greatly, and a portion of the mucous membrane was torn away in removal. Dr. Edward Jackson reported a case of **malarial keratitis** in an army officer recently returned from the tropics. Dr. A. S. Lobingier reported three cases of **carcinoma of the breast** with Paget's eczema of the nipple. Dr. R. B. Freeman reported a case of **acute tuberculosis,** with transitory dark-brown pigmentation on the backs of the hands. Dr. C. K. Fleming reported a case of **ruptured ovarian tube,** the seat of rupture being at the junction of the tube and the uterus. No positive evidence of gestation was discovered, though it was probably a case of extrauterine pregnancy.

Dr. G. E. Tyler reported: (1) A case of **lobar pneumonia** in an adult, with respirations of 76 to 80, with recovery. (2) A case of **la grippe,** with profuse fetid nasal secretion and extensive glandular swelling and a mottled skin-eruption. Examination for the diphtheria-bacillus was negative.

Chicago Medical Society.—At a meeting February 15, Dr. J. O. Nelson read a paper upon **Filaria sanguinis hominis.** He said: The occurrence of a case originating in a man always a resident of the United States, never having been to any foreign country, makes the question of etiology of peculiar interest. The patient having been a sufferer from malaria, and a resident of a mosquito-infected locality, adds to this interest, and naturally brings up the query, Why, if one person be so infected, should not others be infected from the same source?

History.—Mr. R., aged 66, resident of Indiana, but up to the age of 30 resident of Ohio, was subject to intermittent malarial fever of quite severe type; for the past 8 or 10 years he has been comparatively free from it. About 10 years ago he drank from an infected well, and was immediately attacked with vomiting. The water was found to contain dead organic material. He continued in ordinary good health up to 1898, but early in the year he had an attack of jaundice, when the liver was enlarged and tender, icterus general over whole body, and he had impetigo, but not especially marked. In the early fall of this year he had a distressing impetigo and also suffered from darting knife-like pains occurring in any part of body or extremities. He manifests a drowsy condition, which is quite unnatural, as he is a very active man for his age. Hyperesthesia of the skin occurred at this time. The patient is a man of exemplary habits.

Physical Examination.—No specific history. Heart and lungs were normal, no glandular enlargement except on the ankles, the left one having two well-marked enlargements, tending to break down; the right periosteum was thickened, and disclosed tendency to a tumor; lymphatics enlarged, slightly over right malleolus. Urine was much diminished, beginning at some time during last fall. He had hematuria about November 1. October 21 he first came to me. The urine at this time was milky, in fact did not look like urine; it threw down a flocculent white precipitate upon standing. Specific gravity 1020, alkaline, no offensive odor. Looking through the test-tube contents an innumerable quantity of very short black threads were seen, too small to be cotton, and all seemingly of same length. Under the microscope these proved to be worms, whose motion was continuous, describing circles and curves, but no efforts at progression. A fine dark line runs through the length of the worm.

No full-grown females have yet been discovered. The organisms in the urine are the embryos of filaria sanguinis hominis, about $\frac{1}{100}$ of an inch in length. The blood has been examined both in the night and daytime, but as yet Dr. Nelson has been unable to find the organism in the circulating medium.

Dr. J. Holinger read a paper upon the **Technic of operation for adenoid, with skiagraphs.** He said: A certain number of adenoid operations do not show the same favorable results as others; first, because the same conditions, poor ventilation and so forth, prevail after as well as before operation; second, because the present technic often makes a complete operation impossible on account of the angle which the vertebral column forms with the base of the skull. Dr. Holinger illustrated his point with two X-ray pictures. By bending the head forward till the chin touches he breast, this angle is changed into a regular curve, which allows the usual Gottstein knife to enter every part of the naso-pharynx. At the same time a slight modification of a well-known rubber mouth-gag is shown, which allows steadyng of the head and keeping the mouth of the patient open with one hand, and leaves the other hand free for operating.

Dr. N. S. Davis read a paper upon **What are the chief etermining causes of death in fatal cases of neumonia and typhoid fever and how can they e most successfully combated?** Dr. Davis espeally emphasized the importance of recognizing the connection between physiology and pathology, and regretted the use of alcohol or antipyretics in the treatment of these affections.

SOUTHERN STATES.

Delegates to Amsterdam.—The Secretary of State has appointed Drs. Henry D. Fry, and A. F. A. King as delegates to the International Congress of Gynecology and Obstetrics, to meet in Amsterdam, Holland, August 9, 1899.

Tulane University of Louisiana.—The annual meeting of the Alumni Association was held in New Orleans February 11. Drs. Isadore Dyer and Hermann B. Gessner were elected members of the executive committee from among the graduates of the Medical Department.

Western Ophthalmologic and Otolaryngologic Association.—The fourth annual meeting was held in New Orleans, February 10 and 11. The following officers were elected:—President, Dr. William Scheppegrell, New Orleans; first vice-president, Dr. M. A. Goldstein, St. Louis, Mo.; second vice-president, Dr. H. V. Wurdemann, Milwaukee, Wis.; third vice-president, Dr. E. C. Ellett, Memphis, Tenn.; secretary, Dr. Fayette C. Ewing, St. Louis, Mo.; treasurer, Dr. W. L. Dayton, Lincoln, Neb. The next meeting will be held in St. Louis, Mo.

Tri-State Medical Society of North Carolina, South Carolina, and Virginia.—The first, and a most successful, meeting of this recently-organized Society was held in Charlotte, N. C., January 18 and 19. Thirty-five excellent papers were read, numerous entertainments enjoyed, and the following officers elected: President, Dr. W. H. H. Cobb, Goldsboro, N. C.; vice-presidents, Dr. Charles W. Kollock, Charleston, S. C.; Dr. Henry B. Weaver, Asheville, N. C., and Dr. William L. Robinson, Danville, Va.; secretary and treasurer, Dr. Paulus A. Irving, Richmond, Va. The next meeting will be held in Charleston, S. C., during February, 1900.

Louisiana State Board of Medical Examiners.—The Louisiana State Medical Society met February 13 to select members to be submitted to the Governor for appointment, to succeed Drs. J. C. Egan and T. S. Kennedy on the State Board of Medical Examiners. The law requires that a "list of names" be submitted to the Executive, from which he chooses one to fill the vacancy existing. Drs. F. A. Larue and J. A. Storck were chosen to be submitted for the vacancy made by the resignation of Dr. Kennedy, of Orleans Parish, who for 4 years ably presided over the meetings of the Board. Drs. T. G. Ford, of Shreveport, Caddo Parish, and F. M. Thornhill, of Acadia Parish, were submitted for the vacancy of Dr. Egan.

Health Legislation in Washington, D. C.—There is a bill now pending in Congress before the Committee on Commerce, appropriating upwards of $400,000 for the Improvement of the Anacostia River, and the reclaiming of the flats of that locality. It is believed that the prevalence of malaria in Washington is closely related to the conditions existing there, and a very earnest effort is being made by the medical profession and citizens of the District to secure this appropriation. The reclaiming of the Potomac flats between the Arsenal and Georgetown has very greatly diminished the amount of malaria in the city and especially in the northwestern section. In the Government Insane Asylum, which occupies a hill overlooking the Anacostia River, about 50% of the patients were ill with malarial fever from March to November, 1898, and out of 229 employes, there were 75 cases of malarial disease. The mental condition of the insane was made worse by their illness with malaria. In order to illustrate the difference in the health of the city, the ratio of absence in days in the public school children, for malarial disease (100 days lost from all causes) was 7 in the northwest, and 36 to 50 in the district in the neighborhood of the Anacostia River.

Smallpox Epidemic in Washington, D. C.—There are 17 cases of smallpox under treatment in the smallpox hospital of the District, and although there is some anxiety manifested by citizens, the Health Officer does not feel there is any cause for alarm. The cases here have arisen from two distinct sources, from Alexandria, Va., and Norfolk, Va. In Alexandria, which has a population of 18,000, there are upwards of 200 cases, but the epidemic is very mild in character, only 2 deaths having resulted so far. The demand upon the Health Department of the District for vaccination has been so great that the Health Officer has had to appoint temporarily many additional physicians to assist in the work. So far there have been no deaths in the District.

The Johns Hopkins Hospital Medical Society.—At a meeting Monday, February 20, Dr. Cushing presented three interesting surgical cases. The first case was that of a man, aged about 70 years, who was operated upon for **double radical cure of hernia under cocain-anesthesia.** The operation was performed in two stages, one side being operated upon at a time. Since a preliminary report about one year ago, 17 cases of hernia had been operated on under cocain-anesthesia out of a total of 125 operations for radical cure. The second case was a man on whom **splenectomy** had been performed **for primary splenic anemia.** The patient had suffered from hematemesis for 11 years. The anemia was of the chlorotic type. Clinically, a gastric ulcer was suspected, but at the laparotomy, performed under cocain-anesthesia, no ulcer was found. The spleen was much enlarged and bound down by perisplenic adhesions. Splenectomy was performed and since then the patient's condition has markedly improved. He has gained 30 pounds in weight and his hemoglobin has increased from 35% to nearly 90%. The third patient was a man who for 10 years had suffered from an **intestinal fistula and abdominal hernia resulting from an extensive razor-cut.** The patient weighed 93 pounds on admission. The seat of the fistula was determined by tying a string to an oyster and allowing the patient to swallow it. In a few minutes the oyster emerged from the fistula, and the length of the string from the teeth to the fistula was 3 feet 11 inches. This made the fistula in the jejunum about 11 inches from the pylorus. A point of interest in the case was the rapidity with which milk was discharged at the fistula. Milk taken by mouth began to appear at the fistula in one minute, and the whole amount of milk was regained in 3 minutes. This showed the very active peristalsis of the stomach. After feeding the patient for several days on sterilized food, an intestinal anastomosis was performed and the abdominal hernia operated on with complete recovery. The patient has nearly doubled his weight, now weighing 180 pounds.

Dr. H. A. Kelly referred to certain additional points in which the **catheterization of the ureters** was of service in arriving at a diagnosis in obscure abdominal pains, particularly on the right side. He mentioned certain instances in which during catheterization of the ureters and impingement of the tip of the catheter on a diseased focus in the renal pelvis the patient complained of pain in the region of the kidney in the back similar to former attacks she had experienced. Ureteral catheterization had also proved of value in differentiating between renal and gallstone colic. By injecting boracic-acid solution into the renal pelvis he had been able to induce definite attacks of colic identical with paroxysms of pain which the patient had previously had. Dr. Kelly referred to the devices of Neumann and Harris by which the urine could be obtained from each ureter without actual catheterization of the ureter. In answer to Dr. Welch he stated that he had never in his experience had an infection of the kidney follow ureteral catheterization.

Dr. Welch reported a case of **thrombosis of the left innominate, left internal and external jugular and left axillary veins in association with cardiac disease.** The patient was a colored girl, aged 17 years, who, during the past 2 years, had suffered from two severe attacks of articular rheumatism. About one year before admission cardiac symptoms in the form of dyspnea, palpitation of the heart and precordial pain began to manifest themselves. After admission to the hospital the patient's condition became worse and death resulted. About 48 hours before death quite marked swelling of the left arm, particularly about the elbow, developed. At autopsy, in addition to the thrombosis of the veins already mentioned, chronic endocarditis of the aortic and mitral valves, chronic adhesive pericarditis, cardiac hypertrophy and dilatation were found. Dr. Welch stated that the point of interest in this case was the association of thrombosis of the peripheral veins with cardiac disease. Hanot and a physician working under him had been able to collect only 5 cases. Dr. Welch had, however, found records of 26 cases. Thrombosis of the veins of the lower extremity on the whole is much more frequent than that of the upper extremity; in fact in the ratio of 50 to 1. This relation is reversed in the cases of venous thrombosis in cardiac disease. In 17 of the 26 cases the veins of the neck and arm were involved. The thrombosis is more frequent on the left side. The causation of these thrombi is not always clear. In some of the cases primary thrombi exist in the heart. The French believe that most of the cases are due to bacterial infection. Dr. Welch thought that there was not yet sufficient evidence to show that they were all of bacterial origin. Dr. Harris had isolated the streptococcus pyogenes in this case. Dr. Futcher, in discussing the case, stated that during life there were, in addition to murmurs indicating lesions of the mitral and aortic valves, evidences of **adherent pericarditis.** These consisted in the presence of a wide and undulatory cardiac impulse, diastolic retraction of intercostal spaces, Broadbent's retraction sign in left back, and a marked diastolic shock. He stated that there is a case in the medical wards with thrombosis of the jugular and axillary veins associated with a mitral stenosis. The left arm is markedly swollen and there is great sensitiveness over the thrombosed veins as well as of the skin over the region of swelling. The temperature was slightly elevated but irregular.

Dr. Cullen reported a case in which the **veins of the left upper extremity had become suddenly thrombosed 9 days after he had performed a laparotomy for some pelvic trouble.** He also reported a case on which he had operated for **intestinal obstruction.** On opening the abdomen a loop of intestine situated about the middle of the ileum was found almost gangrenous and completely obstructed by a hard mass of inspissated feces, the specimen of which was shown to the society.

CANADA.

Prof. J. G. Adami, of McGill University, Montreal, has definitely declined the offer of the chair of pathology in St. John's College, Cambridge, in succession to the late Prof. Kanthack.

Suit Against a Surgeon.—A case of much interest to surgeons came up in the Montreal courts, lately, before Justice Mathieu. A free patient, unmarried, was admitted to one of the city hospitals, suffering from some rather obscure tubo-ovarian symptoms. It was at first only thought necessary to do a minor operation and to this the patient gave her consent. When the abdomen was opened there was found to be suppuration in a fallopian tube with local abscess, presumably of gonorrheal origin. A number of surgeons were present and it was unanimously agreed that the tubes and ovaries should be removed. This was accordingly done with a view to saving the life of the patient. Subsequently the patient brought suit, not against the operating surgeon, but against the consultant, on the ground that her tubes and ovaries had been removed without her consent, thus depriving her of the "joys of maternity," etc. A number of eminent gynecologists were called for the defense, and all agreed that the surgeons had acted properly in performing the operation they did, one, indeed, stating that it would have been criminal to have left in tubes and ovaries in such a condition. No medical evidence being produced for the prosecution, the judge gave judgment for the defendant without leaving the bench, holding the view that the operating surgeon was within his rights, and acting from the point of view of humanity, in performing an operation that was calculated to save life, even if it meant the removal of portions for which the patient had not given her permission.

Lister Laboratory Club.—At a meeting February 13, Dr. J. C. Webster read a paper on **Deciduoma malignum,** illustrating it by microscopic preparation of the various forms together with those of ordinary placental tissue. He also gave a resume of the various opinions held as to the origin of these growths.

Dr. D. P. Anderson read a paper on **Suggestions derived from the use of some therapeutic agents.** He had treated a number of cases of whooping-cough with inhalations of formalin-vapor. He thought that the method had aborted the disease in some cases, but advocated a further trial.

Dr. A. G. Nicholls showed a specimen of **carcinoma of the prostate,** in an old man, which had originated in a simple hypertrophy of the prostate, which had been present for 12 years previously. He showed also an **appendix which had perforated,** giving rise to septic peritonitis. The appendix was of a flask shape, being nearly as broad as it was long. This condition was apparently congenital and not nflammatory. There was one perforation at the apex, and a collar of necrosis in the mucosa of the neck. He also howed a specimen of idiopathic dilatation of the large inestine.

Dr. Wyatt Johnston illustrated **a new method for naking slides for demonstrations with the projecion-apparatus.** Outline drawings were traced from plates pon tissue paper or celluloid, the paper was then coated ith mastic varnish, placed between two glass plates and hen thrown on the screen. The method was applicable for emonstrating to small groups of students.

Montreal Medico-Chirurgical Society.—At a meeting February 6, Prof. Wesley Mills exhibited **2 pigeons from which he had removed the greater portion of the cerebrum.** They were able to fly when started, to feed, and to preen the feathers. He had been observing the birds for a long time with a view to elucidate some of the psychologic problems of the lower orders of creation.

Dr. F. Buller gave the history of several cases of ophthalmologic interest, such as **sarcoma of the retina, iridocyclitis,** etc. Dr. W. G. M. Byers showed the specimens from these cases, which were beautifully mounted in gelatin after the method of Treacher Collins. The eyes were frozen and then cut through the center. They were imbedded in filtered gelatin, to which had been added glycerin and boric acid. The specimens were then mounted in thick cylindrical glass chambers with a white porcelain background. The method had the advantage that at any time the gelatin could be melted and the specimen removed for further study.

Dr. A. E. Garrow reported a case of **strangulated femoral hernia,** in which intestinal obstruction occurred 4 days after reduction, resulting in the death of the patient. Dr. Garrow made a plea for an early second operation when obstruction developed in such cases. Dr. A. G. Nicholls showed the specimen from Dr. Garrow's case. The small intestine, about 33 inches above the ileocecal valve, had become kinked, there was some paralysis of the bowel above this point, and much fibrinous exudate at the region of obstruction. The bowel admitted the passage of the little finger through the lumen. The obstruction seemed to be partly mechanical and partly paralytic. The patient had died with a double pneumonia due to the bacillus coli communis.

Prof. G. P. Girdword read a paper on **Stereoskiagraphy,** showing a great number of x-ray photographs taken stereoscopically. He described the method of procedure in detail, and was of the opinion that the method would be a great help in surgical work as a means of localizing injuries. An animated discussion followed, Dr. R. Wilson holding that stereoskiagraphy was of no help in diagnosis.

Dr. R. H. Craig then read a paper on **Empyema of the accessory cavities of the nose.** He gave the various points in the differential diagnosis of the conditions, and illustrated his work with plaster casts.

MISCELLANY.

Dr. George H. Simmons, formerly editor of the *Western Medical Review*, of Lincoln, Neb., has been elected editor of the *Journal of the American Medical Association.*

New Yellow-Fever Hospital at Havana, Cuba.—One of the Spanish Barracks in Havana has been completely renovated, cleaned, remodeled and fitted out as a yellow-fever hospital. Major Ducker, brigade surgeon, U. S. V., has applied to Surgeon-General Sternberg for immune nurses stating that their quarters are ready for occupation. While at present no yellow fever prevails it is thought prudent to be prepared for any emergency.

The *Solace*, U. S. N., no longer bears the flag of the Geneva Convention or the green streak, under which insignia the ship rendered such admirable service during the war. Her voyage to Manila is as a war-ship, carrying four 6-pounders as armament and a large quantity of ammunition as freight. This change of the *Solace* should not be allowed to pass without some special reference to the humanitarian object of the ambulance-ship, the first of her type in the world. The vessel was conducted by trained surgeons, who are entitled to great praise for the aid they were able to render. The *Solace* has been one of the best features in the splendid administration of Surgeon-General Van Reypen.—*Army and Navy Register.*

Obituary.—Dr. George H. Stone, formerly president of the Georgia State Medical Society, Savannah, Ga., February 20.—Dr. Albert Edward Pick, Brockton, Mass., February 12, aged 34 years.—Dr. Orvis F. Bigelow, Amherst, Mass., February 9, aged 65 years.—Dr. John W. Brandt, Ontario Center, N. Y., February 4, aged 75 years.—Dr. J. Edward Keegan, Jersey City, N. J., February 10.—Dr. Charles B. Clark, Kosciusko, Miss., February 7.—Dr. William T. Russell, Spartansburg, S. C., February 6, aged 72 years.—Dr. John Edwin Slicer, St. Joseph, La., February 8, aged 69 years.—Dr. Way Grayson, at Orlando, Fla., aged 72 years.—Dr. W. T. Pirie, Waco, Tex., February 2.—Dr. Robert P. Harris, a graduate of the medical department of the University of Pennsylvania, class of '43, Philadelphia, February 20, aged 77 years.

Health Reports.—The following cases of smallpox, yellow fever, plague, and cholera have been reported to the Supervising Surgeon-General of the U. S. Marine-Hospital Service for the week ending February 18, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
Colorado:	Denver	Nov. 2-Feb. 8 . . .	23	1
District of Columbia:	Washington .	Feb. 7	6	
Indiana:	Dana.	Feb. 8	1	
“	Evansville . .	Feb. 8	1	
“	Indianapolis .	Feb. 8	1	
Louisiana:	New Orleans .	Jan. 28-Feb. 4 . .	2	
Maine:	Auburn, Androse'n Co.,	Feb. 11	1	
“	Waterville and Winslow. Kennebec Co.	. . . .	8 or more.	
Maryland:	Baltimore . .	Feb. 10	1 case.	
Nebraska:	Omaha	Jan. 28-Feb. 11 . .	5	
New York:	Dunkirk . .	Jan. 28-Feb. 4 . . .	1	
“	New York City	Feb. 4-11	1	
Ohio:	Cleveland . .	Jan. 28-Feb. 4 . .	4	
Texas:	Laredo	Jan. 21-28	43	9
“	“	Jan. 28-Feb. 4 . .	69	14
Virginia:	Alexandria .	Feb. 7	19 3 suspects.	
“	“	Feb. 8	11 3 “	
“	“	Feb. 9	6 2 “	
“	Norfolk . . .	Feb. 8	9	
“	“ . . .	Feb. 9	6	
			Total on land, 132	
Wisconsin:	Appleton . .	Feb. 7	2	

SMALLPOX—FOREIGN.

			Cases.	Deaths.
Africa:	Lorenzo Marques	Nov. 1-30		19
“	“ “	Dec. 1-31		6
Brazil:	Bahia	Jan. 7-14	15	1
“	“	Jan. 14-21	10	
Canada:	Prov. of Quebec	Jan. 26-Feb. 6 . .	11	1
China:	Hongkong . .	Dec. 31-Jan. 7 . .	3	
England:	Liverpool . .	Jan. 15-22	1	
“	London . . .	Jan. 15-22	1	
India:	Bombay . . .	Jan. 11-28		1
Ceylon:	Colombo . . .	Dec. 24-31		1
“	Madras	Dec. 31-Jan. 6 . .		1
Japan:	Awomori Ken,	Dec. 9-31	73	15
“	Chiba Ken . .	Dec. 9-31	1	
“	Iwate Ken . .	Dec. 9-31	1	
“	Nagono Ken .	Dec. 9-31	1	
Mexico:	City of Mexico,	Jan. 31-Feb. 4 . .	5	4
“	Nuevo Laredo,	Jan. 31-Feb. 4 . .	9	1
“	Vera Cruz . .	Jan. 19-Feb. 2 . .		2
Russia:	Moscow . . .	Jan. 14-21	6	7
“	Odessa	Jan. 14-21	5	2
“	“	Jan. 21-28	5	
“	St. Petersburg,	Jan. 7-14	2	
“	“ “	Jan. 14-21	2	
“	Warsaw . . .	Jan. 24-31		4
Turkey:	Constantinople	Jan. 9-23		28

YELLOW FEVER.

			Cases.	Deaths.
Brazil;	Bahia	Jan. 7-14	2	1
“	Rio de Janeiro	Dec. 23-30	11	8
Mexico:	Vera Cruz . .	Jan. 19-Feb. 2 . .		4
“	“ “ . .	Feb. 4-9		2

CHOLERA.

			Cases.	Deaths.
India:	Bombay . . .	Jan. 11-18		6
“	Calcutta . . .	Dec. 24-31		56
“	Madras . . .	Jan. 7-13		1

PLAGUE.

			Cases.	Deaths.
India:	Bombay . . .	Jan. 11-18		308

Changes in the Medical Corps of the U. S. Army.

Glennan, Major J. D., brigade-surgeon, is assigned to duty at the headquarters, department of Matanzas, as assistant to the chief surgeon. He will proceed to Cardenas, to carry out special instructions in reference to the proper housing of the orphans and dependent sick at that place. Upon completion of this duty he will return to department headquarters.

Harris, Major Henry S. T., brigade-surgeon (captain and assistant surgeon U. S. A.), the order of Jan. 23, which honorably discharges him, is amended to take effect March 22.

Hallock, Captain Harry M., assistant surgeon, is granted leave for two months, on surgeon's certificate. Feb. 10.

Fogg, John S., acting assistant surgeon, is relieved from further duty at the Josiah Simpson U. S. General Hospital, Fort Monroe, and will proceed to New York City and report on the hospital ship "Relief" for duty, and on arrival at Manila, P. I., will report for assignment to duty.

Harris, Herbert I., acting assistant surgeon, the order of Feb. 1 directing him to proceed to Madison Barracks is revoked.

Thompson, Major Henry D., the order of Jan. 31 which relieved him from duty at Fort Clark and orders him home is revoked. On being relieved from further duty at Fort Clark by Major Aaron A. Appel, surgeon, he will proceed to Havana, Cuba, for assignment to duty.

Polhemus, Captain Adrian S., assistant surgeon, is granted leave for one month. Feb. 11.

Eliot, Henry W., acting assistant surgeon, is relieved from further duty at Willet's Point and will proceed to Madison Barracks for duty.

McCall, James H., acting assistant surgeon, is relieved from further duty at the Josiah Simpson U. S. General Hospital, Fort Monroe, and will proceed to Greenville, S. C., for assignment to duty.

Sheldon, George A., acting assistant surgeon, will proceed to Havana, Cuba, for assignment to duty.

Shattuck, Edwin C., acting assistant surgeon, is relieved from further duty at camp at Hiltonhead, S. C., and will proceed to Fort Barrancas, Fla., for duty at the sub-post of Fort Pickens.

Marsden, Robert, hospital steward, now awaiting orders at Fort Columbus, will proceed to Fort Hancock for duty.

Martin, Major John C., is honorably discharged, to take effect April 14.

Hall, Major William R., surgeon, is detailed as a member of the examining board at the Army Medical Museum Building, Washington, D. C.

Merrill, Major James C., surgeon, a member of the examining board at the Army Medical Museum Building, Washington, D. C., is relieved.

Herman, Meyer, acting assistant surgeon, having relinquished the unexpired portion of his leave, is relieved from further duty in department of Santiago, and will proceed to Havana, Cuba, for assignment to duty.

McCulloch, Captain Champe C., Jr., assistant surgeon, is granted leave for 7 days. Feb. 14.

Bentley, C. E., acting assistant surgeon, will proceed from Little Rock to Fort Logan H. Roots for duty.

Looby, Patrick, hospital steward, Fort Hancock, will be sent to Fort Columbus from where he will be sent to New York City to take passage for Cuba on the U. S. transport "Rita." There he will report to the commanding general, Division of Cuba, for assignment to duty.

Costine, Edward E., hospital steward, Plattsburg Barracks, will be sent to Fort Columbus, from where he will be sent to New York City to take passage for Cuba on the U. S. transport "Rita." There he will report to the commanding general, Division of Cuba, for assignment to duty.

Whelan, William E., hospital steward, Fort Wadsworth, is transferred to Fort Hancock for duty.

Hoyt, Major Henry F., chief surgeon, having reported at Manila, P. I., will report for assignment to duty as chief surgeon of the Second Dvision, Eighth Army Corps.

Crosby, Major W. D., brigade-surgeon of the Second Division, Eighth Army Corps, at Manila, P. I., is relieved.

The following transfers and assignments of medical officers in the Philippine Islands are announced:

Morris, Major E. R., brigade-surgeon, is relieved from duty in charge of the district hospital, Cavite, and will report for duty as chief surgeon of the First Separate Brigade.

Gunn, H. W., acting assistant surgeon, will report for duty with the Eighteenth Infantry.

Clayton, First Lieutenant J. B., is relieved from duty with the Eighteenth Infantry, and will assume charge of the district hospital, Cavite.

Taylor, W. O., acting assistant surgeon, is relieved from duty with the Eighteenth Infantry, and will report for duty at the district hospital, Cavite.

Klar, Frank, hospital steward, is relieved from duty in the district hospital, Cavite, and will report to the chief surgeon, First Separate Brigade, Eighth Corps, for duty.

Hoch, Hans, hospital steward, is relieved from duty with the Fourth Cavalry, and will report for duty with the Eighteenth Infantry.

A board of officers is appointed to meet at Manila, P. I., Jan. 2, to examine Captain W. O. Owen, assistant surgeon, for promotion. Detail: Lieutenant-Colonel Henry Lippincott, D. S. G.; Major W. H. Corbusier, surgeon; Major W. D. Crosby, brigade-surgeon, recorder.

A board of officers, to consist of Majors Jefferson R. Kean, brigade-surgeon; S. P. Kramer, brigade-surgeon; E. de la Calle, brigade-surgeon, will convene at Military Hospital No. 2, Feb. 6, to devise some uniform system of disinfection of grounds, buildings, and appurtenances of all building and sites formerly occupied by Spanish troops, before their being assigned to the United States troops for habitation.

Ducker, Major Orlando, brigade-surgeon, is assigned to duty in the department of Havana.

Winn, Major William B., brigade-surgeon, will proceed to Matanzas, Cuba, for assignment to duty.

Ford First Lieutenant Clyde S., assistant surgeon, the resignation of his commission as first lieutenant, assistant surgeon, Fourth U. S. Volunteer Infantry, only, is accepted, to take effect Jan. 26.

Ames, Roger P., acting assistant surgeon, will proceed from New Orleans, La., to Havana, Cuba, for assignment to duty.

McVean, W. A., acting assistant surgeon, is relieved from further duty at the U. S. General Hospital, Fort Thomas, and will proceed to Jefferson Barracks for duty.

Noble, Charles D., acting assistant surgeon, now at Columbus Barracks, will report at that post for duty.

Adair, Major George W., surgeon, the order which directs him to proceed to Freeport, Ill., is amended to direct him to proceed to St. Joseph, Mich.

The following transfers are made:

Manning, Joseph H., hospital steward, Josiah Simpson General Hospital, near Fort Monroe, to Fort Sheridan.

Marsden, Robert, hospital steward, Fort Hancock, to the Josiah Simpson General Hospital, near Fort Monroe.

Changes in the Medical Corps of the U. S. Navy, for the week ending February 18, 1899:

Young, L. L., passed assistant surgeon, sick leave extended three months.

Payne, J. H., assistant surgeon, detached from the "Marcellus" when put out of commission, and ordered home.

Kindleberger, C. P., passed assistant surgeon, relative rank of lieutenant, junior grade, from July 9, 1897.

Payne, J. H., assistant surgeon, ordered to temporary duty on the "Franklin," when detached from the "Marcellus."

Sughrue, D. F., assistant surgeon, honorably discharged Feb. 14.

Foreign News and Notes.

GREAT BRITAIN.

Mr. H. E. Annett, M.B., Ch.B. Vict., has been apointed Demonstrator of Tropical Pathology in the newly ounded school of tropical diseases in Liverpool.

Dr. J. Glaister, F.R.S.Edin., D.P.H.Camb., Professor of orensic Medicine in the Glasgow University, has been apointed one of the medico-legal examiners in Crown cases r the city of Glasgow, in place of the late Professor Coats.

The University of Cambridge has now received upards of £50,000 towards the fund for increasing its educaonal resources. This sum was paid or guaranteed within a eek of the first meeting held to discuss the institution of e fund, and before any machinery for collecting money as set going.

Mr. E. Climson Greenwood has been appointed acher of vaccination to the Medical School of St. George's ospital, London. Under the provisions of the Vaccination ct the teaching of vaccination at vaccination-stations necsarily comes to an end. Under the arrangements now ade at the St. George's school the teacher of vaccination ll give a short course of lectures in the school and will ake arrangements for the students attending the lectures accompany him during domiciliary visits. One advantage y be expected from the new conditions—viz., that the stunt will be able to watch the progress of the vaccine vesicle a later stage than was the case under the old system.

The Cameron Prize of the University of Edinburgh has been awarded to Dr. S. Monckton Copeman, one of the medical inspectors of the Local Government Board for his well-known researches into the power of glycerin to destroy organisms in vaccine lymph. The prize is conferred "on persons who have made valuable additions to the subject of practical therapeutics."

Lectures on Teratology and Antenatal Pathology at the University of Edinburgh.—On the recommendation of the Medical Faculty and Senatus Academicus of the University of Edinburgh, and with the permission of the University Court, Dr. J. W. Ballantyne, Lecturer on Midwifery and Gynecology in the Medical College for Women, Minto House School, will deliver a series of six lectures on Teratology and Antenatal Pathology in the new medical buildings of the University.

The Cameron Prize of the University of Edinburgh.—The Cameron prize of the University of Edinburgh, which is conferred on persons who have made valuable additions to the subject of practical therapeutics, has, on the recommendation of the Faculty of Medicine, been awarded by the Senatus Academicus to Dr. Monckton Copeman, of the Local Government Board, London, in recognition of his researches on the employment of glycerin for destroying pathogenic organisms in vaccine lymph.

Inspection of Meat and Milk in London is a topic of particular interest just now in the metropolis, for Dr. Shirley Murphy, the medical officer to the London County Council has issued a brief but plain-spoken report in which he indicates how far London is behind most Continental cities in such matters. Dr. Murphy at the same time traverses the objections, chiefly economical ones, or made in the interests of the purveyors, which have been raised by different people at meetings of the Public Health Committee of the Council; and the only impressions that can be left upon any fair mind, after perusal of his report, are that London must have proper control of its milk supply, and that private slaughter-houses must be abolished.

Poisonous Tinned Foods.—According to the *Practitioner*, several atrocious cases of the sale or attempted sale of tinned meats and milks in the poorer districts of London have recently come to light, in which it was impossible for the vendors to plead ignorance of the nature of the articles in extenuation of their guilt, for the tins, having been "blown" or distended by the gases evolved, were punctured to allow of their escape, and the apertures carefully concealed by soldering. The *Practitioner* says that for such iniquitous proceedings fines, the highest being insignificant in comparison with those imposed for frauds on the Revenue, are absurdly inadequate. Nothing less than imprisonment with hard labor would meet the merits of the case or be of the smallest avail to prevent the repetition of the offence.

The death of Mr. Thomas Cooke, F.R.C.S., which occurred in his private anatomic school in Brunswick Square, London, on February 9, removes from medical circles probably the most widely-known English teacher of anatomy. Mr. Cooke was an admirable anatomist of the old sort. He was no morphologist and no bacteriologist, but an admirable dissector and an unrivalled demonstrator of all the difficulties which surround the student on his way through examinations in rough anatomy and applied surgical anatomy. His private classes were always well attended, and many a London student owes him a deep debt of gratitude for his patience and loyal determination to pass his pupils. Mr. Cook was assistant surgeon to the Westminster Hospital, but his anatomic work and the management of his private school took up most of his time. His school, although we have called it "private," was duly recognized by educational bodies in the same way as the medical schools of the hospitals.

The Weber-Parkes Prize of the Royal College of Physicians of London.—The *Lancet* calls attention to the fact that the second award of the Weber-Parkes prize and medals (to be awarded triennially to the writer of the best essay upon some subject connected with the etiology, prevention, pathology, or treatment of tuberculosis, especially with reference to pulmonary consumption in man) will be made in 1900. The adjudicators have selected as the subject of the essay for that occasion—"The Etiology of Human Tuberculosis and the Assistance which a Knowledge of the Etiology May Render to the Task of Prevention." The essay must be based on the original work and observations (experimental or other) of the author and must include a detailed exposition of the methods employed and their mode of application. The value of the prize is 150 guineas and a silver medal. A similar medal, distinguished as the second medal, will be awarded to the essayist who comes next in the order of merit. The award will be made on some day previously to October 18, 1900.

Revaccination in England.—It was generally believed by medical men that when, amidst jeers from the antivaccinators and reproaches from the more enlightened section of the community, the Government abolished compulsory vaccination in England—for that is what the conscience-clause has done—they did so only as a preliminary proceeding to taking some legislative step for efficient revaccination. Lord Lister certainly gave his help to the Government in their time of political need on the understanding that if a conscience-clause was allowed to pass uncontested, a bill dealing with the question of compulsory revaccination would follow. In the speech from the throne made at the recent opening of the British Parliament there is not a word of any bill of the sort, and those who know best say that such a measure is not in contemplation. This would mean that the acquiescence of many people in the conscience-clause has been obtained by a trick; and if Lord Lister does not say so in so many words, it is certain that some other legislator will be found to take his place. But all medical men are hoping that Lord Lister will himself protest, for certainly the prestige which he rightly enjoys secured the silence of men of science on the previous occasion.

Colonial Students in Edinburgh.—A meeting was recently held in Edinburgh to consider the question of providing a residence for the colonial and Indian students attending the classes of the University. Edinburgh University is, of course, a non-residential institution. There are central buildings, lecture rooms, a library, theater, a medical school and so on, but the students reside where they please and are subject to no domiciliary discipline. This, of course, is the oldest plan of a university—much older than the residential plan which has been evolved from the pious designs of the founders of Oxford and Cambridge—but, while it is very convenient for British lads who are thoroughly conversant with the modes of life in a British town as well as for those whose homes are in Edinburgh, it has its drawbacks for strangers and sojourners. This is felt in some of the colonies where it is enacted that government scholarships shall be held in the residential universities, with the result that Oxford and Cambridge have of late years had the pick of the Indian and colonial students. Edinburgh now proposes to build a suitable residential college for such students, and there is no doubt that the college will be full from the beginning, for Edinburgh University has a famous reputation all over the world for good work, while the city is beautiful, healthy and cheap.

A New Medical Bill will possibly be promoted in this Parliament, consisting only of two clauses. It will have for its objects (1) to give power to the General Medical Council to erase from the Register, or official roll of the profession, the name of a practitioner guilty of irregular or improper conduct *for a limited period of time*, and (2) to provide that while such erasure lasts the said practitioner shall be *legally prevented from using his medical titles*. At the present time if a medical man in England is struck off the official roll of the profession he may continue to practise as an M.D. of a university or as a licentiate of a corporation, simply because his particular licensing body or university has no power to take from him a degree or diploma once the title has been granted. Of course such a practitioner has no legal status; he is a quack; but he is a quack in proper possession of a *bona fide* medical title, which is an awkward anomaly. Again, there are licensing bodies which can deprive their men of their professional titles, but which having done so possess no legal machinery for restoring them to their former place on the lists. This situation has before now led to great hardship. For example, a practitioner is guilty of a minor offence, but one which the General Medical Council thinks should be punished by suspension. Accordingly he is struck off the roll of the profession, and his licensing body to mark their sense of his conduct, removes him fron their list. Later the General Medical Council, considering that the wrong-doer has purged himself of his offence, desires to restore him to the roll, but lo! he has no medical qualification. No one can be on the Register without a medical qualification and his title has been taken from him by a body which may have the will but which has not the power to restore it to him. This also is an awkward anomaly, and it is to meet these two blemishes in the present Act that the new bill will be introduced.

CONTINENTAL EUROPE.

The Congress of German Alienists will be held in Halle, April 21 and 22, 1899.

University of Leipzig.—Dr. Hans Held has been appointed extraordinary professor of anatomy.

Dr. Roux, subdirector of the Pasteur Institute, has been elected a member of the Académie des Sciences.

University of Marburg.—Dr. Eugene Enderlen has been appointed extraordinary professor of surgery.

A statue to the memory of von Helmholtz, by the sculptor Ernst Herter, is to be unveiled during the spring in the court of the University of Berlin.

An International Conference for the Prophylaxis of Syphilis and Venereal Diseases will be held in Brussels some time in the first half of September, 1899.

A chair of clinical gynecology at the Paris Medical Faculty is projected, and some of the members of the Chamber of Deputies have proposed an amendment to the Budget for its foundation. The proposition has been postponed for consideration at the next Budget.

Professor Brouardel, whose term of office as Dean of the Faculty of Medicine of the University of Paris recently expired, has been re-elected for a further term of 3 years.

The Second Portuguese Congress of Medicine will be held at Oporto in 1900. The president of the organizing committee is Dr. Cramacho; the secretary, Dr. Ricardo Jorge.

University of Louvain.—A new bacteriologic institute was formally opened February 2. It is on a large scale, thoroughly equipped, and under the direction of Professor Denys.

Medical Students in Italy.—According to official statistics recently published the total number of medical students in the Italian Universities during the academic year 1897–98 was 6,878. The number in 1893–94 was 6,521.

Congress of Polish Scientists and Medical Prac-itioners.—The Congress of Polish Scientists and Medical ractitioners, the intended meeting of which at Posen, last ear, was forbidden for political reasons by the Prussian overnment, is to be held in Cracrow, in 1900, at the same ime as the celebration of the five hundredth anniversary of he University of that city.

Obituary.—Professor Wolffhügel, professor of hygiene nd bacteriology in the University of Göttingen, January 31. —Dr. Thomas, formerly professor of clinical medicine in the aculty of Medicine of Rheims.—Dr. Joseph Finger, emeri-us professor of clinical medicine in School of Medicine t Lemberg.—Dr. G. Vlacovich, professor of anatomy in ie University of Padua.

An International Congress of the Medical Ex-miners of Life and Accident Insurance Associa-ons will be held in Brussels September 25 to 30, 1899. The incipal subjects for discussion are insurance in case of ycosuria, albuminuria, syphilis, neurasthenia, progressive aralysis, traumatic neurosis; statistics, and the necessity of uniform method of examination.

Increase of Medical Practitioners in France.—ccording to statistics just published the number of medical actitioners in France in 1899 already amounts to 17,735, as ainst 15,984 in 1898, showing a decidedly formidable in-ease of 1,751. In Paris there are 62 more doctors than t year; in Lyons there are 57, and a proportional increase reported from several other large towns.

Military Academy of Medicine of St. Petersburg. —On the occasion of the celebration recently of the centen-l of the foundation of the Academy, the following well own members of the medical profession of France were minated honorary members: Drs. d'Arsonval, Bertholet, uchard, Brouardel, Duclaux, Dejardin-Beaumetz, Felix yon, Lannelogue, Marcy, Ollier, and Roux.

he Helmholtz Medal of the Academy of Sciences Berlin has been awarded to Professor Rudolf Virchow. e medal, instituted in 1892, with a capital of $12,000, in ior of the seventieth anniversary of the birth of Helm-tz, weighs 620 grams, and is awarded every 2 years. The pients of it have been Helmholtz himself, du Bois-Rey-nd, Weierstrass, Lord Kelvin (Sir William Thomson), and fessor Virchow.

'Hopital Péan, Paris.—The International Hospital, ie Rue de la Santé, founded by Péan, will henceforth be ed L'Hôpital Péan. Dr. Delaunay, formerly M. Péan's *chef de clinique*, has, since the death of that eminent surgeon, replaced him. He will continue to direct the surgical wards. Under the new organization there will be medical wards for general and special illnesses. The patients will be treated by *chefs*, formerly "*internes des hôpitaux*."

The Regulation of Massage in Hungary.—The Hungarian Minister of the Interior has lately issued an order comprising essentially the following: (1) Patients may be treated by masseurs, who are not physicians, only upon the order of a physician, and under the direction and responsibility of a physician; (2) massage of diseased abdominal and sexual organs, and of the eye, may under no circumstances be practised by others than physicians. Infraction of this order is punishable by a fine of $40 and 15 days' imprisonment.

Medical Students in Switzerland.—The number of medical students in the several universities of Switzerland during the current semester is as follows: Zürich, 360 (234 male, 126 female); Geneva, 297 (196 male, 101 female); Bern, 240 (170 male, 70 female); Lausanne, 158 (111 male, 47 female), and Basel, 126 (124 male, 2 female). The total number of medical students in Switzerland is, therefore, at present 1,181, of whom 346 are women. Of this number, 614 are Swiss; of these, 25 are women. The number in 1897–98 was 1,144, of whom 307 were women.

Malarial Pulmonary Congestion and the Malarial Hematozoon in the Sputum.—In a recent numbar of the *Revue de Médecine*, Lèques describes a form of pneumopaludism that commonly affects the apices of both lungs, and suggests by its manifestations beginning pulmonary tuberculosis. It differs from the latter by its shorter course, and consequent better prognosis. Occasionally, however, it remains stationary, and despite well-directed therapy leads to sclerosis of the affected portions of the lungs. In the case reported, Lèques was able to demonstrate the malarial parasite in the sputum of the patient. So far as is known this is the first instance in which this has been possible, and it is suggested that it may prove a valuable aid in diagnosis.

A Hygienic Institute at Posen.—The *British Medical Journal* states that near Posen, Prussia, a hygienic institute will be erected. It will contain a hygienico-bacteriologic and a pathologico-anatomic department, with the usual staff of directors and assistants. Their sphere of work is to comprise supervision and improvement of water supplies, of drainage works and the bestowal of refuse; soil and subsoil examination; hygienic supervision of works, factories, warehouses, etc.; prevention of the spread of infectious diseases; postmortem examinations; courses of lectures, some popular, on subjects connected with hygiene, bacteriology, and pathologic anatomy. It is hoped that the scientifically-conducted efforts of the institute will be successful in arresting epidemics such as cholera, smallpox, typhus, etc., which frequently have come into Prussia from across the Russian frontier.

Association of French Anatomists.—The first meeting of the Association des Anatomistes, which is intended to form the nucleus of a "Latin Anatomical Association," was held recently in Paris, under the presidency of the distinguished embryologist, Professor Balbiani, of the Collège de France. The vice-presidents were Professors Mathias Duval, of Paris; Renaut, of Lyons; and Romiti, of Pisa. Professor Nicolas, of Nancy, was appointed secretary. Professor Ranvier, of

Paris, and Professor Van Bambeke, of Ghent, were elected honorary presidents, in addition to a considerable number of French teachers and investigators. Several foreign anatomists were present, including Professors Van der Stricht, of Ghent; Van Gehuchten, of Louvain; and Mitrophanoff, of Warsaw. The next meeting will be held in connection with the Anatomic Section of the International Medical Congress in Paris in 1900.

The International Medical Congress—Section on Mental Diseases.—The following are the questions proposed for discussion in the Section of Mental Diseases at the Thirteenth International Congress in Paris, August 2 to 9, 1900: 1. Mental Pathology. The Psychoses of Puberty, to be opened by Professor T. Ziehen, of Jena; Dr. M. Murro, of Turin, and Dr. J. Voisin, of Paris. 2. Pathologic Anatomy. Pathologic Anatomy of Idiocy, to be opened by Drs. Shuttleworth and Fletcher Beach, Dr. Mierzejewski, of St. Petersburg, and Professor Bourneville, of Paris. 3. Therapeutics. Rest in Bed in the treatment of acute forms of Insanity, and the modifications which it may make necessary in the organization of establishments for the Reception of Lunatics, to be introduced by Dr. Clement Neisser, and Dr. Kovsakoff, of Moscow. 4. Sexual Perversions, obsessive and impulsive, from the medico-legal point of view, to be introduced by Professor Krafft-Ebing, of Vienna; Professor Morselli, of Genoa, and Dr. Paul Garnier, of Paris.

The Nobel Bequest and the Nobel Prizes.—According to the *Scientific American*, Mr. Axel Danielson, of Stockholm, states in regard to the Nobel bequest, that the case has been decided, or rather a compromise has been effected between the contesting parties. The relatives of the deceased will receive 3,800,000 Swedish crowns, a little more than $100,000, so that there still remains for the prizes the sum of 25,000,000 crowns, equivalent to $700,000. The income, computed at the rate of 3%, will make the five prizes worth 150,000 crowns, or $41,000 each. It is expected that the compound interest during the time, which will necessarily be long, that will elapse before the prizes can be awarded will increase the capital so as to cover the cost of managing the funds and the work entailed in properly distributing the prizes. It will be remembered that these prizes are to be awarded annually to persons making the most important discoveries in physics, chemistry, physiology or medicine. There is also to be a prize for the best literary contribution upon the subject of physiology or medicine, and also for any person who has achieved the most or done the best things to promote the cause of peace throughout the world.

A Fraudulent Druggist.—The Paris correspondent of the *Lancet* writes that the Paris Tribunal has just had to deal with the case of a druggist who falsified his pills and potions with an audacity which is happily uncommon. He had sold his business, which apparently had realized good profits. But his successor very soon saw that by selling drugs and medicines at the same prices as his predecessor, he would soon be on the brink of ruin. He then discovered that the vendor of the business, while copying all prescriptions accurately into his register, in accordance with the law, gave his customers very different preparations, which, according to him, would produce the same effect as those ordered in the prescriptions, but were naturally much cheaper. At other times, when, for instance, the drug ordered had a very characteristic odor, he simply reduced the dose. He was in the habit of replacing salophen by antipyrin, glycerophosphates by ordinary phosphates, syrup of ipecacuanha by some emetic solution colored to look like the real thing, while all mineral waters sold were manufactured in the shop. In defense, he stated that some of these substitutes were made by his assistant, without his knowledge, and as for others, his customers had asked for them, so that they might have less to pay. The tribunal awarded a heavy punishment, but allowed an appeal, which will come up before the court shortly.

Eczema, a Parasitic Disease.—According to the *Edinburgh Medical Journal*, Dr. Lereddo has written a small work (*L'Eczéma, maladie parasitaire:* Paris, 1898. Masson et Cie.) to prove that eczema is in its nature parasitic. He states that in acute eczema the vesicles always contain parasites (morococci of Unna), and that cultures of these can be inoculated and reproduce acute eczema. Every solution of continuity in the skin may be the starting-point of an eczema. That if it starts, auto-inoculation of neighboring or distant parts is easy. It is even in some cases contagious. The morococcus of Unna is found most frequently alone or associated with other microbes in the vesicles of acute or chronic eczema. It is a coccus of variable size and its growth seems to be favored by lesions which alter the trophic condition of the skin (as varicose conditions). Dermatitis, artificially produced, as by the use of cosmetics or medicaments, may give rise to conditions predisposing to an outbreak of eczema, as may also certain diatheses (gout, diabetes) nervous affection or affections of the digestive organs. He traces the relation between eczema and other skin-affections and shows that nutritive, gastric, or urinary troubles play a very important part in the pathogenesis of eczema, which is very often only a later manifestation of these diseases. It would appear that eczema is only a secondary affection due to more general causes.

Prevention of Communicable Diseases in Zürich.—Some years ago the sanitary authorities of Zürich, in order to prevent the spreading of infective diseases, urged the medical practitioners to supply themselves with linen coats, easy to disinfect, to be left outside the sick-room of private patients. The authorities offered to disinfect these coats so soon as notice was given of the recovery of the patient or of the removal of the same to an infection ward, and also offered to restore the coat properly disinfected to the owner. As only a few of the Zürich practitioners availed themselves of this opportunity, the sanitary authorities have taken one step more and an important one. Imitating the example of Lausanne they now offer, on notification of any case of diphtheria or scarlet fever, immediately to send a disinfected linen coat to the patient's house, to be put on during the time of treatment free of charge. It is to be hoped that many medical men will now avail themselves of this opportunity of preventing the spread of infective disease. Typhoi fever and whooping-cough being not so easily transmitte by means of third persons if a due amount of necessary precaution is taken, and measles and German measles bein often very prevalent and not so dangerous, these precaution have had to be limited to scarlet fever and diphtheria. Thi seems especially necessary in the latter case, as a great man more cases are now treated at home since the antitoxi treatment in the earliest stage insures the same results a hospital treatment.—[*Lancet.*]

Prizes of the Paris Academy of Sciences.—Th *Lancet* states that the *Revue Scientifique* publishes a long li of prizes proposed by the Paris Academy of Sciences for th years 1899, 1900, 1901 and 1903. The prizes in medicin surgery and allied subjects are as follows:—Prix Montyon, of 7500 fr. (medicine and surgery). Prix Montyon, of 750 fr. (experimental physiology). Prix Montyon, of 3000 fr. (hygienic improvements in dangerous trades). Prix Barbier, of 2000 fr. (discovery in medical, surgical or pharmaceutical science, or in medical botany). Prix Bréant, of 100,000 fr. (cure or prevention of cholera). Prix Godard, of 1000 fr. (anatomy, physiology, and pathology of the genito-urinary organs). Prix Serres, of 7500 fr. (application of embryology to physiology and medicine). Prix Chaussier, of 10,000 fr. (application of embryology to physiology and medicine). Prix Bellion, of 1400 fr. (works or discoveries conducive to health or to the improvement of the human race). Prix Mège, of 10,000 fr. (completion of an essay on the progress of medicine). Prix Lallemand, of 1800 fr. (works relative to the nervous system). Prix du Baron Larrey, of 1000 fr (naval or military medicine, surgery, or hygiene). Prix Pourat, of 1400 fr. (specific characters of the contraction of different muscles). Prix Philippeaux, of 890 fr. (experimental physiology). Prix La Caze, of 10,000 fr. (works or memoirs contributing to the progress of physiology).

The New Clinical Institute in Florence, Italy.—According to the *British Medical Journal*, the new buildings of the Medical Clinic in Florence, which owe their existence mainly to the exertions of Prof. Pietro Grocco, director of the Medical Clinical Department of the Royal Institution of Higher Education, were opened recently, and the ceremony was attended by the Prefect, the Syndic, and a large number of the leading residents in Florence. Prof. Grocco delivered an address, in which he said that his earnest appeal to the authorities, made just 6 years ago, at the time of his own appointment, had met with a favorable reception. The boards, both of the school and of the hospital, had been ready to undertake the necessary work, and he had himself examined what had been done elsewhere—both in Italy and abroad. Now the new Medical Clinic of Florence, in point of size and arrangement and of equipment, was second to none in Italy, and was in line with the best abroad. Prof. Grocco then proceeded to describe the buildings, which are of two stories, contain two principal wards and two series of smaller wards, permitting a rational classification of patients for clinical study and treatment. About 70 beds are allotted to he clinic, with the power of selection from among all the patients in the hospital—about 700. The principal laboraory is divided into bacteriologic, chemic, microscopic. It contains also an experimental room, a dark room for phoography and spectroscopy, a fine library, rooms for the managers for the storage of the more costly and delicate intruments, a large lecture theater, and smaller ones for emonstrations after the clinical visit; numerous smaller rooms will serve for electrodiagnosis and electrotherapy, for ydrotherapy, from the most minute local douche to the most complete, simple or medicated vapor-baths, and for lectric baths; also for pneumotherapy, for drawing, for adiography and fluoroscopy. Every section is fully furnhed with all that can be required for clinical illustration om the point of view either of diagnosis or of treatment. he Clinical Institute has with the new year begun the pubcation of a weekly journal. The library, which is only 4 ears old, contains already more than 60 journals, and more an 1100 volumes. In connection with the institute Prof. rocco has on his own initiative established an institution r the treatment of rabies.

Obituary.—Dr. Joseph Maschka, emeritus professor of gal medicine at the University of Prague.—Dr. Karl Schon-IN, of the Zoological Station of Naples, aged 41 years.

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

February 4, 1899. [No. 1988.]

1. Oophorectomy in the Treatment of Cancer of the Breast. Stanley Boyd.
2. On Fibromyomata of the Vagina. John Phillips.
3. After-effects of Abdominal Section. May Thorne.
4. Lateral Curvature of the Spine: Its Prevention and Treatment. Richard Barwell.
5. The Value of the Treatment of Diphtheria by Antitoxin. E. W. Goodall.
6. Peripheral Neuritis Following the Soft-Sore (?) Syphilis. C. B. Maitland.
7. The Treatment of Dysentery: Observations of 60 Cases. J. J. Day.
8. Cocain in Placenta Prævia. Collingwood Fenwick.
9. Cobra-Bite: Recovery Without Amputation. DeVere Condon.
10. A Menstruating Man: A Curious Form of Hermaphroditism. William Rushton Parker.
11. Breast Excision in a Patient Almost Pulseless. Herbert Snow.

1.—Boyd believes, after a careful study of 7 cases in his own experience, that the **removal of the ovaries does undoubtedly induce the disappearance of cancer-tissue.** In considering whether oophorectomy is justifiable, it must be remembered that under ordinary conditions it is one of the simplest operations in surgery; that under such conditions the mortality must be extremely small; that the value of ovaries or any other organ not essential to life is greatly reduced to a woman with cancer; and that the effects, injurious or otherwise, upon the mind and body, of removal of ovaries, do not seem to be well ascertained. In summing up his 7 cases, his opinion is that the beneficial effect of the oophorectomy was indubitable in 2, probable in 2, absent or very doubtful in 3. [w.k.]

2.—Phillips reports 2 cases of **fibromyomata of the vagina.** The view held by Kiwisch, that most of the fibromyomata originally arise from the uterus and subsequently lose their connection with that organ, is denied by Kleinwachter, and in none of Phillips' cases has there been any apparent connection. He concludes that vaginal fibromyomata are invariably single and usually slow growing; their situation is most frequently upon the anterior vaginal wall; and that they may be sessile or pediculated. They have practically no effect upon menstruation, conception, or the course of pregnancy, but may lead to serious dystocia. Symptoms depend upon size and situation, and are usually due to direct pressure exerted upon neighboring viscera. Sloughing is the most common change in the tumor during the life-history. Removal is best done by enucleation and suture or stuffing the sac with gauze. [w.k.]

3.—Thorne has endeavored to gather, as accurately as possible, statistics in regard to the **after-effects of abdominal section** from the records of the general hospitals throughout Great Britain. During the last 4 years 39 cases of ventral hernia and 12 cases of acute intestinal obstruction have been traced. [w.k.]

4.—In a previous communication Barwell pointed out 4 forms of **pelvic deviation,** which are responsible for the majority of cases of **lateral curvature of the spine.** Permanent pelvic obliquity is usually the result of defective growth at one of the femoral epiphyses, generally the lower one. To prevent this inequality of the limbs exerting, through the pelvis, any influence upon the spine, one or two thicknesses should be added to the heel of one boot, and the patient should, in addition, use the sloping seat for 20 minutes two or three times a day. Habitual pelvic obliquity can be overcome by persistent watchfulness of the patient's habits. If he be in the habit of using continually for ordinary station the right limb, he should be made to stand for a certain time on the left; the sloping seat will be useful here also. Amesiality of the pelvis is more difficult of correction because the patient's neuro-muscular sense becomes so perverted that finally the one-sidedness appears to her straight. Such a patient should stand before a looking-glass, holding a plumb-line at the episternal notch, and correct the position, so that the xiphoid cartilage and umbilicus are plumb with the line; thus she acquires the habit of standing in a straight position. A valuable aid is the lateral sling, the patient lying on the affected side, with the thighs extended, the head resting on a pillow. Still another means of counteracting this deformity is the "wall exercise," in which the patient stands with the side to the wall, the hand being placed upon the coracoid process of the opposite side to get the arm out of the way. A block of wood or a book is then placed between the wall and the pelvis, just below the crest of the ilium. This position is to be maintained for from 3 to 5 minutes twice a day. For version of the pelvis 4 exercises are recommended. The most important is carried out in the sitting posture, in which the development of the deviation usually begins. The child is made to sit for periods of 15 minutes, several times during the day, perfectly straight, with both knees on the same plane; or, still better, with the knee of the affected side in front of its fellow, the chest meanwhile being maintained in a straight position. The second exercise consists in placing a pad behind the ilium of the affected side, while the patient stands with the back to the wall, and in exerting pressure enough to bring the gluteal region of the unaffected side in contact with the wall. In the third exercise the patient lies on the left side (for left version), the thighs flexed at right angles to the pelvis; she then rolls the upper part of the body over to the right, so that while the pelvis is still quite on the side, the shoulders, chest, and as much of the loin as possible lie almost on the back. In the fourth exercise the patient lies with thighs flexed on right side and rolls the upper segment, so that this portion reposes on the front, not merely of the chest, but also as much of the abdomen as she can manage. [C.H.F.]

5.—Goodall, in discussing the value of the **treatment of diphtheria by antitoxin,** says that since the introduction of this treatment the mortality in London has fallen from 24.7% to 17.4%. The diminution has been greater among the hospital cases than among those outside of hospitals, owing to the fact that this treatment is not very generally practised among private cases in London. Under the old form of treatment in every 100 tracheotomies not more than 29 were saved; under the antitoxin-treatment there are saved not fewer than 53%. Of the laryngeal cases not operated upon in former days 48% were saved, and at the present time not fewer than 75%. Of all cases, therefore, under the old treatment 34% were saved; under the new treatment not less than 49%. Goodall believes that if, in every case of faucial diphtheria, antitoxin were administered sufficiently early, the number of laryngeal cases would be reduced to those in which either croup was the first sign of the disease or the larnyx was the first part attacked. In the asylums' board hospitals diphtheric paralysis has been rather more frequent since the introduction of the antitoxin-treatment, the probable reason being that more severe cases survive the early fatal stages of the disease and either recover or live sufficiently long to become paralyzed. In 1510 consecutive cases of uncomplicated diphtheria treated with antitoxin, 18.3% developed paralysis. When the serum was employed on the first day of the disease only 5.7% of the cases became paralyzed; when employed on the second day, 10.1%. Only 1 case of severe paralysis occurred among cases treated on the first 2 days, with no deaths from paralysis, and there were only 9 cases of severe paralysis with 3 deaths among cases treated on the first 3 days. There were, on the other hand, 51 severe cases with 15 deaths among those not brought under treatment until the fourth day or after. These figures show that the cases treated early with antitoxin are less likely to develop paralysis than those treated early without antitoxin, and further, that early treatment in nonantitoxin cases does not influence the character of the paralytic attack. While the asylums' board results show that the mortality-percentage of all cases treated on the first and second days is greatly reduced, it is especially evident among the cases occurring in patients convalescing from scarlet fever. From a mortality of 50% a reduction has been made to from 4% to 5%. The effect of this treatment upon the disease manifests itself by the rapid destruction of the existing exudate and the prevention of fresh exudate. When the nasal passages are involved the foul discharge from the anterior nares quickly ceases. In many fatal cases the exudate is entirely destroyed before death occurs. The lessening of the faucial inflammation enables the patient to breathe and take nourishment without discomfort. The large cervical glands and the inflammation of the cellular tissues of the neck subside quickly. There is usually an early marked improvement in the general condition of the patient; pulse-rate and temperature fall, the appetite returns, and convalescence occurs earlier. Even in fatal cases death is made easier. [S.M.H.]

6.—Maitland reports a series of cases of **phagedenic chancroid** in which there was no previous history of syphilis, and in which the sore recovered under purely local treatment, but in which there occurred multiple peripheral neuritis. [S.M.H.]

7.—Day treated 60 cases of **dysentery,** 25 of which received ipecacuanha and opium; the remaining 35 were treated with magnesium sulphate. Under the former method of treatment the death-rate was 32%, and under the latter 2.9%. The recoveries occurring under the former treatment were slow and accompanied by frequent relapses; under the latter they were complete and rapid, but it was always found advisable to continue one-dram doses of magnesium sulphate 3 times daily for a couple of days after the stools had ceased to be dysenteric. [S.M.H.]

9.—Condon saw a Bhistu snake-charmer who was **bitten by a cobra.** The bitten finger was incised and some native medicine applied. Three-quarters of an hour later deep incisions were made over the site of the bite, the hand was dipped in hot potassium permanganate solution, and the wound forcibly sucked for some minutes, after which strong solutions of potassium permanganate were injected subcutaneously together with 3 minims of liquor strychninæ hydrochloratis. The patient became very ill, but eventually recovered under vigorous stimulating treatment. The recovery was dependent upon the facts that the snake had spent its poison previous to biting the man and that part of the poison was removed from the wound when treated. [S.M.H.]

10.—Parker describes **a case of hermaphroditism** in a subject aged 24 years. He had been married for some months to a young woman, but had never manifested any sexual desire. He was evidently devoid of sexual instinct. Examination showed the penis, urinary meatus, and scrotum to be normal, but the testes were small and soft. He had a regular, moderate, bloody monthly discharge. [S.M.H.]

Lancet.

February 4, 1899. [No. 3936.]

1. On the Prevention of Phthisis, with Special Reference to its Notification to the Medical Officer of Health. ARTHUR NEWSHOLME.
2. Local Infiltration-Analgesia. ARTHUR E. BARKER.
3. A Case of Bilateral Paralysis of the Laryngeal Abductors successfuly treated by the Removal of the Isthmus of a Bronchocele. SAMUEL LODGE.
4. The Distribution and Origin of Tuberculosis in Children: an Analysis of Post-mortem Records in 77 Cases, with Remarks thereon. LEONARD G. GUTHRIE.
5. A Woman Disembowelled by a Cow; Recovery. THOMAS BELL.
6. Two Cases of Intussusception in Infants treated by Abdominal Section and Reduction; Recovery. JOHN BARLOW.
7. A New Method of Treatment for Prolapse of the Uterus with Notes of 10 Cases of Procidentia. J. INGLIS PARSONS.
8. Further Remarks on the Open Method of Administering Nitrous Oxide Gas. GEORGE FLUX.
9. Case of a Foreign Body in the Alimentary Canal Ulcerating its way through the Abdominal Wall. F. PRYCE JONES.
10. Note on the Operative Treatment of Ectropion. H. CARTER MACTIER.
11. The Just Position of Bacteriology. CHARLES EGERTON FITZ GERALD.
12. Note on Ocular Paralysis following Herpes Facialis. ALFRED RUTTER.
13. A Suggested Modification in the Technic of the Operation of Pan-hysterectomy. C. E. PURSLOW.

14. Removal of a Foreign Body from the Foot with the Aid of the Fluorescent Screen and Röntgen Rays. E. W. DIVER.
15. A Case of Rapidly Growing Ovarian Tumor complicating Pregnancy; Ovariotomy; Recovery. WILLIAM DUNCAN.
16. A Case of Gumma of the Liver treated by Operation. RUSHTON PARKER.

1.—Newsholme considers tuberculosis a disease which is infective only to the minority, but this fact is more than counterbalanced by its being infective for a long period. The **prevention of tuberculosis** must have regard to the disposition of the infectious discharges from the patient, especially his desiccated sputa, and the personal and environmental circumstances which favor the origin of phthisis. The segregation of phthisical patients, except where it is voluntarily undertaken in the interest of the patient, is entirely out of the question. Voluntary isolation may, however, be recommended in two directions: first, of the patient himself when the home conditions are unfavorable for his recovery, with a view to securing his cure in a well organized sanitarium; second, the relatives who are particularly prone to fall victims may be removed, with a great increase in the probability of their escape from the family disease, from the home where the patient is being treated or has been treated. Newsholme considers **the notification of phthisis** to the medical health-officer as the best means of its prevention. This would lead to an inspection of the infected houses, with a view of studying the sanitary conditions and presenting remedial measures against dirty rooms, overcrowding and dampness with deficient ventilation, and proper direction to the patient regarding the disposition of the excreta and his habits of life. Notification can be limited, and some good derived therefrom by making it voluntary, and in granting to those local authorities who wish it the privilege of adopting compulsory notification of phthisis. Apart from compulsory notification, it is possible to secure the disinfection of houses in which deaths from phthisis have occurred. This measure is adopted in some of the English towns, the procedure being to send a circular by post to the head of the house in which a death has occurred, to be followed by a visit of inspection during the course of a week to see that the work directed has been carried out. In some instances, in addition to this, there has been adopted a system of voluntary notification of all cases of phthisis removed to the work-house, the house vacated by the patient being thoroughly purified. The circular referred to reads as follows:

1. Strip the wall-paper from the wall. The paper should afterwards be burnt in the fire-place of the same room.

N. B.—The chief danger is from dust. Hence all articles should be thoroughly wetted before cleansing them. A supply of disinfectant for mixing with the water can be obtained free of cost at the office at the town hall, but a disinfectant is not essential if everything is thoroughly wetted.

2. Thoroughly wash the ceilings and floors and walls of the room.

3. Wash all bed-linen and other articles in the room, and expose all bedding, pillows, etc., out of doors for several hours in bright sunshine.

For the last 5 years every death from any form of tuberculous disease has been made the subject of an inquiry under the following heads:

Deaths from tuberculous diseases:—sex, age, disease, address, name of doctor, date of death, duration of illness, source of milk-supply, places of residence during illness, nature of occupation during the last 10 years, other cases of allied disease in the family, previous history of the house.

Condition of the house as regards (1) overcrowding, number of occupants (over 10, under 10), number of living-rooms and bedrooms; (2) whether animals are kept; (3) condition as to dampness, condition as to cleanliness; (4) ventilation; (5) lighting; (6) drainage-arrangements; (7) dust-bin; (8) size of yard, condition of paving.

[These views of Newsholme's, based upon 15 years' experience of local sanitary administration in London and Brighton, should receive very careful consideration, especially when there is taken into consideration the fact emphasized in the course of his article, that tuberculosis causes 50% more deaths than the aggregate of the 7 chief zymotic diseases. Local experience has shown that it is practically impossible to secure compulsory notification of phthisis at the present time, but it is reasonable to believe that by proper effort voluntary notification would receive sanction, and a proper disinfection of the houses in which deaths from phthisis occur, or from which cases of phthisis are sent to the various hospitals and homes, could be accomplished. S.M.H.]

2.—After making a most careful study of the principles involved in **local infiltration-analgesia,** Barker has selected for this purpose a solution consisting of eucain 1 part, sodium chlorid 8 parts, and water 1,000 parts by weight. For use in his practice he has had prepared powders containing 3 grains of eucain and a certain quantity of sodium chlorid. One of these, boiled for a few minutes in 7 ounces of distilled water, gives a sterile solution, containing the constituents in their proper proportion. As to the technic, the syringe is filled with the solution at a little above the body-temperature and is armed with the finest needle; the latter is thrown obliquely under the epidermis until its eye is buried, and a few drops of the solution are injected until a white plaque is formed. The needle is then thrust in different directions down through areolar, muscular, or periosteal tissue according to the nature of the operation, until a mechanical edema is produced and, presumably, all the nerves of the part are steeped in the fluid. Finally, a fine needle is introduced horizontally beneath the epidermis along the course of the proposed incision. In about 5 to 10 minutes the part will be in a state of analgesia. It has been proven by experimentation that the solution will be more efficacious after the ingestion of food and alcohol; the patient should therefore be given, whenever the case permits, a nutritious meal and one ounce of brandy shortly before the operation. During January, Barker performed, under the form of analgesia, three radical cures of hernia, one abdominal section, one osteotomy, one operation for varicocele, empyema, and ischio-rectal abscess, and wired one patella. The experiments of Braun and Heintze, on the question of the induction of local infiltration-analgesia, have shown that the most important property of these watery solutions is their osmotic powers; that is to say, they either give or take water from the tissues, or, at a certain concentration, they were indifferent solutions to which the tissues did not react at all. It was further shown that all solutions, which have nearly the same freezing point as the normal fluids of the body, are indifferent to tissues, that is, they produce no osmotic changes. A 0.9% solution of sodium chlorid, which has the same freezing point as blood, when injected into the tissues will produce neither irritation nor paralysis of sensibility, but is rapidly absorbed without leaving a trace of change in the tissues. All stronger concentrations withdraw water from the tissues and cause pain; all weaker solutions cause the tissues to swell and also cause pain of intensity greater the more nearly the solution approaches pure water. Thus the effects of the injection of watery salt-solutions upon the sensory nerves depends not upon the pressure-anemia, or the mechanical edema, but upon the osmotic power. The other factor, which is to be considered, in relation to the induction of infiltration, is the specific action of the analgesic solution. Eucain appears to be the best drug for this purpose. It is equal to cocain in its analgesic properties, it is 4 to 5 times less toxic, it keeps well, and it may be subjected to boiling. In preparing eucain-solution according to the principles above laid down, one must employ a warm, osmotically and chemically indifferent fluid, with a freezing point of about 55° C., or that of blood, as a medium so as to exclude all the physical effects of the injection per se, and to leave the pure specific action of the paralyzing drug to operate alone. With common salt-solution in water, of the strength of 0.8%, at the body temperature, one has such a fluid equaling in its freezing point that of the blood. An almost unlimited quantity of this fluid may be used without causing any ill effects. In at least one operation 300 c.c. has been injected. [C.H.F.]

3.—The **dyspnea,** which had been of seven years' duration, was **due to pressure of a goiter upon the recurrent laryngeals,** and removal of the isthmus was followed in time by disappearance not only of the dyspnea, but of the goiter itself. The case is of additional interest in that it is the only one of all recorded cases, in which the diagnosis was based upon a laryngoscopic examination revealing a palsy of the abductors. [C.H.F.]

4.—Guthrie made an analysis of 77 postmortem records in cases of **tuberculosis in children** with the idea of determining the distribution and origin of the disease. The results of his work are (1) thoracic tuberculosis in children is more common than abdominal in the proportion of 3 to 2; (2) tabes mesenterica as a cause of death in young children is practically unknown; (3) the preponderance of thoracic over abdominal tuberculosis is not necessarily solely due to the direct entry of bacilli into the air-passages. In addition to this mode of infection the lungs may be affected: (*a*) by bacilli entering the thoracic glands through the lymphatics of the pharynx, tonsils or esophagus above, and through the lymphatics of the intestines to the abdominal glands below; (*b*) by the entry of bacilli through the thoracic ducts into the pulmonary circulation by way of the right heart; (4) primary infection through the alimentary tract does not prove that food has been the sole source of evil, therefore, tuberculosis in children is not likely to be materially checked by purification of milk-supply alone; (5) the alleged increase of tuberculous meningitis of late years is probably due to pulmonary tuberculosis set up by severe epidemics of measles. [S.M.H.]

7.—Parsons discusses the etiology and symptoms of prolapsus uteri, and reports 10 cases treated by the injection of 1 : 6 quinin-solution into the cellular tissue surrounding the uterus. The operation is as follows:—The patient is placed in the lithotomy position. The vagina is thoroughly douched and rendered as much aseptic as possible. The perineum is then retracted with either Auvard's or Sims's speculum. Another retractor is then used to hold up the anterior wall of the vagina if necessary. The lateral walls are then exposed. The uterus is held with one hand as nearly as possible in its normal position by a probe passed into its interior. With the other hand the injections are made on each side through the vaginal wall into both broad ligaments on a level with the external os, and from about three quarters of an inch to an inch from the junction of the vagina to the cervix. After the syringe and speculum have been withdrawn it is necessary to keep the uterus up with a cup-and-stem pessary, held in position by 4 tapes tied around the waist. This is left in position 3 or 4 days and is then removed. A special syringe with a long, thin nozzle is a great convenience, because it does not obstruct the light, and it enables the operator to see that the needle-point pierces the vaginal wall at the right point. The needle should not be more than an inch in length nor much thicker than an hypodermic needle, in order that the puncture may close quickly. In all these cases procidentia had existed for years. In one of these cases some slight suppuration followed injection. [The impossibility of limiting the extent of adhesive inflammation, and the fact that frequently painful symptoms result from perimetritic inflammation, seems to make this an unsurgical procedure, The many excellent results obtained by various tested operations, with such slight danger to life, render it probable that the injection method will be received with little favor. W.K.]

8.—In a series of 250 consecutive cases the results following the **administration of nitrous-oxid gas by the open method** have been uniformly successful. It is erroneously stated that the admission of air interferes with the effect of the gas. The difficulty of an ill-fitting face-piece, one that admits air, depends not so much upon the ingress of air as upon the rapid escape of the heavier nitrous-oxid gas. By the use of an inhaler, which is completely open at the top and into which the gas is allowed to fall by atmospheric pressure, from the end of a supply-pipe held over it, the full anesthetic effects of the gas can be obtained. The weight of the gas itself prevents any escape from the open top of the inhaler, and if the latter fits accurately to the face there will be no escape below. The advantages of the open inhaler may be said to be a liberal supply of air, the breathing of warm gas (which is not inhaled under artificial pressure), and the absence of any danger of infection from a complicated apparatus that cannot be cleaned and therefore may have been contaminated. In addition to these, there is not the slightest apprehension or discomfort, when the patient is being put under the effects of the gas, and the administration of the anesthetic may be continued for 11 minutes, without any disturbance of pulse or respiration. Neither have any subsequent ill-effects been observed. [C.H.F.]

14.—Duncan reports the successful removal of a large ovarian cyst during pregnancy. An incision 3 inches in length was made; the cyst was tapped, and 126 ounces of clear, greenish-yellow, tenacious fluid withdrawn, after which the sac was removed. The patient made an uneventful recovery, with the exception that the skin incision was very slow in uniting. [W.K.]

New York Medical Journal.

February 18, 1899. [Vol. lxix, No. 7.]

1. The X-Ray in the Diagnosis of Tuberculosis. J. Rudis-Jicinsky.
2. Electro-Hemostasis in Surgery. A. J. C. Skene.
3. The Ambulance Service in the War. Major James Johnston.
4. Inverted Retinal Images and Inversion of the Fields of Vision. James L. Minor.
5. Combinations of Synergists in Reduced Doses. B. Scheinkman.
6. An Open Safety-Pin Lodged in the Cardiac End of the Stomach for Seven Days. Its Successful Removal by Gastrotomy. William Petry.

1.—Rudis-Jicinsky has tabulated 20 cases of pulmonary disease in which the **fluoroscopic examination showed the degree, position and relation, of diseased areas** more fully and accurately than the ordinary methods of diagnosis. The importance of early diagnosis in tuberculosis is insisted upon, and especially the proper interpretation of the presence of subcrepitant rales in the early history of these cases and of the differentiation between areas of consolidation and cavity-formation. He believes that the X-ray makes a positive diagnosis of the stage of the disease possible. He describes at some length—and in a manner that would lead one to infer that it can be accomplished with great ease—how it is possible to recognize by means of the fluoroscope the normal lungs; pneumonia (differentiating between its various stages); pleuritic thickenings; pleuritic thickenings over consolidated tissue; emphysema (the reflex is abnormally clear); asthma (the reflex is abnormally clear and the movement of the diaphragm restricted); pleural effusions; tuberculous infiltration; tuberculous consolidation; cavities; isolated foci of infection; adhesions; simple fibrous bands; abnormal concretions; foreign bodies; destruction of lung-tissue. He refers in the course of his article to a specific treatment "which arrests the growth of tubercle-bacilli." This consists of "ichthyol (P. D. & Co.), keratin coated pills, 2 grains, and carbonate of guaiacol." [The author of the above communication is to be congratulated upon having reduced the recognition of the various pulmonary diseases to such an exact science, and upon having discovered a specific treatment for tuberculosis. With this power of early recognition, supported by a specific treatment, what further need should there be of anxiety regarding the future of pulmonary tuberculosis? S.M.H.]

2.—For many reasons Skene prefers to **arrest hemorrhage by cauterization,** rather than by ligation. Electro-hemostasis, as it is termed, may be applied to control hemorrhage from isolated bloodvessels, as well as from those embedded in tissue, like an ovarian tumor or pedicle, and it is more especially with reference to the latter that he commends its adoption. Some of the advantages over ligation by silk or catgut-ligatures are the prevention of septic absorption through sealing up of the lymphatics; the absence of subsequent adhesions of the stump to the abdominal or pelvic viscera; the freedom from pain resulting from the destruction of the nerve-filaments; recovery is more prompt, since the stump of a pedicle or the end of an artery is left in a condition requiring the least reparatory care. The tissues treated by electro-hemostasis form one homogeneous mass and cannot be identified. Obliteration of fallopian tubes or any other canal is perfect, and in no case has there been any secondary hemorrhage. The method consists in firmly compressing a portion of the bleeding tissues, or the end of a bloodvessel, between the jaws of an especially constructed forceps, and after the moisture is expelled, the tissues are desiccated by heat generated in the jaws of the instrument by an electric current. [C.H.F.]

4.—Minor refers to a case of **blindness** in a man aged 40 years which was **relieved by operation.** There was neither inversion of object nor of field of vision in the case. He believes that an error has been fallen into in confounding the inverted image of the object formed on the retina—a simple phenomenon of refraction which may be visible to the observer but not to the subject—with the recognition of the object by the brain and its projection to its proper position in space. The so-called reinversion of the field of vision differs in no material way from nerve-action elsewhere. [S.M.H.]

5.—Scheinkman advocates **combining therapeutically analogous drugs** in minute doses, so as to constiute in the aggregate a moderate therapeutic dose. This method is far superior in effect to a similar dose of any one of its constituents administered alone. Especially is this rue with the members of the coal-tar group and with most of the alkaloids. This means of administration modifies he respective individual characteristics of the coal-tar products and creates an almost new therapeutic action, which, while being more powerful and more certain in its therapeutic effects, is completely lacking in the toxic properties possessed by any one of its constituents. He believes that his combination possesses a decided prophylactic power gainst many diseases of microbic origin, and has found it eneficial also in some affections characterized by pyrexia nd neuralgia, such as acute articular and muscular rheumaism, acute pneumonia, erysipelas, and malarial affections, nd to a moderate extent, in typhoid fever. [S.M.H.]

Medical Record.

February 18, 1899. [Vol. lv, No. 7.]

Puerperal Insanity—A Cursory View for the General Practitioner. Carlos F. MacDonald.
Notes on Anesthesia. Emil Aronson.
What to Do to Be Saved. Being the Conclusion of an Inquiry into the Causes leading to the Abuse of Medical Charity. Thomas J. Hillis.
The Use of Quinin in Malaria. P. L. Bellenger.

1.—Puerperal insanity, like other forms of mental sorder, may be classified for convenience of description, in cordance with the predominant type of morbid manifestaon present, into mania, melancholia, and dementia. The st, however, is rare, except as a terminal stage of the two rmer. In other words, the outward expression of the disse, on the mental side, will be the guide in determining to ich class in the category a given case belongs. Those ses that are marked by morbid mental exaltation or psylampsia, are designated as mania; those by morbid mental pression, or psychalgia, as melancholia; while cases that e marked by mental enfeeblement, or psychoparesis, may classed as dementia. Thus, though we have 3 distinct pes of insanity occurring during the puerperal period, the t being rare as a primary affection, may, broadly speaking, rmit the statement that puerperal insanity is mania or lancholia associated with the puerperal state. In making differential diagnosis between these 3 forms, in a large jority of cases no difficulty will be experienced, if the ential mental symptoms of each are simply borne in mind: other words, if it is remembered that mania of whatever m is characterized by morbidly increased activity of an lted type; melancholia by morbid mental depression, om, and despondency; and dementia by mental weakness loss or impairment of mind. [W.K.]

2.—Aronson believes that neither ether nor chloroform uld be used exclusively for **anesthesia.** In any case, measures designed to combat emergencies should be at nd before the anesthetic is given. [J.S.]

3.—Hillis, in a long article upon **hospital abuse**, conds that, at present, the hospitals are frequently injurious the practising physician. He believes that the remedy uld consist in the restriction of hospital work to indigent ons and the abolition of the right to receive remunera on the part of the hospital. He further suggests that sicians should insist upon having a salary for the hospital k that they perform. He strongly believes that the hosl training is no longer an adequate return for the amount ork and time required of the member of the staff, and s that physicians should not seek hospital appointments agerly as they now do. [J.S.]

.—Bellenger reports 2 cases of **malaria** in which **hemhage** occurred after the administration of **quinin.** In her case does he believe that the drug was the exciting t. The first patient, a girl of 15, subsequently took in with immunity, and the second, a man of 24, was of a mill-crew, 20 in number, all suffering with malaria, none of the others exhibited this symptom. [J.S.]

Medical News.

February 18, 1899. [Vol. lxxiv, No. 7.]

1. Pulmonary and Laryngeal Tuberculosis Treated with Antiphthisic Serum TR., with Remarks on the Etiology of Tuberculosis. W. Freudenthal.
2. The Relation of the State to the Consumptive, with Special Reference to Prevention of the Disease and State Care of the Incipient Consumptive. John H. Pryor.
3. Ingrowing Nail; a Comparison of Methods of Operation. (*Illustrated.*) Edward Milton Foote.
4. The Treatment of Headache. (*Concluded.*) Joseph Collins.

1.—Freudenthal reports 4 cases of **pulmonary and laryngeal tuberculosis** treated with the serum prepared by Fisch, from horses immunized with TR. The first patient, a man of 41, had dulness at the apices of both lungs, rales, cough, and profuse expectoration. After treatment for some time, more or less interrupted by the violence of the reaction, the patient was able to report that he felt better, slept better, had a better appetite, and coughed less. The dulness continued over both apices. The second patient, a man of 21, had dulness at both apices, more pronounced on the left side. There were rales, cough, dark expectoration, and night-sweats. After treatment, no improvement was noticed, and tuberculosis of the larynx had developed. The third patient, an electrician, also had dulness over both apices, with rales, cough, expectoration, and loss of weight. He had previously been treated with tuberculin, and resisted the injections very well. He developed pleurisy and apparently showed no improvement. The fourth case, a man of 25, with family-history of tuberculosis, had dulness over both apices, hemoptysis, night-sweats, cough, expectoration, and loss of weight. After treatment, the dulness was slightly diminished, and the weight had further decreased. [Unfortunately it is not stated whether tubercle-bacilli were found in any of the cases. J.S.]

2.—Pryor contends that the State should establish **sanatoria for consumptives,** where, under suitable conditions of climate and care, the chances of recovery would be greatly increased. The annual cost for each patient should not exceed $250. [J.S.]

4.—Collins believes that epileptiform headaches, that is, those replacing the epileptic attacks, should be treated systematically by bromids. The headaches of exophthalmic goiter should be treated as are those of neurasthenia. Among the most valuable drugs is aconitin in doses of $\frac{1}{200}$ of a grain, or, in cases of lowered arterial tension, digitalis. Headaches associated with organic disease require treatment for the disease. Those due to poisons are best cured by preventing further ingestion of the deleterious agent. Frequently after infectious diseases, it is desirable to give a tonic. In cases of endogenous poisoning, treatment should be directed to the cure of the general condition. In cardiac or circulatory disease, stimulants or sedatives must be given according to the indication. In cases of arterial sclerosis, amyl nitrite may be of value. Collins expresses his opinion that want of balance on the part of the eye-muscles has been unduly magnified as a cause of headache. He finally mentions a peculiar form, to which the name habitual headache has been given, that is usually associated with lack of tone, and recommends for it a mixture of ammonium chlorid, hydrastis, and viburnum. He admits that the therapeutics of this condition is frequently discouraging. [J.S.]

Boston Medical and Surgical Journal.

February 16, 1899. [Vol. cxl, No. 7.]

1. Ventral Hernia. John W. Keefe.
2. A Case of Mediastinal Sarcoma. George G. Sears.
3. A Point about Incisions and Scars in the Hairy Scalp. George H. Monks.
4. Paralysis following Cerebro-spinal Meningitis. Preliminary Report. W. N. Bullard.
5. Bromoform, Carbolic Acid, and Whooping-cough—The Dangers of Each. J. S. Stone.

1.—It is surprising how seldom operations for **ventral hernia** are recommended when one considers what good results may be obtained by operative interference. It is important that operations should not be too long delayed, for the operation is not only difficult, but at times contraindicated in hernia of long standing, the contents of which are irreducible and oftentimes adherent, with occasionally marked atrophy of the muscles surrounding the lesion. Keefe prefers to use the buried silver-wire mattress-suture, or a machine-stitch of silkworm-gut, to bring the fascia together. The adipose tissue and skin may be united with catgut, or silkworm-gut may be used in the integument. He reports a series of 8 cases in which he operated with success. [C.H.F.]

3.—It will occasionally be found, that after a certain time has elapsed, the scar of a scalp-wound will apparently become broader. Monks found, by investigation, that it is not the cicatrix which stretches, but that there is on one or the other side of the cicatrix a band of normal scalp-tissue from which the hairs drop out. The explanation of this lies in the fact that the hairs on the back of the head, being obliquely attached from above downward, have roots which are likewise oblique; so that, in making an incision in the usual manner at right angles to the surface of the skin, the roots of many of the hairs which come to the surface of the skin below the edge of the incision are cut off. It, therefore, seems best, whenever it is necessary for any cause to make an incision in the scalp at the back of the head, and especially when it is desirable to conceal the scar, that the knife should be held in a position at right angles to the surface of the skin in cases where a vertical incision is to be made, but in a position oblique to the skin whenever a transverse incision is contemplated; in other words, the knife-blade should be kept parallel to the roots of the hairs so as not to divide them. [C.H.F.]

4.—Bullard notes that the **paralysis that occurs after cerebro-spinal meningitis** may be associated with pain on passive motion for some time after the cessation of the attack. There is always a tendency to spastic contracture in the paralyzed limb, causing a muscular resistance to passive motion. The knee-jerk is not always affected, although sometimes, as poliomyelitis, it is totally abolished. The most difficult point in differential diagnosis is the exclusion of infantile paralysis, but the character of the initial attack ordinarily serves the purpose of making the distinction. [J S]

5.—Stone reports the case of a child with **whooping-cough** to whom **bromoform** had been given, in whom the drug finally produced an attack characterized by such extreme prostration and cyanosis that a physician who was called in pronounced the child dead of "black diphtheria." He therefore sprinkled the child and the bed upon which it lay with carbolic acid. The following morning the patient recovered, but suffered from numerous deep, slowly-healing ulcers in various parts of the body. The whooping-cough returned and ran its usual course. [J.S.]

Journal of the American Medical Association.

February 18, 1899. [Vol. xxxii, No. 7.]

1. Chairman's Address. B. ALEX. RANDALL.
2. Eversion of Ventricle of Larynx. E. FLETCHER INGALS
3. The Relations of the Colon to Intra-Abdominal Tumors. M. L. HARRIS.
4. Iron in Interior of the Eye. WARWICK M. COWGILL.
5. Concealed Traumatic Meningeal Hemorrhage. H. REINEKING.
6. The Accommodation. J. G. HUIZINGA.
7. Dissimilar Eyes. NORBURNE B. JENKINS.
8. Typhoid Fever. H. S. JARRETT.
9. A Breech Presentation, with an Unusual Complication. J. HUNTER PEAK.
10. Antistreptococcic Serum. C. P. THOMAS.
11. Eclampsia. W. C. BOUTON.
12. Suprapubic Cystotomy vs. Perineal Section. JAMES M. PARROTT.
13. A Few Clinical Observations During an Epidemic of Variola. J. FRANK MCCONNELL
14. A Few Clinical Pictures. J. A. WESSINGER.

3.—Harris calls the attention of the profession to the characteristic **relation of the colon to most intra-abdominal growths** and emphasizes the importance of these relations in the diagnosis of such tumors. He advocates distention of the colon by some harmless gas, after which its relations can easily be determined on percussion. The literature of abdominal tumors was examined to determine if a characteristic displacement of the various organs existed with relation to the colon. Harris finds that in 95% of the cases of tumors of the pancreas there is downward displacement of the colon. Tumors of the spleen not only depress the splenic flexure, but override the colon. Tumors of the kidney or adrenal as a rule displace the colon forward and inward. Enlargements of the gallbladder usually depress the right half of the transverse colon with a tendency to overlap it and press it backward. Displacement of the sigmoid flexure or cecum upward and outward are of considerable value in the diagnosis of tumors arising within the pelvis. A large number of illustrative cases with diagrammatic cuts add to the value of this interesting article. [M.B.T.]

4.—Two cases are reported in which pieces of iron were removed from the interior of the eye by use of a magnet. [M.B.T.]

8.—The **symptoms and diagnosis of typhoid fever** are discussed and the antiseptic treatment of the disease is advocated. Jarrett records the treatment of 200 cases in private practice within 12 years with a mortality of 10%. [M B.T.]

9.—A **breech presentation** is reported occurring in a multipara aged 26. The left thigh of the child was flexed on the abdomen with the knee in the axilla and the foot between the shoulders. The lateral diameter being increased by the thickness of the leg, and lateral flexion being prevented by the unyielding femur, the progress of labor was arrested until the leg was brought down. A green-stick fracture of the femur resulted, but the labor progressed without further difficulty. [M.B.T.]

10.—Thomas reports 15 cases, in addition to 8 cases previously reported, in which he has used **antistreptococci serum** with complete success in treating acute sepsis [M B T]

11.—A case of **eclampsia** complicated by **postpartum hemorrhage, puerperal mania** and pleuritis is reported in which recovery resulted. Milk-diet had been ordered an pilocarpin and salines prescribed 9 days previous to the convulsions without avail in averting them. During the attack chloroform and enemas of chloral and sodium bromid wer used and labor was induced by the introduction of sterilize catheters. Postpartum hemorrhage occurred in spite of th free use of ergot, and it was found necessary to spend mos of the night in manual compression of the uterus. Mani developed on the second day and pleuritis on the third da but in spite of all this the patient recovered, though slowl [M.B.T.]

13.—McConnell gives notes of a recent epidemic of **small-pox** in New Mexico, in which there was the almost consta complication of catarrhal or purulent conjunctivitis and t appearance in such cases of the initial macular or meas form rash. There were a number of severe cases and death among patients who had been previously successful vaccinated. McConnell attributes this to the attenuated imperfect vaccine-matter supplied to physicians. A mi form of the disease was observed among Mexicans who h not been previously vaccinated. In its clinical features resembles varioloid, and is called by the natives "*Viru blanca.*"

Fecal impaction in the sigmoid flexure in m over 70 years old.—Matthews (*North Carolina Medical Jo nal*, January 5) reports two cases of fecal impaction in the s moid flexure in men 70 years old attributed to an exclusi diet of oatmeal. In the first instance the mass was as large a fetal head, of the consistence of putty, and white in col The mass was broken down by a curet carrying a stream water, and was finally passed after a high irrigation and administration of a saline cathartic. In the second insta death ensued upon the eating of oatmeal exclusively beca of some digestive disturbance. The fecal impaction was the same location and of the same character as in the case. The conclusion follows that the aged especially sho avoid this diet and that it may not be without dange others. [G.C.C.H.]

Original Articles.

MISAPPREHENSIONS REGARDING THE CODE OF ETHICS.

naugural Address of the President of the New York County Medical Association.

BY FREDERICK HOLME WIGGIN, M.D.

Delivered February 20, 1899.

Members of the New York County Medical Association:—n thanking you most cordially for the confidence ou have reposed in me by electing me to the office of resident of this large and influential association, for e ensuing eighteen months, I do so with a deep sense f the importance of the task I am about to undertake. o realize what these responsibiltties are, it is only necssary to recall the aims and objects of our association, expressed in the by-laws, viz.: To bring together for e purpose of mutual and professional benefit, memrs of the medical profession in the county of New ork, having a community of sentiment relating to the nor, interest and usefulness of the profession and the aintenance of its character, the cultivation of the ience of medicine, and the promotion of public health. nce on these depend the comfort, happiness and the es of our fellow-beings, what objects could possibly be more importance to the profession to which we have e honor to belong, or to the general public, than the aintenance of the character of our guild and the cultition of our science, on the one hand, and, on the er, the promotion of the public weal through the otection of its health?

Before entering upon the chief topic on which I wish address you, I desire to make certain recommendans. In the first place, I wish to call the attention of r committee on legislation to the dispensary bill induced into the Senate by Dr. Johnson, and known as nate bill No. 413. This bill is practically the one opted by the joint committee of last year, and which ssed the Senate, but failed of passage in the Assembly. main purpose is to give the State Board of Charities power to license dispensaries, and make such rules l regulations for their conduct as may seem for the blic benefit. It also gives this board the power to orce these rules and regulations by revoking the nses of such institutions as do not live up to them. ur committee on legislation should also endeavor ave removed from the statute book the law which hibits a physician from occupying the position of sident of the New York City Board of Health. The son generally given for this law is that physicians erally are not good executive officers and business n; that there are some in the profession who fill both e requirements has been notably shown in the case eneral Leonard Wood, of the United States Volun- Army. Of all the strong men who entered the service of the United States in the late Spanish-American war none has been more distinguished for these very qualities than this able physician.

It has seemed for some time past to the officers of this association unfortunate that there has not been a larger and more punctual attendance at the meetings, and it will be my policy to correct this, so far as possible, and to begin the sessions promptly. This is absolutely necessary if we are to keep up the high standard of scientific work set by my able and distinguished predecessor, and, at the same time, devote a fair portion of the evening to the cultivation of social intercourse between the members, which is by no means the least enjoyable and important part.

Thanking you again, on behalf of myself and associated officers, for the honor of electing us to our present positions in this association, we desire to assure you that it will be our endeavor to work to the best of our ability for the benefit of the association as a whole. We earnestly hope that you will be as patient and as considerate as in previous years, and will aid us by prompt attendance, as well as by the contribution of pathologic specimens, and interesting clinical cases.

It is now my desire to touch briefly on some points of medical history, but not for the purpose of starting anew old discussions and dissensions. In the first place I wish to acquaint some of our younger members with historic facts relating to our profession which they should know, and to clear away, once for all, the misapprehension which seems to exist in the minds of many, both in and out of the profession, as to the platform on which we stand. These thoughts have been suggested to me by a statement made within the year by a prominent official of the Homeopathic State Medical Society, that, when the American Medical Association and its affiliated societies were ready to open their doors to those who held different views from the majority as to the action and dosage of drugs, he, for one, would be willing to leave his organization, discard his sectarian title, and apply for membership. It was my pleasure to be able to inform him that the position which he so much desired was that which the American Medical Association had taken years ago, but which seems not to be generally understood.

For many years it has been a well-recognized fact of modern civilization that it is impossible for any large body of individuals, having like purposes and engaged in similar pursuits, to maintain their character, welfare and influence, both individually and collectively, without proper organization. Without such organization and discipline these bodies are simply mobs, as was evidenced more or less conclusively during the events of the past few months. It was for this reason that our medical fathers, in the year 1847, considered it necessary to bring into one fold the many medical societies which at that time existed in the different localities throughout the length and breadth of the land. The outcome of this movement was that great national society, the American Medical Association, of which we, together with the State Association, are the representatives.

The late Alexander H. Stevens, its first president, in acknowledgment of the honor of election to the presidency, drew the following picture of the profession of medicine of that time. "Our profession," he said, "is the link which unites science and philanthropy; it is one of the strongest ligaments which unites together the elements of society. It teaches the rich their dependence, and elevates the poor to a sense of the innate dignity of their nature. Its aim is to add to the comfort and duration of human life. In a country where the population is not crowding on the means of subsistence, and where every individual has the largest opportunity of promoting his own happiness and of perpetuating it in his posterity, the medical profession, entirely philanthropic in its objects, more intimately connected with the pursuits of science than the other learned professions, and not overshadowed by a hereditary aristocracy, enjoys preeminently a high social position and commensurate influence."

In his Medical Ethics and Etiquette, a book which it would be well for the profession if it were generally read by both physicians and the laity, Flint says: "It is not a small thing to belong to a profession so much honored, and plainly it is the duty of its members to do nothing to impair, but everything to sustain and promote, its honorable character."

It was for the purpose of sustaining these high views and for the instruction of the younger physicians as they entered the profession that the association deemed it expedient to adopt its code of ethics. This code was based largely upon letters written by Percival to his son, who was about to enter the profession, for the purpose of conveying to him valuable information and saving him from many a hard knock. Referring to this code, Flint, in his commentaries, says: "A reader who has given to the subject little or no attention may be supposed to ask, 'Wherefore the propriety of recognizing the principles of duty applied to medicine as constituting a distinct branch of ethical science? Are not the rules in ethics which would govern the practitioner of medicine the same as in other applications?' There are certain fundamental truths which, of course, underlie all possible applications of ethics, but the adaptation to different conditions of human life calls for separate consideration." Gouley, in his review of Flint's work says: "The rules of conduct adapted to the peculiarities of medicine constitute medical ethics. These rules have a moral weight." It would be a fortunate thing for the profession if medical colleges would establish a professorship of history of medicine and of medical ethics.

From the year 1848 to 1882 the general profession of this broad land of ours lived in reasonable harmony, but in the last-named year the New York State Medical Society, at its meeting held in Albany in February, unfortunately disregarded the ninth by-law of the national society by adopting a code which the judicial council of the American Medical Association found to be in conflict with its code of ethics. Accordingly, the State Society, by a unanimous vote, was denied representation, and its delegates were excluded. As a result, those members of the medical profession residing in this State—notably the Flints, Gouley, Carroll, Ferguson, Hinton, McLeod, and Harrison—who desired to be affiliated with the national society, were forced to organize the New York State Medical Association, and our society. This was done in 1884. Says Flint: "The question at issue was, Shall consultations with homeopathic practitioners be permitted? The affirmative answer to this question has been largely based on the requirements of humanity. This reason is specious, but invalid. It is a gratuitous reflection on the national code of ethics to imply that it interdicts professional services under any circumstances in which they are required by humanity. The true ground for declining professional fellowship with any class of practitioners is not a belief in the teachings of Hahnemann, or in any other dogma; it is the adoption of sectarian names as trademarks, and the formation of a sectarian school of practice, announced to the public as such." Again, Flint says that "the physicians who became the early disciples of Hahnemann were not driven out of the ranks of the profession; they made haste to go out of their own accord." Then, as now, it suited their ends not to be regarded as simple practitioners of medicine. In a similar way, our brethren of the State and County Societies left of their own accord. It was for the purpose of clearing away all doubt as to the standing of the association, and to open the door for the return of these gentlemen, that the American Medical Association, at its thirty-fifth annual meeting, held in Washington during May, 1884, appointed a special committee on "explanatory declarations concerning the proper interpretation of the code of ethics," of which Dr. N. S. Davis, of Chicago, was chairman. This committee, at the thirty-sixth annual meeting, held in Tulane Hall, New Orleans, on April 28, 29 and 30, and May 1, 1885, submitted the followed preamble and resolutions:—

> Whereas, Persistent misrepresentations have been and still are being made concerning certain provisions of the Code of Ethics of this Association, by which many in the community, and some in the ranks of the profession, are led to believe those provisions exclude persons from professional recognition, simply because of difference of opinions or doctrines; therefore,
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> (1) *Resolved*, That clause first, of Article IV, in the Nationa Code of Medical Ethics, is not to be interpreted as excludin from professional fellowship, on the ground of differences i doctrine or belief, those who in other respects are entitled t be members of the regular medical profession. Neither i there any other article or clause of the said Code of Ethi

hat interferes with the exercise of the most perfect liberty f individual opinion and practice.

(2) *Resolved,* That it constitutes a voluntary disconnection r withdrawal from the medical profession proper to assume name indicating to the public a sectarian, or exclusive sysem of practice, or to belong to an association or party anagonistic to the general medical profession.

(3) *Resolved,* That there is no provision in the National ode of Medical Ethics in any wise inconsistent with the roadest dictates of humanity, and that the article of the ode which relates to consultations can not be correctly inerpreted as interdicting, under any circumstances, the renering of professional services whenever there is a pressing r immediate need of them. On the contrary, to meet the mergencies occasioned by disease or accident, and to give helping hand to the distressed without unnecessary delay, a duty enjoined on every member of the profession, both y the letter and the spirit of the entire code.

But no such emergencies or circumstances can make it ecessary or proper to enter into formal professional consultions with those who have voluntarily disconnected themlves from the regular medical profession, in the manner dicated by the preceding resolution."

These resolutions were presented by a committee mposed of Drs. N. S. Davis, of Chicago, A. Y. P. arnett, of Washington, H. F. Campbell, of Augusta, a., Austin Flint, of New York, and J. B. Murdock, of ittsburg. On motion of Dr. Brodie, the resolutions ere unanimously adopted; and, on motion of Dr. eller, it was unanimously agreed that the resolutions added as an explanatory addendum in all future iblications of the Code.

It must be evident to any one who considers the atter with care, that this action on the part of the nerican Medical Association not only opened the or for the return of those in New York State who had eded from its ranks in 1882, but also to those edued and reputable physicians who, though holding to eir dogmas, were willing to give up their sectarian les and organizations.

Now, how does the County Medical Society view s matter? Dr. A. M. Jacobus, in his able inaugural lress before that society on November 22, 1897, says arding certain sectarian practitioners: "If they l but drop the sectarian title for that of physician e and simple, and let the old and new school quesns die out, I am sure we will welcome them with n arms." This statement shows that the position upied by the County Society, and, therefore, it may presumed, by the State Medical Society, with which in affiliation, is identical with our own, and it would n to indicate that the time is drawing near when e societies will readopt the national code.

t may be that we shall be obliged to wander for a years longer in the desert of disorganization, but it ir to predict that early in the Twentieth century a es will be found who will lead the profession of this e into the promised land of union and strength. t this consummation is one devoutly to be hoped is shown by the recent statement of a high official e local government, who said recently in my pres-, at a public dinner, that doctors, in his opinion, no influence. It has been a frequent remark among the members of our Legislature, that if the doctors would only agree on almost any measure, it would be quickly made a law, but their proverbial lack of harmony made legislators backward about advocating or passing medical bills coming before them for consideration.

Let us first close the breaches in our own ranks, and pull together during the coming years for the common good in our national, State, and county associations, making it known that all educated and reputable physicians, whether or not they hold to a dogma, are welcome to join our ranks; then will we regain the influence and respect which, during these years of dissension, we have largely lost. The famous Musketeers, of Dumas, would have accomplished but little had they not adopted, and lived up to, their motto, of "all for one, and one for all." Let us hope that when the time has arrived for all educated physicians in this State to join hands, the motto of the larger and reorganized society may be, "The profession for the individual practitioner, and the individual practitioner for the profession."

THE DIFFERENTIAL DIAGNOSIS OF SOME DISEASES CHARACTERIZED BY FEVER OF INTERMITTENT TYPE WITH MORE OR LESS FIXED INTERVALS.[1]

By WILLIAM W. JOHNSTON, M.D.,
of Washington, D. C.

THE physician is constantly meeting with cases in which the chief symptom is a paroxysm of chill, fever, and sweat, recurring at irregular, and sometimes at regular, intervals. In localities where malarial diseases prevail such cases are most commonly assumed, at the start, to be of malarial origin; it is only after the failure of quinia to break the paroxysms or after the development of significant or local symptoms of some other disease that the original diagnosis is corrected. These cases are so frequently met with that this error of diagnosis is exceedingly common.

I think it may be said that the mistake is almost invariably made if the paroxysms are at regular recurring periods, and is frequently made even if the fever is not distinctly periodic. In fact, in the minds of many, the idea of malarial fever is synonymous with that of periodicity or intermittence, and this idea is only altered by some rude shock that comes as a sudden revelation of the true nature of the illness.

My object is to draw attention to the means of the differential diagnosis of some of these cases from malarial intermittent fever and from each other. I shall not consider the etiology or pathology of the different forms except in so far as may be necessary to aid the diagnosis, nor does time permit me to go very fully into their symptomatology.

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[1] Read before the Medical Society of the District of Columbia, November 30, 1898.

The intention is to show what means we have at our disposal for arriving at a correct diagnosis of the disease, when fever of intermittent character is the only symptom, or the most striking symptom, in an otherwise confused symptomatic picture.

The intermittent fever that is met with in various diseases may be classed under two heads:

I. Intermittent fever with fixed intervals.

II. Intermittent fever with irregular intervals.

This paper deals with the first only of these divisions. It would be impossible to include a consideration of both in one paper, as there are such a large number of diseases in which irregular intermittent fever occurs.

I. Among the diseases in which intermittent fever with regular intervals is constantly or frequently met with are:

1. Malarial intermittent fever.
2. Hepatic fever.
3. Ulcerative, malignant, or infectious endocarditis.
4. Chronic vegetative endocarditis.
5. Rheumatism without heart-lesion.
6. Acute tuberculosis.
7. Syphilis.

No disease that is not distinctly an intermittent fever, with apyrexia between the attacks, is to be considered; if all fevers that remit were included the task of differentiation would be endless.

Malarial Intermittent Fever.

In malarial intermittent fever the time of the attack is between midnight and noon, more usually after daylight than before; it rarely comes during the afternoon or night.

The *chill* comes suddenly without warning or is preceded by headache, buzzing in the ears, vertigo, pains in the limbs, yawning or stretching. It is accompanied by dilatation of the pupils, and a small rapid pulse of high tension, and lasts ten to thirty minutes, or an hour. The chills of successive attacks have about the same intensity and length, although in untreated cases after a long period the chill is less severe and finally may be a rigor only (dumb chills).

The *fever* begins with the chill and the highest temperature may be reached when this is passing off; as a rule the fever reaches its height two hours after the onset, and lasts altogether four to five hours. The pulse is frequent and full.

The *sweat* begins suddenly with a rapidly dropping temperature, which gets to the normal in four to six hours. The pulse then becomes slow and full and the patient is comfortable and generally sleeps.

The secretion of urea is increased during the paroxysm. There is no leukocytosis, but there is a rapid diminution in the number of both red and white corpuscles, a change which bears a relation to the severity and the number of attacks. A marked anemia may result from two or three recurring paroxysms.

The total duration of the three periods is 10 to 12 hours; it is rarely shorter, more rarely longer; this fact has a most important bearing on diagnosis; an attack less than 10 or more than 12 hours raises doubt as to the malarial nature, with presumption in favor of septic or other causes.

In the interval, the temperature is normal or subnormal; the length of apyrexia varies in the three forms—quotidian, tertian and quartan—but in each form the recurrence is on a fixed day at a more or less fixed hour. A seizure on every third day has a stronger presumptive evidence in favor of a malarial origin than a chill and fever that comes daily. A daily recurrence of fever involves great doubt, as the quotidian type of fever is common to many different diseases—tuberculosis, hepatic intermittent fever, ulcerative endocarditis, chronic vegetative endocarditis, sepsis, syphilis, etc. Out of Thayer's 343 cases of intermittent malarial fever, 191 were quotidian in type, 150 tertian and 2 quartan. It may be said that all cases of quotidian malarial fever are either double tertian or triple quartan infections.

The constancy in the length of the intervals is not absolute, as there is a tendency to anticipation or retardation. If either of these tendencies exist, it continues without change; that is, there is never retardation at one time and anticipation at another. In this respect malarial intermittent fever differs from septic and other fevers in which there is great irregularity in the hour of the paroxysm. It is therefore always possible to predict with more or less certainty the hour of the recurrence in malarial fever.

In the quotidian variety the attack may come on one day in the morning, on another in the afternoon. This is due to the fact of a double infection, in one of which sporulation takes place in the morning and in the other in the afternoon. But even this apparent irregularity is a regular periodicity and after four days the hour of recurrence can be predicted.

The quartan is more like the tertian in its periodicity, so that the recognition of its malarial nature is relatively easy.

The patient soon after the attack is over, is comparatively well, and attends to work or business until the next seizure. The strength is not materially lessened, unless the case is untreated and only after repeated returns of fever; nor is the general nutrition much affected.

The discovery of the plasmodium is, of course, the positive evidence of the nature of the disease, and as each of the two forms of malarial intermittent has its own parasite the scientific accuracy of the diagnosis in each case is beyond question.

The effect of quinia when given in sufficient dose has less weight than the discovery of the microorganism in the blood, but when the result of the drug is taken in connection with the previous repetition of the typical paroxysm there is but one conclusion.

Contributory evidence as to the nature of the attack is given by the age of the patient, the disease occurring at all ages, but more commonly in adult life in its typical form; it is rare in infancy, childhood, or old age. The locality and epidemic influence, season of the year, the length of residence, history of exposure, and history of previous attacks add to the testimony.

The following symptoms also aid the diagnosis. The skin has a peculiar sallow, yellowish-gray tint, the mucous membranes are pale, herpetic vesicles are common on the lips or nose, the spleen is enlarged, the liver is slightly increased in size, and there is no leuko- ytosis.

Hepatic Intermittent Fever.

Fever of an intermittent character is found in associa- ion with two diseased conditions of the liver, suppur- tive hepatitis and inflammation of the bile-ducts, which nay or may not be suppurative. When the ducts are nflamed absorption of toxic material takes place and roduces fever which is so regularly intermittent and lacking, often, in any distinctive signs pointing to the ver that the mistake is made of calling it malarial. o this form the name of hepatic intermittent fever is iven.

In hepatic intermittent fever the paroxysm begins with *chill* without prodromes; the chill is often quite violent id long, and especially so during the earlier attacks; terwards it is less severe and shorter. Or the chill may ry in severity from time to time, and it is this irregu- rity in the severity of the chill that constitutes a differ- ce from the chill of malarial fever. The afternoon or ening is the most usual time for the attack. In a aracteristic case to which I will again refer, the chill urred daily at or near 4 P.M. On no occasion did it ne before 3 and never after 4.

The rise of temperature begins with the chill and in- ases rapidly after it, a maximum of 102° to 105° ng reached in 2 to 4 hours. From this time there is low and regular decline to the normal point next rning. In the case referred to, on one day only was temperature normal before 2 A.M., the usual hour 8 A.M.

he march of the fever is sometimes irregular and duration shorter or longer than this. It may from 4 to 5 hours or from 10 to 16 hours, mbling in the longer cases the fever of malaria. pulse does not quicken uniformly as in malarial rmittent; it ranges from 95 to 120; sometimes it is gular.

he stage of *sweat* is the least constant; it varies tly and is sometimes absent altogether; as a rule it short duration.

uring the paroxysm the quantity of urine and ex- d urea are both lessened. This is an important nostic feature, as in attacks of malarial and tuber- fever the urea is increased.

The patient is not prostrated during the seizure in acute cases; if the disease is chronic, lasting months or years, the prostration in the fever stage is marked.

In the *interval* between the fever stages the temperature is normal or subnormal; in some cases the fever is of a continued type immediately after an attack of gallstone-colic; it then becomes remittent and then intermittent. The pulse is as a rule normal.

The length of the interval is one day or two or three days; that is, the cycles are the same as in the three malarial forms. But the interesting and important fact is that the fever is frequently rhythmic, obeying the law of periodicity as strictly as malarial intermittent fever. This would show clearly some analogy in nature or cause. Successive attacks have a great uniformity. The intervals are sometimes irregular.

The progress and length of this form of intermittent fever varies within wide limits.

In the typical case which I have selected the patient was taken ill on January 16, 1897, with fever which lasted three days; he was then three days free from fever, when it returned, reaching 101°, and lasting two days. From this date, January 24, he was without fever until February 4. No accurate record was kept, so that it is not known whether the fever from this time was remittent or intermittent, but he had daily rigors and afternoon-fever until February 18, when he thinks fever left him and remained away during this month and until March 10, when he had another chill. From March 14 a daily record was kept until the end of his illness.

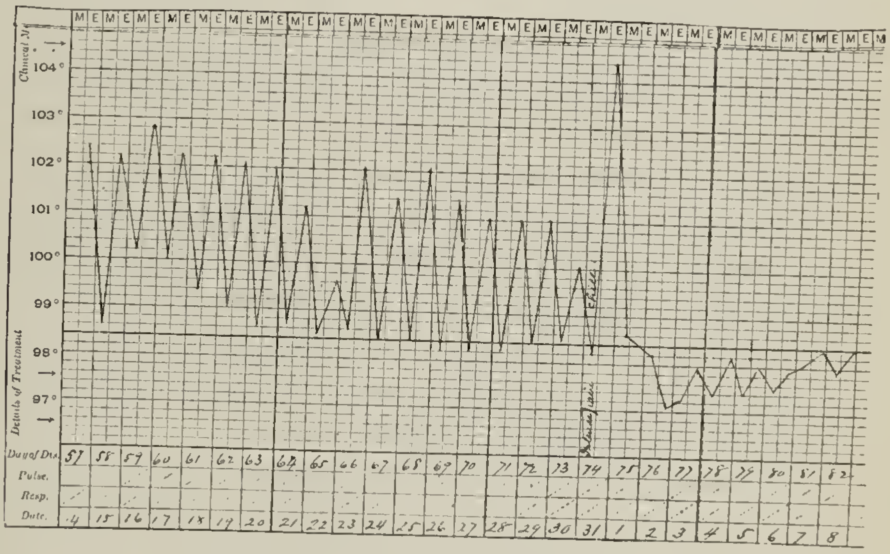


Chart I.—Hepatic intermittent fever.

From March 14 to March 21 (one week), the fever was remittent with a daily increase of remission; on March 21 the fever became intermittent and lasted so until March 30; chills recurred daily about 4 o'clock, and the fever continued, ending with a sweat at 8 o'clock the next morning. There was no pain at any time in the region of the liver or epigastrium; at the very beginning of his illness there was pain in the region of the appendix. There was no icterus at any time nor any symptom or local physical sign to draw attention to the liver except the presence of bilirubin in the urine.

Some loss of strength and flesh occurred, but the patient continued to go out daily until March 22, 8 days before the end of his illness, when he stayed in bed by my advice.

On March 31, a severe chill came on with intense pain in the region of the common duct; this pain was partly relieved by morphia, and lasted 6 hours. The temperature reached 104.2°, then rapidly declined until it reached 97°, the next afternoon; it then crept up daily to normal on the 6th, and since then the patient has remained entirely well. There was slight icterus after the attack and the urine contained bile.

Quinia was administered in full doses at various times without any effect, and the blood was examined for the plasmodium without result.

The diagnosis of hepatic intermittent fever was based upon the exclusion of other causes of intermittent fever, particularly malarial intermittent which it most resembled, but especially upon the sudden cessation of the paroxysms after an attack of typical hepatic colic, which, without doubt, was due to the passage of a calculus. Unfortunately from a careless method of examination the calculus was not found.

This may be taken as a fair sample of the progress and duration of a certain number of these cases. They last, however, from two to three months to three or four years, or longer, that is, they are acute or chronic.

A case reported by Dr. Eliza H. Root (*Journal American Medical Association*, May 25, 1895) was prolonged for 13 years. The most usual mistake has been in supposing such cases to be malarial, and the long duration ending in recovery has given support to this diagnosis.

The course is frequently irregular, the typical intermittent feature lasting for a time, disappearing and then returning. The symptoms being due to the irritation of the duct by calculi and to the bacterial changes and toxic products accompanying the inflammation, there are great differences in the history of the disease, depending upon the seat, size, number, escape or retention of the calculi.

The usual ending is in recovery by the escape of the calculus into the bowel through the common duct or by ulceration through the bowel wall. Fatal cases are recorded. Frerichs mentions one treated with quinia for a long time without result; at the autopsy numerous calculi up to the size of a bean were found lying in the hepatic duct. A fatal result may be preceded by symptoms of localized inflammation in the neighborhood of the gall-bladder, and is due to peritonitis from extension of inflammation from perforation.

The question of diagnosis is concerned, however, not so much with these forms as with those which end in recovery or which take on a chronic course of fever of intermittent type.

The diagnosis is made from symptoms due to the presence of gall-stones in the biliary passages. The most common of these symptoms are severe attacks of biliary colic or recurring pains in the liver or epigastrium, simulating gastralgia or indigestion, and coming without adequate reason at irregular or long intervals. One such attack would not have the same significance as three or four, no matter what the interval may have been. If icterus follows such severe or slight attacks the nature of the pain is made clear; sometimes jaundice follows the paroxysms of chill and fever when there has been no pain. If jaundice has previously existed the color always deepens after fever.

It is an interesting fact that even when calculi are present in the larger ducts there may be no jaundice owing to sacculation and distention of the duct at the point of impaction.

The presence of bile, bilirubin or urobilin in the urine is significant. Urea is less in the chill and fever period, and increases during the interval.

There is no hyperleukocytosis; the total corpuscular element is reduced in cases lasting several weeks. No malarial or other microorganisms are found in the blood.

There is no great loss of flesh or strength, but this bears a relation to the length and severity of the illness. Pericarditis or endocarditis may occur as the result of the infection.

The finding of a cholesterin calculus in the stools is a positive proof of inflammation of the ducts as the cause of hepatic fever.

The diagnosis may be almost impossible until one or more of these symptoms appear; and they may not do this until the very end of the illness, so that the diagnosis is only made when the patient is well. It may not be made until later still. Frerichs' case, already mentioned, is a case in point.

Infective (Ulcerative) Endocarditis.

Infective endocarditis is a swift and fatal disease, in which the lesion is due to the presence in the blood of various infectious microorganisms. It accompanies or follows surgical and puerperal sepsis, scarlet fever, epidemic influenza, croupous pneumonia, erysipelas, gonorrhea, diphtheria, enteric fever or variola.

The microorganisms found on the valves are the streptococcus, staphylococcus aureus, pneumococcus, gonococcus, etc.

Intermittent fever is one of the most constant symptoms; if this exists with intense prostration and a rapidly produced endocardial murmur the diagnosis is not difficult. But if, as is often the case, no murmur or other indication of endocardial disease appears, the diagnosis is difficult or impossible, and the real lesion is not suspected.

The fever is intermittent, and with each return there is a chill, fever and sweat.

The *chill* comes on at no fixed hour; in several recorded cases it began at noon; it is abrupt, violent, or is a rigor only; there is sometimes a shivering without any rise of temperature, and in other cases the fever stage begins without chill.

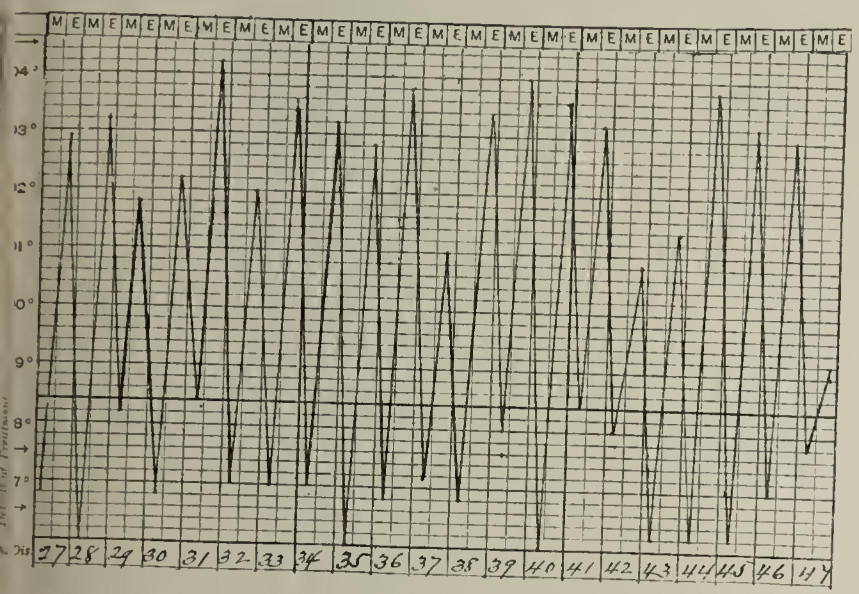
The *fever* reaches its highest point in the evening: this may be 102.5°, 103°, 104°, or 105°. As a rule it is not so high as in malarial fever.

The *sweat* is profuse, even greater than in tuberculosis, ague or hepatic fever. In a case reported by Dock there was severe and prolonged chill, fever, but no sweating. The fever-chart shows great variability in the daily range of fever.

The pulse during the attack is rapid, becoming at time very much slower. It may be irregular, and as high a 180 or more, out of proportion to the temperature.

The whole attack lasts 8 to 10 hours.

The temperature in the stage of apyrexia is normal r subnormal. The patient is comfortable, or a char- cteristic weakness and constant feeling of fatigue de- elops, increasing from day to day. No such exhaus- ion as this is felt in malarial or hepatic fever. The ime between the chills is a day, this is most common; r it is two or three days. In this respect it is like alarial and hepatic fever, but the interval is not as xed as in these two diseases.



HART II.—Quotidian intermittent fever of infective endocarditis. (Dock.)

Unlike malarial and hepatic fever, there may be two more outbreaks in 24 hours. In a case of Dock's, e chill came at noon and one in the night. In a e reported to this society by Dr. S. S. Adams there re as many as four chills in 24 hours.

There is a leukocytosis sometimes in a marked degree, great as one red to seventy-five white corpuscles; croorganisms are found in the blood; the urine is mal at first, but later contains blood-corpuscles and od-casts.

he spleen may be enlarged, and there may be ten- ness over the spleen and liver.

he diagnosis of ulcerative endocarditis is based n the symptoms of an intense infection with endo- lial lesions.

n intermittent fever that does not yield to quinia that is accompanied by a profound and acute nia and by a more rapidly progressing asthenia is found in malarial or hepatic fever, with a mitral olic, or, more rarely, aortic murmur which under- many variations in a short time, is the intermit- fever of infective endocarditis. The previous exist- of a chronic endocardial murmur is no argument nst this theory if the above symptoms are accom- ed by acute changes in the character of the mur- which becomes harsher and louder from day to Preexisting valvular disease invites infection.

rroborative evidence is given in the development otic neuritis, cutaneous ecchymoses and edemas, petechiæ on the mouth and throat, and in sudden plegia or coma due to cerebral embolism, enlargement of the spleen and liver. Albumin and casts have also been found in the urine.

The diagnosis is more difficult or even impossible if there is no heart-murmur. In such cases such symptoms as a feeble pulse, hurried respiration, headache, delirium, somnolence or convulsions, thirst, anorexia, vomiting, tympanites, and diarrhea would with difficulty be associated with an infective heart-lesion.

The onset of such symptoms with or without heart-lesion can be with more certainty referred to this cause if they appear during the course of pneumonia, gonorrhea, diphtheria, or other acute infections.

Blood-cultures by Lethmann and others have shown the presence of streptococci.

Intermittent Fever of Chronic Valvular Heart-Lesions.

An intermittent fever of long duration is sometimes found in connection with chronic valvular heart-lesions. Dr. Osler has detailed the features of this disease in an interesting article under the title of "The chronic intermittent fever of Endocarditis."

The fever recurs with great regularity, and has been mistaken for quotidian and tertian ague. Two paroxysms in one day have been observed. The rise, not always preceded by a slight chill, comes on during the morning hours and lasts until the late afternoon or evening, reaching 102.5° to 104°. The pulse is not much quickened. The daily excursion of fever is much like that of tuberculosis or the onset of typhoid fever.

The paroxysms may continue for 4 to 6 weeks, disappear and return in 2 or 3 weeks, and last several weeks. Or the interval may be a few days and the fever last for three months. The temperature during the periods of apyrexia is sometimes subnormal. It is easily seen how the sudden ending of the paroxysms after the use of quinia might be taken to be a proof of malaria.

The symptoms accompanying the intermittent fever are a progressive loss of strength with intervals of improvement. There are physical signs of endocardial disease, a mitral systolic murmur being most frequent, and the left heart is enlarged. Cough and dyspnea result from this condition. Towards the end there are embolic symptoms. Multiple neuritis, with paralysis of arm and wrist, was noted in one case (Lloyd and Riesman). Leukocytosis has been found.

The lesion which lies at the bottom of these symptoms is a vegetative endocarditis, the vegetations of the mitral, aortic, or pulmonary valves reaching an enormous cauliflower-like growth.

The subjects of this form of disease are generally men near middle life who are subject to rheumatism. They are sometimes atheromatous, or have chronic interstitial nephritis.

The whole duration of the illness in 6 different cases was as follows: 2 months, 3 months, 5 months, 10 months, 11 months, 12 months.

The result is death, preceded by embolic symptoms and by progressive interference with pulmonary circulation and with respiration.

Staphylococci were found in one culture out of three by H. Cohn.

INTERMITTENT FEVER DUE TO RHEUMATISM WITHOUT ENDOCARDITIS OR VALVULAR LESION.

An intermittent form of fever has been noted rarely in the course of rheumatism. These cases have no serious results, and seem to be a variation of the disease. A case seen recently seems to show that an intermittent fever that has no endocardial or other lesion may be of a rheumatic nature, and is entirely curable with antirheumatic remedies.

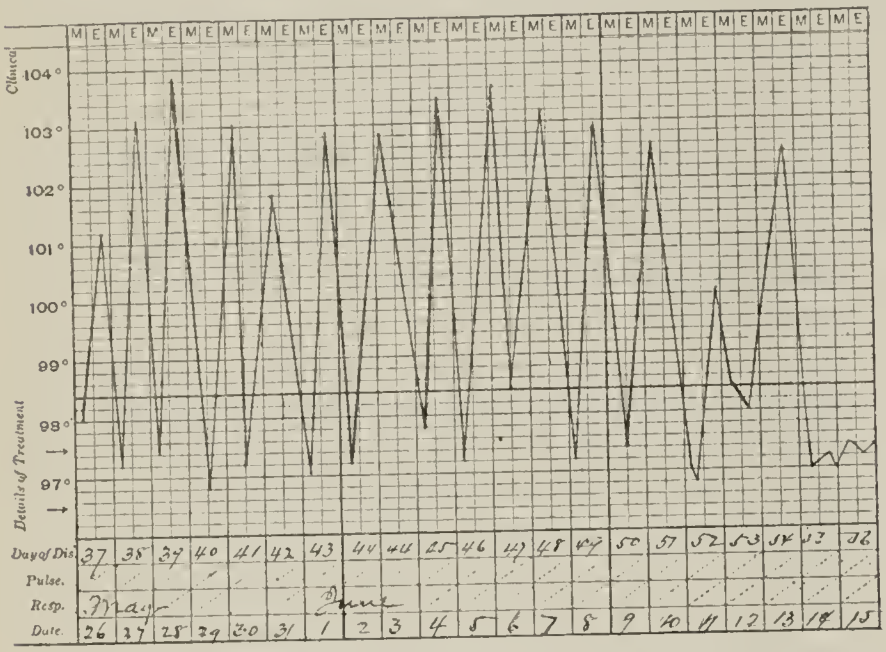


CHART III.—Quotidian intermittent fever of rheumatism.

In April, 1898, I saw with Dr. J. W. Little, a case of quotidian intermittent fever. A chill came every day at midday, lasted until evening, and passed off with a sweat. The patient was not in the least exhausted and during the interval had no suffering beyond slight stiffness of his joints. The only other symptom was the presence of small subcutaneous nodules on the anterior part of the thigh, near the knee, and other joints.

The following is a history of this case given to me by Dr. Little: Mr. S., aged 60. March 23, 1898, at 12 A.M., was well. Two hours after he began to feel ill, and by evening was suffering severely with pains in all his limbs, joints and muscles. The patient went to bed; did not have a chill; had no sense of heat and no headache; took domestic remedies for three days. The pains not being relieved, his physician was called, who pronounced the condition similar to influenza and gave acetanilid and calomel. March 27, he was better and up; temperature not taken, but he had no fever. April 2, not feeling so well, he went to bed with headache and slight fever with no preceding chill. In a day or two he was better. April 7 to April 13, he was up, but felt weak towards evening. At 10 P.M., April 13, nurse reported fever at 106°; the patient much disturbed and was hiccoughing. From this date the fever came every day with a sweat at night; temperature some days reached 103° in the afternoon, preceded always by a rigor. Quinia given freely, but without benefit.

Fowler's solution was then tried for a week, but each day the fever returned. All the organs were apparently healthy. The patient grew weaker, and at the end of the month, six weeks after onset of disease, there were small discolored nodules on the finger-joints, painful to the touch, disappearing in from 3 to 6 days and followed by others near other joints, and on the thigh, calves and feet. He grew thinner and weaker; two months after beginning of the sickness, the finger-joints became very stiff and slightly flexed; joints o toes and knees stiff; and the legs contracted considerably Forcible extension to straighten the legs was very painful the patient lay with his legs flexed.

At this time I saw him with Dr. Little. The blood-examination was carefully made by Dr. George W. Johnston. A considerable decrease was found in the red cells, and in hemoglobin, and there was a slight leukocytosis, but nothin on which to found a diagnosis. There were no heart-murmurs; no renal symptoms.

Dr. Osler saw the case with us a few days later. His attention was attracted by the small subcutaneous nodules, an he afterwards sent me the report of a case in which suc nodules had been reported by Dr. Futcher, in a case o rheumatism.

Sodium salicylate was given on the presumption that th joint-trouble was rheumatic. The effect of the remed was to stop the fever. At the end of three months fro the beginning of illness the patient was up in his chai and improved slowly from this period. The stiffness of th knees and hands continued and for some time he coul not use his knife at table. There was more or less difficulty in moving the joints for six months, and at th present time, one year after the end of his illness, he sti has some stiffness in his movements. He has often nervou twitching of hands which prevents the perfect use of his pe He attends, however, to his work, which involves writin but has never completely regained his strength.

TUBERCULOSIS.

The frequency of periodic fever simulating malari fever in acute and chronic tuberculosis leads to frequent mistakes in diagnosis.

The irregularity in the history of the fever is signi cant; at first intermittent, it becomes remittent, an later, when mixed with septic infection, it is aga intermittent. Again, during a short time, there a intermissions and remissions. The onset is gradu and general symptoms precede fever.

The chill is not so violent as in malaria; it comes midday or early afternoon; from this time the fev rises, reaching a climax before midnight; the swe which is often profuse and exhausting, is followed by decline below normal or by a remission only.

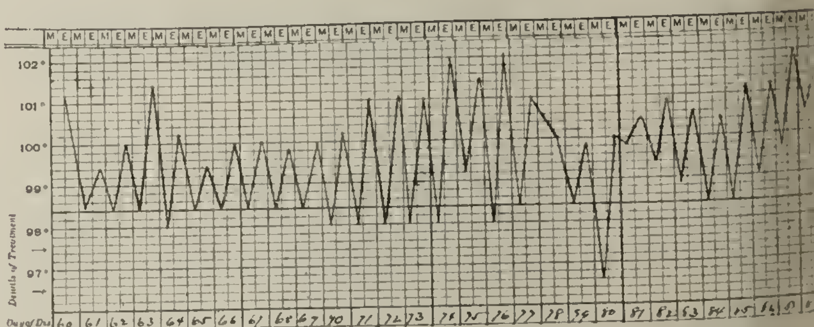


CHART IV.—Quotidian intermittent fever of acute tuberculosis.

It is characteristic that profuse sweat is not alw followed by apyrexia as in malaria, hepatic fever, a infectious endocarditis. The excretion of urea is creased during the crisis of fever as in malaria.

The pulse is frequent in the interval as well as d ing the fever stage and there is always a resulting haustion during and after the sweat.

The blood-examination shows leukocytosis and microorganisms.

The general symptoms to be relied on in diagnosis re: loss of strength and flesh and progressive anemia efore pronounced fever sets in; the complexion is lear, eyes bright and a flush comes on one or both heeks with the evening rise of temperature; when the ace is pale the mucous membranes are red. In malaria ne face and lips are both pale. The appetite is lost, igestion disturbed and there may be diarrhea. Rapid ggravation in all the symptoms is characteristic of cute tuberculosis.

Of course, if cough is present and there are any local gns of pulmonary disease or of tubercular growth nywhere, the diagnosis is not doubtful, and if the utum or saliva contains tubercle-bacilli it is almost rtain.

Syphilitic Intermittent Fever.

In the secondary and tertian periods of syphilis, termittent fever is an occasional symptom. It is ually mistaken for malaria or for tuberculosis. In e eruptive period the type is remittent; in the tertian may be intermittent.

The paroxysm is ushered in by chilly sensations, or, s frequently, by a pronounced *chill* during the late ernoon or evening.

The *fever* is not so high as in malarial fever, ranging ually between 100° and 102°, although in some cases eaches 103° and 104°. The pulse in this stage is atively slow.

The *sweat* comes at night and is a constant accom- iment of the paroxysm, although it varies between ht moisture of the skin and a drenching perspi- ion.

he intervals are usually those of a quotidian inter- tent, but the recurrences may be at regular or gular periods. The regularity is often very striking. untreated cases the intermittent fever has a long ation.

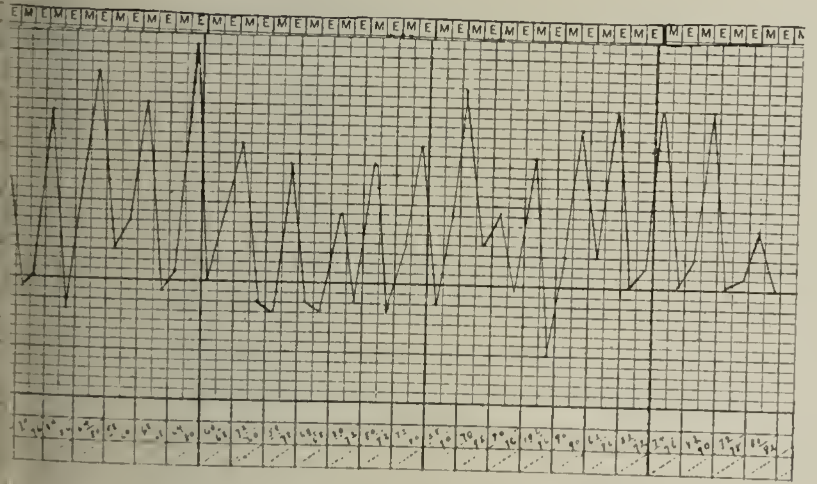


Chart V.—Syphilitic intermittent fever. (Musser.)

uring the interval the patient complains of malaise ch becomes more pronounced the longer the fever nues to return. There is emaciation with increas- pallor and declining strength as the attacks are pro- ed.

The urine is often of high specific gravity, albuminous and full of casts. There is no hyperleukocytosis.

Other symptoms which are more directly connected with the constitutional state and which aid the diagnosis are: Enlargement of the spleen and liver; pain in the right side in the region of the liver; cough is quite common, and if the lungs are the seat of syphilitic lesions, rales are heard in the chest, and the error of calling the disease tuberculosis is easy to fall into. Sometimes a tubercular infection exists in conjunction with tertiary syphilis; in this case with the finding of tubercle-bacilli in the sputum, the correct diagnosis is still more difficult.

The history of syphilitic infection, pain in the region of liver, enlargement of the liver or spleen, nocturnal headache with tertiary skin-lesions (as ulcers on the leg or elsewhere) may lead to the early recognition of the true nature of the fever.

The therapeutic test of giving specific treatment will often clear up the doubtful question as to whether the disease is malarial, tubercular or syphilitic. Under antisyphilitic treatment the fever will generally promptly end with the improvement in other symptoms.

At the meeting of the Association of Physicians in May, 1898, Dr. Janeway reported six cases of syphilis in the tertiary stage attended with fever. Four of these had been treated for tuberculosis before consulting him, this diagnosis having been made from the existence of cough and fever. The absence of the signs of local pulmonary disease and of bacilli in the sputum, led him to exclude tuberculosis, and the prompt success of antisyphilitic treatment in relieving all the symptoms demonstrated the correctness of his diagnosis. (Transactions Association American Physicians, Vol. XIII.)

It may be said, in a general way, that nearly all intermittent fevers not included in the above descriptions are irregular in character and are, therefore, distinguished by this peculiarity from the regular forms. Among the irregular varieties met with are: Sepsis, pyemia, pyelonephritis, epidemic influenza, urethral fever, acute otitis media, follicular tonsillitis, acute cystitis, pernicious anemia, Hodgkin's disease, gastric cancer, empyema, and phlebitis. In some of these the fever is at times periodically regular, but this is an exceptional occurrence.

It is not possible, in the limits of this paper, to give the differential diagnosis of these forms from each other.

Summary.

A final short resume of the most valuable and most characteristic diagnostic signs may be useful.

Malarial Intermittent Fever.

1. One daily attack; paroxysm in morning; attack may be every 3 or 4 days.
2. Total duration of three stages 10 to 12 hours; regularity of stages, and fixed interval.

3. Increased urea during attack.
4. Absence of leukocytosis; fewer red and white corpuscles.
5. Sallow tint of skin; pale lips; herpetic vesicles on lips and nose.
6. Enlarged spleen.
7. If quotidian the rhythm of fever points to double quartan or triple tertian infection.
8. Malarial parasites in blood.
9. History of case; previous attacks; residence.
10. Effect of quinia in arresting disease.
11. Usual result recovery.

Hepatic Intermittent Fever.

1. One daily attack, 3 to 4 P.M.; or attack every 3 or 4 days.
2. Duration of 3 stages 16 to 18 hours; irregularity in each stage.
3. Diminished urea during attack.
4. Icterus after attacks of pain (gallstone-colic); color deepens after fever.
5. Cholesterin calculi in stools.
6. Spleen not enlarged.
7. No microorganisms in blood.
8. Effect of quinia negative.
9. Usual result recovery; death not uncommon.

Fever of Infective Endocarditis.

1. One, two or more paroxysms daily, no fixed hour.
2. Duration of three stages, 8 to 10 hours; interval sometimes fixed.
3. Marked leukocytosis.
4. Spleen may be enlarged.
5. Microorganisms (streptococci) in blood.
6. Quinia no effect.
7. Endocardial murmur, usually mitral systolic.
8. Profound anemia; rapidly progressing exhaustion; marked nervous and digestive disturbances.
9. Death in few weeks to several months.

Intermittent Fever of Chronic Valvular Heart-Lesions.

1. One daily paroxysm in morning; irregularity in duration, with recurrences; rarely two daily paroxysms.
2. Duration of attack, 10 to 14 hours.
3. Hyperleukocytosis.
4. No microorganisms in blood.
5. No enlarged spleen.
6. Existing endocardial murmur and symptoms of chronic mitral or aortic lesion.
7. Quinia no effect.
8. Result fatal in 2 to 12 months.

Intermittent Fever of Rheumatism.

1. One attack daily, midday.
2. Duration 10 to 12 hours.
3. No enlarged spleen.
4. No parasites in blood.
5. History of rheumatism.
6. Pains and stiffness in articulations; subcutaneous nodules about joints.
7. Quinia no effect—curative effect of salicylates.
8. Result, recovery.

Fever of Acute Tuberculosis.

1. Daily paroxysm, midday or early afternoon.
2. Variations; intermittent, remittent, then intermittent.
3. More or less regularity of stages; duration of attack 10 to 12 hours; sweat after midnight; exhaustion after sweat.
4. Leukocytosis; no microorganisms.
5. Urea increased during attack.
6. Pallor of skin; lips and mucous membranes red; flushing of one or both cheeks during fever.
7. Rapid loss of weight and strength; dyspnea. Symptoms and physical signs of pulmonary tuberculosis or of localized tuberculosis elsewhere.

Fever of Syphilis.

1. One attack daily, afternoon or evening.
2. Duration of attack and interval fixed.
3. No hyperleukocytosis.
4. Liver and spleen may be enlarged; tenderness over region of liver.
5. History of primary infection and of constitutional syphilis.
6. No effect from quinia; curative effect of antisyphilitic treatment.

I am much indebted to Dr. B. L. Hardin for assistance in the preparation of this paper.

EAR-DISEASES COEXISTENT WITH ADENOIDS OF THE NASO-PHARYNX.—AN ANALYSIS OF 110 CASES.[1]

By WILLIAM C. BRAISLIN, M.D.,
of Brooklyn, N. Y.
Assist. Surgeon in the Ear-Department of the Brooklyn Eye and Ear Hospital.

It is proper to consider many ear-diseases sequels to adenoids. The drift of opinion at the present time seems to be toward referring the etiology of ear-diseases to the presence of adenoids in cases in which both conditions exist. This is, I believe, a sound conclusion.

The great interest that has attended the extensive study of adenoids in recent years, has but added strength to the conviction entertained by one of the early writers[2] on this subject concerning the evil effect of adenoids upon the hygiene of the ear.

The anatomic affinity of the regions under consideration, separate, yet intimately connected by the Eustachian tube, points to a relationship of no little physiologic importance. The obstruction to the proper functionating of the tube afforded by, and the possibilities of infection latent in, adenoids being granted as proved, by reason of their location and histologic examination, it only remains to demonstrate a common association of adenoids and ear-diseases to form a chain of evidence implicating such growths as a factor of no little importance in the etiology of those diseases. This association has been demonstrated by numerous writers, who, in treating the subject of adenoid growths have referred to the effect of these growths upon th functions of the ear.

It has been a matter of interest to me to classify in detail the ear-diseases that have been found in 110 cases of adenoids in which some ear-disorder existed Some cases of adenoids not showing present evidence of ear-disease have been omitted from this number for, while I believe that the ear in every case suffer from the presence of adenoids, it is deemed proper t consider the evidence actually presented at the tim of operation.

The data incorporated have been excerpted from th detailed notes of private cases; and in every case th adenoid growths were removed by operation.

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[1] Read before the Long Island Medical Society, December 6, 1898.

[2] Dr. Clarence J. Blake: *Annals de Mal. du Laryngol.*, 1888, No. 4.

It should be said that almost all of these cases applied for relief of the ear-symptoms.

Age at which Operation was Performed.—The average age of the patient at the time of operation was 7 years and 3 months. The youngest was 7 months old; the eldest 16 years. The following table shows this more clearly:

Under	1	year of age	1
Age of	1	year and over	3
“	2	years “	6
“	3	“ “	10
“	4	“ “	4
“	5	“ “	12
“	6	“ “	15
“	7	“ “	10
“	8	“ “	10
“	9	“ “	8
“	10	“ “	14
“	11	“ “	4
“	12	“ “	1
“	13	“ “	4
“	14	“ “	3
“	15	“ “	3
“	16	“ “	2
		Total	110

It is of interest to note that the largest number ccurred at the age of 6; the next largest at 10 years age, the next at 5 years. Between and including the ges of 5 and 10 years a nearly equal number occurred each age, and the number of cases in and including ese 6 years was more than half the total number. efore 5 years of age there were 24 cases; after 10 ars, 17.

The Ear-complications.—The ear-diseases coexisting th adenoids in 110 cases were as follows:

Chronic catarrhal otitis media (non-suppurative)	50
Chronic suppurative otitis media	24
Recurrent suppurative otitis media	9
Otitis media sclerosa (results of suppuration)	4
Subacute catarrhal otitis media	3
Acute suppurative otitis media	11
Deaf-mutism	2
Eustachian catarrh	7
Mastoiditis { acute, 5 chronic, 2 }	7

Purulent and Serous Ear-discharges with Adenoids.—The ge proportion of cases of adenoids into which supration of the middle ear enters as a complication rges the subject with grave importance. Figured rely as existing at the time of operation a little more n one half the whole number presented this symp- ı, as is shown in the following table:

Chronic suppuration in	24	cases.
Recurrent suppuration in	19	“
Sclerosis, a sequel to suppuration	4	“
Acute suppuration in	11	“
	58	“

mong the cases of chronic suppuration there were or more cases of necrosis of the ossicles, necrosis of tympanic walls, necrosis of the wall of the external itory canal, cholesteatoma, aural polypi and facial lysis (one case).

addition to the 58 cases in which suppuration was diagnosed at the time of consultation there is a distinct possibility that a certain proportion of cases of chronic catarrhal otitis media likewise had suffered or would suffer from suppurative conditions.

Chronicity, a Characteristic of the Ear-diseases Accompanying Adenoids.—The chronic character of the ear-diseases complicating adenoids seems to me suggestive as bearing on a *continuing* etiologic factor. Directly compared with acute conditions they stand as follows:

Ear-Diseases.[3]

Chronic.		Acute.	
Chronic catarrhal otitis media	30	Acute suppurative otitis media	11
Chronic suppurative otitis media	24	Mastoiditis	5
Recurrent suppurative otitis media	19		16
Sclerotic otitis media	4		
Mastoiditis	2		
	89		

The great preponderance of chronic over acute cases of ear-diseases (about 6 to 1) leads one to search for a continuing degenerative influence as a cause for their chronicity.

Cases of pronounced adenoid enlargement in which absolutely no impairment of hearing or other ear-symptom is present, are rare and even these cases should not be considered as free from threatened ear-disease while the lymphoid growths remain.

Mastoiditis with Adenoids.—In two cases symptoms of *chronic* mastoid disease coexisted with chronic suppuration, while in 5 others *acute* mastoid symptoms were present. These latter occurred previously to the adenoid operation and none was the outcome of the operation itself. They are properly classed as sequels to, or complications of, the middle-ear inflammation; but the fact that they coexisted with adenoids makes them of interest and justifies their introduction at this place.

The two chronic cases and one of the acute cases of mastoiditis were relieved by the mastoid operation. The others yielded to free incision of the (Shrapnell's) membrane and to other measures.

Indications for Always Removing Adenoids.—It would appear that, as in nearly every case in which adenoids occur ear-disease is certain to follow, and as the best treatment is always preventive, no time should be lost in removing adenoids once they are diagnosed. If they return they should again be removed. The temporary inconvenience of the operation is very slight.

Temporary suppuration from the middle ear is likely to follow the adenoid operation in cases of recurrent middle-ear suppuration. It is best to inform the parents of this possibility. I regard it of great importance to continue treatment of the ear for a varying time after the removal of adenoids. My reasons for this belief are based upon an investigation, not yet completed, and which I have not here the space to detail, regarding the condition of the ears of patients one or two or more years after the adenoid operation. I will say, however, that my disappointment was most keen to find that in some of the chronic cases no marked improvement had taken place after the operation when no after-treatment directed to the ear was pursued. I have as yet, however, found no case in which the ears were regarded as in any way worse after the operation. This I consider a triumph for the operation, for, if only the progressing ear-disease be stayed by the operation, proof of its usefulness is furnished. The great majority of these cases, however, except chronic suppurative cases, were markedly benefited by the operation alone.

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[3] This list does not include those cases not immediately pertinent to this comparison.

Memoranda:—(1) A great many of the ear-diseases of childhood depend for their etiology on adenoids of the pharynx. (2) The demonstration of the presence of adenoids should in every case lead to an investigation of the state of the ear. (3) Ear-disease in some degree will almost invariably be found to accompany the adenoid growth. (4) Treatment of the ear-disease should always be continued for a variable time after the removal of the adenoids. (5) Removal of the growth checks to a great extent the onward progress of the ear-disease, but the operation does not eliminate the requirement for subsequent treatment of the ears in suppuration, tubal obstruction, or other well-established pathologic conditions. (6) The presence of adenoids has a continuing degenerating influence on the ears, while under the influence of "colds," or attacks of acute contagious disease of childhood, adenoids are prone to kindle activedisorders.

A NEW MODEL OF A SMALL OPHTHALMOSCOPE.

By WALTER L. PYLE, M.D.

Assistant Surgeon to Wills Eye Hospital, Philadelphia.

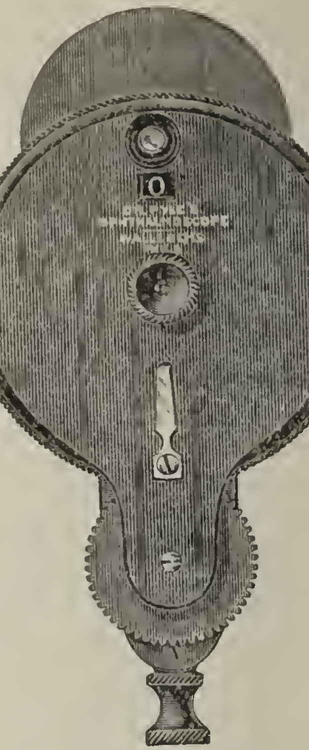
This instrument consists of two superimposed lens-discs, 34 mm. and 37 mm. in diameter respectively, each containing 14 apertures for lenses. Each disc has independent movement. The inner disc, that is, the one nearest to the observer's eye, contains the high-power lenses, both convex and concave. Its circumference is milled and it is rotated directly by the finger, as in the Loring instrument. The outer disc, that is, the one nearest to the mirror, contains the low-power lenses, both convex and concave. A toothed edge is cut on its circumference, and it is rotated by a lower driving wheel, 17 mm. in diameter. The two discs are enclosed in a metal case with a detachable handle. The lenses are 6 mm. in diameter. They are stopped by a spring which clicks as each lens is wheeled into place.

No claim is made for originality in construction other than the arrangement of lenses, apertures, and registration-marks, to which, however, the special advantages of the instrument are due.

The purposes in view in construction of this ophthalmoscope were to obtain:

1. Neatness, compactness and durability.

2. Avoidance of direct rotation of the disc containing the low-power lenses by the finger close to the patient's nose and cheek, as in the Loring instrument.



3. Continuous movement and successive increase of both convex and concave lenses up to 24 D. without removal from the first position before the eye.

4. Avoidance of combinations of lenses.

5. Continuous registration and single registering aperture in the case.

6. An unperforated rotary mirror, small aperture, with absolute exclusion of direct or reflected light in the space between the observer's eye and the sight-hole of the mirror.

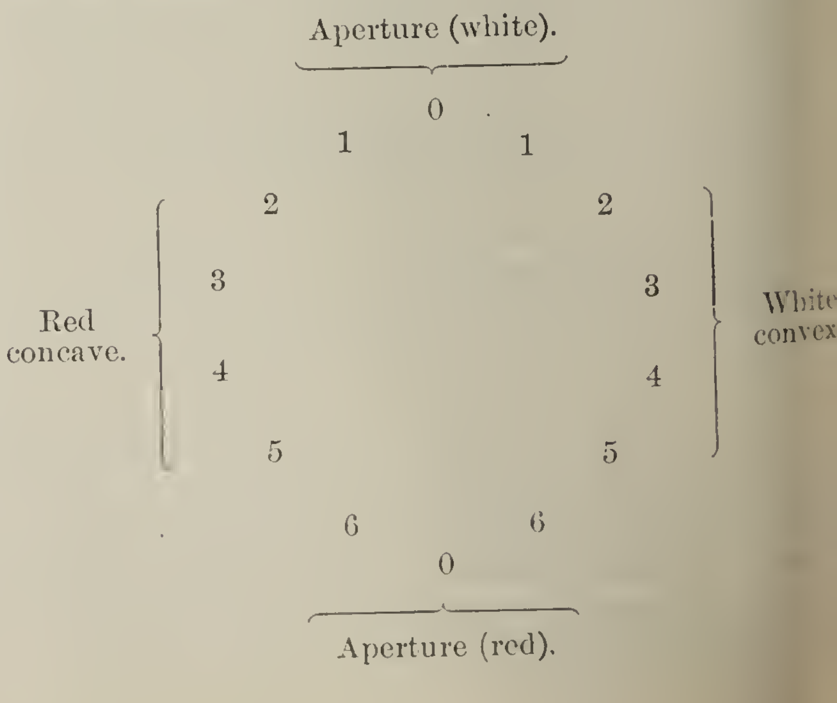
7. Simplicity and cheapness.

The following descriptions explain the construction of the instrument in pursuance of the purposes in view:

1. The dimensions of the instrument are 1½ in. wide by 2¼ in. long. There is no serviceable instrument of smaller size made. It can be easily carried in the vest-pocket. The exact size and shape are shown in the accompanying illustration. There are no points of special wear and tear or of fine adjustment to get out of order. The case and all the frame-work are made of metal.

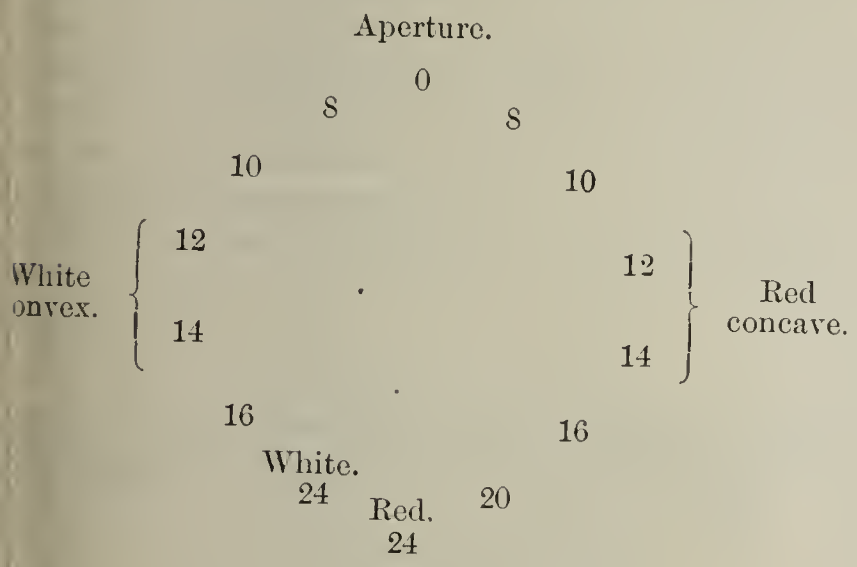
2. The outer disc, that is the one nearest the mirror, contains both convex and concave lenses of the following strengths: 1 D., 2 D., 3 D., 4 D., 5 D., and 6 D. These are the lenses most commonly used, and this disc is rotated indirectly by a lower small driving-wheel well out of the way of the patient's face.

3. The lenses in this outer disc are arranged as in the following diagram:



When the lower driving-wheel which moves this disc is turned to the right, it brings the convex lenses successively before the sight-hole. When the + 6 D. lens is in this position, another turn brings the red aperture before the eye. The observer at once notices the change in focus, and his finger is raised and the inner disc is revolved directly by its nilled edge, as in the Loring instrument. The lenses on the nner disc are so arranged that the first turn to the right brings before the sight-hole a + 8 D. lens, and so on up to + 24 D., without removing the instrument from its first posiion before the eye. Similar rotation to the left causes the oncave lenses from 1 D. to 24 D. to appear successively beore the sight-hole.

The inner disc of lenses, that is the one nearest to the bserver's eye, is arranged thus:



The aperture of this inner disc is always rotated back to e sight-hole after use, and is kept in that position to avoid terfering with the movements of the commonly used lower lenses on the inner disc.

4. By the foregoing arrangement of lenses on the two discs, *gle* lenses, both convex and concave, varying in strength m 1 D. to 24 D., can be rotated continuously and succesely before the eye. By means of combinations, which, wever, interfere with correct registration and were not ticipated in the construction of the instrument, the range 1 be increased to 30 D.

. The registration-marks on the outer disc are arranged ilarly to the lenses, so that when it is rotated just past 6 either concave or convex, the red zero-mark is brought ore the registration-aperture on the case of the instrunt. The registration-marks on the inner disc are also nged similarly to the lenses with the exception of the -mark, in the place of which is an aperture cut in the ; allowing the figures on the outer disc to show through. s, when the inner disc containing the high-power lenses ot in use it is set at the aperture (zero) and the mark- and lenses on the outer disc are unobstructed. In this ner there is obtained continuous and successive registra- through a single aperture in the outside case.

The mirror is unperforated the sight-hole being scraped ugh the silvered back; it is 2 mm. in diameter. The or-support is a section of a hollow metal cylinder obely cut at one end, extending from the back of the miro the outer disc, completely shutting out all direct or cted light. These details in construction render the us-reflex and retinal image so much more distinct than the ordinary mirrors that the difference is at once ed. My experience with such a mirror on the Morton halmoscope led me to adopt it.

7. There is no intricate or expensive mechanism. The apparatus consists of two discs with 25 lenses, and a small driving-wheel.

I am indebted to Messrs. Wall and Ochs, of Philadelphia, for the skilful manner in which they have followed my plans and models in the manufacture of the present perfected instrument.

THE THERAPEUTIC POSSIBILITIES OF TOPICAL TREATMENT WITH SUPERHEATED AIR.

By GUSTAVUS M. BLECH, A.B., M.D.,
of Chicago.

Since the publication of my article on the successful treatment of subacute rheumatism,[1] I have treated over 200 patients with the Betz' dry, hot-air apparatus, and have applied a total of 3,621 treatments, without having observed any other ill-effects than slight superficial burns of the epidermis, and even these could have been avoided had both nurse and patient exercised the necessary care. I make this statement as an offset to the article by Dr. J. Thompson Schell,[2] who reports the case of an old man, treated with hot-air, in whom he observed phenomena of acute parenchymatous nephritis, with decided symptoms of uremic intoxication. Dr. Schell is quite conservative in his statements, but such reports are likely to bring into disfavor a most valuable therapeutic agent. Dr. Schell's case, to my mind, does not prove by far that the acute nephritis was due to the dry, hot-air treatment, for the urine was examined only 3 months prior to the commencement of hot-air applications, which were employed as a remedial agent for subacute rheumatic synovitis. The attack might have been due to a sudden chilling after heating the extremity and indirectly the body. That the symptoms persisted for 13 days after the cessation of the dry, hot-air treatment and in spite of rational therapeusis directed against the nephritic condition leads me to the conclusion that the dry, hot air was not the cause of the nephritis, for it takes about from one to two weeks to produce a cure of acute, uncomplicated nephritis, and were it in this case due to the hot air, the main symptoms would have disappeared in from two to three days. In addition to this it might be of interest to know that I have directed dry, hot air at a temperature of 400° F. for one hour daily against the lumbar region in two cases of acute parenchymatous nephritis and had in both instances immediate relief of the symptoms, particularly the pain, which of course is due to the inflammation of the uriniferous tubules.

In the beginning of my experiments I was inclined to be somewhat afraid of the intense heat which can be raised in a good apparatus, and I therefore examined every patient's heart, arteries and kidneys before advising the dry, hot-air treatment.

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[1] *Journal of the American Medical Association*, October 9, 1897.

[2] Philadelphia Medical Journal, December 31, 1898.

In a certain class of heart-diseases an indiscriminate application of hot air might, perhaps, lead to disastrous results; in fact, I have myself observed a few patients faint. Immediate cessation of the treatment, administration of cold drinks, and application of a cold towel around the head suffice to restore the patient.

Patients with valvular insufficiency have taken these treatments for articular affections and tolerated them nicely. Of course, in the beginning, short applications of comparatively low temperatures should be administered, to be increased only gradually. In arteriosclerosis, however, this method of treatment is contraindicated.

Some persons have praised this method of therapeutics as a panacea for every articular affection under the sun, from a slight synovitis to a bony ankylosis, for pneumonia, obesity, gout, syphilis, and I know not what.

The physiologic effects of heat are too well known to need more than mere mention, for the sake of illustrating its therapeutic possibilities.

The capillaries of a region subjected to heat become dilated, the sensory nerve-filaments numbed, and if the degree of heat be high enough, certain vegetable cells (germs) might be destroyed. The bacillus tuberculosis being easily killed by comparatively low temperatures, it seems to me that inasmuch as it is possible to subject a tuberculous joint to a temperature of 400° F., for an hour daily, this temperature will eventually act as an antiseptic, although I have made no definite researches in this direction.

The capillaries becoming dilated, a slight effusion will be absorbed, adhesions broken up and inflammatory processes relieved. When the effusion is extensive, surgical means (incision or paracentesis) must be employed for its evacuation, but frequent topical applications of heat (400° F.) will prevent the re-accumulation of serous fluid. The following case well illustrates this:—

Mr. S., aged 22, a bookkeeper, received, while at play, a blow with a baseball, which "laid him up." The knee swelled and the attending physician tapped the joint-cavity, evacuating a glassful of fluid. The man returned to work. The fluid reaccumulated, necessitating another tapping. This procedure had to be repeated every two weeks. After the fourth tapping the patient sought my advice with a view of having arthrotomy performed. I removed about 10 ounces of fluid and ordered the nurse to at once treat his knee for an hour with dry, hot air, raising the temperature as high as the patient could bear. He received five more such applications daily, and the knee has been in good condition ever since (5 months).

Of the beneficial effects of dry, hot air in traumatic, rheumatic and gouty arthritis (synovitis) there can be no doubt, but it should be employed in the same way as any other local application; for in the rheumatic and gouty forms, the conditions are due to constitutional diatheses (?), which require dietetic and rational medicinal therapeusis. The same holds good in tuberculous affections of joints. Dry, hot air is of no value in true fibrous ankylosis of the larger joints. In the smaller joints I have frequently succeeded in breaking up adhesions after a few treatments.

Heat has, in my hands, proved an excellent remedy in acute and subacute primary sciatica. In those forms of muscular atrophy or paralysis due to central causes it has little if any value; in the idiopathic forms it is a valuable adjunct to the usual treatment. I have no experience with this agent in affections of the lungs.

Of late it has been claimed that general muscular rheumatism is cured by subjecting the entire body (with the exception of the head) to high temperature in specially constructed cylinders. I have no faith in such harsh and uncalled-for treatment, and am satisfied that dangerous consequences are possible. As regards, however, the mere subjection of an extremity or a limited region of the body to intense heat, I can only recommend this as a valuable therapeutic agent for the affection mentioned, free of any danger, if grave disease of heart and arteries is absent.

SOME REMARKS UPON THE USE OF THE SUPRARENAL GLAND OF THE SHEEP IN NASAL SURGERY.[1]

By E. LARUE VANSANT, M.D.,
of Philadelphia.
Professor of Diseases of the Throat and Nose, Philadelphia Polyclinic; Surgeo
to the Throat, Nose and Ear Department of the Howard Hospital.

It is not my intention to discuss the literature o the use of the suprarenal gland of the sheep in nasa surgery, but only to present in a very brief way m personal experience with this comparatively ne remedy.

We can now obtain in the shops, put up in bulk, th desiccated extract, 12 grains of which represents abou one fresh gland; also the extract with some excipien such as milk-sugar, in five-grain capsules or tablet These capsules and tablets are said to each represen about one-twelfth of an entire fresh gland.

As the watery solutions of the extract are not pe manent and soon become putrid, it is essential that a such solutions should be freshly made. For this pu pose I have found the employment of the before-me tioned capsules of the dried extract to be the most co venient and practical, and I keep them in my office make the solution when desired. In making my sol tion I use the following mixture as a menstruum:

Acidi borici...gr. xj
Aquæ camphoratæ }
Aquæ destillatæ } ....āā ℥ss

I put one dram of this in a two-dram bottle, add t contents of one capsule, and, after thoroughly shakin filter, and the solution is ready for use. At times have not filtered, but simply allowed the sediment

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[1] Read before the Section on Otology and Laryngology, College of Physici Philadelphia, January 3, 1899.

tle, and then used the clear, supernatant fluid. I
ve also used a saturated solution of boric acid as a
nstruum and have found it good. Prepared in this
y, such watery solutions, when kept in a cold place,
dily keep pure for from one to three days, or longer.
have, however, preferred to make the solution fresh
ly. Its preparation requires but a few minutes of
e, and the expense of renewal is slight.

A glycerin-extract of the fresh gland is also made.
exhibit a preparation of this character made by
. Frank E. Morgan of this city. Of this, 100 minims
said to represent 67½ grains of the fresh gland.
e process of preparing this glycerin-extract, or glyce-
must be very carefully performed in order to
duce a pure and clean product. When properly
pared, this glycerol remains unchanged almost in-
initely, if kept in a cold place. Ten drops of this is
led to 1 dram of the boric-camphor solution, and
r being well shaken is ready for use. This method
quicker and more elegant way of preparing the
edy for application.

he following method of preparing the mucous
nbrane of the nose or throat for operation is adopted:
er preliminary cleansing, the parts to be operated
n are painted with a 5% solution of cocain; then,
r a lapse of from five to ten minutes, the prepared
tion of the suprarenal gland is thoroughly applied
means of cotton-wool. In individuals extremely
itive to the effects of cocain, a 4% solution of
in is used instead of the cocain-solution.

he mucous membrane treated in this manner al-
t immediately becomes very pale and shrunken.
anesthetic effect of the cocain, or eucain, is also
tly increased and prolonged. It is in this increased
thesia and ischemia that the suprarenal gland has
reat value in nasal surgery, for, with a 5% solution
ocain or a 4% solution of eucain followed by the
tion of the suprarenal gland, an effect is obtained
as great as, if not greater than, is produced by
se of very strong solutions of cocain. This is of
me value in many instances, preventing, as it
, the many ill effects that are frequently produced
e use of the stronger solutions of cocain. This
ntage is particularly noticeable in operations upon
ony structures of the nose, for it is not unusual
e patient to have more or less surgical shock from
operations, often, indeed, leading to partial or
syncope. Such conditions of shock are greatly
vated if partial cocain-poisoning be added. Again,
tense ischemia of the parts makes the field of
tion almost bloodless, and this aids the surgeon
performance of his duty.

ave performed many, in fact, nearly all, of the
operations on the nose and throat with the parts
red in the manner described, and I feel that I can
mend the procedure as safe and desirable. In
stance have I seen any toxic symptoms.

In acute and subacute inflammatory conditions of the nasal chambers, such as coryza, hay fever, etc., by following this method the relief obtained from the congestion is much greater and more prolonged than when cocain is used alone.

Occasionally the remedy has not given me any marked increase to the anesthesia produced by the cocain, for what reason I do not know, except that possibly the preparation used did not contain the active ingredient.

A CASE OF SYMMETRIC DEFORMITY OF BOTH HANDS, PROBABLY CONGENITAL.

By WILLIAM S. WADSWORTH, M.D.,
of Philadelphia.

Contribution from the Clinical Laboratories of the Presbyterian Hospital.

THE following case seems of more than common interest owing to certain ethical considerations.

The patient was a woman of good social standing, past middle life, with gouty tendency (well shown in the accompanying illustration—Fig. 2, in the finger tips and the distal joints) giving a history of a nervous childhood, with some

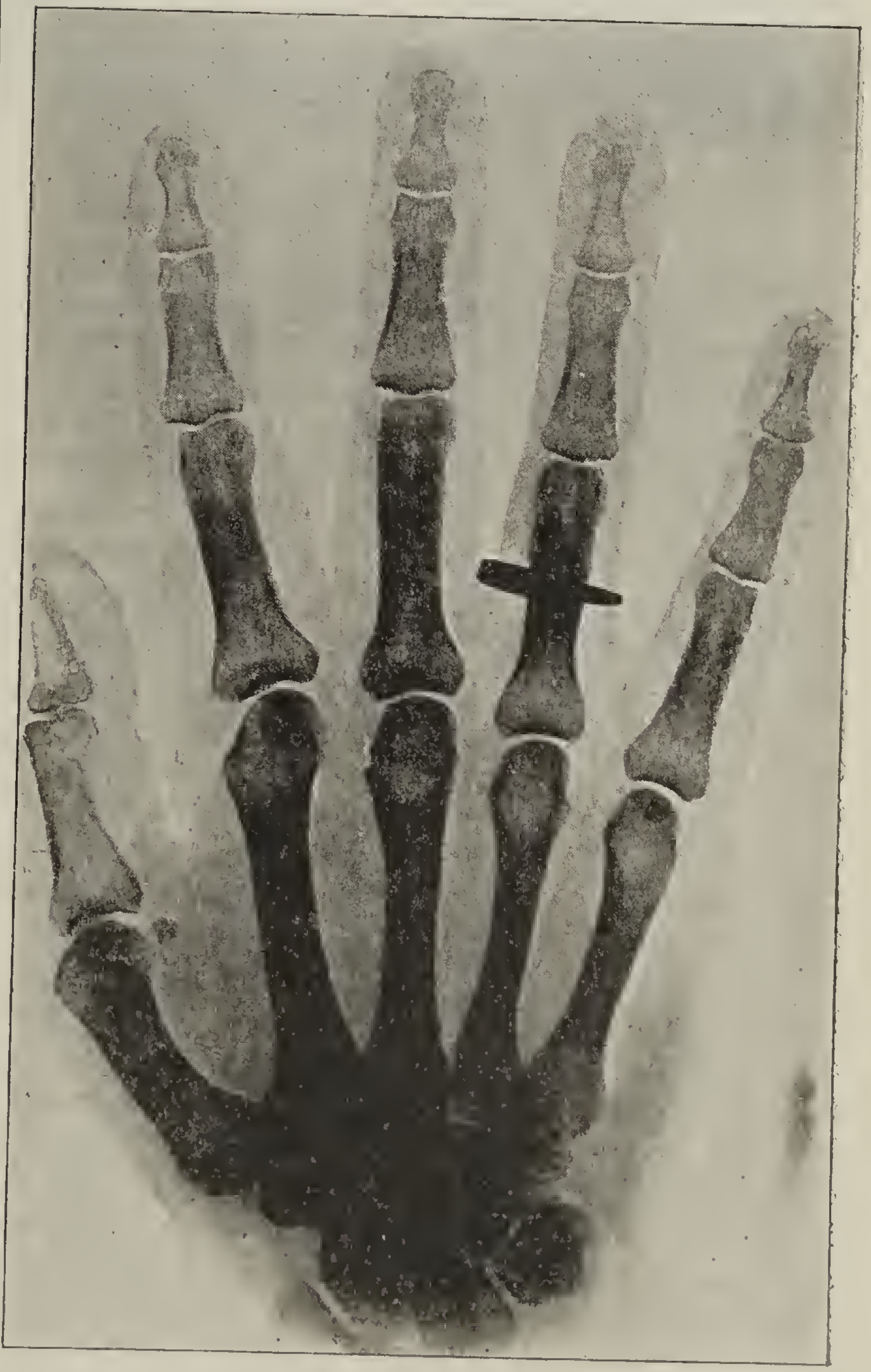

FIG. 1.—A normal hand of an adult woman for comparison with Fig. 2.

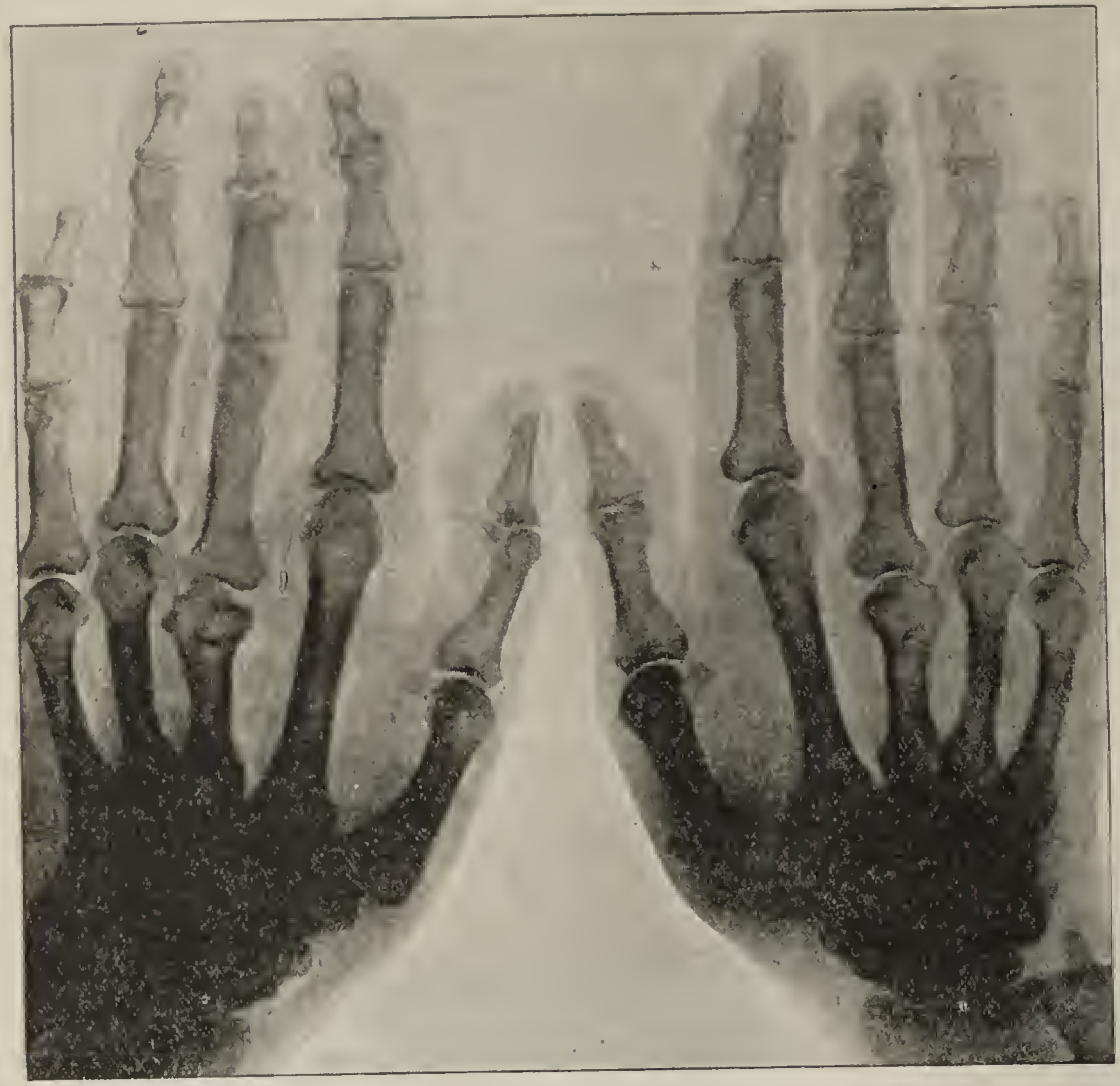

Fig. 2.—Hands of case. (Tube was 15 inches above center of plate.)

nervous traits in the family. When a child at school the patient was punished by her teacher by rapping her knuckles with a ferrule, after which the hand became sore and continued painful for a considerable time. Some time after this a marked deformity of the hand was noticed. The hands were examined by several physicians, and a well-known surgeon diagnosed the condition as shortening following fracture.

The history is a little vague regarding the equal symmetric character of the deformity, and it was this feature that induced a scientific member of the family to bring the case to me for diagnosis.

The ethical feature arose from the blame that the teacher suffered for years for having been instrumental in causing the deformity. In the normal hand of a child of the age of the patient, at the time of the supposed injury, we find the middle metacarpal of about the same length as those in the adult shown in Fig. 2.

It seems highly improbable that an injury to the hand could have been sufficient in itself to cause such a marked change in trophic conditions as would lead to so large a deformity. We must, of course, remember the peculiar power of peripheral irritation in children of markedly nervous temperament and that the irritation of a weak center might increase the weakness, and trophic changes might at the same time naturally follow. If the injury and nervous impression were sufficiently profound and the condition of the child sufficiently abnormal, nervously, we might find symmetric stigmata resulting from thi
impression on the vital attention
but we go far into the unprovabl
and conjectural, though not wholl
improbable, in offering such a su
position. We can, with profit, stud
the conditions we find and amu
ourselves at our leisure with th
possibilities. On comparing Fig.
with Fig. 2, it will be apparent tha
the metacarpal bones of the midd
fingers are from 1 to 2 cm. short
than normal; that the metacarp
bones of the ring-fingers of bot
hands are from ½ to 1 cm. shorte
that the metacarpal bones of th
little fingers are slightly reduced i
length; that the ends of the midd
metacarpals are markedly deforme
that the first phalanges of the midd
fingers are slightly longer than no
mal, though that lengthening
within the limits of normal va
ability.

Gouty finger-tips are so comm
that we need do no more than me
tion them in passing. The study
symmetric deformities of the e
tremities is too large to be taken
at this time.

**Cholecystogastrostomy for Tumors of the He
of the Pancreas.**—Jaboulay (*Lyon Médicale*, November
1898) reports a case in which he performed cholecystog
trostomy for a tumor of the head of the pancreas in a man
years old, who had been jaundiced for 5 months and had
other symptoms connected with obstruction of the g
passages. The patient had never had hepatic colic,
disease of the liver. An irregular-shaped hard tumor co
be made out in the region of the pancreas. On opening
abdomen the gall-bladder, which was found filled w
thickened black bile, was incised and attached to the anter
surface of the stomach in the neighborhood of the les
curvature and near the pylorus. Gauze was packed ab
the region sutured and retained for 10 days. A little
escaped from the site of the suture, but the patient ne
vomited; his jaundice rapidly diminished; the urine, wh
had been highly colored, became clear in 8 days; and
feces were of normal color. A permanent cure could not
expected, but relief was perfect for the time. Cholecysto
trostomy does not disorder the intestinal circulation, as is
case with cholecystenterostomy. The operation has
been performed only 3 times. Physiologists demonstra
the possibility of directing the flow of bile into
stomach, without any disturbances of digestion or regurg
tion of bile, some time ago in animals, and these operat
have proved the possibility of accomplishing the same re
in man. Jaboulay believes that this operation is more rea
performed than the other operations usually practised
such conditions. [M.B.T.]

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A Menace to the Public Health and to Comnerce.—When the English anti-vaccinationists suceeded in inserting the conscience-clause in their recent aw, it was evident that not only Great Britain would e affected, but that other countries would soon have a ecrudescence of ignorant prejudice to withstand. lready, in our country, we are experiencing the beinning of what may prove a long conflict. One of the rst skirmishes is at hand. The Hon. A. L. Allen has ntroduced into the House of Representatives at Harrisurg a most pernicious bill. It is proposed by the bill repeal the act which requires a certificate of successful ccination before any child can be admitted to the ublic schools. We have in this State no compulsory ccination law, and the only hold which we have on e community, in order to obtain the protection hich universal compulsory vaccination would give , is through this required certificate. Intelligent ople have their children vaccinated; and through is law we have a partial control over the unintelgent and careless. The enormous advantage of comlsory vaccination we have recently shown by very iking diagrams (see PHILADELPHIA MEDICAL JOURL, January 21 and February 18, 1899). Two motives mpel a community to protect itself against such a ague as smallpox. First, for the protection of e health of the community, and, secondly, for the otection of its business interests. We do not ow any intelligent physicians who are not thorghly convinced that the community can only be otected and is efficiently protected from smallpox vaccination. By the use of animal lymph, and with tiseptic precautions, all its few past evils may practily be eliminated. Our merchants should also be rmed at this proposed law. An epidemic of small, even of moderate severity, would cost the commerce this Commonwealth millions of dollars.

The Committee on Education, we understand, fixed dnesday, March 1, for a hearing of the friends and ponents of the bill referred to. No notice, so far as have heard, was given of this proposed action till than a week before the date of the hearing. The lege of Physicians of Philadelphia, meeting on rch 1, and the Philadelphia County Medical Soy on March 8, will doubtless take, or have already en, suitable action by the appointment of a comtee to oppose the passage of this obnoxious measure. The Public Education Association has already acted, and we hope that the State Board of Health will make its influence felt. Our readers will do a serious service to health and to commerce if they will immediately write to their Senators and Representatives protesting against this measure.

The Right of a Medical College to Confer Degrees in Dental Surgery.—The action of the Supreme Court of Pennsylvania, in affirming the decree of a lower court granting authority to the Medico-Chirurgical College of Philadelphia to confer degrees in dental surgery, sustains the view to which, in connection with a controversy in Rhode Island, we gave expression in the JOURNAL for September 24, 1898, p. 578, to the effect that dental surgery was a part of medicine, and that license to practise the whole carried with it the right to practise any part. The opinion of the Supreme Court holds that the word "medicine," in its common signification, includes all learning having for its object the care of the health and the cure of the ills of the human body, and, inasmuch as the Medico-Chirurgical College has authority to confer degrees in medicine, it unquestionably has the right to impart instruction in dentistry, and confer degrees in that branch.

Who is Responsible?—A reference to our report of the vital statistics of Philadelphia will show that there were reported to the Board of Health for the week ending February 25, **421** cases of typhoid fever, **52** cases of diphtheria, **33** cases of scarlet fever, with 38 deaths, 16 deaths, and 1 death respectively. We doubt if any civilized community in the world can show a higher morbidity-rate for typhoid fever, and although the "authorities" deny that there is any communication between the intercepting sewer and the water from the Queen Lane Reservoir, the largest number of cases come from those sections of the city to which this water is supplied, and it is universally conceded that the water-supply is by far the most important medium for the communication of typhoid fever. In a smaller degree this is true also for diphtheria and scarlet fever, and we may in this fact find an explanation why these diseases are constantly so much more prevalent in Philadelphia than in New York for instance, yellow labels to the contrary notwithstanding. The oppressed in health cry out for relief from the thraldom that condemns them to disease and death, and for which those are responsible who will not provide the community with an adequate supply of pure water.

Suggestions to Writers: No. 25. Cuts of Temperature-charts.—The manufacturers of blank temperature-charts very frequently use such pale-colored inks that when reproduced by photography for illustrations to articles, the vertical or the horizontal lines, or both, do not come out well. We would suggest to clinicians and especially authors the advisability of using only charts with clear black lines, or if the record has been taken on charts with pale or weakly colored lines› that all these lines be redrawn with good black ink. If different records, as of respirations, the pulse, etc., in addition to the temperature, are expressed by lines upon the same chart, do not use different colored inks, but different kinds of lines with the same ink; for example, a plain one for the temperature, and interrupted, dotted, or hyphenated ones for the other records.

State Requirements for the Practice of Medicine.—To the *Bulletin of the American Academy of Medicine*, and to the secretary of that organization, Dr. Chas. McIntire, of Easton, Pa., the members of the medical profession owe a debt of gratitude for the gathering and publication of the laws regulating the practice of medicine in the different States and territories of the United States. This work was begun in 1897, the previous reports having been published in the *Bulletin* of February, 1897, and of February, 1898. Dr. McIntire now classifies the changes that have taken place in the laws during the past year, in the *Bulletin* of February, 1899. From the number of inquiries received by us we think it of importance to call attention to this work of the *American Academy of Medicine*, and to add that (for 30 cents) Dr. McIntire will mail reprints of the first two articles to any address. Thousands of young physicians will this spring be in need of this information.

Disease a Bar to Marriage.—It is strange that man has long paid great attention to the improvement of his animals by stirpiculture, but has given none whatever to the improvement of himself by the same methods. At last we are perhaps to witness an attempt at least to prevent human reproduction from the most defective stocks. It is announced that a bill has been passed by the Senate of North Dakota providing for a commission of three physicians in each county for the examination of all applicants for marriage. This is another illustration of the well-known fact that the march of progress, in this country at least, is westward. Of the sanitary soundness of the principle behind the measure there can be no doubt; we hope its practicability of application can be demonstrated. It should put at once a salutary check upon undesirable marriages and be the means of preventing the propagation of disease and also possibly of defective offspring. Much will depend upon the scope and the nature of the examination and the authority and ability to enforce its logical conclusions. Whether or not the adoption of the measure and its carrying out in practice will encourage other evils is a matter for the future to decide, but we consider the tendency of the movement a good one and hope the results may not be disappointing. Its success will reinforce the proposition that the function of the latter-day physician is the prevention not less than the cure and amelioration of disease.

A Grateful Patient and a Disgusted Doctor.—We have no doubt that testimonials and the gratitude of patients, especially when appearing in print, have the wily advertising physician for their primary source, but it sometimes happens that a physician may in utter ignorance suffer from the desire of a grateful patient to spread abroad the fame of his medical adviser. Such a case has lately come to our notice. Out of the effusive and spontaneous simplicity of his heart, a poor Italian inserted in the local newspaper (and, of course, it fell among the worst class of "ads." of quacks, astrologists, etc.), the following notice:—

> I AM AN ITALIAN BOY AND I WAS SICK 4 years, and every doctor I saw in this country and Italy said I was going to die. I saw Dr. —— ——, —— ——, —— —— ——. He is a professor in —— ——. —— ——'performed 2 operations on me and cured me right away, and I am much obliged to —— ——, and also Miss ——, the Superintendent of the Hospital.
>
> Yours truly,
>
> —— —— ——
>
> —— —— ——

With his face beaming with joy the boy brought bundles of the newspaper ("marked copies") to the physician and to the hospital. A more difficult operation than the previous surgical one was the attempt t get it into the boy's head that he had unwittingly done the physician an injury, and that the distribution o the notice could only work harm to those he wished t please.

Board of Health Nomenclature.—To be of valu statistics must not be only truthful and honest, but als uniform, in order that they may be comparable. Whil we cannot hold boards of health altogether responsibl for the results that it is a part of their duty to publish we may reasonably expect them to give expression t such results in terms of modern scientific languag Those who read our reports of the vital statistics of th city of Philadelphia, for example, will have notice that we have in a number of instances been compelle to throw together the data from several sources, *e.g* pneumonia and congestion of the lungs; consumptio of the lungs and intestinal tuberculosis; heart-diseas fatty degeneration of the heart, and inflammation of th heart; inflammation of the kidney and uremia; ap plexy and paralysis; diphtheria and membranous croup, inflammation of the brain and congestion of the brain; carcinoma and tumor; gastro-enteritis and cholera infantum, etc. In the tables of the Board of Health we find also separate items for softening of the brain, for nephritis, Bright's disease, and uremia, and for convulsions and epilepsy. While cancer and tumor are mentioned, no reference is ever found to sarcoma or other form of fatal neoplastic disease. One would be at a loss to explain the large number of deaths assigned to inflammation of the brain if he did not observe that meningitis is not mentioned. Among other causes of death we find noted asthma, cyanosis, diarrhea, dropsy, jaundice, teething. From the foregoing it will be apparent that some revision is desirable in the records of a progressive city with an intelligent population. Statistics based upon such nomenclature must be useless or worse. We would therefore suggest that the proper authorities take the necessary steps to secure reports of vital statistics in uniform, modern scientific terms, in order that such data may subserve the purposes for which they are collected and that the time and energy expended in their collection be not wasted.

The Stephens Case.—The trial of Professor Stephens, of Lafayette College, at Easton, was almost entirely devoid of the sensational incidents which many persons, especially writers in the daily newspapers, anticipated. From the time of the prisoner's confession that he had set fire to Pardee Hall, the lay writers of expert opinions in the daily press were evidently apprehensive that an attempt would be made by the defense to prove the irresponsibility of the prisoner. The public was to be treated to a highly reprehensible exhibit of perverted science, and the doctrine of "pyromania" was to be clothed anew with all the devilish plausibility that paid experts in psychiatry could devise for it. Here was an opportunity, unsurpassed in the nineteenth century, to educate the public in the mysteries of the cult of Lombroso, and to establish the dogma of "degeneration" in the person of a learned professor of moral science, who fired a college building in order to ventilate a grievance.

All these vaticinations of the daily press have failed o be realized, and we have seen instead a rather commonplace trial of a truly commonplace criminal, which has left no mark behind to give it a conspicuous place in the annals of medico-legal science. The rray of expert witnesses, who might at least have demonstrated to the world their own capacity to exasperte the daily press, failed to materialize; and the battle-royal, in which contending forces might have given hair-splitting demonstrations of the psychiatry nvolved in smearing tar and throwing rotten eggs, was ndefinitely postponed. For this consummation we may be truly thankful, and may congratulate our brethren of the daily press, who write so lucidly on "borderland insanity," that their sense of propriety has not been lacerated by an unseemly struggle over the moral remains of an immoral professor.

From the purely human standpoint the case is a sad and deplorable one. It presents all the mysteries that ever enshroud the total collapse and ruin of a man's character. It has in it all the uncertain elements that such a great moral problem always presents, when, in spite of education, environment and precedent, the base passions of a human soul rise to the mastery of conduct. To solve such a problem is not our province; to dogmatize about it is not our wish. There is a depth of mystery in it which is but feebly defined by the word "crime"; an element of uncertainty which is but feebly explained in the terms of science.

"The Advantages of Osteopathy."—Among the many advantages claimed for osteopathy by the *Philadelphia Journal of Osteopathy* are those set forth in the quotation given below. It is not often that people who have similar beliefs and practices are so amazingly frank. It is well that we keep in mind the motives that impel ignorance and pretension. The law of finance is that the greater the investment the greater should be the income. The osteopath advertises the fact that he has found a new commercial law as well as a new scientific one. What a world would this be if either discovery were true!

> "*It solves the problem of financial support.* Daily bread is the necessary end of nearly all toil. "In the sweat of thy brow shalt thou earn thy bread," is a law not many can evade. However many other beautiful motives there may be in work, the chief one is, to earn a living. Even if one has capital, it is difficult to make it earn a large increase; and if one is on a salary, it is even more difficult to get a large one. One may even earn more than he is really paid for, so close are the conditions of work. Many a man works as he does, not because he wants to, but because he must. Many a father toils on fifty dollars a month; many a woman or girl works and worries along with five dollars a week. Many a business fails in earning an income, even though the investment is large. Ordinarily this cannot be helped. Now, with the opportunity presented by this new profession, this is unnecessary. People do not need to work and slave on starvation wages. To say the least of it, osteopathy is a financial success, and it earns all it gets, and gets it freely from its patients. The true osteopath makes money, and he has never been charged with extortion or exorbitance. It is the cheapest treatment for its patients, even though it may enrich its operators.
>
> "*It yields the largest returns from the least capital.* The ingenuity of capitalists is exerted to increase the earning power of their money. In all independent business large capital is required, and yet large incomes do not necessarily follow. Small incomes are the rule. Even when one has ideas that are of practical value, as inventions and discoveries, it takes capital to turn them to account. Not so with the osteopath. His only capital is his tuition. This gives him ideas and skill that he can put on the market anywhere, and with which he can at once earn money with little or no capital. His brain is his bank; his skill is his capital stock; his hands are his merchandise; the suffering world is his market, and his cases are his profits. Any trained osteopath, with no outlay but his personal service, at an expense of fifty dollars per month, can earn from $300 to $1,000 per month. It is done by many to-day."

The Therapeutic Value of Hypnotism.—It is highly desirable at the present day that a distinction should be drawn between hypnosis as a psychic state and hypnotism as a therapeutic method. We wish to emphasize this point, because a great part of the discredit into which hypnotism has fallen is due to the abuse and exaggeration of its powers as a medium of healing. The two aspects of the subject are entirely distinct. Hypnosis is a genuine physiological phenomenon—not nearly so common and attainable, however, as some observers claim—and it presents some most interesting and recondite problems in psychology. We think this much is certain, and is generally accepted as a fact. Moreover, this state of hypnosis yet requires the conscientious and critical study of experts in psychology, and suffers because it is still too much abandoned to the dilettants of science and literature. The *theory* of hypnosis, in other words, is still an open field for profitable research.

Unfortunately, under the influence of certain sensational writers in France, hypnotism has been exploited beyond all reason as a means of healing. This aspect of the subject seems to be the only one that has importance in the eyes of some enthusiasts. This has led perilously near to charlatanism in some cases, and in others has blinded some sincere but zealous practitioners. We are far, however, from denying that hypnosis sometimes opens an avenue of approach to a patient's mind by which most salutary suggestions may be introduced and made operative.

The healing power of hypnotism may be expressed in an aphorism: Hypnosis prepares the soil for suggestion. It does this and nothing more; and, in fact, can do nothing more. Consequently, the only therapeusis possible under hypnosis is by mental impression, and the only diseases curable are those that can be influenced by the mind. Hypnotism will not cure organic disease, or eradicate microbes from the blood. Reduced thus to its baldest expression, hypnotism presents nothing miraculous or unintelligible. The ritualism employed, the scholastic distinctions and definitions used, only cloud and confuse the subject.

This should remind practitioners of hypnotism of two things. First, there is a *normal* suggestibility of mind that is often just as useful as, and sometimes even more so than, the artificial state provoked by hypnosis. All wise practitioners use this normal suggestion whenever they are able—it simply denotes the influence of mind upon mind, and of mind upon body. Second, the susceptibility to hypnotism, and to cures wrought in this state, is often not a good prognostic sign. What we mean is this: An hysterical or neurasthenic patient who is readily hypnotized and cured, shows by this very fact that she is a confirmed neurotic. Her ready hypnosis is a sign of her degeneration. Her permanent cure is by no means assured—her relapse is often merely a question of time.

We have been led to make these comments by the recent temperate discussion of the therapeutic value of hypnotism at the Philadelphia County Medical Society, when Dr. J. Madison Taylor read an interesting paper on the subject.

The Correlation of the Sciences.—Dr. Ira Van Gieson has written a thoughtful essay on the correlation of various sciences in the investigation of nervous and mental diseases. This essay constitutes the bulk of the first volume of the Archives of Neurology and Psycho-Pathology, published under the auspices of the State Commission in Lunacy in New York. The purport of Van Gieson's paper is to show, in the language of Buckle, whom he quotes, that no one can have a firm grasp of any science if he confines himself to it exclusively, and deprives himself of the peculiar aid which is derived from a commanding survey of things, and of the relations they bear to each other. In unfolding this scheme of thought Van Gieson displays an originality and vigor which are noteworthy, and points unerringly to some of the vices that characterize the tendency to specialism, now so rife in scientific medicine. He evidently sees plainly, so far as psychiatry and the higher planes of neurology are concerned, that the prevalent school of histologists and pathological anatomists, with their limited vision and narrow range of thought, are never destined to evolve a genuine and permanent science. These men, who devote their days and nights to turning over dead tissue, and painstakingly describing its form and appearance in the vain belief that they are solving the true problems of the life and death of nerve-cells, are, in the opinion of the author, merely doing mechanical desk-work. The evil of it all is that they expect and exact a homage for this work as though they were the high-priests of science. The "laboratory-psychology" of the present day has apparently little sympathy from Van Gieson; and the strange infatuation which has spread all over the civilized world for the staining by the Nissl method, leads, according to him, to an activity which is not always characterized by reflection.

The truth is, just as Van Gieson sees it; we are doing too much mere mechanical work on nervous tissue, and are not sufficiently heedful of the teachings of cognate and allied sciences, especially psychology, biology, chemistry, and bacteriology. It is doubtful, in fact, so far as psychiatry is concerned, whether the present methods have anything more in store for us than what we already know of value. New stains, new technic, will rise and fall, with a superabundance of fickle enthusiasm; but the stain probably does not exist in the realm of time that will paint a thought for us, or discolor a delusion. These phenomena are only to be studied by a more subtle analytical process than any that is supplied by the microscope. In psychiatry the methods of the ordinary medical laboratory cannot be depended on with profit, and in fact "medicine is no guide for the student of psychiatry." Van Gieson, although sometimes radical, is at least original and suggestive. His paper has a tonic and alterative effect; and as such we commend it, especially to those who, on due introspection, find that they are narrowing life and science down to the area of their work-bench.

The volume of Archives is beautifully printed at the State Hospital Press, in Utica, and is a splendid evidence of the enterprise and public spirit of the New York Lunacy Commission.

The Increasing Dangers of Illuminating Gas.—The occurrence, only a few days apart, of three instances of asphyxiation in this city by the accidental escape of illuminating gas should direct public attention to the dangerous character of the illuminant. In the instances alluded to no less than 16 persons were overcome and 5 deaths resulted. In this number are not included cases of attempted or successful suicide by this agent, of which also several have been reported.

A point of danger, concerning which knowledge is not general, is the fact that, since the lease of the Philadelphia Gas Works by the United Gas Improvement Company, an increasing quantity of water-gas is being mixed with the coal-gas, which many suppose constitutes the sole illuminating agent dispensed. Water-gas is distinctly a more lethal agent than the ordinary illuminating-gas, possesses no noticeable pungent odor, is particularly penetrative, and not only acts much more rapidly in producing asphyxiation, but produces effects far more difficult to overcome than does coal-gas. Even when resuscitation and apparent recovery is made, the action of water-gas upon the blood is such that an impaired state of health, temporary or permanent according to the degree of asphyxiation, must inevitably result.

For the protection of the public this important matter of the constant supply of so dangerous an agent should be hedged about with more safeguards than at present exist. Among the more obvious protective measures that should be recommended is the requiring of all companies manufacturing and selling illuminating gas to give public notice of the use of any kind of water-gas, such statement, with a caution as to the danger of the illuminant, forming part of every bill for service sent out by the company. In addition, municipal legislation should regulate the proportion of carbon dioxid in the gas supplied, at least in the resident sections during what may be called the "sleeping hours," limiting such proportion to about 12%. The character of the gas-burners and fittings and their testing would also seem appropriate matters for regulation by the city government. Observance of such laws could be enforced by appropriate penalties. The concomitant possibility of civil suits for damages in the event of death or injury resulting from violation by the gas companies of any of the provisions having public safety in view, would also doubtless have effect in producing some degree of caution in the observance of legal points of liability.

The gas-companies seem to have three malevolent aims: 1. To ruin our eyes by gas which does not illumine; 2. To ruin our bank-accounts by compelling us to burn great quantities of gas in the hope of lighting our rooms; 3. To ruin our health by vitiation of our atmosphere. If we are rebellious they propose actual death by asphyxiation.

The Toxic Manifestations of Disease.—The statement will scarcely be gainsaid that no scientific discovery is without its practical and utilitarian aspects. The revelations of bacteriologic study have led to results that could not have been anticipated by the individual investigator; but time works wonders. We have learned that bacteria alone do not constitute disease, which is rather the expression of a reaction between certain irritants and the human body. In addition to these two factors there must yet exist that condition which, for want of a more precise and more definite term, we designate susceptibility.

Bacteria may give rise to disease directly, that is, as foreign bodies, but perhaps more commonly they exercise their deleterious influence through the agency of toxic substances generated as a result either of their vital activity or of the reaction between them and the cells of the invaded body. The symptoms of some diseases, *e.g.*, tetanus, are dependent essentially upon the intoxication secondary to bacterial invasion, while those of others are attributable in part to mechanical influences, *e.g.*, the exudate of diphtheria, the ulceration of typhoid fever, the destruction of tuberculosis.

There are, further, certain more remote results of bacterial invasion, which take the form of complications, such as the serous inflammations of various diseases, more especially rheumatism, and the nerve-inflammations of others. These are usually the result of intoxications, though they may possibly arise from direct infection. That they are not peculiar to any one infectious disease is shown by their occurrence in connection with many, and even with disorders of metabolism, as diabetes. That gonorrhea may give rise to endocarditis and to synovitis, and syphilis to arthritis and remotely at least to nerve-degeneration, is well appreciated; and evidence is now brought forward by Maitland (*British Medical Journal*, February 4, 1899, p. 270) that chancroid may cause peripheral neuritis. Eleven cases are briefly reported, in which symptoms of peripheral neuritis occurred in individuals within a short time of the appearance of venereal lesions responding to local treatment and unattended with secondary manifestations. The point illustrated by these cases, and that seems worthy of emphasis, resides in the fact that in most of the diseases with which we are acquainted, whether infectious or metabolic, intoxication or poisoning may result, with the development of nerve-inflammation, central or peripheral, and other complications of allied character. In fact even the intoxications due to bacteria may be considered on ultimate analysis as due to metabolic activities, occurring, however, in the bodies of vegetal parasites instead of in the human body. An analogous interpretation has recently been given by Riesman (see this Journal for February 4, 1899, p. 270, *et seq.*) to the action of cells produced in various hyperplasias and neoplasias, such as take place in a number of diseases, and especially in tumor-formations, benign or malignant; and Virchow (see this Journal for October 8, 1898, p. 725, *et seq.*) expressed the same thought in referring to the chemic influence exerted by the normal cells of the body through the products of their metabolic activity. These effects may be brought about by the production of normal substances in excess (and perhaps even in deficiency), or by the production of abnormal substances. They represent, in such language as is at present available, a condition of disturbance in metabolic equilibrium—or metabolic toxemia, according to Riesman—which may be due to faulty production or faulty elimination or both.

The Corpus Luteum.—The magnificent work done by the attaches of the Johns Hopkins Hospital has received a worthy addition in the experimental work of Dr. J. G. Clark, published in Vol. VII, No. 4, Johns Hopkins Hospital Reports, a study of "The Origin, Growth and Fate of the Corpus Luteum as Observed in the Ovary of the Pig and Man." In order to reach accurate conclusions concerning the progressive stages of development of the corpus luteum in the human ovary, a series was procured from one of the lower animals, the pig being selected because of the unlimited quantity obtainable. After careful investigation and comparison, the following conclusions were reached: (1) The lutein are specialized connective-tissue cells which appear in the inner layers of the follicle wall at the time when it begins to show adifferentiation into the theca interna and externa, and gradually increase in size and number until the period of maturity, when they have assumed all the characteristics which cause them to be designated lutein cells. The corpus luteum is therefore not an epithelial but a connective-tissue structure. (2) In the growing follicle the lutein cells are increased at the expense of the ordinary connective-tissue cells, until the latter are represented by only a few cells and a fine reticulum in the mature follicle. This reticulum forms a fine web stretching from the theca externa among the lutein cells, beyond which it is woven into a more or less fine line known as the membria propria. (3) At the time of the rupture of the follicle, the membria propria is broken through in places by the advancing lutein cells and bloodvessels, but quickly reforms a connective-tissue line in front of the lutein cells which push it toward the center, where it finally forms a dense core of interlacing fibers. (4) After the rupture of the follicle the lutein cells (connective-tissue cells) show a remarkable activity in growth, increasing both in size and numbers until the empty cavity is completely filled in, after which they begin to undergo degeneration. (5) The fine reticulum between the lutein cells of the mature follicle is the antecedent of the connective-tissue cells, which are quite sparse in the first stage of the growth of the corpus luteum, but become the predominating structure at the height of its development. (6) The degeneration of the lutein cells is probably induced through the increasing density of the connective tissue surrounding them. (7) The retrogression of the corpus luteum is characterized first by the fatty degeneration of the lutein cells, followed by the shrinking of the connective-tissue net into a compact body (corpus fibrosum), after which it is gradually removed through hyaline changes until a very fine scar-tissue is left, which is at last lost in the ovarian stroma. (8) The bloodvessels of the corpus luteum are quite resistant, and the larger ones are among the last structures to give way in the process of retrogression. (9) The office of the corpus luteum is that of a preserver of the ovarian circulation, which exercises its function almost perfectly in the younger woman, but which at last, with the increasing density of the stroma, begins to fail in its activity, its remains being slowly or imperfectly absorbed until these deposits finally exert the opposite influence and hasten the laming of the circulation. (10) Cessation of ovulation is induced not through the disappearance of follicles *per se*, but through a densification of the ovarian stroma and a destruction of the peripheral circulation which prevents their development.

Editor and Reader. No. 16. A word of thanks is due our advertisers in last week's issue for the promptness and heartiness with which they responded to our advertising manager's request to take additional space in order to permit us to send out 12,500 copies of the Journal, above the regular edition. We had closed the forms when it occurred to us that several articles in the issue might be of exceptional service if they should be read by a larger number of physicians than our usual 10,000. In 24 hours we had secured 32 extra pages of advertising and were thus enabled to meet the added expense. Our regular subscribers, we trust, will pardon the slight delay in receiving their copies. Without the admirable good will of our best of printers the execution of the task would also have been impossible. We refer to the fact as illustrative of what may be accomplished by a proper and desirable cooperation of the honorable medical journal and the equally honorable medical advertiser. It is their common interest to elevate professional and pharmaceutic standards. If medical journals will exclude nostrum advertisements and use the power at their disposal for professional reform and progress, and not for selfishness and financial profit, we should soon see reform and progress making such strides as have been wholly unknown under the old order of things.

"Obstetrics."—We gladly welcome among the number of specialistic journals the new periodical, *Obstetrics*, published monthly in New York, and devoted entirely to contributions on that subject. The marked tendency of recent years has been to devote the columns of the ostensibly obstetric journals too exclusively to gynecologic surgery, and to neglect the discussion of those topics dealing directly with pregnancy, parturition, and the puerperium. In an examination of the files for the past year of the two leading monthly obstetric and gynecologic journals of this country, at least 75% of the articles were found to be on other than obstetric subjects. The list of contributors to this new periodical, and the excellent editorial and advisory board, insure its success.

The Maltine Company and the Standard Chemical Company deny that they have ever authorized the use of their names or products by the journal we quoted last week in the editorial note entitled "Multiple Reciprocity." They also say that they had no knowledge that such recommendations of Maltine and Phenazone bougies were being made. This is as we suspected, and our reference was largely for the purpose of eliciting such denials.

Selected.

OSTEOPATHY AND LICENSURE TO PRACTISE.

There is a pathology of Faith as well as a physiology and it is not always an easy problem to determine where the normal process ceases and the morbid influence begins. And even when the condition appears to be markedly abnormal, or at least unusual, the true pathology cannot always be clearly made out. Thus credulity seems to be the result both of the atrophy and the hypertrophy of Faith as it is manifested in different individuals. This is shown in its prevalence among all classes and conditions of men. It will aid to explain why shrewd business men—men of affairs, keen enough to secure positions of responsibility and of political honor, men who have been instructed in our schools and trained in our universities—view with allowance not only, but actually champion methods purporting to treat disease contrary to all logical processes of our waking hours, and to the conclusions of all researches that have been made on the subject.

It is because of morbid sentimentalities that the religious journal delights in the advertising of nostrums, that the legislator turns a more willing ear to the enthusiast who appeals to his credulity than to the savant who appeals to his intellect. Thus it is that several of our States have provisions in their medical practice acts expressly exempting those who employ nothing ponderable in their treatment, ust as if neglecting to give an indicated remedy is any less criminal than to administer an improper remedy. Thus it s that the promoters of osteopathy have been so successful n their efforts among our various legislatures. Their leaders are shrewd, and as there is so much of uncertainty as to all matters medical in the mind of the average man, the creduity of many has been worked upon.

Special legislation, giving the practisers of this following valuable privileges denied to others, has been introduced in a number of legislatures during the last two years. The efforts will probably be renewed during the present winter. In some instances the legislature refused to enact the sought-for legislation; in others, the governor has been able to veto he acts; while still in others another foolish act has been entered upon an already overburdened statute-book.

The most noteworthy event in connection with osteopathy during the year is the civil suit for libel brought by one of the faculty of the Missouri School of Osteopathy, whatever may be its official title, against the *Medical Age*, of Detroit. It is not necessary to state as a matter of information that Mr. Warren, the publisher of the *Age*, proposes to defend his paper. The *Medical Age* is too self-respecting a medical journal to make an editorial statement and not stand by it. All self-respecting physicians sympathize with Mr. Warren in his unpleasant position, and will back him up by their sympathy, but not one could see him back down, and retain their regard for him. It is not the fact of the defense that makes the event noteworthy, but the shrewdness of osteopathy. If there is a single publishing house affording chances for a favorable verdict more than any other, it is this one. If there is a publishing house in the country that, being a defendant in such a suit, will afford an excellent opportunity to keep osteopathy before the public, it is this one. The publicity given by the suit will well repay the promoters of osteopathy as an advertising scheme.

Efforts were made to secure information regarding the legal status of those who practise osteopathy in the different States. The results are not so complete as one would desire, but are given for what they are worth.

In a number of States the question has not arisen at all—either the practiser of osteopathy has not appeared, or official cognizance has not been taken of him. In others, the matter has come before the licensing body, but either no action has yet been formulated, or a test-case has not been made. Still in others, a test-case has been made but not decided by the courts. It is not thought necessary to incorporate information of this nature in this article; only that is of value in this connection which is positive and definite.

Colorado.—Governor Adams vetoed a bill passed by the legislature granting special privileges to osteopaths.

Illinois.—The Illinois legislature also adopted an act creating a special species of healers; it was vetoed by Governor Tanner.

Iowa.—The following is the text of the Iowa law, probably similar to that vetoed by other governors of other States.

Be it Enacted by the General Assembly of the State of Iowa:

Section 1. Any person holding a diploma from a legally incorporated and regularly conducted school of osteopathy of good repute as such, and wherein the course of study comprises a term of at least 20 months or four terms of five months each, in actual attendance at such school, and shall include instructions in the following branches; to wit, anatomy, physiology, chemistry, histology, pathology, gynecology, obstetrics, and theory and practice of osteopathy, shall, upon the presentation of such diploma to the state board of medical examiners and satisfying such board that they are the legal holders thereof, be granted by such board, a certificate permitting such person to practise osteopathy in the State of Iowa, upon payment to said board of a fee of $20, which certificate shall be recorded by the county clerk of the county in which the holder desires to practise, for which he shall receive a fee of $1.00.

Sec. 2. The certificate provided for in the foregoing section shall not authorize the holder thereof to prescribe or use drugs in his practice, nor to perform major or operative surgery.

Sec. 3. Any person who, for the purpose of securing such certificate, shall falsely represent himself or herself to be the legal holder of any such diploma, shall be deemed guilty of a misdemeanor, and on conviction be fined not less than $50 nor more than $100.

Sec. 4. Any such certificate may be revoked by the state board of health upon satisfactory proof of fraudulent misrepresentation in procuring the same or for any violation of the provisions of the certificate and for any gross immorality by the holder thereof.

Sec. 5. The system, method, or science of treating diseases of the human body, commonly known as osteopathy, is hereby declared not to be the practice of medicine, surgery, or obstetrics within the meaning of section twenty-five hundred and seventy-nine (2579), title twelve (12), chapter seventeen (17) of the code.

Kentucky.—The law regulating any ususual method of medical practice in Kentucky has the official title of "An act to protect citizens of this commonwealth from Empiricism." In a suit under this act Mr. Justice Thompson rendered the following opinion, which, in effect, prevents osteopathy being practised in Kentucky by other than a properly trained physician.

> "The defendant is charged with 'practising medicine' in this city without the authority required by the statute. It is urged by the defendant's counsel that 'under the statutes of Kentucky the acts mentioned and complained of in the evidence do not constitute an offense.' That no witness has 'sworn that Axtell ever practised medicine, ever gave a prescription or administered a drug, and it appears that he never performed any surgical operation, never used an instrument, never set a fracture, or did anything except to manipulate the limbs and muscles with the hands.' The Legislature of Kentucky, in Chapter 85, intended merely to make a law which

would prevent persons from administering drugs or giving prescriptions who did not know anything about them.

"The language of the statute is: 'It shall be unlawful for any person to practise medicine in any of its branches within the limits of the State who has not exhibited and registered in the county clerk's office in the county in which he resides his authority for so practising medicine, as herein prescribed,' etc.

"It is not pretended that the defendant has the authority to practise medicine which is prescribed by the statute. The only question, therefore, in the case is, do the acts and doings of this defendant constitute the offense of 'practising medicine' as denounced by the statute?

"This depends upon what the legislature intended by the words 'practise medicine.' If these words are to be construed as meaning only the administration of drugs, the giving of prescriptions, and the performance of surgical operations, then this defendant is entitled to his acquittal. I think it is a just and certainly safe rule to construe the language of a criminal statute in the sense in which it is commonly used and understood among intelligent people, and I do not think any person of ordinary intelligence ever uses these terms in the restricted sense here contended. The word 'practice' is defined by Webster to mean 'the exercise of an art, or the application of a science to the wants of men;' and the word 'medicine,' 'a remedial agent, a remedy, physic,' and in its secondary sense, 'that branch of science which relates to the prevention, cure, or alleviation of diseases of the human body;' as the 'study of medicine' or a 'student of medicine.' It is in this secondary sense that the term 'practice of medicine' is always used among intelligent people, meaning 'the application of that branch of science which relates to the prevention, cure, or alleviation of diseases to the wants of man.'

"The defendant claims that he applies to the prevention and cure of disease the science of osteopathy, which his advertisement defines to be 'the science of curing diseases without the knife or medicine.'

"The defendant puts in evidence the *Journal of Osteopathy* for May, 1897, in which Dr. William Smith, who seems to be an authority on the subject of osteopathy, writes of the 'three essentials.' He says: 'Were I asked to name these to the practitioner, no matter of what school, I would unhesitatingly state anatomy, physiology, and symptomatology.' Further on he says in italics: 'If you permit ignorant men to go forth and treat the sick and suffering, it is you who are responsible for their errors.' I find also in this Journal, which seems to speak with authority, 'that osteopathy is a science; that it is based upon exact, definite, and verifiable knowledge of the anatomy and physiology of the human mechanism, including chemistry, histology, morphology of its known elements, as make discoverable the great laws of the human system, by which nature, apart from artificial and medical stimulation, may recover from displacements, disorganization, and consequent diseases, and regain strength and health.'

"From this evidence it is manifest that the practice of osteopathy is the practice of medicine within the meaning of the statute; it is further evident that no one is qualified to practise this branch of the science of medicine without a thorough knowledge of anatomy, physiology, and the cognate branches which go to make up the science of medicine; and, upon the evidence, the court finds as a fact that the defendant has shown himself absolutely ignorant of the most rudimental learning in any of them. That in his ignorance of the fundamental principles of his profession, he subjected the child of Mrs. Detroy, which was laboring under a tubercular disease of the hip, to cruel and unnecessary torture, affecting its health and necessitating the employment of a physician to treat it for fever resulting from his inaptitude.

"The court is of opinion that any person who, for compensation, professes to apply any science which relates to the prevention, cure, or alleviation of the diseases of the human body, is practising medicine within the meaning of the statute; and, as a matter of fact on the evidence, that defendant is guilty as charged, and the fine of $50 is assessed against him."

Pennsylvania.—A weak point in the Pennsylvania law is that no official oversight of those practising medicine is required—men who have failed to pass examinations or without qualifications opening offices and practising without hindrance because it is no one's business to inquire into their legal right to practise. In this way, it may be possible for osteopathy to have acquired a foothold in this commonwealth without advertisement. Besides there have been several applications made to county courts for charters to institute schools of osteopathy; with what result is not known at the time of preparing this article.

Note.—The *Columbus Medical Journal* for January 3, 1899, quotes from a pamphlet entitled the "Ohio Osteopath" that "the osteopath * * * is now licensed to practise in Iowa, Michigan, North Dakota, Vermont, and Wisconsin, while he is unmolested in Illinois, Pennsylvania, and several other States."—[*Bulletin Am. Acad. Med.*]

Gumma of the Right Ear.—A patient recently presented himself at the Ricord Hospital, Paris, with a gumma situated upon the helix of his right ear. The case excited much interest among the hospital staff.

Reviews.

Adult Diet-list. Compiled by C. S. Millet, M.D. Brockton, Mass. Tolman Press. Price 25 cents.

This is a convenient tablet in which, "reading from left to right, an attempt has been made to arrange the articles according to their ease of digestion." It is, further, wisely pointed out that "all cases demand individual consideration," a suitable dietary being made up from the slips by checking off the foods indicated or contraindicated.

Accident and Injury and their Relation to Diseases of the Nervous System. By Pearce Bailey, A.M., M.D., Attending Physician to the Department of Correction and to the Almshouse and Incurable Hospitals; Assistant in Neurology, Columbia University; Consulting Neurologist to St. Luke's Hospital, New York City. Pp. 430, with 55 illustrations. New York: D. Appleton & Co., 1898.

This book is a very valuable addition by American writers to the many important contributions on the subject of injuries of the nervous system. The entire subject is covered instead of a limited section, as has been the case in many of the books dealing with this department of medicine, and evidence is shown of careful study of the literature, which has increased quite rapidly of recent years. The book is divided into four parts: An introductory section deals with the past history and that of the accident; physical evidences of predisposition to nervous disease; and the examination for the actual injury. The first part is divided into chapters on injuries of the brain, spine, peripheral nerves and the ultimate effects of the injury. Attention is called to the misuse of the term "concussion of the spinal cord," which should be used, if at all, in describing cases in which there is injury of the cord without compression by bone or extravasated blood. The second treats of the functional effects of injury, dealing with the traumatic neuroses which most commonly follow railroad and allied accidents and with chapters on traumatic neurasthenia, hysteria and various unclassified forms. Malingering is dealt with very fully and interestingly in part four, and part five is devoted to a consideration of the treatment of the traumatic neuroses. In typographical make-up nothing is left to be desired; the print, paper and binding are of the best; the illustrations illustrate and are numerous; and the bibliography appended to each chapter and the index will be of great value to those desiring to use the book for reference. All surgeons and neurologists will be glad to have this volume on their shelves, and it will be particularly valuable to those frequently called as expert witnesses in accident-suits.

Handbuch der Hygiene. Von Ferdinand Hüppe. 464 pages with 210 illustrations. Berlin, 1899. Published by Hirschwald.

The author is well known, not only by important bacteriological researches, but also as the author of books relating to various branches of hygiene and bacteriology. His "Methoden der Bacterienforschung" has reached the fifth edition within a short time. The new "Handbuch" occupies certainly a very prominent position in regard to many-sidedness and originality. Critical historical excursions and anthropological discussions, and finally here and there sarcastic remarks, impart an especial charm to the reading of the book. The significance of *disposition* for diseases is illustrated by examples not only taken from the animal, but also from the vegetable kingdom. The relation of the soil to epidemic diseases is extensively treated and illustrated by the geological profiles of the sites of cities. The chapter on acclimatization, bringing many new points of view, occupies over 20 pages. Every reader will agree with the author when he condemns (p. 275) the slaughtering method of the Jews as barbarous and crude, and says it should be prohibited. The humorous remark on page 403 relating to the decrease of the habit of bathing in Europe and the clear exposition of the vegetarian doctrine on pages 369–373 will interest the reader. The numerous illustrations are highly instructive.

Often two illustrations relate to one and the same object, the one showing the errors of construction, the other how construction should be carried out. The work contains the following parts: 1. History of hygiene. 2. The necessity of sanitary science and sanitary measures. 3. Statistics and general causes of epidemics and other disturbances of health. 4. The general conditions of life in relation to their health-disturbing influence. 5. Acclimatization. 6. The general means for the well-being of individuals and groups of individuals (food, stimulants, dress, hardening, muscular exercise, dwellings, soil, treatment of refuse and cadavers). 7. Special contrivances for social hygiene (school, trade, hospitals, prisons, railroads, steamers, disinfection). Hüppe's Handbook of Hygiene is written in a lively and attractive style, and represents the embodiment of recent progress in hygiene. It will serve as a useful guide to physicians as well as a fundamental source of instruction for the medical student.

3,000 Questions on Medical Subjects Arranged for Self-Examination. With the Proper Reference to Standard Works in which the Correct Replies will be Found. Second edition, enlarged. Philadelphia: P. Blakiston's Son & Co. Pp. 189. Price 10 cents.

According to the preface, this little book has been prepared by a medical man, a teacher and a writer of experience, with special reference to the actual wants of the medical student. By its help the student can successfully quiz himself on all the important branches, or review any one subject in which he feels himself to be particularly deficient. As a rule the questions have been selected with regard to their bearing upon practical medicine, and are those most likely to be asked in the quiz-class or examination-room; at the same time there are, throughout the book, many unusual ones, thus giving the student a wide range of thought, and making him generally conversant with all points connected with the matter in hand.

Transactions of the American Climatological Association for the Year 1898. Vol. XIV, pp. 243. Philadelphia: Printed for the Association.

The volume contains a list of officers, a list of members, he constitution and by-laws, minutes of the annual meeting, ncluding memoirs of Drs W. D. Bratton, Harrison Allen, William Pepper, and J. C. Thomas, and the papers in full, as ead at the meeting, with the discussions. It is a valuable eference-book on the subject from a medical standpoint

A Compend of Human Physiology. Especially Adapted for the Use of Medical Students. By Albert P. Brubaker, A.M., M D., Adjunct Professor of Physiology and Hygiene in the Jefferson Medical College; Professor of Physiology in the Pennsylvania College of Dental Surgery; Lecturer on Anatomy and Physiology in the Drexel Institute of Art, Science, and Industry; Fellow of the College of Physicians of Philadelphia. Illustrated. Pp. 266. Philadelphia: P. Blackiston's Son & Co. Price, Cloth, 80 cents.

That this little volume has already reached its ninth edi- on indicates the estimation in which it is held. It is ioroughly revised and has new illustrations. The difficult sk of condensing so voluminous and intricate a branch as iysiology is done without any loss of lucidity, the result ing a compact practical manual, which is the best epitome ithin the limit set, and for the purpose intended, of which e know.

ood and Feeding. By Sir Henry Thompson, F.R.C.S., M.B., Lond., etc. With an appendix. Tenth edition. London and New York: Frederick Warne & Co., 1898.

The Germans have a saying, "Homines cerevisiam, ani- alia cetera fontes bibunt." "Men drink beer, other animals ink water." We are tempted to say, looking to the title this work, Americans *eat*, other animals, including the iglish, "*feed*." Americans eat to live, Englishmen live to eat. With us, eating is an accidental and hardly tolerated function, a consumer of valuable time, a vexatious interruption of the important business of life. In England "feeding" is an end not a means, and the Englishman is carefully educated for its due understanding and performance. These statements are of course approximate, and there is no rule without its exceptions. As a result, however, we have the Englishman fat-witted, but jolly, the American keen, alert, but dyspeptic, lean and anxious over much.

While the saying of the witty French tourist who visited our shores, that "The Americans have forty religions and only one sauce," is no longer literally true, yet there is still ample reason to criticise our neglect of the art gastronomic. To none will the precepts and recipes of Sir Henry be of more essential use than to the medical profession. It is becoming more and more the custom, as it certainly is the duty, of the physician to prescribe the dietary of his patient, and his families are entitled to his councils in this regard in health as well as in disease. The book is charming in style, and scientific in treatment. The wonder is that it should have gone through ten editions and yet be comparatively unknown on this side of the water.

Not since Brillat de Savarin has any one discoursed so entertainingly and cleverly, on the relation of the palate to food, and the proper method of preparing food, both for the palate and the stomach. The three points which the author especially impresses on the reader are, first, the necessity for greater variety in the methods of cooking meat by the average English cook; second, the advantages pertaining to the slow cooking, whether boiling or roasting, of meat, as compared with the rapid methods usually in vogue, and, thirdly, the uselessness, if not injuriousness, of alcohol as a portion of the daily dietary. In his strictures on the use of wine and beer by the comparatively young, we are heartily in accord with him, but as cares multiply and the meridian of life is passed, the moderate daily use of the fruit of the vine or some other alcoholic has much to be said in its favor. The author's views on this point are stated with great moderation, however, and no one could be more judicious or fondly precise in the assignment of the appropriate wine to each course in the charming little menus with which the book abounds.

A venerable lady whom we once knew used to say that she had "as lief read a good bill-of-fare as eat a good dinner."

To all whose imaginations are capable, like Father Tom's, of such a flight, this little work will prove a veritable feast. We recommend it to those who respect their stomachs, and hold that good cheer with temperance conduces to happiness and length of days.

Fever-Nursing. Designed for the Use of Professional and other Nurses, and Especially as a Textbook for Nurses in Training. By J. C. Wilson, A.M., M.D., author of "A Treatise on the Continued Fevers"; Visiting Physician to the Hospital of the Jefferson College and the Pennsylvania Hospital; Physician-in-Chief to the German Hospital, Philadelphia, etc. Third Edition, Revised and Enlarged. 8vo. Pp. 241. Philadelphia and London: J. B. Lippincott Co. Price, $1.00.

This book is well calculated to carry on the purpose of its preparation, being written in a clear and interesting style, and representing a full and accurate portrayal of the several divisions of the subject with which it has to do. In the present revision especial attention has been given to the treatment of enteric fever by systematic cold bathing; to the subject of serum-therapy, and to the special duties of the nurse in the care of soldiers suffering from febrile diseases in camp and in transportation. The matter is discussed in seven chapters, as follows: Fever-nursing in general, the continued fevers, the periodic fevers, the eruptive fevers, and fevers with marked local manifestations. Fever is defined as "the term used in ordinary parlance to designate any considerable rise in the temperature of the body, which lasts for a time." This we should have thought to be pyrexia, which sometimes attends, sometimes does not attend, the febrile process. The best that we can say at present of fever is that it is a complex process characterized by a train of constitutional disturbances, of which the most common and most constant are elevation of temperature, acceleration of pulse and of respiration, and deranged glandular and secretory activity. The condition is essentially one of disturbed function, and only symptomatic always. We can, therefore, agree with the statement "that the distinction between essential and symptomatic fevers is rather apparent than real." What are called fevers are, however, rather febrile diseases, although pyrexia may occasionally be absent. Fever can no longer be considered the central process around which the remainder of the morbid action revolves. The classification into continued fevers, periodic fevers, eruptive fevers, and fevers with marked local manifestations is therefore unnecessary, if not unscientific. These are all infectious diseases, and this term is sufficiently comprehensive, as well as distinctive, to be preferred.

Nursing: Its Principles and Practice. For Hospital and Private Use. By ISABEL ADAMS HAMPTON. Revised and enlarged. Illustrated. Philadelphia: W. B. Saunders.

This book is excellent, not only for its systematic arrangement and clear description of methods, but for the stimulus it gives to wider reading. It is a handy volume for the physician as well as an admirable textbook for the nurse, especially for the country doctor who often has to train his assistant at his patient's bedside. One regrets that there is no allusion to the question of ethics between nurse and physician and nurse and patient. Loyalty to the physician and professional secrecy in regard to the patient and the patient's family, into which necessity brings the nurse, are as essential to the dignity of the nursing profession as obedience to the Code is to the medical profession. The volume is well printed and attractively bound. We cordially commend the book.

Diseases of the Eye. A Handbook of Ophthalmic Practice for Students and Practitioners. By G. E. de SCHWEINITZ, A.M., M.D. With 255 illustrations and 2 chromolithographic plates. Third edition, revised. 696 pages. Cloth, $4.00 net; Sheep or Half Morocco, $5.00. Philadelphia: W. B. Saunders.

Dr. de Schweinitz has thoroughly overhauled his excellent volume, and brought into systemization the latest results of progress in practical ophthalmology. In its field and for practical use the book stands to-day, in our estimation, as by all odds the best and most trustworthy single volume in the English language. Our criticisms would be few and of subordinate matter, and our praises many and hearty. Both may be omitted in view of our general commendation.

Correspondence.

A PONTINE TUMOR.[1]

By THEODORE DILLER, M.D.

Neurologist to the Allegheny General Hospital, Pittsburg, Pa.

To the Editor of the PHILADELPHIA MEDICAL JOURNAL:—

A BRAKEMAN, aged 29 years, was seen by me July 16, 1898. Five years ago his head had been caught between two cars. Immediately after this accident his right face was paralyzed, and was drawn toward the left. He was unable to close the right eye. This paralysis gradually grew better, but was still present in July, 1897, when he was thrown from the top of a box-car, striking on his buttocks. He was not rendered unconscious by this fall, but worked right along until August, 1897, when he quit because of staggering. He noted, too, about this time that in going up stairs he was compelled to swing the left leg, and that the left arm and leg were partially paralyzed. This paralysis had come on gradually. On December 18, he became numb on the left side of the body and right face, and lost the power of speech. These symptoms came on somewhat suddenly, in the space of an hour. In about a week later, speech, he states, returned. For three days following the attack of December 18, swallowing was very difficult. For a year past he has been subject to headache and frequent vomiting-attacks. The headache has been very severe and chiefly occipital. The vomiting-attacks have occurred two or three times a month, usually the first thing in the morning before eating. He was never cross-eyed, and never saw double. He can make all his symptoms much worse by stamping violently on the floor. There is a complete analgesia and very considerable anesthesia of the right face and of the left arm and leg. There is partial paralysis of the right face and left arm and leg. The eye-grounds are normal. (Dr. Curry.) Both knee-jerks are present, but diminished. Speech is very slurring; the utterance of consonants especially difficult. There is complete deafness in the right ear. He walks with feet wide apart, and staggers to the right.

The localizing symptoms indicate a lesion in the right pons and oblongata. The involvement of the fifth, seventh, eighth, ninth and probably the tenth, eleventh and twelfth nerves or their nuclei, together with the partial paralysis and anesthesia of the arm and leg of the opposite (left) side clearly indicate this diagnosis, which was first made by Dr. Moore, of Butler. It would seem that the lesion must be of some considerable area and located chiefly in the tegmental region involving the cranial nuclei or their root-fibers and the fillet-tract, and pressing forward on the motor tracts. Both motor and sensory tracts must, of course, be involved before their decussations. The supposition of a lesion on the *outside* of the pons involving the cranial nerves and pressing on the motor tracts seems much less probable than the preceding view, and, moreover, does not account for the partial anesthesia of the left arm and leg. It is rather curious, in view of the involvements of the neighboring nuclei, that the sixth should be spared.

The history is, in some respects, puzzling. The headaches and vomiting, along with the hemiplegia of slow onset, indicate a brain-tumor. If the injury of five years ago followed by right facial paralysis be regarded as an independent accident, the case seems clearer; and this view seems to me a reasonable one. The sudden left hemi-anesthesia and loss of speech on December 18, after headache, vomiting, and left hemiplegia had been established, may reasonably be conjectured to have been due to a hemorrhage in or about the tumor. The lesion can scarcely be looked upon as primarily hemorrhagic in character in view of the headache, vomiting, staggering, and hemiplegia of slow onset which had preceded the acute symptoms of December 18. I believe the lesion to be a tumor.

THE FORMATION OF PUS WITH EXTENSIVE BURROWING DUE TO A NEGLECTED CLAVUS.

By ROSS HALL SKILLERN, M.D.,

of Philadelphia.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

RECENTLY there came under my observation at the Presbyterian Hospital a colored man, 40 years of age, complaining of two small sores on the outside of each great toe just below the outer margin of the nail. These caused considerable pain, and refused to heal, although he had consulted several physicians, and had been under treatment for several nonths. On examination two moderately deep ulcers were een, discharging a small quantity of thin pus. The surounding skin, though hardened, seemed apparently healthy. After thoroughly cleansing the part the thickened skin irectly about the ulcer was cut away with a pair of scissors, he result being a very free discharge of thin pus. A probe was then run under the skin and was found to meet with ttle or no resistance for an inch or more in any direction, lthough being passed directly under the nail. Following he probe, which acted as a director, the skin was cut away n all directions until the nail was reached. After breaking p a few adhesions the nail was removed in its entirety, the us having burrowed and formed a large pocket directly beeath it. The dissection was continued until all the diseased ortion was exposed; the parts were then thoroughly cureted ntil bleeding began. A solution of silver nitrate, 10 grs. to ne ounce, was applied and the part dressed with bone-ointnent. The same condition existing on the other foot, with ossibly less extensive pus-formation, was treated in the me manner. In a few days healthy granulation-tissue was rmed with subsequent rapid recovery.

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[1] Reported at the Pittsburg Academy of Medicine, January 23, 1899.

3509 Baring St.

FRACTURE OF THE ZYGOMATIC ARCH.

BY J. A. ELLIS, M.D.,
of Kansas City, Kans.

the Editor of the PHILADELPHIA MEDICAL JOURNAL:—

ONE evening in December, as N. H. R., white, was returng from Kansas City, Mo., to his home in Kansas City, ns., he was set upon by two unknown parties, and struck the left side of the face with a stick, or some heavy instruent, and knocked down, but not rendered unconscious. e felt no inconvenience at the time; in fact he did not know t he was disfigured until, upon reaching home, his wife ticed a depression upon the left side of the face. He did think the matter serious enough to call in a physician for il the next morning, when I was sent for. Upon arrival I nd the man suffering great pain, lancinating and piercing character, with complete anesthesia of the left side of the e, signs of considerable contusion in and around the left , impairment of motion of the lower jaw, and a deep ression of the zygomatic arch. I at once prepared to rate, and raise the arch; but the man objected, saying t he believed he would leave it alone for awhile, but lly giving his reason for objecting, saying he did not want ake an anesthetic, and no argument on my part could vince him that it ought to be attended to at once. On third day he sent for me, saying that he would allow me perate, provided I would not use an anesthetic. I took before the class at the Columbian Medical College, and king at a disadvantage, raised, and brought the bone back lace, after making the fracture a compound one, then ing a hook behind, and using considerable force. I saw man several weeks later and found sensation and motion pletely returned, no pain and little or no deformity.

CONTAGION AND INFECTION.

BY JAMES TYSON, M.D.,
of Philadelphia.

e Editor of the PHILADELPHIA MEDICAL JOURNAL:—

EEL inclined to join Dr. Bracken in his criticism of my Dr. Flick's distinction between "infection" and "conn," and I think a careful examination of the teaching of leading pathologists in Germany and America will go to show that they use the term "infectious" as the broader term, and as including "contagious." Following this leading, I used to say, when I taught pathology, that "every contagious disease is an infectious disease, but not every infectious disease is a contagious disease." It is true, as Dr. Bracken suggests, that the two terms are rapidly becoming synonymous, as one after another of the supposed non-contagious infectious diseases is found to be due to a bacillus, which, being taken from a person having that disease, can communicate such disease to another person. For this was the essence of the definition of a contagious disease, that the specific cause producing it must come from another person having the same disease, while the non-contagious or miasmatic infectious disease derives its cause from without, or some other source than a person having the same disease. The idea of necessary "contact," in the transmission of a contagious disease, in the minds of some, came from a too literal translation of the word "contagium."

For a long time the malarial fevers served as the best illustration of a miasmatic or non-contagious infectious disease. But if it be shown, as seems not impossible, that the organism causing it is derived from another person having the same disease, through the mosquito, the last one of the non-contagious infectious diseases is disposed of, and contagion and infection become synonymous. Tuberculosis and influenza are among the later acquisitions to the category of the contagious diseases.

The older definition of an infectious disease still suffices for it—a disease due to a specific cause (now always a bacillus). But the sub-divisions "contagious" and "miasmatic" no longer exist, and the sooner we all conclude to use the terms contagious and infectious as synonymous, the sooner we will be rid of a needless confusion.

The Pelvic Lode.

FOR wealth what many travelers roam
On wintry path and tropic road!
Old Gynecos remains at home
And works the Pelvic Lode.

Let others slave and delve and seek,
By sweat of brow and toil, their pelf!
Old Gynecos grows fat and sleek
And smiles unto himself.

O what is Cripple Creek to him,
What Black Hills' mines, or gold abode
Of Klondike hermit starved and grim!
He works the Pelvic Lode.

Has South Sea oyster such a pearl
As every ovary contains?
Such gems as line each tubal curl
Have Afric's diamond plains?

Aladdin when he rubbed his lamp
Beheld no miracle like this—
Vast treasure waiting on each scamp
That clips the clitoris.

O, uterus, what nuggets lie
Within thy cavern's gloomy wreck!
Old Gynecos can tell thee why
Thou get'st it in the neck.

He traps, or rather clap-traps, there,
And never from his purpose swerves,
The liver, heart, lungs, kidney-pair,
The brain and all the nerves.

From all diseases 'neath the sun
That cripple, kill, or incommode,
Old Gynecos rakes in the mon—
He works the Pelvic Lode. —P. O. REDSTON.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

A Medical Mayor.—Dr. John A. Fritchey has been elected mayor of Harrisburg, Pa.

St. Joseph's Hospital, Philadelphia, celebrated the golden anniversary of its foundation on donation-day, February 22.

The Easton (Pa.) Hospital.—An addition to the hospital, erected at an expense of about $13,000, and increasing the total number of beds to 54, was formally opened February 22. The hospital is provided in addition with a children's ward containing 12 beds.

According to the will of the late Hannah Price Brookfield, $10,000 is bequeathed to Jefferson Medical College Hospital for the endowment of two beds to the memory respectively of Dr. J. M. Brookfield and his wife, Sarah Price Brookfield, and $2,000 to the Home for Consumptives at Chestnut Hill.

Calendar of Meetings of Philadelphia Medical Societies for the week ending March 11, 1899:—

Monday, March 6—Academy of Surgery.

Tuesday, March 7—College of Physicians. Section on Otology and Laryngology.

Wednesday, March 8—County Medical Society.

Thursday, March 9—Pathological Society.

To Abolish the Board of Health of Philadelphia.—A bill has been introduced into the Legislature of Pennsylvania abolishing the Board of Health of Philadelphia, and another bill provides for the establishing of a Bureau of Health as a part of the Department of Public Safety. According to the provisions of the new bill, the Mayor will appoint the chief of the Bureau and will control the subordinate officers thereof.

Charitable Bequests.—The will of the late Elizabeth L. Devine provides that, after the payment of sundry bequests to relatives and others, the residuary estate be divided among 18 institutions, associations, etc., of which the following are hospitals: The Training School for Nurses of St. Joseph's Hospital, St. Agnes' Hospital, the German Hospital, and the Episcopal Hospital. The entire estate is said to amount to upwards of $500,000.

The James C. Wilson Medical Society of Jefferson Medical College held its annual meeting and banquet, February 21. S. Macy Cowgill, president of the Society, acted as toastmaster. The toasts and sponsors were: "The Medical Student," Dr. J. C. Wilson; "The Graduate," Dr. F. X. Dercum; "Anything but Therapeutics," Dr. Hobart A. Hare; "What a Doctor's Wife Should Be," Dr. H. Augustus Wilson; "The Evolution of a Doctor," Dr. W. M. L. Coplin; "The Medicine Man," Dr. Edward P. Davis.

The Public Education Association and Vaccination.—At a meeting last week of the Executive Committee of the Public Education Association, the following resolution was unanimously adopted:

> "In view of the frightful ravages of smallpox before the discovery of vaccination and of the fact that the only legal protection this community has against smallpox lies in the vaccination-certificate required for admission to the public schools:
>
> "*Resolved*, by the Public Education Association, That we view with alarm the proposed repeal of the present law and respectfully request the Committee on Education of the House of Representatives and also the Senate of Pennsylvania to postpone action upon the bill introduced by Hon. A. L. Allen for this purpose until the friends of public health can be heard."

Philadelphia Pediatric Society.—At a meeting held Tuesday, February 14, Dr. H. M. Shriner read a paper describing an **easy method for the modification of milk at home,** which will be published in a future number of this Journal.

Dr. Griffith exhibited **"The Materna," a graduated glass vessel,** the outside being ruled in a half-dozen columns, representing the most commonly used formulas, the marks in each column indicating the amounts of water, cream, milk and sugar solution to be used in obtaining the desired percentage.

Dr. Cleeman exhibited a **skiagraph of an ectomelian monster,** showing that the deformity consisted of an absence of the tibia and fibula and not, as would be supposed from an inspection of the case, of an absence of the femur.

Associate Health Authorities and Sanitarians of Pennsylvania.—The fifth annual meeting was held in Harrisburg, February 23 and 24. Prayer was offered by the Rev. J. W. Rue.

The special feature in connection with the meeting was the discussion of sanitary legislation, including a bill to appoint a health-officer in each county, with a deputy in each township, which met the special approval of the Association. Should this become a law it will fill a want long felt in the matter of collecting vital statistics.

The second day's morning session was addressed by Governor William A. Stone. Dr. H. H. Whitcomb, Medical Inspector from Montgomery County, read an excellent paper on the organization and administration of boards of health in boroughs, which resulted in a thorough discussion.

The Association shows a decided increase in membership, and by the new plan for association-membership there is no doubt the Association will be greatly augmented between now and the next annual meeting.

Vital statistics of Philadelphia for the week ending February 25, 1899:

Total mortality		639
Children under 5 years of age		164
Diseases.	Cases.	Deaths.
Pneumonia 99, congestion of the lungs 4		103
Pulmonary tuberculosis		62
Typhoid fever	421	38
Marasmus 24, inanition 12, debility 1		37
Convulsions 28, epilepsy 2		30
Nephritis 36, uremia 9,		45
Apoplexy 33, paralysis 9, softening of the brain 2		44
Heart-disease 33, inflammation of the heart 6, fatty degeneration of the heart 4		43
Senility		29
Inflammation of the brain 23, congestion of the brain 4		27
Diphtheria 16, membranous croup 4	57	20
Carcinoma 16, tumor 2		18
Bronchitis		18
Influenza		16
Gastroenteritis 12, cholera infantum 2		14
Casualties 12, burns and scalds 2		14
Scarlet fever	33	1
Suicide 7, peritonitis 5, parturition 5, diabetes 4, asphyxiation by gas 4, pertussis 4, cirrhosis of the liver 3, cyanosis 5, dropsy 3, pyemia 3, teething 3, asthma 2, erysipelas 3, pleuritis 2, insanity 2, abscess 1, diarrhea 1, malaria 1, puerperal fever 1, rheumatism 1.		

The Adoption of Children.—At a recent meeting of the Board of Health of Philadelphia, the question of amending the rules of the Bureau of Health, relative to lying-i establishments, directing the proprietors of such institutions, within five days after the birth of any child, to report the same to the Board of Health, together with the date and place of birth, name and address of mother, name, sex, and color of child, and, in case of adoption, to report to the Board the name of the person desiring to adopt a child, no child being allowed to be adopted until the Board is satisfied that the child is sought for adoption by responsible persons, was considered. Attorney Alfred S. Miller, who represented a number of these establishments, was opposed to the adoption of such a rule, claiming that it was an outrage to compel unfortunate mothers to place on record a full account of their shame, where it can be spread to the entire community. Colonel J. Lewis Good stated that it was not the intention of the Board of Health to take any action that would in any way reflect upon the unfortunate woman. "What we want," said he, "is to know whether or not the persons who adopt these children are responsible people. Our investigation of this subject revealed the fact that in many nstances the mothers have paid money to midwives to find a home for their infants, and that they have been adopted by others, or at least so reported, the only data on hand in reference to the transaction being that the child was adopted by Mr. or Mrs. So-and-So, of Washington, Chicago, New York, or some other place. Whether or not those people live in the cities represented is not known for a fact, and it s on this account that the change in the rule is desired. Dr. Walk thought that the adoption of the rule would have the effect of causing those in charge of institutions of this character to be more careful in the future in the matter of the adoption of little ones. Dr. Charlotte Abbey, of the Woman's Directory, spoke at some length in favor of the proposed amendment, and after some further discussion the matter was referred to the Sanitary Committee for further onsideration.

College of Physicians of Philadelphia—Section on Ophthalmology.—At a meeting held February 21, Dr. C. A. Veasey exhibited a man, aged 55, whose vision had been failing for 2 years. He had in both eyes extensive **etino-choroidal patches of atrophy,** pronounced in he macular regions, and, following the course of some of he bloodvessels, numerous angioid streaks presumably due o former hemorrhages. No cause could be assigned.

Dr. G. Oram Ring reported a case of **Knapp's operaion of irido-cystectomy.** Following an operation for he extraction of cataract, the coloboma of the iris and the atural pupil had become entirely occluded by exudation, he formation of a dense membrane, and the stretching of he iris. A Beer cataract-knife was entered horizontally nto the cornea 3 mm. above the lower limbus, carried upward in the anterior chamber until it reached a point just elow the lower edge of the closed and dislocated pupil, and he iris fibers were divided at this point. By means of a yrill hook the lower lip of the iris wound was brought out hrough the corneal incision and cut off. By a second introuction of the hook the false membrane was also buttonoled, and a clear and nearly round pupil formed. In similar ases it had been Dr. de Schweinitz's practice to attempt the ormation of a new pupil by the method recommended by gnew or that of de Wecker. His experience led him to xpect subsequent closure of the pupil from recurring iridoclitis. Dr. Risley preferred the Graefe to the Beer knife, nd always made the division of the iris fibers at right ngles to the apparent line of traction upon those fibers. he prognosis was more favorable if the communication between the vitreous and the anterior chambers remained open. Dr. Ring asked for a discussion on the question, originated by the history of a patient with traumatic central scotoma and mental sequels presented to the Section, whether surgical intervention is justifiable upon the patient's earnest solicitation, as a means of cure. His patient had become monomaniacal on the subject of his eye, and he and his friends almost insisted upon enucleation of the offending member as the only effectual cure of the mental aberration. Dr. Ring refused to operate, and in this action he was sustained by the experiences of Dr. Risley and Dr. de Schweinitz, who had operated in similar cases without benefit. Dr. Hansell offered "suggestion" under the influence of hypnotism as a remedy, and Dr. Friebis enlarged upon the result of this means in many cases of nerve disease in the foreign clinics.

Dr. David Riesman reported a case of **day-blindness** in a railroad engineer whose work was done at night. The man had been a heavy smoker and had partial atrophy of the optic nerves, but without symptoms of general cerebral or spinal disease. The indications pointed to the diagnosis of tobacco-amblyopia. Dr. L. Brewer Hall said that the examination of the fields was not conclusive. At times the usual color-order was reversed, as in hysteria, and he had not been able to detect scotoma.

Dr. de. Schweinitz described a case of **neuro-chororetinitis,** the ophthalmoscopic appearances of which were similar to those caused by thrombosis or hemorrhage into the optic nerve-sheath, but the disease apparently had its origin in the choroid and occurred in a healthy man, aged 68, the lesions being symmetric and extensive; also a case of retino-choroiditis due to inherited syphilis; also a case of perivasculitis and secondary atrophy of the optic nerve, which, according to the history, followed an attack of measles 8 years prior to the eye-examinations; also, a case of chronic epilepsy in a syphilitic with retino-choroiditis and unusual distribution of the retinal pigment.

Dr. de Schweinitz described a case of **cured serous sympathetic irido-cyclitis and papillitis** that he had treated 5 years before by enucleation of the exciting eye and administrations of mercuric protoiodid and large doses of quinin and in which there had been no relapse, the vision at the present time being normal and the man inconvenienced in no particular.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held February 20, Dr. P. J. Eaton reported a **fatal case of pernicious vomiting of pregnancy.** The patient, a multipara, in two preceding pregnancies suffered severely from same trouble, which was only controlled by morphin hyperdermically while she was nourished per rectum. Vomiting began in last pregnancy at five weeks and continued almost uninterruptedly until death, some seven weeks later. Morphin was of value for a time, but later failed as did the numerous other medicinal agents usually recommended. The hygienic treatment was carefully carried out, and the gynecologic measures advised, application of cocain, silver nitrate and dilatation of cervix, were of but slight temporary value. The uterus emptied itself voluntarily, the patient lost little blood and had no unusual temperature following. After this vomiting ceased for a short time, but returned and was as severe as ever. Shortly before death the urine became bloody but contained no casts. Death was thought to be due to anemia, plus shock, plus acute congestion of the kidneys. In the discussion Dr. J. C. Christy related a case of a woman who he believed died from fear and referred to Dr. F. Blume's paper on vomiting of pregnancy. He called attention to the fact that the late Dr. Jones, of Pittsburg, introduced the local application of silver nitrate to the cervix in these cases. Dr. E. H. Small said that the application of cocain and silver nitrate had been of value in his experience. Dr. J. H. Anderson spoke of a case which later came to operation in which extensive adhesions between uterus, ovaries, tubes and intestines were found. Closing the discussion Dr. Eaton said that he believed there is a nervous element in these cases, but he did not believe his patient died from fear. The vomiting was something terrific. He had examined the patient prior to her last pregnancy and felt confident that no adhesions were present. A case of the same nature was mentioned which was accompanied by severe ptyalism. It was controlled by the local application of silver nitrate to the cervix.

Dr. Singley reported a case of **cholelithiasis** and presented a **calculus weighing 110 grains** passed by the patient. The calculus was smooth and ovoid, notwithstanding the fact that two smaller stones were passed at the same time. The case presented some difficulty in the way of diagnosis by reason of the onset of the attack being simultaneous with an acute attack of influenza, with temperature of 104° F., and severe pains in the head, back, and extremities, as well as in the right hypochondrium. All symptoms save the pain in the region of the gall-bladder soon subsided. This grew more severe, and eight days later the calculi were passed. There was no jaundice. More calculi were thought to be present, as pain was still severe three weeks after passage of stone shown. Dr. G. L. Hays mentioned a case in which 15 stones were passed, three being one-half the size of one presented. Dr. Christy asked for expressions of opinion regarding the use of sodium phosphate in these cases. Dr. Small had used ammonium salicylate as well as sodium phosphate, and thought favorably of both. Dr. Eaton spoke of a patient of his who had gone to Charcot for diagnosis and treatment. Confirming the diagnosis, Charcot ordered 20 drops of ether t. i. d. for several weeks, then omitted for a week or two. During this interval Dr. Eaton placed patient on Castalian water, one dram t. i. d. Several additional cases were mentioned who did well upon this water, though the number of cases were too few to draw conclusions from.

Dr. T. G. Simonton reported the case of a girl who fell 25 feet, alighting on the right hip. Under an anesthetic a **fracture involving the acetabulum and extending down to tuberosity of the ischium** was made out.

Dr. J. C. Boggs reported a number of cases of **cystitis** and spoke of the various remedies and local measures used in treatment. Alkalithia rendered the urine alkaline in a case of acid cystitis after ordinary remedies had failed. Urotropin was thought to be of value in selected cases. He had found irrigation of great value. In discussion Dr. Anderson thought much of irrigation with weak solutions of creolin and occasionally acetate of lead. He spoke of the frequency with which the ureter and even kidney became infected in these cases, and mentioned a case of twisted ureter due to extensive adhesions in a case of cholelithiasis. Dr. Small asked for opinions regarding the use of pichi in cystitis. Dr. Singley referred to the use of hydrostatic pressure in old chronic cases of cystitis with contracted bladders, as advocated by Dr. Young in the *Johns Hopkins Hospital Bulletin* for 1898. He had used it in a single case with most satisfactory results in spite of the fact that it could not be carried out so frequently as it should be. Dr. Christy emphasized the importance of recognizing the cause of cystitis and cited a case of tuberculous origin. A regular surgeon of note refused to operate, after which a homeopathic surgeon (!) did a suprapubic cystotomy. The patient ultimately died. Dr. Willets suggested irrigation with weak solutions of pyroligneous acid in gonorrheal cystitis. He had seen the crude acid used in a German clinic as routine treatment for gonorrheal vaginitis. Dr. Pettit thought the manner of performing irrigation was even more important than the solution used. The catheter should be dispensed with and an urethral nozzle used instead. Distilled water was perhaps as efficient as any solution. Weak solutions of silver nitrate, potassium permanganate, and various alkaline and antiseptic agents may be used. Dr. Look had used pichi in several cases with benefit, but of late had found it of little more value than various other remedies.

Pathological Society of Philadelphia.—At a meeting held February 24, Dr. W. W. Babcock presented the specimens of **polypoid sarcoma of the cervix of the uterus.** The patient was a multipara, aged 48 years. Eight years and 3 years ago tumors were removed from the vagina; these were termed sarcomas. The tumor presented sprang from the cervix of the uterus and, being about the size of a kidney, filled the entire vagina. Microscopic preparations revealed a plexiform tissue composed of spindle cells arranged about the vascular channels, which for the most part showed distinct walls. While regarding the tumor a sarcoma, Dr. Babcock was willing to admit the possibility of it being an endothelioma. Dr. Babcock also presented a **large hydrosalpinx.** The patient was a nullipara. The sacs had been diagnosed parovarian tumors. The tubes were distended, being about 10 cm. in diameter, the cubic displacement amounting to about 400 cu. cm. The ovaries were normal. The condition was considered dependent upon some form of inflammation. No indications of neoplasm could be detected. In the discussion, Dr. W. M. L. Coplin suggested the possibility of the congenital origin of the hydrosalpinx. Dr. David Riesman agreed that the tumor of the cervix was a spindle-cell sarcoma springing from the adventitia, and considered that it was not an endothelioma.

Dr. William G. Spiller reported a case of **lipoma of the filum terminale,** and presented the specimen, microscopic preparations, and drawings. The tumor had been discovered accidentally in a case of tabes dorsalis, and this was also true of the only other case that he was able to find in the literature. Reference was made to the few (16) cases of similarly situated tumors that had been reported during the past 50 years. The growth was considered dependent upon fetal displacement of tissue. Dr. Joseph Sailer suggested that the theory that had been propounded to explain certain extradural tumors might also apply to such intradural tumors, namely, the fact that some fatty cells are occasionally found in this situation. Dr. David Riesman mentioned a case of fibro-lipoma of the hypophysis that he had examined.

Dr. M. P. Ravenal reported an instance of **fetal tuberculosis in a calf,** that had been aborted by a tuberculous cow during the seventh month of gestation. The fetus was healthy except for two nodules in the liver, inoculations from which produced tuberculosis in guinea-pigs. There are but 50 or 60 similar cases in both man and the lower animals reported in the literature.

Dr. Alfred Stengel exhibited specimens of a heart with **myocarditis.** The subject was a man, aged 70 years, who died with symptoms of marked cardiac disturbance. The kidneys were sclerotic; the spleen enlarged and sclerotic; the heart but slightly enlarged, but markedly fibroid. In the muscular wall of the apex there was an area of softening beneath the endocardium. Both coronary arteries were narrowed by calcification, and the anterior branch, running to the area of softening at the apex, entirely occluded. The mitral and tricuspid valve-orifices were somewhat enlarged. In the discussion, Dr. Joseph Sailer described a similar finding in a heart, without valvular or endocardial lesions, there being an area of thinning in the apex of the left ventricle. The wall at this point consisted almost entirely of fibrous tissue. He had seen in another case a similar lesion in the wall of the right ventricle, with right coronary obstruction.

Dr. Robertson presented specimens of **general carcinomatosis proceeding from a papillomatous carcinoma of the parovarium.**

The president, Dr. W. E. Hughes, presented specimens of **carcinoma of the stomach.** Years ago the patient presented manifestations indicating gastric ulcer, but seems to have recovered. Ten years later gastric symptoms with cachexia developed, and then a pleuritis. Later a palpable mass was detected in the epigastrium, and the patient died subsequently from asthenia. Until 4 months prior to death, hydrochloric acid was present in the gastric juice. At the necropsy, there was found a soft carcinoma, quite papillomatous in appearance. It had perforated posteriorly and anteriorly, and given rise to an abscess anteriorly. The president also presented specimens consisting of the **bladder and kidneys of a man who had had complete stricture of the urethra for years, during which time he had urinated through a perineal fistula.** There was some pelvic peritonitis, the bladder-wall was very thick, the cavity of the bladder very small, and there were a small slough of the mucosa and a probable carcinoma of one portion of the bladder-wall.

Pennsylvania State Board of Health.—A special meeting of the Board was held at Harrisburg, February 27. Legislation was presented and recommended for passage as follows:

An act instructing the State Board of Health to make a special sanitary service and investigation of the special sources of pollution of the public streams, lakes, ponds, and other waters of the State, used for drinking purposes, and to report to the next Legislature. This bill carries an appropriation of $50,000.

The act continuing the emergency funds to be used as occasion may require in the suppression of epidemics, prevention of disease and disaster, and making an appropriaion therefor, was also recommended for passage; also the act providing for the current expenses of the Board of Health.

An act providing for the appointment of medical officers of public health in counties and townships was also indorsed. This act is already in a fair way of becoming a law.

The act to prevent the pollution of the water-supplies of municipalities, being a supplement to the act establishing the State Board of Health, was also presented to the board nd approved.

The epidemic of smallpox which has been the cause of much apprehension, seems now in a fair way of being hecked, but owing to the fact of the dissemination of the isease in distant parts of mountainous regions, difficult of ccess and rendered more difficult of access by excess of now and ice, the sum of $500 which had been appropriated from the emergency fund, had been more than exhausted, and a resolution was passed asking for $800 additional to cover expenses already incurred.

A resolution was passed urging upon the Government of the United States to place the city of Havana in a sanitary condition, and it was ordered to be transmitted to the President of the United States and to the presiding officers of both branches of Congress and to the representatives from this State in the same body.

An act drawn up by the chief milk-inspector of the city of Philadelphia, regulating the standard for milk furnished, was also approved. This bill was considered an advance over that which is at present in force, from the fact that it provides a standard for the milk below which it ought not to fall.

The county of Chester being at present without a medical inspector, owing to the absence of Dr. J. G. Shoemaker, who is at present in the West Indies, Dr. J. C. McWhinney was appointed to the position of assistant county inspector for the present.

Philadelphia County Medical Society.—At a meeting held February 22, Dr. J. Madison Taylor read a paper on **the practical uses of hypnotism.** He detailed the circumstances under which hypnotism is indicated, the limitations to its successful employment, its contraindications, the methods serviceable for inducing the hypnotic state, and the degree of hypnosis that is preferable from a therapeutic point of view. He stated his belief that as a method of treatment it has considerable applicability, and asserted that it may be employed with success not only in hysterical affections, but also in many other functional disorders, such as drug addictions, and the like. He cited several illustrative cases in which the use of hypnotism had been attended by the most happy results. One patient, in particular, who had been considered for 20 years the subject of organic paralysis by most competent observers, had been completely cured after a number of seances, and is now able to earn his own living. In the discussion, Dr. Charles K. Mills stated that his use of hypnotism during the past 20 years or more had not been attended by the happy results claimed by Dr. Taylor. He considers the treatment not without value in a limited number of psychic and functional conditions, but believes that many false impressions have been created by its employment. He doubts its value in drug-habits, and stated that its use is attended with considerable danger; its frequent repetition being likely to result in a worse condition of the patient than that for which he sought relief. It possesses some little value as a means of diagnosis of functional from organic conditions. He thought, however, that no patient is improved by its employment who may not be equally relieved by "normal suggestion." Dr. F. X. Dercum offered an explanation of the phenomena of hypnotism based upon the theory of the motility of the neuron. He agreed with Dr. Mills that normal suggestion is much to be preferred to hypnotism in treatment, and stated that the latter had not added much to our therapeutic armamentarium. He believes that considerable danger attends its use. Dr. Charles W. Burr detailed a history of the development of hypnotism, and stated that charlatanism had always been intimately connected with it and that considerable fraud is still associated with its employment. He believes that no case not amenable to ordinary suggestion is ever cured by hypnotism, and that the latter is of no value in drug-addictions, and the like. Professor Newbold, by invitation, stated that the word hypnotism obscures considerably our understanding the phenomena of the condition, which he stated to be "not a state, but grouped phenomena," of which the component manifestations are: (1) Suggestibility, which is much increased over the normal; (2) sensory changes, which are much allied to the hysterical; (3) disturbances of motion, partial or complete, which are also much allied to the hysterical; and (4) vasomotor, nutritive changes, etc., which are less common than the preceding. Dr. Orville Horwitz related an instance in which he had been able to extirpate the inguinal glands of a man while the latter was in the hypnotic state, this condition having been induced by one accustomed to operate with the subject. Dr. H. A. Hare stated that some years ago, while experimenting upon the phrenic nerves of monkeys and rabbits, he had found that by stroking the trachea of the animals, the latter would remain very quiet during an extensive dissection of the neck, and that even after cutting off the phrenic nerve it required a violent shake to awaken the animal. He said that the views of Drs. Mills, Dercum, and Burr were in accordance with his own views of the practical application of hypnotism. Dr. Hudson Makuen spoke of the value of suggestion in some cases of defective speech, and stated that he had never employed hypnotism to secure any of his good results. Dr. A. Ferree Witmer spoke of the increased mentality that he had observed in some persons hypnotized, and asked Professor Newbold's experience in this particular. Professor Newbold replied that he had observed both lowered and increased mentality during hypnosis. Dr. Judson Daland stated that he considered 80% of hypnotism, fraud. He considered the Anglo-Saxon race less susceptible to hypnotism than the Latin races, and that the dangers attending the use of the agent are many. Dr. A. A. Eshner stated that hypnotism or suggestion might be likened to almost any other therapeutic measure, in that, employed by those properly qualified, it would likely be productive of good in cases in which it is indicated. The dangers attending its use are also comparable to those which may be acquired by addiction to other therapeutic measures. It should be employed or rejected with reference to each individual case. Dr. Taylor stated that the use of hypnotism had been attended by the most happy results in quite a number of cases in which suggestion had been employed by those properly qualified, without avail. He considered that if hypnotism cured patients who had been unrelieved by other therapeutic measures, due credit should be given the treatment by which the cure had been effected.

Dr. H. A. Hare read a paper on **The diagnosis of acute tuberculous infection from pneumonia and typhoid fever.** He spoke of the fact that some cases of typhoid fever commence with pneumonitis, and that the lung-condition is frequently not recognized until later in the course of the disease. He stated that tuberculosis is often the disease when other conditions are diagnosed, and that some forms of the former may commence abruptly. He cited several cases to illustrate the liability of a mistaken diagnosis, especially with regard to the occurrence of pneumonitis during the early stages of typhoid fever, to the mistaking tuberculosis for pneumonia, typhoid fever for tuberculosis, and vice versa. In the discussion, Dr. H. S. Anders narrated the history of a case of acute pulmonary tuberculosis in which the correct diagnosis had been based upon the prominence of the respiratory manifestations, especially the dyspnea, and the marked tachycardia. The latter he considered of great diagnostic importance; it being disproportionate to the temperature. Soft pleural crepitation which was also present in the case is likewise of diagnostic value. Dr. J. P. Crozer Griffith spoke of the differences in the manifestations of pulmonary conditions, particularly pneumonitis and tuberculosis in children and adults, and said that the recognition of acute miliary tuberculosis in children is a most difficult feat. He cited illustrative cases. Dr. William E. Hughes stated that in the diagnosis it should be borne in mind that any pneumonitis may be tuberculous, and spoke of the most important points in the diagnosis. Dr. A. A. Eshner spoke of the value of subpleural crepitus which is often palpable in tuberculosis, and stated that conclusions with regard to the nature of the disease might be drawn from an examination of the sputum. The detection of the tubercle-bacillus would of course settle the diagnosis; he thought it possible also that in some cases of early involvement of the lung in typhoid fever, the typhoid bacillus might be discovered in the sputum. Dr. Hare referred to the manifestations of typhoid fever in children, and stated his belief that its occurrence is much more common than is generally suspected.

NEW YORK.

Dr. William T. Jenkins, of the New York City Board of Health, has just been appointed by Governor Roosevelt to fill a vacancy on the State Board of Health.

Lived with a Bullet in the Pericardium.—On February 6, Mrs. Sarah Tefft shot herself in the region of the heart, but she did not die until February 21. At the autopsy, Coroner's Physician Riegelman, of the Borough of the Bronx, found that a 32-caliber bullet had entered the sternum at the sixth rib, and had then traversed the pleura and pericardium, and a portion of the heart-muscle, and had finally remained in the pericardial sac.

The Microbioscope.—At a recent meeting of the Buffalo Society of Sciences, Dr. F. Park Lewis read a paper describing an instrument that he had designated the microbioscope, which is intended to facilitate the microscopic study of the normal and pathologic changes that take place in living tissues. At the same meeting of the society, Dr. H. R. Gaylord read a paper entitled, "Recent advances in the development of the microscope and its application to microphotography."

Mrs. Eugene Kelly, who for more than a quarter of a century had been known for works of benevolence in New York City, died on February 20, 1899. She was born in Pennsylvania 66 years ago, but spent most of her life in New York State. Chief among the charities which she aided was St. Vincent's Hospital, which was founded by her uncle, Archbishop Hughes. She was one of the founders of the New York Foundling Asylum, and was a constant and liberal contributor to its support.

A State Tuberculosis Hospital.—On February 22 the Senate Finance Committee gave a hearing on Senator Davis' bill appropriating $200,000 for the establishment of a State tuberculosis hospital in the Adirondacks. The State Medical Society was represented by Dr. Arthur G. Root, of Albany. Among other advocates of the bill present were Dr. John A. Pryor, of Buffalo, and Dr. S. A. Knopf, of New York. It was asserted that one-half of the 50,000 consumptives in the State came from New York City, chiefly from the tenement-house districts.

Resolutions Relative to "Lodge-practice."—The Central Medical Association composed of the physicians of epew, Lancaster, and vicinity, New York, at a meeting ield February 23, adopted in their constitution the resolu- ion relative to "lodge-practice," that had been adopted by he Syracuse (N. Y.) Academy of Medicine, January 17 (see his Journal, January 28, page 186). It is believed that this loes away with "lodge-practice" in a community wherein iearly three-fourths of the population are said to belong to ome lodge that furnishes a "lodge-doctor."

The Blizzard Causes Congestion in the Morgue. -Early last week, 161 of the city's unclaimed dead having ccumulated in the morgue, it was thought necessary to nake a special effort to reach "the Potter's Field" on Hart's sland. As the Sound was packed with ice, the steam ghter *Columbia*, one of the strongest ice-breakers in the ound, was specially chartered for the trip, and was loaded ith the morgue's accumulation for the preceding two eeks. After over 6 hours' heroic battling with the ice oes, during which the vessel was nearly wrecked, the boat nally succeeded in returning to her wharf, but without aching her destination. As there were 110 additional odies at the morgue at this time, this made a total of 271 odies awaiting burial, and with but little prospect of reach- g the burial-ground for many days.

A Welcome Union.—The alumni of the Medical Col- ge of the University of Buffalo extended the right hand of llowship to the alumni of the Medical Department of iagara University in a social gathering at the University ilding on the evening of February 22. This event marks e complete union of the two institutions and the cordial aternization of two bodies heretofore antagonistic by the ture of things. This joining of forces is advantageous to l parties concerned and to the cause of higher medical lucation. The several departments of the college-building re opened to the inspection of about 225 of the alumni; address of welcome was made by Dr. Matthew D. Mann, an of the medical department, to which response was ade by Dr. Z. J. Lusk, of Warsaw, president of the Uni- rsity of Buffalo alumni, and by Dr. W. G. Taylor, presi- nt of the University of Niagara alumni. Dr. Frederick terson of New York, and Dr. William Warren Potter, of iffalo, delivered addresses.

Dispensary Legislation.—Two measures have been fore the New York Legislature this winter, having for eir object the better control of the dispensary abuse. One these, generally known as "The Dispensary Managers' ll," provides for the creation of a board of control made of both medical and lay representatives, while the other practically the same as the dispensary bill of last year. e advocates of the former bill have suddenly abandoned because, according to current rumor, it was found to be constitutional. On February 24 Assemblyman Murphy, Amsterdam, introduced a new dispensary bill in the As- ably which, it is understood, is the result of a compromise ween the dispensary managers, on the one hand, and the w York County Medical Society and the New York State dical Association, on the other. It provides for the nsing of dispensaries by the State Board of Charities n a written application uniform for all schools of medi- e. The chief feature which distinguishes this measure n the old Sullivan bill is the provision that a license is to issued, on application, to all dispensaries legally incor- ated, and to unincorporated dispensaries conducted in nection with incorporated institutions at the time the becomes a law. The State Board of Charities may, for cause, revoke a license by an order signed by the President of the Board.

New York Academy of Medicine—Section on Medicine.—At the meeting held on February 21, Dr. Follen Cabot read a paper on **Hydrophobia and its preventive treatment.** He said that numerous experiments had led him to believe that if a bite from a rabid animal were thoroughly cauterized with pure nitric acid, even so late as twenty-four hours after the receipt of the wound, it would almost invariably prevent the development of the disease. The Pasteur preventive treatment had been proved by abundant and trustworthy statistics to be practically harmless. Children bore nearly as large doses as adults. Although several hundred animals had been inoculated, according to the preventive method, at the Health Department Laboratory, not one had developed rabies as a result of these inoculations. In the discussion, several cases of true hydrophobia were reported. Dr. Frothingham, of Boston, stated that there were a number of diseases of dogs which closely simulated rabies. This was true of enteritis, the affection characterized by thread-worms in the heart, foreign bodies in the mouth, pharynx and intestine, etc. A small parasite which was not infrequently found in the ears of dogs often gave rise to symptoms so nearly identical with those of rabies that even expert veterinarians found it necessary to resort to inoculation-tests in order to make the diagnosis. After a somewhat extensive experience with rabies in the dog, he felt positive that there were no postmortem lesions characteristic of the disease. If proper dog-laws were stringently enforced, particularly those regarding the wearing of muzzles, there would be little rabies seen. Suspected animals should be quarantined for at least three months.

A Case of Triple Personality.—According to the *Boston Medical and Surgical Journal*, the Pathological Institute of the New York State Hospitals for the Insane has recently reported a case of great scientific interest, with admirable practical results, occurring in the department of the institute devoted to psychology and psychopathology. The case is a remarkable one of amnesia, the patient being a clergyman, about 26 years old, who fell out of a wagon, and, striking upon his head, became unconscious. When he recovered from the stupor it was found that he had completely lost his memory and that his personality was lost with it. His mental condition was that of an infant, and in the course of education to which he was subjected he developed a new personality, totally different from the old. He next manifested the phenomena of alternating personality, for instance, falling asleep in his secondary personality, and awaking in possession of his primitive personality, and *vice versa*. Neither personality was at all conscious of the other. The patient thus had two consciousnesses, which he possessed at different times, but between which there was absolutely no communication. The problem was how to unify this double consciousness. This was attempted by preventing him from lapsing into profound slumber, keeping him in a condition between sleeping and waking, and the result proved successful. As a consequence he developed a third personality, which was conscious of the other two personalities, and this finally filled every gap in his memory. Dr. Van Gieson, the director of the Pathological Institute, naturally regards the case with great satisfaction and expresses the opinion that it shows a decided advance in the domain of psychology.

Buffalo Academy of Medicine—Section on Pathology.—At a meeting held February 21, Dr. B. H. Grove read a paper upon **intraocular tumors** and presented specimens and a patient; Dr. Lucien Howe also presented several specimens, casts and photographs. Dr. J. W. Grosvenor read a paper on the **pathology of alcoholism** in which he reviewed very completely the literature of the subject and took up, seriatim, the moral, mental, and physical pathology; under the latter he particularized the brain, spinal cord, nerves, blood, heart, arteries, respiratory apparatus, digestive apparatus, urinary apparatus, sexual organs, organs of special sense, skin-elimination and excretion, cell-protoplasm and resistance to germ-attack. He concludes that alcoholism is a paralysis, that degeneration of cells takes place, first fatty, then fibroid, then atrophic; that the anatomic structure of an organ being first attacked when the degenerations induced lead to loss of function. Dr. H. R. Hopkins, in discussion, thought that a great deal had been laid up against alcohol which really might be due to syphilis, tuberculosis, bad hygiene and other causes equally as effective, which causes were most prevalent among those alcoholic in habit. He believes that, like above named causes, alcoholism tends to purify the race by producing such pathologic changes as to diminish transmission. He believes the abuse of alcohol produces early senility and gastrointestinal catarrhs. Dr. Delancey Rochester questioned the statement that alcohol as used for a beverage had any hygroscopic qualities and thereby produced fibroid change; absolute alcohol and even 80% alcohol might abstract water from the tissues, but with proof-spirit as maximum strength of the usual beverage, the alcohol in the circulation could not exceed $\frac{1}{2}$ to 1% and this could not have drying qualities, therefore the cause for fibroid change must be sought along other lines. Dr. A. L. Benedict referred to Formad's researches, which seemed to prove that the fibroid renal changes were due to something else than alcohol. Dr. P. W. Van Peyma thinks that, as effects vary both with the size and the time of the dose, a careful distinction should be made between the effects of the rational and the irrational use of alcohol. Dr. Henderson called attention to the fact that those nations or races that did other things to excess, as work, were prone to excess in all nerve-stimulants. That temperance in all things was necessary, in order that pathologic changes should not follow the use of anything.

Cruelty to Higher or Lower Animals—Which?—To the average mind there does not seem to be much difficulty in deciding this question—indeed the omnivorous habit of man, and the customs and sports that have been sanctioned from time immemorial make such a question appear superfluous, if not absolutely absurd. But how about other minds that do not represent the average? It must be remembered that the mental faculties of certain very estimable and well-intentioned people apparently soar far above ordinary levels into the realms of space, where, it must be admitted, they only succeed in awakening responsive notes from a few other equally ethereal souls. Such, it seems to us, must be the mental composition of the antivivisectionists who love "the lower animals" better than themselves. We are commanded in Holy Writ to love our neighbors as ourselves, but we look in vain for the command, either expressed or implied, that we must exalt "our dumb animals" above ourselves. All honor to those who champion the cause of these poor creatures which cannot plead their own cause, and who endeavor to protect them from wanton cruelty and inhumanity; but may dishonor and demoralization be the lot of all those who, overstepping the bounds of reason, seek to drag down man—the image of God—below the level of the so-called *lower* animals.

These thoughts have been suggested by a dispute that has just arisen between John P. Haines, president of the Society for the Prevention of Cruelty to Animals, and the New York City Board of Health. There have been a number of mad dogs on Staten Island in the past year, and the hydrophobia-scare in that borough has been revived by the recent biting of a little girl by a dog that was suspected of being mad. The dog presented all the usual symptoms of rabies, and was placed in solitary confinement. It lived only three days. As told in the Journal of last week, an autopsy was held on the animal, and then the report was circulated that the animal had not had rabies, but had acted in this strange manner because of the presence in its heart of 60 or 70 small thread-like worms. It is the general opinion among those who have had most to do with rabies, that this disease is not associated with any characteristic lesions, and that a positive diagnosis can only be made by inoculating animals with the spinal cord of the suspected animal. This was not done in the present instance, and as the dog came from a neighborhood in which there had recently been cases of hydrophobia, as proven by inoculation-tests conducted by the health department, there was good reason for doubting the correctness of the conclusion arrived at from a study of the post-mortem findings alone. The girl who had been bitten became so anxious over the possible outcome that she soon passed into a condition of pitiable nervous prostration and demoralization. Several other persons were also wrought up to a pitch of nervous frenzy by the long suspense, and accordingly the health department applied to Mr. Haines for some of the spinal cord of this dog in order that they might definitely settle the question of diagnosis. At first he was quite willing to furnish the desired material, but on learning that they contemplated using it for inoculation-tests, he positively refused to surrender any of it on the ground that it would be encouraging cruelty to animals What a sad spectacle this of an intelligent and cultured ma deliberately balancing the peace of mind, health and perhaps the life of one or more human beings against the lives of two or three guinea-pigs or rabbits!

New York County Medical Association.—Dr. William Leszynsky presented a **case of akromegaly**, occurring in a policeman, 36 years of age. Aside from the fac that his father was very tall and was said to have very larg hands and feet, there was nothing of note in his family-history. The patient himself had indulged freely in whisky fo many years. The duration of the disease could not be ascertained further than that the hands and feet had first bee noticed to be getting large about five years ago. He had ha more or less headache, and some numbness in his hands, an there had been complete sexual impotence for the past yea but it was not until his vision began to trouble him about on year ago that he had considered himself ill. His height wa 6 feet 1 inch, and his weight 245 pounds. The lower ja was large and protruding, the lips were thick and everte the tongue broad and corrugated, and the facial bones generally enlarged. His feet and hands were enormous. Central vision was $\frac{20}{15}$, but the visual fields for white, red an green were characteristically limited. Dr. Leszynsky sai that in the twelve years since this curious disease had bee first described 140 cases had been reported. The disease wa generally ascribed to disease of the pituitary body, and th part of the brain was always found diseased at autopsy. I the discussion, Professor Oliver T. Osborne, of the Ya ledical School, described minutely a case of akromegaly hat he had studied exhaustively, and referred to such allied isorders as giantism and osteo-arthropathy. He looked pon giantism as only one phase of akromegaly. Some observers had claimed to have found a persistent thymus gland, ut he thought they had mistaken a thoracic thyroid for the hymus gland.

Dr. George Tucker Harrison, in resigning the chair, exorted the members, and particularly the younger ones, not o allow themselves to be swerved by any specious arguents from the path of truth and honor, and pointed out to em that their profession held out high rewards to properly quipped physicians, albeit much of the compensation was be found in the sense of gratification at the good accomlished.

Dr. Frederick Holme Wiggin, the president-elect, took r the topic of his inaugural address **The Code of Medial Ethics.** (See this Journal, page 441.)

Dr. Von Beverhout Thompson read a paper entitled, **ome observations on Warburg's tincture,** in hich he called attention to the fact that there were at least n different tinctures made and sold under the name of arburg's tincture. A common form of this tincture conined only quinin, aloes and camphor.

Dr. Louis Lichtschein read a paper on **Prolonged eep in the treatment of chorea.** He advocated the tificial and prolonged induction of sleep by large doses of loral hydrate as an excellent means of controlling chorea. e had found that persons under the continued influence of is drug craved food, and could readily assimilate it. The eep should be superficial enough to allow the patient to spond when spoken to loudly, and he should not be awake r more than half an hour at a time. He reported three ses, in one of which the patient had been kept asleep for ree weeks, using altogether 160 grm. of chloral. The orea was controlled, and she gained rapidly in weight. If art-failure were feared, small doses of strychnin could also given. In the discussion, Dr. A. Jacobi and Dr. O. T. borne took exception to the coincident administration of ychnin on the ground that chloral and strychnin were ysiologically antagonistic.

Dr. Thomas J. Hillis read a paper entitled, **The present titude of the medical profession toward illegal actitioners,** in which he dwelt more particularly on the il practices of abortionists and advertising quacks, and the ficulty of bringing these offenders against public morality to stice, when it was so easy for them to make dupes of clergyen, lawyers, and the officers appointed to administer the v. In the discussion, Dr. A. Jacobi insisted that quackery s not on the increase in this country, and Dr. L. Duncan lkley enumerated some of the reasons for its existence, d some of the ways in which the regular medical profession uld help to shake off these parasites.

CHICAGO AND WESTERN STATES.

The Wesley Hospital of Chicago.—Active steps are ng taken for the erection of a magnificent new hospital replace the temporary structure now in use. It is prosed to erect a 6-story building, with a total capacity of 250 ls, at an estimated expense of about $600,000.

The Regulation of Marriage in North Dakota.—e so-called "Creel Bill" to regulate marriage has passed North Dakota Senate. If it becomes law no marriage ense can be granted in that State unless applicants present a certificate from a legally established Board of Examiners showing that they are free from certain diseases, such as tuberculosis and hereditary insanity.

The El Paso County (Texas) Medical Society was recently organized with a membership of about 20. The society meets monthly at El Paso, Texas. It is the first permanent medical organization of the county and is much appreciated by the profession. The officers for the present year are: President, Dr. Francis W. Gallagher; vice-president, Dr. O. C. Wright; secretary, Dr. J. A. Rawlings; treasurer, Dr. Howard Thompson.

Medical Society of City Hospital Alumni, St. Louis, Mo.—The scientific program for the meeting on Thursday, March 2, was announced as follows: The surgical treatment of chronic empyema, by Dr. Francis Reder; Report of a case of cerebral hemorrhage with temporary glycosuria, by Dr. R. B. H. Gradwohl; Specimen of multilocular ovarian cyst, by Dr. Henry Jacobson. The subject for discussion at the meeting on March 16 will be: The Medical Inspection of School-Children and the Hygiene of Schools.

San Francisco (Cal.) Eye, Ear, Nose, and Throat Society.—At a meeting, February 16, Dr. Wagner read a paper on **Irido-choroiditis following erysipelas of the face.** The author is positive that in these cases **irido-choroiditis** is due to the toxins of the streptococcus erysipelatis. Dr. Martin demonstrated **a typical case of keratitis punctata of the left eye.** The patient was a woman, about 25 years of age. There was no previous history of disturbance of the eyes, either iritis or syphilis. With Jackson's binocular lens the punctated spots were beautifully seen.

Physicians' Club of Chicago.—At a meeting held February 27, the subject for discussion was illegitimacy. The speakers and the various subdivisions of the subject were as follows: Etiology and statistics of illegitimacy, by Dr. Sarah Hackett Stevenson; The effects of laws and regulations, by Hon. Edward T. Noonan; Sociological conditions in relation to illegitimacy, by Mr. A. M. Simons, Bureau of Charities; Educational and religious prophylaxis, by Rabbi A. Norden; Provisions for the illegitimate child, by Mr. Carl Kelsey, Supt. of Children's Dept., Children's Home and Aid Society; What would human brotherhood require? by Prof. Geo. A. Coe, Northwestern University.

Chicago Society of Internal Medicine, February 23, continued the annual discussion on the subject of **acute articular rheumatism.** Dr. Joseph M. Patton spoke on cardiac rheumatism, touching upon the frequency and features of endocarditis. The immediate effects were considered to be often more severe than their original extent explains; and the remote effects of endocarditis were discussed. With reference to pericarditis, its frequency, features, effusion, and prognosis, as well as myocardial changes with its relations to endocarditis and pericarditis, cardiac dilatation with causes, signs, and symptoms, were considered. Dr. Robert B. Preble read a paper upon the **Relations of rheumatism and chorea.** The relationship with evidences for and against, and theories as to the relation, (*a*) embolic, (*b*) neurotic, (*c*) infective, (*d*) intoxication, were spoken of. Dr. Frank E. Waxham presented a thesis upon **Where shall we send our tuberculous patients?** He spoke of the health-resorts of the West and Southwest, and touched upon the characteristic climatic features of Colorado, New Mexico, Texas, and Arizona. He mentioned the advantages and disadvantages of Denver, Santa Fe, Phœnix, and other resorts of this region. His paper was illustrated by stereopticon views.

San Francisco County (Cal.) Medical Society.—February 14, Dr. Hunkin reported 46 cases of **anesthesia by the Schleich mixtures** at the Children's Hospital. The reporter as well as the surgeons of this institution, after a careful and critical study of each case, conclude that these mixtures are not in any way superior to ether or chloroform. A discussion on the comparative merits of chloroform and ether was precipitated by Dr. Hunkin making the statement in his report that for safety chloroform stood first. It is a well-known fact that there is a wide diversity of opinion among the medical profession in San Francisco on the use of these anesthetics. Those who were educated in the Eastern medical schools decidedly prefer ether, while Western educated physicians and most foreign physicians are strongly in favor of chloroform. It is stated that chloroform, or some mixture containing chloroform, is used in 75% of all operations done in this State.

Dr. H. Kreutzmann brought up the question of **pure milk for infants.** Since there is no laboratory in San Francisco to which a physician can send patients for properly prepared milk for infants, he thought that arrangements should be made to obtain pure milk of some dairyman. He had been in consultation with a dairyman who agreed to give pure milk if the medical society would support him. A committee was appointed to examine and report at a future meeting.

Cleveland (Ohio) Medical Society.—At a meeting held February 24, Dr. Edward S. Lauder reported a case of **rupture of the eyeball,** and exhibited the enucleated eye.

Dr. C. J. Aldrich read a paper upon **Caisson-disease,** and reported on a number of cases that have occurred in the work of constructing the new five-mile water-tunnel under the lake. It was impossible to throw any new light on the pathology of the disease at present. The chief feature of the discussion was the fact of the almost entire absence of any precautions on the part of the contractors looking to the prevention of accidents among the workmen. There being no laws governing compressed-air work, there seems to be no way to compel due care except by stirring up public opinion.

Dr. C. A. Hamann showed some **bones that exhibited an apparently new and undescribed pathologic condition.** The two femurs were symmetrically elongated, curved outward at the lower ends, flattened from before backward, and widened at the lower extremity. The *linea aspera* were more marked than normal. The tibias were thickened at the upper extremity and bowed outward. The innominate bones were characterized by nothing peculiar, except a very small obturator foramen. All the other bones of the subject were normal, except for the lesions of Pott's disease of the spine, from which death resulted. There was no history, as the specimens were from the dissecting-room. The deformity could not have been Paget's disease, because there were no signs of periosteal irritation or disease of the cranial bones. The hands and feet being normal, the disease was not akromegaly. As the joints were not involved, the lesions could not be due to hypertrophic pulmonary osteoarthropathy. There was no resemblance to rickets or syphilis.

Dr. Hamann also exhibited a specimen of **"corset-liver."** There was a deep groove along the anterior aspect of the right lobe, which, with a cup-shaped depression on the upper surface of the left lobe, showed clearly the "trophic malleability" of the organ.

San Francisco (Cal.) Clinical Society.—February 15, Dr. W. F. McNutt demonstrated several very interesting pathologic specimens. The first was a very large **dermoid cyst** recently removed through an abdominal section; the second, an unusually large **sarcomatous uterus with its appendages** which had been recently removed entire, per vaginam; the third, a **renal calculus,** ⅝ of an inch long, passed by a man, 45 years of age. This patient began to pass renal calculi at the age of 21; 10 years later he had a second attack and passed a large number; after a rest of 5 years occurred his third attack, when even a greater number were passed. Since then he has passed many calculi at short intervals, several hundred having been passed during the past 24 years, that exhibited being the largest.

Dr. Winslow Anderson also demonstrated several pathologic specimens. The first was an unusually large **hematoma,** which on being opened revealed a firmly organized clot. A **dermoid cyst** which he exhibited was interesting on account of the history of the case. Six months since he operated upon this patient for appendicitis, and at that time he removed the right fallopian tube and ovary. An examination was made at that time of the left ovary and tube, which were pronounced healthy and returned to their place. Three months later an examination revealed a growth in the left side. One month later a dermoid cyst was removed.

Dr. Anderson then spoke upon the **technic of abdominal surgery,** confining his remarks entirely to the method he follows to prevent ventral hernia, which he states never occurred in any of his patients. In closing the wound he uses silk for deep sutures. The external wound is closed by silkworm-gut and left for three weeks before removal.

Dr. Anderson also spoke on the question of **sterilization.** His operating-room is sterilized by the use of formaldehyd-gas for 24 hours before using. The patient before being brought into the room is carefully prepared; anesthesia is induced in an adjoining room. The greatest care is taken that every person, including operator, who is about the patient shall be sterilized. The operator and assistants are clothed in white gowns and wear rubbers on their feet. He stated that sterilization of the sutures is of the greatest importance. After long experience he says he determined never to use sutures unless they have been sterilized by himself. It is his opinion that in abdominal work an operator should not trust sterilization to others. His sutures are boiled in alcohol and ether one hour on 3 successive days. They are not touched by his assistants until at the time o using, when each suture is removed from the liquid with sterilized forceps.

Chicago Medical Society.—At a clinical meeting held February 22, Dr. Weller Van Hook presented several cases and specimens, the first being that of a girl, 17 years of age suffering from **rectal prolapse** of a marked degree—the "total" prolapse of French writers. The condition wa caused by vesical tenesmus due to a cystitis of two years standing. As the patient has an incipient tuberculosis of th left lung and a diarrhea, tuberculosis of the bladder is suspected, although bacterioscopic methods have not as ye revealed the presence of tubercle-bacilli in the urine. Dr Van Hook proposes to perform colopexy by laparotomy draining the bladder for the relief of the vesical trouble. case of **rhinoplasty by the Tagliacotian method** wa shown. The patient had had an inveterate lupus which ha stroyed all the skin of the nose and had extended to the eeks and to a part of the lids of the left eye. After moval of the diseased skin a large flap was taken up from e left arm, leaving a pedicle directed toward the elbow. The p was attached to the face by sutures and the arm was held place over the face by means of a large plaster dressing. ter nine days the pedicle of the flap was severed and the nsplanted skin was found in good condition. The flap d, however, been drawn to the left by the patient's vements, so that the right ala nasi was defective. A diculated flap from the forehead was brought down make this good. Minor plastic operations were per- med on the lids of the left eye. A tiny point of us appears to have been left at the tip of the nose, appar- tly in one of the cartilages. This can be readily removed. e appearance of the face is much improved, and function the nose is good, though slight contraction interferes to a y small extent with nasal respiration. A boy 14 years was exhibited whose **right ulna** had been **fractured the age of 2 years.** The radius, which was about two hes longer than the ulna, was bent toward the injured side the arm. The ulna was hypertrophied, much too short, very weakly connected with the humerus and wrist. An ated piece of bone, about 1½ inches long, was found in the erosseous space, which both palpation and skiagraphy ved to be the dislocated fragment of the ulna containing intermediary cartilage. The case had been treated by oving the fragment of bone and by resecting the radius ontinuity to equalize the bones in length. Function was ch improved. A fourth case was one of **fecal fistula e to gangrene of the cecal wall in appendicitis.** n's method of operating by a preliminary closure of the ula with sutures to secure a disinfected field and dissect- the bowel away from the abdominal wall, was utilized. omentum was drawn over the cecum and fast- d in place, after which the abdominal wall was closed by gé sutures. Healing was interfered with only by transitory erficial suppuration. No hernia had as yet developed. **iagrams** were also shown illustrating the site of **two llets fired at a range of four feet from a 32- iber revolver into the head of a young woman.** bullets were located in the cranial cavity—one of them evidently in the cerebellar fossa, the other just above level of the basilar process and about 1½ inches to the t. The brain of a suicide, **illustrating the traumat- effected by a 32-caliber revolver** was also shown. patient from whom the skiagrams were taken has head- a little more than she had before the injury and has a vertigo on suddenly rising. Although 1½ years have ed since the injury she suffers no other inconvenience the presence of the bullets. A specimen of **anemic grene of the appendix vermiformis** was shown, the explanation that it had been removed from moral hernia in a woman over 60 years of age. The ia had existed for several years, but strangulation had rred only a short time before she was operated upon. npanitic sound on percussion over the tense femoral efaction, with free movement of gas and feces from the l, pain and tenderness, indicated a strangulated intes- diverticulum which was found to be an appendix. ut 100 cases have been recorded in which the appendix constituted the sole intestinal contents of a hernia. VAN HOOK called attention to a case of strangulated ia of the appendix, an account of which he had pub- d about two years ago. In this case the appendix had been dilated as a cyst and was filled with mucus. A tuberculous peritonitis had developed 1¼ years afterward and had been operated upon by him 3 months ago by laparotomy. The patient had a recurrence which as yet had not progressed so far as it had gone before. The man who was presented at the meeting had agreed to have another laparotomy. It was explained that probably the origin of the mucus in the appendiceal cyst had been a tuberculous inflammation of the appendix.

DR. C. E. MANIERE reported a case of **nephrectomy.** The patient, a widow, aged 45 years, the mother of 5 children, came under observation during the spring of 1896 complaining of pain in the right side of the abdomen. Examination revealed an enlarged and sensitive kidney, which was rather freely movable, and pus and blood in the urine. The patient had lost some flesh. On April 20, 1896, a renal calculus, filling the pelvis and calices and weighing 2½ ounces when fresh, was removed. Five months later the kidney was removed because of a persistent fistula and the development of some septic manifestations. The fistula continued to discharge pus, and 15 months later, in attempting to remove the ureter, a ureteral calculus was discovered just below the brim of the pelvis. Although the fistula occasionally discharges a few drops of pus, the patient feels well and has gained 25 pounds in weight.

DR. J. S. MILLER presented specimens of the **influenza-bacillus.**

DR. JOS. A. CAPPS demonstrated two specimens of **aneurysm of the coronary artery.**

SOUTHERN STATES.

Dr. Heber Jones has been re-elected president of the Memphis Board of Health.

Memphis (Tenn.) City Hospital.—The city council of Memphis, Tenn., passed an ordinance on February 16 abolishing the office of hospital physician, and putting the business affairs of the City Hospital in the hands of a layman and the medical affairs in charge of a staff of seventeen physicians surgeons, and specialists. The hospital has heretofore been conducted by the hospital physician, who managed its finances and domestic economy, and treated all the inmates. The following constitute the medical staff appointed February 25: Physicians: Dr. S. J. Cooper, Dr. J. H. Reilly, Dr. M. Goltman, Dr. F. S. Raymond, Dr. E. E. Haynes, Dr. B. G. Henning. Surgeons: Dr. M. B. Herman, Dr. J. M. Maury, Dr. E. A. Neely, Dr. W. B. Rogers, Dr. E. M. Holder, Dr. F. D. Smythe. Obstetricians: Dr. E. P. Sale, Dr. Alex. Erskine. Gynecologists: Dr. R. B. Maury, Dr. W. W. Taylor. Laryngologist: Dr. Kennedy Jones. Ophthalmologists: Dr. E. C. Ellett, Dr. A. G. Sinclair. Pathologist: Dr. L. L. Meyer.

Memphis (Tenn.) Medical Society.—At a meeting held February 21, DR. E. C. ELLETT presented a case of probable **Chancre of the conjunctiva.** The sore was situated at the inner end of the lid, and extended to both palpebral and ocular conjunctiva. It was of 4 days' duration, raised from the surface, with sharp edges, an indurated base, very little pain, and slight discharge. The pre-auricular and cervical glands on that side were enlarged. There was no history of any possible source of infection, except the use of a public towel. The patient was a young man of 22, and had never had any previous venereal disease. DRS. HEBER JONES and SMYTHE agreed with the diagnosis of chancre, but suggested the advisability of waiting for the secondaries before venturing a positive opinion.

Dr. E. P. Sale discussed **occipito-posterior positions of vertex-presentations,** giving their mechanism, dangers, and treatment. He prefers version to the high forceps operation. When the occiput rotates into the hollow of the sacrum, it is sometimes of advantage to apply the forceps upside down, or use straight ones. Dr. B. F. Turner in a recent case, in which the cervix was pushed back and up, secured flexion by hooking a finger in the cervix and drawing it forward.

Dr. Alfred Moore read a **Therapeutic Symposium** to which several of the members had contributed. Attention was given to the new remedies especially. Protargol, A.:C. E. mixture, solid extract of veratrum viride, nosophen, ethyl iodid, cocain, silver nitrate, camphor-menthol, argentamin, pilocarpin, suprarenal extract, argonin, holocain and orthoform were commended. Several of the members reported satisfactory results from the use of argonin in ophthalmia neonatorum. Dr. Ellett reported favorable results from cupric cataphoresis in trachoma. The copper electrode is attached to the positive pole, and applied to the everted lid. A current not exceeding 2 m. a. is employed. In a desultory discussion on ophthalmia neonatorum, Dr. Sale said its occurrence was a reproach to the obstetrician, although he had seen it develop when due precautions had been taken. Dr. Ellett said it occasionally developed in spite of all precautions, including the Credé method, and sometimes infection occurred in utero. The last remark was confirmed by Dr. Turner.

MISCELLANY.

Varioloid and Vaccination at Princeton.—We are glad to notice that bigotry and fanaticism, in matters of hygiene and health, have been thus far kept out of our institutions of learning. A case of varioloid having appeared at Princeton University, steps were at once taken to vaccinate all unprotected students, and authorities and physicians alike rest securely in the assurance that any extensive spread of the disease has thus been prevented.

Obituary.—Dr. Daniel F. Harkins, Allentown, Pa., February 27, as a result of an assault by burglars.—Dr. Cornelius A. Logan, for many years a resident of Chicago, at Los Angeles, January 30, aged 66 years.—Dr. Washington Ayer, San Francisco, Cal., February 15, aged 76 years.—Dr. John E. Ward, of Coney Island, in Brooklyn, N. Y., February 25, aged 53 years.—Dr. Mary H. Platt, Wissahickon, Philadelphia, February 25.—Dr. Alfred T. Huntington, Boston, Mass., February 13, aged 31 years.—Dr. Samuel F. Meeker, Lecompte, La., February 12, aged 64 years.—Dr. Charles A. Tufts, Dover, N. H., February 12, aged 77 years.

Health Reports.—U. S. Marine Hospital Service during the week ended February 25, 1899.

Smallpox—United States.

			Cases.	Deaths.
California:	Los Angeles	Feb. 17	35 in all since date of outbreak; 7 deaths; origin believed to be Arizona; 25 cases in hospital.	
“	Sacramento	Feb. 1-17	1	
“	San Diego	Feb. 19	1	1
“	San Francisco	Feb. 1-17	1	
District of Columbia:	Washington	Feb. 15	4 new,	
“	“	Feb. 16	1 “	
“	“	Feb. 23	1 “ 21 in all.	
Kansas:	Peabody	Feb. 16	1 There have been 56 cases in 15 families, with 7 deaths.	
Missouri:	Carroll Co.	Feb. 13	33	5
“	St. Louis	Feb. 13	15	2
N. Carolina:	Chowan Co.	Feb. 16	3	
“	Columbus Co.	Feb. 16	2 from Sumter, S. C.	
Ohio:	Cincinnati	Feb. 16	2 at Marine Hospital.	
“	Columbus	Feb. 1-9	10 of varioloid.	
Pennsylvania:	Philadelphia	Jan. 23-Feb. 11	1	
“	Bedford Co.	Jan. 23-Feb. 11	1	
“	Liberty Township	Jan. 23-Feb. 11	3	
Tennessee:	Jackson, Madison Co.	Feb. 14	7	
“	Memphis	Feb. 11-16	6	
Texas:	Laredo	Feb. 2-11	42	16
Virginia:	Alexandria	Feb. 8-23	24	
“	Norfolk	Feb. 13-22	70	
“	Portsmouth	Feb. 4-18	15	

Smallpox—On Vessels.

Jap. S. S. “America Maru,” from Yokohama for San Francisco, via Honolulu	Jan. 25	2	
U. S. S. S. “Costa Rica,” from Hongkong for San Francisco.		2 at Hongkong, arrived Feb. 9.	
Str. “Hatteras,” Smithfield, Va. for Norfolk		1	
Str. “Lucy,” from N. C. for Norfolk, Va.	Feb. 7	1	
Sloop “Mary Pace,” James River for Portsmouth, Va	Feb. 10	1 suspected	

Smallpox—Foreign.

Brazil:	Rio de Janeiro	Dec. 31 – Jan. 6	10	4
Egypt:	Cairo	Jan. 19-26		1
England:	South Shields	Jan. 22-28	1	
France:	Paris	Jan. 28-Feb. 4		1
India:	Bombay	Jan. 17-24		2
“	Singapore	Dec. 1-30		13
Mexico:	Chihuahua	Feb. 4-11		1
“	“	Feb. 11-18		1
“	Ciudad Porfirio Diaz	Feb. 11-18	6	
“	City of Mexico.	Feb. 5-12	2	
“	Nuevo Laredo.	Feb. 11	40	
“	Vera Cruz	Feb. 2-16		1
Russia:	Odessa	Jan. 26–Feb. 4	4	1
“	Warsaw	Jan. 22-28	3	
Turkey:	Constantinople.	Jan. 23-30		8
“	Smyrna	Jan. 15-22		3

Yellow Fever.

Brazil:	Rio de Janeiro.	Dec. 30-Jan. 6	16	11
Mexico:	Vera Cruz	Feb. 2-16		3

Cholera.

India:	Bombay	Jan. 18-24		3
“	Calcutta	Jan. 1-7		75
“	“	Jan. 7-14		35
“	Madras	Jan. 14-20		3

Plague.

India:	Bombay	Jan. 17-24		456
“	Calcutta	Jan. 7-14		2

American Medical Association.—Preliminary Program for the Columbus Meeting, June 6–9.—The Committe on Program for the Columbus meeting is much encourage by the promises made to present papers. It is desired to restrict the number of papers in order to afford ample time fo discussions; hence it is requested that those who are purposing to present papers at the next meeting, promptl notify a member of the committee of the fact.

At the meeting at Denver, two subjects for discussion wer suggested, and the comments on the medical service of th army and navy during the war with Spain furnished a thir timely topic. There will be, consequently, three specia topics presented to the academy for its discussion, the discussion to be opened by a series of carefully prepared paper

Thus far, the following papers have been promised, arrange under the special topic to be discussed.

Specialism in Medicine.

1. The Ethics of Specialism, Dr. A. L. Benedict, Buffalo.

2. How Far has Specialism Benefited the Ordinary Prac- ce of Medicine? Dr. L. Duncan Bulkley, of New York.

3. The Relation of Specialism to General Medicine, Dr. olomon Solis-Cohen, of Philadelphia.

4. The Specialties and Commercialism, Dr. H. Bert Ellis, Los Angeles.

5. Subject to be announced, Dr. G. Hudson Makuen, of hiladelphia.

6. Specialists and Therapy, Elmer Lee, M.D., of New York.

7. Specialism in its Relation to Other Branches of Medi- ne, Dr. G. W. McCaskey, of Fort Wayne, Ind.

ADVERTISING AND THE MEDICAL PROFESSION.

1. Medical Advertising, Dr. Robert H. Babcock, of Chicago.

2. The Ethics of Advertising Applied to the Medical Pro- ssion, Dr. A. Ravogli, of Cincinnati.

3. Subject to be announced, Dr. J. A. Lichty, of Clifton orings, N. Y.

THE MEDICAL SERVICE OF THE ARMY AND NAVY.

1. Aspects of the Late War from a Naval Surgeon's Stand- int, Dr. W. C. Braisted, U. S. N.

2. Subject to be announced, Dr. G. G. Groff, now in ierto Rico.

3. What Should be Aimed at in a Reorganization of the ational Guard System so far as its Medical Department is ncerned? Dr. C. B. Nancrede, (late of the U. S. V.) of Ann rbor, Mich.

4. The Relation of the Medical Profession to the Army d Navy as Developed in the Spanish-American War, Dr. mes A. Pilcher, U. S. A.

MISCELLANEOUS PAPERS.

1. Remarks on Hospital Organization, with Special Refer- ce to Continuous Service, Dr. J. C. Wilson, of Philadel- ia.

2. The Passing of Materialism, Dr. Geo. M. Gould, of Phila- lphia.

PAPERS ON SUBJECTS NOT YET FURNISHED.

1. Dr. Edward Jackson, of Denver, President's Address.
2. Dr. J. R. Smith, U. S. A., retired.
3. Dr. V. C. Vaughan, of Ann Arbor.
4. Dr. C. T. McClintock, of Detroit.
5. Dr. A. J. Puls, of Milwaukee.

An effort will be made to issue a circular containing a brief nopsis of the papers to be presented, long enough before e meeting to enable those who attend to acquaint them- ves with the trend of the papers, and to prepare themselves a more profitable discussion.

The secretary has one request to make in connection with e Columbus meeting. Experience has shown that it is lpful to know who are expecting to attend the meeting. for example, near the time for the meeting, he receives me special information of value to those who may attend, is able to communicate this, while a general circular ght be impracticable. The request is that you at once d him word, if you are planning to go. Of course, if you ve already done so, this message is not for you.

An Ideal Combination.—"To the Clergy," is the title a circular lying before us, of which we gladly give the free vertisement of quotation:

> ENTLEMEN:—The "up-to-date" clergyman has the *whole* welfare his flock at heart—*physical as well as spiritual.* Are you "up-to- e?" Are you aware that fretfulness, peevishness and morbid- s, which are the occasion of so much unhappiness, not only to subjects themselves, but much more to others, result, in almost cases, from the imperfect elimination of the waste of the system? *ll! You may do more to relieve the misery of the world, in this respect, than Medicus with all his drugs.* How? By a simple, common-sense hygienic suggestion.
>
> And your own shattered nerves, and your too frequent lapse into dullness [*Oh!*]—these would be remedied and escaped in the future, by the practice of the same simple, common-sense hygienic treatment. You would always have a clear head and a vigorous mind. Is not this a desideratum?
>
> We extend an invitation to you: 1st. To send to us for a free copy of Prof. Charles A. Tyrrell's "Royal Road to Health," published at $1.00. 2d. To call on any day, by appointment, between the hours of 3 and 5 P.M., at our Institute, and receive *free*, with our compliments and cordial interest, *an internal bath, a la "Cascade,"* which consists of a scientific, easy and expeditious method of flushing the colon. BUT—*send for our book anyhow.* It will tell you the *why* and *how* of the treatment.
>
> Yours, for health of Body—the Temple of Soul,
> TYRRELL'S HYGIENIC INSTITUTE.

Changes in the Medical Corps of the U. S. Army.

REYNOLDS, Captain FREDERICK P., assistant surgeon, is relieved from duty as sanitary inspector of San Juan, P. R., and will in addition to his duties as attending surgeon perform the duties of medical inspector of the department of Porto Rico.

MASON, Major CHARLES F., brigade-surgeon, is relieved from duty as medical inspector of the department of Porto Rico, and assigned to duty in charge of the General Hospital at San Juan, P. R.

JOHNSON, HENRY, hospital steward, has been ordered to Guanajay, Cuba, for duty.

EDIE, Major GUY L., brigade-surgeon, will, in addition to his other duties, take charge of the U. S. General Hospital, Presidio, during the absence on leave of Major W. S. H. MATTHEWS, brigade-surgeon.

MATTHEWS, Major W. S. H., brigade-surgeon, is granted leave for 15 days. Feb. 9.

CARTER, Major W. FITZHUGH, surgeon, is assigned to the command of Military Hospital No. 1, Havana.

GORGAS, Major W. C., surgeon, is relieved from duty at the Military Hospital No. 1, Havana.

CARTER, HENRY R., JR., acting assistant surgeon, will proceed to Jackson Barracks, La., for duty.

DARNALL, First Lieutenant CARL R., assistant surgeon, is granted leave for 15 days. Feb. 15.

WYETH, Major MARLBOROUGH C., brigade-surgeon, captain, assistant surgeon, U. S. A., will, on completion of his examination for promotion proceed to Havana, Cuba, for duty in charge of the medical supply depot to be established in the vicinity of the city of Havana.

BRADLEY, HENRY H., acting assistant surgeon, is relieved from further duty at camp Columbia, Havana, Cuba, and will proceed to Savannah, Ga., for assignment to duty in the U. S. General Hospital.

CLOUD, First Lieutenant MARSHALL M., assistant surgeon, when his services are no longer required at Camp Shipp, Anniston, Ala., is relieved from further duty at that camp, and will return to his proper station, Fort Sill.

CRUIKSHANK, CHARLES G., acting assistant surgeon, will proceed from Albany, Ga., to Havana, Cuba, for assignment to duty.

WEYRAUCH, PAUL H., hospital steward, now at the sub-post camp at Hiltonhead, S. C., will be sent to Tybee Island, Ga., for duty.

HEG, Major ELMER E., brigade-surgeon, will proceed to Havana, Cuba, for assignment to duty.

FISHER, Captain HENRY C., is relieved from further duty at Plattsburg Barracks and will proceed to Madison Barracks and report to the commanding officer Ninth Infantry, for duty to accompany that regiment to Manila, P. I.

AGRAMONTE, ARISTIDES, acting assistant surgeon, now in Havana, Cuba, will report for assignment to duty.

ELLIOT, H. W., acting assistant surgeon, now at Madison Barracks, will report to the commanding officer, Ninth Infantry, at that post for duty, to accompany that regiment to Manila, P. I., and upon arrival there will report for assignment to duty.

FITZGERALD, CHARLES J., acting assistant surgeon, will proceed from Dorchester, Mass., to Madison Barracks and report to the commanding officer, Ninth Infantry, for duty, to accompany that regiment to Manila, P. I., and upon arrival there will report for assignment to duty.

JACKSON, JOHN, hospital steward, hospital ship "Relief," now on furlough, will on or before expiration of same report at Fort Columbus for temporary duty.

MCKEE, JOHN, hospital steward, now on duty aboard hospital ship "Relief," is transferred to West Point for duty.

HARRIS, FRANCIS A., acting assistant surgeon, is granted leave for one month. Feb. 20.

WOODSON, Captain R. S., assistant surgeon, is granted leave for one month with permission to return to the United States. Feb. 10.

STEPHENSON, Major WILLIAM, brigade-surgeon, medical inspector, will proceed to the District of Guantanamo, Cuba, and make a medical inspection of all the forts and stations in the district, in the following order: Santa Rosa, Guantanamo, Jamaica, Guasa, Soledad, Sagua de Tanamo, Baracoa.

WELLS, D. D., acting assistant surgeon, is granted leave for one month, with permission to return to the United States. Feb. 11.

STALEY, HENRY B., hospital steward, is relieved from duty with the Fifth Infantry, and assigned to the medical supply depot, Santiago, Cuba, for duty.

McGuire, William A., hospital steward, is detailed on temporary duty at the hospital El Cobre, Cuba.

Powell, Major Junius L., surgeon, is relieved from further duty at Augusta, Ga., and will return to his proper station, Fort Riley.

Changes in the U. S. Marine-Hospital Service, for the fourteen days ending February 23, 1899.

Kinyoun, J. J., passed assistant surgeon, to proceed to Albany, Ga., for special temporary duty. Feb. 18.

Wertenbaker, C. P., passed assistant surgeon, to rejoin station at Wilmington, N. C. Feb. 20.

Bready, J. E., acting assistant surgeon, granted 7 days' extension of leave of absence from Feb. 9, 1899. Feb. 18.

Gerrish, W. H., acting assistant surgeon, granted leave of absence for 30 days on account of sickness. Feb. 18.

O'Reilly, W. J., acting assistant surgeon, granted leave of absence for 2 days from Feb. 28, 1899. Feb. 18.

Phillips, E. L., acting assistant surgeon, granted leave of absence for 15 days. Feb. 18.

RESIGNATION.

Phillips, E. L., acting assistant surgeon, resignation accepted as tendered, to take effect upon appointment and qualification of his successor. Feb. 9.

Examination for Assistant Surgeonship in the U. S. Marine-Hospital Service.—The following notice has been issued by the Supervising Surgeon-General of the U. S. Marine-Hospital Service:

> A board of officers will be convened at San Francisco, Cal., Tuesday, May 2, 1899, for the purpose of examining candidates for admission to the grade of assistant surgeon in the U. S. Marine Hospital-Service. Applications for this examination must be received on or before April 22.
>
> Candidates must be between 21 and 30 years of age, graduates of a respectable medical college, and must furnish testimonials from responsible persons as to character.
>
> The following is the usual order of the examination: 1. Physical. 2. Written. 3. Oral. 4. Clinical.
>
> In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment which would disqualify for service in any climate.
>
> The examinations are chiefly in writing, and begin with a short autobiography by the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery, and hygiene.
>
> The oral examination includes subjects of preliminary education, history, literature, and natural sciences.
>
> The clinical examination is conducted at a hospital, and when practicable candidates are required to perform surgical operations on the cadaver.
>
> Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order as vacancies occur.
>
> Upon appointment the young officers are as a rule first assigned to duty at one of the large marine-hospitals, as at Boston, New York, New Orleans, Chicago, or San Francisco.
>
> After 5 years' service Assistant Surgeons are entitled to examinations for promotions to the grade of Passed Assistant Surgeon.
>
> Promotion to the grade of Surgeon is made according to seniority, and after due examination as vacancies occur in that grade. Assistant Surgeons receive $1,600, Passed Assistant Surgeons $2,000, and Surgeons $2,500 per year. When quarters are not provided, commutation at the rate of $30, $40 or $50 a month, according to grade, is allowed.
>
> All grades above that of Assistant Surgeon receive longevity pay, 10% in addition to the regular salary for every 5 years' service up to 40% after 20 years' service.
>
> The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

Foreign News and Notes.

GREAT BRITAIN.

Dr. Thomas Clifford Allbutt, regius professor of physic in Cambridge University, England, has been elected an honorary fellow of the Royal College of Physicians of Ireland.

The Joseph Coats Memorial Prize in Pathology is the result of agitation on the part of the late Professor Coats' friends to found some memorial in his honor. It is desired to raise $5,000, and this no doubt will shortly be forthcoming.

Bravery.—The conduct of two medical men at a recent fire in the Aberdeen Lunatic Asylum deserves the warmest commendation. All the patients were removed to safety save one unfortunate woman, who was seen to be trying to thrust herself through the grated window of her cell while the flames were raging below her. Dr. W. R. Matthews, a medical officer of the asylum, reached the window with a ladder, which was kept steady by Dr. D. R. Moir, his colleague. Dr. Matthews tore the irons out of their sockets, in doing which he severely burnt his hands, dragged the patient, whose clothes were on fire, out of the cell and supported her to the ground in safety.

The Hunterian Oration at the Royal College of Surgeons of England was duly delivered on Valentine's Day by Sir William MacCormac, K.C.V.O., President of the college, and the Prince of Wales was present at the ceremony in acccrdance with his promise previously announced. The oration is biennial and has been delivered for upwards of a hundred years, so that Sir William MacCormac followed in the wake of at least fifty predecessors in delivering a set speech on the merits of the great biologist to whom modern surgery and physiology look up as their scientific father. It was, therefore, to the orator's credit that a lively literary style enabled him to invest his well-worn theme with interest. In the evening the Prince of Wales dined with the College of Surgeons, but at his own request the occasion was a strictly private one.

Industrial Farm Colony for Inebriate Women.—According to the *British Medical Journal*, the Industrial Farm Colony, established at Duxhurst, Reigate, England, by Lady Henry Somerset for the treatment of female inebriates, consists of a series of real cottage-homes, each containing not more than 6 inmates, under the charge of a sister. These are situated upon a breezy Surrey down, and open-air employment, under the direction of a woman gardener, is provided for all capable of it. There is also a weaving shop and of course a laundry. From the report of the medical officer (Dr. Walters), we learn that of 83 cases who stayed the full term of one year (less than this is considered useless), 55 (or 67%) were doing well. There is also on the estate a holiday home for children ("Birds' Nest"), where also the babies of inebriate women are looked after—a feature in the colony which appeals to womanly feeling and exercises a brightening effect upon the life of the inmates.

Longevity in Lunatics.—It is stated in the *Lancet*, that there died recently at Broadmoor State Asylum a lunatic whose history furnishes an interesting comment on the above subject and has bearings on the economic question of the housing, care and treatment (and incidentally the expense which must of necessity accrue therefrom), and longevity of certain lunatics. John Quier attempted to murder and was sent to jail in 1843 at the age of 29 years. He was then found to be insane and was sent to Bedlam where he was detained until 1864—a period of 21 years. Broadmoor Asylum being then opened he was transferred there and remained an inmate until his death in 1899. During his long confinement of 55 years Quier, it is said, showed no tendency to violence. He was a quiet, inoffensive, weak-minded man, generally engaged in doing odd jobs. He died at the age of 84 years, the cause of death being given as senile decay. In a recent work Dr. Blandford mentions the following facts on longevity: "In a small asylum for the upper classes I have under my care at the present time (December, 1896) 24 female patients. Of these 4 are upwards of 80 years of age;

one has been an inmate of the asylum 52 years, one 49 years. Three are upwards of 70 years and they have been patients in the same house 50, 45, and 44 years." The records of other county and private asylums, especially the older ones, contain several similar cases of longevity. The economic and financial data, if available, ought to prove highly interesting.

The Death of "Cavendish."—All the world knows by name "Cavendish," the author of the remarkably popular hand-book upon whist, but not every one knew until he died a few days ago that he was a medical man. He was, however, a member of the Royal College of Surgeons of England, and, until the enormous success of his treatise on whist showed him that a more lucrative career was open to him as an expositor of games of chance, he was in general practice as a doctor in London. The developments of whist, known in England as "the American leads," were not foreshadowed in "Cavendish's" first book, but as soon as Foster's whist manual codified these developments "Cavendish" made himself master of them and explained them to his enormous public with the same clearness as he had originally explained the English game. "Cavendish," whose real name was Henry Jones, was wont to attribute the clearness of his written explanations of points at issue in the play of whist (or any in-door game) to the habits of clearness and accuracy formed by anatomical study.

The Parental Form of Filaria Perstans.—According to the *British Medical Journal*, one of the Congolese patients suffering from sleeping sickness, whose case was described by Dr. Manson in the *British Medical Journal* of December 3, 1898, (Philadelphia Medical Journal, December 24, 1898, Vol. II, page 1332) died recently. For 2 months previously he had been confined to bed and almost constantly asleep. The immediate cause of death was hyperpyrexia, which rapidly developed. The details of the postmortem examination will be published in due course; but one interesting fact has already been established—namely, that the filaria perstans of West Africa is the same species as the blunt-tailed filaria of British Guiana. A mature filaria was found by Mr. O'Neill, Charing Cross Hospital, in the connective tissue behind the abdominal aorta; on comparing it with specimens sent from British Guiana by Dr. Daniells, it was found to correspond with these in every detail. The nematode worm described by Dr. Daniells in the *British Medical Journal* of April 16, 1898 (Philadelphia Medical Journal, May 7, Vol I, 1898, page 811), is therefore the mature form of filaria perstans, a parasite which is now proved to be endemic in tropical America as well as in tropical West Africa.

The Administration of Nitrous Oxid and Air, and of Nitrous Oxid and Oxygen.—Dr. F. W. Hewitt, the administrator of anesthetics at Charing Cross and the London Hospitals, read an interesting paper at the last meeting of the Royal Medical and Chirurgical Society, of London, upon this subject. His paper was based upon carefully recorded and timed administrations of:—

	Cases.
Pure nitrous oxid	22
Nitrous oxid mixed with different percentages of air	107
" " " " " " " oxygen	102
	231

In each administration records were made concerning anoxyemic convulsions, cyanosis or other changes of color, stertor, retching movements, phonation, excitement or reflex movements, after-effect, dreams, duration of inhalation, duration of anesthesia, quantity of gas or gases inhaled, and operation performed. From his investigations Dr. Hewitt drew no less than 18 conclusions, of which perhaps the one of most importance to medical men other than anesthetists was the following: "That the duration of available anesthesia after inhalation was found to be longest after the administration of mixtures containing from 3 to 11% of oxygen, the maximum direction having been attained with 7% mixtures. With nitrous oxid and air mixture the anesthesia was distinctly longer than with pure nitrous oxid."

The New Professor of Pathology at Cambridge University.—Dr. German Sims Woodhead is known favorably to all European pathologists. The eldest son of Mr. Joseph Woodhead, a late member of Parliament for the borough of Huddersfield, Dr. Woodhead, who is 45 years of age, was educated at Edinburgh University where he distinguished himself at once as a pathologist. It is sixteen years since his clear and beautifully illustrated little treatise, Practical Pathology, made its appearance, and from that day he has been a marked man in the scientific world for the accuracy and lucidity of his research-work. When the Royal College of Physicians and the Royal College of Surgeons of England decided in 1890 to amalgamate their examining arrangements and form a joint educational board to grant medical diplomas, a research laboratory was seen to be a necessity for the work of such a board, and Dr. Sims Woodhead was deported from Edinburgh to fill the post of first director. This he has done for the past eight years in an able and untiring manner, while to recapitulate the various scientific investigations upon which he has been engaged during these years would be to fill columns. He has now been elected professor of pathology at Cambridge University in the room of the late Professor A. A. Kanthack, whose death at an early age we recently chronicled in the Journal. The post is one of dignity and responsibility, for the University has not only its historic prestige to support, but also its modern reputation as the most successful British medical school, but Dr. Woodhead's powers of organization have been proved by his career as director of the laboratory of the Conjoint Board in London to be equal to the tasks now to be imposed upon him.

Tuberculous Cavities in the Lung Giving Rise to Metastatic Abscesses.—Before the Clinical Society of London, February 10, Mr. W. G. Spencer described an exceptional case of tuberculous cavities in the lungs giving rise to gaseous metastatic abscesses, in which abscesses formed in the back, in the right pleura, and in the upper part of the left thigh, the latter bursting into the rectum through the great sciatic notch, the disease of the lungs giving rise to neither symptoms nor signs. The patient was a West African negro, aged 22 years, who was attended by Dr. Denne for pain in the left knee, frequent headaches, and vomiting, which he had had for 8 months. A large superficial abscess, extending from the left scapula to the lowest rib, was opened, but no communication with the chest was found. As the patient still had fever he was admitted to the Westminster Hospital, where a tympanitic swelling was found occupying the upper portion of the left thigh and buttock. On opening this multiloculated abscess, gas and pus with a fecal odor escaped, and it was found to communicate with the pelvis through the great sciatic notch. There was no ulceration of the rectum, and no infiltration of the ischiorectal fossæ. Later the patient suddenly developed an acute effusion into the right pleura. The fluid aspirated having a fecal odor and containing pus-cells, the right pleura was consequently drained. Then followed a period in which the patient declared himself better; the abscesses in the back and the pleural wound were nearly closed, and the man insisted upon getting up, and asked repeatedly to be discharged. The septic fever, however, continued, and foul yellow pus was discharged from the thigh in spite of frequent irrigation. All the evidence of chest-disease was an occasional cough and a few rales. Yet malaria, dysentery, typhoid fever, and fecal fistula from intestinal ulceration appeared to be clearly negatived. One day, after being 5 months under observation, the patient suddenly collapsed and died in 4 hours. Postmortem there was found a tuberculous cavity in the upper part of the right lung, of the size of an orange, filled by a gummy purulent fluid, while the rest of the right and the left lung contained numerous caseous tubercles; there was extensive tuberculous caries of the sixth, seventh, and eighth ribs in the left side, and of the eighth and ninth ribs on the right side; the right pleura was thickened and adherent; and the upper part of the left thigh and buttock were completely occupied by multilocular abscess-cavities. There was no tuberculous ulceration of the intestines. Dr. Kingston Fowler said that he had never met with a similar case, and he asked whether tubercle-bacilli were found in the cavities in the lung. He had also never before heard of fetid collections in the pleura, apart from gangrene or perforation of the lung. Mr. G. H. Makins said that there must have been a mixed infection. Tuberculous abscesses were not fetid. It was possible that the abscesses were not directly traceable to the pulmonary lesion. Dr. J. H. Bryant asked if any anaerobic cultures were made. In a number of cases in which there had been formation of gas, the bacillus aërogenes capsulatus had been found. This occurred in one case in which the knee-joint was injured and suppurated with evolution of gas, and in a case in which gaseous cavities were found in the liver, in a case of pneumothorax without perforation of the lung, and also in a case of "pneumaturia" in a diabetic patient. The bacillus coli communis had been found by Dr. Pakes, in a case under Dr. Bryant's care, in which there were gaseous abscesses of the liver, and he believed that they caused the evolution of gas. Mr. Spencer, in reply, said that colon-bacilli were found in the pus of the abscesses, and tubercle-bacilli were demonstrated after death in the pulmonary cavities. During life there was no expectoration, and so there was no possibility of demonstrating them. He thought that the ribs had been affected secondarily to the lungs, and that the abscess in the back might have been due to extension from the rib, but that the others were metastatic. —[*Lancet.*]

CONTINENTAL EUROPE.

University of Cracow.—Dr. Odo Bujwid has been appointed ordinary professor of hygiene.

University of Gratz.—Dr. Wilhelm Praussnitz has been appointed ordinary professor of hygiene.

University of Breslau.—Dr. Walther Kümmel has been appointed extraordinary professor of otology and laryngology.

University of Leipzig.—The centennary of the establishment of the medical clinic will shortly be celebrated. Marble statues of Professor Wunderlich and Professor E. Wagner will be erected in the gardens of St. Jacob's Hospital.

University of Prague.—Dr. Gustav Kabrhel has been appointed ordinary professor of hygiene in the Bohemian University of Prague.

University of Dorpat.—Dr. Czermak has been appointed ordinary professor of comparative anatomy, histology, and embryology.

Professor Mikulicz, professor of surgery in the University of Breslau, has been elected an honorary member of the Academy of Medicine of Rome.

University of Basel.—Professor Garrè, of the University of Rostock, has been invited to assume the directorship of the surgical clinic, in succession to the late Professor Socin.

Water-supply of Paris.—The committee recently appointed by the Chambre des Députés, to examine the potable quality of the water-supply of Paris, have, after a close scrutiny of all the bacteriologic results, pronounced the water exceptionally pure.

The New Buildings of the Academy of Medicine of Paris have just been begun and the buildings of the Monte-de-Piété, which hitherto have occupied the site, have been pulled down. The plans, as put forward by the architect, are considered to show that the new academy will be one of the most beautiful buildings in Paris, but it will hardly be ready by 1900.

University of Jurjew.—According to the official report recently published, the number of students in the University of Jurjew (perhaps better known by its old name of Dorpat) for the current year is 1,248, of whom 644 belong to the medical faculty. The teaching staff consists of 59 professors (37 ordinary and 22 extraordinary). During the last year academic degrees were conferred upon 450 candidates, 306 of whom were members of the medical profession.

The Sanitary Condition of Italy.—The Italian Minister of the Interior has decided to institute an inquiry throughout the kingdom with the object of ascertaining the hygienic condition of every commune at the end of last year. A schedule of questions has been drawn up, and the answers given to these questions, together with the information already in possession of the Government, will, it is hoped, enable the authorities to get at the exact state of sanitary matters in Italy.

An International Congress of Medical Ethics.—It has been arranged that among the Congresses to be held in Paris in 1900 there shall be one entitled "International Congress of Medical Ethics." The Organizing Committee, which recently met under the presidency of Professor Gariel, includes among other well-known members of the profession in France, Professor Brouardel, Dean of the Paris Faculty of Medicine; Professor Cornil, member of the French Senate; Drs. Marcel Baudoin, Jules Comby, Julien De Ranse, A. Sevestre and Jules Thiroloix. M. Léreboullet was chosen to be chairman.

Frozen Meat for Soldiers.—A thesis on this subject has been presented to the Faculty of Medicine of Lyons by M. Henry Viry, a pupil of the School of Military Hygiene. After pointing out the advantages of frozen meat, M. Viry concludes by stating that its supply in peace permits, first, of certainty in the examination of living animals for utilization and the easy supervision of the meat obtained, thanks to the installation of slaughterhouses and military freezing manufactories; secondly, the distribution in all garrisons of a food of known quality and certain innocuousness; and, thirdly, economy realized at the profit of the general food-supply of the soldier. M. Viry says that in time of war and in case of siege frozen meat has also advantages in a hygienic point of view.—[*British Medical Journal.*]

Infectious Diseases in Austria.—In the opening days of this year 2 cases of rabies in the human subject occurred at Trieste, and there is an increase in the number of cases of rabies among dogs reported from Dalmatia. Outbreaks of typhoid fever were reported last week from the Austrian seaports, Pola and Trieste, the disease being ascribed in both towns to infected oysters. At Lieben, a suburb of Prague, 20 cases of typhus exanthemicus occurred at the police barracks with 3 deaths in the course of last week, and 2 cases of the same disease were notified at Leitmeritz, a town in Northern Bohemia. It must be remarked hat the sanitary conditions of Prague, as well as of Pola and Trieste, are far from being in accordance with modern equirements and that the water-supply in these towns is exremely bad.—[*Lancet.*]

An Undescribed Form of Osteopathy of the Lower Extremities.—According to the *Lancet*, at the meeting of the Société Médicale des Hôpitaux at Paris on November 18, 1898, Dr. E. Hirtz presented a man, aged 37 ears, who at the end of 1893 had shooting pains in the legs and knees, of greatest intensity in the left ankle. There was lso a little periarticular swelling, but no deformity. The feet lso became affected. He was treated in hospital during 6 weeks for rheumatism, and was cured and resumed his occuation of salesman which obliged him to constantly stand. In anuary, 1894, the swelling reappeared in the same place. n March, deformity first became evident; it consisted at first f enlargement of the internal part of the left ankle-joint with weakening of the plantar arch. After a month the ight foot was similarly affected. The pain was great, and in une he again entered the hospital. Under treatment the nlargement subsided somewhat and he was able to resume is occupation. But the pains and deformity increased. Pressure-corns formed on the soles, terminating in perforatng ulcers. He entered the hospital a third time. In October the left lower limb was much magnified, the thigh was enlarged in its lower third, the leg and foot were still more enlarged, and the internal malleolus was enormous. Palpation showed that the enlargement was principally sseous; it involved the lower half of the femur, the tibia in n increasing degree from above down, and the fibula, which as double its normal dimensions. The foot was converted nto a veritable block of bone in which individual bones could not be distinguished. The right lower limb was affected in a much less degree than the left. No other bones ere involved, the signs of Paget's disease and of akromegaly ere absent. The case resembled one brought before the ociety in 1892 by Marie under the name of "systematized osteopathy of a type not described." But the latter differed om Dr. Hirtz's case in that the radii and inferior maxilla ere affected. There were no signs of syphilis or of locomotor ataxia.

Medical Students of Paris.—The Paris correspondent the *Lancet* states that the Paris Faculty of Medicine has ublished a list of the number of students in medicine who ave in their names for the medical course of the past holastic year. This is an interesting piece of information, r thereby the reader is enabled to form some idea as to the fect of the recently passed university regulations as to fees and the like. It must be remembered that foreigners now only receive a doctor's degree which, although of the same scientific value as that granted to Frenchmen, yet does not permit them to practise in France unless indeed they have undergone the same preliminary examinations as Frenchmen have to pass. It was considered that this regulation would adversely affect the flow of foreign students in medicine. Their numbers, however, have not diminished. On the other hand, it is interesting to see whether the increased severity of the entrance examination has in any way diminished the rush of students into a profession at present greatly overcrowded. The result from this point of view is apparently satisfactory. In 1897 there were 5,015 students entered, while in 1898 the number fell to 4,495. This diminution is, however, only apparent and arises from the fact that the Faculty has struck from its roll a large number of students whose names were still on the books but who have given up trying to pass the examinations. All those who have entirely discontinued their studies for the past 5 years have been struck from the roll. Their numbers account exactly for the falling off mentioned above. A proof that the number of students is not falling off is given by the following figures for past years. In 1885 the Faculty examined 3,856 students, 5,466 in 1891, 6,803 in 1893, 8,346 in 1894, 8,955 in 1896, 8,971 in 1897, and 9,429 in 1898.

MISCELLANY.

The Plague in India.—In the Bombay Presidency for the week ending January 13, there were 2,593 cases of plague and 2,045 deaths, as a result of a recrudescence of the disorder. Throughout the Presidency 360 villages are infected. From September, 1896, to January 13, 1899, there have been 214,197 cases, and 169,240 deaths from plague in the Bombay Presidency alone.

Obituary.—SIR JOHN STRATHERS, M.D., LL.D., vice-president of the Royal College of Surgeons of Edinburgh, and examiner in anatomy in the Royal College of Surgeons, February 24, aged 76 years.—MR. HENRY JONES, M.R.C.S., widely known as "Cavendish," the authority on whist, London, February 10, aged 68 years.—MR. CHARLES BADER, M.R.C.S., Eng., consulting ophthalmic surgeon to Guy's Hospital, London, aged 72 years.—DR. AUGUST FREYGANG a prominent public-spirited physician, in Bodenbach, Germany, January 29, aged 48 years.

To a Certain Doctor.—The *Lancet* states that the following lines recently appeared in the *Westminster Gazette.* They constitute as eloquent a tribute to the virtues of the medical life as we have ever read :—

TO A CERTAIN DOCTOR.

"I'm only a doctor," is your cry,
  "Concerned with the body's ills and maims,
But witless of art and poesy,
  And lost to the spirit's finer aims."

Ay, only a hand by hundreds blest,
  A heart that has ached for all, save self,
A brain racked ever to find them rest,
  A soul whose riches are scorn of pelf.

In vain we argue; the theme is old;
  Some men love horses, some singing-birds,
But e'en if the poet's song ring gold,
  Shall deeds that are gold weigh less than words?

You waived the pleasure and wooed the strife,
  Of thorns, not roses, have made your bed,
You longed for the lovely side of life,
  And fought with the terrible instead—

Longed sore, but never had time to give,
  "Till now it is all too late," you say.
So be it. Why, man, the life you live
  Is one long poem from day to day.

—JAMES RHOADES.

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

February 11, 1899. [No. 1989.]

1. The Rhinoplastic Operation. (*Illustrated.*) SIR WILLIAM STOKES.
2. Some Clinical Aspects of Granular Kidney. SAMUEL WEST.
3. Some Uncertainties in the Diagnosis of Cerebral Tumor. ERNEST SEPTIMUS REYNOLDS.
4. On the Removal of a Fragment of Steel from the Retina with the Electromagnet, with Notes of Two Cases. SIMEON SNELL.
5. A Case of Profuse Spontaneous Hemorrhage into the Urinary Bladder. W. MCADAM ECCLES.
6. Formalin in the Treatment and Removal of Inoperable Malignant Growths. WILLIAM MITCHELL.
7. The Treatment of Traumatic Tetanus with Antitoxins. STANLEY COPLEY.
8. A Case Showing the Value of Late Injections of Diphtheria-Antitoxin. A. M. DALDY.
9. A Sore Diagnosed as Cancer of the Lip in Early Life: Recovery without Operation. R. P. CROSBIE.
10. Treatment of Hemophilia. R. T. E. DAVIES.
11. Case of Dermoid Cyst of Broad Ligament in a Girl Aged 11 Years. LEWIS MARSHALL.

3.—The **uncertainties in the diagnosis of cerebral tumor** are well illustrated in the records of brain-surgery, in which, in a very large proportion of cases, no tumor is found at the operation. There may be said to be two classes of cases in which a mistaken diagnosis has been made: One in which no tumor exists, but other diseases are mistaken for it; the other, in which a tumor is present, but the symptoms are ascribed to some other disease, or there is a mistake in localization, or, finally, there is some uncertainty as to the nature of the tumor. Among the diseases that may simulate brain-tumor may be mentioned chlorosis, especially if it is associated with intense headache and with hysteric motor or sensory symptoms; uremia, with intense headache, optic neuritis, convulsions, and coma; chronic lead-poisoning, if associated with lead encephalopathy, with convulsions, delirium, sometimes acute mania and coma with optic neuritis and severe headache; hysteria, particularly when there is headache, vomiting, convergent strabismus, and various motor and sensory disturbances; reflex epilepsy, in which the convulsions are unilateral; and many other anomalous cases. Syphilis of the cranial nerves with severe headache, but with no signs of cortical irritation, may simulate the earliest signs of brain-tumor, and also meningitis or brain-abscess, especially if slight optic neuritis is present, and if the symptoms are of slow onset; finally polio-encephalitis may give rise to symptoms simulating those of pontine tumor. Of those symptoms, due to brain-tumor, the other diseases mistaken generally include hysteria, reflex epilepsy, hydrophobia, senile dementia, circulatory changes, and ear-disease. In many cases the tumor is present, but there has been a mistake in its location, and therefore it has not been found at the operation. Difficulties often arise in distinguishing between tumors of the cerebellum and those of the frontal lobe, and again between tumors in the internal parts of the brain, and those near the cortex. The difficulties and uncertainties of brain surgery are, therefore, not so much those of surgical technic or of untoward after-effects, but occur at the outset, and, with the present limited methods of diagnosis and localization, may be well nigh insurmountable. [C.H.F.]

5.—Eccles reports a case of **profuse spontaneous hemorrhage into the urinary bladder.** The hemorrhage was so profuse as to cause partial collapse, and could only be controlled after the clot was evacuated through a suprapubic wound, and the bladder irrigated with hot solutions. At the time of operation, no papilloma or any growth could be discovered, though it is possible that in the manipulations in removing the enormous clot that distended the bladder, some villous mass may have been dragged off. [C.H.F.]

6.—Mitchell, in a case of **sarcoma of the cheek,** in which the tumor was 4 inches in diameter and about the size of a man's fist, and over which there was a denuded bleeding surface, resorted to the following treatment: After applying a solution of caoutchouc to protect the surrounding skin, he soaked a small pad of absorbent cotton with a solution of formalin, containing 20% of formic aldehyd, and applied this to the bleeding surface. This was covered with guttapercha-tissue and held in place by a bandage. The hemorrhage stopped entirely, and in 24 hours there was produced a hardening and necrosis of the tissues extending nearly a quarter of an inch from the surface. The necrosed part was scraped out with a sharp spoon and the application repeated. By a daily repetition of this method, in a comparatively short time, the tumor was completely removed, and in the whole process scarcely a drop of blood lost. The two disagreeable symptoms which arose were pain (which at times had to be relieved by an anodyne) and considerable edema of the surrounding tissues. [S.M.H.]

7.—Copley has treated 4 cases of **traumatic tetanus** in the past 2 years. The hardening of the abdomen and opisthotonos were present in all within the first 24 hours. Trismus was present early in 3 cases, but very late in the fourth. There was a tendency for the severity of the disease to fall upon the upper half of the body and upper limbs when the lesion was in the upper extremities, and upon the lower half when in the lower extremities. Three of the cases were treated by subcutaneous injections of tetanus antitoxin combined in 2 with chloral and bromids. These 3 cases recovered. The fourth died within 24 hours after coming under observation. He recommends large doses of antitoxin, 30 cc. at once, and this quantity repeated at least every 6 hours until some improvement is seen. He believes that the smaller dose, 10 cc., is entirely without effect. [S.M.H.]

8.—Daldy reports a case of **diphtheria** occurring in a babe aged 7 months which came under his care on the 8th day of the disease. It was apparently primarily and exclusively laryngeal. The Klebs-Löffler bacillus was discovered in the tracheal mucus. The stenosis was so marked that tracheotomy was resorted to. At the same time 1500 units of antitoxin were injected. On the following morning this amount was repeated. Very much to Daldy's surprise, improvement began at once, and on the 7th day the tube was removed and the child was practically well. [S.M.H.]

9.—Crosby describes **a sore diagnosed as cancer** which developed on the lower lip of a lad aged 17 years. It consisted of an ulcerative surface the size of a sixpenny-piece which rested on a raised base presenting numerous watery nodules. The sore had existed for 6 months. There was no infiltration of the glands. It had been previously diagnosed as cancer, in consequence of which a histologic examination was made and the condition pronounced malignant. Believing that the condition was not malignant he snipped off only a small portion of the ulcer with the scissors and persisted in local treatment. It finally reduced itself to a small fibrous nodule which he considered cicatricial tissue. [S.M.H.]

10.—Davies observed a family in which the father, 2 sons, and 2 daughters were **bleeders.** One daughter and 2 sons were healthy. The treatment he resorted to was placing the patients in bed, keeping them absolutely quiet, scarcely permitting them to talk. All food was withheld for 48 hours; sips of ice or cold water were given occasionally. He never used medicine. After the bleeding had ceased, the patients were kept on plain, non-stimulating diet. He has found that cases living under such conditions will be free from hemorrhages through prolonged periods. He has been able to have teeth extracted in these cases by freezing the cavity from which the tooth was taken by chlorethyl freezing-mixture, contained in bulbs with beaks at an angle to suit the mouth. [S.M.H.]

Lancet.

February 11, 1899. [No. 3937.]

1. Some of the Clinical Aspects of Granular Kidney. SAMUEL WEST.
2. On Caisson Disease or Compressed-Air Illness. THOMAS OLIVER.

3. A Retrospect of the Rinderpest Campaign in South Africa. ALEXANDER EDINGTON.
4. Paroxysmal Sneezing and Allied Affections. JAMES B. BALL.
5. Paraldehyd in Asthma. ALEXANDER MACGREGOR.
6. On the Treatment of "Unavoidable Hemorrhage" by Removal of the Uterus. LAWSON TAIT.
7. Notes on the Presence of Bacillus Coli and other Organisms in the Tissues after Death. J. O. SYMES.
8. Recovery after Bullet-Wound of the Head and Destruction of Brain Tissue. ROBERT FENNER.
9. The Influence of Rainfall on Beri-beri. P. N. GERRARD.
0. A Note on "Cases of Phthisis with Peculiar Cardiac Physical Signs." WILLIAM EWART.
1. A New Preparation for Rapidly Fixing and Staining Blood. LOUIS JENNER.
2. Notes on a Case of Rapidly Fatal Glycosuria in a Subject of Friedreich's Disease. W. HARRIS BEST.
3. Two Cases of Perforating Gastric Ulcer; Operation; One Recovery and One Death. JOHN H. MORGAN.
. A Case of Septicemia Treated with Antistreptococcic Serum; Recovery. LEONARD WILDE.
. A Case of Acute Tuberculous Choroiditis following Operative Treatment of Tuberculous Lesions in a Limb. G. H. EDINGTON.

1.—West believes that **the frequency of granular idney is by no means adequately recognized.** In investigation to this end made into the cause of death in rsons brought into St. Bartholomew's Hospital dead or ing, it was shown that in 79 cases 48% showed chronic in-rstitial nephritis; in 16.8% it was the only cause of death, d in 12.6% more it aided in causing death or in causing the ion which led to death. The condition is a bilateral one. ie kidneys are usually reduced in size and weight, but metimes are above the average. The changes consist in roid induration, and cellular degeneration. West says ere are 2 forms of granular kidney, the white cirrhotic and l cirrhotic. The difference is chiefly one of color. Micro-pically no clear distinction can be drawn. Whether it is the vascular system or in the kidney itself that the pri-ry causes of the disease are to be sought, is still an unde-mined question. The history of antecedent acute nephri- is a rare circumstance in these cases, and a case practi-lly never can be traced from the initial acute nephritis to nular kidney. Most cases of granular kidney, therefore, of some other origin. The changes in the arteries with nular kidney occur throughout the whole body. There but 2 forms of general arterial change recognized in hology, namely, atheroma and that connected with gran-r kidney. The atheromatous diseases of the arteries l the changes of granular kidney are different in kind well as in history. In granular kidney the thickening the vessels is fairly uniform. At any rate it does not ur in the irregular patches of atheroma, and it is univer-. There is a considerable amount of muscular hyper-phy in the vessels and this is associated in many cases h changes in the intima as well as in the adventitia which not atheromatous and yet are of a marked character. ile the relation between the cardio-vascular and renal ons is difficult to determine, the cardiac lesions, being of nature of a hypertrophy, must as in other cases be the ponse of the heart to some extra work thrown upon it of ermanent kind. It must therefore be secondary. It ainly seems more probable that both the heart and the sels hypertrophy together for the purpose of assisting the ulation to overcome some obstruction. This being so, the ruction must be peripherally seated and must be sought in the small peripheral arteries and capillaries. Whether narily arterial or primarily renal, granular kidney is a ase sui generis and should therefore be treated under a rate heading in writing on the subject. The disease is a insidious one. The only definite symptom in the early e is an increased frequency of micturition, especially at it. Symptoms do not occur until late in the disease, and divided into cardio-vascular and renal. Generally the io-vascular are earlier than the renal. The cardiac symp-s are those of heart-failure; the vascular symptoms ist chiefly of hemorrhage and its results. The renal ptoms come under 2 groupings and are of gradual or en development and frequently are described as chronic and acute uremia, respectively. The signs and symptoms are considered under: (1) the physical signs, (2) the cardio-vascular symptoms, (3) the renal symptoms. The earlier signs are of the utmost importance, as early recognition gives the only hope of influencing the condition by treatment. The early diagnosis depends upon the physical signs and not the symptoms. These are high tension, thickened arteries, hypertrophy of the heart, and albuminuria. Arterial thickening in young persons should always arouse suspicion and lead to a careful examination. If granular kidneys exist, arterial tension should be high rather than low. The fall of arterial tension in the later stages is of great clinical importance in its relation to the prognosis. The irregular fluctuations in tension which take place in the later stages of the disease are a bad omen. In the earlier stages of the disease the pulse-tension is high and the artery is thickened. If in any of these doubtful cases of high pulse-tension and thickened artery, albuminuric retinitis or the early changes which lead to it are found, even in the cases in which albumin may not be present in the urine, a diagnosis of granular kidney would be justified. [S.M.H.]

2.—Oliver describes a case of **caisson disease** and reviews the origin and development of the caisson and the literature relating to the disease. Men working at this occupation are exposed to two sets of conditions, both of which are attended by danger, one on going into the compressed air, and the other on coming out of it. Decompression is the more likely to be attended by symptoms. Persons going into a caisson for the first time after coming out have extremely unpleasant sensations in the ear amounting sometimes to severe pain. This is the result of the tympanum being driven in by the compressed air. Men can work in a caisson with safety for only a few hours at a time, 2 to 4 according to the pressure. When the workmen are in the caisson they are buoyed up and so highly strung that in a given time they do far more and harder work than when above ground. They are unconscious of using any undue physical exertion and do not feel fatigued. They perspire freely and rub themselves, thus producing an itching eruption of the skin. Candles burn with greater rapidity in compressed air. It is not while men are in the compressed air, but after decompression, that the symptoms arise. These are, with those already mentioned, a feeling of giddiness with a tendency to fall, loss of power in the legs amounting at times to paralysis, severe pains in the arms, legs and shoulders, epistaxis, hemoptysis, and occasionally unconsciousness. Three theories have been advanced to explain compressed-air illness: (1) carbonic-acid poisoning, (2) mechanical congestion of internal organs, and (3) increased solution by the blood of the gases met with in compressed air and the liberation of these gases during decompression. The third theory is that which has met with the greatest acceptance. In the way of preventive treatment it is absolutely necessary that a sufficient length of time should be passed in the lock both in compression and decompression so that the individual is not subjected to the influence of sudden increment or decrement of pressure. One minute for every 3 pounds of pressure is considered an average period, but the length of time might to advantage be increased, for diffusion is slow. The atmosphere in the caisson should be kept as pure as possible; a man should not work in the cylinders for more than from 2 to 4 hours at a stretch. Only healthy men should be employed. As to the curative treatment, the pains are relieved when severe by morphia, and in collapse, heat should be applied to the extremities, stimulants carefully administered and hypodermic injections of strychnia given for impaired breathing. Ergot is recommended for internal congestion. Where symptoms develop quickly and are severe, good effects have been obtained by gradually recompressing the patient. [S.M.H.]

3.—Edington, in discussing **the rinderpest campaign in South Africa,** states that he believes that fresh bile contains an immunizing substance; that this is germicidal and present in healthy bile. Discolored bile from animals suffering from rinderpest produces rinderpest if used fresh, and from this he concludes that the inhibiting substance in the bile tends to disappear as the disease advances. In the preparation of glycerinated bile he found that bile which early shows a brilliant green possesses it in the greatest amount, consequently, for the preparation of glycerinated bile, he advises the use of bile which has begun to alter in color. He has found that the virus tends to attenuate by keeping, and this applies equally to bile. This latter fact is shown by keeping samples of virulent bile for a few days and inoculating them with safety. Were South Africa to be threatened by an invasion of rinderpest from the North he would advise that the bile from spontaneous cases dying within the area of infection should be used to produce glycerinated bile, and that inoculation with this material should be proceeded with in a broad zone, well outside of the infected area, so as to form a cordon of passively immunized animals; and that within this area and gradually overtaking it inoculation should be carried out by Koch's method. In one serum blood-inoculation the immunity produced is of the slightest, and may be readily broken down in the presence of spontaneous infection unless, during the course of inoculation, severe febrile reaction has been produced. Where animals acquire the disease spontaneously, and have not previously been inoculated with bile, the effect of even very large serum-inoculations is not very great. [S.M.H.]

4.—Ball, under the heading of **paroxysmal sneezing,** discusses those cases which are ordinarily termed hay-fever. He defines various types of the disease and in discussing the etiology states that in 93% of cases of this condition which have come under his notice there existed some abnormity of the nasal passages. These of course add only one factor to the etiology, since the complaint may arise independent of them and since these conditions frequently exist without any symptoms. He believed that there is a decided nervous element etiologically associated with these cases and that the tendency of the condition is to cause a hypersensitiveness of the nasal reflexes. As to treatment, he has found that a large number of cases can be cured or so much relieved as to be practically cured, but this can only be attained by local treatment, in remedying the various morbid conditions which exist in the nasal passages. The internal remedies which he has found to be most often useful are quinin, belladonna, arsenic, potassium iodid. There is no reliable indication for giving preference to one or the other of those drugs in particular cases. The local remedies which are most frequently used are cocain and menthol. He uses the former as a spray in a 4% solution. In using it one must remember the possibility of toxic effects and the development of a certain form of nervous irritability as the result of its prolonged use. Menthol in a 1% solution may be used as a spray or applied on cotton-wool. Menthol-camphor is also of use. Asthmatic symptoms associated with paroxysmal sneezing are usually relieved by the line of treatment directed to the relief of the nasal symptoms. [S.M.H.]

5.—MacGregor has found **paraldehyd,** in doses of 60 minims given at bedtime, **very useful in asthma.** It acts by inducing sleep and preventing pulmonary spasm. In conjunction with this he usually administers potassium iodid and tincture of lobelia. [S.M.H.]

6.—Lawson Tait comments on the great danger to mother and child in cases of **placenta previa,** and considers that in view of the high mortality the removal of the uterus is justifiable in some cases. He relates an instance in which alarming bleeding was present from this cause; and reasoning from the results following the celiohysterectomy that the operation would save the child, that it would probably save the mother, that it would relieve her of the condition of perpetual misery and risk in which she had been living for years and would therefore assist her in the desire to properly rear the children she had, rather than bring forth others to whom she certainly showed no likelihood of ever being able to give proper care, the "Tait-Porro" operation was performed, a fine female child was born alive, and the mother made an excellent recovery. [W.K.]

7.—Symes made systematic bacteriologic examinations of the organs in 50 necropsies. In the 50 cultures 17 were sterile. The bacillus coli alone or associated with other organisms was found in 20, while 13 showed other varieties of bacilli or cocci. These results show that in a considerable percentage of cases the tissues may remain free from bacterial invasion for a period of from 24 to 36 hours after death. Such organisms as are in the tissues after death multiply rapidly, so that the longer the time that has elapsed, the greater the chance of inoculating the culture-medium. The bacillus coli found in 40% of the cases belonged to the Escherich group, and was only rarely associated with other organisms, due to the fact that after death, as shown by Beco, the abundant growth of the bacillus coli tends to extinguish any other forms which may have originally been present. This point is of practical importance, as the postmortem discovery of bacillus coli in suppuration may lead to the supposition that it was the cause of the lesion, while the true determining cause may have been pyogenic cocci. In 14 of the cases of coli infection intestinal lesions existed, and lesions of the abdominal viscera in 4 of the 6 remaining cases. Bacteriologic examinations for the recovery of the Eberth-Gaffky bacillus were made in 5 cases of typhoid fever. It was found in the spleen in 2 cases 24 hours after death. The other 4 postmortems were made from 24 to 36 hours after death. These showed a wide and general distribution of the bacillus coli. In order to discover Eberth's bacillus cultures should be made from the spleen as soon as possible after death. In 4 autopsies on cases of diphtheria the Klebs-Löffler bacillus was found in the lungs in 3 cases and in the cervical glands in 1 case. In 1 case diagnosed both clinically and postmortem as diphtheria the Klebs-Löffler bacillus was not discovered. [S.M.H.]

9.—Gerrard, from a careful study extending over 84 months of 2422 cases of **beri-beri** concludes that the rainfall does not influence beri-beri or the cause which is active in the production of this condition. He believes the cause of the disease is to be found in the soil and that it requires the presence of malarial conditions or even parasites for its proper development. In 1 case of beri-beri he cultivated from the blood a micrococcus somewhat similar to one discovered by Pekelhäring and Winkler, but not so irregular in size as theirs. [S.M H.]

10.—Ewart, in commenting upon the **cases of phthisis with peculiar cardiac physical signs** recently communicated to the *Lancet* by Hale White and Wilmore, in which the physical signs noted were those of great displacement of the heart to the right and in which both necropsies showed the heart to be in its normal position, relates briefly 2 cases with similar physical signs, in 1 of which the autopsy revealed the heart in the normal position. He inclines to the belief that the clinical findings are not contradicted by the postmortem developments, but that if the autopsies had been made with proper precaution the heart would have been found in all the cases displaced to the right. He believes that these are instances of mobile hearts held in the right chest by atmospheric pressure owing to extensive destruction of the right lung without compensating collapse of the chest wall, and that consequently when the sternum and costal cartilages are removed postmortem the heart drops backward by its own weight and to the left owing to the partial subsidence of the overstretched left lung. The heart would then be seen in apparently natural lateral contact with the right lung; by reapplying the sternum it might be possible to show that the damaged lower right lobes are practically incapable of expanding and could not have completely tenanted the vacated right parasternal region. [S.M.H.]

11.—Jenner presents a **new preparation for rapidly fixing and staining blood.** It is a single solution, easily made up, keeps well, and fixes and stains ordinary blood-films in 2 minutes. It demonstrates with perfect clearness and in well-marked contrasts red blood-discs, blood-platelets, the nuclei of white blood-cells, the fine granules of the polymorphonuclear leukocyte, coarse oxyphile granules, basophile granules, and, when present, erythroblasts, bacteria, the malarial parasite and filariæ. The solution is made up in the following manner: equal parts of 1.2% to 1.25% solution of Grübler's water-soluble eosin, yellow shade, in distilled water, and of a 1% solution of Grübler's medicinal methylene-blue, also in distilled water, are mixed together in an open basin and thoroughly stirred with a glass rod. This is permitted to stand for 24 hours. It is then filtered and the residue dried either in the air, in an incubator, or a water-oven. When quite dry the residue is scraped off the filter paper and is powdered. It is then shaken up with distilled water and washed in a filter, when the washings should be of a thin, dirty, purplish color. Finally it is again dried and powdered and stored in suitable bottles. For use, thoroughly shake up 0.5 gram of the powder in 100 c.c. of pure methyl-alcohol and then filter. The solution keeps well. The cover-glass preparations are made in the ordinary way, and, so soon as the films are dry, a few drops of the staining and fixing solution are poured over them. In from 1 to 3 minutes the stain is rapidly poured off and the specimen rinsed in distilled water until the film has a pink color.

is then dried by agitation in the air and mounted in xylol-lsam. The red discs are stained a terra-cotta color, the clei of the white corpuscles are blue, the platelets are uve, the granules of the polymorphonuclear white cells myelocytes are red, the granules of the basophiles, when esent, are dark violet, and bacteria, filaria, or malaria-rasites are blue. [S.M.H.]

12.—Best reports a case of **glycosuria occurring in a rl 14 years old,** a subject of Friedreich's ataxia. When e patient was seen, August 23, 1898, the history was tained that she had been emaciating for two weeks. She d marked thirst and polyuria, rising at least three times the night to void urine, the quantity voided being about quarts in the 24 hours. The skin was dry and parched. e urine was pale, turbid, acid in reaction, with a specific avity of 1045. It contained sugar, but no albumin. Under atment with opium and a properly regulated diet she med to improve somewhat during the first four days. On afternoon of the fifth day she developed abdominal pain, ne diarrhea, and nausea, accompanied by prostration. A hours later she developed sighing respiration, the breath-i being deep and loud. The extremities became cold, the lse small, and she went into a condition of marked col-se. She was somewhat stuporous, but could be readily oused. This condition persisted for three days. It was accompanied by delirium, consciousness being retained til almost the end of life, which occurred on the third y. There was no autopsy. [S.M.H.]

3.—These **2 cases of perforating gastric ulcer** are orded as illustrating the conditions upon which depend a large extent the success of operative interference. In e case, the operation was performed 8 hours after the pre-ned occurrence of perforation. The perforation itself was mall one, and but a small quantity of food had escaped. this case recovery ensued. In the second case, which minated fatally, the perforation was large enough to nit a finger, a great quantity of gastric contents had aped into the peritoneal cavity, and despite the rapidity h which the operation was conducted, the patient died. H F.]

4.—The **treatment of septicemia with antistrep-occic serum** is difficult of application, since it is known t there are several races of streptococci, none of which af-ds products protective against the others. Until a serum be injected which includes the products of each race, the cess of the treatment will depend upon whether the anisms to be attacked are of the same race as those from ch the serum injected has been derived. Wilde reports a e of grave septicemia in which improvement and, subse-ntly, recovery followed injections of the serum, but ther the patient recovered because of or simply during administration of the serum, cannot be definitely de-nined. [C.H.F.]

New York Medical Journal.

February 25, 1899. [Vol. lxix, No. 8.]

ypho-malarial Fever, So-called. GEORGE DOCK.
orsion of the Pedicle of an Ovarian Tumor. PAUL F. MUNDÉ.
ntistreptococcic Serum in Epidemic Cerebro-spinal Meningitis. CHARLES P. MCNABB.
he Treatment of Normal Labor. S. MARX.
pasm of the Tensors of the Vocal Cords. JOHN EDWIN RHODES.
nother Case of Bronchitis and Pneumonia Following the Inhalation of a Foreign Body. C. E. COON.

—Dock finds the term typho-malarial fever used in 3 es; (1) to denote a complication of malarial and typhoid rs; (2) to indicate a malarial fever with symptoms of the oid state, or rarely a typhoid fever with intestinal lesions to the same cause as malarial fever; (3) aside from the sional use of the term to cover obvious diagnostic indo-e, to indicate a fever thought by the person using the to be distinct from the typhoid fever of writers though necessarily due to malaria. He concludes in regard to irst that the belief in a characteristic disease composed phoid and malarial elements is not based on sufficient nce; the idea that the two diseases named are frequently associated remains to be proved. On the other hand, enough cases have been reported to show that malarial organisms may remain latent in the body during a course of typhoid fever just as pus-germs may. The idea of a malarial fever becoming typhoid is old. The typhoid state does of course occur in malarial fever, but such a condition must be very rare and usually due to extraordinary combinations of neglect and improper treatment. Investigations of the malarial parasites have revealed numerous cases of malarial fever beginning like typhoid, but, in all cases, unless there were complications such as other infections or inflammation of the organs, the symptoms stopped within a very few days, usually less than 4, after the administration of quinin was begun. An uncomplicated malarial fever resembling typhoid lasting more than a few days and uninfluenced by quinin properly given is rare. In cases in which quinin does not break up the fever suggestive of malaria within 5 days, it is safe to exclude malaria. The third sense in which the term typho-malaria is often used is as a refuge in diagnostic doubt or difficulty, and to avoid the admission of the existence of typhoid fever. This subject is not a mere discussion about a name. It involves important questions of diagnosis and treatment. Until the careful examination of the patient becomes the rule and he is treated for his actual condition rather than for the name of his disease, serious errors can best be avoided by discouraging slipshod terminology as exemplified by the current use of the term under discussion. A malarial complication in typhoid fever should be recognized, if present, like any other complication, and it can be recognized positively only by the blood-examination. If malaria is suspected but a microscopic examination cannot be made, a therapeutic test may be applied, but the methods and limitations of this must be clearly understood. The fever will not disappear when malaria is associated with typhoid fever, so when the microscope is not used it is necessary to use quinin with great care, giving not too much nor too little and not continuing the drug for more than 2 or 3 days at a time. In a case resembling typhoid fever but really malaria, the microscope is essential to good practice. Without it quinin may again be used. If the temperature does not fall to normal and the symptoms disappear, the quinin should be stopped altogether. Only when the microscope gives evidence of malaria should the drug be pushed after the third day. While symptoms persist the patient should be treated as if he had typhoid fever. [S.M.H.]

2.—Mundé believes that two conditions are essential to the production of a **torsion of the pedicle of an ovarian tumor:** a long, slender pedicle, and a small tumor, not larger than a fist, or at most a cocoanut. The size of the tumor when removed does not indicate its size when torsion occurred; for it grows with each twist. The torsion may be either gradual or sudden, either partial or total. The pedicle may be twisted once on itself or many times, until it has become so thin as to appear on the point of breaking. The salient features in the diagnosis of a twisted ovarian pedicle are: A moderate distention of the subumbilical region, with greater prominence either in the median line or on either side; rapid formation of the swelling, which perhaps was merely noticed before; more or less tenderness on pressure; tense but distinct fluctuation, with single or interrupted wave accordingly as the cyst is single or multilocular; outline of swelling generally distinct, but sometimes diffuse; dulness on percussion over area of swelling; tumor touchable through anterior vaginal vault, and continuous with suprapubic swelling; uterus generally posterior to vaginal swelling; fluctuation-wave in vagina continuous with abdominal wave; temperature somewhat elevated, perhaps to 102°; pulse rapid and small; general depression; anxious countenance. The attack has usually come on suddenly, and may have been preceded at an interval of several weeks or months, by a similar less marked seizure attended by severe pain. [W.K.]

3.—McNabb reports 2 cases of **epidemic meningitis,** the first of which occurred in a woman aged 24 years. On the fifth day of her illness 10 c.c. of antistreptococcic serum was injected subcutaneously and the same quantity repeated on the following day. In the afternoon of the second day she became rational and asked for food, having previously been completely unconscious. From this time on she progressed to complete recovery. In the second case, occurring in a man aged 22 years, an injection of 10 c.c. was given on the second day of the disease. On the following morning the patient was rational and said he was very comfortable. At this time a second injection was given, and a third in the evening of this day. Though somewhat improved in the beginning he became worse on the fourth day and died on the fifth day of the disease. There was no autopsy. McNabb believes that the antistreptococcic serum has a decided stimulant effect on the nerve-centers in meningitis coma. It probably increases phagocytosis and in this way has some antidotal effect on the diplococcus intracellularis. It probably prevents purulent infection of the exudate and thus lessens the danger in all cases in which the patients survive the first 3 or 4 days. [S.M.H.]

4.—Marx discusses the **general treatment of normal labor.** No vaginal douches are allowed, before, during, or after a normal labor. The external genitalia should be thoroughly scrubbed with soap and water, washed with dilute alcohol, and again rinsed with bichlorid solution 1:2000. There is no man living who has not had his share of perineal tears. Those who never have had any lacerations can be thrown into three classes: 1. Those who have never had a labor case. 2. Those who never look for them. 3. Those who hate the truth. When a perineum is torn it is his invariable custom to sew it up at once, tie temporarily, remove the placenta, and then permanently place the sutures. When Credé's method is not sufficient to expel the placenta, he employs the Kristeller method of using both hands together, each separately doing the simple Credé manipulation, the thumbs being in contact, the operator facing the patient. [W K.]

5.—The symptoms of **spasm of the tensors of the vocal cords** develop gradually. They occur on every attempt at phonation. The whispered voice is usually perfect, the spoken voice feeble, husky, wavering and jerky, with perhaps frequent change from low to high tones in an attempt to speak more clearly. In the beginning there may be simply a difficulty in getting started, the tones becoming clear and unwavering after speech has progressed for a time, or there may be an involuntary break in phonation only after prolonged speaking, the voice changing to a highpitched, jerky voice. There may be complete aphonia and dyspnea in speaking, occasionally accompanied by facial spasm. Pain and oppression are sometimes felt in the throat. A loud stridor on inspiration has been recorded.

Rhodes reports 5 cases of this condition. In 2 of them the improper use of the voice was plainly an element in the causation, but there was an added etiological factor. In 1 case the effects did not appear until 25 years after the beginning of the patient's professional work, when it occurred simultaneously with an attack of nervous dyspnea and hay fever. The latter condition has persisted.

He believes the disease is of neuropathic origin, probably located in the motor areas of the medulla. The spasmodic action of the laryngeal muscles on an attempt at phonation with the production of the characteristic voice, but more or less perfect condition of the parts on laryngoscopic examination, are the essential points in making a diagnosis. The prognosis is unfavorable. Prolonged rest for the voice and a general tonic course of treatment for the nervous symptoms are indicated. Electric treatment has given relief in some cases. Astringent and sedative local applications have been used with some benefit. Any abnormal conditions of the nose and upper air-tract should be relieved. [S.M.H.]

6.—Coon saw a woman, aged 25 years, who showed all the signs of **bronchitis and pneumonia.** She was sent to a hospital on the 4th day of her illness. On admission her temperature was 102.8° F., her pulse 114, and there was an area of dulness on percussion over the right lung posteriorly. No rales could be heard. A diagnosis of right central pneumonia was made. For several days her temperature was high and her pulse variable. On the 8th day of her illness during a paroxysm of coughing she expelled a quantity of muco-pus, in which was found a huckleberry. It was then ascertained that 11 days previous she had eaten huckleberries. She had no recollection of having inhaled any, nor had she experienced any discomfort at the time. Immediately the berry was expelled her temperature fell to normal and remained there. Her recovery was rapid and complete. [S.M.H.]

Medical Record.

February 25, 1899. [Vol. lv, No. 8.]

1. The Curability of Cancer. Nathan Jacobson.
2. Results of Further Experience in the Use of the Suggestion Under Slight Hypnosis. Russell Sturgis.
3. The Diagnosis of Chronic Progressive Bulbar Paralysis. W. Moser.
4. Conservative Treatment of the Ovary and of the Appendix Vermiformis. Robert T. Morris.

1.—Jacobson reviews the recently expressed opinions of surgeons concerning the **operative curability of cancer,** and expresses some surprise at the unfavorable views which he has found in their writings and discussions. He then presents some illustrative cases showing the possibility of cure in certain early cases, and states that if the disease is still localized he thinks that the patient should be operated upon, and that the assurance of a reasonable hope of cure may be given. Advanced age of the patient does not contraindicate operation. If the surrounding tissues are considerably involved or complete removal of the lesions is impossible, and when there are secondary growths, operation should not be undertaken. [D.L.E.]

2.—Sturgis reports one case in which there was fear that previous insomnia and inability to carry on work without great exhaustion might return in case more than a slight amount of work was undertaken. **Cure was obtained by suggestion** to the individual that he was strong-minded enough to control his thoughts, and that his intellect had not in any way become unequal to hard work. The second patient had insomnia and was surrounded by uncongenial conditions. She had loss of self-confidence and feared the return of the severe insomnia and lack of application, which had been present earlier. She was practically cured by suggesting that she had intellectual ability and power of application. [D.L.E.]

3.—Moser notes that **frequent yawning is a very common symptom in bulbar palsy,** although it is not commonly mentioned in writings upon the subject; there is also often a peculiar feeling of fulness in the head. The diagnosis of bulbar palsy is to be made from various conditions. Pseudo-bulbar palsy is distinguished by the asymmetry of the disease; its more rapid onset, the lack of degeneration-reactions in the tongue and lips, and by the fact that mentality is likely to be bad. When bulbar symptoms are seen in amyotrophic lateral sclerosis they occur late in the disease, and often contractures precede them; also the atrophy and muscular weakness begin in the arm and are seen later in the lower extremity. Amyotrophic lateral sclerosis occurs between 35 and 45 years of age, while bulbar palsy is uncommon before the 45th year. Progressive muscular atrophy begins in the thumb, extending to the muscles of the forearm, and then to the upper arm, then to the trunk and, late, in the disease, to the lower extremities. Embolism and thrombosis are usually too acute to be confused with bulbar palsy. Moser does not believe that the myasthenia gravis, pseudo-paralytica, described by Jolly is merely a mild form of progressive bulbar paralysis, because the former disease occurs in younger people and is associated with an extremely rapid and severe exhaustion of the apparently healthy muscles, as well as of those that are evidently paralyzed. Also it may result in recovery, while true bulba palsy causes death. [D.L.E.]

4.—Morris, in discussing the relative importance of **conservative treatment of the ovary and of the appendix vermiformis,** makes the following deduction: I ovarian surgery the work of the conservative surgeon has tendency to preserve the important ovary in cases in which the life of the patient is not thereby jeopardized. In appendix-surgery the work of the conservative surgeon does no begin upon the useless appendix vermiformis until the lif of the patient is jeopardized by bacterial infection of tha organ. Statistics and our knowledge of the pathology o appendicitis having taught us that the death-rate, the suffering-rate, and the loss-of-time-rate under medical treatmen are greater than the death-rate, the suffering-rate, and th loss-of-time-rate under good surgical treatment, the term "conservative treatment" must logically mean the promp application of good surgery for the removal of the appendi that is serving as a focus of infection. The term cannot b applied to medical treatment. The difference between co servative treatment of the ovary and of the appendix vermiformis will not allow us to anticipate fluctuating movements of opinion concerning the desirability of conservative treatment of the infected appendix. [W.K.]

Medical News.

February 25, 1899. [Vol. lxxiv, No. 8.]

1. The Problem of Typhoid Fever in the United States. William Osler.
2. Shock. Robert H. M. Dawbarn.
3. The Treatment of Patients Suffering from Pulmonary Tuberculosis Who Cannot Go Away from Home. De Lancey Rochester.
4. Astragalectomy for Inveterate Talipes Equino Varus, with Report of a Case. (*Illustrated.*) James K. Young.

1.—Osler brings forward indubitable evidence of the danger of the **bad water-supply in relation to typhoid fever,** and earnestly exhorts the profession to endeavor to procure proper water. [D.L.E.]

2.—In standard surgical works too little attention has been given to the subject of **shock.** It is accountable for so many fatal results following operations, that too much thought and attention can not be devoted to a consideration of the best means of aborting this condition, or of treating it, once it has developed. Dawbarn wishes to emphasize especially the extreme value of certain means of preventing shock, which would otherwise develop, and that among the preventive measures, the greatest reliance can be placed upon free use of intravenous, hot, saline-infusion, injected while the patient is still upon the operating table. Whenever possible, the solution should be ntroduced into the median basilic vein, but occasionally a vein in the operating wound will answer the purpose, or if necessary, the solution may be introduced into the common emoral artery with the aid of a hypodermic needle attached o a fountain-syringe. Next in order of efficiency to intravenous saline infusions, are those introduced into the recum. Hypodermoclysis is the slowest of all the methods, and for this reason preference is given to the other two. As o the preparation of the solution, a heaping teaspoonful of ommon salt, roughly speaking, to the liter or quart, will anwer the purpose. It should be borne in mind that plain warm water, devoid of sodium chlorid, should never be used ntravascularly, as it may prove fatal by producing a rapid isintegration of the red discs. The proper temperature for he solution is about 120° F., which is about as hot as the and can bear. This, it will be noted, is a higher temperaure than that usually recommended in textbooks. At least ne liter, and sometimes even 2 or 3 liters, may be injected, roviding the precaution is taken to introduce the solution lowly. The time occupied in introducing the fluid should ever be less than 10 minutes per liter. The employment of ntravenous injections before or at the beginning of the peration is not considered good practice, since, by increasng the blood pressure, it encourages freer hemorrhage. C.H.F.]

3.—Rochester emphasizes the importance of **studying ases of pulmonary tuberculosis individually,** and voiding the treatment of all cases upon a routine basis. He then insists that medicinal treatment is of comparatively ight importance, the main essential being proper hygiene; eyond all other things pure air is needed, and the paent should be kept in it throughout as many hours of the ay as possible. He also directs attention to the great imortance of the functions of the skin, bowels, and kidneys, hen large areas of pulmonary tissue, which is so greatly oncerned in excretion, have been destroyed. The skin hould in all cases be kept active by the use of baths. The iet is of great importance, and should consist largely of ure meats, eggs, baked potatoes, boiled rice, and young eets. Cocoa, chocolate, and milk should be given; the tter should not be taken at meals when meat is eaten. xercise should be used with great care, but if there is no ectic fever, if expectoration is not too profuse, if there is no emorrhage, and if there is not widespread involvement of he lungs, exercise should be advised, the patient beginning ith a very slight amount, and increasing very gradually. In the medicinal treatment he has found that solutions in essential oils reach farther into the lungs when used as inhalations than do other solutions; the oil of peppermint especially seems to be very valuable. He advises as a neat inhaler, which can be carried about in the pocket, a cigarholder packed with cotton, upon which some drops of the solution for inhalation are placed; he also notes the fact that guaiacol can be made into emulsion with the milk of magnesia. He frequently uses guaiacol with terebene in the treatment of his cases. He finds that pure creasote can be taken just as well as the carbonate if the dose is very gradually increased and quite as gradually decreased. [D.L.E.]

4.—Young reports an **astragalectomy,** which he performed for inveterate talipes-equino-varus. The case is interesting on account of the age of the patient, who was at the time of the operation 31 years old. The indication for the operation was a talipes-equino-varus with luxation of the astragalus. This operation shortens the limb from $\frac{1}{2}$ to $\frac{3}{4}$ of an inch, and does not interfere to a great degree with the function of the joint. [C.H.F.]

Boston Medical and Surgical Journal.

February 23, 1899. [Vol. cxl, No. 8.]

1. Experiments Upon the Germicidal Properties of Blood-Serum. Franklin Warren White.
2. Operation for Perforated Gastric Ulcer; Perforation not Found; Drainage; Recovery. Frank M. Sherman.
3. The Radical Treatment of Chronic Dacryocystitis. Edward R. Williams.
4. Report of a Second Case of Double Ovariotomy During Pregnancy, with Hydatiform Mole. R. A. Kingman.
5. A Case of Tetany. Joshua C. Hubbard.

1.—White has tested the **germicidal action of the blood-serum** taken from healthy persons; from patients suffering from various diseases, usually in a cachectic condition; and taken from the body just before or just after death. He usually has employed cultures of staphylococci, streptococci, typhoid bacilli, and the colon bacilli. Altogether 23 healthy bloods were examined that showed practically no germicidal power towards the staphylococcus or streptococcus, but marked germicidal action on the typhoid bacillus. This was completely destroyed by heating the serum to 55° C. Blood was taken from 10 cachectic patients suffering from various diseases. In all of these the blood exhibited very marked germicidal power towards the typhoid and colon bacilli which was destroyed by heating, showing that cachexia does not interfere with the germicidal action of the blood. Finally, the blood was removed from a number of persons in the death-agony, and in some cases from the bodies several hours after death. Three of these specimens were inoculated with typhoid bacilli. When obtained antemortem or postmortem all were strongly germicidal. The blood obtained from 10 cases just before death was tested with the colon bacillus, and in 8 cases was found to be actively germicidal. In the remaining 2, this action was still present, but considerably weakened. In 11 specimens of serum taken from 9 cases, the blood retained more or less germicidal power after death. In 3 cases, the blood tested before and after death lost its germicidal property in the latter instance. White supposes that this loss of germicidal power favors the general invasion of the organs by the colon bacillus. He summarizes his results as follows: Human blood-serum differs greatly in its germicidal action upon various kinds of bacteria; it is not actively germicidal for the staphylococcus nor streptococcus, but does not lose its germicidal power for typhoid or colon bacilli in the late stages of chronic wasting disease; in fatal cases it occasionally loses part of its germicidal power for the colon bacillus shortly before death, and more frequently retains it for several hours after death. If weakened before death, the conditions are favorable for general bacillary invasion. [J.S.]

2.—The best mode of treating those cases of **perforation, following gastric ulcer,** in which, at the time of operation, the perforation cannot be found, is open to discussion. According to Keen, the stomach should be opened, and the ulcer treated by thermocautery, after which a gastroenterostomy should be done. In the case reported by Sherman, the perforation could not be found, although it was believed to have been situated on the posterior wall of the stomach, which was firmly bound down by adhesions. Since the entire peritoneal cavity, in this case, was not contaminated by the gastric contents, owing to the formation of adhesions, it was not thought prudent to run the risk of breaking down these adhesions by a prolonged and persistent search for the seat of perforation. The abdominal cavity was opened, the gastric contents that had escaped were removed, and the wound closed after insertion of drainage. The patient ultimately recovered. [C.H.F.]

4.—Kingman reports a case of double ovariotomy during pregnancy. There were cystomata of both ovaries, and, later, there was spontaneously expelled from the uterus a mass, measuring rather less than a pint, which was a soft, mole-like growth, made up of little cysts, about the size of swelled tapioca, clear and transparent. Examination showed "hydatiform placental mole." The case illustrates the occurrence of pregnancy in such an advanced stage of disease of the ovaries that there seemed to be no true ovarian tissue left, and yet an ovule was brought to maturity and impregnation resulted. It is an accepted fact that hydatiform mole cannot occur without conception. [W.K.]

5.—Hubbard reports a case of tetany that developed in a child 14 months old with typical rachitic signs. There appears to have been a slight infection in the subcutaneous tissues of the scalp, and the patient suffered from chronic diarrhea. He suddenly developed the typical attack of tetany, which lasted 6 days and then disappeared. The muscles of the face escaped. [J.S.]

Journal of the American Medical Association.

February 25, 1899. [Vol. xxxii, No. 8.]

1. The Higher the Order of Railway Surgery, the Greater the Protection to the Employe, the Passenger and the Company. R. Harvey Reed.
2. Traumatic Injury of Peripheral Nerves. C. S. Fairchild.
3. Leucoplakia. John S. Marshall.
4. Keratocensis in Infected Wounds of the Eyeball. M. F. Weymann.
5. Elephantiasis Scroti. F. E. Braucht.
6. The Epidemic of Smallpox in Cuba. R. S. Woodson.
7. Report on Massage. Douglas Graham. (*Continued.*)
8. Simplified Methods of Blood-Examination. Their Practical Applicability to General Diagnosis. Alfred C. Croftan.
9. Importance of Early Diagnosis. John C. Morfit.
10. Hypertrophic Catarrh of Middle Ear. Burt D. La Force.
11. Ischiorectal Abscess. Wm. Britt Burns.
11. The Arthritic Diathesis. R. Alexander Bate.
13. Therapeutics of Coal-Tar Products. W. R. Inge Dalton.
14. The Radical Treatment of Disease of the Hip-Joint. Charles G. Plummer.
15. A New Portable Electric Outfit. Gustavus M. Blech.

2.—Crushing injuries in which **nerves** are seriously injured, whether the nerve is involved in the scar of healing or the callus of uniting fractures, are characterized by essentially the same symptoms; that of most importance being paralysis. Fairchild's results in operating for the relief of symptoms caused by the catching of nerves in scar-tissue correspond to those of most other surgeons; the dissecting away of the tissues causing the disability and the resection and suturing of the injured nerve is usually followed by the reproduction of the scar and continuance of the trouble. Serious contusions of nerves, in case they are not involved in the scar of the surrounding parts, are often followed by restoration of function after persistent use of the interrupted current for some time. Less serious contusions and strains often give rise to severe pain which may suggest malingering, but if the pain and tenderness follow the distribution of the nerve it is usually safe to assume that they are genuine. Absolute rest is the essential treatment and if promptly and persistently carried out it will in most cases give satisfactory results. Compression of the peripheral nerves in scar-tissue without the nerve itself being primarily involved in the wound may occur or it may not be involved to such an extent as to destroy its transmitting functions, and no symptoms appear until some time after the wound has completely healed. Symptoms then arise from contraction of the scar-tissue. Burning sensations, pain, numbness, muscular spasm, and, at a later period, motor or sensory paralysis may develop. Removal of scar-tissue, or resection of the nerve, and, in some cases, amputation, will give relief, but slowly developing neuritis following the irritating lesion is apt to occur with return of all the painful symptoms. [M.B.T.]

5.—A method of operating for elephantiasis of the scrotum is described, designed for cases in which the tumor is extremely large and the penis intrascrotal. [M.B.T.]

6.—Woodson states that over 1,200 cases of **smallpox** were treated during the recent epidemic in the province of Santiago, with a mortality of less than 12%. To the open-air treatment in sheds of palmleaves and daily baths in a solution of mercuric chlorid, 1 to 1000, is attributed the low mortality-rate; for the disease was of more than average severity. With the help of the U. S. troops careful sanitary measures have been carried out. [M.B.T.]

7.—A discussion is given concerning the results reported in literature with regard to the use of **massage in affections of the heart,** in surgery and its effect on the blood. [M.B.T.]

11.—Two cases are reported in which **ischiorectal abscess** resulted from a preexisting rectal fistula instead of the reverse, as is usually the case. [M.B.T.]

13.—Dalton protests against the generally **indiscriminate use of the coal-tar products,** and believes that more harm than good has come from their use. He has found ammonol the most satisfactory of the drugs of this class, the reduction of temperature accomplished by it not being accompanied by cardiac depression, probably on account of the ammonia with which it is combined. [M.B.T.]

14.—Plummer believes all cases of **hip-joint disease** resulting in ankylosis or shortening are due either to abscess, or deferred or neglected treatment. Immobilization with the Thomas splint and extension with the patient in the prone position are advocated in all cases as soon as the disease is recognized. Early resection is considered less likely to give rise to deformity and shortening than spontaneous cures following suppurative processes, besides very much hastening the cure. [M.B.T.]

American Journal of the Medical Sciences.

January, 1899. [Vol. cxvii, No. 1.]

1. Case of Erythromelalgia with Microscopal Examination of Tissue from an Amputated Toe. S. Weir Mitchell and William G. Spiller.
2. Case of Endothelioma Lymphangimatodes of the Cervix Uteri. Hunter Robb.
3. Tuberculosis of the Aorta. George Blumer.
4. Combined Typhoid and Malarial Infection. Irving Phillips Lyon.
5. The Ocular Evidences of Hysteria. Casey A. Wood.
6. Experimental Studies on the Preparation and Effect of Antitoxins for Tuberculosis. E. L. Trudeau and E. R. Baldwin.

1.—The patient, a man 61 years old, had suffered for nearly 10 months from **erythromelalgia** of the right foot, which finally localized itself in the great toe. This toe and half of the metatarsal bone were amputated. The histologic changes in the toe, which are most interesting, form the basis of the author's paper. The **nerves of the toe** were intensely degenerated; most striking changes were also presented by the bloodvessels. The media was thickened and the intima proliferated to such an extent as to project in almost papillomatous fashion into the lumen, which consequently was greatly encroached upon. The bones of the great toe were larger than those of the toe in a normal adult skeleton. Regarding the pathology of erythromelalgia, the views of writers differ. Mitchell at first believed in a lesion, but latterly attributed the disease to what he calls a "nerve-end" neuritis, although still admitting that some cases might be due to cord-changes. In the present instance, the authors ascribe the disease to the peripheral neuritis, but inasmuch as such neuritis was absent in a case reported by Auerbach, they conclude that involvement of the sensory fibers anywhere between the spinal cord—or possibly within the spinal cord—and the peripheral ramifications is capable, under certain circumstances, of causing erythromelalgia. Hysteria, also, may present similar symptoms. An interesting feature in their case was the preservation of sensation in the great toe, despite the intense degeneration of the nerves. Sensation, it will appear, requires but few sensory nerves for its transmission. [D.R.]

2.—Robb reports a case of **endothelioma lymphangiomatodes** of the cervix uteri in a married woman of 62 years. The cervix was curetted and cauterized, and a year after the operation no definite signs of recurrence were present. The tumor is supposed to have sprung from the endothelium, lining lymphatic spaces in the uterine wall. [D.R.]

3.—Tuberculosis of the aorta is rare. At times it is the result of direct extension of a tuberculous process originating outside of the vessel, at others it appears to be due to direct implantation of infection-material on the vessel-wall. The latter was the condition in the author's two cases. In the first of these there was a general miliary tuberculosis in which the aorta was also involved, showing three nodules in the descending portion. These nodules appeared seated on the intima of the aorta, and affected only the most superficial layers of that tunic. A few tubercle-bacilli were found in the nodules. The second case was one of caseous and miliary tuberculosis of the lungs, caseous tuberculosis of the kidneys, miliary tuberculosis of liver, spleen, and splenic capsule, tuberculous ulcers of stomach and ileum, and tuberculosis of the descending aorta. The lesion in the aorta presented itself as a pinhead-sized excrescence springing from the intima. The latter was not thickened, nor were the other coats altered. Tubercle-bacilli were present in abundance in the nodule. Tubercles in the aorta can arise either by direct transplantation of infective material from the blood-current or from the entrance into the vasa vasorum of tubercle-bacilli. In view of the position of the nodules on the intima, and of the fact that the vasa vasorum extend only half way into the media from the external surface, Blumer believes that in his cases the tubercles were caused by direct implantation of bacilli. The possibility of these tubercles being due to the invasion of small parietal thrombi by tubercle-bacilli must be considered; but no evidence in support of this theory was found. [D.R.]

4.—The term **typhomalarial fever** was introduced in the United States in 1862 by Woodward, who encountered in the field during the Civil War cases of fever which presented a clinical picture apparently a compound of both typhoid and malarial fevers. Since then the term has been used extensively, especially in the South, and also abroad; few of the cases, however, reported under the name have been studied by modern laboratory-methods. Lyon finds only 29 recorded in literature in which the evidence of the coexistence of the two diseases is positive; an additional case has come under his own observation. Typhomalarial fever, as it is understood in America, is a prolonged fever, exhibiting typhoid characteristics, and ushered in and often accompanied during its course by paroxysms of chill, high fever, and sweating. Bilious symptoms are common; jaundice is quite frequent; rose-spots seldom develop. The course is shorter and much milder than that of typhoid fever. French writers state, however, that the disease is usually severe and the mortality high. In the 30 cases studied by Lyon the course was generally of greatly increased severity, and the mortality was high—33.3%. Complications were frequent; rose-spots occurred in 20 or more of the cases; quinin always had an influence. The clinical picture presented no uniformity, but the typhoid element nearly always dominated the scene. The malarial paroxysms occurred in some cases at the onset, in others during the course of the disease, in still others, during convalescence. In the majority of cases the clinical picture was changed by the administration of quinin, without which the composite clinical picture could have been different. From a study of these 30 cases the author concludes that the typhomalarial fever of the French s a true combined typhoid and malarial infection, while that described as so prevalent in the United States, especially in the South, is not as a rule a true combination of the two diseases. The majority of cases of typhomalarial fever in the South are probably most often mild cases of yphoid fever, and, in some instances, irregular continued malarial fever.

5.—Wood describes the **ocular evidences of hysteria** and cites a number of illustrative cases. Probably the most important eye-signs in "hysteropes" are anomalies of accommodation. Every degree of spasm of the ciliary muscle may be present. The *punctum proximum* and the *punctum remotum* may approach or even coincide, and the patient may read fine print nearer the eye than is usual, or at a fixed point. This, when it occurs, may be regarded as positive evidence of hysteria. The article concludes as follows: (1) Most cases of hysteria present well-marked, easily detected eye-signs and symptoms. (2) A few ocular symptoms, such as reversal of the relation of the color-fields and the field for white, the tonic form of blepharospasm, spasm of accommodation, and convergence, and pseudoparalytic ptosis, may be regarded as pathognomonic of hysteria. (3) Defects of vision (in the absence of refractive errors, accommodative anomalies, and fundus-lesions) are, generally speaking, hysterial if accompanied by photophobia and any form of blepharospasm. (4) No examination of a patient for hysteria should be regarded as complete without considering the condition of his ocular apparatus. (5) Where there is no conclusive external evidence of the neurosis present the perimeter should be carefully used, the range of accommodation should be noted, and the ophthalmoscope employed. (6) It should always be remembered that ocular hysteria is common in children and men. (7) Organic disease (traumatism especially), of the eye may accompany purely functional disturbances of that organ. [D.R.]

6.—Trudeau and Baldwin have experimented for 4 years on the production of an efficient **tuberculosis-antitoxin.** The following is a resume of their patient and laborious researches: (1) A sheep was injected intravenously with killed thymus-cultures. The result was unsatisfactory. (2) Chickens were inoculated intraperitoneally with mammalian tuberculosis. The serum revealed no germicidal or inhibitive action on the tubercle-bacilli, nor favorable influence on the course of the disease in guinea-pigs. (3) A sheep was injected with tuberculin. The serum was wanting in germicidal, antitoxic, or curative effect. (4) A sheep was inoculated intravenously with nonvirulent cultures. Cachexia followed, and the serum was therefore not used. (5) An ass was inoculated as in (4); it died from pulmonary embolus. The serum was not bactericidal to tubercle-bacilli. (6) An ass was inoculated with virulent tubercle-bacilli and treated with tuberculin. The serum showed no germicidal nor curative, but possibly some antitoxic effect. (7) An ass was inoculated with nonvirulent tubercle-bacilli and treated with various extracts of tubercle-bacilli and dead bacilli. The serum showed no activity. (8) Rabbits were inoculated with nonvirulent and virulent tubercle-bacilli, and recovered. Their serum possibly conferred some protection in tuberculin-poisoning, and possibly prolonged the lives of treated guinea-pigs. Among serums other than their own product which were tried with tuberculin, the authors found only one—that from a horse inoculated with nonvirulent cultures—that possessed any antitoxic power. That the apparent protection against fatal tuberculin-poisoning occasionally seen was not necessarily due to the specific antitoxic power of the serum was made probable by the similar effects of physiologic salt-solution observed at times. Disappointing as these results seem, Trudeau and Baldwin feel that the outlook for an efficient tuberculosis-antitoxin is by no means a hopeless one. [D.R.]

Orchidotomy.—M. X. Delore (*Centralblatt für Harn und Sexualorgane*, January 21, 1899), describes the method originated by Poncet, of Lyons, for the treatment of tuberculosis of the testicle. An exploratory incision is made in the testicle proper, after opening the scrotum, to determine whether it is diseased. In case a part of the organ is found to be sound, the diseased portion only is resected; should the testis prove to be entirely sound, it is simply closed with 4 or 5 catgut-sutures; if the epididymis alone is affected, a simple epididymectomy is performed. Retaining even a portion of the testicle is considered a decided advantage, as its own function, which was first pointed out by Brown-Séquard, is thereby left uninterfered with. Statistics show that the disease is limited to the epididymis in about one-third of the cases. Two cases are reported, 1 in which epididymectomy was performed; the other, epididymectomy and resection. The results were excellent, as they have been in all cases of this operation thus far reported. [M.B.T.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.,

of Philadelphia.

The Treatment of Pruritus in Diabetes.—This condition may be treated by careful cleansing after micturition with a sponge dipped in some antiseptic fluid. Lawson Tait speaks very favorably of the use of a lotion containing sodium hyposulphite, an ounce to a quart of water, and of an ointment containing 10 grains of potassium sulphuret to the ounce, combined with the use of opium. A warm, freshly-made saturated solution of boracic acid may be used with confidence that it will give relief, and after carefully drying the parts, zinc ointment should be applied freely, but it is right to say that the condition, possibly from want of care on the part of the patient, is sometimes very intractable. Routh recommends the following remedies: Put a teaspoonful of borax into a pint bottle of hot water, add 5 drops of oil of peppermint, and shake well. Bathe the affected parts freely with a soft sponge. If rawness or eczema be present, apply olive-oil, to which iodoform has been added in the proportion of 5 grains to the ounce.—SAUNDBY, in *Renal and Urinary Diseases*.

The Treatment of Pseudo Angina Pectoris.—The measures for relief of this affection must usually be directed to combating the underlying condition of neurasthenia or hysteria. Occasionally it happens, particularly in medical men, that the mental relief afforded by a positive diagnosis of pseudo angina is in itself sufficient to effect a cure. In the severe form, particularly when associated with much vasomotor disturbance, the Weir Mitchell treatment may be tried with advantage. The effects of seclusion, systematic massage, and electricity, particularly the static form, are sometimes most satisfactory. Where this is not feasible, hydrotherapy should be tried, either a systematic course at some institution, or, if this is not practicable, the systematic use of the wet pack at night, followed by thorough friction, will be found advantageous. Some of these cases, particularly if treated at the patient's home, tax to the uttermost the resources of the physician. The change of air and scene in traveling will often be found of advantage.

Drugs are of uncertain and doubtful benefit. We often have to order the bromids and valerian, and in cases with much cardiac irritability and vasomotor disturbance the use of nitroglycerin in large doses seems sometimes to aid in equalizing and steadying the circulation.

When the attacks of angina are due to the abuse of tobacco, the patient should give up the habit entirely. I do not think there is much risk, either, in stopping abruptly. Counter-irritation over the heart by means of the Paquelin cautery or blisters, the use of strychnin in full doses, and, if the pulse-tension is high, of nitroglycerin, are measures which will be found efficacious.—OSLER, in *Angina Pectoris and Allied Disorders*.

Hysteria.

℞.—Auri et sodii chloridi	gr. v.
Tragacanth	
Sacchari, q. s.	

M. Ft. in pil. No. XL. —MILLS.

Sig.—One thrice daily, increased to three thrice daily.

Gastralgia.

℞.—Codein	gr. v.
Atropin. sulph.	gr. $\frac{1}{10}$.
Aconitin.	gr. $\frac{1}{20}$.
Ext. cannabis indicæ	gr. ij.

M. Ft. in pil. No. XX. —VAN VALZAH-NISBET.

Or,

℞.—Ext. belladonnæ	
Ext. cannabis indicæ	āā gr. x.
Ext. cocæ	gr. xxx.

M. Ft. in tabellæ No. X.

Codein may be added to the above when the pain is spasmodic or very severe. —VAN VALZAH-NISBET.

Pills for Urticaria.

℞.—Pulverized jaborandi, Extract of guaiacum, } of each	$1\frac{1}{2}$ grains.
Benzoate of lithium	3 grains.

Two pills increased to four in twenty-four hours. This combination is said to be especially efficient in chronic urticaria of gouty origin.

The Treatment of Hemorrhage in Typhoid Fever.—The patient must be kept quiet in the recumbent posture, and a small dose of morphia ($\frac{1}{4}$ grain) should be injected at once. Ice should be applied to the abdomen (the ice may be placed between flannel, or small pieces of ice may be placed in a kind of square dish made out of a piece of mackintosh). The patient should suck small pieces of ice, and all his food should be iced. Milk should be stopped, or given with sodium carbonate or in the form of alum-whey, that is, mixed with finely powdered alum and the curds separated from the whey. Ergot was formerly in favor, but has fewer advocates now; it is best given as a subcutaneous injection of ergotin—1 to 3 grains. Of much more service are large doses of lead acetate, given every two to three hours, or gallic acid and opium. Turpentine in 10-minim capsules (1 dram given two to three times a day) has given me by far the best results. It is also contained in the mixture recommended by Murchison as follows:

℞.—Acidi tannici	gr. x.
Tinct. opii	♏. x.
Spirit. terebinthinæ	♏. xv.
Mucilag.	ʒ ij.
Tinct. chloroform. co.	♏. xv.
Aquæ menth. pip. ad	℥ j.

M. Sig.—This dose to be taken every 2 hours.

Ice-water injections have also been tried with success. Opium enemas are to be recommended. The profound anemia which accompanies or follows profuse hemorrhage is best treated by subcutaneous injections of ether, and if the pulse become very frequent, a small quantity of normal salt-solution is to be injected into the subcutaneous tissue. A very marked improvement follows the injection, though too often it is but temporary.—DRESCHFELD, in *Allbutt's System of Medicine*.

Mitral Stenosis with Failing Compensation.—The routine administration of digitalis in cases of mitral stenosis is to be condemned. Very often it does harm. When once a patient manifesting the physical signs of mitral stenosis has recovered from any intercurrent disease which has disturbed the compensation, careful hygienic treatment and the administration of ordinary tonics are all that is necessary; all the special heart-tonics should be avoided. When, however, the right heart begins to fail, or dropsy appears, some special heart-treatment becomes necessary. Even then in many cases the administration of digitalis cannot be advised with the same confidence as in cases of mitral regurgitation. In many it causes the heart's action to become irregular, or increases an already existing irregularity; in some it induces nausea and vomiting, in others precordial oppression. I have found convallaria to act more beneficially in these cases than digitalis; it favorably influences the irregularity, and acts as a powerful diuretic. The fluid extract of convallaria in doses of 5 to 10 minims, or the tincture of convallaria in doses of 10 to 20 minims, may be administered every four hours, or three times a day, in adults. Strophanthus is useful in some cases, but, like digitalis, should not be continued for long periods. When there are serious symptoms of heart-failure (the radial pulse small and irregular, while the right ventricle is felt to beat forcibly, and the veins of the neck are seen to be distended, and perhaps pulsating, the patient being pale or dusky and breathing badly) relief of the venous engorgement by venesection is a valuable means of treatment. The ordinary method of opening the vein in the arm and permitting the flow of about 6 ounces of blood is the best, but this is often objected to; if so, 6 or 8 leeches may be applied over the epigastrium. In children the relief given by the abstraction of blood by 2 or 3 leeches is very well marked. After abstraction of blood digitalis and other heart-tonics often act more favorably than they would have done before the relief of the venous engorgement.—SANSOM, in *Allbutt's System of Medicine*.

The Treatment of Gastric Ulcer.—There can be no doubt as to the value of silver nitrate for this condition. The greatest benefit will be obtained from its employment when there is either functional or inflammatory hyperchlorhydria, or hyperesthesia of the mucous membrane. It often relieves rapidly the pain and the vomiting. There is no reason to believe that it exerts a direct specific action on the ulcer, but clinical experience proves the value of the drug in all hypersthenic states of secretion which are not due to the stagnation or the retention of irritant contents. One-fourth to one-half of a grain should be given daily, with an intermission after two weeks. This dose, dissolved in a tablespoonful of distilled water, should be given every morning 20 minutes before the first feeding. In rebellious cases, with no history of hemorrhage, a solution of silver nitrate (1:2000) may be used to douche the cleansed stomach. The procedure may be repeated every three days, and controls the excessive secretion of the hyperasthenic gastritis better than any other remedy.

The bismuth treatment has some very warm advocates. The pure subnitrate may be recommended in very large doses. The indications for its employment are the same as those for silver nitrate, but it is of less value. One or even two drams should be given daily in a single dose, preferably in the morning, half an hour before the first feeding. The patient should lie on the back for ten minutes, and then on the right side, with the fond hope that the bismuth may fall into the ulcer as a protecting deposit. Small doses do no good; the large doses may not constipate, but should not be given for a long period. Fleiner uses the bismuth in large doses, and introduces it through the stomach-tube, after lavage in the early morning before breakfast. Two or three drams of pure bismuth subnitrate are mixed with a glass of water, and the mixture is allowed to flow into the stomach. The patient then occupies various positions—on the back, on the right and left sides, upright, and in the knee-elbow position. After five or ten minutes the water is withdrawn through the tube. The procedure is repeated daily until the pain disappears, and then the intervals are made longer. Fleiner has used from 10 to 20 ounces of bismuth before interrupting the treatment without producing symptoms of poisoning. The bismuth forms a protecting coating over the ulcer, stimulates granulation, controls the excessive secretion, and Fleiner claims that it is also a hemostatic. Bismuth has given us most excellent results without employing lavage. There is little gained by withdrawing the small quantity of water (only a small part of the bismuth is recovered after 10 minutes), and it would seem that the stomach is already clean, or may be sufficiently cleansed by a glass of Carlsbad water administered one hour before the bismuth is given. We ordinarily give a daily dose of one or two drams for a week or ten days by the mouth, suspended in half a glass of water, and are somewhat timid about using the tube.—Van Valzah and Nisbet, in *The Diseases of the Stomach.*

The Spasmodic Dyspnea of Asthma.—In the treatment of the attacks of wheezing so often met with in emphysema, apart from any serious bronchial attack, a stimulating liniment containing turpentin and iodin, rubbed into the chest, is often of much service. Potassium iodid in doses of 5, 8, or 10 grains three times daily, in combination with extract of stramonium and ammonium carbonate, generally affords relief. In the intervals of comparative freedom from such attacks, and often throughout the winter months, the administration of codliver-oil is hardly of less service than in cases of pulmonary tuberculosis. It is of special benefit when nutrition is failing, as is commonly the case in advanced stages of the disease, and in the atrophous emphysema of the aged. Iron in combination with spirits of chloroform is often taken by patients with emphysema with much benefit.

Turpentin, terebene, and balsamic remedies are of service, where expectoration is excessive.—J. K. Fowler, in *Allbutt's System of Medicine.*

Pruritus Vulvæ.

℞.—Distilled water.................................... 500 parts.
Chloral hydrate,
Tincture of eucalyptus, } .... 10 parts.
Cocain hydrochlorid.......................... 1 part.
M.

—*Journal de Médecine de Paris.*

Subacute Bronchitis.

℞.—Guaiacol carbonat.............................. gr. xl.
Terpin hydrat.............................. gr. xxiv.
Strychnin sulph.............................. gr. ss.
Codein .... gr. ij.
M. Ft. in capsulæ No. XII.
Sig.—One every three hours.

Headache Dependent on Ovarian Disease.

℞.—Bromid of ammonium.......................... 6 drams.
Fluid extract of hydrastis .... ½ ounce.
Compound tincture of gentian .... 1½ ounces.
Water .... 4 ounces.
M. Sig.—A dessertspoonful thrice daily. —Sinkler.

Sweating Hands.

℞.—Borax,
Salicylic acid, } of each...... .... 225 grains.
Boric acid .... 75 grains.
Glycerin,
Dilute alcohol, } of each.................... 900 minims.
M. Sig.—Rub in three times daily.

—*Nouveaux Remèdes.*

Pain of Burns.

℞.—Cocain hydrochloratis.......................... gr. v.
Camphoræ carbolatis,
Ol. olivæ, } .... āā ℥ss.
M. Sig.—External use.

The cocain is to be thoroughly dissolved in the carbolate of camphor before adding the olive-oil. Intensely painful burns are said to be quickly relieved by the application of this mixture. —*Medical News.*

For Local Anesthesia.

℞.—Chloroform... ℥ij.
Æther. .... ℥iij.
Menthol. .... gr. xij.
M. Sig.—Spray the part to be operated on.

—Dobisch.

Infantile Scurvy.—The principal remedy is fruit-juice, that of one-half to two oranges a day, or of a pineapple; it is specific. Complication with rhachitis requires, besides the elixir of phosphorus, sterilized milk, if the only nutriment—as in many instances it will be found to have been—should be banished. If no reliable sweet milk be accessible, it should be pasteurized and combined with cereal (barley, oatmeal) decoctions and meat-broths, or some meat-juice should be administered as a regular food.—Jacobi, in *Therapeutics of Infancy and Childhood.*

Compressed-Air Baths in Emphysema.—I have given a prolonged trial at the Brompton Hospital to the use of the compressed-air bath in the treatment of emphysema associated with bronchitis, and am able to support the favorable opinions expressed by Dr. C. Theodore Williams, and others as to its great value. Patients almost invariably state that they breathe more freely while in the bath, and after a considerable number of baths (from 20 to 30 or more) have been taken, this feeling becomes continuous, and has remained while the patients have been under treatment. In addition to the greater freedom of respiration and increased capacity for excretion, the cough becomes less frequent, and the quantity of expectoration is reduced.

In a healthy person the effect on the respiratory organs of submitting the body as a whole to air gradually condensed to the extent of three-sevenths or one-half an atmosphere is to cause diminished frequency of respiration, enlargement of the lungs, increase of the vital capacity, and probably also an increase in the amount of the oxygen absorbed. In the subject of emphysema, however, the effect of the bath is to cause a reduction in the size of the chest, as ascertained by measurement of the circumference; and also in the amount of distention of the lungs, as proved by the reappearance of dulness in the precordial and hepatic regions. The diaphragm is raised instead of being lowered, and epigastric pulsation may be replaced by an impulse more nearly in the normal situation of the apex-beat of the heart.

It appears probable that the condensed air penetrates into parts of the lungs which have been long unused in respiration, and in which air has been, so to speak, imprisoned at a high pressure; the escape of this air is facilitated, and contraction of the lung follows.—J. K. Fowler, in *Allbutt's System of Medicine.*

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Original Articles.

THE PREVENTIVE TREATMENT OF DIPHTHERIA.

By WILLIAM PHIPPS MUNN, M.D.,
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Health-Commissioner of Denver, Member of the Colorado State Board of Health, etc.

The rapid advance in our knowledge of diphtheria within the last 4 years has resulted in giving definiteness and purpose to many efforts at prevention, which prior to this time have been indefinite and "groping in the dark." In general we may divide the preventive measures into 2 classes; (*a*) those to be employed in the family by the attending physician, and (*b*) those to be employed by health-officers.

(*a*) *The physician's preventive measures* have been less changed than those of the health-officer, and what change has occurred has been in the direction of simplification. To isolate the patient and to destroy the infective secretions and excretions of the patient constitute, as heretofore, the more obvious and unanimously agreed-upon measures. But prior to isolation must come the consideration of accurate diagnosis.

From the standpoint of a purely clinical observer, and basing my opinion upon the observation and treatment of about 500 cases of diphtheria, I have formulated for my own guidance this axiom: No man, however wide his experience, is competent to say from clinical observation alone that a given case of sore throat with exudate is *not* diphtheria; in a majority of instances *he may be able to tell with a reasonable degree of accuracy if it is diphtheria;* a negative diagnosis is never reliable unless confirmed by bacteriologic examination. Governed by this axiom, the attending physician should in all instances, when the least element of doubt exists, secure an immediate culture-examination of the secretions from the throat. In any of the large cities of this country he can secure this within 24 hours from the time of the first visit; in many of the smaller towns of some States an arrangement exists (as in Colorado) by which a culture sent to the bacteriologist of the State Board of Health will be reported upon by telegram the next day. Pending a diagnosis the patient must in all doubtful cases be isolated. When possible the patient's discharges should be thrown into a water-closet that is not used by any other person. The disinfection of the closet-bowl each time with a suitable antiseptic solution will not be omitted by any thoughtful physician or nurse.

If the bacteriologic examination reveals the presence of the Klebs-Löffler bacillus, the disease is diphtheria. As the most essential element of prevention is the rapid cure of the case and the elimination of an infective center, we may include the immediate treatment with antitoxic serum among the preventive measures. If the clinical appearances have been decided from the first, it is not necessary to await the result of the bacteriologic examination before administering the serum, because the 12 or 24 hours gained by immediate injection, if the case seems clinically undoubted, may mean all the difference between prompt recovery and death. Again, should it happen that the serum has been administered to a case that turns out to be free from the Klebs-Löffler bacillus, no harm is done. The antitoxic serum is quite harmless in any event. This is a point to be insisted upon, as many practitioners regard it with a fear that is wholly groundless and reserve its use for the occurrence of grave conditions or of complications. The time to use the serum most effectively is the earliest possible time in the progress of the case. Taken early, most cases of diphtheria are examples of poisoning by the toxin of the diphtheria-bacillus alone; taken late, they are cases of mixed infection with the toxins of the diphtheria-bacillus, the streptococci and staphylococci, and of added pathologic changes of the blood and nervous system. The diphtheria-antitoxin is the antidote for the first of these toxins only; and it has no effect in lessening pathologic changes in blood and nervous system, when they are once established. Staphylococcus-aureus poisoning is a most grave occurrence. It often causes death alone, when uncomplicated by true diphtheria.

As a preventive measure, the administration of the antitoxic serum is effective in stopping the formation of membrane, lessening the amount of infective secretions and shortening the length of the case. This is for the affected person only. For others who are thoroughly exposed to the infection and must remain so, an injection of from 200 to 500 antitoxic units will in 95% of cases prevent an attack by rendering the person so treated immune for a short time. This is of especial value in children, and notably so when the circumstances are such that they must remain in the same house with the sick person. Under such circumstances it is absolutely the duty of the attending physician to see that every child so remaining in the house receives a preventive dose of antitoxic serum. When this measure is omitted and a subsequent case occurs among any of the children thus exposed, the physician in attendance should feel that he is personally responsible for the occurrence of that subsequent case. Adults who are brought into close contact with the sick person, may also be properly given a preventive dose of antitoxin; but adults simply living in the house and not coming into personal contact with the sick one, may be permitted to go without the antitoxin, provided that a culture from their throats is found to be free from the Klebs-Löffler bacillus. If the Klebs-Löffler bacillus is present the bearer is infective to others, no matter whether he shows clinical evidence of sore throat or not.

Illustration:—A number of cases of diphtheria occurring in a kindergarten-school, a careful examination of all the children in attendance was made, cultures being taken from all of their throats. The teacher was also examined. A few cases of mild sore throat among the children were found to be accompanied by the presence of Klebs-Löffler bacilli; the teacher's throat was not sore, but contained Klebs-Löffler bacilli. She and the infected children (not clinically diphtheria) were excluded from the school and a new teacher secured. There were no more cases of diphtheria in that kindergarten, although cases had been occurring sporadically for weeks prior to the discovery of the teacher's infected condition.

It is the duty of the physician at once to notify the family to keep their children out of school and also promptly to notify the health-authorities of the existence of the case. He should give proper instructions as to the care and destruction of the secretions and as to non-intercourse with neighbors, as the family will often pay more attention to the directions of their own physician than to the routine directions of the health-officer.

Physicians often overlook the value of fresh air and sunshine as preventive remedies in diphtheria, as well as in other infective diseases. The rooms should be well ventilated and have plenty of sunshine. It is not necessary to foul the atmosphere of the sick-room with nauseous and odorous vapors, as was formerly supposed. If these vapors have any antiseptic action whatever, the fact has not been proved. In any case their dilution in the air would render them inert, so far as practical disinfection is concerned. They simply load the air with moisture and bad smells and do no good, if they do not cause positive injury.

(*b*) *The health-officer's duties* in the prevention of diphtheria have been greatly increased, his responsibilities made direct and his measures purposive, by our increased knowledge of this disease.

(1) He should strictly enforce the law in regard to the report of each and every case of diphtheria. There should be no respect of persons. Every case should be dealt with in some manner by the health-office. The physician should be given the opportunity of reporting his case in writing upon a postal card furnished by the health-office; but he should be encouraged to promptness in reporting by telephone.

(2) The health-office of every city should offer facilities for bacteriologic examination in every case to every physician; nay, more, the endeavor should be to secure a bacteriologic examination of every case, whether requested or not. This may be done by prompt inquiry over the telephone at the time the case is reported: "Shall we send for a culture?" Consent may be more readily obtained from physicians who "feel shy" by having it understood that the report of the result of he examination is to be made directly to them; and hat in no instance will a clinical diagnosis of diphheria by the physician be overturned by any communication to the patient from the health-office. In other words, if the physician makes a clinical diagnosis of diphtheria that is accepted as final, so far as the health-officer's subsequent communication with the family is concerned; if the doctor says "diphtheria" it is diphtheria; but the health-office should communicate its results to the doctor.

(3) Every case reported should go upon the records; the occurrence of a case of diphtheria is a matter of public import and the individual owes to the community a duty that no feeling of personal inconvenience should be allowed to modify.

(4) Every house in which a case of diphtheria occurs should have placed upon it in a conspicuous place a placard stating that fact. Personal wishes or friendship should not be consulted. Every householder in every community has a paramount right to know if there exists in his neighbor's house, or in any building to which his children have access or by which they must pass, a case of dangerous communicable disease. Every community is ready to accept this proposition if it is properly presented to them. I have a right to know and my neighbor has a right to know, if in entering a house or apartment or in permitting children to enter a house or apartment, exposure to diphtheria is likely to occur. It is upon this theory of the right of the community rising superior to the right of the sick individual that the placarding of houses is justified. And if the placard is used at all, it should be used upon every infected house or apartment. I do not agree with the practice in some cities that permits certain premises to remain unplacarded if the physician gives his word that he will become personally responsible for the observance of quarantine-measures. It has been my experience that the physicians and patients who are most ready to make such promises are the least to be trusted. Moreover, exceptions to sanitary regulations are always likely to be misunderstood. The poor man, whose conscientious doctor has refused to promise something he cannot perform, will imagine that his richer neighbor is exempt from the operation of the law, because of influence rather than because his physician has promptly promised to be responsible for the enforcement of preventive measures.

(5) When the house is placarded, the health-officer should furnish to the family a circular setting forth the general precautions that are necessary to lessen the danger of infection; a statement of the regulations in regard to school-attendance and its prohibition during the existence of infection in a house or family; a statement of the penalties for non-fulfilment of the provisions of the law. Following are the rules of the Denver Bureau of Health:

1. Children shall not be allowed to attend school while any contagious disease exists in the house in which they live.
2. In case of measles no children from the infected house shall be allowed to return to school until one week after the disease has disappeared.
3. In case of scarlet fever no person from the infected house shall be allowed to resume school attendance until eight weeks from the occurrence of the last case in the house,

or if the sickness has been prolonged beyond six weeks, until two weeks after the house has been finally fumigated. The sign must remain on the house for six weeks.

4. In case of diphtheria no person from the infected house shall be permitted to resume school attendance *until two weeks after diphtheria-germs can no longer be found in the throat on bacteriologic examination.*

5. No person shall be allowed to attend school while suffering from whooping-cough, chickenpox or mumps.

6. In all cases the person so returning to school must obtain a permit to do so from the Health Commissioner.

* * *

All teachers in schools, whether public or private, are earnestly requested to read and act upon the following suggestions:

The contagious diseases which are most dangerous to children and most likely to be communicated in the schools are *smallpox, diphtheria, scarlet fever, measles and whooping-cough.*

In repard to *smallpox*, the law explicitly provides that all persons must be vaccinated and that school-children shall have been successfully vaccinated within the past seven years.

Diphtheria is a disease which manifests itself especially in the throat. It is so dangerous and so difficult of identification that every sore throat should be regarded as suspicious and the person suffering from it kept out of school until the throat has been examined by a competent person and the nature of the sickness determined. The Bureau of Health determines absolutely the existence or nonexistence of diphtheria by a bacteriologic examination of the secretion from the throat, and this examination is made at the request of any citizen, without charge. Children from houses in which diphtheria has occurred are not allowed to resume school attendance until two weeks after a bacteriologic examination has shown the throat of the sick person to be free from diphtheria-germs, as certified to by the Health Commissioner.

Scarlet fever is one of the most protracted contagious diseases. A person who has had the disease may recover within a few days, but will remain capable of communicating it to others for a period of from six to eight weeks. For this reason the health authorities have decided that all scarlet-fever-infected houses must be placarded for at least six weeks, and that no person from such infected house shall be permitted to return to school for a period of at least eight weeks, and not less than two weeks after the fumigation of the house, if the disease has been protracted beyond six weeks. Mild forms of scarlet fever are sometimes called scarlet rash or scarlatina, but they are all the same disease, equally contagious, and the mildest capable of causing the most severe type. Carelessness of parents, nurses and others occupying positions of responsibility does more to spread scarlet fever than any or all other causes. The early return of scarlet-fever-patients to school and the careless mingling with well persons of other occupants from infected house, is the frequent medium of contagion. This disease always decreases in prevalence and fatality during vacation time, and promptly begins to increase within a month after the reopening of the school.

Measles is less dangerous than the preceding diseases, but it is none the less often fatal and should consequently be carefully guarded against. Children from infected houses should be kept at home for at least a week after the sick child has recovered. Teachers should at once send home for medical examination, children having rough coughs, running eyes, eruptions on the face, or other suspicious symptoms.

General preventive measures in the schoolroom are of as much importance as definite action in specific cases.

Inquiry should be made in all cases of absence from school as to the cause of absence, and if sickness of the child or sickness in the family is given as a reason, a note from the family physician should be required as an evidence that the sickness was not of a contagious nature. In cases where doubt exists, the health-authorities should be communicated with. Books supplied to families where contagious disease has existed should be at once collected and destroyed, as it is impossible to properly disinfect books.

Mouth-to-mouth infection is perhaps the most common method by which the contagious diseases of children are communicated. It is important, therefore, that all habits which tend to facilitate mouth-to-mouth infection should be avoided. Examples of this are the lending of pencils (a child almost invariably moistens the pencil-point with the saliva), the cleansing of slates with saliva, drinking from common cups, trading chewing-gum, taking bites from each others' apples, and many other childish and ignorant methods of conveying infection.

In the cloak-room, each child should have its own hook for hat and wrap, and there should be enough space so that one child's clothing should not be hung over that of another child. In addition the cloak-room should be well ventilated, and a window kept open in it at all times.

I have found that a personal letter to the head of the family asking for his cooperation in enforcing the regulations is quite effective.

(6) If more than one case makes its appearance in a neighborhood, it is well to have the officer who puts up the placard go also to every house in the block, on both sides of the street, ask for the mother in each house, and call her attention to the placard on the infected house, and leave a leaflet as to the precautions necessary. Thus, every family in the neighborhood is acquainted with the fact that a focus of infection exists and knows what to do to avoid it.

(7) Every evening the health-officer should notify the school-authorities of every case of diphtheria (and of other contagious diseases as well) reported during the preceding 24 hours. The school-authorities should be expected to exclude from school-attendance any person who resides in the infected house, until such time as he or she can present a permit from the health-officer for re-admission.

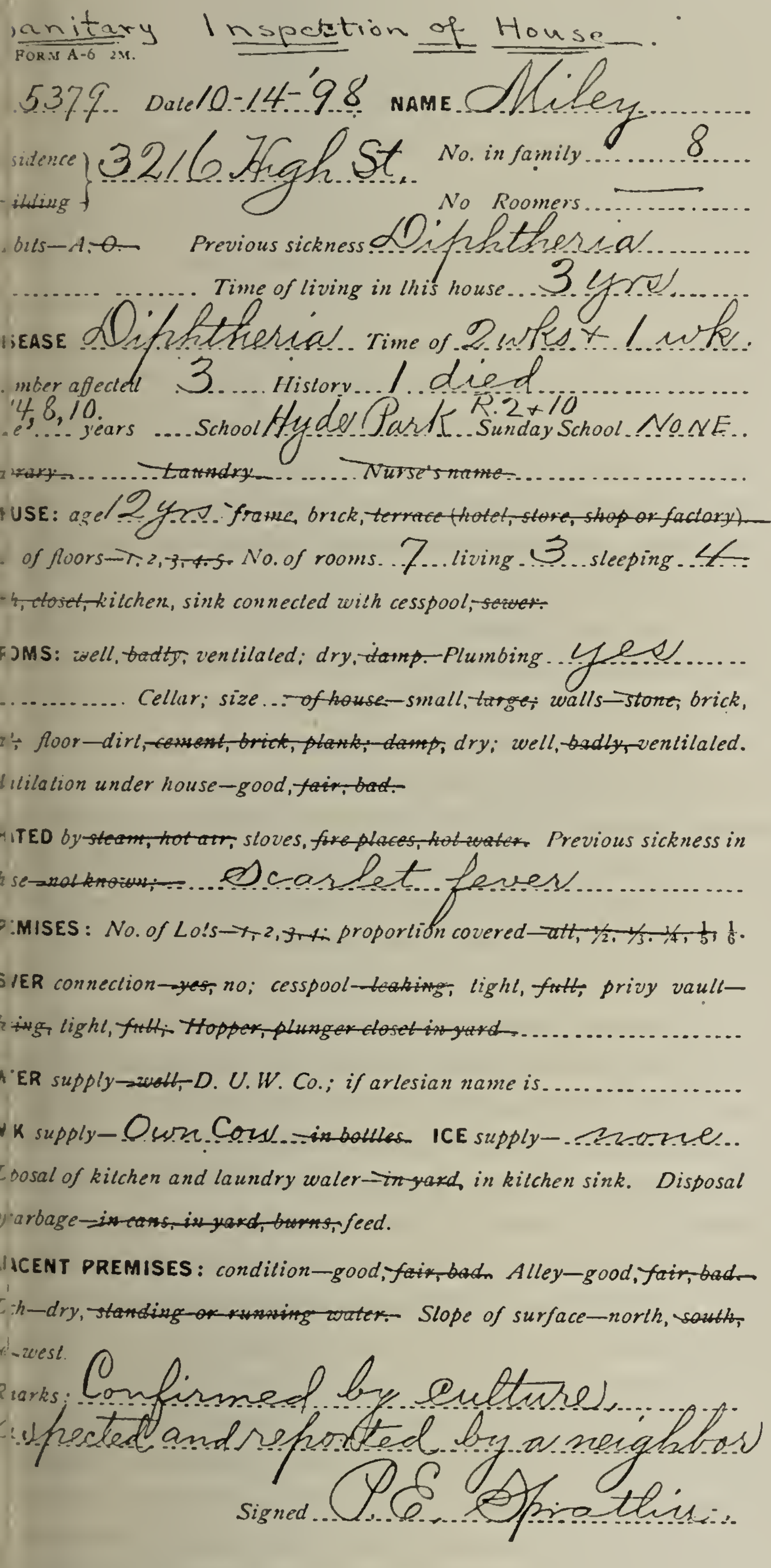
(8) Every Saturday a list of all cases for the week should be sent to the superintendent of each Sunday-school in the city.

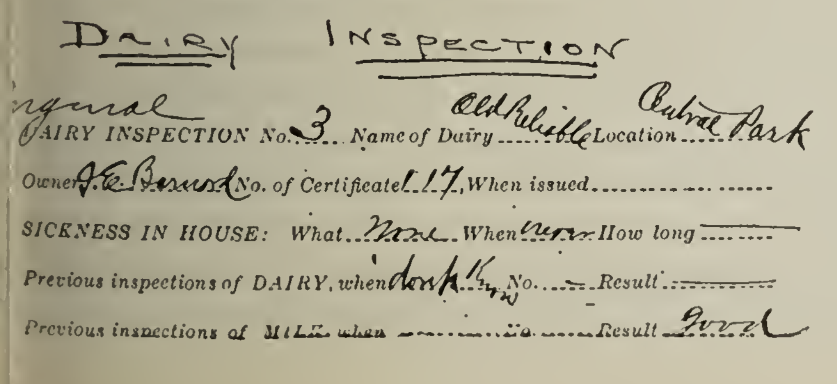
(9) I keep in my office a large blue-print map of the whole city, and so soon as a case of diphtheria is reported a yellow-headed pin is stuck into the map at the location of the house. That pin remains in position so long as the sign "diphtheria" remains upon the house. In this way I have a definite knowledge of the diphtheria-situation in every part of the city all the time.

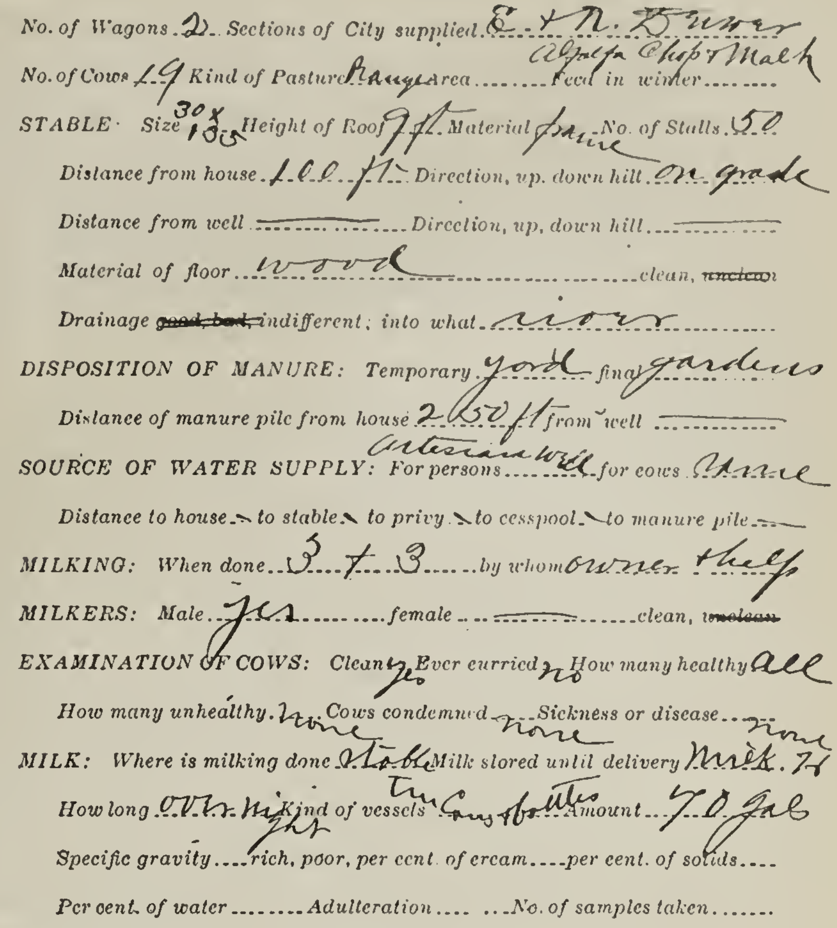
(10) The medical inspector goes as soon as possible and makes a full inspection of the premises, putting upon record, on a blank form, all of the information

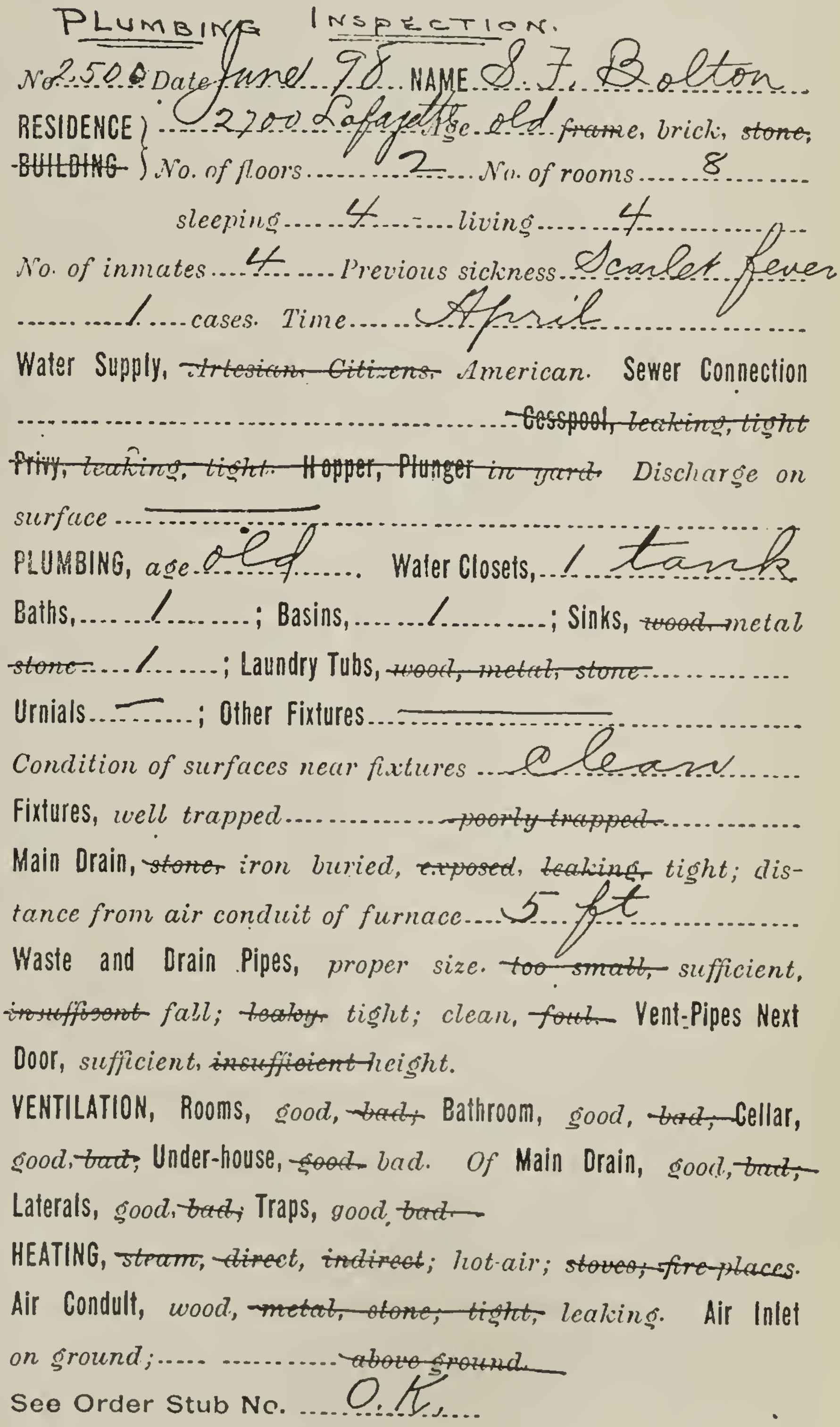
btained. These forms are numbered and bound, and e made accessible for reference by means of a card-atalog. The inquiries made cover a broad scope. ot only is the sanitary condition of the house and the emises noted in detail, but the plumbing is also made matter of detailed record. The sources of the supply ice, water, and milk, are carefully ascertained.

(Here are reproduced copies of pages of the sanitary spection, dairy-inspection, and plumbing inspection.)


anitary Inspection of House.
FORM A-6 2M.
5379 Date 10-14-'98 NAME Miley
sidence } 3216 High St. No. in family 8
~~ilding~~ } No Roomers —
bits—A. ~~0.~~ Previous sickness Diphtheria
Time of living in this house 3 yrs.
EASE Diphtheria Time of 2 wks + 1 wk.
mber affected 3 History 1 died
e'4, 8, 10. years School Hyde Park R. 2+10 Sunday School NONE
~~rary~~ ~~Laundry~~ ~~Nurse's name~~
USE: age 12 yrs. frame, brick, ~~terrace (hotel, store, shop or factory)~~
of floors ~~1,~~ 2, ~~3, 4, 5.~~ No. of rooms 7 living 3 sleeping 4
~~h, closet,~~ kitchen, sink connected with cesspool, ~~sewer.~~
OMS: well, ~~badly,~~ ventilated; dry, ~~damp.~~ Plumbing yes
Cellar; size ~~of house~~—small, ~~large;~~ walls—~~stone,~~ brick,
floor—dirt, ~~cement, brick, plank; damp,~~ dry; well, ~~badly,~~ ventilated.
tilation under house—good, ~~fair, bad.~~
TED by ~~steam, hot air,~~ stoves, ~~fire places, hot water.~~ Previous sickness in
se ~~not known;~~ Scarlet fever
MISES: No. of Lots ~~1,~~ 2, ~~3, 4;~~ proportion covered ~~all, 1/2, 1/3, 1/4, 1/5,~~ 1/6.
ER connection ~~yes,~~ no; cesspool ~~leaking,~~ tight, ~~full;~~ privy vault—
~~ing,~~ tight, ~~full;~~ ~~Hopper, plunger closet in yard.~~
ER supply ~~well,~~ D. U. W. Co.; if artesian name is
K supply—Own Cow ~~in bottles.~~ ICE supply—none
osal of kitchen and laundry water ~~in yard,~~ in kitchen sink. Disposal
arbage ~~in cans, in yard, burns,~~ feed.
ACENT PREMISES: condition—good, ~~fair, bad.~~ Alley—good, ~~fair, bad.~~
h—dry, ~~standing or running water.~~ Slope of surface—north, ~~south,~~
-west.
arks: Confirmed by culture.
spected and reported by a neighbor
Signed P. E. Sprathu.


Dairy Inspection
riginal
DAIRY INSPECTION No. 3 Name of Dairy Old Reliable Location Cedar Park
Owner J. E. Bernard No. of Certificate 17 When issued
SICKNESS IN HOUSE: What None When None How long —
Previous inspections of DAIRY, when don't k'w No. — Result —
Previous inspections of MILK when — No. — Result good


No. of Wagons 2 Sections of City supplied E + N. Denver
No. of Cows 19 Kind of Pasture Range Area Feed in winter Alfalfa Chop + Malt
STABLE Size 30 x 100 Height of Roof 9 ft. Material frame No. of Stalls 50
Distance from house 100 ft. Direction, up, down hill on grade
Distance from well — Direction, up, down hill —
Material of floor wood clean, ~~unclean~~
Drainage ~~good, bad,~~ indifferent; into what river
DISPOSITION OF MANURE: Temporary yard final gardens
Distance of manure pile from house 250 ft from well —
SOURCE OF WATER SUPPLY: For persons Artesian well for cows Same
Distance to house — to stable — to privy — to cesspool — to manure pile —
MILKING: When done 3 + 3 by whom owner + help
MILKERS: Male yes female — clean, ~~unclean~~
EXAMINATION OF COWS: Clean yes Ever curried no How many healthy all
How many unhealthy none Cows condemned none Sickness or disease none
MILK: Where is milking done Stable Milk stored until delivery Milk house
How long over night Kind of vessels tin cans + bottles Amount 70 gal
Specific gravity rich, poor, per cent. of cream per cent. of solids
Per cent. of water Adulteration No. of samples taken


Plumbing Inspection.
No. 2500 Date June 98 NAME S. F. Bolton
RESIDENCE } 2700 Lafayette Age old ~~frame,~~ brick, ~~stone,~~
~~BUILDING~~ } No. of floors 2 No. of rooms 8
sleeping 4 living 4
No. of inmates 4 Previous sickness Scarlet fever
1 cases. Time April
Water Supply, ~~Artesian, Citizens.~~ American. Sewer Connection
~~Cesspool, leaking, tight~~
~~Privy, leaking, tight. Hopper, Plunger in yard.~~ Discharge on surface —
PLUMBING, age old Water Closets, 1 tank
Baths, 1; Basins, 1; Sinks, ~~wood,~~ metal ~~stone~~ 1; Laundry Tubs, ~~wood, metal, stone~~
Urnials —; Other Fixtures —
Condition of surfaces near fixtures clean
Fixtures, well trapped ~~poorly trapped.~~
Main Drain, ~~stone,~~ iron buried, ~~exposed,~~ ~~leaking,~~ tight; distance from air conduit of furnace 5 ft
Waste and Drain Pipes, proper size. ~~too small,~~ sufficient, ~~insufficent~~ fall; ~~leaky,~~ tight; clean, ~~foul.~~ Vent-Pipes Next Door, sufficient, ~~insufficient~~ height.
VENTILATION, Rooms, good, ~~bad;~~ Bathroom, good, ~~bad;~~ Cellar, good, ~~bad;~~ Under-house, ~~good.~~ bad. Of Main Drain, good, ~~bad;~~ Laterals, good, ~~bad;~~ Traps, good, ~~bad.~~
HEATING, ~~steam, direct, indirect;~~ hot-air; ~~stoves; fire-places.~~
Air Conduit, wood, ~~metal, stone; tight,~~ leaking. Air Inlet on ground; ~~above ground.~~
See Order Stub No. O. K.

(11) If in any instance it is noted that two infected families in any part of the city are securing milk from the same milkman an inquiry is made as to the condition of affairs at that dairy. If several houses in proximity are found to contain cases of diphtheria a search is made to discover any means of communication between them. In some instances the fact that the families attend the same church or Sunday-school is thus brought out.

(12) If it is discovered that there are two cases of diphtheria from the same room in a public school, the medical inspector at once proceeds to make an investigation of that school and of the pupils in attendance. In many instances in which multiple cases of diphtheria have occurred from the same school it has been necessary to take cultures from the throats of every child in the infected room, and to exclude all who were found to bear the Klebs-Löffler bacillus in their throats. During the past four years I have had this measure resorted to not less than a dozen times, when it was evident that small outbreaks were evidently of school-origin. In no instance has it failed to promptly put a stop to the embryo epidemic. The purposive search for infection-bearing children and their exclusion from school have in almost every instance shown that apparently well children, who bear the Klebs-Löffler bacillus in their throats, have been the continuous spreaders of dangerous sickness among their more susceptible neighbors in the school-room.

Illustration:—In Fairmount school several years ago 7 cases of diphtheria were reported from among the children in two rooms. A systematic examination of all the children in those rooms was at once made. Over 60 children were examined. I had charts made of the two rooms, every desk was indicated and the name of the pupil written upon the desk. Some 6 cases of infection-bearing throats were discovered. In every instance the infection-bearers were occupying desks adjoining those from which cases of diphtheria had been reported; but the infection-bearing and apparently well children gave a history, in each instance, of having suffered from a mild sore throat (variously designated) prior to the occurrence of the cases of diphtheria in their deskmates. In other words, these infection-bearers had suffered from clinically unrecognized attacks of diphtheria and had given rise to marked attacks of the disease in their little comrades.

In the Whittier school 3 deaths from diphtheria occurred in 1895 within a few days among children who had been in attendance in three different rooms of the school. I had cultures taken from the throat of every child in attendance in the three rooms, and also from suspected children in other rooms. About 15 infection-bearers were discovered. Upon a study of the diagrams of the rooms, the desks and pupils being designated as before described, it was noted that the Klebs-Löffler bearing children had, in each instance, occupied adjoining groups of desks. It was then discovered that children from a certain colored family had occupied a desk in each infected area of the involved rooms. These children were now out of school. Upon visiting their home it was found that 7 children in all had been successively the subjects of severe sore throat; while 2 were suffering from marked attacks of diphtheria when seen, and one died the next day. The physician was an aged man, "lawfully licensed to practise medicine," but he knew nothing of the modern methods of recognizing or treating diphtheria.

It could not be expected that such radical measures as the taking of cultures from the throats of a large number of school-children and the exclusion from school of those whom their parents believed to have an "ordinary sore throat" could be carried into effect without opposition or protest. Parents protested, physicians who "didn't believe in bugs" carried opposition to unheard-of extremes; the school-board almost wavered in its cooperation; but Superintendent Gove, a man of unusual force of character and "backbone," as well as culture, stood firm. The exclusion of the infected children put as sudden a stop to the little epidemic as though it had been cut off with an axe. It was as pretty a vindication of purposeful investigation and action as could be desired.

In carrying out such measures as have been outlined, it will be necessary to meet and overcome much opposition, both from the laity and the profession. There were in Denver many uneducated doctors (chiefly of a sectarian belief, however,) who deliberately told their patients that in taking cultures from the throat the medical inspector used the same swab on every throat. Horrified mothers came to see me and protest against such actions. They were soothed when they saw that each swab was separately sterilized in its own test-tube and that all swabs and tubes were destroyed after they had been used once. They also came to understand that any possible contamination of any of the swabs or culture-outfits would defeat the whole object of the examination; but the most convincing argument after all was the complete stop of the spread of diphtheria in any school or neighborhood after such a "round-up" by the medical inspectors of the Bureau of Health.

(13) One of the most difficult tasks in dealing with diphtheria has been to determine when isolation should cease and school-attendance be resumed. Prior to the adoption of the bacteriologic methods of determination there could be no safe time set. Many boards of health set 4 weeks as a limit; yet it was perfectly evident that some patients were free from infection long before that time had elapsed, and that others conveyed the disease to those with whom they came in contact after their term of isolation had expired.

The best rule is this: Every person is infective so long as the Klebs-Löffler bacilli persist in the secretions of the throat or nose. Isolation should be maintained until a negative culture is obtained from the throat of the person who has been sick; the sign should stay upon the house or apartment until a negative culture is obtained. After that, to cover possible errors, a period of from 10 days to 2 weeks should elapse before the patient should mingle freely with susceptible individuals, as in church or in school.

The time for the disappearance of the bacilli from the throat will vary with each case. I have known them to disappear in 6 days under treatment. I have also known them to persist for 13 weeks, in spite of the most careful application of antiseptics to the throat, and after administration of the antitoxin had caused clinical recovery in a few days. In a general way, it is safe to say that the average time of disappearance is between 3 and 4 weeks, but that a fairly large number remain infected beyond the 4 weeks. This is the result of the observations of Drs. W. C. Mitchell and H. C. Crouch, the bacteriologists of the Denver health-office, based upon the careful and systematic examination of more than 1000 cases. In many cases more than a dozen cultures had to be examined from an individual case, at intervals of from 2 to 5 days; in patients who have large tonsils with deep crypts in them, the infection persists longer; in those that have small tonsils with smooth surfaces infection is lost quickly. If the infection has proceeded to the middle ear, the cultures will remain positive a long time. Occasionally nasal involvement causes protracted infection, but laryngeal involvement seems to have little effect upon the rapidity with which the cultures clear up.

(14) The case having been discharged by the health-office, the question of disinfection and removing the sign presents itself. Disinfection should rarely if ever be left to the householder; it should practically be invariably performed by a health-officer. For practical house-disinfection we are restricted to the use of three gaseous agents: chlorin, formaldehyd, and sulphurous anhydrid. Chlorin, the most efficient, is barred by most health-boards on account of its disagreeable odor and its destructive effect upon textiles; sulphurous-acid gas has until recently been more commonly used; formaldehyd is now being used by many, but has not altogether displaced sulphur. It is not the purpose of this paper to go into the details of disinfection. Each officer is guided by the result of his own experience in choosing a disinfectant agent. For myself, I still await a more ready method of generating formaldehyd, so that it may be efficiently used for all forms of house-disinfection. I do not think that, as produced by ordinary apparatus, its penetrating power has been shown to equal what we at first were led to expect. For surface-disinfection, however, there can be no doubt of its efficacy and superiority.[1]

Results speak most loudly for the effects of preventive methods. I am led to present the figures of diphtheria-prevalence and mortality in Denver during the past 12 years in order to illustrate the results of the application of the methods of prevention that I have here detailed. The 12 years may be divided into three eras of 4 years each; during the 4 years from 1887 to 1890, inclusive, preventive measures were enforced, if at all, with great laxity; from 1891 to 1894, inclusive, preventive measures were rigidly enforced, but without the advantage of bacteriologic aid or of antitoxin; during the 4 years from the beginning of 1895 to the present moment, preventive measures have been rigidly enforced with the aid of the bacteriologist and of antitoxin.

TABLE NO. 1.—Diphtheria in Denver. Showing the Prevalence and the Relative Mortality for Each Year During 12 Years, Divided into Three Periods of 4 Years Each. 1887 to 1898 Inclusive.

Year.	Population.	Deaths from all Causes.	Cases of Diphtheria.	Deaths from Diphtheria.	No. of Cases of Diphtheria per 100,000 pop.	No. of Deaths from Diphtheria per 100,000 pop.	Percentage of all Deaths Caused by Diphtheria.
1887	80,000	1,525	Not fully reported.	68		84	4.46
1888	85,000	1,729	Not fully reported.	120		141	6.94
1889	96,000	1,808	233	109	244	114	6.03
1890	106,713	2,530	720	277	680	261	10.95
Totals, 1st Period		7,592	†1,575	574			
1891	113,874	2,118	468	175	411	154	8 26
1892	120,000	1,713	300	89	250	74	5.19
1893	125,000	1,734	318	106	252	85	6.11
1894	*140,000	1,688	233	71	160	46	4.21
Totals, 2d Period		7,253	1,319	441			
1895	145,000	1,626	248	40	171	28	2.46
1896	150,000	1,571	246	19	164	13	1.21
1897	*160,000	1,838	297	43	186	27	2.34
1898	167,000	1,928	364	34	218	20	1.76
Totals, 3d Period		6,963	1,155	136			

TABLE NO. 2.—Diphtheria in Denver. Showing Totals of Cases and Deaths and Average Death-Loss per 100,000 of Population During Three Successive Periods of Four Years Each. 1887 to 1898 Inclusive.

	Cases of Diphtheria.		Deaths by Diphtheria.		Percentage of All Deaths in each Period Caused by Diphtheria.	Average No of Diphtheric Deaths per 100,000 of Population.
	Total No.	Average per Year.	Total No.	Average per Year.		
Period No. 1—1887 to 1890. Preventive efforts not rigidly enforced. Average population 92,000.	1,575	394	574	143	7.56	150
Period No. 2—1891 to 1894. Isolation and disinfection rigidly enforced. Average population 125,000.	1,319	330	441	110	6.08	90
Period No. 3—1895 to 1898. Preventive efforts rigidly enforced. Bacteriologic methods and use of antitoxin. Average population 154,500.	1,155	288	136	34	1.95	22

I take it that the foregoing figures carry their own convincing argument. To my mind they are made even more convincing from the fact that the diphtheria-mortality, as it is stated for the last 4 years, contains a large number of what I call "deaths from concealed diphtheria." These are cases that prior to the advent of the bacteriologist were not recognized or recorded as being due to diphtheria. Many were called croup or laryngitis; quite a number were called "heart-failure" in order to conceal the existence of diphtheria and so secure a permit for the shipment of the body; some were called sepsis, some paralysis, and some typhoid fever. A number were coroner's cases, and his investigation had led him to give another cause of death; whenever suspicion was aroused, the health-office made its own investigation and if a sore throat was part of the history and a postmortem-culture showed the presence of Klebs-Löffler bacilli, I changed the cause of death as given on the certificate and recorded it as diphtheria. In the category thus described were a number of "Christian science" victims.

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[1] See *Colorado Medical Journal*, May, 1898, page 177, Formaldehyd vs. Sulphur as a Disinfectant, by W. C. Mitchell, M.D.

*Increase by annexation in 1894 and 1897. †Figured for period of 4 years at same ratio as in 1889 and 1890.

I am well aware that the chief objection to these methods of prevention lies in the difficulty of carrying them out properly. The intelligence of most communities is not yet ready to accept measures so radical as some of those that been here described. The health-officer should bend every effort toward securing the sympathy, support and cooperation of the intelligent elements of the community. He must be patient, painstaking, and thoughtful in his explanations of the methods to those persons who have a natural and proper interest in such matters. Appeal should be made first to the intelligence of the physicians through papers read before the medical societies; then the aid of the local medical journals should be enlisted; then the rules governing the application of the new methods should be formulated after fair and full discussion in an advisory board of health whose membership embraces representatives of all shades of belief in the community. Thus, the measures are brought to the attention of the general public only after the cooperation of the most necessary elements of the community has been assured.

When public discussion began in Denver, I did not hesitate to reach the public by every possible route, in order to explain and defend the newly adopted measures. To every newspaper in the city I gave a copy of a "Bureau of Health Bulletin," which discussed fully the method of recognizing diphtheria by culture-examinations and the advantages to the public from the universal adoption of such methods. This bulletin was distinctly impersonal and carried perhaps more weight from the fact that it presented no man's name to the public. But there were other occasions on which it was necessary for me to appear in person and by public addresses secure the backing of intellectual forces that others had sought to array against the policy of the health-office. To an audience composed of all the school-teachers in Denver I gave a two-hour talk upon the nature of diphtheria, the bacterial cause of the disease, the methods for its recognition and the manner in which they should cooperate with the health-officer in detecting and preventing it. This lecture was illustrated by the presentation of culture-outfits and the exhibition of slides showing the stained preparations. Dr. Crouch himself showed the specimens and explained the methods of staining to the teachers as they looked through the microscopes. At a later period I placed in the hands of every teacher, every minister and every member of the Chamber of Commerce a publication of the Bureau of Health giving a detailed statement of the methods, the reasons for their adoption and the results obtained up to that time.

To the City Improvement Society and the Woman's Club at later dates I again presented this, in common with other sanitary subjects of vital importance to the city. On one occasion, before the Woman's Club, I had the fortune to be given an opportunity to discomfit and put to rout certain sectarian practitioners of medicine, who had taken advantage of an hysterical presentation of the subject of vivisection to make public and false accusations in regard to the methods of bacteriologic research and the value of the antitoxin in the prevention of diphtheria. These public explanations and appearances of the health-officer are necessary in some communities, in order that the public may appreciate the reasonableness of measures that are misunderstood even by many of the older physicians. I deprecate the publicity, but do not shrink from incurring it; if the arguments are made impersonal and the profession understands that the health-officer is not seeking to advance his own interests, the medical profession will uphold him. It has been my good fortune to have the support of a united profession in my advocacy of these methods, and to this, in conjunction with the confidence of an unusually well-informed and resolute chief executive of the city, is due much of the success that has followed the attempt to lessen and prevent diphtheria in the city of Denver.

THE TREATMENT OF ABSCESSES COMMUNICATING WITH JOINTS.[1]

By A. M. PHELPS, M.D.,
of New York.

It is desired to bring before the profession the latest ideas in regard to the etiology of abscesses, and their treatment by the orthopedic surgeon. What I have to say in considering the pathology of abscess, is taught in many schools of medicine.

It is now established that 90% of the so-called tuberculous abscesses contain pyogenic germs; in other words, they are purulent and tuberculous, due to mixed infection. This being the fact no fault can be found with the profession if they operate upon and drain 90% of such abscesses, and for my own part, I will urge the drainage of the other 10%. I have opened and drained every abscess, tuberculous or purulent, that has come under my care during the past 15 years, and I have observed none of the awful horrors of such practice pictured by some writers. But, on the other hand, the hundreds of abscesses which have come to my clinic, treated expectantly or so-called conservatively in various orthopedic institutions, present all the awful ravages from constitutional infection, bone-destruction, maceration, infection, and pus-burrowing, and convince me that immediate interference in all cases is the safest and best plan.

The treatment of abscesses should be based upon etiology and pathology, and not upon a report of 35 selected cases. If the treatment of appendicitis were thus based upon the report of the per cent. of selected cases recovering without operation, the mortality would remain as it was during our days of ignorance. Happily, etiology and pathology came to the rescue, and they have come to stay in the treatment of abscess of chronic joint-disease.

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[1] In discussion of Dr. Shaffer's paper on this subject read before the Orthopedic Section of the New York Academy of Medicine.

Abscesses cannot occur unless they are preceded by inflammatory action. A lesion must occur first, and then the reparative process. This is a wandering or proliferation of cells; the building-up of new inflammatory material constitutes this area of normal inflammation. This normal inflammation is produced by trauma, by embolism, by anything that will injure tissue, anything that will excite the reparative process, the process being inflammation. At this time there may be floating in the circulation the germs of suppuration, the streptoccocci, the staphylococci, etc., or the germs of tuberculosis, which, coming in contact with embryonic tissue, cause infection. If the normal process of repair goes on uninterrupted, tissues are restored, but the very moment infection occurs, a new barrier of inflammatory material is thrown up around it, and this cavity may be filled with tuberculous material. Subsequent inoculation may take place by the introduction of pyogenic germs, and then we have a tuberculous and a purulent process together due to mixed infection. This material, lying in contact with tissues, destroys them; except when a fibrous sac forms, called by the older authors a pyogenic sac. When such sac forms, it builds up a barrier around this mass of pus or tubercular material, and the abscess may become encysted. If burrowing takes place in any direction through the corroding and infecting of tissue, the breaking of abscesses into cavities and the burrowing into important organs may follow. If absorption takes place, and pus or tuberculous material is eliminated through the circulation, there is likely to follow disease of the kidney and liver.

These abscesses are treated in a variety of ways, and I will briefly note each of the methods and the reason why we treat them in different ways. If an abscess occurs in the palm of the hand, it is likely to follow the sheaths of tendons, and an incision has to be made in order to evacuate the pus and save the muscles and tendons from sloughing. If it occurs in the wrist-joint, it may rupture into the groups of tendons of the wrist and destroy them. In hip-joint disease it may rupture directly into the iliacus internus muscle anteriorly, and find its way through that muscle into the retroperitoneal pelvic cavity, and there produce destructive changes.

These abscesses may be treated by aspiration. The surgeon has virtually discarded the aspirator in the treatment of abscess. I can understand perfectly how aspiration of a psoas abscess might be good practice, but, as a rule, bad. Aspiration might be desirable in abscesses occurring in small children. The Germans have a method of injecting such abscesses with a solution of glycerin and iodoform, and by means of this treatment some brilliant results have been reported. I am not altogether in favor of this treatment, particularly in cases in which a joint is extensively diseased. I would advise, by all means, simple puncturing and intelligent exploration with the finger. If the abscess cannot be curetted and all the diseased tissue removed, it is better not to incise the abscess extensively. It is better to puncture and insert a drainage-tube. I would lay down the rule that abscesses and sinuses should never be curetted where there is dead bone at the bottom of them, unless all disease can be removed. In those large abscesses in which the disease cannot be removed do not make an extensive denuded surface. Puncture, establish drainage, and wash out the abscess-cavity with a solution of mercuric chlorid, 1 to 2,000. In cases where the abscess appears externally, and the diseased bone can be removed, make a free incision, curet the cavity, close it up, and primary union of the external wound will result. It would be bad practice to put a scoop into a psoas abscess, because the diseased bone is not removed; it is beyond where we can reach it as a rule. Wash out the cavity as thoroughly as possible, insert a drainage-tube up to the point of the disease, carry the drainage-tube on the end of a stiff probe up to the diseased vertebræ. See Fig. 1.

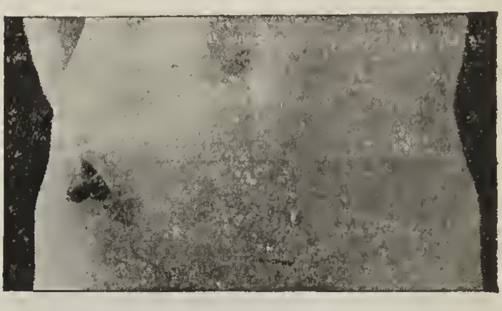

Fig. 1.

I have observed that patients do well following this line of treatment. Unless you can remove all of the diseased tissue, do not curet. Puncture, wash, and drain.

If we find when we open an abscess that the joint is extensively diseased, excision, of course, may be necessary. In all joint-abscesses which do not show an immediate tendency to absorption, and that seem to be tuberculous, or joints in which the capsule is ruptured or the abscess is burrowing, I have freely incised, and I think all such cases should be immediately operated upon for two reasons.

In the first place, a small incision is made to introduce the finger, and after introducing it one can explore intelligently and ascertain the amount of disease present. If the process is extensive, then excision or erasion may be necessary, or whatever procedure we decide upon after the cavity is entered. I think, as a rule, it is better to open all joint-abscesses, except possibly those which cause no disturbance and do not increase in size, and I am now operating on all.

To get a clear idea of the pathologic conditions present, I have prepared several specimens, and selected from a large number of photographs, a few to illustrate the sub-

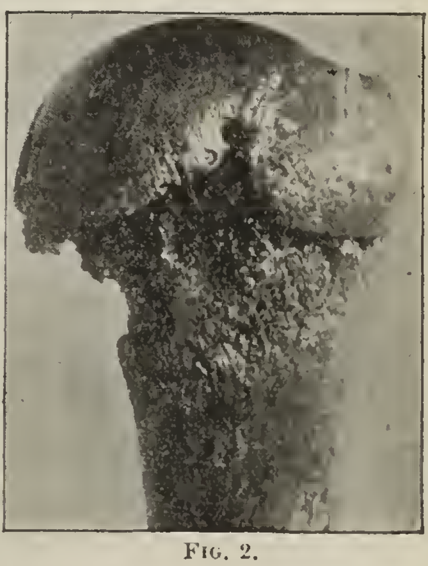

Fig. 2.

ject, showing the results of abscess, or of tuberculous or purulent infiltration of bone. Fig. 2 represents the diseased head and neck of a humerus. It gives a good idea of what tuberculous material does when it lies in contact with bone. Cases of extra-capsular disease produce the same symptoms as hip-joint disease, located in the capsule itself. Fig. 4 shows extensive destruction of the pelvic bone. This is due to the virulent and infecting properties of pus or tuberculous material burrowing along the muscles.

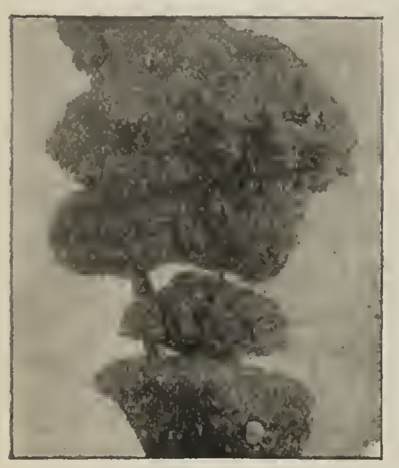
FIG. 3.

Fig. 3 represents a case of knee-joint disease, the destructive process having involved the shaft of the bone. Extensive invasion by burrowing and infection is observed. This was a case of osteomyelitis involving the epiphyseal lines, separating the epiphysis from the diaphysis.

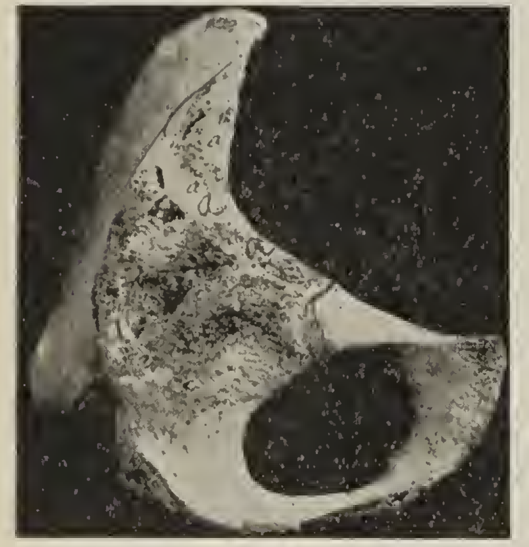
FIG. 4.

In Fig. 4 there is shown extensive destruction of the acetabulum, it being entirely gone. This very interesting case shows the way in which pus enters the pelvic cavity. It will be noticed that the bone is still diseased at the brim of the pelvis, the pus following the course of the iliacus internus muscle over the brim of the pelvis and into the pelvic cavity itself.

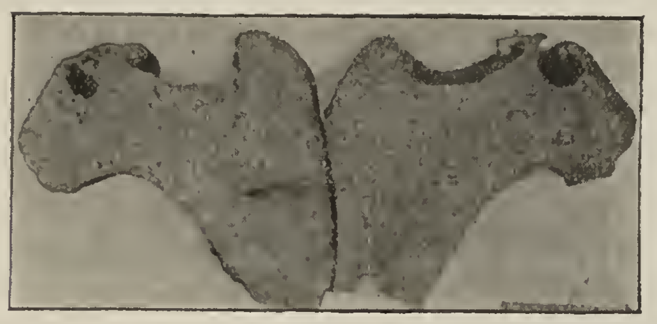
FIG. 5.

Fig. 5 shows a tuberculous cavity in the head of the femur, and destructive changes in the neck of the bone from infection. Figs. 6 and 2 show fine specimens of extra-capsular disease, and prove the utter absurdity of trusting abscesses to nature and mechanical treatment.

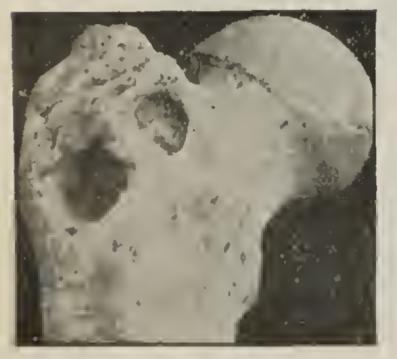
FIG. 6.

Figs. 7 and 8 are of a case of old fracture of the neck, extra-capsular, with a normal false joint. The specimen was taken from the dissecting-room. Behind the head of the bone was an abscess-cavity which had caused a dozen sinuses about the thigh. The patient had worn a hip-splint for years. A simple operation would have cured him. Fig. 9 represents the ravages of pyemic and tuberculous infection of soft parts. The case had been treated with a long traction-splint until the pelvis was filled with pus, the joint destroyed, and the entire inside of the ilium necrotic. A few operations restored him to health.

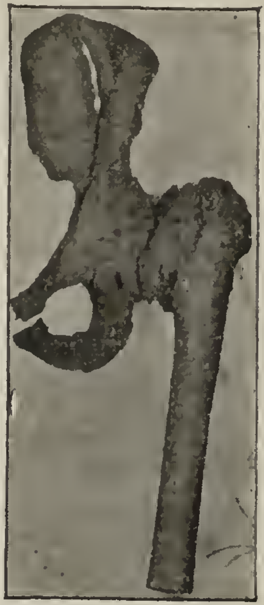
FIG. 7.

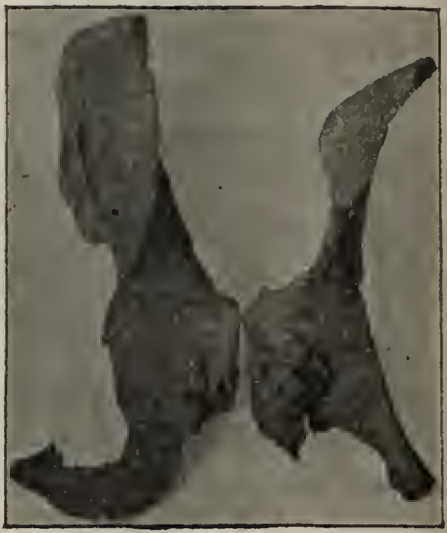
FIG. 8.

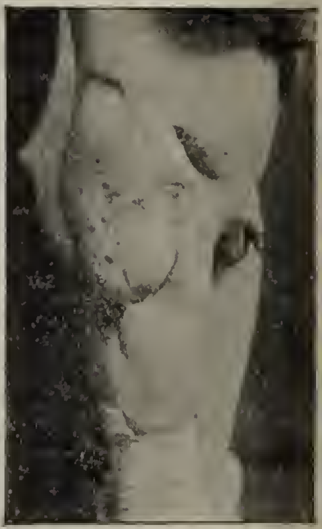
FIG. 9.

Figs. 10, 11, and 12 show the result of an excision performed to save life. The case had been treated for some years with a long traction-splint. The head, neck, and great trochanter had gone through the acetabulum into the pelvic cavity, and were necrotic. Several sinuses acted as sewers to carry away the fetid

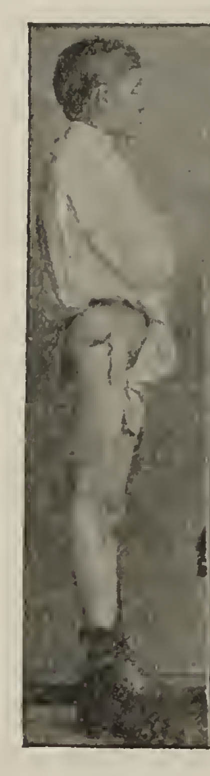
FIG. 10.

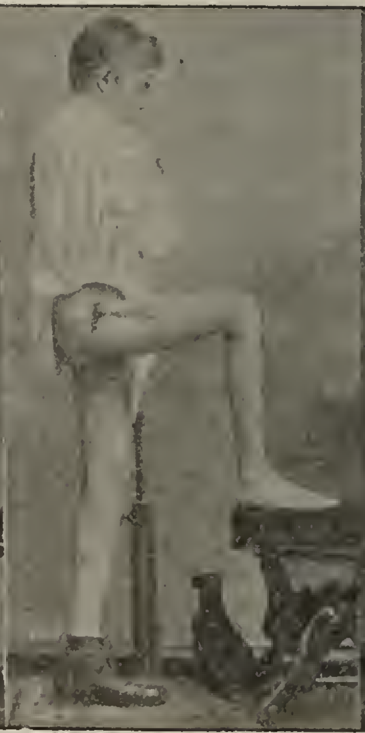
FIG. 11.

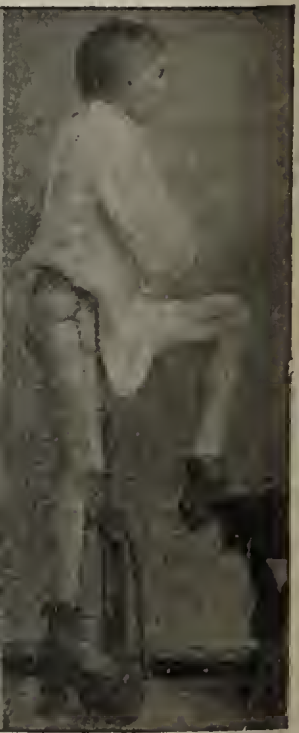
FIG. 12.

lischarge. The patient not only recovered fully, but ias a useful limb, with about $3\frac{1}{2}$ inches of shortening vhen last examined. A severe injury from a fall rought him to the hospital recently, when I again vacuated a pocket of pus.

The reasons why we operate are:

1. To save years of treatment and suffering.
2. To explore intelligently.
3. To get rid of foreign material by drainage.
4. To avoid amyloid disease of the liver and kidney y infection.
5. To prevent burrowing into important structures, nd into cavities such as the peritoneal. (I have seen psoas abscess break into the peritoneal cavity, the ladder, and into the pelvis of the kidney. I have een the quadriceps group of muscles destroyed by the urrowing of pus and tuberculous material.)
6. To prevent maceration and infection, which leads extensive destruction.
7. To remove sequestra, if present.
8. To apply the scientific rules laid down both by e surgeon and the pathologist.
9. To avoid the danger of the tuberculous cavity ecoming purulent, an accident that occurs in 90% of uch cases.
10. To anticipate a possible excision.

We should operate:

1. Always when the capsule of the joint is ruptured.
2. In rapid osteomyelitis, or dual inoculations with int-distention.
3. On abscesses appearing at points where they may urrow to other important structures, and into cavities, g. anterior rupture of the capsule of the hip-joint (the ischarge in such cases takes place into the iliacus in-rnus muscle, and at once burrows into the pelvic vity); tuberculous or purulent disease of the wrist-int discharging among the flexor or extensor tendons, estroying, in such cases, if left to nature, the muscles the forearm and the tendons in the palm of the nd; large abscesses in Pott's disease of the spine, hich are likely to rupture into the peritoneal cavity, e bladder, rectum, and pelvis of the kidney; retro-aryngeal abscess in cervical Pott's disease (which ould always be opened externally to prevent infection the lungs); fluctuating tumors in dorsal Pott's dis-se which are likely to penetrate the pleural cavity mediastinum; rupture of the capsule of the knee-int superiorly, the abscess discharging underneath e quadriceps group of muscles (this is also true when rrowing takes place from any joint); in ankle-joint sease, where the abscess ruptures posteriorly, bur-wing upwards behind the tendo Achillis, finding an tlet often three inches above the joint (such joints nnot drain, owing to the location of the sinus).
4. On all tense abscesses, because one can never tell what direction burrowing will take place.
5. Always when carious or necrotic bone is present. (Inasmuch as this can never be determined until the abscess is opened and intelligently explored, I believe that nearly, if not all, abscesses should be opened and intelligently explored with the finger, to determine this most important complication; certainly, in all abscesses where the presence of dead bone might be suspected.)
6. In case of rapidly increasing abscess.
7. On joints filled with tuberculous or purulent material. (Drainage at the lowest point and the washing out of the joints is certainly a rational, scientific procedure.)
8. When there is repeated occurrence of abscess and multiple sinuses.
9. When abscesses occur in feeble children, with rise of temperature.
10. In every abscess with rise of temperature.
11. When there is doubt as regards diagnosis. (It is safer to explore and drain than to leave the condition to nature).
12. In every abscess filled with pus or when there is breaking-down of tuberculous tissue.

In my opinion, it is the best practice, when abscess is present in the joint, to follow up the case with appropriate mechanical treatment. When it is impossible to determine the amount of disease that is present, or where the abscess originates, it is better practice to operate on the abscess and intelligently explore it. I have put my finger into a joint and found abscess not only in the joint itself, but external to it. I have found the joint diseased and a focus of disease located in the epiphysis, and frequently the head separated from the neck of the bone.

A case already quoted occurred in Bellevue Hospital, and I secured the specimen. The man had on him the mark of a perineal strap and other evidences that he had worn a hip-splint of some description. He lay upon the table with his thigh pepper-boxed with sinuses, and when the joint was finally dissected out, one of the students presented the specimen to me; I made a section of it, and have the photographs of the specimen. (See Figs. 7, 8.) This man had suffered from intracapsular fracture. He was 30 years old. The head of the bone became consolidated in the acetabulum, with the neck of the bone in the new articulation which had been formed by the great trochanter. An abscess-cavity was found behind the head of the bone in the acetabulum. Cases of this kind should be operated upon and the finger introduced. One could cure such a case in a few minutes with the curet. The prolongation of mechanical treatment would not do any good, and the patient might die of infection, as this one did.

In another case that had been treated by one of my colleagues for several months I proceeded at once to follow the sinuses down, and found that the abscess had burrowed along up the radius and ulna, and that nearly 4 inches of bone were destroyed. I immediately removed all of the diseased tissue, several inches of bone, shortened some of the tendons, and got a fairly good hand. If this case had been operated on early it would not have been necessary to remove 4 or 5 inches of the radius and ulna.

Recent examinations have proved, as I have already stated, that 90% of all abscesses which at first might have been tubercular, were purulent. In other words, a dual inoculation had taken place. From the fact that 90% of so-called simple tubercular abscesses sooner or later become purulent, conclusion follows that they should be drained early.

Inasmuch as all small tuberculous cavities may at any time become infected with pus-microbes and be converted into a virulent, purulent abscess, and inasmuch as we never can tell at what moment such an accident may, and quite likely will, occur, I claim that we have no moral right to subject a child to such danger. The child with a tuberculous abscess is in danger. It is a powder-magazine that may become infected and explode any day. I see hundreds of them, and every surgeon has verified the same observations, that tuberculous cavities become infected and take on most alarming activity, resulting in extensive destruction of bone and soft parts, all of which might have been avoided by early drainage and care.

As well tell us to watch a case of appendicitis until the abscess has formed and ruptured, as to tell us to let nature take care of these abscesses. The conditions are similar, and the rule of practice governing each should be the same, based upon etiology and pathology.

Tuberculosis produces slow destructive changes; purulent infection a rapid osteomyelitis. One produces caries, the other extensive death of bone and soft parts, both producing similar results, only one acting more rapidly than the other. Tuberculosis of joints is analogous to ulceration of soft parts and pyogenic infection of bone involving the joint, to sloughing and rapid destruction *en masse.* The principle of treatment is essentially the same in each process, and it also should be in joint-disease.

PARANOMIA—VISUAL AND MYOTACTIC.

Non-Recollection Aphasia for Names of Objects Seen and Felt.[1]

By F. W. LANGDON, M.D.,
of Cincinnati.
Neurologist to the Cincinnati Hospital.

The patient who kindly presents himself for inspection this evening has aphasia of a type that is of interest partly on account of its rarity, partly because of the accuracy with which the speech-disorder and the collateral symptoms enable us to locate the lesion. The case possesses also medicolegal bearings of more or less interest. The salient points in the history, for which we are indebted to Dr. A. Howard Smith, interne in the neurological service of the Cincinnati Hospital are as follows :

R. F. aged 69, Irish, married, a scroll-sawyer by occupation, was admitted to the Cincinnati Hospital, in the surgical service of my colleague, Dr. N. P. Dandridge, for treatment for varicose veins of the right leg.

Operation was performed October 6, 1898, and consisted in excision of the veins. Recovery was excellent and without complication. On October 11, the man was noticed by the night-nurse to be "restless" during the night and in the morning he was semi-comatose, with right hemiplegia involving face, arm, and leg. The right pupil was larger than the left. The urine contained no albumin. The patient was transferred to the neurological service on October 19 when he was found to be bedridden and semi-comatose, without control of sphincters. The temperature was 98, the pulse 60, of low tension. The urine exhibited no abnormity.

There was gradual improvement to November 13, when the temperature was 98°, the pulse 64, of moderate tension, the sphincters under control, the urine normal. Mentally the man was good-natured, responsive to questions, and slightly emotional (weeping) at intervals. Weakness of the right side of the face was scarcely noticeable. The patient could move the right arm and leg in all directions although there was considerable ataxia of the right forearm and hand, with anesthesia to touch, pain and temperature in the right hand, and extending about half-way up the forearm—but not "segmental" in form. The dynamometric record was: R. 26, L. 55 (normal about 80). There was complete right lateral homonymous hemianopsia. The pupils were responsive to light and contracted in convergence. The tongue was protruded in the median line.

Dr. Victor Ray, who kindly examined the eyegrounds at my request, reported "slight swelling of both discs; physiologic cups absent; vessels contracted in both eyes; slight atrophic changes in *left eye only.*"

Since November 20 the man has been up and about the ward daily.

We may note now that he walks fairly well. He has some ataxia of the right forearm and leg, and has good intelligence generally.

Directing your attention to his *speech*-functions I will ask him some questions to test his receptive, constructive and emissive speech-mechanisms.

Question. What is your name ?
Answer. Richard Fitzgerald.
Question. Can you spell Richard ?
Answer. R-I-C-H-A-R-D.
Question. Can you spell John ?
Answer. J-O-H-N.

You notice that he is not an ignorant man.

Question. What is your business ?
Answer. Scroll-sawing.
Question. What is this (indicating a chair) ?
Answer. This is—well, I can't tell.
Question. You see these gentlemen ; could you guess their business ?
Answer. Well, it would be difficult to guess all of them.

Without prolonging the conversation, we may note that the man is a skilled workman, and has had both his hands and head educated. He can hear and understand words and form answers correctly; there is not an aphasia in either an auditory or a motor sense.

Suppose we test these functions a little further. I will ask him to repeat after me :

Question. Say "John went to market."
Answer. John went to market.
Question. What do people go to market for ?
Answer. Sometimes for one thing and sometimes for another.
Question. Tell us some of the things ?
Answer. Sometimes they go to get apples and sometimes for other things.

We see he can follow even more complicated ideas. He can receive and understand words at the hearing center (first temporal gyrus) ; transmit the result to the word-planning area, in the foot of Broca's convolution, (third frontal) ; there he can repeat the word heard or can construct new words perfectly as desired. The connection is perfect also from the word-forming center to the word-uttering center (foot of central gyri), where he emits motor word-impulses to the basal ganglia, to be there converted into articulate words. He can hear and understand words, transmit and recollect the impressions at the word-planning area; then transmit to the cortical utterance-area and finally emit articulate words correctly. His auditory and motor speech-centers and the connections between the two are intact. (See Fig. 1).

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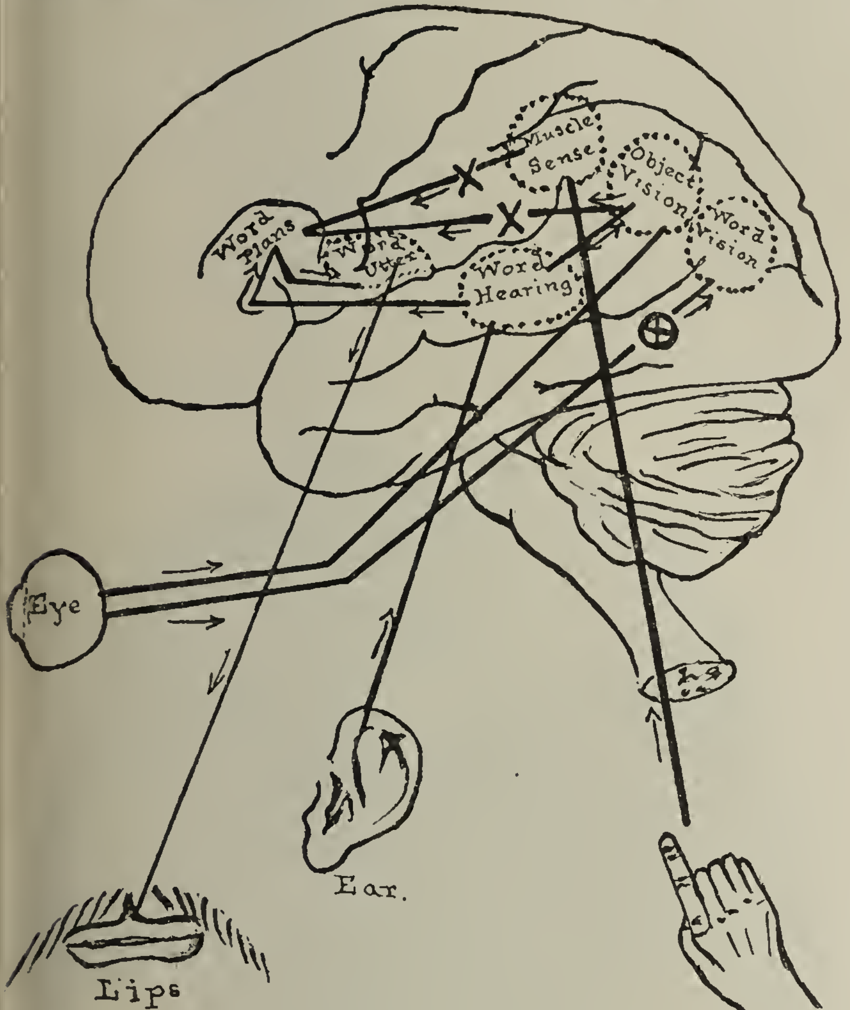
[1] A clinical demonstration before the Academy of Medicine of Cincinnati, November 28, 1898.



IG. 1. X. Interruptions in subcortical transmission, causing failure of recollection of sensory images, while memory remains intact. ⊕. Break in receptive path, causing subcortical word-blindness.

Suppose we test his *visual* speech-area.

Question. What is that (holding up a piece of chalk)?

Answer. It is what we call——I guess I am a little off.

Question. What is it used for?

Answer. It is used for writing purposes.

Question. What is that (showing a spoon)?

Answer. I will have to stop and think, you know; I have othing to go by.

Question. If I were to name it, would you know?

Answer. Yes, sir.

Question. Is it a shoe?

Answer. No.

Question. Is it a knife?

Answer. No.

Question. Is it a spoon?

Answer. No, it is not a spoon.

Question. Is it a pencil?

Answer. I do not see any pencil about it. Now let me ee, I believe it *is* a spoon.

Now, a man may remember and not *recollect*. Commonly e use the terms as synonymous, but a man may have a erfect memory and no *recollection*, as we may show in this se.

Question. Do you know what this is (showing spoon gain)?

Answer. Yes; I know what it is, but I cannot call it.

You notice he cannot *recollect* the name, which he remembered when I told it to him. He has the object-recognition nemory) and word-construction areas intact, but between the eception of the *visual impression* and the forming of the ame there is a break. He cannot *recollect* the visual impression at the word-forming area. Between word-hearing and object-vision, however, the connection is good, as shown by his recognition of the *spoken* name. This is important, because it excludes practically a cortical lesion. This is not a case of *object-blindness* because the patient sees objects and knows what they are used for. He remembers the objects we show him, yet when he wants to *transmit* that memory to the word-planning area or word-utterance area, and recollect that sensory impression or memory into words his power of transmission or recollection is gone. We know the break is not in the word-planning or word-utterance area or in the visual area for objects, or in the word-hearing area, because all these act normally. Whether he would recognize objects by hearing the sounds they make remains to be tested.

Question. What is that you hear (ringing a bell out of patient's sight)?

Answer. That is a bell.

He would recognize the bark of a dog, but could not call the dog by name if it were to run along the floor without barking. In other words, he *recognizes* by sound but not by sight, although he can see.

Question. What is this (showing bell, being careful not to let it make a sound)?

Answer. I do not know.

Question. Is it a knife?

Answer. No, sir.

Question. Is it a shoe?

Answer. No, sir.

Question. Is it a bell?

Answer. No—or, let me see, I said it was not a bell; I do not mean that. I think it *is* a bell.

Here we see a demonstration of an unbroken communication between the word-hearing and object-vision cortical areas.

A form of aphasia not uncommon is alexia, the inability to recognize letters and words. We know that this man is intelligent. Suppose we test his word-vision area.

Question. What is this (sheet of paper with the word OHIO in printed letters nearly an inch in height?)

Answer. Now, I cannot say.

Question. Is it a piece of paper?

Answer. Yes, sir.

Question. Is there anything on it?

Answer. There is some kind of writing.

Question. Can you recollect any of the letters?

Answer. Yes, here is "H."

Question. How old were you when you left Ireland?

Answer. I was only a boy.

Question. Can you recognize any letters on this side of the paper (the side containing the word VALLEY in large type)?

Answer. Yes, sir.

Question. Are they figures or letters?

Answer. They are letters. There is "H."

You will observe that there is no "H" on this side of the paper. He has aliterarum, or nonrecognition of letters seen; also alexia, or nonrecognition of words seen. I think from the study of the case in other respects, that the aliterarum and alexia are not cortical. If they were, it would be an exceedingly limited cortical lesion in the angular gyrus. The reason I do not think they are cortical is the already practically proven fact that the cortical area for object-vision memories is intact; he simply cannot recollect these memories at the word-forming area. However, he has a form of alexia, probably a *subcortical* alexia. We may test this by asking him the *shape* of letters and words, so as to judge whether the cortical images (memories) are present.

Question. What shape is "O"?

Answer. It is round.

Question. What shape is "B"?

Answer. Makes an outline of B in the air with finger.

Other tests show that he has cortical images (memories) of words. He can describe them by their length, by their number of letters and their number of syllables, and by their meanings and definitions.

(Note.—Subsequent test show that he also remembers the shape and significance of figures, can add, subtract, multiply and divide correctly, *mentally* and *orally*, but *cannot name any figures at sight.*

It is evident that the patient has cortical memories of the shapes of letters and words, and that these are in connection with the *auditory* area, but *not* with the *visual* tract. Here we see that he has alexia without apraxia (object-blindness). This suggests different paths and centers for the two functions, and, even though they may closely adjoin each other, one may be damaged without the other, as we see in this case.

In gathering together the visual impulses of objects that have made their normal impressions on the angular gyrus, the patient cannot recollect them so as to construct and convey to others the name. In other words, he has a paraphasia—and as this paraphasia is of *names* it is properly a *paranomia*. It is not an auditory paranomia. It depends upon a lesion between the object-visual area (angular gyrus) and the motor speech area (Broca's convolution). This is the main fact about the aphasia, it is a visual paranomia, so that the lesion is not *in* the cortical center, but somewhere *about* that center. The aphasia is, from all the evidence, due to a subcortical lesion.

Question. What do you see before you (two fingers are held up)?
Answer. I do not know.
Question. How many are there?
Answer. Two.
Question. Two what?
Answer. Two objects.
Question. Are they moving (moving fingers)?
Answer. Yes.
Question. Can you see this (spoon in left visual field)?
Answer. Yes.
Question. Can you see it now (in right visual field)?
Answer. No.

It is evident to you all, even from this rough test, that there is a right hemianopsia.

Question. Do you feel me touch you (touching right arm, forearm, and hand in succession)?
Answer. Yes.
Question. Where?
Answer. On the arm.

The patient has tactile anesthesia over the right hand and forearm.

There is also loss of temperature-sense and defect (diminution) of pain-sense.

Question. Do you call your family by their names, when they come to see you?
Answer. Yes.
Question. What is your wife's name?
Answer. Her name is Margaret.
Question. What is that (hands patient a spoon; patient's eyes closed)?
Answer. I know what it is, but cannot call its name.
Question. What is it good for?
Answer. (Goes through the movement of eating.)

By this latter test we see that he recognizes a spoon by touch (muscle-sense) and understands its uses. He has therefore has no myotactic (muscle-sense) aphasia, but he cannot recollect the touch-impressions and make for them a name: he has a break therefore between the muscle-sense area for objects, and the motor speech-area—in other words, a *myotactic paranomia* or nonrecollection-aphasia for names of muscle-sense impressions.

Question. You were always a good-natured man, were you not?
Answer. Yes, sir.
Question. What would you say if a man came at you in this way (assuming a pugilistic attitude)?
Answer. What would I say? I would put my pins up (exhibiting his fists in a similar manner).

You observe that he understands and responds to the language of pantomime. This indicates, of course, one of two conditions, namely: (1) some of the entering visual fibers to mimicry-speech-area of the left cortex have escaped damage; or (2) mimic language is bilaterally represented in the brain, and the patient is using his right hemisphere. The latter seems the more probable in this case.

The case is of interest also on account of the collateral symptoms, which indicate the capsular and subcortical situation of the lesion, and the escape of the cortex itself. The man's intelligence and association-powers in general are good, notwithstanding the fact that he occasionally gives a queer answer. From a medico-legal standpoint, while he would not be able to read a contract, if it were *read to him* he would understand it. These are matters not only of theoretic and scientific importance, but of practical bearing. If a man acts queerly, has the use of his limbs, and gives occasionally a queer answer to a question, some witnesses might think him insane, whereas this man is as sane as any one in this house, entirely competent to legally assent to contracts, dictate a will and transact such business as does not require him to read or write or name objects at sight; but the connection between areas whereby he can *recollect* a sensory (visual or tactile) impulse into a motor impulse are damaged. If someone will do the *re*collecting for him, he can do the rest. There is but one place where all the symptoms could be caused by a single lesion, and the nature of the case would not suggest that we have more than one lesion to accoun for the symptoms. The diagram (Fig. 2) shows the presumed location of the *lesion* in the posterior limb o the left internal capsule.

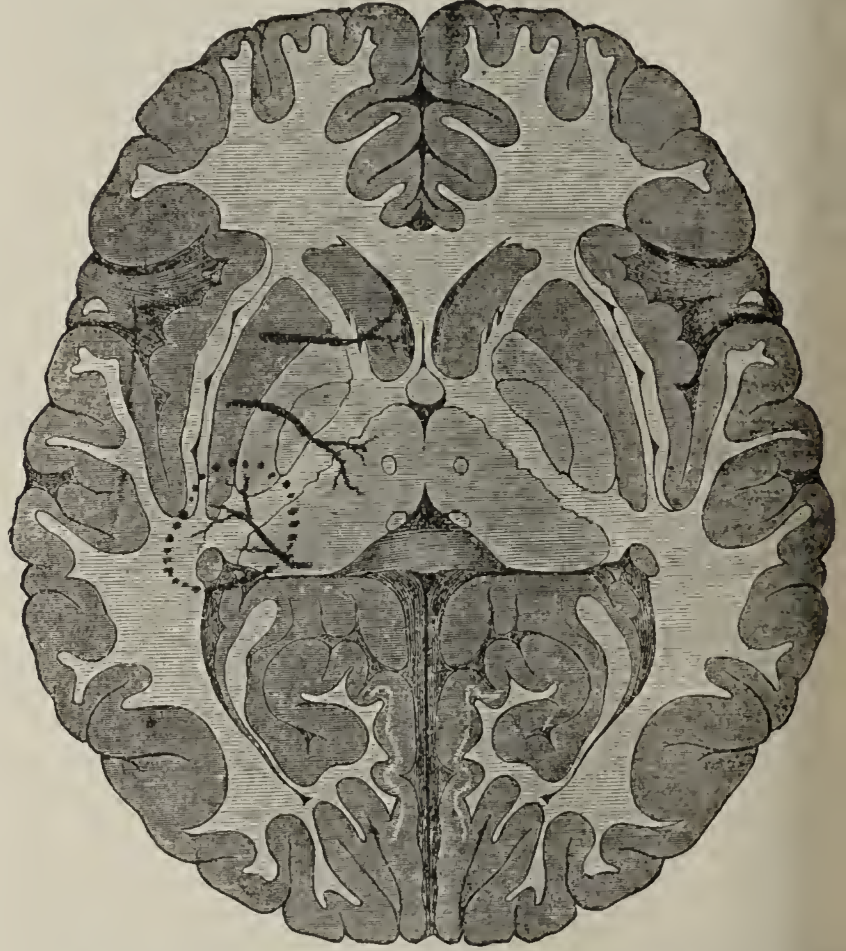


Fig. 2. Horizontal section through internal capsule and basal ganglia. Dotted area shows extent of thrombotic softening in distribution of external thalamic artery.

To sum up the types of aphasia[2] presented by ou tient, we have: (1) Paranomia of visual type—or inality to recollect into words the *names* of objects seen d recognized and remembered; paranomia of muslar-sense type, or inability to *recollect* into words the mes of objects felt and recognized and remembered;) alexia and aliterarum, or word-blindness and letterindness, subcortical in origin, as shown by preservan of cortical (mental) images of letters and words;) agraphia of executive or motor type purely—due ataxia of right hand, not to any difficulty in psychic rd-construction. The patient can write legibly with s left hand, though awkwardly.

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[2] For classification and nomenclature of the aphasias see a paper by the write in Transactions of the Ohio State Medical Society, 1897.

As to the location of the lesion, it appears extremely obable that the cortex has escaped serious damage. e symptoms—right hemiplegia, anesthesia of the ht hand and forearm, right hemianopsia, alexia and nrecollection-aphasia, *without loss* of word-memories object-memories—all point to a lesion involving the sterior limb of the left internal capsule and extendg outward into the centrum ovale, but not reaching the cortex. Such a lesion would involve the sensory rtion of the internal capsule directly—the motor porn indirectly (by pressure); also the optic radiations Gratiolet—to the occipital cortex and the receptive cts to the angular gyrus. (See Fig. 1.) The extenn outward into the subcortical alba, would necessarily stroy more or less of the connection-tracts between (visual and motor) speech-areas; also between the reognostic (muscle-sense) and motor speech-areas. e diagram (Fig. 2) shows the location of such a ion.

As regards the *nature* of the lesion, the age of the tient, the presence of vascular disease elsewhere, the set during sleep, implying low blood-pressure, the provement in the motor paralysis, and the situation the lesion, are all strongly suggestive of thrombotic tening. A mitral bruit which is present might sugst embolism—an event, however, that is most unlikely occur in the vessel here involved (external thalamic). morrhage is possible, but the absence of vomiting, Cheyne-Stokes respiration, of prolonged albuminuria d of deep coma at any time, tend to exclude this gnosis, as would also the absence of any cause of ightened blood-pressure at the time of onset.

ADDITIONAL COMMENT AND SUMMARY.—Anomia—sence of names—would be a proper designation for *loss name-memories, i. e., nonrecognition* of names of objects ard, seen, felt, smelled, or tasted. Its existence uld depend on destruction or abolition of function a hypothetic "naming-center" or its entering xons." Such a center or area has been suggested by oadbent[3] and described by Mills and McConnell.[4] e latter report a case with a lesion in the third temporal gyrus and subcortex in support of their view. The patient, however, *recognized the names* when spoken; hence name-memories must have been present, as in the case here presented. It is also noteworthy that this case presented right hemianopsia, and hemiplegia later. It is evident that the patient that I have presented has not *anomia*, for he also recognizes names when spoken. There is nothing in either case, however, incompatible with the existence of a true "naming-center" as postulated and located by Mills, for the same lesion that destroys the connections between the visual memory and motor speech-areas, would also be likely to involve fibers going to the supposed "naming-center" of Mills in the third temporal gyrus. While, therefore, the existence of a special "naming-center" or area may be conceded as possible, it must still be considered as "not proven."

It is evident that in our case the lesion is not *in*, but "away from" or "about" the speech-memory areas; hence it belongs in the group of *para*phasias called "conduction-aphasias," by Lichthe and Wernicke; "commissural," by Bastian; "interpictorial," by Wyllie, etc. I would suggest *nonrecollection*-aphasia as a suitable clinical name for the whole group of paraphasias.[5] Paranomia would seem a proper designation for the case here presented, as well as for that described by Mills and McConnell already cited; and for the form called "optic aphasia" by Freund,[6] which appears of similar character. It may be characterized as an inability to *recollect* sensory images into motor names. It is, therefore, one of the varieties of paraphasia or nonrecollection-aphasia. In accordance with the sensory impressions received we may have: (1) Auditory paranomia; (2) Visual paranomia (as in this case); (3) Myotactic (muscle-sense) paranomia (as in this case); (4) Olfactory paranomia; (5) Gustatory paranomia. Memory may exist and recollection be absent in all these forms. The lesion affects connecting tracts (axons, collaterals, dendrons), which are intermediate between the sensory (receptive) and the motor (emissive) areas.

In the autumn 1898 number of *Brain* a similar case as regards inability to name objects and persons, with preservation of auditory and motor speech, is reported by Dr. Byrom Bramwell (p. 343). This patient was adjudged capable of making his will, and did so to the entire satisfaction of his physician and attorney.

The autopsy revealed acute softening of Broca's convolution and anterior end of the insula, with some of the sub-insular white matter; thus probably involving axons passing from the visual speech-area to the wordforming (Broca's) area. In this latter respect it is comparable with the case here reported, though very dissimilar in other respects. There was no hemianopia.

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[5] The Aphasias and their Medico-Legal Relations, Transactions Ohio State Medical Society, 1897.

[6] Osler, Principles and Practice of Medicine, 1898, p. 1045.

A CASE OF TETANY, WITH NOTES CONCERNING THE ETIOLOGY.[1]

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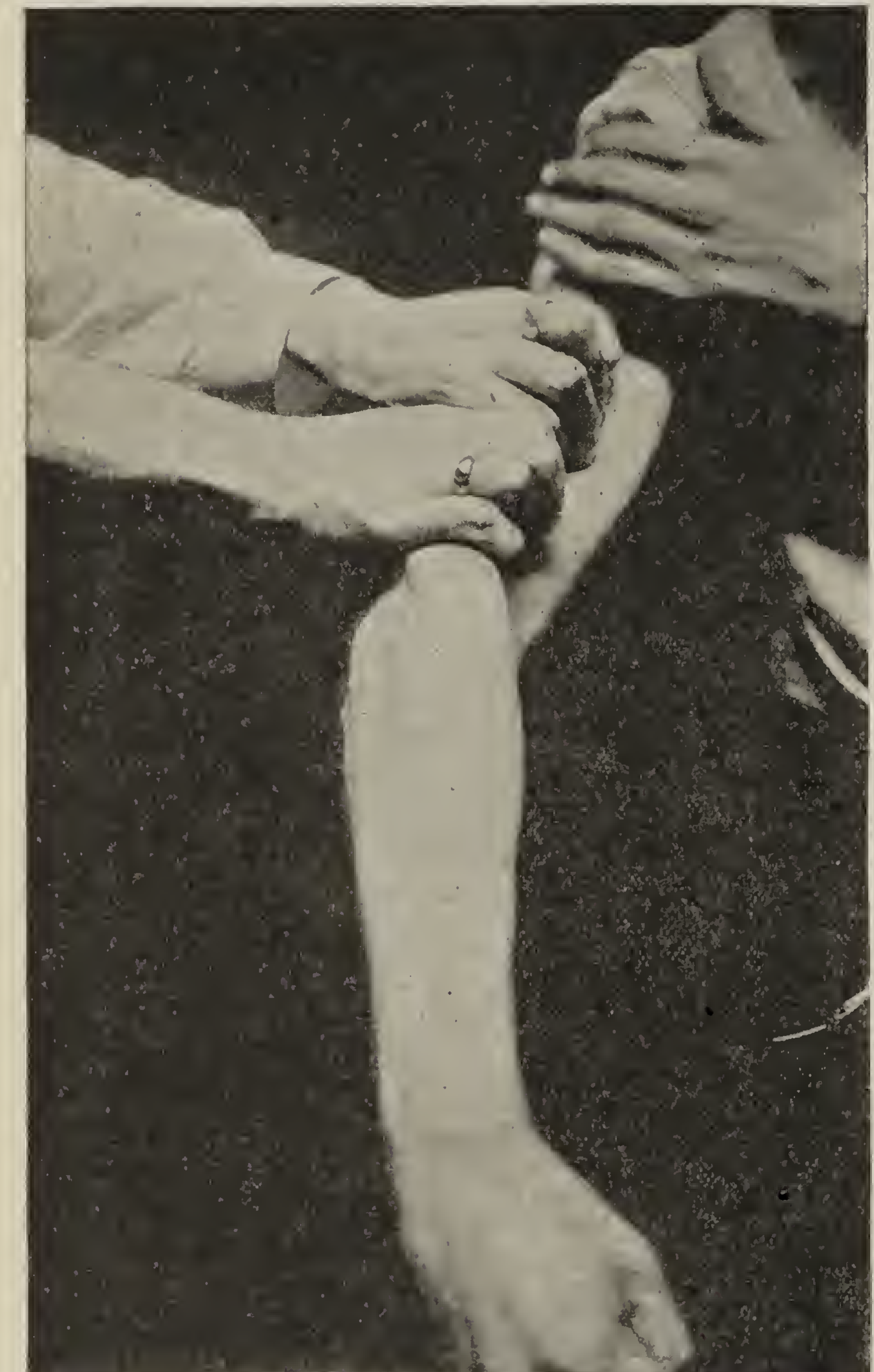

Trousseau's Phenomenon in a Case of Tetany.

On July 1, 1898, there presented himself in Dr. Spiller's Clinic for Nervous Diseases, in the Polyclinic Hospital, a young man, 22 years of age, a native of Austria, well-built and well-nourished, with an awkward and hesitating gait, and an expression of distress upon an otherwise dull countenance. The man's condition was such that it was somewhat difficult to obtain from him an accurate account of himself, but gradually, various facts were elicited. He had been seized with "cramp" so severe that he had fallen upon the street, and having been seen by a policeman had been brought to the hospital. At once he began to complain of pain in the feet, bending down to grasp them. Then the pain attacked the hands, and contractions followed immediately of the muscles of the hand, arm, face, and neck. The patient cried out with pain, and twisted himself into various shapes, now bending down to grasp his feet, again beating his head with his clenched hands. After a moment or two the spasm ceased, to be followed at intervals of perhaps 3 minutes by others even more general and violent. Upon the
removal of the shoes and stockings, the feet were seen to b
in frequent violent spasms; the toes were flexed, the feet i
a position of talipes equinovarus; the ankle-joints, kne
joints and hip-joints also were flexed, and the limbs adducte
As for the position of the upper extremity, the fingers wer
oftenest flexed upon the palm, and the thumb upon th
fingers, making a closed fist, instead of the "obstetric hand
usually seen in tetany; then followed violent action of a
the muscles of the upper extremity, the flexors at first pr
dominating, with the arms pressed against the chest. Aft
a moment the extensors shared in the spasm; the hands an
arms were straightened, the fingers were slowly separate
and slightly overextended, and then, for the moment th
"claw-hand" was produced.

In the general and most severe attacks, the patient g
down upon the floor, groaning with pain, and flexed in ever
joint where it was possible. The rigidity of the muscles wa
extreme during the attacks, and when the spasm was facia
the change from a heavy, dull countenance to a tensel
drawn look was striking. The occipitofrontalis was plainl
affected, being hard and furrowed.

Later the man was placed in bed and the contractions
abdominal and thoracic muscles could be observed as wel
Electric examination yielded negative information, as th
muscles were in such frequent action, and pain and sens
tiveness were so constant; so that Erb's sign of tetan
namely, the increased electric excitability and chang
formula, could not be demonstrated. Neither could the e
aggerated response to mechanical stimulation of the faci
nerve known as Chvostek's sign be elicited. This may hav
been due partly to the fact that the patient objected stre
uously to the experiment, because of the pain caused b
tapping the facial nerve; so that the attempt was quick
abandoned; but persisting pressure over the median nerv
and brachial artery produced a gradually occurring violen
spasm of the muscles of the forearm and hand, which a
gradually disappeared after the pressure had been a fe
moments discontinued; and pressure over the ulnar nerv
at the condyle caused spasm of the ulnar muscle of the for
arm and hand.

The accompanying photograph was obtained by Dr. Spill
some days after the cessation of the spasms, and shows th
occurrence of "Trousseau's phenomenon," or contraction
muscles caused by pressure upon the brachial vessels an
nerves, which may be produced as late as two weeks aft
the subsidence of the acute stage of the disease.

Upon these evidences was established the diagnos
of tetany, namely—the bilateral, intermittent, painf
spasms, beginning in the extremities and developin
toward the head and trunk; the increased sensitivene
of nerves to pressure, and the unfailing occurrence
Trousseau's phenomenon upon each attempt to pr
duce it. Further confirmation lay in the existence
subjective sensory symptoms, as general tingling an
itching of the skin, which were complained of from th
first; also the occurrence of gastric irritability, whic
always preceded the onset, so that food was hardl
taken for a day or two. In the man's own word
"Whenever I get a spasm it always commences in m
stomach."

The patient remained in the hospital for 2 days, an
was seen at irregular intervals thereafter in the clini
At the end of 2 weeks, some days after the cessation
the spasms, Trousseau's sign was still evident. Fo
weeks later still, the man had a slight spasm of th
hands and "pain on deep pressure over the muscles
the calf and thigh."

At first there was no change in the patellar refle
at a later examination it was thought to be absent o
the right side.

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[1] Read before the Philadelphia Neurological Society, October, 1898.

The man has had similar attacks within the past 5 ars, lasting from 3 days to 2 weeks, and always in e summer.

It has been impossible thus far to trace his disease any of the commonly observed predisposing causes, ve possibly the fact that the family came from a town ar Vienna; but this was 18 years ago, and no other ember has suffered in the same way, nor do they iow of any friend or relation who ever did. The mily occupation among the men is that of a barber. ie mother is a graduated midwife, exhibiting with stifiable pride her Vienna diploma.

Tetany is so rare in America that one may be reason- ly sure of counting the cases reported. To Dr. J. P. ozer Griffith's list of 72 reports, with 5 cases of his n, may be added those of Lloyd, Dana, and a few hers, with 1 unreported case I have learned of that curred a few years ago in the Children's Hospital of e Mary J. Drexel Home in this city. Still, the num- r will hardly reach 100—not enough to base conclu- ons upon as to the etiology, as the cases are scattered er a territory ranging from Canada to Texas, and m the Atlantic to the Pacific coast, embracing widely ffering conditions.

The serial arrangement of Dr. Griffith's list shows at glance an increase in numbers from year to year— m 4 cases in 1879 to 16 in 1893. This is probably ie, to some extent, to increasing interest in the sub- t, but it still suggests the possibility that the disease becoming more frequent in this country, which ould not be surprising, if true, as our citizens of for- n birth are now so numerous, and are drawn so rgely from the classes affected abroad.

Even in Europe, where so many able men—from einheim, who first published a description, to the iters of the present day—have given much time and bor to the subject, with abundant material for study, cannot be said that the cause of the disease is known. Frankl-Hochwarth, of Vienna, has recently written exhaustive monograph upon tetany (which is pub- hed in Nothnagel's *Special Pathology*). He reviews e history of the disease from early times, and from a reful scrutiny of the recorded work of many investi- tors he has prepared classified and tabulated sta- stics having a bearing upon various phases of the bject.

He has arranged the reported cases in 7 groups, as llows:

Group I includes the tetany of otherwise healthy lults; the "idiopathic tetany of workingmen;" "acute relapsing acute, occurring at certain seasons, and ten in certain localities, constituting epidemics at mes."

This form of tetany was, for obvious reasons, once lled "shoemaker's cramp," but, as a matter of fact, e ranks of many occupations have been invaded by notably tailors, in Vienna. It is true, however, that artisans of some sort, and hard workers, are the sufferers, "people in the higher walks of life being seldom affected." To this group our patient belongs, illustrating the abrupt and severe onset and short duration that are characteristic of this class.

In Group II tetany is associated with gastro-intestinal diseases and helminthiasis, first in importance being gastrectasia, and next, diarrheal diseases.

Group III includes tetany associated with infectious diseases.

In Group IV tetany has been observed after poisoning, and this includes appropriately cases of nephritis.

Group V includes cases occurring during pregnancy, labor and lactation.

Group VI includes cases following removal of the thyroid gland, also cases associated with atrophy or absence of the gland.

Group VII includes cases associated with other severe nervous affections.

There are in Hochwarth's article several tables setting forth respectively ages, occupations, seasons of the year, and various pathologic complications, and other circumstances of interest, furnishing statistics for reference which may be valuable from several points of view. An analysis of the facts so carefully recorded in this monograph, and of the observations of other well-known writers, shows that certain conditions are present with sufficient regularity to lead us to expect them in connection with tetany, and to try to learn their significance.

First, as to the ages of those attacked. From infancy to middle life appears to be the vulnerable period; after the age of 20, women are said to suffer twice as often as men.

The list of occupations, which, of course, determine the environment, is suggestive. Still, notwithstanding the facts that have led to the bestowal of such names as "shoemaker's cramp," "workingman's tetany" and "wet-nurse's contracture," we find many occupations represented, but they are alike in being either laborious or those of the poorly fed and badly housed.

As for locality, epidemics have occurred in France, Italy, Austria, Germany. Cases are noted also in Scandinavia, a few more in Russia, and some in England. The disease is still prevalent in Vienna and Heidelberg, but Charcot is quoted as having said that he had not seen a case in Paris for 30 years.

The season of the year that furnishes the largest number of cases is late winter and early spring; every month appears in the list, but the month of March oftenest.

Frankl-Hochwarth does not consider the combination of tetany with infectious diseases important, although he cites concurrent epidemics. In one of tetany and typhus, it is worthy of note that only two attacks of tetany occurred earlier than the tenth day of the fever. More importance seems to be attached to tetany in conjunction with rheumatism, and similar affections associated with exposure to cold, referring to Dr. J. W. McConnell's case of tetany with tonsillitis, stating that Chvostek also called attention to similar combinations.

All writers upon this subject have called attention to the frequency of tetany in association with gastrectasia, and following long-continued diarrheal disease. Such cases are usually chronic in character, and likely to end fatally.

The most interesting of all, both to neurologist and physiologist, are those cases following extirpation of the thyroid gland, which are said to occur regardless of age, sex, or occupation. The disease may be apprehended in atrophy of the gland, also, as in myxedema, and one of Stewart's cases is said to have "had no trace of the thyroid;" while, as might be conceived, tetany has not been definitely associated with enlargements of the gland, as in endemic goiter. Frankl-Hochwarth discusses this point at length, and indeed the many other phases of the disease that I have not attempted to allude to. That he has neglected no point of interest is evidenced by the 12 pages of references appended to his work.

In a valuable article by Althaus, of London, the statement is made that tetany is "due to certain kinds of irritation acting upon an otherwise predisposed and enfeebled system," which is a conservative and safe way of putting the case, but yet a scientific one. More and more it is coming to be believed that tetany is due to an infection, and assuming this to be the case, whether the toxic agent is manufactured within the system or imported from without, it is not surprising to find it associated with so many and such varying conditions. The predisposing weakness of infancy, with its oft-recurring gastro-intestinal disturbances and liability to rachitis, the taxing occupations of adult life among hard-working people, the exhaustion incident to child-bearing and lactation in the midst of unhygienic surroundings, may well open the way for epidemics in localities where the conditions of life are hard, and at seasons of the year when the struggle for existence is most difficult. All these things make the way easy for "certain kinds of irritation," albeit the knowledge of them is most uncertain to produce their legitimate effect. In like manner, the various known infectious diseases and the gastro-intestinal conditions that so seriously interfere with nutrition, may act as predisposing causes by weakening the defences of the system; while it is a most interesting question and yet to be answered: Why does the removal or atrophy or absence of the thyroid gland so throw down these defences as to make this disease a more serious and often a fatal one whenever it attacks the patient?

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TWO CASES OF SPINAL PACHYMENINGITIS.[1]

By THEODORE DILLER, M.D.,
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Spinal pachymeningitis is commonly divided in two varieties—external and internal. By external p chymeningitis is meant an inflammation of the extern surface of the spinal dura mater and of the tissu intervening between it and the bone. It is nearl always localized and is usually due to a localized lesio commonly Pott's disease. Internal pachymeningiti on the other hand, is an inflammation of the inne surface of the dura mater; and along with this ther are frequently found inflammation and infiltration the tissues between the dura mater and the cord, vi the pia and the arachnoid. Indeed, in severe cases, th cord itself is impinged upon by the inflamed and infi trated membranes; and various grades of irritation an degeneration of the cord may be produced. The affec tion was described by Charcot and Joffroy under th name of "pachymeningitis hypertrophica cervicalis" and according to them it begins with minute hemo rhages on the internal surface of the dura, followed b inflammatory thickening and the production of a enormous amount of cicatricial and fibrous thickening The soft membranes may also become thickened.

The most constant and significant symptoms ar those due to pressure upon the nerve-roots of the spina cord, producing radiating or girdle pains, or pain referred to the peripheral distribution of the roots im pinged upon, *e. g.*, in the arms, abdomen, chest, etc while tenderness to pressure is slight or absent. B the same mechanism atrophy is also produced; bu sensory symptoms may long antedate motor symptoms Indeed, the latter may be inconspicuous, or they ma proceed to an extreme degree.[2]

The pains are often most severe and are commonl paroxysmal and intermittent. There is pain along th spine, chiefly in the cervical region, or, indeed, confine to this locality. The spine is held stiff—in a constraine position, to avoid movement, which would further irri tate the already irritated nerve-roots and thus increas pain. Sensation is commonly obtunded. There ma be dissociation of sensation, *i. e.*, loss of painful an thermic sense, with preservation of tactile sense. Hyper esthesia is frequently present and may be intense. Th knee-jerks are usually exaggerated, but may be absent he affection resembles amyotrophic lateral sclerosis, yringomyelia and progressive spinal muscular atrophy, n that atrophy of the shoulder-muscles is seen in all f these affections. It must also be distinguished from ott's disease, multiple neuritis, tumor, and general nyelitis.

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[1] Read before the Pittsburg Academy of Medicine, November 14, 1898.

[2] As illustrated in a case reported by Lloyd, *Journal of Nervous and Men Disease*, June, 1894.

Traumatism, cold with exposure, syphilis, and alcoolism are the chief causes to which the disease has een attributed.

The disease is a chronic one, but some cases have een much benefited by treatment, which should conist of rest, the frequent use of counter-irritants and he administration of potassium iodid and mercury, esides drugs for the relief of pain.

With this miniature and necessarily incomplete picure of the disease, I wish to relate briefly the histories f two cases that recently came under my observation. he first case to be related was studied with care by r. William B. Mowry and myself.

Case I.—A man aged 31, who was healthy up to the age of 8, was seized at the time with an attack of what seemed to e sciatic rheumatism in the left thigh, which lasted three ays. At the age of 21 he was seized with a similar attack. he pain subsided, but continued more or less until the age f 24, when for a period of 4 months he was confined to the ouse, suffering from severe pains all over his body. He reovered sufficiently to attend to his business and has done o for the past 7 years, with several brief interruptions. Durng the past 4 or 5 years he has lost steadily in flesh and trength. Four years ago he suffered for several months rom a strong girdle-pain in the back of the neck which was xtremely severe. Slight movements, such as those made in inging or talking, aggravated the pain. For the past 7 years he man has suffered from pains along the whole length of he spine and especially in the region from the occiput to he upper thoracic region; and during this time the pains ave, at times, extended all over his body, but they have not een especially localized to the left thigh. The man had ever had head-pains. When examined on October 18, 1898, he patient was found to bend forward. The spine was held n a constrained position to avoid pain that resulted from atempts to straighten or move it in a forward or a lateral irection. There was a rather marked atrophy of the traezius, suprascapular and deltoid muscles, which exhibited lectric reactions of degeneration. The man was quite thin, ut there was no other localized atrophy. The left leg was omewhat contracted on the thigh. The right knee-jerk vas sluggish, the left absent. The dynamometric record was 0 on the right, 72 on the left. Pressure over the large nerverunks caused pain nowhere. Sensation of all kinds was reserved. The man exhibited no mental symptoms.

Case II.—A man, aged 46, a millworker, contracted syphiis 10 years ago. For the past 8 years he has suffered greatly rom severe pains along the entire length of the spine and adiating from it around the trunk. These pains have been specially severe between the shoulder-blades and in the anterior portion of the chest about the middle region. The man has suffered also from pains in his legs and arms (in atter during the last 5 months only). These pains have not been constant, but intermittent and remittent; they have frequently been exceedingly severe for several hours at a time, and the man has enjoyed no long period of freedom from them during the past few years. He refers to them as "skin-pains." For the past 6 years he has been unable to work. During the past 8 years he has lost much flesh and strength, but he was never unable to walk. On examination the muscular system was found flabby everywhere. There was moderate localized atrophy of the suprascapular and deltoid muscles. There was slight pain only upon deep pressure over the large nerve-trunks. Sensation of all kinds was preserved. The knee-jerks were much exaggerated. The movements of the spine were restricted, especially in the cervical portion, to avoid pain. There was no kyphosis or scoliosis.

In both of these cases the disease has lasted a number of years. Both are characterized by pain along the entire length of the spine, chiefly located in the cervical region, and by intermittent pains all over the body. In both cases the pain is a "skin-pain," *i. e.*, a hyperesthesia or a referred pain and not due to neuritis. In both cases there is fixation of the spine, to avoid pain; and in both some atrophy of the shoulder-muscles—moderate in one case, and rather slight in the other. Both patients are able to be about, although considerably reduced in general strength. In neither case have there been cerebral symptoms.

These two cases are, therefore, singularly alike in their salient features. Both conform to the Charcot type in that the cervical region is the chief site of the disease; but in neither is it confined to this region. The dominant symptoms in both cases are the root-symptoms—the fixation of the spine, the pain along it and radiations from it along with the absence of tenderness on pressure. These symptoms, along with the absence of bony ankylosis or of a hump, the long continuance of the symptoms and the extent involved and the absence of dissociation of sensation are sufficient to distinguish these cases from the diseases already mentioned for which they might be mistaken. I have previously recorded a case, however, in which the weight of evidence between internal pachymeningitis and syringomyelia seemed almost evenly balanced.[3]

The first case recorded is quite usual in that it seems to have begun as a sciatic neuritis or neuralgia, and that a partial contracture of the flexor muscles of the affected member remains. I am somewhat at a loss to account for this. The most plausible explanation that occurs to me is that the spinal dura mater locally related to this nerve first became involved in the inflammatory process, which now apparently involves that entire membrane, and that it was especially severe in this region. I have under observation at present a patient whose symptoms conform somewhat to the type here described, but who presents severe head-symptoms, with double optic neuritis. I hope to report this case in detail before long.

A CASE OF THORACIC AORTIC ANEURYSM TREATED BY THE INTRODUCTION OF SILVER WIRE WITH ELECTRICITY.

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S. M. J., Armenian by birth, aged 31, hotel manager, used alcoholic beverages excessively. He had had one attack of gonorrhea. He was very active in his habits, and when in health weighed about 130 pounds. He had no special history. He consulted me about November 20. At that time he had a hoarse cough, and complained of pain under the left shoulder-blade. His face was flushed, pulse 110, and he was very nervous and excited. He had been in the hospital two months previous to September 1, but had left on slight subsidence of symptoms, and returned to his work. Shortly afterward the symptoms returned and he consulted me.

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[3] *University Medical Magazine*, 1897.

Examination revealed a large pulsating tumor on the left side above the clavicle. The clavicular-sternal ligaments were lengthened so that the clavicle rose and fell very perceptibly at each pulsation. Auscultation revealed a bruit distinct over the aortic region and slightly transmitted down the sternum, also up the right carotid and over the region of the pulsating tumor. The left radial artery gave a typical aneurysmal pulse, while the tension of the right was greatly increased, leaving the artery distended under the finger after the arterial wave had passed.

I advised the man to go to bed and prescribed aconite, veratrum viride, digitalis, potassium iodid, with morphia and bromids, as indicated by conditions. I also enjoined limited diet with epsom salts to relieve constipation. For the first week, there was decided improvement, but afterward the cough and the dyspnea increased so that the sedatives had to be repeated every two or three hours to afford relief. At this time, Dr. A. H. Henderson, of Mone, was called in consultation, and the advisability of an operation was considered. We were inclined to the introduction of silver wires, and the use of electricity was determined upon. We followed very closely the method of Dr. D. D. Stewart, of Philadelphia, as reported in the *British Medical Journal*.

Having measured the size of the tumor as accurately as possible, we decided that six feet of fine drawn silver wire would be sufficient. We decided upon puncture in the sterno-cleido-mastoid muscle, as the wall of the tumor and the overlying skin seemed so thin, that it was doubtful if hemorrhage from the artery could be controlled. A small trocar and cannula were used. On withdrawing of the trocar a pulsating stream followed. The wire, thoroughly sterilized, was introduced, but snarled frequently. While introducing the last portion considerable resistance was encountered. Having finished, the end of the wire was attached to the positive pole of a dry-cell battery and a large, metal, chamois-covered plate, attached to the negative pole, was placed between the patient's shoulders. The current was gradually increased until eight cells of the battery had been used for two hours. In increasing the current we were guided mainly by the patient's comfort. As soon as the current was turned on the flow of the blood through the cannula lessened and finally ceased, continuing thus throughout the sitting with but one or two slight hemorrhages.

About half an hour after beginning treatment, the force of the pulsation began to subside, and the tumor began to harden. These conditions continued and the left radial pulse showed marked improvement. On withdrawing the cannula the wire was seen to be covered with a thick coagulum. The wire was snipped close to the surface of the skin; a slight hemorrhage ensued, which was easily controlled. At this time the hardness of the tumor had much increased, and the patient was quiet and suffering little or no pain. Everything seemed to be doing well, until the morning of the second day, when the cough and dyspnea increased until finally no relief could be given. The respiration slowed down to seven per minute, and was of a jerky, irregular character. The pulse, under the stimulants administered, continued regular, until death came from arrest of respiration, 42 hours after operation. Temperature rose to 101° F. before death.

The necropsy showed the heart about normal in size, with an excess of fat over the right ventricle. There were grayish patches in the walls of the left ventricle, but no calcareous deposits. The aortic valves were not impervious to water. About an inch from the aortic opening a large distended pouch, deeply stained, was found, the pouch with the artery being about 2½ inches in diameter. Above this was a slight constriction passing into a tumor about 2 by 3 inches, from which the wire could be felt protruding. The inner walls of the aorta and lower sac were covered with atheromatous patches. The aortic tumor of the arch contained the wire coiled closely in contact with its walls, and surrounded by a clot that seemed to have slightly organized in some places, while in others it was easily removable by washing.

The clot causing the tumor was in all stages of formation. In the region of the wire a newly formed clot of about ¼ inch in thickness was deposited. The inflammatory tissues surrounding the aneurysm involved all the contents of the mediastinum, and the lamina of one of the vertebræ was eroded sufficiently to admit the end of the thumb.

A brief review of clinical history and necropsy leads to these conclusions concerning the case:—

(1) Quick coagulation of blood follows after introducing the current of electricity.

(2) Improvement in the left radial pulse was due to electrical stimulation.

(3) Relief of dyspnea and cough for the first few hours follows treatment.

(4) But little shock or depression to the patient results from this method.

(5) Slight hemorrhages attending or following the operation are probably due to old clots.

(6) Unfamiliarity with the power of the cells of the battery entails lack of knowledge as to the milliamperage in use.

(7) The constriction of the sac remarked upon prevented the descent of the wire so that only the upper part of the clot was affected, and hence results were incomplete.

(8) That owing to the advanced state of the lesion it is doubtful whether a cure could have been effected under any conditions.

The Whipworm in India.—Powell (*Indian Medical Gazette*, December, 1898) confirms the observation of Leuckhart that the tricocephalus dispar occasionally transfixes a fold of the intestinal mucosa like a pin, the head emerging some distance from the point of entrance. He thinks that Manson and others who deny this perform their postmortem examinations longer after death, and that the worm withdraws. He cannot think this worm so harmless as is generally stated in textbooks. He ascribes many cases of dysentery to its action, stating that when in such cases postmortem examination reveals small submucous abscess-cavities in the ascending colon the worm has always been present in large numbers. He also regards betel as an excellent anthelmintic, particularly when there is intolerance of thymol. [G.C.C.H.]

Ringworm as it Exists in Boston.—White (*Journal of Cutaneous and Genito-Urinary Diseases*, January, 1899) gives a carefully compiled and fully illustrated conspectus of the results attending 3 years' personal work on the vegetable parasite causing ringworm, emphasizing the fact that the parasite presents manifold differences as it appears in various lands, and demonstrating the peculiarities of the ringworm-plants as they occur in Boston. He adopted the following mode of procedure: An observation of the case clinically, an examination of the hair or scale microscopically; a planting of the suspected tisues; and in many cases a microscopic examination of the culture. Both stained and unstained specimens were examined. The parasite is divided into microspora and megalospora, but it cannot be stated with certainty whether they are distinct species or are varieties of the same plant. The megalosporon is usually the active parasite in ringworm of the scalp in persons over 13 years old, but it was found to a limited extent in cases occurring in persons of from 14 days to 53 years, while the microsporon was limited strictly to cases occurring in persons between the ages of 4 and 13 years, save when the ringworm occurred on smooth skin. Yet cases of the microsporon-parasite were more numerous than those of the megalosporon. A remarkably full description is given of the action under culture of all the varieties of the parasite observed, their differentiation, the clinical appearance of the cases, and incidentally the treatment. [G.C.C.H.]

The Philadelphia Medical Journal

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Typhoid Fever and Unfiltered Water.—Philadelphia has made the unenviable record of **443** cases of typhoid fever and **49** deaths for the week ended March 4. For the ten weeks of the present year the number of deaths from the same cause has been **342.** Yet Councils sit meekly by and let the carnage go on. The largest number of cases and of deaths comes from portions of the city supplied from reservoirs by practically direct pumpage. But the lesson seems to be lost on our City Fathers, although clear enough for the mind of any school-child: *Philadelphia's most immediate need is filtered water.*

Substitution Secundem Artem.—An example of substitution that is probably without parallel is related by the Paris correspondent of the *Lancet.* After a druggist had sold what appeared to be a profitable business his successor found that he could not successfully sell his wares at the prices established by his predecessor, and investigation showed that the latter was in the habit of dispensing preparations that he presumed would have the same effect as those prescribed, but that were much cheaper; at other times, he simply gave smaller amounts than were ordered. Thus, he substituted antipyrin for salophen, ordinary phosphates for glycerophosphates, artificial for genuine mineral waters, etc.

First Aid to Children.—It is each year a pleasant luty to refer to the work of the Children's Aid Society f Pennsylvania. Every individual possesses within himelf elements of virtue and of vice, and which of these hall preponderate in his life depends not a little on his nvironment and the extrinsic influences to which he s exposed. The Children's Aid Society assumes no esponsibility for the heredity of its charges, but it aims t improving their environment, enlarging their opportunities for usefulness, and making them self-dependnt. Such societies, though rich in works, are always oor in money, and the annual report shows in the one an of the scale a full weight of deeds, and in the other depleted treasury, often even a deficit. The Chilrens' Aid Society of Pennsylvania had under its care uring the year 1898, 958 children; and 531 women ith babies were cared for in the department for omestic service. The office of the society is at 321 outh Twelfth Street, and Mr. Charles E. Peterson is e Treasurer.

The Catholicism of Medicine.—There are not wanting signs that sectarian divisions in medicine are being eradicated. There have long been those who "practised both ways." On health-boards and examining boards representatives of different "schools" meet in unity and amity, and in post-graduate schools they sit at the feet of the same teachers; and only recently a sectarian medical society conveyed to a regular medical society its congratulations on the fiftieth anniversary of the latter, which accepted the good wishes in the friendly spirit they had been proffered. The fact is, and it is being recognized by all intelligent persons, that there is only *one* kind of medicine, and that he is the true physician who uses *any* legitimate agent, whatever its source, for the prevention, the amelioration, and the cure of disease.

Suggestions to Writers: No. 26.—"Contagion" and "Infection," synonymous words.—Recently one of our correspondents said that as to definitions of the words *contagious* and *infectious*, our dictionary-definitions are "somewhat obscure and savor of oldtime ideas about the etiology of disease." We are glad to find two such competent physicians as Dr. Bracken and Dr. Tyson agreeing that the "oldtime" distinction between the words in question no longer obtains. Dr. Tyson clearly sets forth the reasons why henceforth the words must be considered synonymous. Several years ago the *Illustrated Dictionary of Medicine and Biology* defined *Contagion*, as "the process by which a specific disease is communicated between persons, either by direct contact or by means of an intermediate agent." *Infection* was defined as "the communication of disease-germs or virus, by any means, direct or indirect."

The Necessity for Vaccination and Revaccination.—That the need for further vaccination-legislation in England is appreciated is shown by a series of resolutions drawn up by the Subcommittee of the Parliamentary Bills Committee and adopted by the Council of the British Medical Association, in which it is recited that a Revaccination-Bill is to be introduced into the House of Lords during the present session in consequence of the unfortunate experiences with the abuse of the conscience-clause in the existing law. The Council of the Association wisely goes a step further and urges the passage of an act providing for the primary vaccination of unvaccinated children on reaching the school-age, with *revaccination* at the age of 12 years. This action is to be warmly commended as being entirely and unselfishly in the interests of the public health, and it may well be emulated by the legislators of our country. No demonstration in preventive medicine has been more positive and emphatic than that of the protective influence of vaccination with regard to smallpox; and such risks and dangers as are associated with vaccination are so insignificant as to be not worthy of serious consideration.

Coal-gas vs. Water-gas.—In the editorial on the dangers of illuminating gas, published last week, a slip of the pen made us say, "carbon dioxid" instead of "carbon monoxid." The latter is the gas present in water-gas; it is the more dangerous of the two forms because it has the greater combining-power with oxygen; hence the statement in the *Press*, by a gas-official, apparently in reply to the editorial, that in the illuminating-gas of this city far less than 12% of carbon dioxid is used while there is a larger percentage of carbon monoxid, is most applicable to the contention by this JOURNAL that cautions concerning the dangerous character of the illuminant should form part of the gas-company's service. The statement in the same interview, that the two gases are "almost equally fatal," is fallacious. Carbon monoxid is not only more surely fatal, but its after-effects, particularly upon the oxygenating power of the red corpuscles, are far more lasting, a condition of permanently impaired health usually resulting when resuscitation from the immediate severe effects of the gas is had. Since the last writing two more deaths from this cause have been reported. Is it not time some step should be taken?

The Newspaper-Chemist and the Microbe.—That the modern newspaper is the exponent of progress is in no way more apparent than in its exploitation of matters medical in terms suited to the comprehension of the laity. It is, therefore, with pleasure that we note (on the authority of a New York daily paper) one of the greatest discoveries of the day—the identification of the bacilli of scarlet-fever and smallpox. Details are lacking, but the fact must be assured, since an expert chemist (*sic*) investigating the telephone as to its agency in the transmission of disease, discovered these germs with numerous others lurking in the transmitter, waiting opportunity to infect the careless user. It is with a spirit of proper meekness that we venture to direct the attention of newspaperdom and its chemists to the more obvious and vastly larger field for original research afforded by filthy streets and impure drinking-water, exposing thousands to danger where one would be exposed by the public telephone. Possibly an analysis of Schuylkill water conducted on the same lines and by the same chemist might result in the isolation and identification of the microbes causative of official greed and corporate dishonesty.

"The conscientious objector" is the appellation given to the English parent or guardian who declines to permit his child or charge to be vaccinated because of a conscientious objection on his part to vaccination. An interesting aspect of this individual is illustrated by some facts cited in the *British Medical Journal* for February 11, and which are suggestive of the concealed influences that may have been operative in evolving the conscientious objection. In one English community in which certificates of exemption were issued by an antivaccination mayor to 27,000 conscientious objectors the number of children vaccinated has increased enormously, including many offspring of conscientious objectors with certificates, who not only did not oppose finally the vaccination of their infants, but voluntarily submitted their elder children to vaccination at the same time. In another community with a population of upward of 200,000 it is reported that 8,000 certificates of exemption were issued; but about one-quarter of those to whom certificates were issued did not apply for them within the prescribed time and thus permitted them to lapse. It would thus appear that the hard, common sense of the people has taught them the value of an established prophylactic measure, from the use of which they are not to be swerved by the prejudiced utterances of rabid fanatics or the ill-judged enactments of pot-house politicians.

Joe De Barthe, M.D., LL.D., has sent us a "Suppressed Lecture" entitled *Allopathic Selfishness*, which he rightly considers very funny, but the parts which he considers most serious are infinitely more laughter-provoking than those he thought would add to "the gaiety of nations." The pamphlet emanates from the *Independent Medical College* (Physio-Medical) of Chicago, in the announcement of which they tell seekers ("parties") "at a distance unable to attend our college, who can furnish abundant evidence that they have practised a number of years, and are competent to conduct a safe and successful practice, may be graduated without attendance upon lectures."

A subtitle of LL.D. Joe's witty lecture is, "Physicians' Passports to Paradise," and this may serve to indicate his opinion of us. The title-page has a long quotation from the 33,092-circulating *Medical Brief*, admirably designed by writer and quoter for the purpose used, and particularly appropriate to the LL.D's standards of orthography and English grammar, as here illustrated:

> "A man who cannot read or write may by reason of fine powers of observation, perception and reflection, by a sort of intuitive knowledge as it were, reach logical conclusions

and effect cures where his learned brother becomes helpless as soon as his routine formulæ are exhausted."

We had intended quoting a number of passages to illustrate the kind of opponents we have, but the lecture should be read as a whole, and it would be a pity to mar its artistic perfection by the shears. The price is 10 cents a copy, the printer, E. H. Randall, 868 Van Buren Street, Chicago.

Buffalo the Healthiest City in the World.—The city of Buffalo is at present chiefly engaged in letting all the world know about its purposed Pan-American exposition of 1901. In addition to the substantial National and State aid, the city will place $2,500,000 in the enterprise. There is hardly a city more favorably adapted by nature for carrying on a successful exposition. It has an unlimited supply of fresh water at its command, has a perfect system of sewerage and drainage, clean streets—the majority of which are asphalted,—rapid transit, and has Niagara Falls for one of its suburbs. The latter attraction alone will be an inducement for thousands of people from all over the world to visit the exposition. But there is another fact, which especially attracts the sanitarian's attention, and which, if persisted in, will make Buffalo the standard of American cities of the first class. It is a practical demonstration of the results obtainable through an efficient Health Department. In 1891 there were 6,001 deaths in the city, and the death-rate was 23.48 per thousand. In 1898, when the population had increased by 150,000, there were only 4,533 deaths—a decrease of 1,468 deaths—with a death-rate of 12.25 per thousand. This is an exceedingly marvelous result which can be clearly traced to the Health Department of Buffalo, presided over by Health Commissioner Ernest Wende. To Wende indeed the credit is almost entirely due, and we again emphasize the fact that if the saving of human lives is the greatest work of man, then is he the greatest benefactor and the best American we have. There is little danger (or hope?) that Philadelphia, New York, or Chicago will deprive Buffalo of her great sanitarian, but if they would only give him a salary, say, of $100,000 a year, with proper power and support to revolutionize their Unhealth Departments, what millions of dollars and thousands of lives he could in a few years save for them!

A Psycho-Physical Laboratory in Washington.—We are credibly informed that an effort is being made to induce Congress to appropriate money for the support of a psycho-physical laboratory. The object of such a laboratory would be to collect data in sociology (normal and pathologic) and to publish reports of the work. This work has a practical side that may appeal to Congress, although it is always very difficult to get anything of this kind through that body. This is an effort to have psychology and sociology in their close relation to education and the improvement of the weakling classes, better supported by the Government. We understand that this plan has originated in the Bureau of Education, and a modest request has been made for a sum of $10,000 to support the work of the laboratory. We have also seen the proposed blank for the preliminary study of children. This sociologic work requires a deal of plodding industry in the collection of details, and these details as isolated facts often seem uninteresting and valueless enough; but there can be no doubt of the importance of this work, and of the absolute necessity for it to have some sort of public or governmental support if it is to succeed. With the immense field now open in the United States for such research it is to be hoped that the Government may see its way clear to spend some money and time on this fertile theme. Immense sums are spent annually on jails, almshouses, hospitals, and other public institutions, not to mention our vast public-school systems, and yet but little systematized study has been, or is being, made of the multifarious data supplied by these various public concerns. It is as though a manufacturer never took an account of stock, or put haphazard into his mills all sorts of incongruous elements, hoping in that way to make a finished product. Such a thing cannot be done in education any better than in a mill.

New York State Hospital for Tuberculosis.—At the last session of the New York Legislature the Committee on Public Health was instructed to investigate and report as to the advisability of establishing a State colony for tuberculous patients in the early stages of the disease. The committee recommended the appointment of a special committee to make further investigations during the interval between sessions, and to report at the current session of the Legislature. Such a report was made on January 9 of the present year, by the earnest and indefatigable chairman of the committee, Dr. George W. Brush. After dwelling upon the infectiousness of tuberculosis, its mode of dissemination and the means by which this can be prevented, its mortality and the money-loss due thereto, its curability and the agencies through which this can best be effected, and giving an account of the operations of a number of already existing sanatoria, the lack in large cities and towns of hospital facilities and accommodations for tuberculous persons is duly emphasized, and the following recommendations are made: That the State establish a hospital or hospitals for the treatment of cases of tuberculosis, to be located in some suitable part of the Forest Preserve in the Adirondack Mountains on a site to be selected by the trustees provided for in a bill proposed with this end in view; that the Legislature direct the State Board of Health to prepare and issue for distribution by local boards of health of the State a circular containing precise information upon the subject of tuberculosis and its prevention; and that the present laws be so amended as to secure so far as possible the protection of food exposed for sale from contamination with dust and disease-germs. The bill introduced with the report provides for the selection of a site and the organization, erection, construction, and equipment of a hospital, and appropriates the sum of $200,000 for the purpose. The way having thus been so clearly cut there seems no alternative but for the New York Legislature to adopt and to put into speedy execution the logical and intelligent recommendations of its committee. Municipalities, commonwealths and nations are fast learning—though perhaps not fast enough—that the care of the individual is the care of the State, and that one of the highest functions of government is the preservation of the health of the people. In the proper management of infectious diseases in particular the results are conducive, not alone to the recovery of the individual, but equally to the protection of the community. If selfish motives need be invoked they would of themselves be sufficient to justify the establishment of hospitals for tuberculosis, and we hope that the State of New York, as well as the State of Pennsylvania, will take the place it should occupy as a factor for good, as an exemplar for advanced and progressive, and best, methods of dealing with questions of public health, such as becomes a great commonwealth in a powerful and intelligent nation. Massachusetts has shown the way, and too much credit cannot be bestowed upon that State for having established the first State hospital for tuberculosis in the United States.

The Endowment of Medical Libraries.—Medical libraries stand toward the physical health of the community very much in the same relation as do general libraries to the intellectual health. Every one admits that our public-spirited citizens with ample means are doing not only for others, but for themselves and the community at large, a work of great and lasting beneficence in contributing to the endowment-fund of public libraries. The same argument applies, and we think with added emphasis, to the endowment of medical libraries. They stand in the same relation to the general public in their appeals for support with Academies of Natural Science, Zoological Gardens, Historical Societies, and other intellectual and literary institutions. Because health is the basis of social well-being, rich men can do no greater service to the entire community and to their own descendants than to endow such libraries. While *laboratories of research* are of the greatest value for the discovery of new facts, *libraries of research* are equally important for affording the scientist the knowledge of what has been done before, the pitfalls that have been discovered, and the true road as distinguished from the false. Hence we are extremely glad to learn that both in New York and Philadelphia strong, and thus far, successful efforts are making for the endowment of the two great medical libraries of this country, apart from the Government Library of the Surgeon-General's Office in Washington. Very substantial progress has been made in both cities toward the amounts desired, and we congratulate the College of Physicians of Philadelphia and the Academy of Medicine in New York on their partial success, and trust that it will be but a short time before both funds will be completed.

We have now in mind the cities in which most medical books are written, and especially these need well-endowed medical reference-libraries for the purpose of aiding authors who must know not only what has been written before, but who especially must keep up with the rapid progress of modern medicine. To do this, the chief medical journals of the world are more important than any other sources of information. No library could be considered respectable which does not keep on file five or six hundred such medical journals. The cost of subscriptions to these journals, the cost of their binding, of cataloging their contents, and of the general administration of a large medical library, have become matters of great moment and large expense—far more than the membership of any local society can properly be asked to bear.

We bespeak the hearty efforts of the profession in aid of those who are making such strenuous efforts for a necessary endowment, and we ask from the general public a very generous response to the appeal of these two noble institutions.

It goes without saying that the arguments which are used in favor of an endowment of these two would apply equally well to the endowment of the Boston Medical Library, the medical department of the Newberry Library in Chicago, and of all other similar institutions the world over.

Vital Statistics the Keystone of Municipal Health-Science.—At first glance this may seem an exaggeration, but so firmly has this opinion entrenched itself in the minds of many students of the subject that with some sanitary authorities it has virtually become an axiom. When it is considered that it would be impossible to form an exact opinion as to the relative value of any sanitary measures without an efficient system of vital statistics, this belief appears well grounded. With all the progressiveness of this country we are still deplorably deficient in registration of vital statistics. There is, perhaps, no subject in municipal health-science in which a wider difference of opinion prevails than in this. Even the American Public Health Association seems to regard it as a sort of tail-end of a kite, as evidenced by the little attention given to it at the annual meetings. At the Philadelphia meeting of this association in 1897, the registrars of vital statistics of Chicago, Buffalo, New York, and several other large cities, made a special and determined effort to place this subject in the rank it deserves, but they succeeded only partially. It is to the credit of these officials that they have not relaxed their efforts, but will keep at work until they finally make the desired impression.

The great hindrance lies in the fact that there is no uniformity in the classifications. Each registrar makes up a classification of his own which happens to suit his particular ideas, or else he follows some obsolete method —which in most cases is no method at all—and justifies himself by the declaration that he is not called upon to do work for the benefit of statisticians. Add to this that there are only ten "registration States," and that all the rest are "non-registration States," and we have a pretty formidable foundation for the assertion that this subject is not receiving the attention it deserves. When the Federal census of 1890 was taken only the following States had a systematic registration of vital statistics: New York, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New Jersey, and Delaware. The States of Maine and Michigan have been added since. The statistics from non-registration States are practically worthless for the comparison of death-rates and for the most important sanitary purposes. Owing to faulty methods they are in many cases even misleading.

Spasmodic efforts appear in many of the non-registration States, as is evidenced by the larger cities in them, which in many cases have this work done by the Department of Public Safety, usually a branch of the Police Department, instead of the Health Department, where it naturally belongs.

Let us hope that when the next Federal census is taken the part relating to vital statistics will be compiled on different lines than has been done in the past. What this country needs is a uniform system, based on the Bertillon classification, as recommended by the American Public Health Association, and operated under State supervision. That this is not such a difficult task as may be imagined has been recently shown by the thorough and efficient manner in which Michigan put such a system into operation.

Editor and Reader, No. 17. The Circulation of American Medical Journals is a question of considerable doubtfulness in many cases and in the minds of most physicians. *Printers' Ink* relies on the exceptional experience of A. L. Hummel Advertising Agency, and the figures given in its issue of February 22, in an analysis of the statistics of the American Newspaper Directory, will prove interesting reading to all concerned, and to many, a surprise. There are, it seems, about 300 serials classed as medical, published in the United States. Of this number, 118 have circulations in excess of 1,000 copies an issue. But of these 118 it is significant that only 11 avail themselves of a gratuitous advertisement of their circulation by furnishing the *Directory* with statements. The editor prints his estimate of the circulation of the remaining 107 journals. The 118 are found to have an aggregate circulation of 454,602 copies an issue. Eight out of ten of these journals are said to be journals devoted to some personal interest ("house-organs") and the other two represent some "ism." It is also said that "doctors rarely pay for the medical journals that come to them, etc."

There are, according to the table, 42 journals having a circulation above 2,500 copies an issue. We sincerely regret that in this list of 42 are not included such scholarly and scientific journals as the *Annals of Surgery*, and the *American Journal of the Medical Sciences.* We are also astonished to note the absence of our kind contemporary the *Medical News* from the list. The *Medical Brief* heads the list,—33,092. Of the *Alkaloidal Clinic*, the *Bulletin of Pasteur Institute*, and *Modern Medical Science*, the figures given are 20,000 each. *Public Health* and the *Medical World* are credited with 17,500 each. (We recently received the following letter from a physician, who enclosed his business-card containing an epitome of his professional history, and with the letters G. A. R. in tremendous caps across it:

> "I have repeatedly examined copies of the Journal before and must say *honestly* that for real, practical every-day help to the busy every-day doctor, one copy of the *Philadelphia Medical World*, or *Medical Gleaner*, or *Alkaloidal Clinic* is *worth more* than all the Philadelphia Medical Journals, *New York Medical Records* and *Boston Medical and Surgical Journals* ever published.")

The figrues given as those of the circulation of the Philadelphia Medical Journal, the *Journal of the American Medical Association*, and the *N. Y. Medical Journal*, are 7,500 each; those of the *Medical Record*, however, are placed at only 4,000.

Printers' Ink, in its article, details an "interview" with Mr. Wood, the senior proprietor of Wm. Wood & Co., concerning the statistics, in which Mr. Wood is quoted as uttering, in regard to ethical and inethical advertisements, the following atrocious principles:—

> "I think there are as good medicines sold direct to the public by reliable patent-medicine houses as are put up by the doctors. . . . If it is a medicine that is backed up by a reputable and reliable individual whom I know, on what possible grounds can I refuse to accept the business? I can't go behind men who are as reputable as myself."

As to secrecy and mendacity in regard to circulation Mr. Wood also says that if the *Record* gave out a statement of its actual circulation "many competitors would soon come out with figures either approximating or far exceeding" their own.

The statistics and the interview throw a brilliantly illuminating light—somewhat lurid and blinding—upon the questions of medical journalism and advertising. If the expert professional audience will look at the details of the stage-setting right carefully it may recognize the crudity and tawdriness of the scene-painting of the professional theater, judge more accurately of the histrionic ability and sincerity of some of the actors, and, lastly, will be able to decide whether the play is entirely to its taste.

"Electric Switch Glass Casters" for Rheumatism, Neuralgia, etc.—Our contemporary, *The Literary Digest*, has evidently grown tired of its ancient friend, "Electropoise," but has still unbounded faith in any impossible mystical cure labelled "Electric." Its advertisement confesses that it cannot understand "just why the Electric Switch Glass Casters cure, no one knows," but it does know that 90%, etc." "A too great flow of electricity from the body to the earth" is the *Digest's* pathology of rheumatism, and "by insulating the body from the earth," etc., etc. Two good Reverends, of course, are the leading testimonialists—F. B. Harvey, of Oxford, Pa., and N. D. Gliddon, of Ithaca, Mich. Of what a great mistake their Jehovah was guilty in making the world, or at least the human feet! The earth should have been covered with glass, or the babies, like wise Cinderella, should all have been supplied with glass slippers. Then it would not have been necessary for all of us to go skating about with glass casters!

The Conveyance of Malaria by Mosquitos.—While two Italian investigators have been engaged in a controversy as to which was the first, some time in 1894, to demonstrate the possibility of malarial transmission through mosquitos, it appears that to an American, named Crawford, belongs the credit of having already in 1807, in the *Baltimore American*, suggested this mode of transmission. Dr. A. F. A. King, of Washington, D. C., in 1883 independently renewed this hypothesis, by it explaining the immunity of the negro by reason of his dark skin, invisible to the mosquito, and the character of his sudoriparous secretions; and in the prophylaxis he recommended such measures as tend to afford protection from the bites of mosquitos.

Physicians Warned Against A. W. Orriss.—A man named A. W. Orriss, is, we are informed, representing himself as an agent of the PHILADELPHIA MEDICAL JOURNAL, or of the advertising manager, Mr. H. D. Reynolds. All physicians are warned that said A. W. Orriss is not authorized to act in any way as our agent, and that he is obtaining money under false pretenses. We request notification by telegraph at our expense of his whereabouts, and, if possible, his arrest and detention until our lawyer can be sent to aid in his prosecution. When last heard from Orriss was traveling in the State of Maine.

Pamphleteering in the interest of vaccination, was, we suggested (December 17), a good work for some philanthropist to take up, and we are glad to find that the hint has been acted upon. It is a pity that the diagram in our issue of February 18 appeared too late to be included in the pamphlet which lies before us. This was the most convincing argument we have seen. The pamphlet bears no indication of its author or who has been at the expense of its dissemination, but we suspect that those physicians who need some ammunition for their skeptical patients may secure copies gratis by application to Messrs. Parke, Davis & Co.

The Osteopathy fad promises to be profitable, if one may judge from commercial indications. It is announced that articles of incorporation have been filed with the clerk of Camden County by the Atlantic School of Osteopathy, with a capital stock of $25,000, fully paid in. The osteopath's conception of the gullibility of the public would seem to be analogous to his remedy for astigmatism, *i. e.*, it consists in an adjustment of the eye to the field of vision.

The issue of the Supplements of the Philadelphia Medical Journal has been delayed by several accidents such as sometimes occur in connection with such work, but the first one will be sent out next week, and two others will follow at short periods.

C. Bischoff & Co. write that they also deny authorizing the use of their name and the preparation Kyrofine by the journal quoted in the editorial article *Multiple Reciprocity* in our issue of February 25.

Correspondence.

DIRECTIONS FOR SAVING 24-HOUR SAMPLE OF URINE FOR QUANTITATIVE ANALYSIS.

By A. L. BENEDICT, M.D.,
of Buffalo, N. Y.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IT is frequently difficult to give instructions, at once concise and clear, in regard to the saving of a 24-hour sample of urine for quantitative analysis. The following form has proved to be of practical value to me:—

Save the urine for exactly 24 hours, passing and throwing away the urine at the beginning of the period and saving that passed at the end of the period. If the bowels move, save the urine first. The urine should be kept cold and tightly-covered in a clean vessel or jar. At the end of 24 hours, stir the urine thoroughly with a clean stick so that any sediment may be distributed evenly through the contents of the vessel, measure and send sample of the whole mixture to the office. Do not guess at the amount nor measure in cupfuls. The sample bottle should hold three or four ounces, should be perfectly clean and tightly corked. Do not use a pop-bottle, and do not cork with paper or cloth. Write name of patient, date, and total quantity of urine, on the paper in which the bottle is wrapped.

COMPARATIVE MORTALITY FROM TYPHOID FEVER IN PHILADELPHIA.

By RICHARD A. CLEEMANN, M.D.,
of Philadelphia.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

THE following letter was sent to the *Medical News* some two weeks ago, but its receipt was not acknowledged, and it has not been published in that journal:

Philadelphians are so accustomed to the misrepresentations of the lay press of New York when their city is concerned that its deliverances have ceased to attract their attention; but expecting better things from the medical press on account of its pretension to science, which implies strict impartiality, I confess to surprise at the impassioned philippic against our city in your issue of February 18.

While I do not intend to attempt a defence of the presence of typhoid fever in Philadelphia, I wish to show by statistics that the deaths from that disease here are not so excessive (when compared with those of some other cities which hold their heads very high hygienically) as to justify the dreadful penalty that "no Philadelphian should presume to raise his voice in any question of general interest and importance."

Very little value is to be attached to inferences drawn from the record of the deaths of a single week, the real worth of statistics being in direct proportion to the number of facts collated. I have, therefore, in what is to follow, made use of the annual death-rates for six years in different cities as compiled by Dr. John S. Billings in his reports of vital statistics for the last United States census. These reports were of course made up from those prepared by the registration-officials of the several cities.

According to this authority, in the six years' period ending May 31, 1890, the following was the average annual death-rate per 100,000 persons living, from the below-named diseases in four cities (Vital Statistics, New York and Brooklyn, p. 33; Vital Statistics, Philadelphia and Boston, p. 26):

	New York.	Brooklyn.	Philadelphia.	Boston.
Typhoid fever, . .	24.27	23.13	69.35	39.02
Malarial " . .	24.62	32.62	7.21	1.75
Diarrheal diseases,	316.85	282.58	70.31	102.54

Reading these figures literally it would appear that the deaths from typhoid fever in Philadelphia were proportionately nearly three times those in New York and Brooklyn, and not quite twice those in Boston. But what is the meaning of the excessive mortality from malarial fever in New York and Brooklyn as compared with that in Philadelphia and Boston? Is it possible that the first two cities, although situated farther north than Philadelphia, are more exposed to the malarial poison, or have the physicians in these localities not yet learned the anti-malarial virtues of cinchona bark, notwithstanding that this knowledge has been the common property of the profession for more than two hundred years? Neither of these reasons is of course to be entertained, and it seems to me most probable that nearly all the deaths reported as from malarial fever should be classed as from typhoid fever, or at least they would be so designated in Philadelphia. I know that formerly, in the death-reports of New York City, "typho-malarial fever" was recognized as a special cause of death at a time when all deaths reported to the health-authorities at Philadelphia from this cause were classed in that city under "typhoid fever."

Assuming that I am correct, if the deaths from typhoid and malarial fever be added together, the following figures will result:

	New York.	Brooklyn.	Philadelphia.	Boston.
Typhoid and Malarial fever .	48.89	55.75	76.56	40.77

This is quite a large mortality in each of the four cities from a malady which in your opinion "is an easily preventable disease."

To tax your patience a little longer, Mr. Editor, if we now consider the statistics which you quote in holy horror from your Philadelphia correspondent relating to the ravages of typhoid fever in Philadelphia, and which figures I believe to be correct, it would appear that in the last ten years there has been an average of 500 deaths from the disease for each year. Taking the average population of Philadelphia during those years at 1,000,000, which is certainly below the mark, since the population is now estimated at about 1,300,000, the typhoid death-rate during those years would have been 50.00 to the 100,000 persons living, or about the same as that in the six years' period quoted above for New York from typhoid and malarial fevers combined; less than that of Brooklyn from the same, and about 20% in excess of that of Boston. And yet I do not remember any such frantic appeals to those cities on account of such mortality, or threats of putting them out of the pale of civilization for not correcting it.

Again, dealing with the figures of Dr. Billings and of your correspondent, I call your serious attention to the fact that the typhoid death-rate in Philadelphia for the six years ended May 31, 1890, was 69.35, while for the last ten years it was but 50.00, showing a decrease of nearly 30%. Unless Philadelphia has had a wonderful streak of good luck in these years she appears to have been doing enough to escape at least your charge of "crime" in her negligence.

I have quoted the death-rates from "diarrheal diseases" in the several cities—astounding in their excess in New York and Brooklyn over those in Philadelphia and Boston[1]—simply as a hint that some typhoid cases may have, unobserved, crept under this caption in the death-list of the first two cities.

Philadelphia, February 23, 1899.

PHYSIOLOGIC ANTAGONISM OR PHYSIOLOGIC SIMILARITY?

By FRANK E. SIMPSON, M.D.,

of Chicago, Ill.

To the Editor of The Philadelphia Medical Journal:—

Sir:—In Prof. Roberts Bartholow's excellent letter to the Journal "Concerning the treatment of influenza," published on page 294 of the issue of February 11, 1899, I notice one remarkable statement to which I should like to call attention. In commenting upon the use of pilocarpin, he states that "this similarity of action" (between the microbes and their products which are supposed to cause the symptoms of influenza and the drug under consideration) "is truly an action of antagonism, for the morbid process and the action of the remedy contend in the tissues, and one or the other must yield!" One is inclined to ask what is meant by this explanation of the action of the remedy and *how* these two contend in the tissues until one or the other yields! It is generally believed that the symptoms of influenza, in common with those of other infectious diseases, are a manifestation of the reaction of each cell or certain combinations of cells which make up the organism, against certain morbific influences disturbing their normal performance of function, or indeed threatening their very existence. *How*, then, and in what way can any drug counteract or antagonize these microbes or their toxins? Only by disabling the microbes or rendering innocuous their toxins, or possibly by so affecting the cell-metabolism that the cell itself is enabled to manufacture substances that will do this. So far as I know, no one has ever claimed nor has evidence ever been adduced to show that pilocarpin or any other drug is capable of so doing. But Prof. Bartholow would apparently have us believe that *because* pilocarpin produces symptoms similar to those of influenza it *antagonizes* the microbes of this affection, a conclusion that is manifestly absurd. This explanation of a drug's action and the conclusion drawn from it, is indeed not so very unlike the notion promulgated some generations ago by the founder of a medical sect (now practically defunct in all but name) who taught, among other curious things, that the cause of disease was immaterial, that to successfully cope with it, a dose of medicine producing similar symptoms and sufficiently small to be practically immaterial must be administered, and that these two contended in the tissues until one or the other yielded!

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[1] The average annual death-rates for the 7 years ending 1896, from the above diseases, were as follows:

	New York.	Brooklyn.	Philadelphia.	Boston.
Typhoid fever	19.72	18.48	44.60	32.48
Malarial fever	7.87	16.85	3.01	. .
Diarrheal diseases . .	184.48	191.76	83.65	147.76

It must be remembered that these rates are calculated on the estimated population of the several cities, and are, therefore, somewhat dependent on the optimism of him who makes the calculations. For instance, the authorities at New York estimated its population about 100,000 more than was allotted to it in the United States Census of 1890, and still make the larger figure the basis of their calculations. They estimate the yearly increase of their population at a little less than 3%, while the Philadelphia authorities modestly claim for their city an annual increase of but a little over 2%.

Let us consider for a moment that the well-being and normal performance of function of the organism is dependent upon the well-being and adjustment to environment of each of its component cells, and that the normal metabolism of each cell results in the condition we call health. But some morbific influence or agent, as, for example, microbes or their products, comes in contact with these cells, and lo! they react and resent this influence, and, in the endeavor to cast it out, the intricate chemical processes going on within each cell are augmented or in some way changed, producing what we call symptoms, until finally, having eliminated or rendered innocuous these morbific substances, the cells resume their normal metabolic processes, perhaps more or less permanently influenced by their struggle. Assuming for the moment that this is what happens in an attack of influenza, may we not suppose that an analogous series of events occurs when the cells are exposed to the influence of pilocarpin? The cells of the mucous, salivary and sweat glands especially resent this new factor in their environment. In an endeavor to expel the intruder they secrete an enormous amount of their peculiar product and, having been successful, return to their accustomed ways. Are not the two processes practically identical, and must we not believe that instead of "physiological *antagonism*" the process is one of physiological *similarity?* Failing then to show that the action of the remedy is at all in accord with the principle of physiological antagonism, the question suggests itself—does pilocarpin exert a favorable influence at all in this malady? A much more reasonable explanation of its possible good effects is that to which Prof. Bartholow gives second place, viz., its depurant action. One can simply wonder, however, if absolute rest in bed, proper diet and hygienic measures will not bring to a favorable termination, "cito, tute et jucunde," ordinary attacks of influenza. No aphorism of Hippocrates is truer or quoted oftener than the one expressing the fact that "experience is fallacious and judgment difficult." The physicians of one generation disprove and cast aside the deductions of the last. Otherwise one would hesitate to criticise the conclusions of a physician of so wide and varied an experience as Prof. Bartholow.

Allbutt has well said "death is not to be driven away by the apothecary, not by any cunning compilation of drugs." How soon shall we desist from hugging to our breasts the delusion that drugs are, but in the most exceptional instances, "curative"? Certainly not until those who lead and mold the opinions of the profession—the teachers in the great schools of the country—cease to advocate our "trusting to prescriptions for alleged specifics, which have no little kinship with magic and antidotes," and cease to explain the action of these drugs with words that to the average mind do not explain.

4602 Lake Avenue.

AGAIN THE ANTIVIVISECTION QUESTION.

By ALBERT LEFFINGWELL, M.D.,

of Brooklyn, N.Y.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

SIR:—In your issue of February 25, just at hand, under the heading "The Antivivisection Method," I find reference to my paper, recently printed by the U. S. Senate as Document No. 78. To exclamatory criticism, such as there appears, I cannot object, for it is a method of argument as old as the race, and is rather complimentary than otherwise. But to distinct misrepresentation, I have very decided objections; and as a subscriber to your periodical, I ask the privilege of its columns for correction of the impression it has so erroneously conveyed.

Your assertion that my paper is "the usual farrago of prejudice against the method (animal experimentation)," gives the distinct impression, first, that I am opposed to the practice of animal experimentation as a method of research, and, secondly, that the paper was devoted to that subject. In both respects this characterization is erroneous. There is not a single word in my paper denying the utility of vivisection, *per se*. On the contrary, over and over again, its value is distinctly admitted: "Notwithstanding the opinion of that eminent surgeon, Lawson Tait, that 'nothing whatever has been gained by vivisection,' it has always seemed to me more probable, that in certain directions, vivisection within limitations was of such practical and potential utility as to justify its use" (p. 12). Such statements are frequent in the paper, and in everything I have ever written.

I especially deny your right to call me an "antivivisectionist." Why? Because no man has more accurately stated my views in regard to vivisection than the editor of the PHILADELPHIA MEDICAL JOURNAL. With you, sir, I believe that "scientific men have made a grave mistake in opposing the limitation of vivisection experiment to those fitted by education and position, properly to choose and properly to execute such experimentation;" that "much good would come from our perfect readiness to accede to, nay, to advocate, the antivivisection desire to limit all experimentation to chartered institutions, or to such private investigators as might be selected by a properly chosen authority;" that "at present, the greatest harm is done true science by men who conduct experiments without preliminary knowledge to choose, without judgment to carry out, without true scientific training or method—and only in the interest of vanity;" that "every laboratory should publish an annual statement, setting forth plainly the number and kind of experiments, the objects aimed at, and, most definitely, the methods of conducting them;" that "foolish secrecy feeds the flame of passionate error;" and that "if a very limited use of vivisection-experiment is necessary for scientific and medical progress, it must be regulated by law, carried out with jealous guarding against excess and against suffering." These are your views. They are mine. They are not the sentiments of an antivivisectionist.

Permit one word more. No scientific man regrets more than I do the present situation. It is tempting men of the highest reputation into loose and exaggerated statements, utterly foreign to the interests of truth. If any compromise be possible, it is along lines indicated by yourself in the address delivered before the American Academy of Medicine, less than three years since. You do not approve of unlimited experimentation. You have denounced with emphasis "the atrocities that have stained the history of Latin vivisection," and American vivisectors who "are a disgrace both to science and to humanity," and whose "useless and unscientific work should be stopped." The whole spirit of your writings in the past, is imbued with the sentiment of humanity, against cruelty. With you, I agree that "this most unfortunate controversy, filled with bitterness, misrepresentation and exaggeration, is utterly unnecessary." The compromise bill now before Congress, meets, for reasons which I do not comprehend, your most absolute disproval. Will you not, then, suggest something better? For myself, I believe that it would be entirely possible for a new bill to be drawn up, based only on the principles which find expression in the address just referred to, and in other of your writings, which, while not satisfactory in all respects to those who are antivivisectionists, would nevertheless be accepted and supported by the great majority of those who are now supporting the present measure, not because it is ideal, but because it seems to offer the only hope of reform of the abuses which you admit exist.

February 27, 1899.

[With great reluctance we consent to publish the foregoing letter, chiefly because it altogether overemphasizes a personal aspect and personal opinions. Inconsistency has been called the bugbear of little minds, and if we had been convicted of inconsistency it would have mattered little, either personally or as to the objective scientific question. However, it happens that there is no inconsistency whatever in the quotations given and the present opinions of the editor of this Journal. There is a story of a Scotch judge who said he was satisfied with having heard the plaintiff and he did not wish to be prejudiced by listening to the defendant's plea. We think from the same essays mentioned a set of opposed quotations could be selected far outweighing those given. Our objection to Dr. Leffingwell's position is briefly this: If he is a believer in the benefits to humanity gained by controlled and proper vivisection, why does he fight so valiantly in the army of the antis? Has there, as we have lately demonstrated in these columns, has there, for instance, been a tremendous saving of human life by means of vaccination, the diphtheria-antitoxin, etc.? That in the past there have been great vivisection-abuses no sane man would deny. That there are many or serious ones to-day no unprejudiced man would assert. Because there are a few and minor abuses to-day, that is no reason for joining the forces of antiscience. It is like going over to the enemy, whose cause is despised, because one objects to the method of battalion-drill practised in the army fighting for the dearest principle one has at heart. If, by his aid, Dr. Leffingwell should make the rabid antis the controlling majority to establish the tyranny and cruelty of antiscience, then would these same blind zealots turn with hate and rend their helper, for in reality they despise his compromise-position. As a double martyr he would then too late realize his error.—[Editor Philadelphia Medical Journal.]

A Femoral Hernia of the Bladder in a Man.—T. H. Lewis (*Australasian Medical Gazette*, December 20, 1898) reports a case of double femoral hernia occurring in a man 62 years old. The hernia of the left side had existed 41 years and was very large. In order to pass urine the patient was obliged to knead the hernial mass. At the operation the bladder with much thickened wall was found adherent in the sac. [M.B.T.]

Late Epistaxis in Typhoid Fever.—J. M. Da Costa (*Medical Fortnightly*, February 1, 1899) presented in a recent clinic, 2 patients who had had this rather rare symptom. The first patient had been ill 29 days and his temperature had reached normal. The bleeding was violent, lasting half an hour, and several ounces of blood were lost. Cerebral symptoms were relieved, and the man made good progress afterward. The second patient had profuse bleeding during the fourth week of the disease, after symptoms of typhoid fever had practically ceased. Late epistaxis is more apt to occur after severe cerebral symptoms, which are thus relieved. It is not harmful unless severe, and is generally an indication of deteriorated blood, for which iron should be prescribed. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Dr. John B. Deaver has resigned as assistant professor of applied anatomy in the University of Pennsylvania.

Calendar of Meetings of Philadelphia Medical Societies for the week ending March 18, 1899:

Monday March 13—College of Physicians, Section on General Medicine.

Tuesday, March 14—Pediatric Society.

Thursday, March 16—College of Physicians, Section on Gynecology.

Bradford County (Pa.) Medical Society.—The following is the scientific program of the meeting to be held March 14: Anesthetics during labor, by Dr. Charles Reed, of Wysox; the discussion to be opened by Dr. Guy C. Holcomb, of Ulster; Some surgical cases occurring in private practice, by Dr. S. M. Woodburn, of Towanda; the discussion to be opened by Dr. E. D. Payne, of Towanda.

St. Agnes' Hospital of Philadelphia.—According to the report for 1898 recently issued, 2,212 patients were admitted to the hospital during the year. Of these, 1,068 were pay or partial pay-patients; 1,144 were charity patients. There were 110 deaths, and 5,592 patients treated in the outpatient department made 29,508 visits. The total expenditures amounted to $43,146.64, the total income to $43,609.87.

Presbyterian Hospital of Philadelphia.—According to the report for 1898 recently issued, 1,765 patients were admitted to the hospital during the year. Of these 312 were pay-patients, 240 partial pay-patients, 48 occupied endowed beds, and 1,165 were free patients. There were 155 deaths. The average cost per patient per day was $1.45. About 6,200 patients treated in the out-patient department made 23,231 visits. The total expenditures amounted to $94,125.28; the total income to $134,775.90. In the Clinical Laboratory 930 examinations were made.

Vital statistics of Philadelphia for the week ending March 4, 1899:

Total mortality		566
Children under 5 years of age		129
Diseases.	Cases.	Deaths.
Pneumonia 81, congestion of the lungs 5		86
Pulmonary tuberculosis		68
Typhoid fever	443	49
Heart-disease 34, inflammation of the heart 5, fatty degeneration of the heart 3		42
Nephritis		35
Marasmus 14, inanition 9, debility 4		27
Senility		25
Apoplexy 17, paralysis 9		26
Inflammation of the brain 21, congestion of the brain 4		25
Carcinoma 21, tumor 1		22
Convulsions 19, epilepsy 1		20
Diphtheria 16, membranous croup 1	56	17
Bronchitis		17
Influenza		10
Casualties 9, burns and scalds 3		12
Scarlet fever	24	2
Cerebrospinal meningitis	10	2
Gastroenteritis 8, suffocation by illuminating gas 6, septicemia 5, anemia 4, cyanosis 4, dropsy 3, cystitis 3, suicide 3, syphilis 3, teething 3, ulceration of the stomach 3, pertussis 3, asthma 2, cirrhosis of the liver 2, inflammation of the spine 2, obstruction of the bowels 2, rheumatism 2, abscess 1, alcoholism 1, cholera infantum 1, diabetes 1, dysentery 1, erysipelas, 1, pleuritis 1, metritis 1, jaundice 1, tetanus 1, unknown 1.		

Philadelphia College of Physicians.—March 1, Dr. George A. Muehleck read a paper entitled: **Results of the examination of the blood of 90 soldiers ill with typhoid fever at St. Agnes' Hospital,** which will be published in a future number of the Journal. In the discussion, Dr. James Tyson referred to the combination of typhoid and malarial fever, and stated that the difficulty of detecting the malaria-hematozoon in such cases is possibly due, at least in part, to the fact that most of the organisms are young and thus frequently elude the search of all but the most expert observers. Dr. A. O. J. Kelly referred to a number of observations that he had made at the German Hospital, in which the malaria-hematozoon was found in the blood of patients ill with typhoid fever. Dr. B. F. Stahl spoke of the very marked diminution in the hemoglobin of the blood of the patients to whom Dr. Muehleck had referred.

Dr. Charles Lester Leonard read a paper entitled: **The Röntgen-ray diagnosis of renal calculus.** He spoke of the difficulties attending the diagnosis by ordinary means, and stated that very frequently one or more of the characteristic symptoms is absent. He detailed the method of the Röntgen-ray diagnosis and indicated how all varieties of stone may be diagnosed and their exact position accurately determined. He cited 6 illustrative cases, in one of which calculi were present in both kidneys. Dr. T. S. K. Morton, Dr. J. K. Mitchell, Dr. W. J. Taylor, Dr. F. A. Packard, Dr. James Tyson, and Dr. W. W. Keen mentioned personal experiences in which examination of the patient by means of the Röntgen-rays had much facilitated a diagnosis as to the presence or absence of a renal calculus. The paper will soon be published in the Journal.

College of Physicians of Philadelphia—Section on Otology and Laryngology.—Dr. E. B. Gleason presented a man, who, with widely opened mouth, could whistle musical airs. Attention was directed to the fact that he could also make musical tones when his mouth was closed. In opening the discussion upon the mechanism of the production of the musical sounds, Dr. Gleason thought it was by the action of the faucial muscles. Dr. G. H. Makuen ascribed the locality of the tone-production to the upper border of the epiglottis and the arytenoids, principally; Dr. P. S. Donellan referred it to the posterior pillars and wall of the pharynx with the aid of the root of the tongue and the epiglottis. Dr. Frank Woodbury called attention to the hypertrophies upon the base of the tongue at the sides of the epiglottis, which aided in causing a narrowing of the opening of the larynx; he thought the tones were produced by the vocal chords, as a kind of falsetto voice. There was something in the case suggestive of ventriloquism; but the man said that he was not a ventriloquist.

A case of **cystic disease of the epiglottis** was reported and the patient presented by Dr. B. Franklin Stahl. The young man had symptoms of post-nasal catarrh, but upon examination, in addition to the pharyngeal inflammation, Dr. Stahl had discovered a greatly elongated uvula, also a large number of cysts which covered the surface of the epiglottis and obstructed the larynx. These had been removed by avulsion and application of silver nitrate. The Chairman and Dr. Randall each referred to cases of cystic growth upon the epiglottis reported by them at a former meeting of the section. Dr. Gleason recommended the galvano-cautery as the easiest and most efficient mode of treatment.

A case of **hereditary syphilis of the nasopharynx** occurring in a girl 15 years of age, was shown by Dr. P. S. Donellan. The disease had first appeared at the age of 8 years, when she developed symmetric swellings over the olecranon processes which were followed by characteristic development of scar-tissue. At 13 years of age, pimples appeared on her face, one on each side of her nose; these subsequently ulcerated and increased in size. When first seen by Dr. Donellan they were about the size of a quarter-dollar and were covered with rupial scabs. She had a perforation of the palate and also of the nasal septum. The patient had greatly improved under mixed treatment, with black-wash and oleate of mercury locally. The nose had sunken in and was deformed by the ulceration. Dr. Donellan inquired as to the advisability of a plastic operation.

Drs. D. Braden Kyle and E. B. Gleason each reported a case of **syphilis of the nasopharynx,** in which there was resultant adhesion between the soft palate and posterior wall of the pharynx. In Dr. Gleason's case, communication was reestablished with the aid of the galvano-cautery and the use of a dilating tube. Dr. Woodbury said that the hereditary character of the case was still in doubt, and referred to the many sources of direct infection with the poison of syphilis to which young children are exposed. Dr. Randall cautioned against the dangers of mercury in these cases; where there is much tendency to destruction of tissue, he prefers to rely upon the iodids. Children during first dentition are easily ptyalized, the teeth becoming loose and dropping out. He referred to a case which had been sent to his clinic with a diagnosis of incipient phthisis and tuberculous laryngitis, where there were ulcers on the fauces, which healed rapidly under 20-grain doses of potassium iodid, given 3 times a day, and all the symptoms ameliorated.

Dr. L. J. Hammond described methods of performing plastic operation for repair of nasal deformity, and also for closing perforations of the palate.

A paper on **Intratympanic injections of hydrogen peroxid** was read by Dr. B. Alex. Randall. He reviewed some of the measures of treatment, especially of middle-ear suppuration, in relation to their safety and efficacy. He declared in favor of hot douching as the simplest, most efficient, and safest general method. Although the perforation, in cases not already septic, is usually too small to admit any of it to the tympanum, the syringing fluid should be sterile and the canal should be disinfected if possible. For this purpose nothing is so good, in most cases, as hydrogen dioxid, and he declared that its alleged dangers had been wholly unsubstantiated in the large experience of many who used it daily. As a crucial demonstration of this, he cited numerous instances of its injection in full strength through small perforations into the acutely inflamed tympanum, with results invariably harmless, if not beneficial. The assertion that "syringing with peroxid *usually* causes mastoiditis," he characterized as baseless; as he had known more cases of fatal extension from a tympanum where there was no perforation (not to speak of the mastoid empyemas so arising), than he had seen of suppuration of the mastoid in the course of treatment by syringing. Of nearly 2,000 mastoid empyemas, upon which he had operated, not one could fairly be ascribed to treatment by rational syringing and in not less than a thousand additional cases he felt justified in crediting to hot douching (generally with the peroxid) the safe resolution of a threatening mastoid inflammation. The views of the lecturer with regard to the utility and safety of hydrogen dioxid, were endorsed by Drs. Gleason, Stout, Hammond, and Packard. Dr. Woodbury suggested that some specimens of hydrogen dioxid might be irritating, or caustic, owing to the presence of adulteration from careless manufacture, and this might explain the bad results reported by some observers. He suggested the addition of an alkali, and preferred a combination of equal parts of Dobell's solution and dioxid. The Chairman remarked that it was not, after all, a question whether or not hydrogen dioxid could be used in acute affections of the middle-ear when skilfully applied by expert specialists, but whether or not it is safe in such cases when in the hands of the general practitioner? Dr. Randall said that statements had been repeatedly published asserting that "all cases of mastoiditis are due to unskilful treatment," and that "if there is no syringing and no hydrogen dioxid there will be no mastoiditis in these cases." These statements he felt that he must oppose as they are directly contrary to his own observation and teachings for many years.

Philadelphia Obstetrical Society.—On March 2 a series of papers on **retrodisplacements of the uterus** was read, the opening one being by Dr. Wilmer Krusen on **the etiology of uterine retrodisplacements.** In a series of 1,000 women applying for treatment at the gynecologic dispensary of the Jefferson Hospital, 199, or 19%, were found to have retrodisplacements of the uterus. In studying these cases they were divided into 2 classes: *A.* Virginal or nulliparous women. *B.* Parous women. The principal causes in the first class are: (1) Congenital retroflexion due to incomplete development of the anterior uterine wall; (2) congenital shortness of anterior vaginal wall; (3) senile atrophy; (4) over-distention of bladder; (5) constipation; (6) masturbation; (7) constitutional disease, such as chlorosis and anemia; (8) neoplasms. In the second class the chief etiologic factors are: (1) Puerperal metritis; (2) laceration of the pelvic floor; (3) parametritis and perimetritis; (4) pregnancy; (5) increased intra-abdominal pressure—the prolonged use of a tightly-applied obstetric binder; (6) traumatism, blows, falls or violent muscular exertion, particularly when the bladder is distended. Upon a correct knowledge of the etiology depends largely that more important element in the case, its successful treatment.

Dr. J. M. Fisher discussed the **diagnosis of retrodeviations.** The condition is associated constantly with every form of pelvic disease, either as a complication or as a distinct and essential pathologic entity. A proper conception of the normal is always a necessary prerequisite to an understanding of that which is abnormal. Retrodeviations, for practical purposes, diagnostic as well as therapeutic, should be considered: First, anatomically; second, etiologically; and, third, clinically, as follows: Anatomically; retroversions, retroflexions, retroversio-flexions, retroversions with anteflexion. Etiologically; congenital, puerile, acquired. Clinically; pathologic, complicating, indifferent. Retroversion may be defined as a persistent posterior inclination of the uterus upon its transverse axis so that the fundus is in relation with the sacrum, while the cervix approaches the symphysis. Retroflexion is a persistent posterior inclination of the body of the uterus, with coincident flexion upon its posterior face at its junction with the cervix. Retroversio-flexion is a retroversion plus a retroflexion. This is the most frequent form of retrodisplacement of the uterus. Retroversion with anteflexion is a persistent posterior inclination of the uterus, with either coincident flexion upon its anterior face at the junction of the body with the cervix, or anterior flexion of the intermediate portion of the cervix. A physical examination is always necessary and may be made digitally, bimanually, or by the use of instruments. A physician who cannot determine a uterine position without the use of the sound, either has a case in which a possible displacement is secondary to, or a part of, some more important pathologic conditions, rendering the use of the sound a superfluous procedure, and, as might be shown, a positive danger; or, if uncomplicated by extrauterine disease, his dependence upon this instrument is conclusive evidence of his want of skill and experience in making a proper pelvic examination in any case. To make certain and sure diagnoses in these cases the physician should acquire the *tactus eruditus* that comes from constant practice in bimanual manipulation.

Dr. F. H. Maier read a paper on **non-operative treatment.** In discussing the palliative treatment of retrodeviations of the uterus, he advocated two distinct methods: (1) the reposition of the organ, and (2) its maintenance in a correct position. The mobility of the uterus influences the selection of the best method. When much difficulty is experienced in replacing it, the patient may be placed either in the Sims' or the genupectoral position, the cervix grasped by a tenaculum and pulled downward to dislodge. Anesthesia may be employed in difficult cases. The use of the sound and of intrauterine repositors was condemned. In adherent uteri, forcible separation of the adhesions under anesthesia may be employed, or pelvic massage may be used. Maier prefers the latter method. After the uterus has been replaced, its retention is best accomplished by the use of the modified Hodge or Schultze figure-of-eight pessary. A properly fitting pessary should give rise to no pain or discomfort to the patient, and should retain the uterus in its normal position.

Dr. Richard C. Norris discussed **suspensio uteri and intra-abdominal shortening of the round ligaments.** In treating retrodeviations he has found massage unsatisfactory. He has had no experience with the vaginal method of operating. Plastic operations in some cases, followed by the use of a pessary, will effect a cure. The majority of these cases are associated with disease of the appendages and nearly all can be relieved by the use of one of three operations, ventro-suspension, intra-abdominal shortening of the round ligaments, or the Alexander operation. In adherent uteri, massage and the palliative method are generally useless. The abdominal method of operating permits the necessary conservative surgery of the appendages. The mortality of ventro-suspension is so slight as to make it practically without danger in the hands of competent operators; the remote results are favorable; no operation gives more brilliant results. The method employed should be first preliminary treatment, cureting of the uterus, and plastic work on cervix and perineum, if indicated; a small abdominal incision and opening of the peritoneum at the upper angle of the incision; free the uterus from all adhesions, inspect the appendages, and after grasping the uterus with a tenaculum, introduce two sutures of fine silk one-half inch apart, including in the first suture a little of the muscle of the abdominal wall. The incision should be closed with through-and-through interrupted sutures. The catheter should be used subsequently to prevent an overfilled bladder from separating the tissues. Dr. Norris has performed ventro-suspension 51 times and Alexander's operation 19 times.

Dr. F. C. Hammond read a paper by Dr. E. E. Montgomery on **vagino-fixation** in the treatment of retrodisplacements. Dr. Montgomery had several times performed Mackenrodt's modification of Duhrssen's operation and had also shortened the round ligaments through the vagina and had tried Wertheim's method of bringing the round ligaments into the wound. His experience leads him, however, to consider the operation one of limited application, for it is exceedingly difficult through an anterior colpotomy to break up retrouterine adhesions and set free a uterus which is firmly fixed in the pelvis. The uterus is likely to be injured in the efforts to bring it forward. Cases are on record in which the uterine injuries have been so great as to necessitate the completion of the operative procedures by hysterectomy. In cases in which the uterus is heavy, the vaginal walls relaxed, and particularly the uterosacral ligament elongated, the operation is likely to result in a sagging down and falling backward of the uterus, dragging with it the vagina and bladder, and increasing the vesical distress. This operation has been found to be a more frequent cause of dystocia than has the ventro-suspension operation. After trial Dr. Montgomery has discarded the vaginal route in the treatment of retrodisplacements.

Dr. Chas. P. Noble, in his paper on **Alexander's operation,** stated that he adopted the Alexander operation for shortening the round ligaments in 1894, had performed it 62 times, and considered it one of the most satisfactory. He follows Edebohl's technic. In one case he failed to find the ligaments, in 2 cases the ligaments were broken off close to the uterus, this being one of the legitimate objections to this operation. In one case phlebitis followed. He uses chromicized catgut. In two cases there was a recurrence of the condition. Hernia following this operation is due to faulty technic. In a total of 127 cases of hysterorrhaphy 3 were failures because the uterus pulled loose; two deaths occurred, one from pneumonia and one from heat-stroke. He has employed Mann's operation 6 times with satisfactory results. Vagino-fixation was performed twice in women past the menopause. The advantages of Alexander's operation are that the mortality and risk are less; it is more desirable from the standpoint of subsequent pregnancy, as it offers no interference with labor; none but the proper ligaments are used to sustain the uterus. The disadvantages are: (1) The difficulty in the diagnosis of adhesions which may be overlooked, though, if slight, they will not interfere; (2) its comparatively small range of usefulness, as it cannot be used if the appendages are diseased or adhesions are present; (3) difficulty in finding and danger of breaking the round ligaments.

NEW YORK.

The Antitoxin Bill.—The Collier bill, which prohibits the New York City Board of Health from selling antitoxin, has been favorably reported by the Cities Committee of the Assembly.

Smallpox in New York.—Within the past week several cases of smallpox have been reported to the Board of Health. The patients have all been sent to Riverside Hospital on North Brother Island, and, according to custom, the health-authorities are offering vaccination to all persons living within a radius of 4 blocks of each infected dwelling.

An Epidemic of Rabies in the Borough of Queens.—Last week we had occasion to refer to the prevalence of rabies in the borough of Richmond. We have since learned that the disease has gained a still greater foothold in the borough of Queens, where, in the past two months, 17 persons have been bitten by mad dogs. Two children have died of hydrophobia. The area of infection is a wide one, extending from Astoria through Woodside, Winfield, Newton, Elmhurst and Corona to Flushing.

A Rival of Professor Schenck.—Dr. Charles Ignatius Proben, of New York, has brought back with him from Porto Rico, certain "charms" which he says are most implicitly believed in by the natives. When a woman becomes pregnant she goes to her priest and, if she longs for a boy, pays him to bless a little image of a boy, which she then wears upon her person during the whole period of gestation. If, however, she prefers to present her husband with a girl, an image of a girl is blessed, and is then worn by the prospective mother. Dr. Proben also exhibits an image of two plump breasts of milk, which the mother who dreads her supply of nourishment for her baby may run short, wears with a firm and abiding faith in its galactogog properties.

Cuspidors in Factories.—The cigarmakers, realizing that tuberculosis is very prevalent among them, made application the other day to the Central Federated Union to endeavor to have the Factory Inspection law so amended as to require the placing of cuspidors in all cigar factories. The matter was considered of so much importance that finally a resolution was adopted, calling the attention of Governor Roosevelt to the subject, and urging him to consider favorably an amendment which they propose to introduce into the Legislature, making the rule compulsory in every factory in the State. The idea is certainly a good one, but if tuberculosis is so prevalent among cigarmakers as to lead them, for their own protection, to take such a step, we cannot help shuddering at the thought of the possible fate of those who smoke the cigars, the outside covering of which is made to adhere with the help of the saliva of these same cigarmakers.

Sweat-Shops as Centers of Infection.—The Board of Health of New York, through its chief sanitary inspector, Dr. M. B. Feeney, has just been making a night tour of the sweat-shops which form such a prominent feature of the miserable life of that portion of the east side lying south of Houston Street. As these people are not only in the depths of poverty but are densely ignorant, and many of them have but recently come to this country, it is not surprising to learn that they display a startling ignorance of the laws of health, and that the enormous quantities of clothing manufactured in these dens may readily become the means of disseminating disease. The inspection included 383 houses and 1,835 families. The report states that "in many of the apartments from 3 to 7 persons were manufacturing clothing for soldiers as well as civilians, which clothing was frequently used as beds by the sleeping children of the inmates." It was put to this use even where the children were suffering from various diseases.

New York Medical Society.—At a meeting held on February 27, Dr. S. Ormond Goldman presented a communication on **Anesthesia with nitrous oxid.** He had intended considering also anesthesia with ether and chloroform, but was prevented by the limited time at his disposal. When there is time for thorough preparation he prefers to give the patient a calomel purge, followed by a saline, because of the antiseptic properties of calomel in the intestinal tract. Only concentrated broths should be given on the day of operation, and no food whatever within five hours of the time set for giving the anesthetic. He agrees with those who refrain from using morphin just prior to anesthesia, on the ground that it dangerously influences the respiratory center, but differs from many observers in holding the opinion that this use of morphin prolongs the time necessary to induce anesthesia, and actually increases the quantity of the anesthetic employed. He also emhpasizes the fact that there is a marked and considerable fall of the body-temperature during anesthesia, and that because of this the patient should be well protected with woolen blankets, and the operating-room should have a temperature of from 80° to 85° F. Regarding nitrous oxid, he stated that it was a useful anesthetic when complete and prolonged muscular relaxation was not required, but that it was contraindicated in obese persons, in those in whom increased vascular tension was unsafe, or in conditions causing special strain on the right side of the heart. The gas will keep for any length of time, and that furnished in steel cylinders is the purest and best. Assuming that the anesthetist has a suitable apparatus, and that the valves work properly, after the first few inspirations the respirations will become more rapid, the pulse full, rapid and often irregular, there will be spasms of the muscles of the face, thorax and abdomen, and as the anesthesia becomes complete, the breathing becomes stertorous and the mucous membranes deeply cyanosed. The period of anesthesia is very brief, but can be indefinitely prolonged by admitting air until the cyanosis has disappeared, administering more of the gas, and repeating these maneuvers as many times as necessary. There are rarely any serious or very unpleasant after-effects, although transient glycosuria had been noted in three cases. Many attempts had been made to eliminate the asphyxia-phenomena. The best results were obtained with about 12% of oxygen, mixed with the nitrous oxid in the latest apparatus of Hewitt. It is difficult to administer the mixture; the rule is to give just enough oxygen to prevent the cyanosis and so little as not to interfere with the anesthesia.

Dr. Seneca D. Powell read a paper entitled **Carbolic acid in surgery.** He said that he had discovered about 5 years ago that alcohol was a perfect antidote to carbolic acid, and that one could, with impunity, wash one's hands with 95% carbolic acid and allow it to remain on for a few seconds, if the hands were then rinsed off with alcohol. He also knew of 2 or 3 cases of carbolic-acid poisoning in which alcohol had been given internally as an antidote to the acid. He had turned this discovery to account in the practice of surgery in various ways. Mammary, ischiorectal, tuberculous abscesses, could be quickly and very efficiently treated by evacuating the pus, thoroughly cleansing the cavity, and then injecting successively strong carbolic acid, alcohol, and finally water. Bone-abscesses could be similarly treated. The deformity and disability so common after cellulitis of the hand could, for the most part, be avoided by first injecting cocain, then making a small incision, and injecting successively carbolic acid and alcohol, and dressing the part with wet carbolized compresses. He had succeeded in treating some very severe cases of empyema, both by irrigating and swabbing out the pleural cavity with strong carbolic acid. Even in very grave cases of erysipelas, the progress of the disease could be promptly checked by applying strong carbolic acid until the skin was whitened, and following this with alcohol. In the discussion, Dr. A. M. Phelps spoke of his good results in the treatment of suppurating tuberculous joints by the injection successively of carbolic acid, alcohol, and water. Dr. Carter S. Cole said that the continuous application of a 2% solution of carbolic acid would be found most efficacious in cases of **ivy poisoning.**

New York Academy of Medicine—Section on Obstetrics and Gynecology.—At the meeting of February 23, Dr. Paul F. Mundé reported a case in which he had operated for ruptured ectopic gestation, the removal of gallstones and for the removal of calculus which had become impacted in the ureter—all in the same patient. The ectopic gestation was interesting because of the entire absence of any of the usual symptoms of this condition, the patient not having even missed one menstrual period. About eight days after the first operation, the occurrence of high and persistent fever, together with pain on the right side and fulness in the region of the gallbladder, had led to a diagnosis of cholelithiasis, and to an incision into the gallbladder, with the result that over 200 small stones had been discharged. On consultation about one week later, the patient's temperature having remained high, it had been decided that the patient probably had pyelonephritis, but the vagueness of the signs and symptoms prevented the definite localization of the disease in one or the other kidney, and deterred him from performing nephrotomy. However, it had been deemed expedient to remove the stone impacted in the left ureter, and this had been done, and drainage established by keeping a catheter in the ureter.

Dr. J. Riddle Goffe presented a cyst of the broad ligament as a text for some remarks in which he strongly advocated the **vaginal operation through the anterior fornix** in operating for all the pathologic conditions found in the female pelvis, even for conservative work on the appendages. In the discussion, Dr. Joseph Brettauer objected to a routine resort to this operation for the removal of such tumors, claiming that the selection of the operation should be determined in the individual case by the situation and motility of the tumor.

Dr. J. Riddle Goffe then reported **a case treated by an unusually large saline infusion.** The patient, a young woman whose life had been jeopardized by persistent and severe vomiting during the whole of the three months of her pregnancy, and whose kidneys were functionating badly, had been treated by emptying the uterus, but her condition the day following the operation had been so desperate that saline infusion had been employed. After she had received two quarts of saline solution she began to perspire freely, but no bad symptoms arising, the infusion was continued until in all five quarts of solution had been introduced into the vein. This had been followed both by improvement in her general condition and in the action of the kidneys, and recovery had been uninterrupted. Forty minutes were occupied in the saline infusion. In the discussion, Dr. S. Marx contended that he had demonstrated by actual experiment, that when using a fountain syringe and a fine needle, the solution lost 20° of temperature, and that, therefore, the solution in the bag of the syringe should have a temperature of 140° F. He would be afraid of paralyzing the heart if he injected into the circulation so much as five quarts. Dr. Philander A. Harris referred to a case in which he thought the fatal issue had been largely due to an unintentionally rapid introduction of the fluid.

Dr. S. Marx reported a **case of induction of abortion for an unusual indication.** The indication in this instance had been prolonged, persistent and uncontrollable epistaxis, of undetermined origin, and the operation had been done at the end of the third month in the effort to save the woman's life. Even after having done this, it was with difficulty that the case was brought to a successful termination.

Dr. Julius Rosenberg read a paper on **Puerperal infection,** in which he described the varying phenomena of streptococcus, staphylococcus, and gonorrheal infection, as well as many other varieties. He said that he had formerly looked upon every case of puerperal sepsis as the result of negligence, but he now believed that autoinfection occasionally occurred, and that judgment should be suspended until all the facts in the case had been ascertained. Much could be done in the way of prophylaxis by avoiding antiseptic vaginal douches and vaginal examinations, trusting to abdominal palpation for the needed information. The puerperal ulcers commonly found about the vagina and cervix healed more promptly when washed with sterile water and dusted with aristol than when carbolic acid or hydrogen dioxid was applied to them. Puerperal endometritis was best treated by removing all shreds with the finger or dull curet, under anesthesia, irrigating with sterile saline solution and packing with aristol-gauze. Cases of general puerperal septic peritonitis and of that rare form of puerperal infection, puerperal pyemia, were usually beyond all treatment.

The discussion of the paper was postponed.

Buffalo Academy of Medicine—Section on Obstetrics.—February 28, Dr. Peter W. Van Peyma read a paper upon **Occipito-posterior positions,** in which he stated that although a homely and trite subject, yet it was one of great importance because (*a*) of their frequency, (*b*) of the rarity of their recognition, and (*c*) of the possible gravity of the results. His close attention was first called to the subject by the emphatic statement of Penrose that he knew of no condition which results in so many serious consequences as unrecognized occipito-posterior positions. Considered from the standpoint of abnormal presentations, other things being equal, this occured the most frequently, *i. e.*, compared to face-presentations, which occur 1 in 25, occipito-posterior occur 1 in 5. Dr. Van Peyma believes the rarity of recognition is due to the facts (*a*) that as so many deliveries have a favorable termination, accoucheurs become careless in diagnosis, trusting to the generally favorable result; even in occipito-posterior positions statistics show that 14 out of 15 rotate to an anterior position, if allowed to pursue their course unaided; and (*b*) that the recognition of sutures and fontanelles is an extremely difficult thing, the statements of the textbooks being very misleading in not properly emphasizing this fact. He declared a simple rule for determining the location and direction of sutures to be the finding of the apex of the triangular depression produced by the occipital bone going under the parietals when the engagement is sufficient to cause the bones of the cranium to overlap; he considers this the most characteristic landmark of the vertex. Occipito-posterior positions may be recognized (*a*) by finding the vertex square across the vagina, (*b*) by use of the whole hand in the vagina under anesthesia, to determine location of landmarks, and (*c*) by external abdominal examination and the determination of the location of the fetal heart. In discussing the gravity of the results, he called attention to the very considerable delay always present, in consequence of which forceps are often applied previous to anterior rotation, with the consequent frequent production of posterior rotation; whereas, if left alone, as statistics show, 14 out of 15 would eventually rotate anteriorly with normal results. The causes of delay he considers to be (*a*) that the large biparietal diameter does not readily engage in the sacro-cotyloid diameter; (*b*) that the line of expulsive force is too far backward; (*c*) that rotation to anterior is through a large segment of a circle; (*d*) that while in well managed L. O. A. positions the suboccipito-bregmatic is the smallest diameter, in occipital posterior positions the occipito-frontal is the smallest diameter that can be obtained, and (*e*) that in all cases of occipito-posterior positions the pressure is directly against the perineum as against a deflected one in anterior positions. In considering the management of these cases the essayist said (*a*) that he could not sufficiently emphasize the importance of a correct diagnosis; (*b*) that the position should as a rule be considered as normal; (*c*) that patience in conducting the case was an extremely important factor; (*d*) that a decision to interfere should be based (1) upon the general condition of the mother and of the fetus, (2) upon the character of the pains, and (3) upon the degree of flexion, present, as rotation is frequently postponed until the head is upon the perineum. If intervention becomes necessary the object is first to produce or increase flexion, and then if required the production of rotation. These can be done digitally, manually, or instrumentally. Van Peyma prefers the sentient hand to the insentient instrument whenever possible; he believes that if the hand is introduced to produce flexion, rotation should be accomplished at the same time, both always under an anesthetic, and if deep enough both manipulations may be accomplished with the head low upon the perineum. He laid little stress upon postural treatment or upon the stimulation of pains; rotation accomplished, it may be well to apply forceps immediately, not for the purpose of extraction, but rather to hold the head and facilitate engagement. He thinks that version is seldom indicated, but relatively it is more indicated in multipara with the head still high than in other cases. He cautioned his hearers to remember that in applying forceps to occipital posterior positions as such, that the handles be not depressed to the same extent as in occipito-anterior applications; in other words, the blades must not be applied too far forward on the head. If delivery is made with forceps this should be done less by direct traction than by maintaining extreme flexion throughout, bringing the handles over the abdomen, using the protected symphysis as a fulcrum. In the discussion Dr. S. Y. Howell stated that one should never forget the danger to the life of the tissue by long-continued pressure, and that it is better to err on the side of interference if one is fairly skilled in manual or instrumental manipulations; that there is a tendency to early rupture of the bag of water in these cases; that it is well to wait until dilatation occurs, then to introduce the hand, under anesthesia, and make manual rotation; that he relies upon digital vaginal examination for diagnosis. Dr. Schroeder considers these positions the most dangerous, and very difficult of diagnosis, but thinks that external examination will reveal the true condition in the large proportion of occurrences; while he does not consider the pushing of the head back for a new engagement, he believes it will return to same position owing to adaptation; that if hand is introduced it is better to perform version, as these cases are most often in flat pelves; that craniotomy is sometimes required if head is extended upon the perineum. Dr. Tobie believes that although the diagnosis is difficult it should invariably be made in delayed labor and that interference should take place as soon as condition of mother or fetus demands it. Dr. Taylor said that next to the diagnosis the most difficult question to decide was when to interfere;

keeping constantly in mind the disastrous effects of pressure, interference should not be too long delayed. Dr. Van Peyma in closing called attention to the different pathologic outlook in cases occurring among the wealthy and refined as compared with those of the poor and laboring classes. When to interfere must be decided in each case by itself, but the tendency is too much toward operation; therefore, in general, it is best to wait if the condition of the mother and the fetus is good.

NEW ENGLAND.

Rhode Island Medical Society.—At a meeting held in Providence, March 2, Dr. George L. Collins reported a case of **enterectomy with recovery**; Dr. John W. Keefe reported a case of **Halsted's operation for excision of the breast**; Dr. F. T. Rogers read a paper on **Albuminuric retinitis as an element of prognosis in Bright's disease**; Mr. G. E. Gordon made some remarks on the **use of laboratories in infant-feeding**; Dr. George F. Keene read a paper on **Some sanitary problems.**

CHICAGO AND WESTERN STATES.

The Ohio State Pediatric Society will meet in annual session in Springfield, May 9, 1899. Those desirous of reading papers should communicate with the secretary, Dr. D. S. Hanson, 1419 Broadway, Cleveland.

Ohio State Medical Society.—At the annual meeting to be held in Springfield, May 10 to 12, 1899, Dr. P. S. Connor, of Cincinnati, will deliver an address in surgery on The medical and surgical history of the recent Spanish-American War.

Colorado State Board of Health.—Governor Thomas, of Colorado, has appointed Drs. J. N. Hall and G. E. Tyler, of Denver, and Dr. J. C. Chipman, of Sterling, members of the State Board of Health for six years. They succeed Drs. Henry Sewall, William P. Munn, and H. W. McLauthlin, all of Denver.

Milwaukee (Wis.) Medical Society.—February 27, Dr. F. B. Galley reported a case of **postmortem cesarean section.** The child was removed at least 15 minutes after the sudden death of its mother. After 1½ hours' efforts the child was resuscitated, but lived only 4 days. On being taken to another house it died, presumably from the effects of exposure.

Dr. W. B. O. Wingate read an essay on **brain-tumors** and exhibited the cast of a brain showing 2 large gummata. The case was one in which a diagnosis of cerebral abscess—located in left frontal convolution—was made. (Otorrhea existed.) Upon operation no abscess could be discovered. At postmortem examination, two months later, 2 large gummata were found, one in the left frontal area and the other in the parietal region.

Denver and Arapahoe Medical Society.—At a meeting held February 28, 1899, Dr. H. G. Wetherill read a paper entitled: **The relations of certain neuroses to the pelvic and genital diseases of women,** which will be published in a future number of the Journal.

Dr. E. P. Hershey read a paper on **Anesthesia and septicemia.** Dr. Hershey presented a list of 30 severe cases of puerperal septicemia where curetment had been performed. In 19 of these cases anesthesia was had, there occurring 11 recoveries and 8 deaths, a mortality of 42$\frac{2}{19}$%. In 11 cases curetment was done without anesthesia and of these patients 9 died and 2 recovered, a mortality-rate of 18$\frac{2}{11}$%. In those cases where curetment was performed during the first five days, there was a mortality with anesthesia of 37½%, and no deaths without anesthesia. Dr. Hershey pleaded for curetment without anesthesia in those cases in which forcible dilatation of the os is not necessary.

SOUTHERN STATES.

Smallpox Situation in Washington, D. C.—There are 29 cases of smallpox, all colored, in quarantine, March 8. There is a corps of 16 physicians vaccinating in the alley where the cases have occurred, and Health Officer Woodward considers the situation under control.

Suit for Delay in Delivery of a Telegraphic Message.—March 2, suit for $50,000 was entered in Vicksburg, Miss., by a firm of attorneys acting for a gentleman whose child died recently of diphtheria. During the child's illness a message was sent from Vicksburg to Memphis, Tenn., for diphtheria-antitoxin, as there was none in the former city. The message was not delivered for 36 hours. As a consequence of this delay, it is claimed that the child was not afforded an opportunity of recovering and that death resulted. Hence the suit.

A Hat-Pin in the Omentum.—One day last week, at the Children's Hospital, Washington, D. C., Dr. J. Ford Thompson removed from the omentum of a child 2 years old, a steel hat-pin 8 inches long, which had been swallowed about a month before. The pin was not much corroded and was intact up to the time of its removal, except the head, which was missing. From the condition of the organs of the thorax and abdominal cavity, it appeared as if the pin which had entered the mouth head first penetrated the esophagus, wounded the lung, passed through the diaphragm and entered the omentum, where it was found.

The Tri-State Medical Society of North Carolina, South Carolina, and Virginia.—According to the *Virginia Medical Semi-Monthly*, the subject selected for discussion during the next annual meeting to be held during the fall of 1899, in Charleston, S. C., is "The Southern Negro," taking up the following points: His Hereditary Tendencies, as learned from his race-history in America and Africa; His Racial Fecundity—the influence of climate, city and country life; His Race Mortality—in childhood, in adult life, in city and in country; His Recent Erratic Tendencies—the cause, and suggestions as to prevention.

Medical Society of the District of Columbia.—March 1, Dr. C. W. Richardson read a paper entitled, **A year's work on intubation.** He had intubated 31 cases of diphtheric croup in the past year, with 25 recoveries and 6 deaths, or a mortality of less than 22%. He attributed these good results solely to antitoxin and said that antitoxin reduced the mortality in intubation, and permitted a much earlier removal of the tube. He also stated that tubes in situ never became obstructed as they did in preantitoxin days. He removes the tube on the fourth day in children over 18 months of age, but not until the sixth or eighth day in children under that age, since edema caused by the tube reduced the caliber of a small larynx so as to interfere with respiration until the sixth or eighth day, whereas this edema in a larger larynx did not interfere with respiration. In over 100 cases of croup requiring intubation, the Klebs-Löffler bacillus was found in all but 3, and he thinks they would have been found in these instances had more careful cultures been taken. Dr. Richardson referred to a child 4 years old, who had two attacks of laryngeal diphtheria in 18 months; both attacks required intubation, and recovery followed.

The Clinical Society of Maryland.—March 3, Dr. Robert Reuling presented a case showing **complete hemiplegia, hemianesthesia, and unilateral muscular atrophy, due to an intracranial lesion.** The patient was a colored woman. She had always been healthy until the first week in October, 1898, when she was suddenly seized with vertigo and weakness of the extremities and fell to the floor. There was no loss of consciousness. The right arm and both legs, the right more than left, were paralyzed. The vertigo lasted 24 hours. There was no headache or vomiting. She experienced the sensation of losing her legs in bed. The case was examined for first time 6 weeks after the onset of the illness. There was marked arteriosclerosis of the vessels. Facial muscles were paralyzed on the right side. The tongue protruded to the right. There was no involvement of the occipito-frontalis muscle. The right arm was flaccid. There was a spastic paralysis of the right leg, this beginning so early as 3 weeks after the advent of the disease. Tendon-reflexes were absent in the right arm, but exaggerated in the right leg. There was complete hemianesthesia throughout the right side to touch, pain, temperature, and muscle-sense. The mucous membrane of the mouth was anesthetic to pain and touch. There were no eye-symptoms. Dr. Reuling thought the symptoms due to a cerebral hemorrhage most probably situated in the upper part of the medulla.

Dr. T. M. Hundley reported two cases of **chronic diarrhea due to ulcer of upper rectum.** The diagnosis was made by the use of a long rectal speculum. The cases were cured mainly by the local application of a 10% solution of silver nitrate to the ulcer.

Dr. E. T. Bernstein read a paper on the **Schleich method of general anesthesia.** In this method a mixture of chloroform, petrolic ether, and sulphuric ether is used. Schleich combines them in varying proportions, designating the mixtures as No. 1, No. 2, No. 3. The mixtures vary mainly in the quantity of sulphuric ether contained, No. 1 being the strongest. There have been no deaths reported as yet from this method. The advantages claimed for the method are mainly the quickness with which the patient can be got under and the rapidity with which consciousness is regained. In institutions the comparative inexpensiveness of the mixture is a great factor as well.

Dr. Joseph T. Smith read a paper on **Our Materia Medica.** The communication was practically an appeal in favor of extensively curtailing the number of drugs in the new edition of the United States Pharmacopeia now in process of preparation.

The Johns Hopkins Hospital Medical Society.—March 6, Dr. Theobald presented a communication on the **Treatment of acute otitis media following influenza.** He stated that ear complications had been unusually frequent in the present influenza-epidemic. The mastoid process and the bone about the tympanic membrane had been frequently involved. Meningitis, secondary to the ear-trouble, seemed unusually common, and a rapidly fatal case seen too late for operative procedure was cited. Dr. Theobald believed that many cases of otitis media could be aborted by proper treatment if seen sufficiently early, that is within a few hours after the onset of the pain. He had found the following prescription to give excellent results: Aq. sol. of atropia sulph., 1 gr.; muriate of cocain, 2 gr.; distilled water, 2 drams. Eight minims of the solution are warmed and dropped into the ear four or five times a day. A combination of the alkaloids of atropia and cocain, and coca-oil mixed in the same propotions gave even more satisfactory results. The patients were generally given an $\frac{1}{8}$ to a $\frac{1}{6}$ of a grain of calomel every $\frac{1}{2}$ to 1 hour till the bowels moved, followed by a saline. Ammonium chlorid in 10-grain doses often relieved the tinnitus aurium, and occasionally morphia by mouth for the pain. Bulging of the tympanic membrane was an indication for incising it, after which the ear was irrigated either with salt-solution of boric acid or 1 to 14,000 to 1 to 8,000 bichlorid solution. Dr. Reik, in discussion, said that he had found leeching over the mastoid to give excellent results. He strongly advocated early incision of the membrane. Dr. Finney said that he had seen the fatal case referred to by Dr. Theobald, but the condition of the patient and the absence of any localizing symptoms contraindicated an operation.

Dr. Knox read a paper on **tendon-transplantation with a report of 7 cases.** By tendon-transplantation is meant the suturing of the tendon of one muscle to that of another, with the object of correcting deformities. The method was first introduced by Nicoladoni, now of Gratz, in 1882. The literature was carefully reviewed from that date to the present, the accumulated evidence going to show that the operation was most successful in relieving deformities, particularly of the foot. It has been used most extensively for correcting the paralytic deformities so common after acute anterior poliomyelitis in children, and has yielded excellent results. After transplantation of a tendon a flexor muscle may be made to take on the function of an extensor, and vice versa. The theories advanced for this transference of function were discussed. During the past year, the operation of tendon-transplantation had been performed in the hospital 7 times, in 1 case by Dr. Finney, and in the other 6 by Dr. Cushing. The results, illustrated by photographs taken before and after operation, had been all that could be desired. Dr. Finney and Dr. Cushing both considered the operation a great advance in the treatment of paralytic deformities, and expressed the belief that as the operation becomes more generally known, the number of cases of extreme club-feet so commonly seen in children on the street will materially diminish.

Drs. McCallum and Hastings reported **a hitherto undescribed peptonizing micrococcus causing acute ulcerative endocarditis.** The organism was grown from the blood of a patient admitted to the hospital in September, 1898, with symptoms strongly suggestive of typhoid fever, although the Widal test was not typical. After admission to the hospital he developed symptoms of ulcerative endocarditis involving the mitral and aortic valves. Before death the organism to be described was grown from cultures taken from the patient's blood. At the autopsy an acute ulcerative endocarditis of the aortic and mitral valves was found. The same organism was grown from the heart's blood and most of the organs as was cultivated during life. The organism was a micrococcus growing in pairs, and not decolorizing by Gram's stain. On agar it grew in pin-point colonies similar to those of the streptococcus. The growth was profuse on glucose-agar, less so on glycerin-agar. It liquefied gelatin. In three days it caused a depression on the surface of blood-serum with partial liquefaction. There was a slow growth on potato. Bouillon was rendered turbid in 24 hours, after which the organism formed a precipitate. The behavior with litmus-milk was the interesting feature. Decolorization ccurs in about 4 hours, but a bluish or reddish ring persists t the surface and increases with shaking. The milk be- omes coagulated and of an acid reaction. The organism rew in an atmosphere of hydrogen. The organism was athogenic to white mice particularly, also to rabbits and ogs, causing ulcerative endocarditis. Thinking that the rganism formed a ferment they extracted bouillon-cultures ith chloroform and obtained a liquefaction of the gelatin nd peptonization of milk with the chloroform-extract. his was even more characteristic with a filtered culture. he name suggested for the new organism was micrococcus ymogenes.

Orleans Parish (La.) Medical Society.—February 5, Dr. Rudolph Matas demonstrated the **use of the ithotrite devised by Dr. Chismore, of San Fran- isco,** prefacing his exhibition with some remarks on the eneral applicability of litholapaxy in the management of esical calculus. Most cases may be treated by this method, hich is not, however, to be resorted to in cases complicated ith marked cystitis or considerable hypertrophy of the pros- te. The former class is best treated by some method afford- g a free outlet for the urine, while in the latter the pros- tic enlargement interferes mechanically with the manipu- tion of the lithotrite. The bloody operations, median peri- eal, lateral perineal, and suprapubic, were compared; the rst was given the preference, while the last, which confines e patient to bed 2 or 3 weeks with a constant flow of ine through the wound, was unfavorably commented on. case was related to illustrate the less severe character of e crushing operation: in the case of a paraplegic, bed- lden for some time past, cystitis had resulted in the forma- n of stone. A cutting operation was not to be thought of, bad was the general condition. With the Chismore ap- ratus this calculus, which consisted of an uric-acid nucleus ated with phosphates and weighed about a dram, was pul- rized and evacuated in less than 30 minutes; no general esthetic was administered, cocain-solutions being used, first of 2% and then of 4% strength. Dr. Matas mpared the behavior of cocain in the bladder, several nces of 4% solution having been used without bad re- ts in the course of 2 or 3 hours, with that in the urethra, which cases not a few deaths have followed its use. e instrument exhibited is of a smaller pattern than the gelow lithotrite, resembling rather the Thompson instru- nt; its male blade is cannulated, a detail which allows (1) washing out of the stone-dust with the lithotrite in situ, that this does not have to be replaced by the evacuating e; (2) the introduction of additional cocain, if needed, or escape of any excess that may be in the bladder; and (3) displacement of fragments impacted in the teeth of the de by means of a stylet. A rack-and-pinion mechanism ves for opening and closing the bladder; direct hand- ssure may be made on a stone in the grasp of the litho- e by means of a knob. An unique feature is a percussing hanism, detachable, working on the principle of the omatic plugger of dental practice. The impulse com- nicated to the male blade by the snapping of the trigger his percussor breaks the calculus along the lines of tallization. Removal of the debris is effected by means rubber aspirating-bulb which may be adapted to the e blade itself or to the evacuating tubes of Bigelow, which nit more rapid evacuation; on this bulb, which is of con- ent size and shape for grasping with the hand, is screwed ss receiver, provided with a valvular arrangement which ents the return of debris into the bulb.

Dr. Matas went on to tell of a **tumor,** in all likelihood a sarcoma, **cured** by the injection of **mixed toxins,** according to Coley's method. Two years before, the patient, a man of 30 years, had been treated in the Charity Hospital for lumbar abscess of the right side; incision and drainage had effected a cure in a short time. Six months ago he returned to the hospital from his home in Mississippi, with a tumor at the site of the old lumbar abscess. This tumor was a mass of woody hardness, covering all of the region between the costal arch above and the crest of the ileum below, as well as encroaching on the anterior abdominal wall. The general health was very poor, the patient being cachectic, emaciated, of yellow hue. No history of inflammation could be elicited, nor were any signs present; blood alone was drawn into the syringe on exploration. On the basis of these clinical data a diagnosis of sarcoma was made; exploratory operation was advised, but was refused by the patient. The injection by the mixed toxins of erysipelas and bacillus prodigiosus into the mass was begun some ten days later. The initial dose of ½ minim having failed to produce any reaction, this was increased in the course of 14 injections, to 10 minims, which caused a decided reaction; the tumor was now found to have diminished considerably in size. The result of the continued use of the injections was disappearance of the tumor, with great improvement in the condition of the patient, who now weighs 40 pounds more than he did at the beginning of the treatment.

Dr. C. J. Miller related the case of a colored infant, 7 weeks old, that died of **acute pyemia,** the orgin of which could not be traced; no lesion had existed at the umbilicus or in any other region. The trouble began with swelling and discoloration of the scrotum, which was followed by swelling and suppuration in the right upper, and left lower extremities, and in the occipital and left parietal regions of the scalp. Exhaustion caused death in 10 days, tympanites existed at this time; no autopsy. Dr. Miller replied to questions as follows: The regions involved did not seem erysipelatous; fever had been slight, no crepitation existed to show that gases had developed in the tissues; neither mastitis nor fissured nipples had existed in the mother; suppuration did not take place in the scrotum.

Dr. M. J. Magruder reported a case of **labor with vomiting as a complication.** The efforts, which came on when labor had been in progress several hours, were violent. On examination the amniotic sac was found protruding from the cervix, giving a doughy sensation to the examining finger; the sensation suggested the possibility of the existence of placenta prævia, which was, however, excluded. The escape of the amniotic fluid on rupture of the sac was succeeded by the discharge of large clots, apparently from the same source. Shortly after this the patient was delivered of a stillborn infant, notwithstanding that she said she had felt it move not more than a half-hour before,—this might be explained by separation of the placenta consequent on the violent vomiting efforts. Dr. Magruder was unable to explain the escape of clots from the cavity of the sac. Dr. Miller was of the opinion that the blood had not come from the interior of the sac; probably separation of the placenta had resulted in concealed hemorrhage between the uterine wall and the sac, the blood escaping only after the collapse of the amnion.

Dr. H. B. Gessner read a brief report of a **post-typhoid bed-fever** case cured by getting out of bed and eating solid food.

CANADA.

Correction.—Our correspondent in our issue of February 25, p. 429, in reference to Prof. J. G. Adami, inadvertently stated that Dr. Adami had declined the offer of the chair of pathology in St. John's College, Cambridge. Dr. Adami had been so often spoken of in connection with the chair that when it was learned he was not a candidate, the news-item was naturally worded as we and many other journals gave it. There is no professorship of pathology at St. John's College; the University has such a chair (which Professor Kanthack held), but election to this is by the votes of an electoral board, and candidates must forward applications. Dr. Adami at no time applied for the chair.

MISCELLANY.

Correction.—On page 478, of our issue of last week, is what purports to be a preliminary program of the next meeting of the American Medical Association. This is, however, a preliminary program of the next meeting of the American Academy of Medicine.

Health Reports.—The following cases of smallpox, yellow fever and cholera, have been reported to the Supervising Surgeon-General of the U. S. Marine-Hospital Service for the week ended March 4, 1899.

SMALLPOX—UNITED STATES.

			CASES.	DEATHS.
ALABAMA:	Antauga Co.	Feb. 24.	Smallpox present.	
"	Mobile	Feb. 24	4	
"	MontgomeryCo.	Feb. 24.	Smallpox present.	
COLORADO:	Denver	Feb. 4-11	2	1
DISTRICT OF COLUMBIA:	Washington	Feb. 23	11	
FLORIDA:	Jacksonville,	Feb. 11-18	1	
"	Key West	Feb. 25	3	
"	Pensacola	Feb. 27	3	
GEORGIA:	Savannah	Feb. 22	1 a soldier from Porto Rico, on steamer "Chester."	
ILLINOIS:	Cairo	Feb. 23	9	
"	Monmouth	Feb. 23	3	
INDIANA:	Evansville	Feb. 25	1	
"	Jackson City	Feb. 24	3	
KANSAS:	Peabody	Feb. 16	56	7
KENTUCKY:	Louisville	Feb. 16-23	29	
MARYLAND:	Baltimore	Feb. 8-27	2	
MAINE:	Auburn	Feb. 20	4	
"	Lewiston	Feb. 22	1	
NEBRASKA:	Omaha	Feb. 4-11	1	
"	"	Feb. 11-18	1	
RHODE ISLAND:	Providence	Feb. 17-24	1	
TENNESSEE:	Jackson	Feb. 11-18	9	
"	Memphis	Feb. 11-18	6	
TEXAS:	Alice, 40 miles west of Corpus Christi,	Feb. 20	20	
VIRGINIA:	Alexandria	Feb. 23-March 2	20	1
"	Norfolk	Feb. 21-24	35	
"	Portsmouth	Feb. 18-25	36	
	SMALLPOX—FOREIGN.			
BRAZIL:	Bahia	Jan. 21-Feb. 4	12	
"	Rio de Janeiro	Jan. 6-13	18	7
CHINA:	Hongkong	Jan. 15-21	1	
EGYPT:	Cairo	Jan. 22-28		2
"	"	Jan. 28-Feb. 4		1
GIBRALTAR:		Jan. 30-Feb. 5	1	
"		Feb. 5-12	1	
INDIA:	Bombay	Jan. 24-31		3
MEXICO:	Ciudad Porfirio Diaz	Feb. 18-25	4	
"	City of Mexico.	Feb. 10-17	10	2
RUSSIA:	Moscow	Jan. 28-Feb. 4	6	4
"	Odessa	Feb. 4-11	2	1
"	St. Petersburg	Jan. 21-28	2	1
"	"	Jan. 28-Feb. 4	2	1
TURKEY:	Constantinople.	Dec. 31-Jan. 8		18
"	"	Jan. 8-Feb. 15		14
"	Smyrna	Jan. 28-Feb. 5		1
	YELLOW FEVER.			
BRAZIL:	Rio de Janeiro.	Jan. 6-13	28	20
	CHOLERA.			
INDIA:	Bombay	Jan. 24-31		3
"	Calcutta	Jan. 14-21		30
"	Madras	Jan. 21-27		2

Obituary.—Dr. John C. Benham, Hudson, N. Y., February 19, aged 83 years.—Dr. Clifford Hewitt, Hoosick Falls N. Y., February 18, aged 44 years.—Dr. Willard Avery Heacock, New York, February 24, aged 30 years.—Dr. C. S Gray, Little Rock, Ark., February 14, aged 48 years.—Dr Daniel L. Reeve, Jersey City, N. J., February 25, aged 7 years.—Dr. Daniel M. Tindall, Morton, Pa., February 21 aged 81 years.—Dr. Edward Payson Hurd, Newburyport Mass., February 24, aged 60 years.—Dr. Franklin Whitin Brigham, Shrewsbury, Mass., February 28.—Dr. Forest Fox New York, February 26.—Dr. Philo L. Holland, Chicag Ill., March 2.

Changes in the Medical Corps of the U. S. Army

Keefer, Captain F. R., assistant surgeon, the verbal order assig ing him as surgeon in charge of the Third Reserve Hospita Manila, is confirmed.

Maus, Lieutenant-Colonel L. M., chief surgeon, will turn over a papers and property pertaining to the department of the Prov ince of Havana and the Seventh Army Corps to Major Jeffe son R. Kean, brigade-surgeon.

Kean, Major Jefferson R., brigade-surgeon, is announced as actin chief surgeon of the department of the Province of Havana an Seventh Army Corps.

Glennan, Major James D., brigade-surgeon, now on duty in th department of Matanzas, will visit Perico. Colon, Aguica, H eagua, San Pedro, San Jose, Banaguises, Altanisal, Recre Sabomilla, Nato Nuevo, Itabo, San Anton, Cardenas, Contrera Cimarrones, Jovellanos, Cuba, and carry out instructions of th department commander.

Williamson, First Lieutenant Llewellyn T., assistant surgeon, assigned to duty in the department of Havana.

Noaks, Richard S., hospital steward, now at Fort Sam Housto will be sent to Fort Bliss for duty, to relieve Daniel Mille hospital steward.

Millen, Daniel, hospital steward, will be sent to Fort McIntos for duty.

Gibson, Major Robert J., surgeon, is granted leave for one mont Feb. 25.

Heyl, Captain Ashton B., assistant surgeon, will close the U. General Hospital at Fort Thomas, Feb. 28, and report at th post for duty.

Whittington, William L., acting assistant surgeon, now at S Joseph, Mo., will proceed to Jefferson Barracks for duty.

Whittington, William L., acting assistant surgeon, is relieved fro duty at Jefferson Barracks, and will proceed to Fort Sam Hou ton for duty.

Felder, Lawrence A., acting assistant surgeon, is relieved fro further duty at Sullivan's Island, S. C., and will proceed to Francis Barracks for duty.

Maus, Lieutenant-Colonel Louis M., chief surgeon, (major and su geon U. S. A.) the order of Feb. 3, relating to him, is amend so as to discharge that officer from the volunteer army, to ta effect April 21.

Appel, Major Aaron H., surgeon, is relieved from temporary du at Fort Hamilton, and will proceed to Jackson Barracks duty.

Wales, Major Philip G , brigade-surgeon, (captain and assista surgeon, U. S. A.), is honorably discharged from the volunte army, to take effect April 26.

The following changes in the stations and duties of officers ordered:

Wales, Major Philip G., brigade-surgeon, is relieved from du with the Second Army Corps and will return to his pro station, Fort Niobrara.

Higley, First Lieutenant Brainard S., Jr., assistant surgeon, the return of Major Wales to Fort Niobrara, is relieved fr further duty at that post and will proceed to San Francisco assignment to duty with the troops sailing on the first availa government transport for Manila, P. I., and on arrival th will report for assignment to duty.

Flagg, Captain Charles E. B., assistant surgeon, is relieved fr further duty with the Second Army Corps, and will return his proper station, Columbus Barracks.

Bannister, Major William S., brigade-surgeon, is relieved fr further duty with the Second Army Corps and will proceed Fort Warren for duty.

Gardner, Major Edwin F., surgeon, is detailed as a member of Army Retiring Board at Denver, Col.

Birmingham, Major Henry P., brigade-surgeon, is detailed a member of the Army Retiring Board at Denver. Col.

Munn, Major Curtis E., surgeon, is relieved as a member of Army Retiring Board at Denver, Col.

Smith, First Lieutenant Louis P., assistant surgeon, is relieved member of the Army Retiring Board at Denver, Col.

Robinson, Major S Q., surgeon, is granted leave for one mon with permission to return to the United States. Feb. 14.

Calle, Major E. de la, brigade-surgeon, is relieved from duty in department of Havana, and will report to the chief surgeo the division of Cuba for special duty.

Pitcher, Major **James** E., brigade-surgeon, is granted leave for 10 days. March 1.

Darnall, First Lieutenant **Carl** R., assistant surgeon, on expiration of his present leave, is relieved from duty at Fort McIntosh, and when his services are no longer required is relieved from further duty at Huntsville, Ala., and will proceed to Fort Clark for duty.

McCulloch, Captain **Champe** C., **Jr.**, assistant surgeon, when his services are no longer required at Huntsville, Ala., is relieved from further duty at that station and will proceed to Fort Barrancas for duty.

Willcox, Captain **Charles**. assistant surgeon, is relieved from further duty in the department of Porto Rico and will proceed to Fort Bliss for duty.

Wetherill, First Lieutenant **Henry** E., assistant surgeon, when his services are no longer needed at Huntsville, Ala., is relieved as medical supply officer at that station and will proceed 'to Savannah, Ga., and report at the U. S. General Hospital for duty.

Schreiner, First Lieutenant **Edward** R., assistant surgeons, when his services are no longer needed with the Second Army Corps, is relieved from further duty with that corps and will proceed to Plattsburg Barracks for duty.

Ten Eyck, Captain **Benjamin** L., assistant surgeon, on the arrival of Major **Junius** L. **Powell**, surgeon, at Fort Riley, is relieved from duty at that post and will proceed to Fort Robinson for duty.

Robinson, Major **Samuel** Q., surgeon, is relieved from further duty in the department of Santiago, and on expiration of his present leave will proceed to Fort Reno for duty.

The following changes in the stations and duties of officers of the medical department are ordered:

Stephenson, Major **William**, brigade-surgeon, is relieved from duty at Santiago, Cuba, and will proceed to New York City and assume the duties of attending surgeon and examiner of recruits in that city, to relieve Major **Nathan** S. **Jarvis**, brigade-surgeon.

Phillips, Major **John** L., chief surgeon, is relieved from duty with the Second Army Corps, and will proceed to Fort Thomas for duty.

Stephenson, Major **William**, brigade-surgeon, is honorably discharged, to take effect April 30.

The following named officers are honorably discharged from the volunteer army to take effect from the date set opposite their respective names:

Wakeman, Major **William** J., brigade-surgeon, (captain and assistant surgeon, U. S. A.), April 30.

Phillips, Major **John** L., chief surgeon, (captain and assistant surgeon, U. S. A.), April 30.

Borden, Major **William** C., brigade-surgeon, (captain and assistant surgeon, U. S. A.), March 31.

Edie, Major **Guy** L., brigade-surgeon, (captain and assistant surgeon, U. S. A.), March 31.

Raymond, Major **Henry** I., brigade-surgeon, (captain and assistant surgeon, U. S. A.), March 31.

Bannister, Major **William** B., brigade-surgeon, (captain and assistant surgeon, U. S. A.), April 30.

Groff, Major **George** G., brigade-surgeon, April 30.

Kernachan, Major **William** J., brigade-surgeon, March 31.

Changes in the Medical Corps of the U. S. Navy,

or the week ending March 4, 1899:

Arnold, W. F., passed assistant surgeon, when discharged from further treatment at hospital, Norfolk, Va., ordered home and granted sick leave for three months.

Shipp, E. M., passed assistant surgeon, detached from the "Lancaster" and ordered to the naval hospital, Norfolk, Va.

Guthrie, J. A., passed assistant surgeon, detached from the naval hospital Norfolk, Va., and ordered to the "Franklin" immediately.

Angeny, G. L., assistant surgeon, detached from the naval hospital, Chelsea, Mass., and ordered to the "Lancaster."

Payne, J. H., **Jr.**, assistant surgeon, detached from the "Franklin" and ordered to the naval hospital, Chelsea, Mass.

Ross, **John** W., surgeon, U. S. Navy, retired, is assigned to Military Hospital No. 1, Havana, Cuba, and will report to the commanding officer of that hospital for duty.

Changes in the U. S. Marine-Hospital Service,

or the seven days ended March 2, 1899.

White, J. H., surgeon, to proceed to Elizabeth, N. J., for special temporary duty. Feb. 24. To report at Washington, D. C., for special temporary duty. Feb. 28.

Arrington, P. M., surgeon, to proceed to Baltimore, Md., as inspector of unserviceable property. March 2.

Ettus, W. J., passed assistant surgeon, to proceed to Cape Charles City, on special temporary duty. Feb. 25. To proceed to Burlington, N. C., for special temporary duty. Feb. 28.

Obb, J. O., passed assistant surgeon, to report at Washington, D. C., for special temporary duty. Feb. 25.

Uiteras, G. M., passed assistant surgeon, to proceed to Matanzas, Cuba, for duty as quarantine officer. Feb. 25.

cAdam, W. R., assistant surgeon, to proceed to Key West, Flor., and assume temporary charge of service. Feb. 25.

Rown, F. L., hospital steward, to proceed to Norfolk, Va., and report to commanding officer for duty. Feb. 25.

Holsendorf, B. E., hospital steward, granted leave of absence for 2 days. Feb. 24. Upon being relieved by Hospital Steward F. L. **Brown**, to proceed to San Juan, Porto Rico, and report to Surgeon A. H. **Glennan** for duty. Feb. 25.

BOARD CONVENED.

Board convened to meet at the U. S. Marine Hospital, San Francisco, Cal., at 10 A.M., May 2, 1899, for the examination of candidates for appointment as assistant surgeon in the service. Detail for the Board: Surgeon J. M. **Cassaway**, Chairman; Surgeon S. D. **Brooks**, Passed Assistant Surgeon C. H. **Gardner**, Recorder.

Foreign News and Notes.

GREAT BRITAIN.

The late Mr. Charles Bader, whose death is reported to have taken place in February at Stoke Ferry, in Norfolk, England, had practically retired from the medical profession for some years, although he was but 72 years of age at the time of his death. He was a naturalized German, and was for twenty years ophthalmic surgeon to Guy's Hospital, during which time he enjoyed an enormous private practice. He was a beautiful and original operator.

Venereal Disease in the Indo-British Army.—Lord George Hamilton, the British Secretary of State for India, has publicly stated that of 21,439 men engaged in the recent north-west frontier war 16,600 were drawn for service; of these 987 were rejected as unfit because of venereal disease, while 492 were incapacitated during the campaign for the same reason.

Vaccination in the British Civil-Service.—The employes of the British State are not to be allowed to enjoy the same freedom to catch and propagate disease that has been granted to the rest of the community by the passage of the conscience-clause of the recent Vaccination Act. All candidates for admission to the Permanent Civil-Service (Post-office, Inland Revenue Department, and all departments of Somerset House, Customs Department, Telegraph Department, etc.), and all established workmen in these departments must show that they have been satisfactorily vaccinated, otherwise revaccination is enjoined upon them. In the Postoffice, evidence of both primary and secondary vaccination is required before employment, whether permanent or temporary, and revaccination is compulsory every 7 years. The next object of attack for the antivaccinationists will, undoubtedly, be the Government departments, for so long as these departments, which are so closely associated in the popular mind with the constitution of the country, remain faithful to vaccination, the process will never drop into real disrepute.

The Late Professor Rutherford.—Professor William Rutherford, whose death at the age of 60 took place in Edinburgh February 21, was professor of physiology in the University of Edinburgh for just a quarter of a century, during which time he earned by devotion to duty and brilliant powers of exposition an enormous reputation. He was originally an Edinburgh student, but his first taste for physiology was acquired in Paris, where he studied for some time after taking his medical degree. As quite a young man, *i. e.*, while still under 30, he was appointed professor of physiology in King's College, London, but five years later he resigned this post to fill the vastly more important as well as more lucrative chair of physiology at his old university, and from that time forward his life was identified with the study of physiology at Edinburgh. He invented the freezing microtome which has proved of the greatest value in microscopic research, did some sound original work on the physiology and pathology of the secretion of bile, and wrote an admirable series of lectures on physiology for the *Lancet;* but it is as a teacher that he will be remembered, and his most valuable work was the turning out of sound scientific pupils.

Convalescent Homes for British Soldiers.—The health of the soldier bulks largely in recent British medical news. The British War Office is to be heartily congratulated on having decided to establish a system of convalescent homes for soldiers. So far as the army regulations are concerned the British soldier is regarded as ill or well. If he is ill he should be in the hospital, if he is well he must be on duty—this has been the official view. In practice this absence of an intermediate stage during which "Tommy" might be too well to be in hospital, but too ill to be on duty, was provided for (despite the regulations) by the good sense of the Army Medical Staff. The medical officers would take care to make arrangements under which soldiers who had recently been sick either went on furlough or were only employed on very light duty until their health was re-established; but it was no part of the duty of the medical officer to make such arrangements. Now an experiment is to be started whereby 9 convalescent homes, situated respectively at Scarborough, Shorncliffe, Sandown, Yarmouth, Pembroke Dock, Tynemouth, Fleetwood, Ayr, and Aberdeen, are to be opened immediately for the convalescent soldier.

The British Government and the Water-supply of London.—The British Government have behaved precisely as we prophesied that they would towards the all-important subject of the water-supply of the capital. Mr. Chaplain, the President of the Local Government Board, has brought in a bill to give facilities for the intercommunication of the Metropolitan Water Companies' mains, under which, in cases of emergency, the companies must supply "at a reasonable cost and to such extent and during such period as the Board may direct, such water as may be required for the need of any other company," it being, of course, understood that only surplus-water may be thus called upon. The measure will meet present emergencies by obviating the chances of water-famines with their attendant hardships and risks to public health, for at the present time there are companies which have a good deal of water to spare; but as a final solution of the question the proposed piece of legislation is ridiculous. Sooner or later the sources from which London draws its water-supply will have to be replenished, and seeing that the value of the present monopolies increases with the passage of time, the true economist leans toward the "sooner" policy. If Lord Salisbury's Government by passing a conciliatory Act contrives to stifle the urgent need for drastic legislation, it will be doing harm, even while it is securing a comparative measure of comfort to certain citizens.

Hospital Provision for the Anglo-Egyptian Campaign.—It has been noted in many quarters, medical and lay, that the marvelous freedom of the Sirdar's army from illness during his successful campaign was not maintained when fighting was over, and this has given rise to the disagreeable impression that so long as there was fighting to be done every care was taken of the fighting-machine, but that when the Khalifa was smashed—a process about which there is now some doubt—and Omdurman won, no one in authority at headquarters took much more pains about the plight of the soldiers. This unpleasant view has lately had color added to it by a debate in the House of Commons, as a result of which anything that the War Office may have gained in public esteem by the establishment of convalescent homes has been lost. Captain Norton, the member for Newington, asked the Under Secretary of State for War (Mr. George Wyndham) whether he could state if an application was made by the army medical authorities for a hospital-ship in connection with the Khartoum expedition in sufficient time for it to have reached Alexandria before the arrival of the sick from the front. Mr. Wyndham in reply said that "an application for a hospital-ship was made by the principal medical officer in Egypt to the general officer commanding the army of occupation on June 27. Both these officers were at that time in London. The general officer commanding sent forward the application unofficially, adding that if on arrival in Egypt he found it necessary he would again apply through Lord Cromer. Pending the receipt of such an unofficial application the general officer commanding was given full powers to take up passages for the sick and wounded together with their medical attendants, nurses, etc., on board the Peninsula and Oriental and other passenger-ships passing almost daily through the Suez Canal, supplementing in this manner the accommodation afforded by the two Government transports allotted to this service. On September 14, the general officer commanding applied officially by telegraph for a hospital-ship, but since it would have taken five weeks to fit out and transfer such a ship to Alexandria, it was decided to adhere to the arrangements already made. 465 invalids were conveyed by six vessels between September 20 and October 30, and all arrived in England considerably sooner than would have been the case had a hospital-ship been despatched."

The reply is regarded as unsatisfactory by medical men. The Sirdar, as we have reported in the Journal, made excellent arrangements for conveying all his sick and wounded from the front, but when they reached Cairo and Alexandria no adequate hospital-accommodation was prepared for them there, no proper transport to England was ready to meet them.

CONTINENTAL EUROPE.

Professor Olshausen and **Professor Martin,** of Berlin, have been elected honorary members of the Obstetrical Society of London.

University of Moscow.—The total number of students in the University of Moscow at the beginning of the present year was 4,407. Of these 1,284 belonged to the medical faculty.

A Russian Ophthalmologic Society was recently founded in Moscow. Professor A. A. Krjukow was elected president and Professor F. A. Jewezki vice president. At the inaugural meeting the latter delivered an address on the development of ophthalmology in Russia.

A school for children suffering from trachoma was opened in Milan in January. This school, which has been erected at the expense of the municipality, is annexed to the Ophthalmic Institute and comprises 2 rooms, each of which can accommodate 50 pupils. At the present time the total number of children in the school is 60. When lessons are over the children go to the Institute to be treated, and only after treatment are they allowed to go home.

The Deceptive Remissions of Appendicitis.—At the discussion recently held on the subject of appendicitis, at the Academy of Medicine of Paris, M. Dieulafoy read a paper, of which the following conclusions are the pith: (1) The acute symptoms of appendicitis—the abdominal pain, the vomiting, and the pyrexia—are sometimes followed by a marked remission, the pain disappearing, the temperature falling, and the patient feeling much better. (2) This remission and defervescence are not always significant of a real improvement in the condition; sometimes they mark a false remission, a deceitful and treacherous calm. (3) It is important to note that this deceptive calm often coincides with the occurrence of very grave lesions, such as gangrene of the appendix, septic infection of the peritoneum, and diffuse peritonitis. (4) The remissions are never complete, for if the case be closely observed it will be seen that the course of events differs from a real improvement by the persistence of some of the symptoms. Thus the abdomen remains tympanitic, the muscular rigidity continues, and the quick pulse-rate persists, although the temperature falls. Urobilinuria and albuminuria are by no means uncommon. (5) Such deceptive remissions are sometimes brought about by drugs, especially by the use of morphia, or the application of ice-bags which mask the onset of danger-signal symptoms. (6) This deceptive remission supervenes at various times from as early as the second day to so late as the fourth or sixth days. (7) Such remissions, coinciding as they do with the onset of he gravest peritoneal lesions, show once more the inaccuracy of drawing a sharply-defined line between the condition of appendicitis and that of peritonitis. Such views give rise to the most serious errors, for the symptoms of appendicitis and peritonitis are very similar—are, in fact, so interwoven and bound up together that it is impossible to say at what particular moment peritonitis begins. (8) These deceptive emissions are the most potent cause of death from appenicitis. A temporizing physician or surgeon seizes upon one f these intervals of calm as a reason for putting off surgical interference; soon, however, some terrible complication suervenes, against which surgery is powerless, and the patient ies. (9) It is of the first importance to distrust these treachrous calms, to remember their existence, and to operate without delay, if it is desired to save the patient from death.—*Lancet.*]

MISCELLANY.

An International Medical Press Congress.—The rench Medical Press Association held its forty-third meeting February 3, under the presidency of Dr. Gézilly. It was decided to organize an International Congress of the Medical ress to be held in Paris in 1900 at the same time as the other ngresses which are to take place there in that year.

Obituary.—William Rutherford, M.D. Edin., F.R.S., ofessor of physiology in the University of Edinburgh, Febary 21, aged 60 years.—Dr. Arkle, lately vice-dean, lecrer on biology, and joint lecturer on practical medicine in haring Cross Hospital Medical School, London, February .—Dr. Denis Monier, professor of biologic chemistry in he University of Geneva.

An International Antivaccination Congress.—Acrding to the *British Medical Journal*, under the auspices of te German Antivaccination League, an international conf ence is being organized. It is to be held in Berlin on June 1 19, and 20. There is to be a large mustering of the clans v ich have sworn a feud against Jenner. The occasion is to b graced by the presence of William Tebb, who will appear a the head of a number of his henchmen like a highland chieftain of old "with his tail on." Other prominent antivaccinists from Sweden, Switzerland, Holland, and the United States are expected. Italy will be represented by Professor Ruata, of the University of Perugia. The Imperial Health Bureau is to be invited to send representatives. The vaccination question is to be discussed from the medical, legal, and philosophic standpoints, "in a practical manner and with all publicity."

Examinations at the University of Melbourne.—The following are some statistics of the examinations recently held at the University of Melbourne: First year medicine: number of students who presented themselves in 1897 were 61; passed 27; 1898, 62, passed 18. Fifth year medicine: number who presented themselves in 1897, 49; of these, 28 passed; 1898, out of 30, 8 passed.

The Plague Among Animals.—The India correspondent of the *Lancet* states that a report by M. Haffkine regarding the conveyance of plague-infection by monkeys and squirrels has been published by the Government. Seven monkeys were observed in Gaday (Dharwar District) to drop dead from trees. From the organs of two of these cultivation-tubes were inoculated. In both cases plague-microbes were subsequently isolated which by cultivation-tests and inoculation into rats showed themselves identical with the microbe of human plague patients. So far back as November, 1897, in Kankar (Hardwar) more than 20 monkeys were found dead in the streets, and microscopic examination showed plague-looking bacilli, but as no living cultures were secured the proof of the disease was not complete. The present instance in Gaday is said to be the first instance of the fact of natural plague in monkeys being unmistakably established. The report states that it "is known now for certain that plague affects epidemically both human communities and animals. Up to this date, however, the rat was the only animal representative of this kind known. It is to be accepted at present that apart from the rat, the monkey and the squirrel can get naturally affected by that disease also, though observation shows so far not such a widespread form as is the case in man and rats. The monkey and the squirrel represent, therefore, two further factors capable of carrying the germs of plague from place to place apart from the traveling of man and the rats."

Further cases of what is probably plague amongst monkeys and squirrels have also been recently reported from the gardens at Bangalore. Dead rats were found in the cages, and several monkeys died suddenly and a barking deer also died suspiciously. Two squirrels dropped from a tree close by and died in two or three minutes. In several other places dead squirrels and dead rats were found.

The occurrence of cases of plague in human beings at places where rats have been found dying or dead without any probable contact shows that it is sufficient for rats to die in a house to infect it and that the infection must be conveyed to human beings by some other agencies. It may be that, as according to Simond, the plague-stricken rat infects the fleas which infest it. He states that a bacillus morphologically like that of plague, was found in the contents of their intestines and quotes experiments to show that these fleas may infect healthy rats. Yersin observed that plague-bacilli multiply in the intestines of flies. It is possible, therefore, that both fleas and flies may be the means of spreading plague from rats to man as well as from rat to rat. But these experiments require confirmation and the proofs of cultivation and inoculation experiments.

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

February 18, 1899. [No. 1990]

1. The Hunterian Oration. William MacCormac.
2. Clinical Notes upon the Rectal Contour and Consistence of a Thousand Prostate Glands. E. Hurry Fenwick.
3. On the Etiology of Cancer, with a Note of some Experiments. George Thomas Beatson.
4. Two Cases of Coxa Vara, showing the Result of Division of the Femur Below the Trochanters. W. Watson Cheyne.
5. A Case of a Tooth Impacted in the Left Bronchus; Gangrene of the Left Lung; Death. James S. Warrack.
6. A Case of Acute Tetanus Successfully Treated by Antitetanin. J. Galletly.
7. A Case of Gangrene of the Lung. H. Argyll Robertson.
8. A Case of Inversion of the Uterus. John Penny.
9. The Treatment of Ophthalmia Tarsi. Leslie Phillips.
10. Symphysiotomy for Contracted Pelvis followed by Nearly Normal Labor Two Years Later. M. Ida Balfour.
11. Dilatation of Stomach. Charles J. Hill Aitken.
12. A Case of Complete Prolapsus of Uterus in a Girl Sixteen Years of Age; Operation; Celio-hysteropexy; Recovery. J. D. Duncan.

2.—In examining patients for **enlargement of the prostate** it is essential to keep to a routine position, such as bending over a chair with the body at right angles to the legs, because the form, position, and consistency of the gland alters greatly with the position of the patient. In tuberculosis, deposits should be detected in the testicle, epididymis, prostate or bladder, in about 80% of the cases. These tuberculous deposits are met with in three clinical conditions: In young males who notice a lump in one epididymis or the other, in young males who complain of symptoms of vesical stone, or in adults who complain of symptoms of vesical stone. The tubercle in the prostate is generally noted as a distinct nodule except where other inflammatory conditions exist; then it is more diffuse. It is possible for prostatic deposits to become absorbed, but this absorbing often changes materially the size and shape of the organ. Also when the deposits do become absorbed in one part, almost always there is invasion of another portion, possibly beyond the reach of the examining finger. As a general rule tuberculosis in its invasion of the epididymis, prostate, and kidney, keeps to the side on which it started, but in about 18% of cases it crosses over. In the treatment of these tuberculous cases never wash out the bladder, as the case progresses much more rapidly if this is done. [G.B.W.]

3.—Beatson, thinking it possible that the true **exciting cause of carcinoma** might be found in the germinal epithelium of the body, that is, in the ovaries and testicles, healthy or diseased, performed the following experiments on rabbits: (1) inoculation of healthy testicular tissue into the subcutaneous tissue; (2) inoculation of a portion of a human ovary from a cancerous patient into the subcutaneous tissue; (3) inoculation of a portion of cancerous human breast into the testicle; (4) inoculation of a bit of epithelium from a human cervix uteri into the testicle; (5) inoculation of a portion of the same tissue into the ovary; (6) a combination experiment consisting of first, the transplantation of a bit of testicle into subcutaneous tissue, and then the inoculation of the testicle of the same rabbit with a bit of cancerous tumor from a human breast. Taken collectively, the result of these experiments was entirely negative. In other words, there was nothing to support the view as to the presence or influence of germinal epithelium being in any way associated with the etiology of carcinoma. [S.M.H.]

5.—This case of a **tooth lodging in the left bronchus** is remarkable chiefly because of the rapidity of the disease-processes following the impaction. Death took place on the tenth day, and the postmortem showed gangrene of the whole of the left lung. [G.B.W.]

6.—Galletly had under his care a boy aged 8 years, who 3 weeks previously had crushed the terminal phalanx of his right middle finger in the cogwheel of a piece of machinery. Nineteen days after this occurrence he developed symptoms of tetanus. When he came under observation, 3 days later, he was given subcutaneously 20 cc. of **tetanus-antitoxin,** and the terminal phalanx of the injured finger was amputated. On the following day he was given 10 cc. in the morning and 10 in the evening. On the day following this 10 cc. more were given and the dose repeated twice daily for the next 3 days, and as the condition remained stationary, on this day 15 cc. was given twice daily. For the next 4 days the dose was continued at 10 cc. twice daily. As there was marked improvement at this time the quantity was reduced to 10 cc. once daily, and at the end of 4 or 5 days omitted entirely. Altogether 240 cc. was given. The patient made a rapid and complete recovery. Aside from a general urticarial eruption there were no complications. [S.M.H.]

7.—Robertson reports the following case under the title of **gangrene of the lung.** A man, aged 62 years, was suddenly seized, without any previous illness, with the symptoms of peritonitis. Aside from the abdominal condition, from which he quickly recovered, he was entirely healthy, and his lungs examined at the end of this attack were found normal. During an interval of 6 weeks, the patient felt perfectly well. At the end of this time just after jumping on a moving car he felt a sudden pain a little above the crest of the left ilium. He immediately began to cough and to expectorate a large quantity of a very foul-smelling fluid. When examined there were found coarse crepitations at the base of the left lung posteriorly. The breathing was vesicular and there was no dulness. The temperature was elevated to 102° F. There were no abdominal symptoms. During the next 24 hours he coughed up about 6 breakfastcupfuls of intensely fetid material. Examination of the left chest now showed dulness extending from the base almost to the spine of the scapula. The breath-sounds were bronchial in type, the crepitations were far more numerous at the base and some were observed throughout the entire lung. The right lung was normal. The symptoms began to abate gradually, when one day while turning in bed he had a recurrence of the pain, accompanied by the same character of expectoration, but this time tinged with blood. There was a recurrence of the same physical signs. A few days later the stools were found to be intermixed with blood and to contain some of the same foul-smelling material that was being expectorated. From this time the amount of sputum diminished, the lungs cleared rapidly and the patient made a rapid and complete recovery. Microscopic examination of the sputum showed pus-cells presenting advanced fatty degeneration, epithelial cells, squamous, cylindrical and round, a large amount of fat, mucous shreds, and blood-pigment. There was no lung-tissue and no tubercle-bacilli. Streptococci and diplococci pneumoniæ were present in large numbers. The lung condition was supposed to have originated from some obscure abdominal lesion. [S.M.H.]

8.—Penny reports a case of **inversion of the uterus** occurring in a multipara, aged 37. The main features of the case were that it was a dry labor, the rupture of the membranes taking place at the onset of the pains; and that the position was occipito-posterior. These two features, together with the large size of the child, and the prolongation of the labor left the uterus in an exhausted and flabby condition. The immediate cause of the inversion was less easy to discover, although the adhesions of the membranes doubtless had some share in the causation of the accident. The most remarkable feature was the absence of shock more than would necessarily attend the loss of so much blood. [S.M.H.]

9.—Phillips has found the oleate of mercury ointment of great value in the **treatment of ophthalmic tarsi.** He uses a 1% ointment, the diluent being paraffinum molle. The ointment should be applied to the margins and the surface of the lids, and the treatment continued at night long after the cure is apparent. In the earlier stages of the disease, in order to remove the crusts which are often hard and perforated by the lashes, hot boric lotions are advised. [S.M.H.]

10.—Balfour reports a case of **symphysiotomy followed by a nearly normal labor** two years later. The case is interesting as showing a permanent improvement in the size of the pelvis after the operation of symphysiotomy. [W.K.]

12.—Duncan reports a case of complete uterine prolapsus n a girl 16 years of age. She had never been pregnant. The vhole uterus, body and cervix, along with the vesical vall, protruded beyond the vulvar orifice. The abdominal arietes were exceedingly lax. The nulliparous os was lightly eroded and somewhat enlarged. Ventrofixation was erformed with entire relief of the condition. The extreme outh of the patient is particularly worthy of note. [W.K.]

Lancet.

February 18, 1899. [No. 3938.]

1. The Hunterian Oration. WILLIAM MACCORMAC.
2. Seven Cases of Volvulus Treated by Abdominal Section; Three Recoveries. H. LITTLEWOOD.
3. Notes of 84 Cases of Syphilis Treated by the Intravenous Injection of Cyanid of Mercury. ARTHUR CHOPPING.
4. A Case of Intrinsic Cancer of the Larynx; Total Laryngectomy; Recovery. J. W. LEECH.
5. Parturition Followed by a Brain-Lesion Involving the Speech and Certain Motor Centers. R. S. BERRY.
6. Note on a Fatal Case of Lithemic Poisoning. CHARLES R. ELGOOD.
7. A Case of Separation of the Lower Epiphyses of the Humerus with Injury to the Brachial Artery. E. WHARMBY BATTLE.
8. Daily Hematemesis for Over a Year. MONTAGUE D. EDER.
9. A Case for Diagnosis. EDGAR F. CYRIAX.

0. A Case of the Removal of the Internal Semilunar Cartilage of the Knee. BOYCE BARROW.

1. Case of Bradycardia. GRAHAM STEELL.

2.—Littlewood reports 7 cases of **volvulus treated by bdominal section,** with three recoveries. He is forcibly npressed by the difficulty of making a diagnosis, having een successful in diagnosing but one of the 7 cases recited, nd in that the diagnosis was made with some reservation, s, though the chief signs were present, the patient did not ppear ill enough to warrant diagnosis of so grave a condi- on. One case suggested perforated gastric ulcer, and in the ther cases there was so much general peritonitis and dis- ntion that the making of a correct diagnosis was practi- ally impossible. He thinks that it is possible that there re cases diagnosed and certified as post-puerperal septic eritonitis that are really kinking of the bowels, and that the eritoneum is infected from the bowel instead of from the terus. It is also probable that the correct explanation of me of the fatal cases of peritonitis occurring after ovari- omy and other similar operations may be that the infect- g organism comes from a twisted and kinked bowel. A ng mesentery appears necessary for the production of vol- lus in the large intestine. The normal length of the mes- tery in the small intestine would seem favorable for the oduction of a volvulus, the small intestine being in a anner suspended by its mesentery. In none of the cases ported did previous constipation appear to play a part, and the cases of volvulus of the large intestine, there were no rdened feces, the contents being liquid and gaseous. In me of the cases visible peristalsis was noted, but Little- ood is inclined to think that this occurred in the bowel ove the twist and not in the volvulus itself. The treatment the condition varied in the different cases. In one the lvulus was simply reduced after letting out the gas. Death sued in 30 hours. In two the anus was dilated and the ntents of the volvulus and colon were squeezed out with- t opening the bowel, the after-treatment consisting in the ministration of saline purgatives and washing out the wel; both of these cases recovered. In one case of vol- lus of the sigmoid flexure the contents of the bowel were acuated after incision; death ensued in 40 hours. Another se, volvulus of the small intestine with subsequent gan- ene of the volvulus, the volvulus was simply untwisted and pelvis drained. When gangrene occurred, the volvulus s excised and later the intestinal continuity was restored; covery resulted. In the two other cases the intestine was ened and a Paul's tube was inserted in the coil, in the st case at the time of operation, and in the last 24 hours er. Both of these resulted in death. [G.C.C.H.]

3.—Chopping believes that for hospital practice, for the re serious lesions and for cases which can be seen daily, **intravenous injection of mercuric cyanid** is far superior to the other methods employed **in the treatment of syphilis.** He employs the method as follows: The arm is rendered aseptic by washing with a solution of carbolic acid: a rubber tourniquet is applied to the upper part of the arm to make the veins stand out. A fine needle of a hypodermic syringe, containing 20 minims of a 1% solution, is then introduced into the chosen vein in the direction of the blood-stream. The tourniquet being removed, the fluid is injected into the vein, the needle is withdrawn and an antiseptic swab applied to the point of puncture for a few minutes. Such an injection is repeated every morning, unless some contraindication exists. The advantages of this treatment are (1) the injection is made daily and the patient is under constant observation; (2) the exact quantity of mercury introduced into the system is known; (3) the patient is rapidly brought under the influence of the drug, a marked advantage where it is necessary to produce the full effect of the drug as speedily as possible; (4) the rapid clearing up of serious lesions and visible evidences of the disease; (5) its efficacy in cases which will not respond to the ordinary methods of treatment. He gives a tabulated record of 84 cases treated in this manner. The complications met with were very slight and rapidly disappeared. All the cases with but one exception showed very marked and rapid improvement. The average stay in the hospital per case was 23.2 days. In the worst cases other adjuvants, such as codliver-oil, iron, and correct diet, were resorted to. In all cases special attention was paid to the general health of the patient. In the tertiary and some of the rupial cases the iodids of sodium and ammonia were used. All cases on being discharged from the wards were advised to undergo a further and prolonged course of the ordinary methods of treatment in the out-patient department of the hospital. [S.M.H.]

4.—A case of intrinsic **cancer of the larynx** was treated by total **laryngectomy** by Leech, with recovery of the patient. The first operation was that of tracheotomy and exploration, and it was then determined that nothing short of total extirpation of the growth was likely to be of any use. It extended as a dark red, irregular, granular, friable mass from the whole of the under surface and part of the margin of the right cord across the upper part of the crico-thyroid membrane to the posterior portion of the left cartilage and cord; below, it implicated the whole of the right and the right and the posterior surfaces of the cricoid, and also the upper two rings of the trachea on the right side only, where the growth was very prominent and projected into the lumen of tube for about $\frac{3}{8}$ of an inch, causing some occlusion. An artificial larynx with special adaptations to the case was inserted after the recovery from the final operation and was well tolerated. Leech advocates an interval of time between the tracheotomy and laryngectomy, in order to permit the patient to rally strength. He prefers the dilating tampon-tube of Trendelenburg for use in the operation on account of its saving time at a critical point. There should be a low tracheotomy, on account of the possibility of greater extension of growths than might be estimated before operation. [G.C.C.H.]

6.—Elgood had under his care a man of good habits, aged 69 years, who suffered from 5 definite attacks of disease presenting the following symptoms: Each attack was preceded by irritability, great restlessness, intense itching of the skin, and dyspnea of an asthmatic type. He had violent gastric disturbance. The tongue was covered with a thick, white fur. He had epigastric pain and extreme anorexia. His radial pulse was exceedingly tense, his skin harsh and dry, and his urine contained a large amount of urate sediment which varied with the severity of the symptoms. As the urates ceased to be excreted all his symptoms began to disappear. Recovery was slow and accompanied by prostration, anemia, and enfeeblement of the heart, giving rise to edema. Epistaxis was occasionally present, and in the second attack there was thrombosis of the right external jugular vein, and in the third, thrombosis of the external saphenous vein. There was some increase in the white cells of the blood, but no other blood-changes. The heart was always moderately dilated, but there were no valvular lesions. There was some atheromatous degeneration of the vessels, but on the whole, the cardio-vascular system was not considered seriously or primarily affected. The liver extended 3 fingers' breadth below the costal margin. There was some pulmonary dulness at the right apex and down the left back. Over the latter were moist, crackling rales, but no changes in the vesicular murmur. No treatment seemed to have the slightest effect upon the attacks. The patient would live for days on a few ounces of milk with a little brandy and water. In the fatal attack the symptoms ceased to abate, the higher nervous centers became involved as was evidenced by Cheyne-Stokes breathing, groaning, lethargy, and a gradual loss of consciousness. The patient died in a comatose condition. The urine was always decreased in the attacks, averaging about 20 ounces in the 24 hours. Its specific gravity was 1030, it was acid, but contained no albumin nor sugar. It was highly colored, was voided thick and turbid, the latter being due to a copious deposit of pink amorphous urates. Microscopically, the deposit consisted entirely of **amorphous quadri-urates.** Crystals of uric acid formed in abundance when distilled water was added to the specimen. The total output of urea varied from 320 to 350 grains in the 24 hours. During the intervals, when he was in fairly good health, there was some return of diuresis. The urea estimated between the attacks amounted to 250 grains in the 24 hours. The amount of urine voided never seemed to vary so much as the degree of its concentration. The prostration and the anemia which followed each output of urates suggested that during the attacks some increase in the molecular activity of the cells of the body was going on and so affecting the metabolism. The rhythmic nature of the attacks, the regular march of events in each, and the uniform duration uninfluenced by treatment, all suggested that some part was played in the role of their causation by the central nervous system. The diminution of urine observed towards the close suggested that during the earlier attacks the kidneys remained sound and were enabled to excrete a sufficient amount of the urates to avert any serious result, but later, when they were no longer able to withstand the strain, a fatal dose of poisonous material was allowed to accumulate. [S.M.H.]

7.—Battle gives a case of **separation of the epiphyses** of the humerus from injury to the elbow-joint, in which there was occlusion of the brachial artery, probably from direct injury to the artery, as evidenced by the facts that there was very little swelling about the joint, and that after replacement of the fragments, pulsation was still absent, and remained so for several days. [G C.C H.]

8.—Eder treated a colored woman, aged 20 years, who for over a year had been **vomiting blood** once or twice a day, usually in the morning. The quantity varied from half a wineglassful to a tumblerful. There had never been any intestinal bleeding. There was no marked digestive disturbance. Her menstruation was regular. She was not very anemic. There was no abnormity of the heart or lungs, except that there was a pause at every eleventh beat of the heart. There was no epigastric tenderness, and the spleen was somewhat enlarged. Examination of the nasal passages showed a ragged ulcer, which was oozing slightly, on the septum near the pharynx. This was cauterized with chromic acid. The hemorrhage ceased entirely after this treatment, although the hemorrhage was not thought to have been due to the septal ulcer. [S.M.H.]

9.—Cyriax observed a man, aged 20 years, with the following symptoms: For a few days he had been weak and disinclined to work. He had considerable headache with pain on moving his eyes. Four days later he thought himself well. In the evening of this day he developed a boring pain in his legs and thighs, and on the following morning there was marked pain and swelling in the left thigh posteriorly, the left calf, and to a less extent, in the right calf, left forearm and some parts of the anterior abdominal muscles. Locomotion was very difficult. There were crimson patches over the inflamed areas, which stood out from the surrounding tissue and had a hard margin and consistence. Some of these patches were as large as a two-shilling piece and some were as small as a pin's head. They were tender. At midday there was noticed a slight inflammation of the prepuce. The penis began to swell rapidly and distended to twice its normal size. The swelling and discoloration extended up to the symphysis. There was no pain in the penis. On palpation the skin over it was found distended with semi-liquid blood. By 11 P.M. the extravasated blood in the skin of the penis had spread down on both sides and had partially filled the scrotum. On the following day the inflammation in the arms, legs and thighs was succeeded by edema. The penis began to shrink in size and several bullæ filled with slightly bloody serum appeared on the surface. Within 10 days all the symptoms had disappeared, and the patient was entirely well. [S.M.H.]

10.—**Excision of the internal semilunar cartilage** of the knee was practised in a case of injury received, about two years before the operation, from having the leg twisted while playing football. The knee was painful and swollen, and the limb below was considerably wasted. Before operation the patient could not work or even get about without constant discomfort, and frequent attacks of severe pain would often lay him up for several days at a time. Five months after operation examination showed the leg to be as free from pain or weakness as the uninjured limb. He walked quite well and never had had any pain or trouble after the operation. [G.C.C.H.]

11.—Steell reports **a case of bradycardia** occurring in a man, aged 49 years. He had complained of weakness, dyspnea, and vertigo, the dyspnea having always existed, but more markedly during the past 11 weeks. Three months before, he had fainted while at work and on two other occasions when walking. The patient was a man of good habits and was well nourished. The examination of his heart showed the apex-beat a little to the left of the nipple line in the fifth interspace. The area of dulness extended 4 inches to the left and 1 inch to the right of the midsternal line, and was limited above by the third costal cartilage. The pulse-rate was 40 per minute when admitted, but after admission averaged from 32 to 35 beats. The tracing showed a regular, good-tension pulse. There was an occasional systolic murmur heard over the mitral area, and the second sound was followed, after a distinct interval, by a well-marked diastolic murmur. There was an occasional faint systolic murmur heard at the base of the heart. There was a marked epigastric pulsation and a good deal of venous pulsation in the neck which was characterized by a peculiar triple rhythm. A few weeks later the systolic murmur became quite constant at the apex, while the second sound was obscured by a new murmur which produced a double diastolic bruit. About a month after coming under observation there developed a faint, inconstant third diastolic murmur which lasted for some days. Medication did not influence the pulse-rate. The patient's general condition was fairly good. Observation was not continued further. The cause of the bradycardia was not determined. [S.M.H.]

New York Medical Journal.

March 4, 1899. [Vol. lxix, No. 9.]

1. A Few Interesting Psycho-Neuroses. B. C. Loveland.
2. Papilloma of the Nasal Cavity: A Brief Review, with Report of Case. Richmond McKinney.
3. The Weight in the First Two Years of Life. With a Description of a New Weight-Chart. J. P. Crozer Griffith.
4. Empyema: Incision and Drainage, Successful in Two Cases of Very Long Standing, with Perforation of the Lung and of the Thoracic Wall. Sinclair Tousey.
5. On Morphinism. Louise G. Rabinovitch.
6. The Outdoor Treatment of Tuberculosis in the Adirondacks. J. A. Wilder.
7. Note on Obliteration of the Umbilical Vessels by Electro-hemostasis with the Skene Forceps, in Lieu of Ligation. Robert L. Dickinson.
8. Formalin in the Treatment of Whooping-cough. Howard S. Olliphant.

1.—Loveland reports several cases illustrating **psycho-neuroses.** The first patient was a woman aged 55 years, who complained habitually of extreme tenderness and painfulness in her hands and feet, especially in the plantar and palmar surfaces, the tenderness extending up the extremities toward the body. There were no objective symptoms. She sometimes had flushing of the hands, during which they seemed to be slightly swollen and congested. This condition had existed for 8 years. The condition improved very little under treatment. He considered it an acro-paresthesia, probably of hysteric origin, due to prolonged nervous strain, attendant upon family troubles. The second patient was a girl aged 16 years. Her mother was neurotic. The child had always been nervous and irritable. For a year she had suffered from what her family described as hiccoughs. Examination showed a habit-chorea affecting the diaphragm and abdominal muscles. It was almost constant during waking hours, and produced a sort of abdominal churning. When this churning motion was extreme it caused a barking sound, which closely resembled the bark of a dog. The treatment was almost entirely moral. The condition gradually disappeared. The third patient was a woman aged 55 years. She had been neurotic for 4 or 5 years. She suffered from what she described as a stopping of the heart's action. The attacks came on at almost any time, and were ushered in by a choking sensation in her throat, during which she would emit a sharp, quick barking sound, simultaneously striking her chest violently with her left hand. Indifferent medication and strong moral impression relieved the attacks entirely. [S.M.H.]

2.—McKinney finds, as a result of investigation of the statistics, that **papilloma of the nasal cavity** is one of the rarest of growths in this region. He reports the case of a medical student, aged 24, who had experienced slight discomfort and had occasional hemorrhages from the nose for 6 months; examination showed a growth about the size of a coffee-bean attached to the upper and anterior part of the cartilaginous septum. The growth was warty and pale pinkish in color. After cocainizing it, the growth was removed with the cold snare and the base cauterized with the electrocautery. Microscopic examination proved it to be a case of true papillary fibroma. [M.B.T.]

3.—Griffith describes a **weight-chart** which represents pretty closely the average rate of growth of healthy breastfed children. It is the product of a careful study of the various work that has been done in this direction. It represents the growth for the first 2 years of life. Each horizontal line on the chart represents a difference of 4 ounces. The weight should be taken each week and recorded by dots connected by a line, as in the ordinary temperature-chart. The igures at the top of the chart show the weeks and months. In order to keep the size of the chart within bounds the portion for the second year is so narrow that the space for 4 weeks is of the same breadth as that of 2 weeks during the irst year. He calls attention to the great value of a careful systematic study of the infant's weight and places it in point of importance above that of the temperature-record. Under ordinary conditions the weight should be recorded once each week, but where a change in the method of feeding is being made 2 weekly records are advisable. [S.M.H.]

4.—Two cases of **empyema** of very long standing are eported, which had been treated upon the expectant plan until perforation of the lung and thoracic wall had taken place, with formation of subcutaneous abscess. In the first ase a boy of 14 had pain in the chest following the grip. Four months after this a large subcutaneous abscess pointed t the level of the ninth rib. On incision, about 2 pints of pus were evacuated and the cavity was irrigated with boroalicylic solution every other day for 3 weeks. The discharge continued for about 6 months, but a final recovery esulted. In the second case, a boy of 9 had had pneumonia nd symptoms of empyema appeared after recovery. Poultices and sustaining treatment were tried by the hysician in charge for 3 months, when a subcutaneous bscess appeared which was incised; discharge from this, with profuse purulent expectoration, continued for another month. An incision was made in the fifth left intercostal pace and 3 pints of pus were evacuated. No irrigation was mployed. Cough and expectoration ceased at once; there as rapid gain in weight and strength, and the sinus comletely closed 5 months after the operation. [M.B.T.]

5.—Rabinovitch says that the **morphin-eater differs from the morphinomaniac** in that the latter absorbs he drug by impulse while the former takes it on account of lack of resistive will-power. The sole difference between he two is one of form. Clinically they both belong to the ass of mental degenerates. In both there is some material erebral defect. A subject generally presents quite a clinal tableau indicative of mental degeneracy, of which the ost prominent feature is only one symptom. In the way illustration 3 cases are recorded. The first patient was a oman, aged 34 years. She came of a highly neuropathic nd psychopathic family, and she early manifested proment psychopathic symptoms. She had hysteric attacks, nd attempted suicide, and could not accommodate herself to her surrounding conditions. She first received morphin at the age of 16 to relieve the pain resulting from a metraperitonitis. From this time she used the drug persistently. Her appetite for morphin was only one prominent symptom of a disease based upon the deep root of degeneracy which was inherited from her ancestors. The second patient was a man, aged 26 years. He had always exhibited a great lack of stability. While suffering from cystitis at the age of 19 years he was given a hypodermic injection of morphin. The dose was repeated for some days. Following this the patient gradually developed the habit, from which he never recovered. Rabinovitch calls attention to the fact that high intellectuality of the subject does not exclude the possibility of degeneracy. A case is briefly referred to by way of illustration. In all these cases there is a history of degeneracy which is characterized by many a clinical form, predilection for morphin being the prominent symptom. In these cases the hereditary influence is so marked and the instability of the mental equilibrium such that a permanent recovery is difficult to obtain. [S.M.H.]

6.—Wilder describes the **Adirondack cottage sanitarium system.** The fundamental principles of the treatment are resting in the fresh air, and proper nourishment, drugs occupying an inferior place. The patient is required to stay out of doors from 8 to 10 hours each day regardless of weather, and to sleep in thoroughly ventilated rooms during both summer and winter. Most patients become so hardened in a short time that they voluntarily sit on the verandas during the day, even in the most stormy days of winter. During such weather they are warmly wrapped in furs and protected from the winds by closed windows on one side of the veranda or by screens that can be moved about at will. Loose-fitting wool underclothes of the fleece-lined variety are advised in winter. Most of the fur coats used are quite long and have high collars for the protection of the neck and ears. Heavy, felt leggings, with leather moccasins or felt shoes, are used to protect the legs and feet. When resting, these parts are further protected by wrapping them in blankets. Sweaters are worn by many of the men. The clothing is graduated to keep the patients warm without perspiration. In the summer woolen underclothes are worn. Nose-breathing is practised by all the patients. In nonfebrile cases a moderate amount of exercise is advised, but none of the patients walk more than 2 miles per day. Skating and other sports not requiring much exercise are allowed to a limited extent. Patients with continuous fever and with decided elevation in the afternoon or evening are kept as quiet as possible until the temperature falls to normal or quite near that point. Driving in sleighs or carriages is freely allowed. All forms of violent exercise are prohibited. Breathing exercises are encouraged in thoroughly arrested cases. The diet consists of a combination of proteids, fats and carbohydrates, the two former predominating. All foods are watchfully prepared. Three regular hearty meals a day are given, with lunch in the evening for those who wish it, except in the febrile cases. Much milk is taken between meals. Codliver-oil and creasote are given some patients, and arsenic and iron for anemic conditions. The medicinal treatment is the same as that adopted under ordinary conditions. [C.M.H.]

7.—Dickinson believes that slight puerperal infections, mastitis or lack of perineal repair may have their cause in the decomposing stump of the umbilical cord. In general practice the nurse takes no special precautions to sterilize her hands and infection may be carried from the child to the mother in this way. It is possible to isolate the vessels at the junction of the skin and ligate each vessel separately, and then the cord can be carefully dissected away along the skin-edge. Such a method is practical only in the hands of persons accustomed to antiseptic surgery and there is danger of secondary hemorrhage. As a substitute for ligation electro-hemostasis by the use of Skene's forceps is suggested. [M.B.T.]

8.—Oliphant considers **formalin** as much of a specific in **whooping-cough** as mercury in syphilis, or quinin in malaria. He is persuaded from the results of his treatment that the infection remains local. Systemic effects are incidental and the result of the exhausting cough peculiar to the disease. Under this form of treatment the duration of the severest cases was less than one week, and several cases were relieved after 3 applications. One case was completely cured after the third application to the throat. He thinks the condition is an infection of the fauces. His treatment is based upon that opinion. Beyond the statement that it is purely local, and consists in the application of formalin-solution to the throat, there is no description of his method of treatment. [S.M.H.]

Medical Record.

March 4, 1899. [Vol. lv, No. 9.]

1. Suprapubic Hysterectomy with Intraperitoneal Treatment of the Stump in Pregnancy at Term for Obstructed Labor. W. M. Polk.
2. On the Treatment of "Unavoidable Hemorrhage" by Removal of the Uterus. Lawson Tait.
3. The Medico-Legal Relations of Traumatic Hysteria. Pearce Bailey.
4. How to Make Medical Museums More Valuable. Woods Hutchinson.
5. Observations on the Prophylaxis of Ophthalmia Neonatorum. P. C. Jameson.
6. A Case of Narcolepsy. Charles E. Nammack.
7. A Tenia in the Muscle of a Fowl. Henry B. Lathrop.
8. A Case of Gaseous Gangrene Complicating a Compound Fracture of the Right Forearm. C. P. Gildersleeve.

1.—Polk advocates suprapubic **hysterectomy with intraperitoneal treatment of stump in pregnancy at term for obstructed labor.** He prefers the Porro operation to celio-hysterotomy; the latter is more dangerous than extirpation because the operator (and the less expert he is the greater the risk) deals with a surface more fragile, more liable to sepsis, with an organ, in fact, within which conditions can readily arise that may nullify his best efforts towards the all-essential coaptation of the edges of the wound which he has inflicted. As this nullification means the leakage of a virulent poison into the peritoneal cavity, it generally means death. The time consumed in operating and the amount of shock involved are practically the same in both operations. The question then is narrowed down to mutilation versus safety, and as such it should be presented, certainly to the friends of the patient, if not to the patient herself. Polk reports 3 cases, in the first of which the condition demanding operation was an osteomalacic pelvis, the deformity affecting mainly the right half of the pelvis. There was a narrowing of the arch and an encroachment of the acetabular upon the pelvic cavity. In the second case there was also a contracted pelvis. The third was the extirpation of a pregnant fibroid uterus at the sixth month. The patient required the operation because of the unyielding pain and discomfort of the growing mass; the uterus required removal because of the number, size and location of the fibroid growths. Three occupied the lower segment of the uterus so as to obstruct entrance to the cervix. Myomectomy was rejected because two of the tumors were lateral and mainly interstitial. [W.K.]

2.—Lawson Tait advocates **hysterectomy in cases of unavoidable hemorrhage due to placenta previa.** The dangers to the patient and to the child are so great in these cases that in the case reported Tait performed the operation because it had many arguments in its favor: It would save the child; it would probably save the mother; it would relieve her of the perpetual misery and risk in which she had been living for years. [This case forms a new departure. Whether it will receive a universal commendation is not the least a matter of doubt. The "mutilationists" will howl against this proposal, but there are others who will follow this example, and to those who do so will surely come the comfort that it will diminish "the anxiety to the practitioner and the real danger to the patient" of this obstetric difficulty which Simpson so graphically tells us has more of both than any other. W.K.]

3.—Bailey discusses the difficulties that at present in the courts of this country prevent doing strict justice to all cases of hysteria. These are largely dependent, aside from simulation and similar attemps to defraud, upon the intricacies of the disease, and the lack of knowledge on the part of alleged experts. It is often difficult to convince a jury that unstable symptoms are deserving of damages, and that injustice has not been done if damages are awarded to a person for a condition that disappears immediately. [J.S.]

4.—Hutchinson calls attention to the **neglect of museums** in this country. Either too few or too many specimens are exhibited; they are not sufficiently well classified, nor catalogued; no attempt is made to illustrate a subject by a judiciously selected series of specimens, and in all ways the student is discouraged from making use of the collection. He does not neglect the important subject of light and background, and finally instances the Berlin Museum and the Wistar Institute of Philadelphia as examples of what museums ought to be. [J.S.]

5.—Jameson in a study of the **prophylaxis of ophthalmia neonatorum** has arrived at the following conclusions: (1) The absence of external evidence of specific discharge from the birth-canal cannot be relied upon as an indication that specific infection does not exist, as infection may be present without external evidence. (2) Reliance upon the condition of the infant's eyes as indicative of a coming attack of gonorrheal conjunctivitis, and consequent postponement of treatment until symptoms appear, are apt to be deceptive, as during the period of incubation the gonococcus may to a certain extent lie dormant, clinical symptoms may be masked, and precipitation of the disease itself may be abrupt. (3) The objections to silver nitrate as a prophylactic and remedial agent do not seem to be clinically sustained; on the contrary, it possesses ideal properties for counteracting this disease. (4) The discrimination between private and hospital patients in the practice of prophylaxis in this manner is thoroughly inconsistent, as the disease is common to both classes. (5) The comparatively small number of cases seen in individual practice, and the subsequent successful treatment of them, cannot be regarded as a contraindication to the general adoption of careful prophylaxis, as the aggregate number of cases of total and partial blindness resulting from this disease is large. And, finally, what is the best procedure in the practice of prophylaxis of ophthalmia neonatorum? In the writer's opinion it can be divided into 3 stages—before birth, at the time of birth, after birth. Before birth means should, of course, be employed to render the sterilization of the birth-canal as complete as possible. At the time of birth the careful cleansing of the infant's eyes with a solution of 20 grains of boracic acid to the ounce should be practised; care having been taken to render sterile the surrounding portions of the orbit and also to make use of Credé's method, viz., the instillation of one drop of a solution of silver nitrate, 10 grains to the ounce, between the lids and upon the cornea. After birth, use some mild cleansing wash, preferably boracic acid, in solution of 20 grains to the ounce, 3 or 4 times daily; this to be practised from 5 to 6 days after birth. [W.K.]

6.—Nammack reports the case of a woman, 28 years of age, who, at the age of 14, was attacked by unconsciousness, being oblivious to all her surroundings, although her eyes remained wide open. From this time she had frequent spells, sleeping on one occasion for 3 weeks. During this abnormal sleep she was able to continue any merely automatic action that she had been performing when awake, such as waiting on the table, embroidering, or riding horseback. No action, however, was ever originated during sleep. She was easily aroused, never confused upon awakening, and was never violent. There are no indications of hysteria, epilepsy or organic disease, and the sleep is always refreshing. Nammack therefore makes a diagnosis of **true narcolepsy or fatigue-neurosis.** The maternal grandmother suffered from the same condition. [J.S.]

8.—A boy of 10 years sustained a compound fracture of the right forearm, the bones coming in contact with mud. For the first two days the patient did well, then the arm began to swell and became rapidly emphysematous and gangrenous, with a line of demarcation an inch above the elbow; the swelling was dusky in color and there was crepitation extending over the scapula and below the clavicle. Several long incisions were made along the forearm and gas escaped with great force. Antiseptic measures were carried out and the condition of the arm rapidly improved, probably because of the relief from pressure on the bloodvessels by the gas. Amputation at the junction of the upper and middle third of the arm was necessary, however. The condition is believed to have resulted from **infection with the bacillus aerogenes capselatus,** but no bacteriologic examination is reported. Gildersleeve has found reports of 16 cases of infection by this microorganism in literature, with 12 deaths and 4 recoveries. [M.B.T.]

Medical News.

March 4, 1899. [Vol. lxxiv, No. 9.]

1. Some Practical Points in the Physics of Steam Sterilization. Theodore Dunham.
2. The More Unusual Forms of Puerperal Hemorrhage. S. Marx.
3. A Resume of My Experience in Internal Anterior Urethrotomy. G. Frank Lydston.
4. Pharyngitis and Tonsilitis in Infants. (*Illustrated.*) Henry Dwight Chapin.
5. Clinical Memorandum; a Case of Œstrus Hominis. Maximilian Herzog.
6. The Garrisoning of Our Tropical Possessions: No. 5. Duties of Sanitary and Engineer Officers. Seneca Egbert.

1.—Dunham has performed a number of experiments with a tin cylinder, which had an opening at each end for admitting steam and allowing air to escape, and had 4 thermometers inserted into the side. He finds that when the steam is admitted from above, and the air allowed to escape below, the maximum temperature is reached in the shortest possible time. When steam is both admitted and air allowed to escape at the top, the lower portion of the cylinder does not attain its maximum heat, even after an hour. When superheated steam at a pressure of 20 pounds was employed there was no assurance of a high temperature into the autoclave, unless the air had all been expelled. His method for determining this consists of conducting a tube from the escape-pipe beneath into a vessel filled with water, so that its opening is below the surface. When all the air has been expelled, the bubbles cease to be visible, and a water-hammer is established. [J.S.]

2.—Marx discusses the more unusual forms of **puerperal hemorrhage** and recites several cases of rare origin. [W.K]

3.—As the result of an experience of 1,500 **internal urethrotomies,** Lydston offers the following conclusions: In cases of chronic urethral discharge, internal urethrotomy should be practised after all other methods of treatment have failed, and even when the urethra will admit a 26 F. or possibly a 30 F., the cutting operation often effects a cure. The operation is followed only in very few cases by any untoward symptoms; occasionally slight dribbling of urine may continue, but never any worse than that caused by the stricture for the relief of which the operation was instituted. Among a few other sequels may be mentioned, continuance of urethral discharge, pseudo-impotency, permanent chordee, this last very rare); sometimes hemorrhage following either mmediately or shortly after the operation gives considerable annoyance to the surgeon. Lydston has not yet had any atal results from internal urethrotomy and the large majority of patients are permanently cured. [G.B.W.]

4.—Chapin has devised a new **tongue-depressor** for use with infants. This is very small, and has a special decided curve. He notes the importance of throat-affections in causing acute attacks of illness in infants. [D.L.E.]

5.—Œstrus is but rarely seen in man. The symptoms in his case (that of a girl 4 years old) began with malaise and ntermittent fever, with mucus and blood in the stools. Later there was tenderness and prominence over the right lobe of the liver and a pustule formed between the ninth and enth ribs. In this was found a living hypoderma lineata r **œstrus hominis.** [D.L.E]

Boston Medical and Surgical Journal.

March 2, 1899. [Vol. cxl, No. 9.]

1. On the Absorption of Iron. A. E. Austin.
2. Diabetes Mellitus and Pregnancy. Frederic W. Taylor.
3. Surgical Section of the Suffolk District Medical Society. Paul Thorndike.
4. Echinococcus Cyst of the Liver. C. B. Porter.
5. The Operative Treatment of Fracture of the Patella. C. B. Porter.
6. A Case of Ankylosis of the Hip-Joint. F. S. Watson.
7. Case of Arthropathy (Stiff Fingers) of Acute Onset and Probably of Neurotic Origin. Morton Prince.
8. Anterior Poliomyelitis Following Operation for Appendicitis. G. H. Monks.
9. Excision of the Cecum for Cancer. G. H. Monks.
10. A Case of Rupture of the Bladder. J. C. Munro.
11. Penetrating Wound of the Rectum and Peritoneum. J. C. Munro.
12. Chronic Intussusception; Resection; Recovery. J. C. Munro.

1.—Austin reports the results of some experiments made upon 3 dogs in order to determine **whether iron is absorbed and retained in the body.** They were given respectively iron albuminate, hematin, and ferrous-sulphate, each receiving the same amount of metallic iron. Blood-counts were made after 3 days' fasting, after 7 days on 300 grams of chopped meat every day, and on the third, fifth, and seventh day during the administration of a diet with the iron-salts. They showed apparently a moderate increase upon the iron albuminate and hematin, and a decided decrease during the administration of ferrous-sulphate. Coriate describes the technic employed to determine the quantity of iron in the diet and in the urine and feces, and these estimations appeared to show marked coincidence between the blood-counts and the amount of iron retained. It appears that in the dog to which ferrous-sulphate was given, not only was no iron retained, but a certain quantity appeared to be lost. The dog emaciated rapidly, and it was necessary to kill it on account of its inability to retain any kind of nourishment. A very small portion of iron appears to have been retained from the hematin, and the albuminate preparation. Austin concludes that iron is constantly eliminated even during fasting; that raw meat furnishes a form of iron available for absorption; that inorganic iron, at least as represented by ferrous-sulphate, is non-absorbable; that the albuminates and peptonates are absorbable to a limited extent; and that hematin and hemoglobin furnish the most satisfactory preparations for clinical purposes. [J.S.]

2.—Taylor reports a case of **diabetes and pregnancy.** The treatment of diabetes mellitus is not essentially different because of the occurrence of pregnancy. A patient suffering from severe attack of diabetes will excrete sugar even when on an exclusively flesh-diet, and lose strength and weight; and as such diet may induce or increase albuminuria, it is better to allow a certain amount of carbohydrates, regulating the amount according to the weight and general condition of the patient more than according to the amount of sugar lost. [W.K.]

3 to 12.—These numbers are abstracts of papers read before the surgical section of the Suffolk District Medical Society. Most of them were in the nature of presentation of specimens with free discussions by the society. In the second paper, Porter strongly favored the use of silver-wire instead of catgut or tendon in repair of fractures of the patella on account of the greater strength of the resulting union, aided by the wire sutures in situ. [G.C.C.H.]

Journal of the American Medical Association.

March 4, 1899. [Vol. xxxii, No. 9.]

1. Rib-Resection in Empyema. Edmund Andrews.
2. Physical Examination of Railway Men. J. F. Pritchard.
3. Fracture of Patella. Milton Jay.
4. The Bacillus Aerophilus. Lewis S. Somers.
5. Suppurative Disease of the Ear. Louis J. Lautenbach.
6. Drumhead Perforations. Barton H. Potts and B. Alex. Randall.
7. Adenoid Vegetations. Emil Mayer.
8. Adenoid Growths. A. C. Getchell.
9. Adenoid Vegetations in the Nasopharynx. John O. McReynolds.
10. Affections of the External Ear. B. Alex. Randall.
11. Deformities of the Septum Narium. W. E. Casselberry.
12. The Maxillary Sinus. J. A. Stucky.
13. The Climate of Colorado. Melville Black.
14. Falsetto Voice in the Male. G. Hudson Makuen.
15. Formaldeheyd. Thomas J. Gallaher.
16. Paramonochlorophenol. Geo. L. Richards.
17. The Etiology of Phthisis. R. W. Gardner.
18. Voluntary Lateral Nystagmus. William E. Gamble.

1.—Andrews believes that the successful results which have followed Estlander's and Schede's operations in certain severe cases of **empyema** have led some surgeons to take the too extreme position of advocating resection of the rib in all cases. He advises incision, the insertion of a drainage-tube, and irrigation with mild antiseptic solutions, as the treatment most suitable for the great majority of cases, and has succeeded in curing even some tuberculous cases by this method. [M.B.T.]

2.—The necessity is urged of appointing only such physicians as are well qualified, by special study, **for medical examiners of railroad employes,** and attention is called to the many serious disasters which have resulted from neglect of this precaution. The method and scope of such examinations is discussed. [M.B.T.]

3.—Jay advocates opening and antiseptic cleansing of the knee-joint and suture of the fragments in all cases of **fracture of the patella** in which there is extravasation of fluid into the joint and rupture of the capsule. He prefers the semicircular incision with the opening on the outside, and uses chromicized catgut as a suture-material; otherwise the manner of operating advised is that in general use. [M.B.T.]

5, 6, 7, 8, 9.—See this Journal, Vol. II, p. 56.

10, 11.—See this Journal, Vol. II, p. 57.

13, 14, 15, 16.—See this Journal, Vol. II, page 58.

The Scottish Medical and Surgical Journal.

January, 1899. [Vol. iv, No. 1.]

1. On Some Cases of Abdominal Abscess Treated by Incision and Drainage. Joseph Bell.
2. On Constructive Changes in the Animal Tissues. D. Noel Paton.
3. Cases of Tricuspid Stenosis. J. Mackie Whyte.
4. On a New Method of Obtaining a Black Reaction in Certain Tissue-Elements of the Central Nervous System (Platinum Method). *Two Plates.* W. Ford Robertson.
5. Note on the Tendency in Some Syphilitic Families for Certain Organs and Tissues to be Specially Affected. John Thomson.
6. An Experiment in the Treatment of Ineradicable Cancer of the Uterus. R. C. Buist.
7. A Case of Primary Epithelioma of the Uvula. *One Plate.* Walker Downie.

2.—Paton made a study of the life-history of the female salmon with a view of determining the nature of certain **constructive changes in the animal tissues.** His work shows that to build up its own characteristic proteids the animal requires to work upon the simplest proteid molecule—the petone. While it remains true that animals can take the constituents of plants, the proteids, fats and carbohydrates, and by breaking them down, liberate and set free their energy, there is a clear indication that in the construction of the normal body,—in the construction of the machine by which this liberation of energy is brought about, —synthetic changes occur to a very large extent; that the essential constituents of the animal body are not taken directly from plants, but are liberated from simpler substances. [S M.H.]

4.—The platinum method for obtaining a black reaction in certain tissue-elements of the central nervous system, according to Robertson, should be applied in the following manner: The fluid used is made by the addition of 5% formalin to a 1% solution of platinum chlorid. A piece of tissue is placed in about 20 times its volume of this fluid. The bottle is loosely corked so as not to entirely exclude the air. In from 1 to 3 months the piece of tissue begins to blacken. It is then allowed to remain in the fluid for several weeks longer, during which time the process of blackening proceeds so long as any platinum chlorid remains. If this is exhausted before the tissue is sufficiently blackened, more may be added. When ready for examination the tissue is placed in dextrin-solution for several hours and then cut into thin sections with the aid of a freezing microtome. These sections are dehydrated, cleared and mounted in balsam in the usual way. The black reaction does not occur in a uniform manner throughout the tissues, but first selects certain special elements. The chief structural features it reveals are, first, the presence of fibers in the walls of the intracerebral and medullary vessels; second, the primitive fibrils of the protoplasm of the nerve-cell; third, the presence of certain granules in the nucleus of the nerve-cell, and fourth, the existence of special cell-elements in the brain. (1) The fibers constitute the most constant and striking feature presented in preparations of the brain or spinal cord by this method. They are very numerous in the larger vessels and occur in all the intracerebral vessels, even in the most minute capillaries. In the larger arterioles they appear as long strands of smooth contour, straight, wavy or sharply zigzagged, extending usually in the long axis of the vessel. They anastomose with each other and divide into branches. The finer fibrils, composed partly of these branches, often form a sort of reticulum or plexus. On each vessel there are generally from 1 to 3 fibers which are much larger than the others. In the smaller arterioles and in the capillaries the fibers are, as a rule, more delicate than in the larger arterioles, but even in the smallest vessels the occurrence of a thick fiber is common. In the venules the fibers are in general more delicate than in the arterioles and anastomose more freely. In nearly every section single fibers pass over from one capillary to another adjacent to it. These connecting fibers are generally relatively thick and at the point of their attachment often present a distinct thickening beyond which it divides into numerous spreading branches. These fibers are undoubtedly the connective-tissue fibers of the adventitia. They seem to be a specially modified form which probably occurs only in the vessels of the central nervous organs, and in their soft membranes. This method has furnished the clearest disproof of the existence of exceedingly fine capillaries in the brain, and what have hitherto been regarded as such are really the adventitia fibers which connect and support the adjacent capillaries. (2) The primitive fibers of the protoplasm of the nerve-cells are darkened by the platinum-process when the reduction-process is carried somewhat further than is desirable for the clear demonstration of the fibers on the vessels. The platinum-method must be included among the elective methods of staining since it leaves the Nissl bodies quite invisible. It shows also that while in the processes and near the surface of the cell-body the primitive fibrils form more or less distinct strands, in the deeper portion of the cell-body, around the nucleus, they form a network, and that the fibrils composing the axis-cylinder process arise not from the former, but from the latter. (3) The nuclei of the larger nerve-cells in platinum-preparations have a very characteristic appearance, enabling one to distinguish them at once from the nuclei of the neuroglia and of the vessels, provided the reduction-process has not been pushed too far. This characteristic appearance consists in the presence of from 6 to 12 relatively large, rounded or irregular, generally evenly distributed, black particles. The nuclear membrane, the nucleolus, and the intervening threads are only very slightly darkened. The structures blackened by the platinum-method are beyond question the acidophile particles lying between the nucleolus and the nuclear membrane. (4) In preparations made from the brain of a healthy dog there were found throughout the cortex and in the white matter numerous small branching cells of very characteristic aspect. Many of them were uniformly black. In the ones least blackened a rounded nucleus about twice the size of a red blood-corpuscle was observed. Occasionally there were 2 nuclei. The protoplasm was usually small in amount and very granular. Extending from the protoplasm there were generally from 3 to 6 delicate processes which branch at a short distance from the cell, often in a distinctly dichotomous fashion. They gradually diminished in thickness as they left the cell. They frequently showed little varicose swellings and were never very long. They seemed to have no special relation to the vessels nor to any other tissue-elements. Similar cells have been shown in the one human brain examined by this method. It is probable that these peculiar branched and unbranched cells comprise a special tissue-element belonging to the nervous system which has not hitherto been distinguished as such. [S.M.H.]

5.—The observation of 4 members of one family in whom there existed **syphilitic lesions** in the fundus oculi without any typical affection of such tissues as the teeth and cornea, and of 4 infants of another family, in 3 of whom there were multiple epiphysites of obviously syphilitic origin, Thomson concludes that there exists in some syphilitic families a tendency for certain organs and tissues to be specially affected. [S.M.H.]

Edinburgh Medical Journal.

January, 1899. [N. S., Vol. 5, No. 1.]

1. The Involution of Life—A Scheme of Pathology. Robert Maguire.
2. The Vis Medicatrix Naturæ. W. B. Ransom.
3. Note on the Use and Abuse of Chlorate of Potash in the Treatment of Disease. Henry Ashby.
4. On the Relation of the Nervous System to Disease and Disorder of the Viscera—Disorders of Visceral Sensibility. Alexander Morison.
5. A Case of Abdominal Aneurysm bursting into the Psoas Muscle and subsequently into the Left Pleural Cavity. C. E. Beevor.
6. The After-treatment of Cases of Gastrostomy. R. H. Lucy.
7. Instillations and Their Value in the Treatment of Cystitis. A. A. Warden.
8. A Case showing Heredity in Heart-Disease. G. Crewdson Thomas.

1.—Maguire's main law of the **pathogenesis of disease** is that "disease is caused by a lack of vitality, general or partial; sudden or gradual; stationary or progressive, having as its effect on tissues the substitution of the lowly organized for the highly organized; on functions the substitution of the less specialized for the highly specialized, the general for the less specialized, and the automatic for the general, until absolute loss of vitality leads to death of either a part or the whole, and total abolition of function." [D.L.E.]

2.—Ransom refers to the peculiar **protection** that many of the lower forms of life have **against injury,** the most common examples being the strong wall of cellulose which covers the protoplasm of plants. He also mentions the skeletons of the radiolaria, and many other instances. In disease the vis medicatrix naturæ consists chiefly in cell-proliferation, new tissue thus replacing that which has been damaged or destroyed. The regeneration of the blood is a marked and constant example of the natural healing force. [The article is to be continued. D.L.E.]

3.—Ashby protests against the **free use of potassium chlorate,** and reports the case of a child 14 months old, that showed marked enlargement of the liver and spleen, and was most anemic, with dry and cracked lips, spongy gums and saliva of a brownish color. The child's mental condition was lethargic, and the cardiac action was feeble. It was discovered that for 3 weeks the parents had been giving the child about 5 grains of potassium chlorate three times a day. Heart-failure caused death the day after the little girl was first seen by Ashby. [D.L.E.]

4.—The cells of the cardiac ganglia are probably innervated by both vagi, for, if one nerve only is cut, the effect upon the heart's action is temporary. **Pain in the uterus,** Morison believes is caused by pressure upon sensory nerve tructures, distributed through the muscle, although he has been unable to find any indubitable Pacinian corpuscles. n the viscera, these sensory nerves appear to be largely acking, a fact that accounts for the degree of impunity with which the organs can be handled and even injured without ausing pain. It is, therefore, to be expected that in organs upplied with muscles, particularly around channels, as the all duct, pain would be most frequently caused by obstruction hrough this channel, such as by a stone. **Visceral pain** may be also caused by a central lesion. In angina pectoris, pain is probably due to the irritation of the nerves passing long the altered blood vessels, and the degree of pain will herefore correspond to the degree of the vascular change. Pseudo angina pectoris may be caused either by disease of some organ, other than the heart, or by neuralgias of the eart-nerve secondary to general conditions, such as anemia. Even central conditions may cause it and Morison quotes he case of a man who had had angina pectoris, and in whose brain cysts and areas of softening were found. The eart, however, was not examined. [The paper is unfinished. s.]

5.—Beevor records a case of **aneurysm** occurring in a man, 44 years old, the disorder beginning with pain in the region of the spine, which persisted for 5 years, and 3 months before admission began to radiate toward the hip. There was numbness on the front of the thigh down to the knee, progressive general wasting and loss of strength, weakness of the left hip without complete paralysis. The left knee-jerk was deficient in strength, and tactile sensation was diminished on the anterior surface of the left thigh and upon the abdomen half way to the umbilicus. There was tenderness over the last two lumbar spines, in the left iliac fossa, and in the left lumbar region. The diagnosis had been a lesion of the roots of the lumbar plexus, though the patient was so hysteric in manner that only the deficient knee-jerk caused Beevor to persist in his diagnosis of organic disease. Subsequently there developed an expansile pulsating swelling on the left side of the abdomen, and suddenly, without any immediate cause, the patient cried out and fell over dead. Examination showed a large convex mass occupying the whole of the left side of the abdominal cavity, and extending into the pelvis; this consisted of recent blood-clots behind the peritoneum. There was an aneurysm of the abdominal aorta at the level of the last dorsal and first two lumbar verterbræ, which had burst, and beside the enormous infiltration of the retro-peritoneal tissue, had hollowed out the psoas muscle, and had ruptured the left side of the diaphragm. The left pleural cavity was found to be filled with blood. [D.L.E.]

6.—The resulting fistula, after the operation of **gastrostomy,** should be long and should pass through muscle-fibers capable of exerting sphincter-like compression on the walls of the artificial channel. These ends are best attained by utilizing the left linea semilunaris and the outer fibers of the left rectus muscle, as the structures over which the stomach be folded. Another advantage of this modification of Albert's operation is the safety with which immediate feeding may be inaugurated. Lucy begins the administration of peptonized milk by the mouth almost immediately after the operation and rapidly increases the amount of nutriment. [C.H.F.]

7.—The intolerance of tension on the part of the bladder in **cystitis,** explains most of the symptoms. It is quite natural to suppose that the distention of a congested bladder would cause instant and powerful contraction and with it great pain. For this reason no treatment should be advocated that increases the secretion of urine or enforces frequent micturition; consequently diuretics, copious draughts of water, and copious irrigation are all contraindicated. We must fall back upon the use of instillations, given in small quantities and very slowly, into a bladder that has been previously washed out. Silver nitrate in a 1% to 5% solution, gives the best results. [C.H.F.]

8.—Thomas records the case of a woman 67 years old, with a pronounced history of rheumatism in the family, and whose paternal grandmother, and two of her children, one of these the patient's father, had died of **heart-disease.** Of the patient's 7 brothers and 5 sisters all but two died in infancy, and these two died from heart-disease when beyond middle life. The patient had one son who had suffered from articular rheumatism, and had heart-disease. [D.L.E.]

American Journal of Obstetrics and Diseases of Women.

December, 1898. [Vol. xxxviii, No. 252.]

1. What Have You to Offer that is Better? A Question for Critics. Thomas C. Smith.
2. The Combined Trendelenburg-Walcher Posture in Obstetric Operating. With Notes on Other Postures. Robert L. Dickinson.
3. The Cause of the Conflicting Statements Concerning the Bacterial Contents of the Vaginal Secretion of the Pregnant Woman. J. Whitridge Williams.
4. Why I Perform Vaginal Ablation in Pelvic Inflammatory Cases. W. R. Pryor.
5. Abdominal Section Some Three Months after Vaginal Section. J. M. Baldy.
6. Ovarian Cyst Protruding Through the Inguinal Canal. J. M. Baldy.
7. The Advantage of Intestinal Drainage in Certain Cases of Appendicitis and Other Abdominal Inflammations. Edmund M. Pond.

8. Peritonitis—Cause, Twisted Ovarian Pedicle. John B. Deaver.
9. Ectopic Gestation Associated with Primary Tuberculosis of the Fallopian Tube. John B. Shober.
10. Tuberculosis of the Breast, with Report of a Case. Richard R. Smith.
11. Diabetes Mellitus and Carcinoma Uteri; Hysterectomy; Recovery. Henry J. Kreutzmann.
12. Ectopic Gestation Occurring Twice in the Same Patient. Two Operations and Two Recoveries. James F. W. Ross.
13. A Case of Rupture of the Body of the Uterus during Confinement; Celiotomy. J. H. Carstens.
14. A Resume of 1,000 Cases of Labor. J. S. Hammond.
15. Pessaries in the Treatment of Retroversion of the Uterus. William Mercer Sprigg.

2.—Dickinson believes that a combination of the two well-known **operating positions**, the Walcher and the Trendelenburg, enables one to effect results impossible with either alone. A table is easily improvised and the position is useful for the high forceps application, version, high manual internal rotation for occipito-posterior position, and for reposition of the cord. [w.k.]

3.—Williams concludes from his own investigations that: 1. This work tends to reconcile the conflicting results of the various observers by showing that they are due to the difference in the technic by which the secretion was obtained for examination, and not to gross errors in bacteriologic work. Those who obtained the secretion by means of a speculum carried bacteria from the vulva up with it and necessarily got positive results; while those who obtained their secretion by means of a small tube avoided so doing and obtained negative results. 2. This series of cases serves to confirm the previous work of Krönig and Williams, which conclusively shows that the various pyogenic bacteria which give rise to **puerperal infection** are not found in the vaginal secretion of pregnant women. 3. This being the case, autoinfection with these organisms cannot occur, and when they are found in the puerperal uterus they have been introduced from without. Accordingly, prophylactic vaginal douches are not necessary and are probably harmful, laboratory work thus standing in direct accord with the practical experience of most clinicians. 4. The work clearly demonstrates the danger of vaginal examinations, as I have shown that the introduction of a small cylindrical speculum, which is certainly no larger than two fingers, carries up into the vagina, in 50% of the cases, whatever pathogenic organisms may be present at the vaginal entrance. In view of the extreme sensibility of the vulva and the manifest impossibility of disinfecting it with anything like the certainty with which we can disinfect our hands, it becomes apparent that the introduction of a perfectly sterile finger into the vagina is not always a harmless procedure. 5. The danger of the vaginal examination being thus demonstrated, it is apparent that it must give place to the external examination of the pregnant and parturient woman. [w.k.]

4.—Pryor reports 81 consecutive **vaginal ablations** for pelvic inflammatory disease. No case has died either from the operation or its complications. There are no fecal fistulæ to report, no sinuses, no vesico-vaginal fistulæ, and no hernias. There have been no cases of phlebitis and no intestinal obstruction. The vagina has in no case been shortened and intercourse is painless. [w.k.]

5.—Baldy reports a case of **abdominal section** on a patient who three months previously had been operated on by **vaginal section** and was unrelieved by the primary operation. [w.k.]

6.—Baldy reports a case in which a portion of an ovarian cyst protruded through the inguinal canal. The abdomen was opened and the pedicle of the inguinal growth found to spring from a large **intraligamentous tumor.** [w.k.]

7.—Pond believes that in **bad cases of appendicitis,** when the abdomen is filled with pus and the intestines are paralyzed by overdistention, morphin, and infection, an opening into the intestines to promote intestinal drainage will be a benefit. He reports an additional case indicating the benefit of this procedure.

8.—Deaver reports 4 cases of **peritonitis** due to the twisting of the pedicle in **ovarian cysts.** In 3 of these cases the question of peritonitis of appendiceal origin was considered. The early recognition of the cause of this type of peritoneal inflammation is most important, as the life of the patient depends upon the institution of early operative interference. [w.k.]

9.—Shober reports a case in which **ectopic gestation** was found associated with primary tuberculosis of the oviduct. The tubal condition had probably existed for several years. [w.k.]

10.—Smith reports a case of **tuberculosis of the breast** successfully operated upon. The diagnosis of these cases is of the most vital importance, since the method of treatment depends entirely upon it. The diseases which might have to be distinguished in the diagnosis are simple hypertrophy, chronic mastitis, syphilis, sarcoma, carcinoma. Practically the only diseases difficult to differentiate would be chronic mastitis and carcinoma. When a discharge is present and contains tubercle-bacilli the diagnosis is simple. Where no discharge is present, or where it does not contain bacilli. the diagnosis is more difficult. Scudder says tubercle-bacilli, were found in 29 cases, either in the discharge or in the tissues. Knowing the difficulty often of finding them in other chronic tuberculous processes, it would be fair to assume that in this instance also they might be occasionally not discoverable, at least by any of the ordinary methods, either in discharge or tissue. Chronic mastitis is the most difficult of all to distinguish and would be in some cases impossible. Chronic mastitis is almost always associated with pregnancy, tuberculosis not necessarily so. The former is usually double, the latter single. Chronic mastitis is more circumscribed. Some cases which were formerly considered simple were undoubtedly tuberculous. Carcinoma is a disease of later life. The breast is usually harder than in tuberculosis. An examination of the blood would generally reveal leukocytosis. The cachexia in the two diseases, if present, is different. If any doubt should exist, a section of the gland should be taken for diagnosis, since the operation must be a much more radical one than in tuberculosis. [w.k.]

11.—Kreutzmann reports a successful **vaginal hysterectomy** for carcinoma uteri on a patient with diabetes mellitus. Frequent examinations of the urine were made: there was noticed a steady decline in the amount of sugar after the operation. The patient died 8 months later from a recurrence of the malignant disease. [w.k.]

12.—Ross reports the second case in which he has had the strange fortune to operate twice on the same patient for the removal of ectopic gestation sacs. [w.k.]

13.—Carstens performed celiotomy for rupture of the uterus. Supravaginal hysterectomy was performed, but the patient died of the shock 15 hours later. [w.k.]

15.—Sprigg uses almost exclusively the **modified Hodge pessary.** Hard rubber is undoubtedly the best material of which a pessary can be made. The criterion by which you can judge whether a pessary has accomplished its purpose is, first, it should maintain the uterus in its normal position without undue pressure; and, second, it should cause the patient no discomfort. The patient must be kept under observation, and the vagina examined at the expiration of one week, even if the patient feels perfectly comfortable, or sooner if necessary; and if too much pressure is being exerted at any point, the instrument must be removed and corrected. No physician should allow a pessary to be worn if it causes pain. Fritsche, of Halle, has declared that he considered it easier to perform a laparotomy than to apply a pessary. The uterus must be brought into the normal position; then—and not till then, should a pessary be applied. [w.k.]

Wiener klinische Wochenschrift.

January 12, 1899. [12. Jahrg., No. 2.]

1. Paralysis Agitans, Caused by Mechanical Trauma. R. von Krafft-Ebing.
2. Opinions of the Medical Faculty in Vienna. von Wagner.
3. The Treatment of Epilepsy According to Flechsig. Wilhelm Lorenz.

1.—Krafft-Ebing reports 7 cases of **paralysis agitans** in all of which severe **traumatism** was noted. The first patient, a man of 53, had noticed the tremor a few days after an injury to the left hand that had produced dislocation of one of the fingers. Subsequently there was rigor of the left arm, and later in the left leg. The second, a man of 44, injured the right side of his body, and a month later there was weakness in the right arm, propulsion, and some rigidity. When examined the left side was not involved. The third, fell heavily upon the ice when skating, and later felt weakness in the left foot, involving ultimately the whole of the left side with the characteristic tremor in the left hand. The fourth, a woman of 63 years, received an injury to the right arm. Three months later there was characteristic tremor of the right hand, and the other symptoms were beginning to develop. The fifth, a woman of 58, injured the right leg, which soon became weak, then the right hand assumed the typical position, and exhibited a tremor. The sixth, a woman 73 years of age, injured the right arm, and the disease subsequently began in this member. When examined, all the symptoms were markedly developed. Finally, in the seventh case, a man, 38 years of age had received six months previously a severe injury to the right arm with fracture of three ribs. When examined, tenderness was found in the regions of the old injury. There was typical tremor of the left hand which was increased by intended movement or emotion. There was some loss of power in the left arm, and considerable rigidity. The reflexes were increased. Krafft-Ebing, although unwilling to assume that his cases explain the etiology of paralysis agitans, urges that all cases of injury to old people, should be treated with the utmost care. [J.S.]

2.—The certificate gives the reasons for believing that the defendant had **congenital absence of the sexual instinct** and was therefore impotent and incapable of fulfilling his marital obligations. [J.S.]

3.—Lorenz has treated 24 men and 16 women suffering from **epilepsy by Flechsig's method** of the combined administration of opium and bromids. In 2 men and 4 women, threatening collapse, or development of the status epilepticus rendered it necessary to abandon the treatment before it could be completed. The opium appeared to have a bad influence upon many of the cases; in 4 symptoms of collapse appeared; in 2 there was gastroenteritis; in 2 diarrhea; and n 6 constipation. Six cases died during the treatment, 2 from pulmonary tuberculosis, 1 from marasmus, 1 from pneumonia, and 2 in status epilepticus. All of the patients except 3 had been taking bromids for years, without apparently influencing the number of attacks. During the first period of the opium treatment the number of attacks was ncreased in 10 men and 3 women, decreased in 2 men and 2 women, and 1 patient had no attacks. The psychical condition deteriorated in 7 men, and 4 women, but improved in man. After the opium was discontinued, 19 cases had no ttacks for periods ranging from 14 days to 5 months. In all of them, however, except one that died, the attacks ultimately reappeared. During the period of administration of he bromids, one patient became somewhat worse, and the est were unchanged. Lorenz concludes that the effect of he treatment is always exceedingly slight, and as it appears o give rise to threatening symptoms, it should not be used. J.S.]

January 19, 1899. [12. Jahrg., No. 3.]

Unusual Locations of Lipomas. Dominik Pupovac.
Contributions to Surgical Investigations. Jos. Preindlsberger.
Concerning Lesions of the Bowels. Friedrich Neugebauer.

1.—Pupovac reports a number of cases of **lipoma occuring in rather unusual sites.** 1. A lipoma starting in ubaponeurotic fat of the palm of the hand grew backwards etween the metacarpal bones appearing on the back of the and. 2. A lipoma situated deep between the muscles on e palmar-ulnar surface of the right forearm. 3. Deep fatty umor of the neck originating from the carotid sheath. 4. retroperitoneal lipoma weighing 14 pounds, removed by bdominal incision together with the right kidney. The atient made a good recovery. [G.B.W.]

3.—Neugebauer reports 3 cases of **intestinal injury.** e first was a pistol-shot injury in which many perforations the intestines were found. The case fortunately came to e hand of the surgeon soon after the accident, so that laparotomy with suture of the wounds saved the life of the patient. The other two cases were patients who from direct injury had suffered subcutaneous rupture of the intestine. Both cases were fatal, the first being operated on, but not until after peritonitis had set in, and the second dying rapidly from collapse before any operative procedure could be undertaken. [G.B.W.]

Münchener medicinische Wochenschrift.

January 10, 1899. [46. Jahrg., No. 2.]

1. Research Into the Spinal Location of the Tendon-Reflexes. Brauer.
2. Tropon and Other Artificial Foods. Neumann.
3. Tropon, a New Artificial Food. Frohner and Hoppe.
4. A New Cutting Instrument for Operating on the Gums. Breitung.
5. The Opportune in Medical Statistics. Korte.
6. Concerning the New Local Anesthetic, Nirvanin. (*Concluded.*) Luxenberger.
7. An Interesting Letter on the Nourishment of Sucklings in the Last Century.

1.—Brauer found that on dividing the dorsal cord of a monkey (cynocephalus hamadryas) with a thermocautery, **the patellar reflexes were present,** though feeble, immediately after the operation; 6 hours later they were absent, as were also the skin-reflexes. On the third day the knee-jerk returned, and by the fourth, Achilles and patellar reflexes were normal, while a complete flaccid palsy existed in the legs.

In man a traumatic transverse lesion is practically always attended by a total **loss of the tendon-reflexes,** which, according to Bastian's well-known theory, is attributable to the separation of the reflex-center from the brain. In animals there is generally an increase of reflexes, which is the more marked the nearer to the reflex-center the cord is divided. Brauer does not accept Bastian's theory, but believes that unknown factors, exerting an action at the point of lesion or in the cord below, influence the condition of the reflexes. He alludes to a case of Senator's, in which, despite a complete transverse lesion, the patellar reflex was present. [D.R.]

2.—From an elaborate study of metabolism under the use of **tropon** (see Philadelphia Medical Journal, Vol. II, 1898) Neumann concludes that tropon can substitute the proteids of other foods, and that it causes no disagreeable symptoms, either in the sick or the well; its unpleasant taste is readily disguised, and it is cheaper than meat. [This last conclusion applies to food in Germany. D.R.]

3.—Another metabolic study of **tropon,** demonstrating its value as a substitute for natural albumin. The authors suggest its use as part of the army ration. In a case of cretinism in which thyroidin while improving the intelligence caused a loss in weight, they found tropon capable of contracting the proteid-destruction. For rectal feeding tropon is not as yet applicable, but the manufacturers are engaged in improving their product. [D.R.]

6.—(Conclusion.) The maximal dose of **nirvanin** is 0.5 g., that is, one-tenth as strong as cocain, so that in using it as a local anesthetic much greater quantities may be injected. In fact in the quantities used in practice the drug may be set down as innocuous. [G.B.W.]

January 17, 1899. [46. Jahrg., No. 3.]

1. An Opinion on the Dwelling-House Question. H. Buchner.
2. Concerning the Present State of the Theory of Spinal Concussion. H. Schmauss.
3. The Technic of Sterilizing Bandages with Steam. Fritz Berndt.
4. Treatment of Anal Fissure with Ichthyol. O. Conitzer.
5. Aneson as a Substitute for Cocain in Scleich Infiltration-Anesthesia and the Oberst Regional Anesthesia. Mosbacher.
6. A Clinical Study of Lightning-Stroke. Philipp Bauer.
7. Concerning the Facilitating of Objective Refraction-Determination by Means of Skiascopy, and a Method for Improving Skiascopes—Also a Condemnation of the Customary Spectacle Cases. Otto Neustatter.
8. A Portable Folding Operating-Table. O. Pfeilsticker.

1.—During the past year a society was formed in Frankford, a. M., called the **"Verein Reichswohnungsgesetz,"** which has for its objects the improvement and cheapening of the dwellings of the poor and middle classes, a reduction of high rents, better sanitary conditions of dwellings in the cities, particularly in newly-arising suburbs. The society has asked Buchner for an expression of his opinion on the dwelling problem, and the present article is the response to their request. In the question of dwellings, the **hygienic point of view** is the most important, but it has not received much attention from municipal authorities, although it belongs to the class of problems such as sewage, water-supply, abattoirs, etc., to which the municipalities have for some time devoted their energy. It is true, building regulations exist in all cities, but they do not cover the question of overcrowding. Not much has been done in this direction by the government, first, because the hygienic influence of the dwelling has been underestimated, and, secondly, because dwellings have been looked upon as commodities which should not be under trade-restrictions. But the purchaser of the commodity—the tenant—does not possess a correct judgment on the quality of the goods—the hygienic character of the dwelling—as is admittedly the case with regard to the purity and hygienic quality of the foods, in which the law has long recognized the inability of the individual, on account of imperfect judgment, to protect himself, and has established regulations. **The influence of the dwelling on health.** This is of the greatest importance. Experience has shown that every individual needs a certain amount of fresh air and of sunshine. If these essentials are absent, various abnormal states, particularly blood-dyscrasias, develop, leading eventually to scrofula, tuberculosis, etc. Improper dwellings are also indirectly hygienically harmful, in that they foster alcoholism, and thereby a wasting of the income; immorality and venereal diseases are likewise favored, and lead to an imperiling of the marital relationship. A large part of the present population of cities come from the country and possesses an unlimited resistance, which, however, is probably lost by the second generation. Under these circumstances, the constant influx from the rural districts, and the decrease in rural population, greater attention must be paid to the hygiene of cities. A similar danger to the race is threatened from the employment of children in factories. It was met, as early as 1839 by a royal decree for the protection of the children. England has recognized the importance of a supervision of dwellings by the Public Health Act of 1875, and a special act for London, passed in 1891. [The article will be continued. [D.R.]

2.—A review of the literature on **spinal concussion** and experimental studies on the subject lead Schmauss to the following conclusions: (1) Concussion of the spinal cord (commotio spinalis) is to be separated from that of the vertebral column, for in concussion of the latter cord-symptoms can arise that are not attributable to concussion but to crushing, hemorrhage, stretching, or distortion of the cord itself or its roots. (2) The doctrine of true spinal concussion has of late lost ground; no case of pure uncomplicated commotio spinalis with anatomic findings is on record. (3) There are, however, certain cases, the interpretation of which as true concussion cannot be gainsaid, or in which the coexistence of concussion with other direct injuries cannot be excluded. In many instances the assumption of a direct action of the trauma is hypothetic, while the existence of concussion is indubitable. (4) The production of a direct traumatic necrosis of the nerve-elements by concussion has been proved experimentally. (5) Considerable importance must also be attributed to laceration of tissues through effusion of the cerebrospinal fluid. [D.R.]

4.—Conitzer finds **ichthyol** of great value in the treatment of **fissure of the anus.** At the first application the fissure is anesthetized with cocain and the pure ichthyol applied with a cotton-carrier or a glass rod. For the succeeding applications, which at first are made daily, then on alternate days, cocain is generally unnecessary. A cure is usually achieved in from 6 to 12 days. Proper attention must of course be given to the bowels. [D.R.]

5.—**Aneson** is a watery solution of trichlorpseudobutylalcohol or acetonchloroform. In 1% to 2% solutions it has the anesthetic properties of a 2 % or 2½ % solution of cocain. It is the least toxic of the local anesthetics, and, when injected, after-pains are, unlike in the case of Schleich's solution, entirely absent. [D.R.]

6.—A man and a boy of 13 were struck by lightning, the former being killed, the latter stunned. At the autopsy on the man rigor mortis was found well-marked everywhere except in the arms; the blood was dark and non-coagulable; the vessels of the pia were filled with blood. Over the frontal and the left temporal lobes, there were several hemorrhages; some were also found over the pons, cerebellum, and medulla. The brain was soft and pale, the intestines were injected, the cardiac fat intensely yellow, and the spleen hyperemic. The boy presented beautiful lightning-figures on the right and left thighs and the left leg. Of the nature and origin of lightning-figures nothing definite is known. [D.R.]

8.—**A portable operating table** is described which when folded can be transported from house to house or can be carried in the doctor's gig. Folded and packed it measures 60 cm. in height, 68 cm. in width, and 15 cm. in depth, and weighs about 20 kg. [D.R.]

Berliner klinische Wochenschrift.

January 9, 1899. [36. Jahrg., No. 2.]

1. Prophylaxis for Tuberculosis. B. Fränkel.
2. Therapeutic Experience in Catheterizing the Ureters. L. Casper.
3. What are the Benefits of Catheterizing the Ureters in Surgery of the Kidneys? J. Israel.
4. Catheterizing the Fallopian Tubes in Gynecology. Th. Landau.

1.—Fränkel believes that the studies of Flügge in the **spread of tuberculosis by fluid particles** greatly weaken Cornet's doctrines. Flügge and his pupils have shown that during speaking and coughing minute particles are ejected from the mouth and upper air-passages which may, in the tuberculous, contain tubercle-bacilli. Schäffer demonstrated that **leprous patients** who had lesions in the mouth and pharynx, while speaking expelled, during a period of 10 minutes, thousands (up to 185,000) of lepra-bacilli. Bussenius, an assistant of Fränkel, found tubercle-bacilli on the lenses of his spectacles after examining laryngoscopically patients who coughed during the examination. Flügge found tubercle-bacilli in the saliva of tuberculous patients, especially in the morning; these bacilli are readily conveyed to the air during simple speech. The tiny drops that are expelled during speech, coughing, etc., can readily be rendered visible by being caught on a mirror held about 30 cm. from the face. Flügge's important researches render it apparent that disinfection of the sputum alone is not sufficient to prevent the spread of tuberculosis, and the author, in order to deal with the germ-bearing fluid particles, proposes that phthisical patients should **wear a mask** day and night, which should be removed only during eating and to expectorate. On the inside of 26 out of 52 masks worn by patients tubercle-bacilli were found. In order to induce patients to wear the masks, the gauze which covers them was moistened with pine-needle oil or peppermint-oil, so that they might think the mask had also a therapeutic purpose. The oils do have, the author adds, a value in the latter direction. At the present time a compulsory wearing of the mask is out of question, but everywhere where tuberculous and healthy persons are constantly in the same room, the former should be induced to wear the mask. The only objection to the mask in Fränkel's eyes is that it renders its wearer conspicuous. [D.R.]

2.—Casper describes three interesting cases, showing the therapeutic value of **catheterization of the ureters.** The first case concerns a man who, after an acute attack of pain in the right loin, had anuria for 34 hours, at the end of which time Casper catheterized the right ureter and found an obstruction, an impacted stone. He injected 50 c.c. of hot boiled oil into the ureter, and soon afterward the anuria was relieved. Later, a stone was found in the bladder and crushed with the lithotrite. [The anuria, there being but one stone, must have been due to reflex spasm of the other ureter.] In the second case, a pyonephrosis, following labor, was cured by washing out the pelvis of the kidney through a ureteral catheter with 1:1000 solution of silver nitrate. The third case was also one of pyonephrosis, probably due to some obstruction in the ureter, in which recovery was achieved by introducing a retention-catheter into the pelvis of the kidney, draining the sac, and then injecting 1:1000 silver-nitrate solution. It is hardly to be expected that all cases of pyonephrosis will yield to this treatment. Regarding the **diagnosis of pyelitis,** the author points out that some cases have practically no symptoms, except slightly turbid, purulent urine. The quantity of pus, albumin, the relation between the two, the reaction of the urine, the form of the epithelia, the so-called "plugs"—none of these gives any clue. Cystitis may present the same features. The only positive way is the introduction of a catheter into the ureter and securing urine containing pus-cells. In the case of operation it is an axiom nowadays not to remove one kidney unless it is certain that the other functionates properly. The determination of this cannot be made by studying the 24 hours' excretion of urea, as it cannot be ascertained how much of this quantity is furnished by the diseased kidney. Only by collecting the urine of each kidney separately by means of the ureteral catheter can the adequacy of the second kidney be determined. There is very little danger in catheterizing the ureters if proper precautions are taken. The only contraindications to washing out the renal pelvis are tuberculosis of the kidney and renal affections accompanied by fever. In such cases, irrigation may be followed by rigors and malaise. [D.R.]

Deutsche medicinische Wochenschrift.

January 5, 1899. [25. Jahrg., No. 1.]

1. Concerning the Treatment of Obesity with Thyroid-gland Preparations. WILHELM EBSTEIN.
2. Concerning the Role of Blood-serum in Procuring Immunity from Infection. E. BEHRING.
3. A Further Research into the Question of the Occurrence of Tubercle-bacilli in Marketed Butter. LYDIA RABINOVITSCH.
4. Mechanical Treatment of Surface Edema. F. FURBRINGER.
5. Concerning the Significance of Oliver's Symptoms for the Diagnosis of Aneurysm of the Aorta. A. FRAENKEL.
6. Chopart's Operation Retaining the Toes. HOFMANN.
7. Concerning Antisepsis. L. v. LESSER.

2.—The antitoxins in the serum are represented by the albumins; the latter can be separated from all other constituents of the serum without any loss of antitoxin, but any attempt to alter (to "denaturize") the albumins is followed by an antitoxin loss. It is at present accepted that the antitoxic albumins are contributed to the blood by such cells as are modified by the process of immunization. Hence it follows that the blood contains both antitoxically active and antitoxically inert albumins, and it is possible, in a measure, to separate these two. The isolated **antitoxic substance** is an **albumin,** which cannot be distinguished from nonantitoxic albumin except by the sole quality of being antitoxic. Behring ingeniously compares the relationship between these two albumins to that obtaining between magnetized and nonmagnetized iron—the difference here is solely in the possession of a quality, magnetism, the nature of which is unknown. The antitoxic property is a specific quality of the albumin, which in other ways is as indifferent toward the animal body as normal blood-albumin. Tetanus-antitoxin, *e. g.*, has no other property to distinguish it from normal serum-albumin save that of neutralizing tetanus-toxin. Antitoxic serum, apart from its one specific effect, has no other action on the body than an equivalent amount of similar, but nonantitoxic serum. Behring also explains in this article the manner in which he arrived at the fixation of the antitoxin unit used by him in his studies. One c.c. of an antitetanic serum which neutralizes 0 03 grams of tetanus-toxin is equivalent to one immunity unit. [D.R.]

3.—Different observers have examined the **market-butter** of Berlin for **tubercle-bacilli** with widely different results. The discrepancies are explained by the studies of Lydia Rabinowitsch, who found that nearly the entire output of a large Berlin butter-house contained tubercle-bacilli, while the butter of other dealers was free from these bacteria. In 50 samples of butter examined by her in **Philadelphia, not a single tubercle-bacillus** was found, but a considerable proportion of the samples contained certain bacteria resembling this bacillus, to which Koch first called attention. As these bacteria can produce lesions which are not unlike those of tuberculosis, they may lead to fallacious conclusions. [D.R.]

4.—For the **mechanical treatment of edema** Fürbringer recommends **subcutaneous rubber-drainage.** A trocar is passed close under the skin and brought out again at a distant point. A rubber tube with three lateral perforations is carried through the trocar so that the holes lie in the subcutaneous canal. The trocar is then removed; the tube which now hangs downward with its two ends like a hairpin suspended from its loop, is covered with loose antiseptic dressing. In one case the amount of fluid discharged through the tube in 12 hours was nearly a liter. When the flow ceases, which is usually in two days, the tube is divided close to one of the skin-openings and gently removed, and the wound bandaged. [D R]

5.—To estimate the value of **Oliver's symptom for the diagnosis of aneurysm of the thoracic aorta,** two questions must be answered: Must aneurysms of the aorta be of any especial variety in order to produce this so-called pulsation of the larynx? and, secondly, Is there any other condition in which this same phenomenon could be observed? It may be said that this systolic pulsation of the larynx and trachea is not to be expected in all aneurysms of the aortic arch, but is especially to be observed, either when the aneurysm is situated exactly at the intersection of the aortic arch and bronchus, or when, if the aneurysm is situated at the beginning of the arch, it is adherent to the anterior wall of the trachea. The only other pathologic condition, which one might expect to produce similar symptoms, is a tumor in the anterior mediastinum. This must hold certain relations to the aortic arch; either through pressure exerted by the arch, the tumor is pressed against the bronchus, or it must be adherent to the convexity of the arch and to the trachea. [C.H.F.]

6.—Hofmann describes **a modification of Chopart's amputation** by which the toes are not sacrificed. The advantage of this more conservative operation lies chiefly in the preservation of not only a better shaped foot, but a more serviceable one. A rectangular flap is dissected from the dorsum of the foot large enough to expose all the diseased area of bone. The bones are disarticulated above at the line of a Chopart amputation and below at the metatarso-phalangeal articulation. By preserving the articulating surfaces of the bones better functional activity may be obtained. [C.H.F.]

January 12, 1899. [25. Jahrg, No. 2.]

1. Two Cases of Traumatic Tetanus Cured with Behring's Antitoxin. F. K. KLEINE.
2. Remarks Upon the Treatment of Obesity with Preparations of the Thyroid Gland. (*Concluded.*) EBSTEIN.
3. Upon Loss of Control of the Rectal Sphincters. HERRMANN CORDUA.
4. A Case of Traumatic Injury of the Spinal Cord. O. v. LEY.
5. Two Cases of Very Early Rupture of Tubal Pregnancy, and Remarks on Treatment. E. G. ORTHMANN.

1.—Kleine reports 2 cases of **tetanus cured by injections of Behring's antitoxin.** The first was a chronic case of moderate severity in which the injections were begun a week after the onset of the symptoms; the second was one of marked character in which the injections were inaugurated 4 days after the beginning of tetanic symptoms. A curious observation was the discovery of an intense muscular rigidity manifesting itself in the neighborhood of the point of injection in both cases. [D.R.]

2.—Ebstein **opposes** the **use of thyroid gland** and thyroid preparations in the treatment of **obesity,** first, because they are unreliable; secondly, their use is not rational, since they attack both albumins and fat, a rational treatment being one in which the body only loses fat; and, thirdly, because thyroid-medication can be dispensed with, as other methods, if properly used, are efficacious. [The author offers very little argument in support of his proposition. D.R.]

3.—Cordua reports a case of carcinoma occurring in mesocolon in which he practised a new method of making an **artificial anus.** It consists essentially in bringing the intestine two inches out beyond the skin and sewing it in this position. This allows the feces, with proper dressings, to come out without infecting the wound and gives room for the application of an apparatus for properly receiving the feces without soiling the patient's person. In the case reported most excellent results were obtained. [G.B.W.]

5.—Orthmann has operated by anterior colpotomy on 12 cases of **ectopic gestation.** In the last three cases, or 25% of the cases, the entire tube was retained. In two, the tube wall was incised over the site of the ovum, the product of conception, in the form of a spindle-shaped clot, was removed from the tube, and the incision closed with a continuous catgut-suture, after finding the tube was permeable and the hemorrhage controlled. In one case, it was possible to leave the tube entirely uninjured as the dilated abdominal end of the tube permitted the pressing out of the clot, and there was no subsequent bleeding. These circumstances have the greatest similarity to the course and treatment of uterine abortion. [W.K.]

Centralblatt für innere Medicin.

January 14, 1899. [20. Jahrg., No. 2.]

1.—On the Influence of Addition of Carbohydrates upon the Destruction of Proteids in the Organism of Sucklings with Gastrointestinal Affections. ARTHUR KELLER.

1.—This question was first investigated by determining the amount of nitrogen in the urine of infants when fed upon diluted cows' milk alone, and when maltose was added to their nourishment. The amount of nitrogen varied from 1,000 to about 1,150 mg., in the instance which is given in the table. When 60 gm. of maltose were added to the daily amount of milk the nitrogen fell progressively, and within 4 days had dropped to 500 mg., and when the maltose was increased to 100 gm. there was a diminution of the nitrogen in the urine to so low as 380 mg.; when the maltose was omitted the excretion of nitrogen increased at once, reaching about the point first mentioned. Phosphoric acid was also estimated, and it was found that this followed the same course as the nitrogen, decreasing to less than one-third of its usual amount when maltose was added to the milk. Several other experiments are then detailed in which the amount of nitrogen given in the nourishment and the amount excreted in the urine and feces were determined. When milk alone was given the absorption was slightly over 93%, though but 5.8% was retained; when 75 gm. of maltose was added to the daily amount of milk the absorption was slightly less, about 88%, but 23.5% of the nitrogen was retained. This experiment was conducted with cows' milk, diluted one half. The child was 5 months old, and apparently in good health. The second experiment, with the same child, was conducted by using whole milk, thus increasing the amount of nitrogen ingested. During the first period of these experiments, in round numbers, 95% was absorbed, 12% retained; when 75 gm. of maltose was added to the milk but 91% of the nitrogen was absorbed, while 19% was retained. Other experiments were conducted upon sick children to investigate the possibility of preventing a loss of nitrogen or to decrease such loss by adding carbohydrates to the nourishment. The first was a 9 months' old child that weighed only about 9 pounds owing to a persistent gastroenteritis. In the first period the child took daily 750 c. c. of one-third cow's milk; in the second period it was given 500 c. c. daily of one-third cow's milk to which 40 gm. of maltose was added. During the first period about 93% of nitrogen was absorbed but within a week the child lost 2.7 gm. more nitrogen than was ingested. During the second period when the maltose was given the absorption was about the same, 92.3%; but in this period the negative balance was but .2803 gm. The effect on another child that had also been the subject of gastroenteritis was investigated, and it was found that the same amounts of nourishment that were used in the last mentioned case caused the child to retain, when receiving no maltose, .7% of the nitrogen ingested, while when maltose was added the retention was 12.7%. Keller then gives tables of work upon metabolism in infants that have been published by a number of other authors, and shows that in infants nourished at the breast the retention is very high. In one investigation it reached the astonishing figure of 85.5%. Those investigations that have been carried out with cows' milk without addition of carbohydrates have shown as a rule very low figures for retention, while those investigations in which mixtures of milk and various carbohydrates were the nourishment used, show very much greater retention. The absorption of nitrogen in almost all instances was, as in Keller's experiments, less when carbohydrates were given than when milk was used alone; but the percentage of the absorbed nitrogen that was retained was always very much higher when carbohydrates were used. It is therefore evident that it is possible to decrease **nitrogen elimination** or to cause a marked increase in nitrogen retention by adding carbohydrates to the nourishment. [D.L.E.]

Neurologisches Centralblatt.

February 1, 1899. [18. Jahrg., No. 3.]

1. The So-Called Relapsing Facial Palsies. M. BERNHARDT.
2. The Symptomatology and Etiology of Peripheral Nerve-Paralyses in the Neck. AUGUST HOFFMANN.

1.—Bernhardt reports 9 cases of **facial palsies** in which one or more relapses occurred. He has collected from his own clinic and the literature a number of cases, from which he deduces the following statistics: Relapses occur in 7% of all cases; they are more frequent in the first 30 years of life, and the relapses may occur at almost any interval up to 15 years, the majority,.of course, occurring during the first 12 months. If more than one relapse occurs, the interval between the second and the first may range from 1 to 13 years. If a third relapse should occur, the interval may be from 9 months to 4 years. There does not appear to be any particular rule regarding the side affected. The opposite side to that of the primary lesion is about as frequently involved as the same side in men. In women, however, it appeared as if the same side were slightly more frequently involved than the opposite side. When paralysis affects the same side, it is usually more severe during the relapse than at the first attack. In some of these cases, the cause may be directly traced to middle-ear disease. Syphilis does not appear to have any causative effect. In 3 cases, the patients suffered from diabetes. In 8 cases, there was distinct neuropathic heredity. In 4 of the cases, the parents had had paralyses of the face. [J.S.]

2.—Hoffmann reports 2 cases of **peripheral nerve-paralyses in the neck.** The first was in a girl of 17 years of age, who suffered from chronic ear-disease and swelling of the cervical glands. She noticed for 4 months before the examination that the left half of the tongue was smaller and more wrinkled than the right half. Sensation and taste were absolutely normal in this half of the tongue. There were no symptoms of disease in any of the other cranial nerves. When the tongue was projected, the point deviated to the left, and on both sides, but particularly the left, fibrillary twitchings could be observed. Reactions of degeneration in the muscles and in the nerve were obtained at the electric examination. During the whole period of observation there wa sno tendency to improve. Hoffmann believes that the whole condition is due to pressure upon the hyperglossal nerve by a swollen gland. The symptomatology is similar to that previously reported, although a case of Dinkler's leads him to suspect that different bundles of muscles are sometimes not equally involved. The second case was that of a soldier, 21 years of age, who, while exercising on horseback, fell upon the point of his lance, which penetrated the left side of his neck near the cricoid cartilage. No immediate symptoms were noticed, except a feeling of coldness in the left arm and inability to move the left shoulder-joint. Three days later, however, severe pains occurred in the left shoulder region, running into the arm, and ultimately there was some limitation in movement in the shoulder-joint. When examined, the scar was found to be painful upon pressure. The left deltoid was softer and smaller than the right, and there was distinct limitation of movement at the shoulder; otherwise the arm was normal. There were fibrillary twitchings in the deltoid and distinct reactions of degeneration. A curious symptom was that when the patient's left arm was lifted to a horizontal position, the deltoid was able to pull it to a vertical position, but when the arm hung down, it appeared to be powerless. Ultimately, the patient recovered completely, the only curious feature in the case being the fact that such slight injury to the nerves had been caused in view of the serious nature of the wound. [J.S.]

Centralblatt für Chirurgie.

January 21, 1899. [26. Jahrg., No. 3.]

1. A New Method for the Radical Operation Upon Inguinal Hernia, Without Buried Sutures. H. Jonnescu.
2. A Contribution to the Statistics of Epidermoids of the Palm of the Hand. Langematt.

1.—The essential features of this **radical operation for inguinal hernia,** are the obliteration of the inguinal canal and the abandonment of the buried suture. After the parts have been freely dissected, the hernia reduced and the sac ligated, the stump of the latter being included in the deep sutures, two layers of silver-sutures are introduced to unite the floor and roof of the canal. The sutures are V-shaped, the deep layer allowing a skin margin of 4 cm., and include the internal oblique and transversalis muscles, while the superficial sutures allow a skin-margin of but 2 cm. and include the external oblique. The cord and contents of the inguinal canal now make their exit at a point upward and inward from the conjoined tendon, and downward and outward from Poupart's ligament. This point was selected as being one the presence of which would predispose least towards recurrence. The complete obliteration of the inguinal canal, by the double row of silver-sutures, offers the greatest security against the possibility of recurrence. [C.H.F.]

January 28, 1899. [26. Jahrg., No. 4.]

1. A New Secondary Suture. E. Braatz.
2. The Use of the Watch-Spring in the Introduction of the Gigli Saw in Trephining the Skull. C. Lauenstein.
3. A Gun-Shot Injury of the Left Palate and Eye. Eichol.

1.—This **secondary suture,** as devised by Braatz, is introduced as follows: A needle with a double thread is introduced through the edge of the wound, so that the loop of the suture lies within the wound and the two free ends without. One of the free ends is carried through the loop, and then made fast to the other end. These temporary sutures are introduced diagonally opposite each other at the time of the primary operation, and are to be used only for the purpose of inserting the permanent sutures, when the time comes to close the wound. At this time, the loops of the temporary sutures are threaded with the free end of the permanent suture and drawn through the edges of the wound. The chief advantage of this new suture is that it does not traverse the wound and thus interfere with the dressings until the time comes for permanent closure.

Centralblatt für allgemeine Pathologie und pathologische Anatomie.

December 15, 1898. [9 Bd., Nos. 23, 24.]

1. The Pathogenesis of Fever. M. Löwit.
2. Concerning Compression-myelitis. R. Cassirer.
3. Resume of the most important otologic publications of the year 1897 so far as they touch the domain of general pathology and pathologic anatomy. Dr. Haug.

1.—This is a reply to certain strictures made by Ughetti on Löwit's theory of the cause of fever. Ughetti inclines to the view that the **cause of fever** is not a dissolved substance, as a bacterial toxin or a soluble product of metabolism or tissue-destruction, but that it is rather the corpuscular elements of blood-disintegration and tissue-disintegration which provoke the febrile temperature-rise. Löwit advocates a chemical theory of fever. Krehl and Matthes have shown that fever can be produced by soluble products of tissue-destruction; and it is conceivable that some pyrogenic agents act by causing, primarily, tissue-destruction and, secondarily, fever. Ughetti attributes the chief importance, in the production of fever, to destruction of red corpuscles. If such a destruction or tissue-disintegration in general is necessary to the occurrence of fever, the possibility, according to Löwit, still remains that during the cell-destruction soluble pyrogenic substances are liberated which then are the immediate cause of fever. On this basis the two theories are harmonizable. [D.R.]

2.—Cassirer's resume of the literature of compression-myelitis is based on 108 papers, among which a fair proportion is by American writers Under the term **compression-myelitis** Cassirer considers only those spinal changes which are produced by **gradual compression of the cord,** injuries due to sudden pressure being excluded. The causes of compression-myelitis are classified as follows: I. Diseases of the bony vertebral column—(1) tumors of the vertebræ, exostoses; (2) tuberculous, syphilitic, and osteomyelitic processes; (3) changes of the vertebræ through processes originating in the neighborhood, *e. g.*, erosion by aneurysms. II. Diseases of the meninges—(1) tumors; (2) inflammatory processes (caseous and hypertrophic pachymeningitis). III. Intramedullary tumors. In the last group the signs of compression are overshadowed by the symptoms produced by the growth of the neoplasm in the cord, and this class is therefore not considered to any extent. The results of experimental compression of the cord in animals (by the introduction of foreign bodies) are described. They are practically the same as in man, and consist of an edema leading eventually to softening. This edema is in a large measure due to mechanic obstruction of the lymph-stream, but may be in part inflammatory, in part due to vasomotor paralysis. The first condition taken up is **Pott's disease.** The cause of the compression in this is usually an external pachymeningitis, which may lead to the formation of a tuberculous granulation-tissue merely or to an abscess. The inner surface of the dura remains for a long time unaffected; there may be adhesion of the dura to the bones. In operated cases it has been found that the cord did not pulsate at the point of compression; after removal of the compressing material the pulsation generally returned. As to the effect of compression on the configuration of the cord, it was possible to note distinct diminution in thickness in 32 out of 52 cases; marked degrees of flattening are rare. The consistency varies. Occasionally cross-section of the cord shows but slight or no changes, even in cases in which there was total paralysis and impairment of sensation only; the microscope may reveal alterations. In extent the lesion usually occupies but few centimeters. The histologic changes consist in swelling and, in advanced cases, of degeneration of the axis-cylinder and myelin-sheath; the ganglion-cells lose some of their processes, diminish in size, and the nucleus becomes indistinct. The neuroglia also shows modifications, though usually only in the later stages; for instance, there is edema and some granular degeneration, the staining is indistinct, and eventually a hyperplasia of the tissue ensues. The consensus of opinion seems to be that the cord-changes are not myelitic, *i. e.*, inflammatory in nature, but are dependent on obstruction of the lymph-paths. The edema and degeneration-changes may finally lead to a reactive inflammation. Another cause of compression of the cord is osteomyelitis of the vertebra. This is rare. Another very rare condition is pachymeningitis spinalis hæmorrhagica. Syphilitic processes, either by carious destruction of the vertebræ or by the formation of exostoses, may also lead to compression. A peculiar condition is that called hypertrophic cervical pachymeningitis; its pathogenesis is not known—in many cases probably the cord suffers independently from the same process as the membranes, or the disease extends directly from the latter to the cord, whence the more recent designation, meningomyelitis cervicalis chronica.

The tumors which by their growth compress the cord start either from the vertebræ or from the membranes, that is, are either extra or intradural. In cases of carcinoma of the bones a slight violence may sometimes lead to sudden fracture of the vertebræ and acute compression of the cord; otherwise the compression is gradual. The cord can tolerate a good deal of compression and yet regain its function. In some cases of tumor the flattening is very great; in rare instances there is swelling of the cord at the point of compression; more often such swelling is found above and below this point. In extreme cases of pressure the cord-substance becomes pulp-like. The histologic changes produced by the tumor through pressure on the cord are, swelling, and, later, degeneration of the axis-cylinder and myelin; degeneration of the ganglion-cells; the neuroglia may show no alteration.

although in late stages it may degenerate; eventually hyperplastic changes may take place in it. The lymph and blood-vessels are overfilled. It is a curious fact that in high degrees of compression the central portions of the cord may suffer more than the peripheral white tracts; in some cases the tumor is accompanied by the formation of cavities in the cord. Ascending and descending degeneration are common: the nerve-roots display as a rule a marked resistance to the compressing agent. The cause of the cord-changes in the case of tumors is probably also, as in Pott's disease, a mechanic disturbance of the circulation of the blood and lymph. Inflammatory phenomena are absent in both, in the early stages at least. Hence Cassirer suggests the abandonment of the term compression-myelitis, and its substitution by "compression-changes of the spinal cord." [D.R.]

Revue de Chirurgie.

October 10, 1898. [18. Année, No. 10.]

1. Interscapulo-Thoracic Amputation in the Treatment of Malignant Tumors of the Upper End of the Humerus. Berger.
2. Physiologic and Experimental Researches in Fractures of the Interior Extremity of the Radius. Destot and Gallois.
3. A Rare Case of Melano-Sarcoma of the Eye. Alfred L. Duprez.
4. Treatment of Varicocele by Subcutaneous Ligature of the Scrotal Sac. H. Nimier.

1.—Berger details two cases, one of sarcoma, and the other of myxoma of the arm, in which he performed an **interscapulo-thoracic amputation.** Amputation into the contiguity of the trunk is believed to be as feasible as a shoulder-joint amputation with dislocation of the joint. Theoretically, the chances for non-recurrence are much greater in the former operation, but there are, however, as yet no statistics to demonstrate this. The details of the operation are well described. [C.H.F.]

4.—The treatment of varicocele by subcutaneous ligature of the scrotal sac is carried out as follows: By means of a suture introduced into the lower part of the scrotum, a means of suspension is formed, by which the glands are held in the upper portion of the scrotum. Local anesthesia only is needed, and the patient is confined to bed for less than a week. [C.H F.]

November 10, 1898. [18. Année, No. 11.]

1. Bilateral Ligature of the Common Iliac Artery by the Transperitoneal Route. Quénu and Duval.
2. Pericardotomy; its Anatomic Basis. Voinitch-Sianojensky.
3. Incurvation of the Neck of the Femur, or Coxa Vara. Fabrikante.

2.—The great diversity of opinion among surgeons as to the best manner in which to perform a **pericardotomy** is accounted for by the different views they hold on certain points, as for example, in regard to the influence of pericardial effusions upon the relations of the mediastinum to the thoracic wall, or in respect of the relations of the boundaries of the pleura to the diaphragm. Some surgeons admit that under these conditions the mediastinum becomes enlarged, while others take the opposite view. The question of the normal relations of the mediastinum must be taken into consideration when planning any mode of attack upon the pericardium. As to the operative technic, some consider it necessary for the incision to correspond exactly to the disposition of the cellular tissue in the mediastinum, while others do not regard this as obligatory. On studying the anatomy of the parts upon 100 cadavers, Voinitch-Sianojensky has found that beneath the sternum there is always an area of cellular tissue with definite boundaries. There is an expansion of this cellular space at its superior and inferior portions which are connected by a more or less constricted link. The inferior portion lies beneath the costosternal junction of the sixth and seventh ribs, and a portion of the sternum adjacent thereto. The lower boundary corresponds to the base of the pericardium. By removing this portion of the sternum and sections of the sixth and seventh ribs at their costosternal junction, the safest and surest approach to the pericardium is obtained. At this point there is no danger of injuring the diaphragm or pleura, and the internal mammary, lying to the outer side, can be avoided. The guide to the incision should be the tubercle of the left sixth sterno-costal articulation. The incision should be parallel to the axis of sternum, about 6 or 8 cm. long, and should traverse the tubercle of the sixth rib at its junction with the sternum. As the interspace between the sixth and seventh ribs is so narrow, it will be found more convenient to remove the necessary amount of bone with a trephine. [C H.F.]

3.—Fabrikante believes rachitis to be the most common cause of **coxa vara.** The greater the curvature of the neck, the less can be hoped for pure orthopedic treatment. If operative interference is necessary, it is best to excise a wedge-shaped section of bone from the femoral neck. In addition to the local treatment. an antirachitic regimen and general tonic treatment should be prescribed. [C.H.F.]

Sundry French Journals.

1. Addison's Disease and Pulmonary Tuberculosis. Treatment by Extract of Suprarenal Bodies and by Altitude. J. Sellier and H. Verger. (*Jour. de Méd. de Bordeaux*, Oct. 23, 1868. 28me. Année, No. 43.)
2. Researches on Muscular Atrophy and Contracture in Organic Hemiplegia. G. Marinesco. (*Sem. Méd.*, Nov. 23, 1868. 18me. Année. No. 58.)
3. Treatment of Akromegaly by Hypophysin. Lancereaux. (*Sem. Méd.*, Nov. 23, 1898. 18me. Année, No. 58.)
4. Treatment of Tetanus by the Intracerebral Injection of Antitetanic Serum. F. Hue, Quénu, Lucas-Championnière, Reclus, Chaput, Richelot, Hartmann, Nélaton, and Peyrot. (*Sem. Méd.*, Nov. 23, 1898. 18me. Année, No. 58.)
5. Hemorrhagic Pancreatitis Due to Traumatism. Ferrand. (*Sem. Kéd.*, Nov. 23, 1898. 18me. Année, No. 58.)

1.—Sellier and Verger report the case of a man, aged 31 years, who had always been healthy, and who presented no hereditary antecedents bearing upon his disease. In the year 1894, while in good health, he began to complain of loss of appetite and labored digestion, with obstinate constipation. He lost flesh, and his strength diminished. In 1895. while these symptoms were still present, he had influenza. The convalescence was long, and in the following months he continued to cough and had several small hemorrhages from the lungs. In December, 1896, he began to complain of a painful sensation in the lumbar region, the muscular power was still diminished, and the muscles of the limbs were plainly decreased in volume. The skin was darker colored than normal and of a brownish-green tint. In the lumbar regions there were several bronzed macules; the prepuce was almost black, although the buccal mucous membrane presented nothing abnormal. In April, 1897, in addition to the other symptoms recorded, he presented dry rales and impaired resonance at both apices; the sputum contained tubercle-bacilli and a diagnosis of **Addison's disease with pulmonary tuberculosis** was made. In June, 1897, he was put upon extract of suprarenal bodies, taking 10 gm. of glycerin extract and 0 30 gm. of dry extract daily. Under this treatment the symptoms improved. The signs of tuberculosis of the lungs persisted, however, and he was sent to a mountain resort. In April, 1898, he was much improved, although still expectorating slightly. [J.M.S]

2.—Marinesco believes that **muscular atrophy is the rule in hemiplegia,** and not a complication of greater or less frequency. In autopsies on subjects that have been hemiplegic before death, the muscles of the paralyzed side are paler than the muscles of the healthy side, they have a yellowish color, they are smaller, and the long muscles, such as the biceps, show a diminution in the longitudinal and transverse diameters. Histologic study of the muscles shows that the change begins as a proliferation of the muscle nuclei, that then arrange themselves longitudinally. The change in the muscular parenchyma is very variable, sometimes the individual fibers are smaller than normal and the striation is altered. The fibers thus atrophied are sometimes fragmented or reduced to empty sheaths, on account of the resorption of the protoplasm. Hypertrophied fibers that take the stain more intensely than the other fibers are sometimes found in the atrophied muscle. In many cases there is a process demonstrable in the atrophied muscle that is analogous to coagulation-necrosis. In such muscles the necrosis presents itself in the form of bands that are deeply colored and in which the normal striation is wanting. In the absence of the normal striation, the intermediary substance, which is pale, presents longitudinal striæ. Hyperplasia of the interstitial connective tissue takes place at the same time that the muscular atrophy proceeds. The intramuscular nerves are, as a rule, not affected. Hemorrhages, vascular dilatation and hypertrophy of the walls, with reduction of the lumen of the vessels within the muscle, are common lesions, but are inconstant. The spinal cords of 16 cases of hemiplegia with muscular atrophy, studied by the method of Nissl, gave negative results in 13 of the cases; in 3 cases there were secondary lesions of the cells in the anterior horn of gray matter of the spinal cord, lesions that in one case were extensive and that resembled the changes seen after section of the axis-cylinder processes of the cells. In all the cases descending degeneration of the pyramidal tracts of the spinal cord was noted. In the brain the most frequent lesion has been the occurrence of yellow plaques of variable localization, and in one instance this yellow patch occupied the superior portion of the ascending parietal convolution and the paracentral lobule. During life this case had presented a pure crural monoplegia with muscular atrophy of the paralyzed limb. Among the symptoms resulting from a destruction of the Rolandic region or of the pyramidal tracts, may be noted: (1) functional troubles arising from the improper innervation of the striated muscles, and (2) other troubles arising from the abnormal innervation of the non-striated muscles. In the first class the author places paralysis, contracture, and the changes in the tendon reflexes; while in the second class he places the vasomotor troubles, such as edema and changes in the temperature and the vascularization of the part. According to the views of Marinesco, muscular atrophy in hemiplegia is due to the suppression of certain nervous influences that the cortical neurons have upon the medullary neurons that constitute the central origin of the sympathetic system. Consequently, this atrophy will take place whenever there is an organic lesion of the sensory-motor cortex or of the pyramidal tracts of the spinal cord. It is probable, however, that the immobilization of the muscles due to the paralysis, especially if this immobilization is painful, will also play a part in the production of the atrophy. The degenerative lesions of the nerves are also, probably, due to vascular alterations that are in turn, due to vasomotor changes. It would be an error to hold the slight changes hitherto demonstrated in the cells of the anterior horn of the gray matter of the cord responsible for the muscular atrophy. The author also considers that contracture in the muscles of the paralyzed member results from the loss of equilibrium between the nervous influences that act upon the anterior horn of the cord. At first there is the central intervention, the preservation of the nervous influx of excitation with the diminution or abolition of the controlling nervous influx in the antagonists. Later, when paralysis and contracture places the limb in a fixed position, there is a centripetal influence, due to continued peripheral sensory excitations. [J.M.S.]

3.—Lancereaux read a report at the Académie de Médecine, on a note from M. de Cyon, in which the author mentioned the case of a child, 12 years of age, who suffered from **akromegaly.** Under the influence of treatment by hypophysin, continued during 6 or 7 weeks, the condition of the patient was much ameliorated; the weight fell from 54 to 45 kilograms (121½ to 101¼ pounds), and the circumference of he abdomen from 1.15 meter to 80 centimeters (44½ to 31 nches). The headaches had diminished in intensity and in duration, the pulse had become regular, and the intelligence began to awaken. [J.M.S.]

4.—At the meeting of the Société de Chirurgie, November 6, 1898, there was a symposium on the **treatment of etanus by the intracerebral injection of antitetanic serum.** F. Hue had injected an infant who was suffering from tetanus following a complicated fracture of lower xtremity of the forearm. On the 16th day the child had ifficulty in swallowing, and 48 hours later trismus was present. Six cc. of antitetanic serum was injected into each erebral lobe after trephining, and several hours later 20 cc. was injected into the thigh. Death occurred the same night. Quénu had employed the treatment twice without success. In one of the cases, in which the beginning of the tetanus appeared in 2 days, the immediate results were good, but the patient died of pneumonia on the 13th day. He considered the method to be harmless in itself, and thought that not all cases that had been benefited were of the chronic variety. He thought that epidemic cerebrospinal meningitis was not often confounded with tetanus. Lucas-Championnière had seen a case of tetanus following an operation for the fixation of the uterus. The injection was made in less than 24 hours after the first symptoms of the disease had made their appearance, but had exercised no appreciable influence upon the course of the disease, the patient dying in less than 36 hours. In a second case of abdominal tetanus, Borrel thought it would be useless to try the treatment. In a third case of tetanus, of 8 days' duration, the injection was beneficial. The speaker thought that all cases in which good results had been obtained were cases of chronic tetanus, and not of the acute variety. Reclus had seen a case of acute tetanus that was injected 48 hours after the onset of the symptoms, but the patient died in two hours. Two weeks before, the patient had been given a protective injection, but it had not been repeated. Chaput had seen a case of tetanus that was a day old. He injected 5 cc. of antitetanic serum into one side and 3 cc. into the other side of the brain. The next day, as the patient could not swallow, he did a gastrotomy, and the following day the patient died. Richelot had seen a case treated unsuccessfully by the new method. Hartmann had seen a successful case. Nélaton had seen a case that Borrel refused to have injected because he believed that death would surely follow, and, in fact, the patient died in an hour. Unfortunately, there are cases of tetanus that resist all treatment, and it is necessary to remember this in interpreting the results of the use of antitetanic-serum treatment. Peyrot called attention to the fact that some of the cases of cured tetanus might be cases of cerebrospinal meningitis. [J.M.S.]

5.—Ferrand reports the case of a man, aged 39 years, who was violently struck in the epigastric region in April. From that time until October, when he died, the patient complained almost constantly of more or less violent pain, with radiations throughout the entire abdomen, of obstinate constipation, loss of appetite, etc. There had never been fever nor general symptoms. At autopsy about 2 or 3 liters (2 or 3 quarts) of hemorrhagic fluid were found in the peritoneal cavity. All the abdominal viscera were healthy except the pancreas, which was markedly increased in volume and presented a blackish color. Microscopically, the parenchyma of the organ was shown to be infiltrated with blood, and the interlobular connective tissue was sclerotic. [J.M.S.]

The Microscope in the Diagnosis of Uterine Disease.—Beyea (*University Medical Magazine*, January, 1899) urges the more general employment of microscopic examination of tissue as a means of diagnosis in malignant diseases of the uterus and vaginal outlet. If there is to be an advance in the treatment of these fatal diseases and more lives are to be saved, it is clear that it must be in the direction of early diagnosis. The only method that practically always yields positive results, especially when the disease is in its formative stage and the uterus can be removed without danger of recurrence, is that of microscopic examination, in conjunction with clinical symptoms and careful vaginal examination. In carcinoma of the body of the uterus a careful technic should be employed, the endometrium removed in long strips with a sharp curet, and all of the tissue prepared and examined microscopically. "In suspected malignant disease of the cervical canal and portio vaginalis the various diseased surfaces should be carefully palpated and inspected (remembering the anatomy of malignant disease of these parts), and from each suspicious area a wedge-shaped portion of tissue should be excised. The depth of excision must of necessity be sufficient to warrant the removal of diseased tissue or the nodule palpated. A roughened, infiltrated, or nodular area should be caught with a double or single tenaculum and the excision made with a sharp pair of scissors or scalpel. Where the suspected carcinoma arises in the cervical canal and from the superficial endometrium, tissue may often be best gained by means of a sharp curet. An anesthetic is not necessary for this excision or curetment." [W.K.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.,

of Philadelphia.

Infiltration-Anesthesia.—Heinzle considers beta-eucain the very best drug for producing infiltration-anesthesia. Its solutions are of equal value with the same percentages of cocain. It is less irritating than cocain and less toxic. As it is not decomposed by boiling, its solutions can be thoroughly sterilized. The following solution is stable and can be sterilized by boiling: Beta-eucain, 1; sodium chlorid, 8; distilled water, 100. The fluid should be heated to the temperature of the body when used.—*Archiv für pathologische Anat., Physiol. und klin. Med., Heft 3, 1898.*

Serumtherapy of Malignant Tumors.—E. Shweiler (Die Erysipel—Erysipeltoxin—und Serumtherapie der bösartigen Geswühste," Leipzig, 1898) gives a very complete and interesting review of the effects of erysipelas on malignant tumors, and the treatment of the latter by means of artificial serum. In one table are noted the effects of spontaneous or artificial erysipelas on malignant tumors. Fifty-nine cases are cited, of which 15 ultimately recovered, and 6 died from the acute infection. A second table includes reports of 95 cases treated with erysipelas-toxin alone or in combination with the products of the bacillus prodigiosus. Recovery occurred in 15 instances or in about 16%. In 3 other cases there was some improvement; in 15 cases there was some marked constitutional disturbance—fever, pain, dyspnea, pneumonia, sepsis, emaciation, vomiting, or collapse; in 9 cases there was rapid increase of the growth, and in 14 cases death occurred during treatment, generally from collapse, sepsis, or pneumonia. A third table includes 49 cases treated with erysipelas-serum. In 37 of these there were local and constitutional disturbances, and in only 7 cases was recovery observed. In 4 cases the treatment consisted in the use of cancer-serum, or sarcoma-serum, but the results were in no instance favorable. It will be noted that the best results were obtained by erysipelas itself, 25% of the patients having recovered from the infection. From erysipelas-toxin or Coley's fluid the percentage of recovery was about 16.

Neurasthenic Headaches.

Dr. Joseph Collins states that in neurasthenic headaches associated with low vascular tension, caffein, either alone or in combination, gives excellent results. The following formula he has found particularly useful:

℞.—Caffein citrate .... 5 grains.
Sodium bromid .... 10 grains.
Sodium bicarbonate .... 10 grains.
Pulv. tartaric acid .... 10 grains.
M. Make into one powder.
Sig.—Take in water while effervescing.

Or,
℞.—Caffein salicylate .... 1 grain.
Ammonium salicylate } of each.......... 5 grains.
Phenol salicylate }
M. Make one capsule.
Sig.—One capsule every three to four hours.

Or,
℞.—Caffein.......... ½ to 1½ grains.
Phenacetin.......... 5 grains.
M. Make one capsule.
Sig.—Take with hot water, and repeat in one hour.
—*Medical News.*

The Use of Opium in Heart-Disease.—It is now 30 years since, in the third volume of the *Practitioner*, I recommended the hypodermic injection of morphin in heart-disease; and testimony of the best kind, such as that of Dr. Balfour, has supported my advice. Dr. Leonard Hill says: "Morphin is one of the best vaso-constrictors and cardiac tonics we possess." By the mouth opium is behind other sedatives in value, its use being attended by grave drawbacks; but hypodermically, in doses beginning at one-tenth of a grain and gradually ascending to a quarter of a grain if necessary, it is a precious means of relief. The physicians who still protest against its use are unfamiliar with the practice. There is no remedy which calls forth so warm a tribute from the patient himself, who, after nights of watching and agony, sleeps a peaceful and natural sleep, and wakes almost forgetful of his plight. Like any other potent remedy it must be used reasonably and discreetly.—T. CLIFFORD ALLBUTT, in *Allbutt's System of Medicine.*

Whooping-Cough.

J. Madison Taylor has found antipyrin of great value in the treatment of whooping-cough. The dose for a child is from ½ to 1 grain every three hours. He employs it as in the following formulas:

℞.—Antipyrin .... gr. ss. to j.
Ammon. chlor.......... gr. ijss. to v.
Syr. limonis .... ʒss.
Aquæ .... q. s. ad. j.

Or,
℞.—Antipyrin .... gr. ss. to ij.
Ammon. brom. gr. j-ij.
Ammon. mur. .... gr. v.
Syrup. .... q. s. ad. ʒj.

Migraine.

℞.—Quinin valerianate .... gr. 1½.
Caffein citrate .... gr. ¾.
Ext. cannabis indica .... gr. $\frac{15}{100}$.
M. Two or three pills daily.
—*Journal des Practiciens.*

Mumps.

The following ointment is said to be useful in mumps:

℞.—Ichthyol, } .... āā gr. xlviij.
Plumbi iodid, }
Ammon. chlorid .... gr. xxx.
Vaselin .... ʒj.
M. Ft. ung. Sig.—Apply with friction over the swollen glands three times daily.

Irritable Bladder after Confinement.

℞.—Salol.......... ʒj.
Tinct. hyoscyami.......... fʒj.
Infus. buchu.......... q. s. ad. ℥fvj.
M. Sig.—A tablespoonful three times a day.
—W. E. FOTHERGILL.

Stypticin in Uterine Hemorrhage.—At a recent meeting of the Medical Society of the State of New York, Boldt read a paper calling attention to the value of stypticin in uterine hemorrhage. He stated that both stypticin and hydrastinin augmented the heart's action, but the action of the former was more like that of digitalis. In fungous endometritis and in advanced cancer stypticin had been of no benefit, but it had proved useful in hemorrhage associated with parametritis and perimetritis after abortion and full-term deliveries, and in other forms of uterine hemorrhage of obscure origin. He had observed no hypnotic effect, and no unpleasant results, even from large doses of the drug. This remedy apparently had no oxytocic properties. It could be given by the mouth in doses not exceeding 4½ grains. It acted quickly and very satisfactorily when administered subcutaneously in doses of 20 minims of a 10% sterilized aqueous solution.

[Stypticin is a derivative of one of the alkaloids of opium, and appears in the form of yellow crystals, which are freely soluble in water.]

Strychnin with Cocain in Croupous Pneumonia.—Very important drugs in the treatment of croupous pneumonia are the four alkaloids, strychnin, cocain, atropin, and caffein. Of all these remedies strychnin is the most generally available, but in severe cases the best results are to be obtained by the use of both strychnin and cocain. The strychnin and cocain should be given alternately, in a bad case, every 4 hours, so that every 2 hours one of the remedies will be taken. Ordinarily they may be exhibited by the mouth, but when the symptoms are alarming they should be administered hypodermically. Each of them is a stimulant to the heart, and also to the vaso-motor system, so that they do more than simply aid in the maintenance of the respiratory forces. The dose should be increased according to the needs of the case, beginning with one-twenty-fourth grain of strychnin, and one-sixth grain of cocain, slowly increased to one-fourteenth grain of strychnin and one-half grain of cocain. We have seen life apparently saved by even larger doses than these; but when such doses are employed it is essential to have a judicious trained nurse under orders to reduce or suspend the drug should any evidence of overaction appear. When large doses are given at shorter intervals it should always be hypodermically, so as to insure their immediate absorption.—H. C. Wood: *The Practice of Medicine*, Wood and Fitz.

Catarrhal Pyelitis and Cystitis Accompanying Infectious Fevers.—The treatment of these cases is by rest in bed, milk diet, and the internal administration of alkalies and sandalwood oil. Rest has a remarkable effect in alleviating the pain. I generally order:

℞.—Liq. potassæ	ʒ ij.
Ol. santal. flav.	ʒ ij.
Aq. cinnamomi ad.	℥ viij.

M. Sig.—Two tablespoonfuls three times a day.

—Saundby, in *Renal and Urinary Diseases.*

Dyspepsia of Phthisis.—For general use nothing can excel an alkaline mixture consisting of soda bicarbonate (15 grains), tincture of nux vomica (10 minims), and compound infusion of gentian (1 ounce), given before meals. If a sedative action be desired, dilute hydrocyanic acid may be substituted for nux vomica. The good effects of this mixture are witnessed not only by increase of appetite and relief of the dyspeptic symptoms, but at the same time expectoration is facilitated, whereby the cough is indirectly relieved.—Percy Kidd, in *Allbutt's System of Medicine.*

For Anal Fissure:

Europhen	$1\frac{1}{2}$ grains.
Cacao-butter from	15 to 45 grains.

Mix and make a suppository. To be introduced into the rectum after the employment of a cleansing enema.

—*La Presse Médicale.*

For Acute and Subacute Nephritis:

Mercuric chlorid	$\frac{1}{3}$ grain.
Potassium iodid	$\frac{1}{3}$ dram.
Syrup	1 fluidounce.
Infusion of gentian	7 fluidounces.

Mix.—One tablespoonful to be given thrice daily.

—D. Campbell Black.

Formula for Quinin in Solution.—The prescribed dose of the following mixture is added to a wineglass of water in which five grains of sodium bicarbonate have been dissolved, and is drunk during effervescence. The taste of the medicine thus given is not unpleasant, and it is well borne by the stomach:

Quinin sulphate	1 dram.
Citric acid	$2\frac{1}{2}$ drams.
Lemon sirup Simple sirup } of each	15 grains.
Distilled water, to make	5 fluidrams.

Mix.—Ten drops to be given as directed.

—*Practitioner.*

Chloralose in the Insomnia Associated with Fatty Heart.—Chloralose lowers the blood-pressure; but even in large doses it has no exciting effect on the heart, seeming rather to steady and regulate the action of that organ. Patients fall asleep quickly under its use, and they waken easily and refreshed. There is no headache and there is no gastric disturbance, the appetite seeming to be rather improved. Even when taken in excessive dose, the heart is never affected injuriously, the only result of an overdose being a certain amount of intoxication. The only drawback to the use of chloralose is a tendency to act irregularly, and to induce nervous symptoms in hysteric and neurotic patients. The dose of chloralose is from 2 to 8 grains, and it is best administered in a cachet. A very good way of giving chloralose is to give a cachet containing 3 or 4 grains at bedtime. Should the patient have a good night, well and good; but should he wake after an hour or two of sleep, the repetition of a similar dose will secure a good night's rest.—Balfour, in *The Senile Heart.*

The Treatment of Pernicious Anemia with Rectal Injections of Arsenic.—According to the *Ufficiale sanitario rivista d'igiene e di medicina pratica* for September, Dr. Viray, finding that neither iron nor phosphorus, quinin, venous infusion, or bone-marrow effected satisfactory results, succeeded in obtaining them by means of arsenic. But, as the stomach does not tolerate sufficiently large doses, while the hypodermic route is inconvenient on account of local lesions, he made use of the following formula by rectal injection:

Distilled water	840 minims.
Fowler's solution	60 minims. Mix.

Seventy-five minims were introduced into the rectum in the early morning and the evening, and, after four days' treatment, three times a day, thus causing the absorption of 15 minims daily of Fowler's solution, corresponding to $\frac{15}{100}$ grain of arsenous acid. This dose proved sufficient to obtain therapeutic results. In graver cases he used a still stronger solution—namely:

Distilled water	675 minims.
Fowler's solution	75 minims. Mix.

By this method the dose of arsenous acid is raised to approximately $\frac{1}{4}$ grain daily, administered in three injections. The advantage of the smaller dose is the capacity to continue arsenical treatment for a longer time without producing tenesmus. The only contraindication lies in diarrhea. The arsenical treatment should, of course, be accompanied by sufficient alimentation, and finds a good adjunct in the inhalation of 15 quarts of oxygen before meals.

—*New York Medical Journal.*

Potassium Bichromate in Chronic Gastric Disease.—McHardy (*Scottish Medical and Surgical Journal*, December, 1898) records the case of a woman who had suffered from chronic gastric ulcer for 20 years, and who was completely relieved by the administration of potassium bichromate. She had been bedridden for a year; the stomach was very irritable, epigastric pain was so severe as to demand constant recourse to morphin. Vomiting and hematemesis accompanied all ingestion of food, and nutrition had to be accomplished *per anum.* After washing out the stomach, potassium bichromate was administered in the dose of $\frac{1}{16}$ gr. dissolved in one ounce of water every sixth hour. The pain was first increased, but after the ingestion of a second dose there was some relief. The improvement continued, the dose was soon increased to $\frac{1}{12}$ gr. every sixth hour, and within a month the entire group of gastric symptoms had completely subsided. [Frazer (*Lancet*, April 14, 1894) reported 18 cases of dyspepsia and 10 cases of gastric disturbance, associated with hematemesis, in which he had obtained excellent results from the use of potassium bichromate in doses of $\frac{1}{12}$ to $\frac{1}{6}$ gr. The drug was given in pill or solution, two or three times daily, on an empty stomach. Bradbury (*Lancet*, September 14, 1895) having tried the drug concludes that it is often useful in chronic dyspepsia when other remedies have failed. Its mode of action is unknown. W. Hale White also commends its use.]

Injections of Carbolic Acid in Tetanus.—Ascoli, in a recent monograph (*Bull. della R. Academia Medica di Roma*, 1897, 1898, Fasc. iv), calls attention again to the value of carbolic-acid injections in the treatment of tetanus (Bacelli's method). Of 34 cases so treated only 1 died; while of 47 cases treated with Tizzoni's serum 10 died, and of 33 treated with Behring's serum 13 died. Ascoli concludes that the results from the carbolic-acid method of treatment are better than from the use of serum; that the drug must be given hypodermically and in large doses; that under its influence the convulsions diminish in a marked degree; that the acid acts as an antitoxic and as a sedative to reflex activity; and that the serum is useful only as a preventive, and as a curative agent in the early part of the disease. The carbolic acid can be injected in doses of $\frac{1}{2}$ to $\frac{3}{4}$ grain, in the form of a 2% to 3% solution. The injections may be given several times in the 24 hours. In some instances a daily dose of $5\frac{1}{2}$ grains has been administered without any untoward effects resulting. The physician is cautioned against being deterred by the fear of carbolic-acid poisoning. [This treatment was first suggested by Baccelli at the Italian Medical Congress in 1888.]

Original Articles.

GENITAL NEURALGIA AND GENITO-REFLEX PAINS.[1]

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SO LITTLE of concise and accurate knowledge is at hand showing a direct relation between disorders of the female genital organs and derangements of the nervous system that practical men accept with credulity the conclusions of authors who believe the association here to be more intimate than elsewhere in the organism. The subject is one which cannot be discussed in its broadest sense if one's argument is strictly confined to morbid changes in the anatomy alone, for so intimately associated with every phase of genital disease are the peculiar mental states excited through phenomena of the sexual passion, that this influence must be considered in the production of every symptom.

The proper relation of nervous disease to the various organic functions can only be developed by drawing upon lines of comparison the relative frequency with which a complex of symptoms becomes associated with any disorder. By such method does it seem demonstrated beyond question that the greatest complexity is in connection with the genital system. Not only does this hold true in any comparison possible, but the manner in which the genital organs perform their function marks them as having an influence much wider in scope of symptom than appears in any other connection. By this comparison there also appear certain characteristics connected with genital function that require the expenditure of nerve-energy beyond that which is necessary to properly sustain any other function of the body.

Every office the genital organs are required to perform is one of a periodic or epochal nature, interrupting at once the mental and physical state of the animal organism. At the time of puberty the temperament and physical constitution of the female is subject to an entire revolution, while with every recurrence of her period of ovulation sufficient of the mental and physical symptoms return to cause a marked degree of disturbance in the entire system. Ovulation is, however, but one of the offices the genital organs must fulfil in the economy of sexual life. There are essentially eight, and these are properly termed the *genital crises of woman*, viz.: (1) the establishment of menstruation at puberty; (2) the menstrual period; (3) marriage; (4) pregnancy; (5) abortion; (6) parturition; (7) the puerperium; (8) the menopause. All of these periods are not only critical to the physical being of woman at the time of their onset, but a degree of systemic reorganization is required as their influence is passing away.

We find still further a peculiarity connected with the genital organs in contradistinction from other regions, in that the anatomy or function of those parts having to do with procreation are not essential to animal life. While these are largely instrumental in influencing the course and temperament of individual character, their development and function are both largely subservient to a proper maturity of the animal,[2] and throughout the period of continued activity their condition appears to be largely dependent upon the general economy.

It would seem that from these characteristics of the genital function sufficient pathology may be developed to form a basis for the etiology of disease without entering in detail upon the minutiæ of anatomy; for, indeed, in our present state of knowledge the anatomy of nerve-supply to the genitals is not sufficiently understood to show any appreciable differences between this and any other region of the body. The only characteristic of the nerve-supply to the entire pelvis that is worthy of note is the greater length and size of the trunks that are made necessary from the bifurcation of the spinal cord at a point above where the trunks make their exit from the spinal canal.

Clinical observation does not teach us that nervous disease of genital origin so often depends upon affections of the trunks of direct supply as upon other causes; for, while these sometimes become the seat of abnormal sensation, genital nervous disease in its entirety quite as often becomes manifest in remote central ganglia or viscera through various channels of conduction, as in any other manner. It is always the sympathetic system that is first to feel the impress of abnormal action, and through the mutual sympathy thus established between one function and another, any disorder in one becomes transmitted to its center of greatest attraction. With the genital function in particular this center is either the central nervous system, or those viscera that by nature more readily respond to stimulus of any sort, as in the heart, stomach, respiratory organs, etc.; or if some organ has become weakened through previous disease, it seizes upon this. The disorder having found the most vulnerable points in the system that can be attacked, the symptoms which become apparent correspond in every particular with those that appear when these are the primary seat of actual disease.

Rather than enter upon a general discussion of genital nervous disease, I shall confine my remarks to the pains which become apparent under the influence of genital action; for it is these disorders that have most forcibly impressed me in clinical observation as marking the premonitory stage of grave and more serious nervous disease. In the greater majority of cases the graver form of neurasthenia is preceded for a long eriod by a series of transient and radiating pains in arious regions of the body, which yield readily to imely and proper treatment; while in the graver form ecovery under the most favorable conditions is a most edious process.

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[1] Read before the New York State Medical Association, October 18, 1898.

[2] "Menstruation should begin . . . . when the woman is maturely developed, no matter what the age may be. Increase of size may take place by growth after puberty, but all of the organs of the body should be completely developed, so far as form and structure are concerned, before the function of menstruation is taken up." Skene, Diseases of Women, 3d edition, 1898.

From their etiology we may divide the pains of enital origin into two classes:—First, as pains in the ierve-trunks of genital supply, or neuralgias that be-ome apparent in the various parts of the genital sys-em—pelvic neuralgia proper. Pains of this order nay be excited through mechanical pressure, tension ipon the nerve-terminals through hyperpelvic conges-ion, vasomotor disturbances in its nutritive supply, or toxemia from either chemical or septic infection in he genital tract. The seat of these pains is usually in he ovary, or deeper pelvic structures, or in the deep iuscular structures of the inguinal, gluteal, or lower bdominal regions, or they may extend down along the ourse of the sciatic nerve. Like other neuralgias, they re more prevalent in subjects of the gouty or rheu-iatic diathesis, but they may become manifest in the iost robust of physiques, who suffer from any disorder f the genital organs. Not always are such neuralgias f purely genital origin, but when traceable in their nset to a time when genital disorder first became pparent, or if the pain becomes heightened during a eriodic congestion, and in mild cases it becomes ap-arent only at this time, we may conclude it to be of enital origin. This form of neuralgia almost invaria-ly follows gonorrheal infection, though the attack iay have been so mild as to have left no other appar-it symptom.

The second form of genital pain seizes upon the spi-al and ganglionic nerve-centers, or various centers of ie brain, or it becomes manifest as an element of the mpathetic reflex disturbance of the viscera. It is a ansmitted impulse, selecting that region of the central ervous system or those viscera that, for reasons before ven, become a center of attraction for any disorder isting throughout the entire economy. Thus the at of this form of genital pain is in the lumbar, dor-l or upper cervical region, or it becomes manifest as feeling of weight and pain at the cranial vertex or isal region. In the viscera such pains follow the neral law in localization that govern the visceral sturbances which become apparent under the influ-ice of pregnancy, or a genital disorder of any sort, the dinary functional disturbance being replaced by pain, pain is associated with the derangement as its most onounced symptom. Thus the gastric disturbance comes a gastric neuralgia; the functional heart-de-ngement has, as its most prominent symptom, neu-lgia in the precordial and left intercostal regions, or, rough the ramifications of the solar plexus, the flatu-it disturbances give rise to a series of multiple intes-al pains. The pains of genito-reflex nature may come apparent in any remote organ or region of the body, either as a direct reflex disturbance of function, acting as an irritant to the sensory filaments of supply in the affected viscus, or they may be the secondary result of an irritating and altered glandular secretion, as from the hyperactivity and acid gastric secretion we get the familiar heartburn and migraine, or from the acid salivary secretion of pregnancy, caries of the teeth, and the familiar neuralgia of the fifth pair.

The genital affections that produce reflex disturbance and pain are the regular physiologic congestions and all the minor pelvic affections of the entire genital system, such as the urethral caruncle, urethritis, lacerations of the perineum and cervix, metritis and endometritis, ovaritis and salpingitis, and the milder forms of parametritis. Seldom do we find them in their purest state associated with the major pelvic affections, or if present they become marked by the symptoms of graver form. Plainly, all the minor genital affections are a source of irritation to the filaments of genital supply, and the impulse becomes transmitted and manifest in either the conductor, the nerve-center, or the viscus, whose vital powers of resistance are at the lowest ebb.

This second form of genital pain never becomes apparent except in subjects in whom there exists some constitutional predisposition or a neurosis of the central nervous system. Presumably, by far the greater portion of such pains are to be classed among the "hysteroneuroses," for by this we understand not a pathologic change in any nerve-tissue, but a functional derangement of the cerebrospinal axis, characterized by either special mental symptoms, altered sensation, vasomotor disturbances or visceral disorders, or all of these combined. The pains, therefore, in such a class of disorder are to be regarded as but a symptom of the central neurosis, which is incited to abnormal action through some influence of deranged genital function.

The relation of genital disorder to nervous derangement and pain is most forcibly emphasized from the clinical point of view by a recital in brief of a few of the simplest cases I am able to select bearing upon this subject, appending finally such remarks as may seem necessary to more particularly develop the chief features of relationship. I recite these cases, not because their history or the clinical phenomena are remarkable, but because they are so typical of our every-day practice, the physicians previously attending them never having applied any genital therapeutis, of which the simplest would have been sufficient to afford relief.

CASE I.—Miss M., aged 19, single, of good general physique and health, was without apparent hysterial or neurotic tendency. Menstruation first occurred at 13, while she was employed as a general helper in a laundry. One morning while at work she felt a sense of warmth about the vulva, and upon examination discovered blood upon her drawers and herself flowing. Thinking some accident had befallen her, she took off her drawers and washed them, replacing them while cold and wet; she saw no further sign of flow, but was ill in bed for three days, although she did not inform her mother, from fear of causing her alarm. With each menstrual period since this time the patient has suffered from pronounced prodromal symptoms, of which the chief feature has been severe lumbar pain and severe pain extending down along the right thigh. These have been so severe as often to incapacitate the girl from work. She is comparatively free from pain during the intervals between her periods. She has comparatively slight true dysmenorrhea, and one sister menstruates regularly without pain. Physical examination made by previous physicians and by myself reveals the uterus in its common position, with an absence of parametritis, or excessive tenderness about the vaginal fornices. The patient has been treated for long periods for neuralgia and a rheumatic tendency, without effect, usually having to resort to morphin hypodermically during paroxysms. Upon first coming under my observation I practised the same therapeutic measures that had been previously tried, and with the same results, until it occurred to me that the case was probably one of vasomotor disturbance arising from the initial exposure at her first menstruation. After this I tried the prolonged hot bath, and a hot vaginal douche, together with the administration internally of viburnum prunifolium. This method I put in vogue at the first appearance of pain or prodromal symptoms, before any flow was apparent. The effect was complete relief, and the patient has practised this method at various times ever since its first trial, in July, 1895. During several successive periods she has had to resort to no treatment, but on cessation for any length of time the attacks are inclined to recur with increasing severity.

Case II.—November 3, 1897, I saw Mrs. J., married, nulliparous, quite robust, with a good family-history and social position, who gave a suspicious history of having received mild gonorrheal infection shortly after marriage. Her first menstruation occurred at 11 years, the flow continuing for 5 days, and being dark-red in color. She constantly had a moderate pain in the right inguinal and lumbar regions and extending down the right thigh in the sciatic region. The pain was heightened and became quite severe for a few days preceding, during, and after the menstrual flow. The patient had been treated for rheumatism for long periods. Physical examination revealed the uterus in its common position. The relation of the body and the cervix was that of normal anteflexion. The uterus was slightly enlarged, the cervix tender, the uterine body sensitive to touch. Tenderness and slight thickening were appreciable about the right vaginal fornix and the ovary. The treatment consisted in the application of iodin tincture to the uterine cavity and the vaginal fornix, and gauze tamponade wet in boroglycerid, containing one dram of chloral hydrate to the ounce. This was removed in 48 hours, to be followed by a large hot vaginal douche each night upon retiring. Relief was complete in 3 weeks, but there has been a tendency to recurrence, yielding again, however, to the same therapeutic measures.

Case III.—Mrs. P., the wife of a physician, was of a slightly hysteric and neurasthenic temperament. Her family-history was tuberculous, and the patient had never been of very robust physique. Some 10 years previous to coming under observation she was subjected to a difficult instrumental delivery, without an anesthetic, from which she sustained an extreme laceration of the cervix, involving the right vaginal fornix. Physical examination revealed a tender and congested cervix, with granulations. The cervix was drawn to the right side by a cicatrix at the vaginal vault, and a large amount of thickened cicatricial tissue was apparent in this region. Adhesions and evident parametritis were present, all about the uterus and the entire pelvis, extending, in a matted nodular manner, to the inferior border of the ribs on the right side. Some four years before, the patient had developed a tumor in the right iliac region, with all the accompanying signs of appendicitis. She was seen at this time by several prominent surgeons and operation for appendicitis was advised, but refused from day to day until rupture occurred, with discharge of pus through the genital outlet. As a result of this there has remained exquisite tenderness in that region and about the abdomen, and the matting referred to as having been found on physical examination probably resulted from this. The patient has had frequent attacks of colitis, but from time to time she is subject to severe paroxysms of pain in the right inguinal region; any attempt at examination through the vagina being sufficient to develop the paroxysm. These attacks are of indefinite duration, lasting from hours to days, and with their continuance for any period there appear constitutional disturbances, with rise of temperature from 99° to 102°. With any physical derangement, this same rise of temperature occurs, and the patient has had several slight pulmonary hemorrhages, showing evidently that this is from a tuberculous or septic cause constantly present. The patient has been coming to me regularly during these paroxysmal attacks of pain for a period of 2 years. The treatment applied has consisted of tincture of iodin to the vaginal fornix, and about one dram of the familiar gallo-tannic acid, 1 to 3, applied dry. The effect of the treatment has been complete relief in every instance, within a period of 30 minutes, and with the subsidence of the pain the temperature shortly falls to normal and the patient feels perfectly comfortable.

This case most forcibly illustrates what an influence is exerted upon the general system through hypercongestion of the pelvis. While from the history we are compelled to acknowledge that there is obscurity regarding the exact pelvic and abdominal conditions with which we have to deal, there can be no doubt that the paroxysmal attacks are largely induced through the hyperpelvic congestion and terminal irritability. The rise of temperature follows in natural sequence from the interruption of the stable blood-pressure, permitting the tuberculous or toxic element to gain the ascendancy for a brief time. This patient is aware of her critical condition, and through all inclemencies of weather, and regardless of her physical suffering, leads a most active out-of-door life, riding with her husband and assisting him in a most active medical practice. She has been under the observation of many of the foremost gynecologists and surgeons in this city, and this simple treatment with the stimulating effect of the tincture of iodin combined with the powerful astringent afford her complete relief, while any more active measures, such as the tampon, etc., which have been repeatedly tried, exaggerate the condition; and internal medication has proved useless.

Case IV.—In 1893, I saw Mrs. F., aged 37 years, a quintipara of comfortable social station. A pronounced hysterial temperament pervades her entire family. Menstruation was regular, normal in amount and color, in duration 5 days. She had always suffered with some dysmenorrhea, with lumbar and inguinal pain, and a feeling of weight at the vertex with each period. At the first delivery, 15 years previously, the patient suffered an extensive laceration of the perineum, from which have followed pronounced rectocele and cystocele, with constipation and difficulty in micturition. With the lapse of time and successive pregnancies the patient has gradually been developing more and more pronounced hysterial and neurasthenic symptoms, with all the accompanying pains, until her condition has become such that hystero-epileptic seizures are not infrequent; cardiac and gastric disturbances with flatus have appeared, and pains have been constantly present along the course of the spinal column, most pronounced in the lumbar region and in the precordia. There have been also frequent attacks of migraine. All of the symptoms become heightened during the menstrual period, and the patient usually takes to bed. Physical examination of the internal genitals reveals an enlarged uterus with some endometritis and prolapse. On September 20, 1893, curetment was practised, with repair of the perineum. Following the operation, upon the same evening, the patient developed several hystero-epileptic seizures, which were controlled by hypodermic injections of morphin, with no return. She now had a protracted period of recovery, and for 6 months did not seem to improve at all, after which she began gradually to regain her normal temperament and physical health. Shortly afterward she became pregnant and was delivered of a healthy child by the breech, n May 20, 1895, 20 months following the operation. She as since been delivered a second time and no return of the ymptoms has taken place, except for a transient attack of umbar pain.

I recite this case because it is the usual clinical pic- ure that accompanies the hysterial temperament. he pains, usually the feature most lightly regarded, ppear for a long period before the graver symptoms. n this case they had been present and gradually in- easing for many years, and the patient had tried many ifferent physicians. The source of irritation was, no oubt, a terminal one, existing in the extensive lacera- on and cicatricial tissue about the perineum, increas- ng in corresponding degree as the rectocele and cysto- le became more pronounced, reaching their climax as e uterus became involved.

In a case operated upon in July, 1898, the onset was udden, from an extensive laceration of the cervix, in- olving the vaginal vault. The symptoms were of a ore pronounced nature and followed upon a difficult strumental delivery 7 years previously, when the atient was but 16 years of age. These cases need not e enlarged upon to illustrate the features of genital fluence as the causative agent from which the nervous rangement arises. It is a feature present in all, that e exact lesion or manner in which the pain is pro- uced is not clear, but in them it is not more obscure an is the pain of dysmenorrhea. We have not yet rived at that perfect understanding of the anatomy nd physiology of organic action that reveals the cause pain when associated with any organic function. earing in mind the fact that it is often through clinical servation that these points are cleared of obscurity, e have reason to recite and enlarge upon our experi- ce in the hope that these points will be rendered ear to the interpretation of all.

The cases recited are typical in that the nervous sion in each was produced by some minor genital ection. Prof. Hector Treub[3] has particularly drawn tention to this fact, in a special paper upon the treat- ent of pelvic neuralgia. His conclusions in the main e that pelvic neuralgia is never observed prior to berty, and that it is but a symptom of hysteria, in- ced by states that disturb the pelvic circulation or gment the ovarian function. With his argument in e main all must agree, but that a pelvic neuralgia ne is always a symptom of hysteria seems rather to eclude the usual problems of neuralgia from mechani- l causes or the known influence of atmospheric con- ions or exposure that are particularly patent factors disturbing the genital function.

The treatment of genital neuralgia, or the reflex dis- bances so commonly present in genital disorder, inly involves measures directed to the general con- tution, the central nervous system, and the genital order. The hysterial temperament is apparent in both the indolent and the energetic, and the environment must be selected to suit the circumstances of each individual case.

Plainly with the constitutional state the method of procedure is clear to all. For the relief of hysteria or quieting the generally irritable nervous system I know of nothing that surpasses the hot bath, especially if the patient be a stout, flabby subject. This, replaced by the vapor-bath and massage if there be a tendency to indolence, is advantageous in improving the nutrition and tone of the superficial nerves and the central nervous system. Cold bathing in genital disorder I believe is almost universally to be condemned, beyond a few brisk spongings of brief duration down along the spinal column, and this only at intervals far from the expected menstrual period. The pathology of all hydrotherapy is plain in genital affections. The condition is one of deep pelvic congestion and vascular tension, upon which heat acts as a relaxant and equalizer of the circulation, with superficial dilatation. Cold directly is, on the other hand, a contractor, and in the supersensitive nerve-irritation of the hysterical subject, it exceeds the judicious bounds of stimulation and becomes a direct irritant.

With the local genital affection we are sometimes necessarily in doubt as to whether we have to deal with the condition of hyperemia or anemia of the pelvis. Irrespective of whether it be the one or the other, the presence of the tamponade of boroglycerid, by separating the vaginal walls, lifting up and altering the position of the cervix, gives relief by releasing the nerve-tension. The results from application of a tamponade in nearly all cases far exceed any moral influence that can be attributed to it. Then, too, when we have an abnormally irritable nervous temperament, the boroglycerid tamponade, containing one dram of chloral hydrate to the ounce, is all that is necessary to control the condition. As an astringent for cervical congestions the gallo-tannic acid, 1 to 3, far surpasses any of the metallic astringents, without the dangers of chemical toxemia, which alone are often sufficient to produce a parametritis of some degree.

For parametritis and adhesions, as well as for metritis, none who have ever tried pelvic mechanical manipulation can ever doubt of its efficacy. Seizing the uterus bimanually and exerting a series of passive motions to and fro may be likened to a series of nerve-stretchings, while the effect upon the circulation and nutrition is not unlike that of the force-pump and exhaust. The mechanical manipulation is best always followed by tincture of iodin and a boroglycerid tamponade.

The operative therapeusis of genital nervous affections is confined to plastic surgery, removal of urethral caruncle, evacuation of cyst, curetment, etc. In all plastic operations the essential is removal of all cicatricial tissue and careful adjustment of the flaps with a clean line of suture. It is not to be presumed that the

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ritish Gynecological Journal, November, 1895.

greater majority of genital neuralgias are to be relieved permanently by simply a resort to genital therapeusis; for admittedly the same constitutional states that predispose to neuralgia, in general are elements that contribute a share in producing neuralgias of genital origin. How many and how exhaustive are the number of such cases that are exaggerated by, or find their origin in, some terminal irritability of the genital system one cannot realize who has never practised genital therapeusis for their relief.

I think the neurologists will agree with me in the assertion that neurasthenic exhaustion more often prevails in subjects of an hysterical temperament, and that it is often difficult to discriminate in all cases which is the main element to be attacked. Such subjects suffer from cold extremities and a generally lowered vitality greatly at variance with any heart-lesion or so-called weak heart. To my mind the condition is really one of mild toxemia of sympathetic origin, from inability to carry off the waste of normal tissue-metabolism. In these cases it is the generally prescribed formula to give strychnin. I cannot agree with such a method and believe strychnin in a majority of hysterial cases to be directly harmful and a nerve-irritant. In caffein-sodium salicylate we have a stimulant, antitoxemic solvent and eliminant, that is all that can be desired. Given in 2 or 3 grain doses every two or three hours till the effect is produced, and then diminished in frequency to thrice daily, it can be continued as long as desired, until the other measures shall have taken effect.

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NECESSITY OF EARLY RECOGNITION AND TREATMENT OF NON-EXUDATIVE INFLAMMATION OF THE MIDDLE EAR.

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The nomenclature employed by otologists in writing of the pathologic condition of chronic deafness *unaccompanied at any stage by exudation*, is not uniform. Politzer writes of it under the name of "catarrhal adhesive process of the middle ear"; McBride as "chronic non-suppurative inflammation of the middle ear"; while Sexton omits the word "inflammation," and treats of it simply as "chronic catarrh of the middle ear." Barr retains the word, and speaks of it as "non-exudative or interstitial inflammation of the middle ear." Roosa writes of it at considerable length as "chronic non-suppurative inflammation of the middle ear," but divides it into two classes or varieties—"catarrhal" and "proliferous." The pathologic condition described is, however, the same—chronic deafness of inflammatory origin without a previously suppurating or acute stage. Obviously there must be an acute stage in every chronic morbid process, yet so insidious is the onset and early progress of chronic middle-ear disease and the deafness resulting therefrom that it is ordinarily quite impossible for patient or physician to locate its beginning in point of time. Few otologists, probably, enjoy the rare good fortune of being consulted by patients when the disease is in its initial stage. It is greatly to be regretted that this is so generally true. Equally is it a matter for regret that otology so frequently comes in for criticism at the hands of our confreres in other departments of practice as a well-nigh valueless or impotent agency in the *treatment* of this class of cases. Only recently I heard a physician of scholarly and broad attainments, who justly occupies a position of large local prominence, but whose acquaintance with clinical otology has been very limited, remark that it "was *usually* a waste of time and means for patients with confirmed deafness to consult otologists, because they never did them any good." Such belief is inaccurate and its expression most unjust. Satisfied that such belief is shared to a large extent by the laity and in a lesser but still important degree by our colleagues engaged in general practice, it has seemed to me desirable to indicate briefly some of the more prominent reasons why dissatisfaction with the results of treatment in this class of cases is so frequently experienced.

Ordinarily we do not have a fair or *timely* opportunity. All writers are agreed, I think, in believing that chronic deafness of the character that it is proposed to consider in this paper, is of catarrhal origin, resulting in interference with the functions of, and causing changes in, the structure of the ossicles, the fenestræ, or the muscular attachments or connections (usually the tensors, laxators, or stapedius) of the middle ear. It is not to be understood that all these parts are simultaneously affected, but that the modification or loss of function of *some or all* of them is the dominating etiologic factor in the causation and continuance of chronic non-exudative deafness. Change in structure, it is believed, attends upon, but does not usually precede, modification of function. Eustachian inflammation or stenosis is not always present in these cases when they first come under observation. Indeed, experience has led me *not* to expect to find it in the majority of cases. The eustachian tubes are usually permeable throughout. That stenosis at the pharyngeal or tympanic orifice, or both, may have existed for a considerable time and have been the leading provocative factor earlier in the case is probable, and generally is true; but it is to be noted as an interesting and curious coincidence that, as the tympanic cavity became more and farther involved, obstruction in the eustachian tubes was found to be greatly lessened, or to have subsided altogether.

The phrase "of catarrhal origin" is employed to nclude (*a*) an hypertrophic and (*b*) an atrophic pro- ess, and is believed to be in substantial accord with he classifications recognized by the leading writers. arr divides these cases into two classes, thus: (1) hose in which the symptoms point to a distinctly atarrhal process, and (2) those in which there is an bsence of marked catarrhal symptoms, which he characterizes as "sclerosis of the middle ear." Roosa, how- ver, refers to the same conditions as (1) "catarrhal" nd (2) "proliferous." In the second class, which is ather comprehensive, he includes the entire product f the catarrhal process, viz.: Connective-tissue forma- ons in the tympanic cavity; fibrous degenerations; ypertrophy of bony walls; tubal and tympanic ob- ructions of adventitious development; exostosis; nkylosis of the malleo-incudal articulation and of the apes in the "oval window"; atrophy of the tensor uscles; thickening and calcareous deposits in the roma of the fenestra rotunda; and the various pos- ble membranous growths in the tympanic cavity nd tubes. It will be observed not only that the proliferous" stage embraces the entire product of e catarrhal process, but that such products are rgely of the hypertrophic variety.

A theory has been advanced that hypertrophy and rophy are only different stages of the same patho- gic condition. Support for this theory is sometimes und in nasal disease. Rhinologists frequently find e mucous membrane of one naris hypertrophic, with mmencing or well-advanced atrophy in the other. may be reasonably presumed that in such cases rophic degeneration of the membrane has followed a eviously existing hypertrophic process.

Attention at this point is invited particularly to the ct that, although the deafness complained of had its igin in catarrh of the naso-pharynx, involving part all of the eustachian tubes, nevertheless, when the se first comes under the otologist's observation, idence in those organs of the primary disease may t then exist. Whether the changes in the contents the tympanic cavity, which Roosa styles "prolifer- s," followed as the result of abnormal condensation, d contraction of the lining membranes and muscular d ligamentous attachments consequent upon a pre- ous stenosis of the tubes, or are due to a catarrhal ocess affecting the cavity directly by way of the arynx and tubes *by reason of continuity* of structure, ll not be discussed now. Many otologists believe at they have seen cases of chronic deafness of the iddle ear in which nasal, pharyngeal, or tubal in- mmation never existed, or, if existing, in such ght degree as to be incompetent of grave aural mis- ief,—that they were "sclerotic," or according to osa, "proliferous," from the very beginning. I do t understand how this condition could obtain, not- thstanding the support that is lent this view by von Tröltsch, Toynbee, Barr, Roosa, and many other eminent otologists. It would appear to be more probable that such cases were not seen till long after the pharyngeal inflammation had subsided or disappeared and tympanic changes were well advanced. Aural patients are, as a rule, notorious procrastinators. Most otologists are agreed as to the small measure of clinical value that it is safe to attach to many of their statements as to previous conditions of health. They naturally fail to realize what may be called the "pivotal points" in their cases, or if realizing, are likely to retain only confused and inaccurate recollections of them.

This point it is desired to particularly emphasize. Observation of many hundreds of cases of this class among patients in the "out-department" of hospitals, as well as in private practice, covering over a period of several years, during which special efforts were made to get as accurately as possible the earlier histories of their aural troubles, has forced the conviction that in nearly every one of such cases of chronic deafness *due to non-exudative inflammation of the middle ear*, there was a stage in which appropriate treatment might have arrested the progress of the disease or removed it entirely. That such happy terminations were not more frequently observed is not a reproach to otologists, but rather a tribute to the folly of the patients themselves in not sooner seeking their services. If patients could be impressed with the importance of seeking assistance at the inception, rather than in the midst of their aural troubles, less criticism would be heard, because better results would be attained. We ought, in all fairness, to have the opportunity to prevent what later on may become impossible of cure.

Roosa[1] has strikingly described a class that well represents the type of patients with which every physician in aural practice is only too familiar. In speaking of their lack of appreciation of the time that any course of treatment, to be of probable benefit, would require, he says:

> "One of their family has been a victim of chronic aural disease for a period varying from 2 to 20 years, and they have at last, at the request of the family physician, screwed themselves up to the courage of consulting a specialist. They come in town for a day's shopping and call upon the doctor, meanwhile always being in a great hurry and sending word to the consulting room that they have come 50 miles to see him. . . . . . When the almost bewildered physician sits down to lay out a plan of treatment and correct the improper habits of life that have induced and maintained the disease, he finds that he is dealing with persons who expect magic ear-drops, vibrators, or some mysterious and quickly acting agent that will restore the hearing in the interim of a rest of a New York shopping excursion."

To this very pertinent description of perfectly familiar visits, it might be added that such patients usually grumble at paying an examination-fee, because their hearing has not been restored forthwith; and they do not all live "out of town," either.

These procrastinating patients plead in extenuation of their folly that they were not conscious of having aural trouble until it was well advanced. To a limited extent, and in a certain sense, the disclaimer is legitimate. But such patients are very likely to tell us that for a considerable time antedating their deafness they were annoyed by a feeling of "fulness" in one or both ears, "pressure"—a "stuffed-up" sensation, "noises," "ringings," etc. An intelligent young lady recently informed me that for nearly two years she had been "bothered with noises and ringings" in her ear. She had never seriously thought of consulting an otologist, however, though urged by her friends to do so. When she finally came for consultation it was because of increased tinnitus that had now become very annoying, but she complacently assured me that "her hearing was all right." Examination did not, unfortunately, sustain the accuracy of her statement. Hearing in one ear—in which the tinnitus was most pronounced—was reduced below the normal standard fully one-third, while there was a noticeable diminution in the hearing-power of the other ear. It would seem that an intelligent person might suspect, without being specifically instructed, that a continuing sensation of "fulness" in one or both ears, or "noises" and the like, were symptoms of ill-omen. There does not appear to be any line of reasoning, however specious, that could possibly convert them into either favorable or inconsequential symptoms. In the presence of suspected aural mischief, what sensible excuse can be assigned for deferring consultation from month to month until years have elapsed, especially in recent times, when *free clinics* so greatly abound and are in almost riotous rivalry for clinical work? But these are the sort of patients who criticise us most loudly and bitterly because of our inability to work miracles and give them instantaneous restoration of long-lost hearing-power.

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[1] Diseases of the Ear, p. 412.

It is a great misfortune that hearing is not equally affected in both ears and at the same time. In such case decreased perception of sound would make patients quickly conscious of their condition and, presumably, induce them to seek relief promptly. Unfortunately, in the form of deafness we are now considering, one ear alone is usually affected, normal perception for sound being maintained through the vicarious action of the unaffected ear. But even when conscious of lowered hearing-power in one ear, there is no assurance that relief will be sought. People thus affected are prone to felicitate themselves upon their good luck in having one ear that is normal and trust to the "outgrowing" delusion for betterment of the other. There is not in the whole catalog of abuses of the aural organs a more bitter error than this. How can people be made to understand that impaired hearing in one ear is a perpetual danger-signal of probable similar trouble in the yet unaffected ear? A little reflection ought to convince even a non-medically trained mind that if the cause of impaired hearing continues operative, it is reasonable to expect it to eventually involve both ears. Notwithstanding that this proposition appears self-evident, I am not unaware that its correctness may be, and has been, challenged. But it is sustained strongly by some of the latest writers. Barr,[2] writing in 1896, says: "After hearing of one ear has become seriously impaired, *the other usually begins to be affected*, and it is not infrequently found that the second ear, before long, becomes more seriously involved than the first."

What is to be said to, or attempted to be done for, patients who apply for assistance after ankylosis of the contents of the tympanic cavity is well advanced? Individual otologists will doubtless continue to answer this question as they do now, according to their belief and best judgment. They are mainly divided into two classes—one believing that nothing that will afford material benefit can be done; whereas the other class holds firmly to the possibility of accomplishing much for such patients. The exchange of compliments between otologists holding opposite views on this question is not always accompanied by that measure of courteous consideration that should obtain between educated workers in unpreempted fields. Until the X-rays are perfected to such a degree as will make a thorough inspection of the tympanic cavity possible and its disclosures as exact and definite as are now obtained of the fundus oculi with the ophthalmoscope, the prognosis in cases of middle-ear ankylosis *must* remain open to more or less doubt. As yet there can be here no royal preemption; the field is still every man's (otologist's). Even with our present and unsatisfactory means of diagnosis, we are able to obtain through our tests much valuable information in ankylosed conditions of the middle ear. It can, for example, be determined with a reasonable degree of accuracy whether the malleo-incudal articulation is stiffened, and, approximately, to what extent; whether the "foot-plate" is movable or fixed in the fenestra rotunda; whether the membrana tympani secundaria is in or out of function, etc., etc. But in the present state of aural science, it cannot be *definitely* determined in a given case that the ankylosis is due to osseous adhesions or growths, new connective-tissue formations and similar conditions, which would preclude a hopeful prognosis in respect to material improvement in audition. Because of this, as well as of frequently observed favorable results from treatment, it does not appear that we are justified in peremptorily dismissing a case as hopeless of improvement simply because ankylosis is believed to exist. While "cure" may be out of the question, there are large numbers of patients who would cheerfully give years of faithful attendance for treatment, and liberally of their means for even relief or arrest of the further progress of their aural affliction.

If good is to be accomplished in ankylosed condi-ons, it is obvious, in view of the limited agencies at ir *present* command, that we have nothing that, in omise or in results, rivals aural massage. Notwithanding the division of opinion among otologists conrning its usefulness, its employment is favored by any able practitioners in Europe as well as in our wn country. Abroad, we find among its advocates ich men as Braun, Lucae, Jaukau, Laker and Delsnche, while in the United States may be mentioned eudenthal, Scheppegrell, Lester, Black, Chevalier ickson and, of course, hundreds of others who, ough believing in and using aural massage, have not *mally* gone on record in advocacy of it. There is rtainly sufficient respectable otologic authority in its vor to entitle it, and those who employ it, to thorough vestigation and *decent* consideration.

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[2] Diseases of the Ear, p. 334.

Theoretically considered and entirely apart from pernally observed results, aural massage *ought* to be of nefit in varying degree in nearly every stage of ankysis. It is known to impart stimulus to the circulatory d lymph systems. The results that follow its application may be due either to increase in the circulation to reflex stimulation, or to a combination of both. us in hypertrophies, a quickened circulation favors ore rapid excretion and absorption of redundant tissue adventitious products—a fact that not a few rhinogists believe they have observed through the action vibratory massage in hypertrophic rhinitis. In ophies, massage stimulates the circulation and thus atcts a larger quantity of nutritive force to the part and checks retrograde metamorphosis. Therefore, whether have to deal with ankylosis that is hypertrophic or ophic in character, or, as suggested at the outset of s paper, both are only different stages in the same hologic process, massage would appear to be equally licated.

The question as to choice of methods for applying ssage will not now be considered. Individual judgnt and enlarging experience must determine the thod or methods best suited to the purposes in view. ving employed in the earlier treatment of these cases Siegel and Delstanche instruments, later that deed by Freudenthal, also the pneumatic masseur of evalier Jackson, and still later the electric-pressure nd devised and introduced by Lester, I am not pared, after a somewhat prolonged use of them all, express a preference. They are all employed as the essities of the particular case seem to dictate, in st instances with gratifying if not always entirely sfactory results. In the present transitional state of al science, when success has not more generally nded the various surgical attempts to improve the ring, such as permanent artificial perforation of the panic membrane or its entire excision, with extracof the malleus and incus, or Kessel's operation raction of the stapes), division of the tendon of the or muscle, etc., *I* should not feel that I had discharged my full duty to a patient with middle-ear ankylosis, if, through action or non-action upon my part, the possible benefits of aural massage were withheld from him. It does not seem logical to dismiss a patient as doomed to progressive and hopeless deafness without a persevering effort at improvement by this method *simply because catheterization and inflation were unproductive of benefit.* If the generally accepted theory of the etiology and pathology of middle-ear ankylosis is true, what grounds have we for expecting material benefit from such procedures except as the cases are complicated with tubal inflammation and obstruction?

In the final account, facts greatly outweigh mere theories. While carefully made records continue to show in the larger proportion of cases treated, steady and decided improvement in sound-perception through the application of aural massage (in conjunction with other appropriate treatment when required), many of us will feel it our duty and pleasure to use it. Neither the incredulity of colleagues who refuse outright to thoroughly test its merits or who have failed to obtain the results hoped for from it, nor their criticisms of the method and, inferentially, of those who use it, can be expected to cause others of us to surrender our individual convictions as to its value or discontinue its employment. While recognizing the professional eminence of many of those who thus indulge themselves, I must still be permitted to think that intolerance and *derisive* criticism of legitimately pursued methods in which they do not happen to believe, are neither highly scientific nor ethical.

A REPORT OF SIX CASES OF FUNNEL-BREAST.

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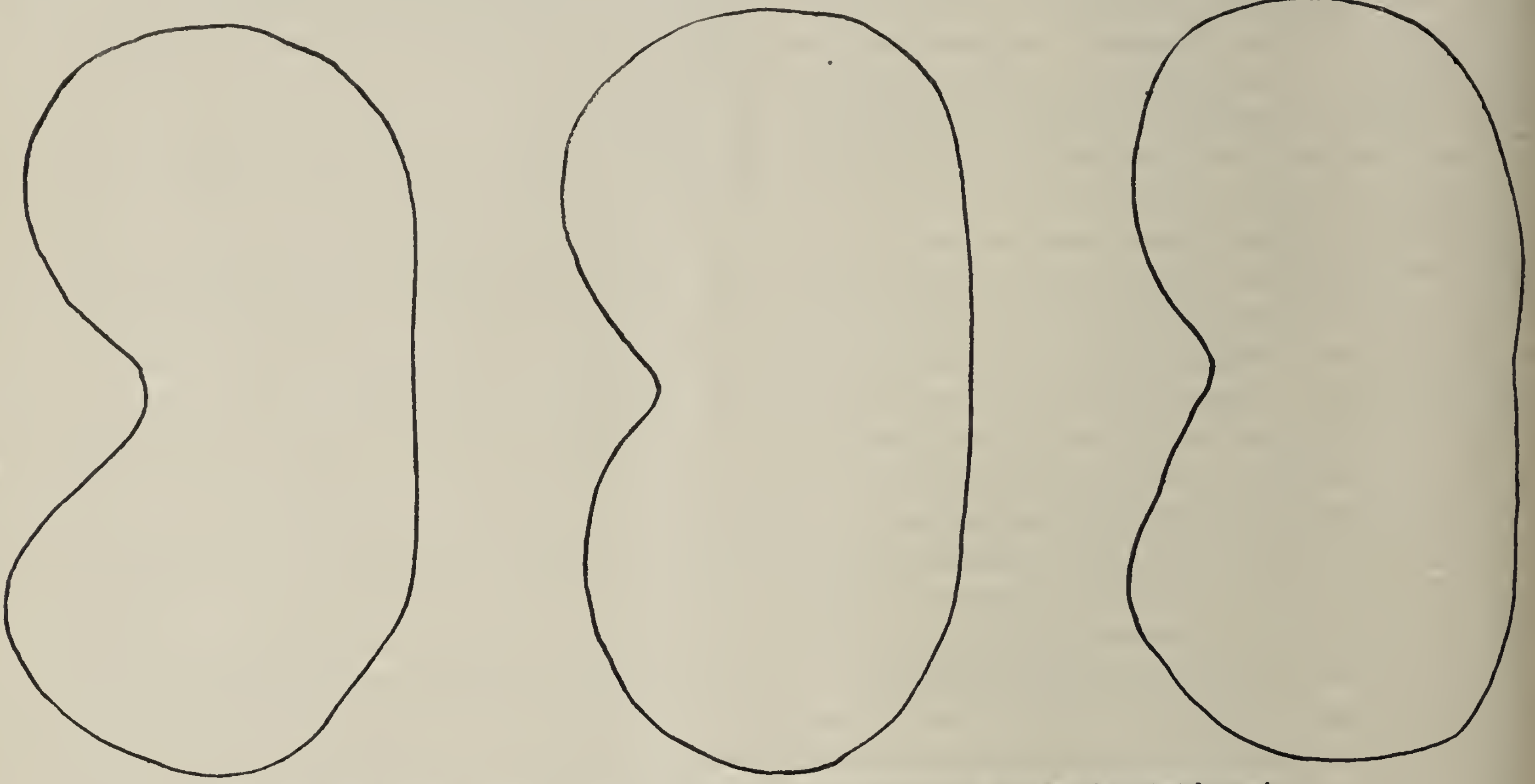
SINCE the attention of the medical profession was specially directed to this deformity in '82, by Ebstein, a condition which was thought to be remarkably rare and of interest only as an anatomic curiosity, has been found to be much more common than supposed, and also of etiologic importance as indicating a tendency towards psychic weakness and nervous degenerations. During 7 years Eichhorst examined 14,000 patients and met 6 cases of funnel-breast. It occurs mostly in men. In 30 cases 23 were men, 76.7%; 7 were women, or 23.3%. The literature of funnel-breast is limited largely to the German. In English journals, some of which are not accessible, several articles entitled "Congenital Deformities of the Thorax," have appeared. A number of cases have also been reported in French periodicals. The only cases of funnel-breast which I have been able to find in American journals are reported by Dr. O. L. Schmidt, of Chicago, and A. Jacobi, of New York City.

The various text-books of medicine and physical diagnosis, such as Osler, Strümpel, Holt, Rotch, Vierordt, Sahli, Musser, Flint, and DaCosta, dismiss this subject with a paragraph.

Ebstein collected from French and German periodicals 5 cases, which had been described under the title, "Rare Deformities of the Thorax." Together with his own case he subjected these to a very careful analysis, with the idea of learning something definite about their etiology, and the role they played in the causation of disease.



Cyrtometer-outlines of chests of father (1), brother (2), and patient (3), at the level of greatest depression.

Because of a fancied resemblance to a funnel, he called this deformity trichterbrust or funnel-breast, a convenient appellation which has been generally accepted. A close study of this limited number of cases led him to the following conclusions regarding the possibilities of its causation:

1. A disease of the osseous structures.
2. A pathologic development of the fetus, due (a) to gross mechanical influences in fetal life, (b) to a morbid direction of the primitive germinal layers.
3. A combination of both the above causes.

A large addition has been made to the number of reported cases since the appearance of Ebstein's original article, and as a result we have better data from which to make deductions. The 6 cases which I report present nothing startling in deformity, but corroborate points on etiology and predisposition frequently made by German writers. Five of these cases are related. They are two brothers, father, and two uncles on paternal side. The younger brother is a member of the '99 medical class of the University of Michigan. It is my custom to show him to my sections in physical diagnosis as a good example of funnel-breast.

Present condition: height, 6 feet; weight, 174 pounds; frame large; musculature good size and hard; subcutaneous tissue of fair amount; skin good color, but showing a few patches of psoriasis; mental capacity above the average. When seen in ordinary attire the patient presents every appearance of rugged health and physical strength. When stripped one is immediately struck by a remarkable deformity of the chest. The thorax is rather long and broad with an antero-posterior diameter unusually short in the median line. Beginning at the episternal notch the sternum gradually approaches the vertebral column, till opposite its junction with the fifth rib it suddenly sinks, forming a remarkable depression which seems almost to touch the spine. The depression is in the center of the sternum. Its sides are formed by the costal cartilages of the ribs and its lower border by the upper part of the abdomen. The ensiform cartilage cannot be felt. With the patient lying on his back, head and shoulders slightly elevated, this depression holds 250 cc. of water.

Dimensions of Thorax.

Circumference.	Antero-Posterior Diameter.	Transverse Diameter.
Axillary . . 97.5 cm. Level with depression . . . . 93 cm.	Right Nipple . . 17.5 cm. Left " . . 16.8 cm. Depression . . . 11.4 cm.	Level with depression . . 32.5 cm.

Length of sternum	16.5 cm.
Greatest depth of depression	6.5 cm.
Expansion	5.5 cm.

The lower lung borders lie over the ninth ribs in the axillary lines. Behind they reach the eleventh ribs. On deep breathing they descend about two inches. Auscultation and percussion are negative. The spine shows no curvature.

Heart, most pronounced beat, probably apex, best seen and felt in the fifth intercostal space 2 inches inside the nipple-line. A more diffuse beat is felt in the seventh intercostal space anterior axillary line. Percussion, no absolute heart-dulness. Heart-sounds and pulse normal.

History.—Patient is 25 years of age, has lived on a farm most of his life, and has done the hard labor incident to his calling, with as little fatigue as his companions. Ordinary labor never causes shortness of breath. He has had most of the diseases of childhood and recovered without sequels. There are no evidences of rickets. So far as he knows he never had an inflammation of the mediastinum. There is no history of disease of the heart or lungs. His parents state that he was born with a striking deformity of the chest. Patient has one brother and one sister. The brother is 30 ears of age and has had a similar deformity since birth. Iis health has always been good, with no history of heart-isease or lung-disease. The father is 61 years of age, and tates that, so far as he knows, he has had this deformity ince birth. His health has always been good, except that uring the past two winters he has had a chronic bronchitis. wo uncles on the paternal side have had a similar deformity s long as they can remember. The mother and sister show o evidence of this family stigma. It is possible that this eformity was present in more remote ancestors, but the atient's father knows nothing of the chest-conditions in his ther or uncles.

The greatest depth of depression in the father is 3.75 cm., rother 4.7 cm., patient 6.5 cm.

I recently found a fairly-marked case of funnel-breast in a tient in the surgical wards. He is of very small statue, 4 et 10½ inches and weighs 98 pounds. The depression is in e middle of the sternum and begins at the fourth rib. It very marked, but not so striking as in the above cases. ie circumference of the chest in the axillas is 77.5 cm., at e fifth rib 73.5 cm. The antero-posterior diameter from e bottom of the depression to the spine of the opposite rtebra is 15.6 cm. (6¼ ins.), expansion 2.5 cm., depth of de-ession 2.5 cm. The patient is 58 years of age and has ways enjoyed good health with the exception of a few inor complaints. The deformity has been present since th. His mental condition is good and there is no history insanity or nervous degenerations in the family.

The great majority of cases of funnel-breast are con-nital. Zuckerkandl,[1] Hagman,[2] Ebstein,[3] Gärffner,[4] bbert,[5] Vetlessen,[6] Kundmuller,[7] Klemperer,[8] Muel-user, Eggel,[9] Flesch, Herbst,[10] have all reported con-nital cases. Of Klemperer's three cases two were others. The condition showed itself in three genera-ns of maternal ascendancy. The 6 cases which I ort are all congenital so far as known, and 5 of them pear in two generations of paternal ascendancy.

A number of cases of acquired funnel-breast have en reported. Zuckerkandl was the first to consider mechanical conditions, such as pressure of chin inst breast-bone during fetal life, as causes. Ribbert roborated this view. In his practice he saw a new-n child whose chin fitted exactly into the depression the sternum. Vetlessen believed that in one of his es the depression was caused by the pressure of the mbs against the sternum during the performance of ficial respiration in a new-born child. Gräffner orts a case of traumatic trichterbrust in a patient ose mother fell and received a heavy blow upon the omen while pregnant. This case of Gräffner's is fetched and imaginary, and is an illustration of st hoc ergo propter hoc" reasoning.

ggel had a case of trichterbrust occurring during first week of life. In Flesch's case the depression an to form during the seventh year. The only cases nnel-breast which I have found in American medi-literature (with the exception of Osler's cases, which spoken of later) are of the acquired variety. O. L. midt's[11] patient, an intelligent young man, began to strength at the age of 22. A cough developed. attention was at this time first called to a gradual ing-in of the lower end of the sternum. At the age 8 this depression, which was to the right of the ian line, had reached a depth of 5.5 cm. The ent was completely incapacitated for work, having lost 1½ inches in height and 30 pounds in weight. At the base of the right lung there were signs of a large bronchiectatic cavity. There was marked scoliosis. Schmidt believes that osteomalacia was responsible for the formation of this funnel-breast.

Jacobi[12] reports a case of unusual deformity of the chest in a girl of 13. The weight at birth was 15¾ pounds, and the child continued to develop well until 2½ years of age, when glandular swellings appeared upon the neck and numerous abscesses developed. After this time the chest underwent a retrograde development, first becoming flattened and afterwards being drawn in, the sternum forming the deepest part of the excavation. The shortest line from the ensiform to the spinous process was 4½ inches. Jacobi believes that this deformity was caused by the extension of glandular inflammation to the mediastinal and bronchial glands and the neighboring parts. Here new hyperplastic tissue was formed, which cicatrized and contracted, and thus checked the growth of the chest and drew in the sternum.

Eichhorst[13] found in a consumptive, 49 years of age, a well-marked funnel-breast. This anomaly had existed 12 years, and was brought on by his occupation. As a railroad employee he was accustomed, in shoving cars, to exert considerable pressure against the sternum. The tuberculosis developed a number of years after the depression became marked.

In the acquired variety of trichterbrust the condition may be the result of traction from within or pressure against the sternum from without, especially during infancy, or in later life if the tissues remain soft. When the lungs are not completely filled with air, as in nasal, faucial, or bronchial obstruction in early life when the bones are soft, the pressure of external columns of air may cause various forms of rachitic chest. Osler believes that in some instances trichterbrust is due to obstructed breathing in connection with adenoid vegetations. He has seen two cases in children in which the condition was in process of development. During inspiration the lower sternum was forcibly retracted, so much so that at the height the depression corresponded to a well-marked trichterbrust. While in repose the lower sternal region was distinctly excavated.

I recently saw a case of obstruction in the larynx in a babe one year old. With each inspiration there was considerable retraction of the lower end of the sternum and along the attachment of the diaphragm to the ribs. This case is analogous to those mentioned by Osler, and if the condition could exist for some years would undoubtedly result in a trichterbrust.

Hutchinson[14] believes that a funnel-breast is a pigeon-chest in which the lower end of the sternum is bound down and prevented from yielding in harmony with the rest of the chest-bones. Retracting pleurisy often causes remarkable deformities of the chest, but never this peculiar funnel-breast. However, it is easy to comprehend how a retracting mediastinitis, drawing in softened cartilage and bone, might produce a funnel-breast. Premature ossification of the cartilages is quite common and prevents the full development of the chest and lungs.

To explain the congenital funnel-breast is more difficult. By some, as Zuckerkandl, it is believed that mechanical causes act in utero. Ebstein believes that in some cases a morbid direction is given to the primitive germinal layers.

One would naturally think that these cases of trichterbrust would be prone to bronchitis, pneumonia, and tuberculosis, because of the obstruction the condition presents to the natural and easy expansion of the lungs. The mother of Klemperer's cases had this deformity and died of pneumonia at 30. Eichhorst's patient, 8 years after the development of trichterbrust, had pneumonia twice without sequels, also two attacks of influenza followed by a severe pneumonia, which was in turn followed by tuberculosis. The majority of cases give no history of lung-disease either before or after the development of trichterbrust.

Klemperer believes that trichterbrust plays a special role as an indicator of a neuropathic tendency and psychic degeneration. In individual cases this is certainly true. In his cases and their relatives he found epilepsy, peculiarly shaped heads and a tendency towards imbecility. Von Flesch's case also had epilepsy. Ebstein's case was paralyzed in both legs. Eichhorst reports a case of an idiotic and paramyoclonic boy with funnel-breast, whose mother was nervous. Glover[15] reports a case of an imbecile boy of 18 who had a marked funnel-breast—the antero-posterior diameter being only 5.5 inches. He could not speak until 5 years old.

Five of the cases which I present are peculiarly free from any history of thoracic disease or degeneration of the nervous system. With the exception of this chest-deformity they are men of splendid physical development and have always enjoyed good health. Their mental capacity is above the average and there is no history of epilepsy, insanity, or nervous degeneration in the family.

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Against Quackery.—The West has furnished additional evidence of its progressiveness. The Legislature of Oklahoma has passed a bill prohibiting the practice of so-called Christian Science in that Territory, and it is believed that the Governor will sign the bill.

CELIO-HYSTERECTOMY FOR THE REMOVAL OF A CHILD FROM A FLATTENED RACHITIC PELVIS.

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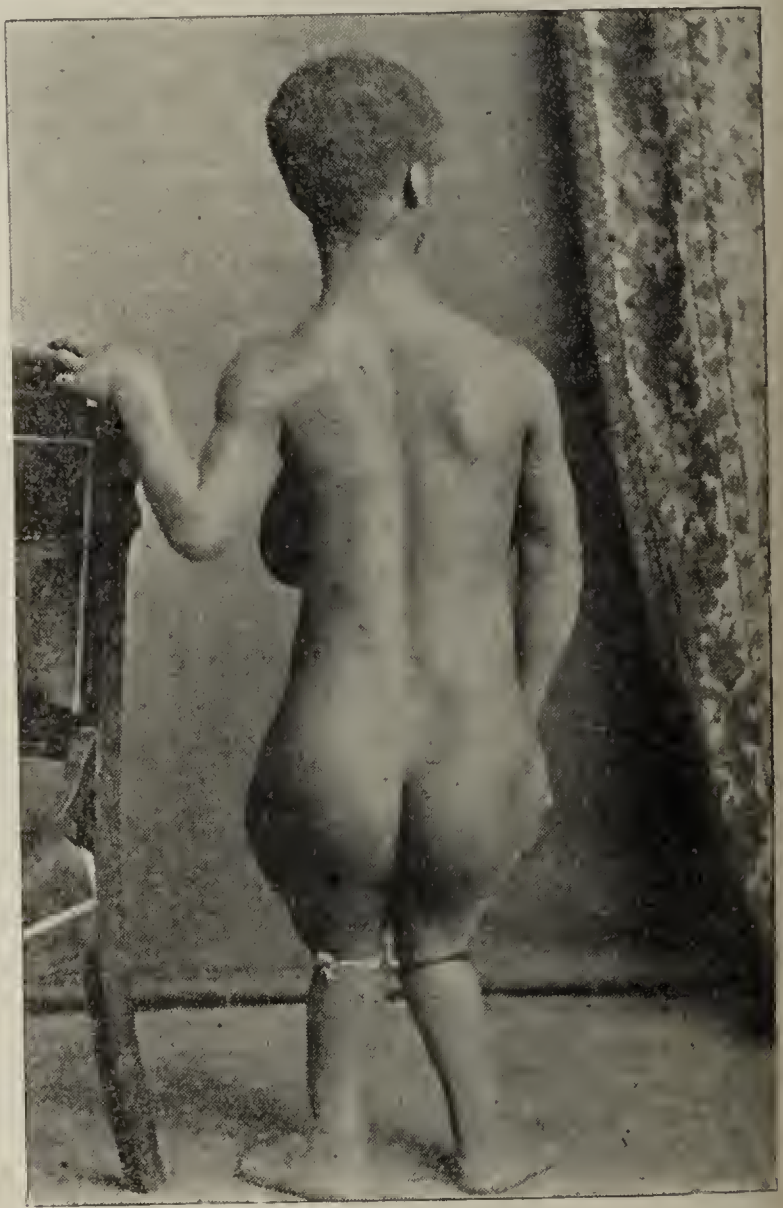
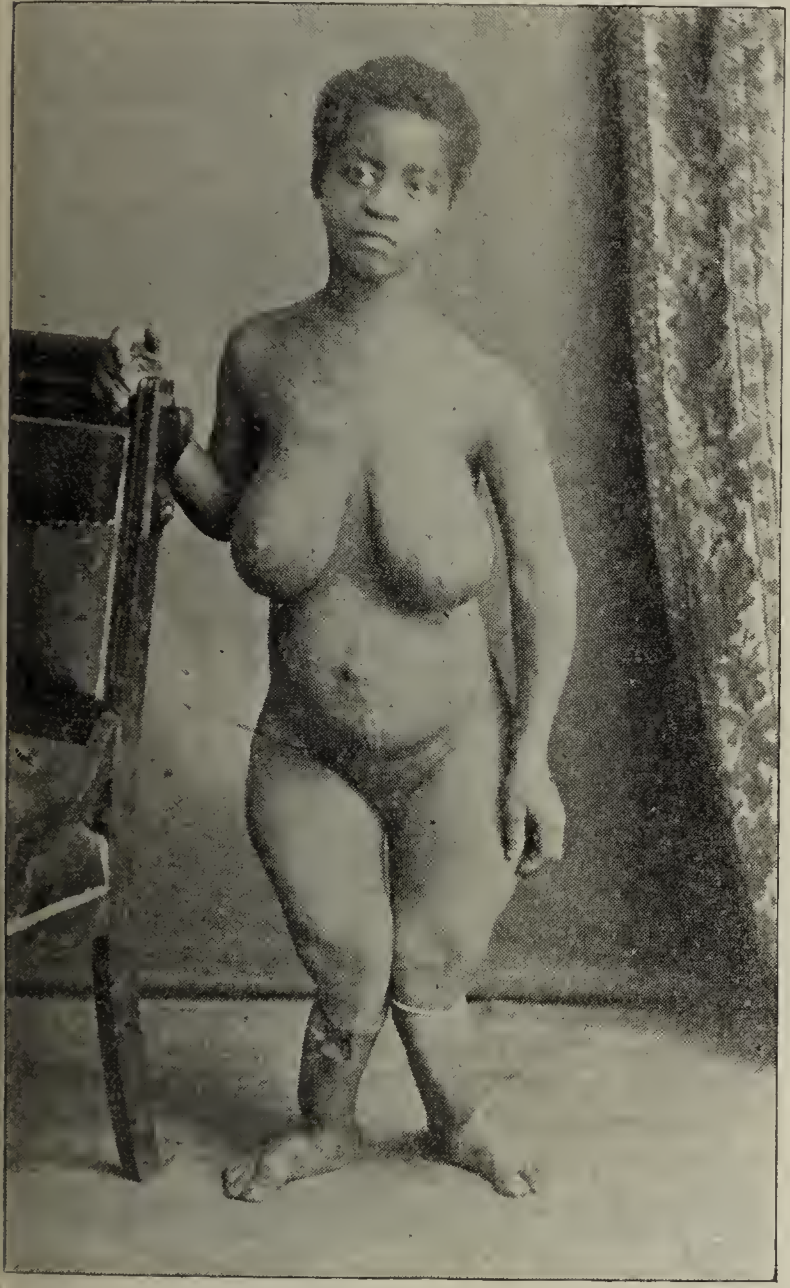
November 5, Dr. Magruder, of Charlottesville, and Dr. Baptist, of Ivy, telephoned that they had seen a case of labor in a dwarf with a deformed pelvis, and had referred her to the University Dispensary Annex. She was put on a train, carried the 6 miles between Charlottesville and Ivy, and placed in a ward in the Annex. With an antero-posterior shortening of 2 inches, a living child, and a patient in good condition, we decided at once on Cesarean section or one of its substitutes. As the patient was mentally defective and apt to be impregnated again should she survive a Cesarean section, it was determined to make a second labor impossible by removing the uterus, or ovaries, or both. The patient had had labor-pains for 2 days. and had lost a part of the liquor amnii, and as there was a possibility of infection before the medical men had seen the case, I determined to remove the uterus In order to retain the influence of the ovaries, it was decided to leave one or both. I therefore removed the child by section; removed the uterus (complete extirpation), and left part of the tissue of one ovary. I intended to leave all of one ovary



it by mistake part of this was removed. The patient ade a good recovery and afforded an excellent chance r the class to make the external and internal measureents in a case of contracted pelvis.

The child was resuscitated with considerable diffilty by the skilful management of Dr. Skene, of the niversity. I wish to express my thanks to my clinal assistants, Drs. H. D. Furniss and J. H. Tucker, for eir care of the case. Dr. Furniss prepared the folwing history :

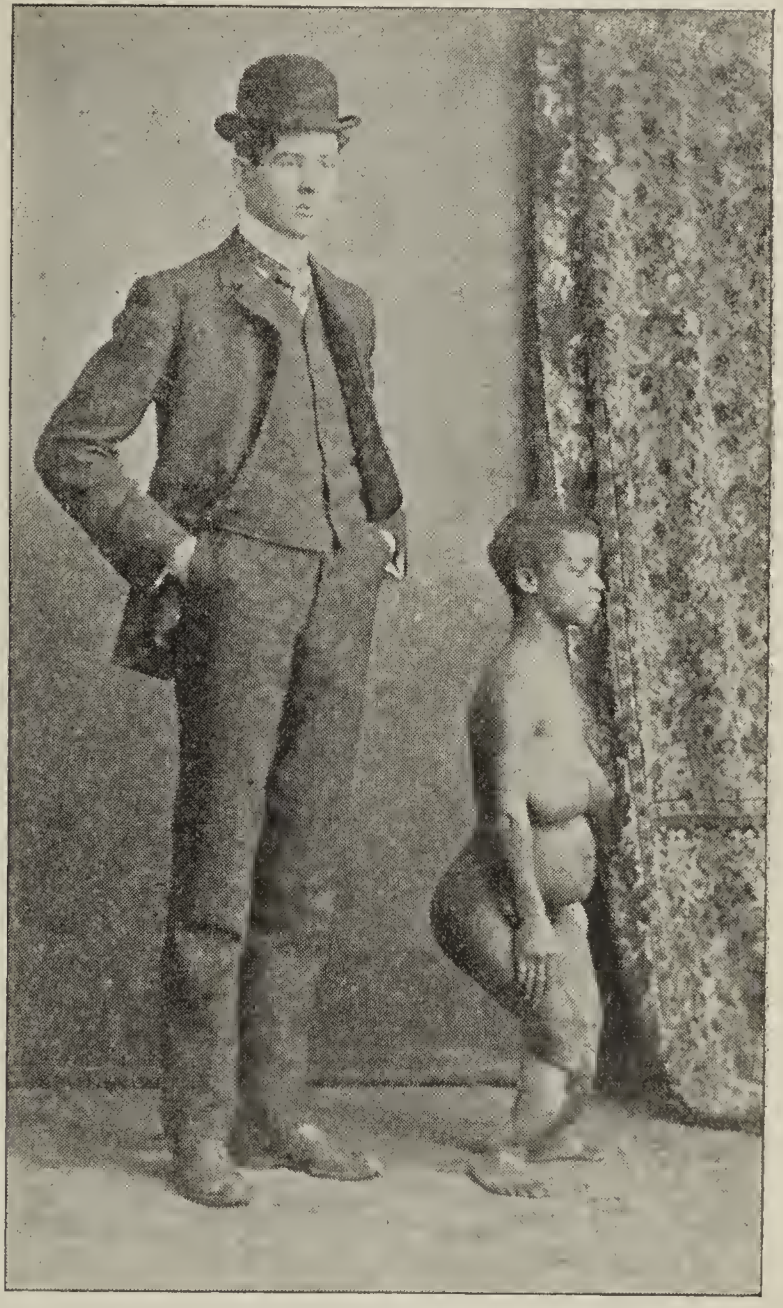
On November 5, 1898, Lizzie D., colored, unmarried, and years of age, was admitted to the Annex at 4 P.M. She ported that she had been in labor for 2 days, but the pains l not been severe, and she was in good condition. The se was about 90 and the temperature was normal. The ient is a dwarf, 3 feet 10 inches high, and, except for an rged abdomen, had the appearance of a child.



nmistakable evidence of rachitis was present in the dened legs and thighs. The abdomen was pendulous, the d was above the brim, and the placenta was located on posterior portion of the upper part of the uterus, more the left than on the right side. The external measureits were as follows : Interspinal 8.5 in. (21.25 cm.); interal 9 in. (22.5 cm.); Baudeloque's diameter 6 in. (15 cm); oblique 7.5 in. (18.75 cm.); right oblique 8 in. (20 cm.); gonal conjugate 2.75 in. (6.9 cm.).

he previous history of the patient is not without interest. is the seventh of 12 children, of whom 7 are living. re is no family-history of rachitis. Her mother states that irth she was a well-formed normal child, and that she sed her for one year, when she was weaned. After weaning she was fed on breadsop, milk, and fat meat. At the second year she had an attack of fever of an unknown nature, lasting 4 months. Two months after this she began to walk, and in about a month it was noticed that her gait was peculiar. A little later it was seen that the lower extremities were becoming bowed and otherwise distorted. The beginning of dentition could not be fixed, but the incisors did not appear until the end of the first year. The time of the appearance of the menses could not be obtained, but the flow was regular after it appeared. The patient's mental condition is weak and the mother is not intelligent.

At 9 P.M., on the date of admission, the patient was etherized, and Dr. Buckmaster delivered the child by uterine section. A median incision was made about 9 inches long; the uterus was delivered through it and the intestines covered with large sterile gauze pads. An assistant controlled the vessels in the broad ligaments by the pressure of his fingers, an incision was made in the anterior wall of the uterus, and the child delivered with very little loss of blood. The uterus contracted rapidly after the birth of the child, and was then removed so that no part of the cervix was left. The peritoneum was carefully sewed over the stumps of the broad ligaments. A strip of gauze was packed into the opening where the cervix had been removed and carried into the vagina. The abdomen was closed by chromatized catgut sutures, a rectal injection of a hot normal salt-solution was given.



The child was not breathing at the time of delivery, so that artificial respiration was employed. The methods of Schultze, Sylvester and Laborde were used. Also the use of hot and cold water alternately, but finally direct insufflation had to be employed before the child breathed. After a time respiration stopped, but peripheral irritation caused renewed respiratory effort, and the child has done well since this time. It was very weak for a few days, and as the mother's milk failed it has been fed on the bottle.

The mother was quite weak after the operation, and she was stimulated by injections of the normal salt-solution in pint doses at regular intervals. Gas was passed freely the day after the operation, and the bowels also freely moved. The gauze was removed on the tenth day. One month after operation the patient had sufficiently recovered to be used for section work, and on January 14 she returned to her home, having given every member of the class an opportunity to make careful external and internal measurements.

CONTRIBUTIONS TO HISTOLOGIC TECHNIC: CELLOIDIN-EMBEDDING; A DISH FOR CONSTANT IRRIGATION; HARDENING, WASHING, AND STAINING DELICATE FRAGMENTS OR SMALL SECTIONS OF TISSUE.[1]

(From the Pathologic Institute of the German Hospital.)

By ALOYSIUS O. J. KELLY, M.D.,
of Philadelphia.
Clinical Professor of Pathology, Woman's Medical College of Pennsylvania;
Instructor in Physical Diagnosis, University of Pennsylvania;
Pathologist to the German Hospital, etc.

I. Celloidin-Embedding.

The contentions that arise from time to time concerning the various advantages possessed by paraffin over celloidin, and vice versa, for purposes of embedding, prior to cutting, tissue specimens serves only to emphasize the fact that in all well-conducted laboratories neither should be used to the exclusion of the other, since each has its legitimate field of employment. It is not my purpose to discuss the various advantages possessed by each method. I recognize that to a certain extent the question is largely a matter of personal likes and dislikes. It may be mentioned, however, that the principal claims to preference possessed by paraffin are that it permits of cutting very thin sections, and of the ready preparation of serial sections. When either of these is of paramount importance, the paraffin method is certainly to be employed. For general work, however, particularly in pathologic-histologic investigations and in class-work, it seems to me that this method possesses certain manifest disadvantages that render its extended use undesirable. It suffices to mention that paraffin-embedding is ill adapted for tissues that are brittle or friable or very hard, or that vary much in consistency in different areas,—such, for instance, as dense fibrous connective tissue, skin, brain, cord, appendix, certain tumors, especially mixed tumors, and other tissues and organs made up of harder and softer elements. Such tissues embedded in paraffin are cut with difficulty and the sections are likely to be uneven, varying in thickness in different parts. Certain of the structural peculiarities of connective tissue, particularly of some of the forms of intercellular substance, are more satisfactorily studied in celloidin-sections than in paraffin-sections. In cutting thin paraffin-sections, the nuclear chromatin and the nuclei in toto are sometimes irregularly torn and give rise to erroneous impressions. The degree of heat requisite for paraffin-embedding is at times absolutely contraindicated by the nature of the tissue to be examined. The paraffin-method does not permit of as large sections being cut as does the celloidin-method. Finally, it seems to me that the after-treatment of paraffin sections is tedious. Each section has to be separately cemented to the slide or cover-glass and the paraffin removed. If care be not exercised in this procedure, portions of the section are likely to fall out, and such parts as loose tissues, pathologic exudates, etc., are likely to become disarranged and no longer maintain their original relations. That many workers do not find this method especially tedious is shown by the fact that they particularly recommend it for class work, an indication again of personal likes and dislikes. The difficulties of securing good paraffin-sections are much augmented during warm weather. In regard to the element of time, one method nowadays has no advantage over the other, as recently various methods of facilitating the securing of sections quickly have been introduced.

The disadvantages that are said to pertain to celloidin-embedding are that it does not permit of securing as thin sections as does paraffin, that serial sections are prepared with difficulty, that great care is requisite that the method does not fail entirely, that the sections are obscured by the celloidin, which is often cloudy, that the celloidin frequently deteriorates and quite likely at a critical moment. The cutting of serial sections is not at present pertinent. It is hoped to show that with proper precautions the celloidin never deteriorates, that it never becomes cloudy, that the method never fails, and that very thin sections of tissues embedded in celloidin can readily be cut. Various other advantages possessed by this method, in its legitimate field, over the paraffin-method are evident from the foregoing.

The difficulties heretofore encountered in celloidin-embedding have been due either to the poor quality of the celloidin, the disregard of certain well-known principles, or both. The celloidin commonly supplied nowadays by reputable makers is of good quality. Its principal defect has been that it contained a certain quantity of water. If it contain such, the celloidin must be thoroughly dried in a warm place free from moisture, preferably in an oven. It may be recognized as of good quality when it is of horny consistency, very hard, yellow in color, and transparent. In preparing it for use, it is preferable to make first a very thick solution in a narrow-neck bottle, that has been thoroughly dried in an oven, and which can be well stoppered. The bottle should be not more than one-fourth filled with thoroughly dried shreds or granules of celloidin, the latter just covered with absolute alcohol, the bottle well stoppered, and set aside for 24 hours. It is well to agitate the bottle and its contents at intervals. At the end of 24 hours, the celloidin will have swollen considerably. A volume of ether equal to that of the absolute alcohol employed is now to be added and the celloidin will be noticed to dissolve almost immediately. This stock solution of celloidin is to be kept well stoppered, not exposed to the air, and thinner solutions prepared from it as they may be required. This method of preparing the celloidin solution, originally recommended by Elschnig (Zur Technik der Celloidineinbettung, *Zeitschrift für wissenschaftliche Mikroskopie*, Bd. x, p. 443, 1893), possesses advantages over the method more commonly in vogue, whereby the celloidin solution is prepared in a wide-mouth bottle, with ill-fitting cork, and frequently exposed to the air for stirring, etc. Among the most important of these is the non-exposure of the solution to the air, the moisture contained in which, though present in small quantity, is still sufficient, if it come in contact with the celloidin solution, to cause rapid deterioration of the latter. Presupposing a due regard for the ordinary requisites of commendable histologic technic, it is by seeing in addition that no water and no moisture come in contact with the celloidin solutions that we may be assured that the latter will not deteriorate, that it will not become cloudy, that the method will not fail us, and that very thin sections may be readily cut.

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[1] Read at a meeting of the Pathological Society of Philadelphia, Jan. 26, 1899.

It is to insure this freedom from water that I em- oy the following procedures: Pieces of tissue having een fixed and hardened in any desirable manner, and aving been cut in thin sections and passed through vari- us alcohols of increasing strength, are finally placed in solute alcohol. The absolute alcohol is contained in a ther capacious vessel (Fig. 1*a*), provided with a ground- ass cover, that is anointed with vaselin to retain it in po- ion and to insure the vessel being air-tight. Into this ves- l is placed first a layer of moderate thickness of thoroughly ied cupric sulphate, and upon this a filter-paper that is lded so as to line for a distance of several inches the inside the vessel. This forms, as it were, a basin into which is ured a quantity of absolute alcohol sufficient to reach to beyond the height of the filter-paper. Should, perchance, e alcohol contain any water, this is rapidly extracted by e cupric sulphate, and should the specimens, when placed erein, contain any water, this also is speedily removed. ie specimen having remained in this vessel for from 4 to hours, depending upon its thickness, is absolutely freed of water. The object of the filter-paper is to remove all lia- ity of particles of the cupric sulphate becoming adherent the specimen. Having removed all water from the cimen, it is equally important to insure that during the her stages of its preparation no moisture comes in con- with it or the solutions employed. For this purpose the aratus illustrated in Fig. 1*b* is used. This consists of an nary specimen jar provided with a wire support about 2 es from its bottom for the various bottles containing the er and alcohol mixture and the solutions of celloidin. eath the wire support is a shallow dish containing some ium chlorid, the hygroscopic properties of which are well known. The specimen is removed from the vessel aining the absolute alcohol and passed through the vari- solutions kept in this large jar, and finally mounted in ordinary manner. Not only are the mixture of ether alcohol and the several solutions of celloidin kept in this but the thick stock solution of celloidin as well. The at- phere contained in the jar is constantly free of moisture by the action of the calcium chlorid. Another advantage possessed by this apparatus is that it matters not whether the stoppers of the bottles be tight or not. Should one or more of them be loose, the atmosphere contained therein becomes rapidly saturated with the vapor of ether and no more evaporation takes place. The celloidin solutions thus never become hardened. I have used constantly in such apparatus solutions of celloidin for six months or more, and the celloidin has never deteriorated, never hardened, and never become cloudy. This apparatus which is especially useful during damp weather, is to be recommended to novices, as no matter how neglected the specimens or the celloidin may be, deterioration cannot occur. It is particularly desirable that the specimens be mounted upon vulcanized fiber, which possesses manifest advantages which it is unnecessary to detail. It is also most desirable that after mounting, the specimens be preserved not in 70% alcohol as quite customary, but 80% to 85% alcohol (preferably the latter), as originally recommended by Busse (Celloidineinbettung, *Zeitschrift für wissenschaftliche Mikroskopie*, Bd. viii, p. 469, 1891; Bd. ix, p. 49, 1892). The sections should also be cut in this strength alcohol. These insure the celloidin being more transparent and permit the cutting of thinner sections. I have come also of recent date to think that I obtain better results by the employment of celloidin solutions as recommended by Apathy (Methode zur Verfertigung langerer Schnittserien mit Celloidin; *Mittheil. aus der zool. Station Neapel*, Bd. vii, p. 742, 1887). This author recommends that a thick solution of celloidin be prepared in the usual manner with equal parts of absolute alcohol and ether. I employ, however, the method as detailed above. From this first solution a second is made by adding to a portion of the first an equal volume of ether, and from the second, a third, by adding to a portion of the second also an equal volume of ether. The specimen is first placed in the third solution, then in the second, and finally in the first. By thoroughly freeing the specimen from water as detailed above, I have found that the mixture of ether and absolute alcohol can readily be dispensed with. It is well, however, to employ it to obtain the best results. It does no harm, and I feel confident facilitates the thorough and also rapid impregnation of the specimen with the celloidin.

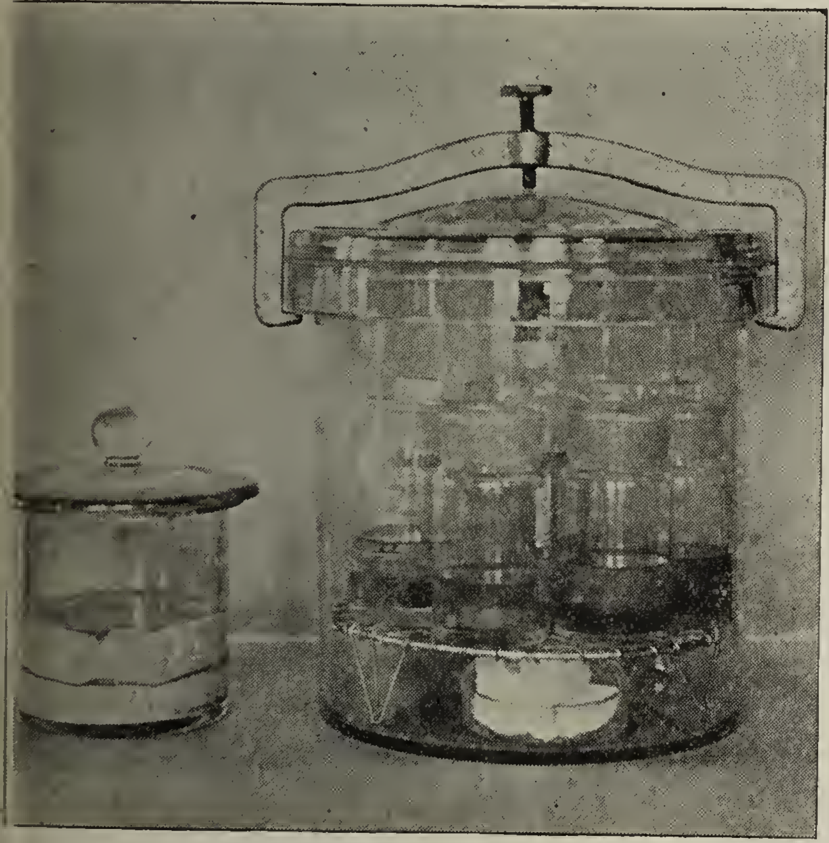


Fig. 1.—*a*, the smaller vessel; *b*, the larger vessel. (See text.)

To summarize, therefore, I might state that the best results of celloidin-embedding are obtained by thoroughly freeing the specimens of water in the vessel containing the absolute alcohol, as detailed above; that the action of the moisture in the air upon the specimens and the celloidin is with certainty prevented by the employment of the apparatus described secondly; that this in turn results in the celloidin never deteriorating, never hardening, and never becoming cloudy; that the three solutions of celloidin should be used; that the specimens should be mounted upon vulcanized fiber; that the celloidin blocks should be allowed to set and the sections cut in 85% alcohol.

It is stated that ordinarily celloidin sections may be cut about 15μ to 20μ in thickness; sections of 12μ in thickness are quite exceptional. It was such sections that I was enabled to cut prior to the time I commenced the use of the procedures above detailed. Following these methods I have seen novices cut unerringly sections 10μ in thickness, and with care I have readily cut large unbroken sections 8μ and at times 6μ in thickness. These it will be admitted approximate very closely in thickness ordinary paraffin sections. It is thought that even better results may be attained by the use of photoxylin instead of celloidin.

II.—Apparatus for Constant Irrigation of Specimens.

The apparatus consists of a glass vessel of moderate capacity—one about 15 cm. to 18 cm. in diameter, and 10 cm. to 12 cm. in depth being very serviceable. Into it are drilled two openings—a larger and a smaller. The latter is preferably placed toward the bottom of the vessel, though it may be at any height; the former is placed toward the top. The smaller opening, which serves as the inlet for the water, is stopped with a rubber cork, through which runs a glass tube, which is connected with the source of water-supply by a rubber tube. The larger opening, which serves as the outlet for the water, is also stopped with a rubber cork, through which runs a glass tube having the form depicted in the illustration. (Fig. 2.) The caliber of the inlet-tube is smaller than that of the outlet-tube. The water is permitted to flow in the vessel rather slowly. As the water reaches the height of the first bend in the outlet-tube, it automatically siphons out, and as the caliber of the outlet-tube is greater than that of the inlet-tube, the vessel is emptied much more rapidly than it is filled. A constant supply of fresh water is thus automatically provided for. The advantages claimed for the dish are that it is very cleanly, that it requires no attention—the water having been started, and that a constant interchange of fresh water is ensured.

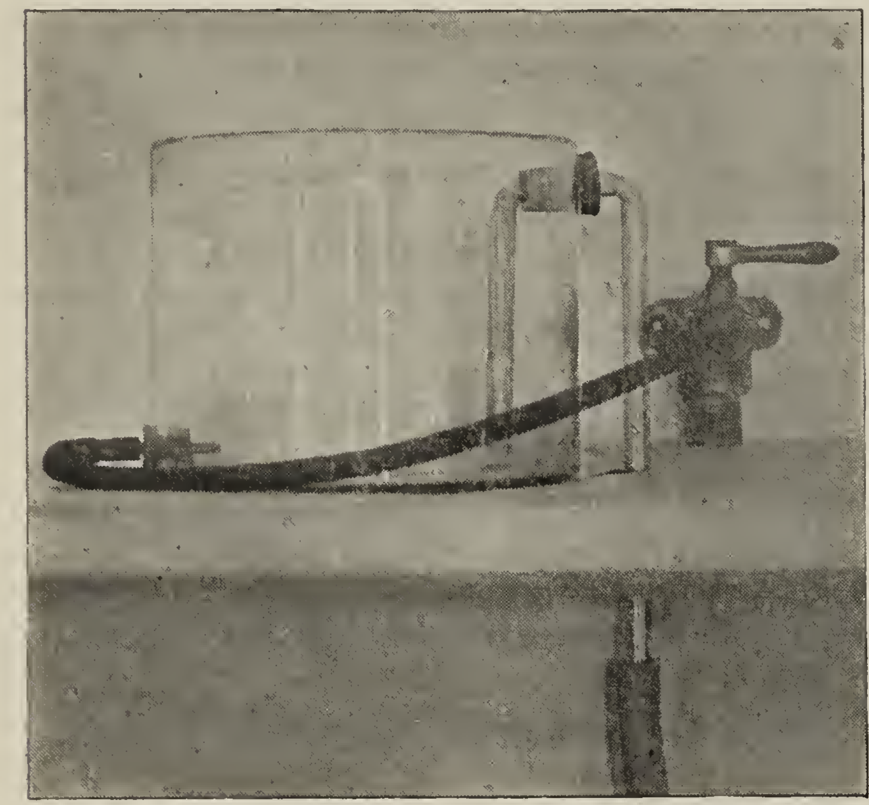


Fig. 2.—Apparatus for constant irrigation.

The dish is capable of numerous modifications. It is not really necessary that there be an inlet opening. A tube similar in shape to the outlet-tube may be connected with the source of water-supply, and allowed to hang over the side of the vessel, or all apparatus for providing for the inlet of water may be dispensed with, and the dish simply placed beneath a spigot and the water allowed to flow directly into the vessel. The opening in the outlet-tube is at its bottom, and this is the preferable place. It may, however, be along the side, there may be numerous smaller perforations, or there may be a longitudinal slit. As small bits of tissue are likely to collect about the opening, it is well to cover the end of the tube with a shield of wire-gauze or similar device.

The apparatus may be multiplied indefinitely, in that one dish may siphon into another, or one or more Y-shaped tubes may be inserted in the rubber tubing near the source of water supply, and the latter distributed to several vessels.

III.—Apparatus for Hardening, Washing, and Stainin Delicate Fragments or Small Sections of Tissue.

The apparatus consists of two test-tubes, one of which i narrower and shorter than the other, so that the forme may be readily inserted into the latter. The narrowe and shorter tube is provided with a perforation in th center of its bottom, and several rows of similar perforations, about 2 cm. apart, about its closed extremity. Fou to six perforations in the circumference of the tube will b found serviceable. The section is placed in the narrowe tube and the fluid to be employed in the wider tube, and th former inserted into the latter, and then plugged with cotton. The apparatus will be found of service in hardenin fixing, washing, and staining delicate bits of tissue, and als in staining numerous sections at the same time. I employe it originally in dehydrating and impregnating tissues wit chloroform previous to embedding them in paraffin. I washing small bits of tissue I am in the habit of placing th tube containing the section in the large irrigating dish, fa tening it to the side of the vessel, and permitting the irrigation to proceed automatically as in other cases. Numerou dissimilar specimens may thus be washed at the same tim If it be necessary to do this repeatedly, it is well to have perforated disk which will rest in the irrigating vessel abou 7 cm. or 8 cm. from its bottom. The test-tubes may the be placed in these perforations.

The above apparatuses are not presented as original inventions. They are simply adaptations of apparatus which i was my pleasure to use while engaged in working with Dr Richard Kretz, at the Francis Joseph Hospital in Vienna, during the summer of 1897. Since that time they have been i constant use in the Pathologic Institute of the Germa Hospital, and have given such satisfaction that it has bee thought worth while to bring them to the attention of thos interested in such work.

THE EARLY DIAGNOSIS OF URETHRAL STRICTURE

By J. HENRY DOWD, M.D.,
of Buffalo, N. Y.
Genito-Urinary Surgeon to the Buffalo Hospital, Sisters of Charity, etc.

That a urethral stricture is a handicap to the existenc of the sufferer cannot be denied. It is also an undisputed fact, that if contraction can be detected earl (before the deeper tissue becomes involved) an appropriate treatment applied, the patient can be give every hope of its entire obliteration. To carry thi out, the symptoms of stricture as found in text-book must be entirely dropped from the mind.

A stricture, to conform with the symptoms most gene ally given in books, must be from 3 to 7 years old. Authors lay too much stress on twisted, corkscrew or divide stream, all conditions which may be found in person having canals free of any contractions, but having ill formed or distorted meatuses. Hutchinson says tha 67% of all strictures are located in the deep urethra Providing there is no obstruction between there an the meatus, the stream of urine, after passing this poin (unless the stricture is very small) again enlarges to th normal caliber of the canal, and can and does pass ou full size and with but very little, if any, twisting; i act, in cases of deep stricture, until the canal is almost ompletely closed, there is no perceptible diminution n the size of the stream.

The gleety discharge talked so much about as a ymptom of stricture, is, of course, present at certain tages of almost all cases. From careful questioning, I ave formed but one opinion; when a morning disharge has entirely ceased, it will not return as a ymptom of stricture, until the stricture is at least 4 or 5 years old, and even then not if the patient uses noderation in things known to cause genito-urinary ongestion. This is easily understood, if the point vhere this discharge originates is considered. When liminution of the urinary tube is marked, say about 7 o 10 F. in size below the normal, the dilation behind or n front of the contraction by constant irritation beomes inflamed to such a degree that, during the night's est, pus or muco-pus is secreted in sufficient quantity o form a drop, this making its appearance at the neatus. The increase of urination, especially at night, annot occur until the anatomy behind the compressor s involved. In a great majority of cases, this rarely ccurs for years, providing the acute involvement (at he time of gonorrhea) had been entirely cured.

The earliest diagnostic symptom of urethral conraction and one that is more positive than the urehrometer, or bulbous bougie, is the appearance of shreds n a clear or semi-clear urine, especially the first. The rigin of these shreds is from the same locality as the norning pus or muco-pus, but they make their apearance early, when the inflammation has not attained ufficient strength to manufacture pus-cells in quantiies sufficient to form a drop. If these shreds are exmined microscopically, they will be found to consist f pus-cells and various pyogenic bacteria held together y mucus and degenerated epithelium. At first these hreds may be almost imperceptible to the naked eye, ut their presence will be constant from the time of ubmucous involvement. As the canal is lessened in aliber they become larger, at times appearing like ieces of string.

The earliest appearance of urethral desquamation, enoting submucous inflammation, is about 3 months fter an acute gonorrhea. In every case of specific rethritis, stringy substance will be found in the urine s the case approaches recovery. This comes from the lds of the mucous membrane and will entirely disapear, providing the cure is complete. This must not e confounded with the shreds appearing in a clear rine months, or even years, after a gonorrhea.

The secondary changes due to urethral obstruction, re so well described in most text-books dealing with enito-urinary diseases, that it will be unnecessary to y further than that, when pathologic changes occur in e prostate, bladder, kidneys, or even the heart, the se can be little benefited even after the obstruction as been removed. It is a grave question to decide whether it is possible to eradicate a stricture, except possibly by urethrotomy and then not unless long-continued after-dilatation is practised. This leads us to one conclusion:

Promote absorption of submucous hyperplasia.

(*a*) Never discharge a case of gonorrhea as cured until the morning-urine is clear of any debris.

(*b*) Keep the patient under observation for at least 6 months, in order to be able at once to detect localized inflammation, by urinary shreds, should they appear.

There is another condition in which these shreds give valuable aid, long before the appearance of text-book symptoms, and months after the supposed cure of a gonorrheal inflammation. The patient, after any excess known to cause genito-urinary congestion sees a drop at the meatus. If he has had sexual congress, the woman in the case is accused of infecting him and, in his opinion, one more is added to his attacks of gonorrhea. Although many cases of this nature are treated as gonorrhea, a microscopic examination would reveal no gonococci. If the urine is inspected visually it will be found to be clear or almost so, but containing the shreds indicating contractions in the canal. The moisture or drop simply shows that the chronic inflammation which always exists behind these contractions, has taken on an acute form. It is nature telling of a developing condition that if not combated sooner or later will leave the patient with an incurable disease. Upon the discovery of the urethral debris the condition which it indicates should be described to the patient, and a course of dilatation advised at once. The fact that the urethra is not of a uniform caliber necessarily causes the location of the contractions to have some part in indicating the size to which the canal should be dilated. I believe that it may be safely stated, that, if the sound is used, No. 30 F. should be the standard. In all cases it is good practice to irrigate before each sounding with a .33% formaldehyd-solution, and after the withdrawal of the instrument, with a zinc-solution of about 1:500. A syringe of about 4 or 6 ounces' capacity should be used for this purpose, the solution being applied without a catheter.

Case I.—December, 1893. Gonorrhea, first attack. December 15 discharge stopped, no complications, clearness of urine not noted. In May, 1896, a drop at the meatus was noticed in the mornings. There was no redness of the meatus, but there was slight pain on urination. Patient had had intercourse after free use of beer, 6 or 7 days before. Examination revealed no gonococci. Urine showed shreds. Bulb located contraction, No. 20 F., and the sound was passed at once. There was no discharge the next day, nor afterward. After 2 months of dilatation the shreds disappeared. Liquor and sexual intercourse was indulged in constantly during treatment. The only symptom of stricture, elicited by close questioning, was pain in the soles of the feet, and this disappeared at once on beginning of treatment.

Case II.—First attack of gonorrhea February, 1892, discharge lasting 6 weeks. The patient was cut for stricture in 1893 by a New York surgeon, and the sound passed 3 or 4 times thereafter, and the man was then pronounced cured.

Early in 1898 he noticed a drop at the meatus occasionally, after drinking beer or after excess in coitus. In May, 1898, when the patient was sent to me, he said, "unless he used an injection once a day, he would see a drop every morning." The first urine passed showed a quantity of large shreds, but the second was clean. Diagnosis of stricture was made. The patient said he could pass a 32 F. sound. A New York surgeon, on examination a year previous, had found no contraction. The endoscope or bulb revealed no stricture, but the patient could not be given urination-sensation with any sound except No. 24 F. Nos. 24, 27 and 29 F. were passed, depressing the handle between the legs. No medicine was given, and there was no discharge the next day. After careful dilatation for 5 or 6 times, the shreds entirely disappeared. The mistaken diagnosis was plain. The contraction was close to or in the membranous urethra, and the endoscope, bulbs and sounds were passed to it, and their stoppage there was thought due to the compressor muscle. It is evident that one thing can be learned from this case—Don't stop the sound until the patient has the urination-sensation. No other symptom of stricture was present.

Case III.—Patient had coitus November 14, 1898, and 9 days thereafter noticed slight moisture at meatus. Examination revealed no gonococci. The first urine passed contained large shreds, but was almost free of pus; the second was clear. Eight years before, the patient had gonorrhea for the first and only time. The discharge stopped and never returned until the date above mentioned, although he had had regular sexual intercourse, with wine, etc., occasionally. Examination revealed a stricture the size of 22 F. in the bulbous urethra, and this was dilated to 27 F. at once. There was no discharge the next morning, nor since. No injection nor medicine was given. There is now positively no symptoms of stricture, and the patient passes as large a stream of urine as ever.

Case IV.—Patient had gonorrhea the first and only time in 1889, the attack lasting 8 weeks. There was involvement of the posterior urethra. Fine shreds with slight opacity of urine followed stoppage of discharge; full-sized sounds were passed and examination of the canal in 1897 revealed no contraction, and the urine clear, except an almost imperceptible flake, which microscopic examination showed to contain very few pus-cells in mucus and epithelium. This was evidently due to a submucous inflammation and might be constant on account of the urinary irritation.

I might cite many more cases of this description, but I think the above should be sufficient to prove:—

(1) Text-book symptoms of stricture are misleading and do not occur until the contraction has existed for years.

(2) Symptoms or no symptoms, shreds in a clear, or a semi-clear urine indicate urethral contraction.

(3) The early discovery (3 or 4 months from time of infection) of these shreds may be followed by the entire obliteration of their cause.

(4) Always give the patient the sensation of urination when using a sound.

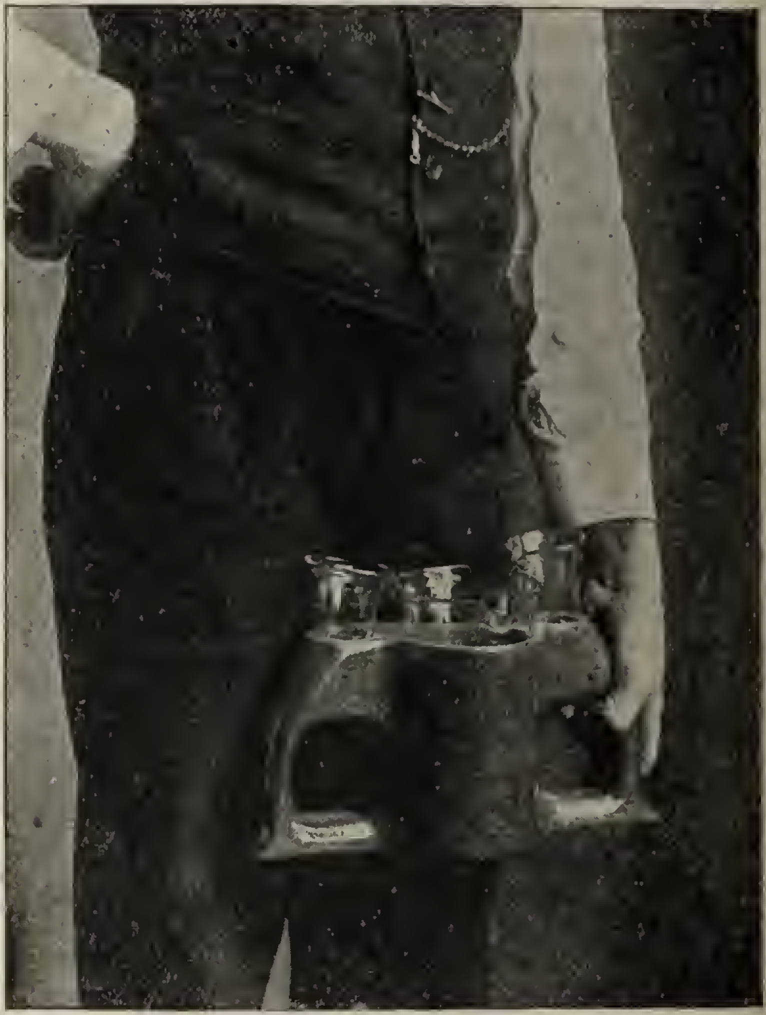
(5) Formaldehyd-irrigation preceding and zinc-solution following a sound is advisable in every case, and may sometimes save a life.

Operations Upon the Biliary Passages.—Dudley P. Allen (*Cleveland Journal of Medicine*, January, 1899) describes a series of cases the conditions of which did not permit of a logical arrangement, and which all presented some unusual difficulty in diagnosis. The most striking features connected with this class of operations are presented and the conclusion is reached that in cases of long-continued disturbance referable to the epigastric region the possibility of non-malignant disease must be carefully considered. If a diagnosis is impossible otherwise, an exploratory incision should be made. [G.C.C.H.]

A NEW INSTRUMENT WITH WHICH TO COLLECT THE URINE IN DIVIDED PORTIONS.

By GEORGE E. ABBOTT, M.D.,
of Pasadena, California.

Two beakers are usually given to patients, in order that they may pass their urine in them in divided portions. All patients, especially elderly gentlemen, find much difficulty—and at times severe pain—in holding the urine back, while they change the beakers, and not infrequently are chagrined at an accident to their trousers.



The instrument herewith illustrated, consists of a large pint beaker, with two small 2-oz. graduates, one on either side, in a wooden frame, which is held by the patient with one hand, the penis being held with the other hand. The urethral wash is caught in the little graduate on one side; the bulk of the contents of the bladder is then caught in the large beaker; and then the last portion from the bladder and the kidney-drainage are caught in the remaining little graduate. Of course the patient should clearly indicate which was filled first. This instrument has been of much service to me, and of great comfort to my patients.

Important Points Concerning Symphysiotomy.—Dickinson (*Obstetrics*, January, 1899) in discussing symphysiotomy calls attention to five points of interest: (1) In applying forceps, the determination of the seizure by palpation of the tips of the blades through the abdominal wall. (2) With axis-traction forceps, the first moment of slipping either way is readily detected. (3) On large, hard heads, forceps hold poorly, the tips not properly encircling the head. (4) In manual stripping of the placenta, the fingers should work enveloped in the membranes like a glove whenever it is possible in order to avoid contact with the bared placental site. (5) After a symphysiotomy in a tenement-house, the bones are well held together by placing the patient in a sling supported from the ceiling, or in a stretcher. [W.K.]

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Murder by Typhoid.—According to Dr. Lee's report, there were from February 11 to March 11, 1,570 cases of typhoid fever in Philadelphia with 164 deaths. From January 1 to March 11, there have been 3,649 cases and 380 deaths. We are very fond of prating about the freedom of the American citizen, but are the "freemen" of Philadelphia, as well as of many other American cities, of the same opinion as their councilmen? It would be an interesting trial if some citizens should institute suit against the city for damages for cases of typhoid due to the failure to supply pure water. We know well enough that Councils are ethically guilty of homicide, and we believe in the face of a united science that the legal accountability would be made as clear. Perhaps this, and a few thousand more deaths, will be necessary to arouse our freedom-lovers out of their lethargy to some adequate sense of their enslavement.

Water-gas.—We have several times alluded to the dangers arising from the use of water-gas. The same subject has come up in England. A Departmental Committee which has recently been sitting to enquire into the manufacture and use of water-gas and other gases containing a large proportion of carbon monoxid has issued a report of considerable medical interest. In our country carburetted water-gas now forms the whole or nearly the whole of the municipal gas-supply in many cities, but in Great Britain the "emergency" value of water-gas—*i. e.*, the fact that it can be prepared much more easily and quickly than can coal-gas—has not in the public opinion counterbalanced the risk of its use, for carburetted water-gas contains about 30% of carbon monoxid, while coal-gas possesses generally something under 10%. The report of the Departmental Committee will not tend to make water-gas more popuar, for they recommend that a statutory limit of 12% of carbon monoxid should be prescribed for all illuminating gases. We trust such laws may be enacted in all our States, the danger having already been proved a very serious one by numerous deaths.

A device for the effective sterilization of drinkng-water is described on another page. We have witnessed the operation of the machine, and were so convinced of its value that we requested a description and illustrations in order to lay it before the profession. We believe it has all the practical significance of a great discovery for the prevention of disease and the preservation of the health of the world. Experiments have been made with water highly charged with the bacilli of diphtheria and typhoid fever, and, after passing through the sterilizer, both bacteriologic and microscopic tests failed to show a trace of the pathogenic germs. The machine is not expensive, and may be used in any household. In reference to the sterilization or pasteurization of milk the same principles can be applied through a slight modification of this machine whereby the milk may be heated to any desired temperature below the boiling-point, 160°, for example. This is effected by expanding an adjustable column of milk by the application of heat, and thereby causing it to rise and flow over "the weir"; the cooling-process, etc., is the same as in the mechanism described. The machine is so constructed that it may be taken apart and all of the surfaces cleaned.

The Panantis.—It is fast becoming useless to attempt to distinguish between the different families of the great order of antis, because they shade into each other with such imperceptible gradations and with such elusive ease that it is quite impossible to distinguish between the subgroups. Moreover, the spirit of antiism is so pervasive and thoroughgoing that if one is found thoroughly in earnest in one phase of antiness, as regards vivisection for example, we may be almost sure that vaccination, and drugs, and State-boards of Examination, and all the rest, are included in the general detestation. In fact we need a new word to express antiness *per se*. Goethe called his spirit of universal denial Mephistopheles, but we shall have to find a less flattering epithet, because the modern anti-everythings cannot, alas, be credited with a tithe of the bright intelligence that prevented Mephisto from being an ass and a dullard. Can some one suggest an appropriate appellation? Shall the whole genus be called antimedics, antiperses, antiomniacs, panantis, or antiomniomaniacs?

Stealing the Bait.—An amusing little comedy is reported to us as taking place in Philadelphia, showing that the demure Quaker maiden is a match for the astutest New York advertiser. It seems too bad to ring the curtain down before the final scene, but we are tempted. The managers of a very popular and widely advertised nostrum, so the story runs, have been in the habit of rewarding their best testimonialists with a fine clock. Learning this fact our bright girls indite an effusive letter telling of their years of misery until a dear friend, who had also had a similar sad history, advised a trial of the miraculous tabules. Since that day health and happiness have been a daily experience, and "now always keep on the bureau a supply, etc., etc." To this naive epistle is signed the name of the family servant, or a fictitious one, and in due course of time the expressman brings the coveted ornament of the mantel-piece. But not a nickel has been spent for tabules!

A Mild Corrective of the Dispensary-abuse.—The avidity with which in some dispensaries and hospitals patients have been and are solicited, even through the newspapers and the mails, has come to make many believe that the services of such institutions were intended for all who would apply. In this way what was primarily liberty has been converted into license, and what was originally a privilege has been construed into a right. The principle that eleemosynary institutions are projected and administered for the impecunious and the needy seems to be overlooked if not lost. We hear a good deal about hospital-abuse and dispensary-abuse, but little of measures for their correction, and less of the success of such measures. It is perfectly well known that a considerable number of dispensary-habitues are not proper subjects for public charity, and none would so quickly as themselves resent the imputation that they are; but if no questions are asked, their moral sensibility is not aroused, and they accept without reproach or compunction what they would repudiate if given its proper name. We are willing, tentatively at least, that each applicant for dispensary-aid shall decide for himself whether or not he is entitled to such gratuitous consideration; we think that the question should be put to him squarely and directly. We beg to offer, therefore, as a small contribution to the solution of the charity-abuse the recommendation that every applicant for treatment in a dispensary be informed of the exact conditions under which alone he is entitled to and can receive such treatment.

Malarial Fever or Typhoid.—We published last week a letter from Dr. Cleemann, of Philadelphia, which had been sent to the *Medical News* about two weeks previously. As no acknowledgment of its receipt reached Dr. Cleemann, and as it was not published, it was sent to us, and gladly inserted. The letter was a courteous, scientific, and convincing statement of what seemed a statistical fallacy, needing the best consideration before a candid mind could reach a sure judgment and conclusion upon the subject. The *Medical News* has finally published the letter, followed by one or two columns of the most abusive and puerile trash, in the style of the yellow-newspaper reporter, in which not a line was devoted to Dr. Cleemann's statistical contention. In its haste to be foolish the *Medical News* fails to notice the one fact of most importance in the figures adduced by Dr. Cleemann. Assuming the correctness of these figures it would appear that the physicians of Philadelphia are normally successful in the treatment of malarial fever and of diarrheal diseases, while the fatality from these diseases in New York and Brooklyn is vastly in excess of that in any other part of the United States. Is quinin ineffective in New York and Brooklyn? The figures are reproduced:

		New York.	Brooklyn.	Philadelphia.	Boston.
6 years ending May, 1890.	Typhoid fever......	24.27	23.13	69.35	39.02
	Malarial fever......	24.62	32.62	7.21	1.75
	Diarrheal diseases	316.85	282.58	70.31	102.54
7 years ending 1886.	Typhoid fever......	19 72	18.48	44 60	32.48
	Malarial fever......	7.87	16.85	3 04	......
	Diarrheal diseases	184.48	191.76	83.65	147.76

Of course city jealousies are silly and are left for the schoolboy-type of minds. Is there a possible error lurking in the question of diagnosis? Why is malarial fever so much more fatal in New York and Brooklyn than in Philadelphia? The inquiry of Dr. Cleemann deserves the careful attention of serious minds.

Infant-Mortality.—Of the deaths occurring in any large city, from one-quarter to one-half, according to season and other conditions, will be found among children under the age of 5 years. The diseases of childhood are principally gastrointestinal and transmissible, and hence should be largely preventable, and probably in no department of medicine is greater activity being manifested than in this. Preventive medicine is the banner under which the physician of the present day marches. His efforts have already borne fruit, and as knowledge of etiology increases advance in prophylaxis will keep pace.

Dr. Samuel W. Abbott, secretary of the Massachusetts State Board of Health, has made an interesting study of the subject of infant-mortality, with especial reference to his own State, the results of which are published in the *Journal of the Massachusetts Association of Boards of Health*, vol. viii, No. 4. The figures show that from 1856 to 1895 the number of births in the State of Massachusetts increased from 33,593 to 66,746, and the number of deaths in children under the age of one year from 4,226 to 10,564; the death-rate among these children ranged between 119.2 per 1,000 births (in 1857 and 1858) and 202.7 (in 1872), and was 125.8 in 1856 and 158.2 in 1895. It has been shown that the mortality from cholera infantum, which is one of the chief factors in the death-rate among children under the age of one year, bears a direct relation to the ratio of married women employed away from their homes. The mortality is high also in communities with a large tenement-house population, and higher among urban than among rural populations. The infant-mortality of Massachusetts is greater than that of Sweden, Ireland, Scotland, England, and Belgium, and less than that of France, Holland, Italy, Prussia, Hungary, Austria, Saxony, Bavaria. In Massachusetts 45% of the whole number of deaths in children under 2 years of age are due to such preventable diseases as diphtheria, whooping-cough, cholera infantum, and other diarrheal diseases, violence, and tuberculosis. Diarrheal diseases alone are responsible for nearly 28% of the deaths among infants. There were in the first year of life 120 deaths among male children to 100 among female. The greatest mortality occurred during the hot season. It was related also to density of population. Intemperance, poverty, defective food-supply, and the use of opiates are also contributing factors. Among the most important measures indicated for the reduction of excessive infant-mortality are escape from the torrid heat and bad air of summer in the city, the provision of proper food in sufficient quantity, whether from the mother's breast or from another source, great care in the use of all artificial forms of food, restriction upon the employment of married women in mills and factories, the establishment of day-nurseries, the judicious use of the incubator in the case of premature or debilitated infants.

Bishop Potter on the Saloon.—The Bishop of New York is, in the proper and best sense of the term, a true man of the world. He evidently regards men and women for all practical purposes not as they should be, but as they are. This is the worldly, practical view, and is the one which the scientist accepts of everything —just as the humanitarian and reformer must accept it if he hopes to avoid the errors and extremes of mere "faddism." On no subject is this more true than on the use of alcoholic drinks. In a recent letter Bishop Potter scores the prohibitionists, and the grotesque hypocrisy of their system from Maine to Kansas. The episcopal rhetoric cannot be surpassed for the vigor with which it assails these advocates of a "medieval system of monastic asceticism, which they would fain substitute for the freedom of regenerated manhood."

The bishop evidently sees clearly that the problem of the saloon is a great sociologic problem, and that it is inextricably involved with a lot of other problems in sociology, such as poverty, the distribution of wealth, the rights of wage-earners, the recreation of the people, and the housing of the great masses of the population. With an insight that is refreshing in a clergyman he places the temperance problem flatly on a *scientific* basis, where it belongs, and says plainly that it will never be solved by fanatical and hysterical people. In other words, we should say, it will never be solved by the ordinary missionary methods of the churches and temperance societies, which are constantly proving themselves unfit to handle it. They seek to eradicate the saloon—a hopeless task; the true sociologist seeks to control and reform it. In line with the philanthropic work which he has been doing in New York City the bishop calls upon men of wealth and influence to lend their aid to the solution of the various great evils of our social system.

From the medical standpoint the evils of the abuse of alcohol stand out glaringly enough, and no persons can estimate them at their true value more accurately than physicians. They are not the only evils in the world, however, and they are not exactly in all cases the uncontrollable evils that extremists claim they are. Not a small part of the good work that physicians do is, we doubt not, to inculcate the principles of true temperance. This work is unheralded and unnoted, but it is nevertheless very real, and is being constantly done. It is significant, withal, that few physicians are prohibitionists, or even extreme advocates of total abstinence, and this we believe, is, partly at least, because, like Bishop Potter, they regard the subject from a purely practical and truly ethical standpoint, and have learned that in sociologic matters a vast population cannot and ought not to be coerced by the whims of a few people.

Psychopathic Hospitals.—That there is something in a name is evident from the almost morbid desire shown by some specialists to avoid the term "asylum" and the adjective "insane." We do not believe it is possible to write insanity out of the world, or to close the doors of our asylums, or to legislate a new era of psychiatry into existence under a mere euphemism. The insane are with us always, and the experience of a century of honest and intelligent effort to care for them and to better their condition can not and must not be lightly put aside. Our hospitals or "asylums" for the insane are doubtless not all endowed with great laboratories for pathologic research and psychologic experiment, and some of them might be better than they are; but the expert has the gift of foresight marvelously developed who can see in the future any better scheme for caring for the vast majority of the insane than that now practised, as a rule, in our better class of asylums.

The need is not so much for new names as for one or two new things; and among these is doubtless some plan for caring for mild and acute cases of mental disease before that stage is reached when it is necessary to certify a patient as legally "insane." To meet this requirement "psychopathic hospitals" are suggested. One of these, it is claimed, should be erected in every large city, where it might be a nucleus for a large and prosperous "psychopathic" clinic, in which mental patients might present themselves for advice and treatment. It is urged that advanced scientific study and treatment of early cases of insanity could be better attained in such an institution, and, moreover, that patients might thus often be spared the "stigma" of certification. On the other hand, the advocates of these hospitals, it seems to us, rather ignore the fact that the safeguards needful to be thrown around the insane are not sufficiently provided for, either for their own welfare or that of society, in such hospitals. Such safeguards can only be secured, after all, by the old method of legal restraint.

The plan of a "psychopathic" hospital is an ideal one—but how practical it would be, could doubtless only be ascertained by trial. Human prejudices are such queer things, that perhaps it would not be long before patients would object as much to being called "psychopathic" as they do now to being called insane —and so a new name would have to be coined and the whole business done over again. In short, we believe that a change of names is not so much to be sought as a slight modification of existing plans, whereby houses of detention could be established in which, with proper safeguards, the various mild forms of the psychopathies could be treated without the necessity for the formula and the environment which are essential in cases of confirmed insanity.

The Treatment of Typhoid Fever with an Antityphoid Extract.—It is pretty generally agreed among competent observers that the limitation of many infectious diseases is dependent upon the generation within invaded organism of substances inimical to the activity of the causative bacteria and antidotal to the poisons produced by them. It is probable that these substances are derived in part from the bacteria themselves, in part from the cells of the body. In some instances the bactericidal and antitoxic substances are found in the blood, which can then be employed for immunizing and curative purposes. The most illustrious example of this mode of action is the production and use of the diphtheria-antitoxin. The same principle has been applied, though with less strikingly successful results, to the treatment of tetanus, cholera, pneumonia, typhoid fever, and streptococcic infections. The explanation of these differences in results may be dependent upon differences in distribution in the body of the bactericidal and antitoxic substances. Ehrlich has propounded the theory that intoxication is possible only in the presence of cellular constituents capable of combining with the given toxic substance. As a secondary result antitoxic substances are set free and if in excess are sent into the circulation. Wassermann, Takaki, and others have shown that the organs of animals, some inoculated experimentally, some not, contain protective substances. Following in the line of these observations Jez (*Wiener medicinische Wochenschrift*, February 18, 1899, p. 345) has found that he was able to obtain from the organs of animals inoculated with typhoid bacilli substances capable of exercising productive and curative influences upon typhoid infection. The mode of procedure was as follows: Guinea-pigs were given at short intervals several intraperitoneal injections of bouillon-cultures of typhoid bacilli of progressively increasing virulence. When tolerance was established the animal was killed and its thymus gland, spleen, bone-marrow, brain and spinal cord removed, finely divided and rubbed up in a mortar with a solution consisting of sodium chlorid, alcohol, glycerin and a small amount of carbolic acid. Subsequently a small amount of pepsin also was added advantageously. After standing on ice for 24 hours the mixture was carefully filtered, a clear, reddish fluid resulting, which did not cause agglutination and sedimentation of typhoid bacilli or inhibit their growth, though exhibiting the faculty in marked degree of neutralizing typhoid toxin. This antityphoid extract was employed in the treatment of 18 cases of typhoid fever, being administered by the mouth in doses from a teaspoonful to a tablespoonful every 2 hours, subcutaneous injections proving less serviceable. In the cases thus treated the characteristic temperature-curve was lost, the pyrexia becoming remittent and soon disappearing, the pulse declined in frequency and increased in strength, diarrhea ceased, the tongue cleared, the general condition improved and convalescence speedily set in. Unpleasant secondary effects were not observed, even when larger doses of the extract were employed. The usual hygienic and dietetic and other precautionary general measures were not neglected.

This contribution to practical organotherapy seems to be a most important one, but time and observation must prove its value. One thought suggests itself in connection with the mode of production of the extract, and that is the use of the blood-serum of the animal in making the emulsion of its viscera. Even if the serum contained no protective or curative substance it would appear to be an innocuous and most natural menstruum. It seems not impossible further that the activity of the extract might be enhanced, in some instances at least, by this modification.

The New York Department of Health and the Sale of Antitoxin.—We regret that Dr. Cosby's letter, published in another column, reached us too late for insertion in last week's issue. It may be reduced to the following positive statements:

The first alleges that the diminution in the death-rate from diphtheria and croup in New York City in the five years last passed has been greater than that of any other great city in the world. This statement begs the whole question. The figures as published in the *City Record*, and the proper deductions therefrom would establish the fact that the actual diphtheria-mortality in the Greater New York is greater than that in most other communities. The validity of these statistics will be discussed in the following paragraphs.

The second statement of the letter presents in parallel columns certain of the figures published in the

PHILADELPHIA MEDICAL JOURNAL compared with what are emphatically called "actual figures." As to the difference between the two statements, the matter has been thoroughly investigated. Before the publication of the article in the JOURNAL of February 25 a second and independent inquiry showed that the figures published in the issue of February 4 were confirmed, except as to one or two slight details which have not been pressed at all in the argument. Still, assuming that the figures now presented as actual are based upon public records which have not yet become accessible to any except the inner circle of New York City bacteriologists, it is to be noted that, as given, the statistics present a powerful indictment against the false economy of permitting a municipality to engage in business in competition with its own taxpayers. The figures which the Bacteriological Laboratory of the New York Board of Health is willing to present to the public differ widely from those derived from the accessible records. It is stated that in 1898 the Board received from the sale of all kinds of antitoxins $13,963.32, and that the value at the same time of all given away or actually used was $43,999.47. For the moment accepting these figures as true, there is shown a most wasteful process of manufacture, for the Board confesses that its surplus amounts to one-third of the amount required in the proper exercise of its duties. But before accepting these figures as proved, it becomes interesting to compare the value of the antitoxin actually used or given away and the number of cases of diphtheria which the Board reports as coming directly under its own treatment. For the first six months of last year the Board gave 645 curative injections of antitoxin, and immunized 1,030 individuals. Accepting these newly developed figures of the financial statement as correct it would appear that the best the municipal body can do for the cure of diphtheria costs $13.13 per patient—a figure of which the lavish extravagance appears by comparison with the rate at which the same amount of antitoxin could be bought in the open market.

It is further stated that some of the figures presented n this JOURNAL are estimates and that they are wide of the truth. It is acknowledged that estimates have been made from the official published data. It would have been a pleasure to publish what are described as "actual figures" rather than estimates from figures covering only a portion of the statistics under review. But the blame for this rests entirely with the Board of Health. Its figures have not been accessible, and even yet it is impossible to obtain them in the city records or more than three-quarters of 1898, the results for the hird quarter of that year having been published so ecently as February 25. The financial reports have been accessible only up to the 1st of January, 1898. As showing how difficult a task it is to obtain this inormation concerning the doings of a city department, it is to be noted that not even Dr. Cosby himself can supply the record for any period more recent than the year 1897, thus showing that even to the inner bacteriological circle the full records are denied.

In this letter the statement is made: "The number of cases of diphtheria in the article so stated refers to the number of cultures examined and found to contain diphtheria-bacilli." This statement is not in the least borne out by the form in which the official reports are presented. In the *City Record* of June 28, 1898, page 2695, under the prominent heading, "Work performed by the Division of Contagious Diseases," is found the following statement introductory to a table of figures:

"The number of cases reported during the quarter and *referred to the inspectors* was, diphtheria, 3797."

Just above this statement on the same page, under the heading "Summary," are found four entries:

"Number of bacteriological diagnoses of suspected diphtheria, 4054.

"Number of cases found to be true diphtheria, 1717.

"Number of cases found not to be true diphtheria, 1386.

"Number of cases bacteriologically diagnosed indecisive, 951."

It is submitted that so far as the official report is to be recognized as having any meaning that the items in the summary manifestly represent the result of the work done in connection with the cases "referred to the inspectors." Dr. Cosby states the "number of cases" in the article is really the "number of cultures examined." But the official record of the city is silent as to cultures, and speaks positively as to cases which are diphtheria, as to cases which are not diphtheria, and as to cases undetermined. The plain intent of the word is "case," not "culture;" and the investigator, finding the word "case" officially published by the Board of Health, is certainly justified in considering that he is dealing with cases.

Again there is a repetition of the point previously presented by Dr. Biggs and sufficiently discussed already, to wit, the computation of the death-rate from two out of the five boroughs which compose the city of New York.

The next point in Dr. Cosby's letter is as to the horses of the Board of Health and the place where they are stabled. It is confessed that the horses of the Board of Health are not in the laboratories of that board. Dr. Cosby goes out of his way to suggest an inference, and then to deny it. That inference is that the Board of Health does not own its horses. This is the very first suggestion in the discussion that has been made as to that point. It has been recognized from the outset that the city does own its serum horses, and there is no need to stamp as "absolutely untrue" a statement to the contrary which was never made until it was made by the writer of the letter under review.

Similarly Dr. Cosby puts forward another statement for the purpose of registering his solemn denial. To seek to obtain credit by denying a statement that has never been made is an old device of certain logicians. In this letter is the following sentence: "Dr. Biggs has no more relation to the financial matters connected with the sales of the laboratory's products than has the editor of the PHILADELPHIA MEDICAL JOURNAL." It is respectfully submitted that nobody has said he has. But, on the other hand, it has been distinctly proved that Dr. Biggs, through his intimate connection with the New York Veterinary College, has a very distinct relation to the financial matters connected with the manufacture of the laboratory products.

Dr. Cosby has added little to the former contribution of Dr. Biggs. Taking his cue from the former letter, he has closed his communication with charges of injustice and untruth. Examining the whole subject dispassionately, it has been found impossible to recognize the slightest injustice to the Board of Health, or the least vestige of untruth in any of the statements that have been presented concerning its activity in serum-therapy. It is unfortunate that the Board of Health seems so anxious recklessly to cast away its grand possibilities of scientific usefulness, and to cling so covetously to its chance of doing a little business which hampers and hinders its best efforts. Every letter makes it only more plain that the law authorizing the Board's competition with private enterprise was scientifically, therapeutically, and economically a wretched blunder.

Sleep and Longevity.—Nikolas Tesla, the physicist, has recently been quoted as saying that if a man slept enough he should live to be a hundred years old. This statement contains a gem of scientific truth, for age and death mean vascular disease, and its sequels, of which overwork and underrest, with uneliminated waste, are most important causes. Wear and tear are not repaired; disintegration exceeds regeneration. Other causes are infectious diseases, intrinsic intoxications, and hereditary influences, but the operation of these and their results are not so easily neutralized. Sleep brings rest, recuperation, restoration of metabolic and functional equilibrium, with conservation of the integrity of the bloodvessels, and life.

Editor and Reader, No. 18. The Exeditorial Association sprang quickly into existence when one journal at last succeeded where others had failed. The membership was limited to those editors whose journals were moribund or defunct. The object of the association was to envy. There was naturally only one object of envy. Its method of envying was to praise a little generally, and damn a good deal in detail. While one would allow this or that single feature in the successful journal, the members of the association voting in committee of the whole finally found all features very bad indeed. But the association finally broke up because each member differed so radically from the rest as to which was the worst excellency, that they at last came to hate each other more than they did the detested success. *Haec fabula non docet*——.

The Philadelphia Monthly Medical Journal is the title of our 60-page Supplement, the first number of which is issued this week. A copy of this number will be sent to every subscriber of the JOURNAL, and we hope each will at once become a subscriber to the Monthly. We think it a modest statement to say that so many pages of the highest class original medical articles have never been offered the profession for the price. Owing to the advisability of publishing the prize-essays as soon as possible, the first numbers of the Monthly may not have that variety and number of articles desired, but the tastes of all readers will soon be met in the subsequent parts. The first number to be mailed will be No. 3, and is dated March, 1899. The January and February numbers are now being put in type and will be sent out to subscribers so soon as the printers find it possible to do so. The contents of the March number are as follows:—

1. The Shape and Position of the Stomach. By HENRY WALD BETTMAN, M.D., of Cincinnati, O. With 37 illustrations. (The Essay winning the First Prize in the Department of Medicine.)
2. Skiascopy of the Respiratory Organs. By A. W. CRANE, M.D., of Kalamazoo, Mich. With 15 illustrations. (The Essay winning the Second Prize in the Department of Medicine.)
3. On the Technical Considerations Influencing the Surgical Treatment of Appendicitis During Pregnancy. By ARPAD G. GERSTER, M.D., of New York City.
4. The Therapeutic Value of the Solar Rays. By ALBERT ABRAMS, M.D., of San Francisco, Cal. With 4 illustrations.

Every subscriber to this Journal is requested to send us the names and addresses of at least two physician-friends who are not subscribers. This is one practical way to aid us. In addition to this we trust you will write these friends a personal request to examine the sample copies we shall send to them, with a view of subscribing. We believe that we are giving more and better medical literature for the money than can be had elsewhere. If this is so it is your friend's misfortune if he fails to become a reader of our JOURNAL

Amebic Abscess of the Liver and Lung.—T. Fiaschi (*Australasian Medical Gazette*, December 20, 1898) reports the case of a man, aged 35, who had for 2 months suffered pain in the right side of his chest and right shoulder. The pain soon extended to the hepatic region. There was no history of diarrhea or dysentery. A month previously he began to expectorate purulent sanguineous material which increased in quantity. On physical examination both liver and spleen were found enlarged, and there was dulness on percussion over the right lung posteriorly. The sputum contained blood and pus-corpuscles, but no evidences of hydatid disease, tuberculosis or amebæ were found. The temperature was 102.8° F. As the patient's general condition gradually became worse, operation was decided upon. A 3 inch incision was made in the seventh intercostal space intersecting the posterior axillary line. Through this opening a finger was passed into a large multilocular cavity and a rounded opening was found in the diaphragm. A drainage-tube was inserted from which was discharged a viscid, thick, sour-smelling fluid, with dull-red patches on a grey ground. Microscopic examination showed this fluid to contain amebæ. The abscess-cavity was sprayed twice daily with various germicides without apparent diminution of the number of amebæ, and constitutional remedies proved ineffectual in keeping up the patient's strength. Death followed in 7 months from the onset of the disease and 3½ months after opening the abscess. [M.B.T.]

Special Article.

THE STERILIZATION OF DRINKING-WATER.—A DESCRIPTION OF THE WATERHOUSE-FORBES STERILIZER.

FIG. 1 is a purely diagrammatic view of the No. 1 apparatus and serves to explain the method of operation. The "raw" or unsterilized water is supplied from the inverted bottle 1. The water runs from the bottle 1 into the cup 2, then down through the pipe 3, into compartment 4 of the "heat exchange," which it fills. When compartment 4 is filled, the water runs into the heater 5 and rises in the pipe 6 to the level X, when it stops. No more water will now run out of the bottle 1 because its mouth is sealed by the water in the cup 2 at the level X. The burner 7 is now lighted and heat is applied under the heater 5 which causes the water in the heater to boil; and in boiling it rises in the pipe 6 and

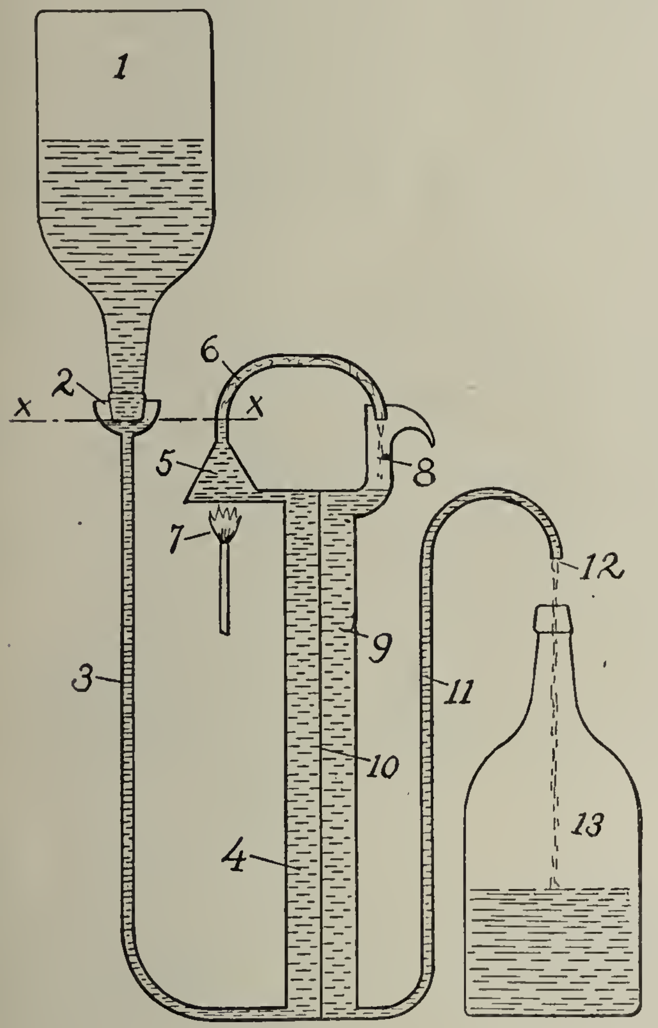

FIG. 1.

lows over into the cup 8, just as a pot on a cooking-range vill boil over. It is therefore impossible for any water to ass through the apparatus until it has boiled, for it is only y boiling that it can rise sufficiently in the pipe 6 to flow ver into the cup 8. This boiling lasts but for the fraction of second, and once the water has passed through the pipe 6 t is removed from any point where heat can again reach it.

When some water has boiled over, as above stated, the level f the water in the heater 5 and likewise the level of that in he cup 2 is lowered. This exposes the mouth of the bottle so that a small quantity of air enters the bottle and allows corresponding quantity of water to run out of the bottle nd refill the cup 2 and heater 5 up to the level X again, hen the mouth of the bottle is once more sealed by the ater, and no more can run out of it until the level is again owered by reason of more water boiling over through the ipe 6. This action becomes continuous, for the flame 7 is onstantly boiling the water in the heater 5 and causing it to flow over through the pipe 6. The water continues to boil over into the cup 8 and quickly fills compartment 9 of the heat-exchange. When compartment 9 is filled the water runs out of the pipe 11 at the opening 12 into the receiving bottle 13.

While passing down through compartment 9 the heat of the water, which is boiling hot, is transferred, by conduction, through the thin metal partition or diaphragm 10 to the cold water passing up through compartment 4. Thus the water which is boiled in the heater 5 passes out of the apparatus nearly as cold as that entering, while the cold water entering the apparatus becomes heated as it passes up through compartment 4 and reaches the heater 5 in a very hot condition and nearly at the boiling-point. Hence, the only heat which has to be supplied to keep the apparatus running continuously, is that necessary to bring the already highly heated water entering the heater 5 to the boiling-point and cause it to rise above the normal water-level X, boil over through the pipe 6, and so pass on through the remainder of the apparatus to the discharge outlet 12.

There is a variant of this apparatus, the principle of operation of which is identical with that described, but in which the construction is slightly different. The water enters through a small watertank with a pipe and is allowed to fill the tank up to the water-level X, but no higher, as it is restrained by the float-operated valve in the tank.

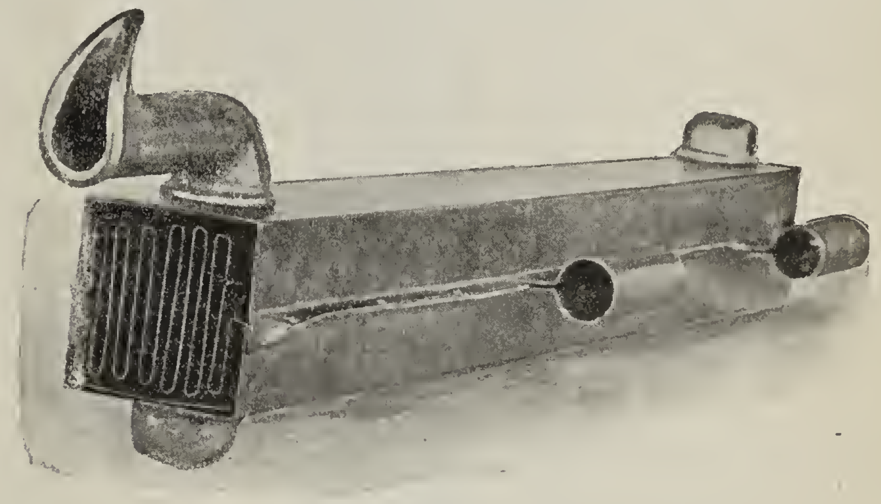

FIG. 2.

The small tank with the float and valve merely takes the place of the inverted bottle and aerostatic feed used in the No. 1 apparatus. Both the aerostatic device and the float and valve have the same function, viz., maintaining the water-level at the line X. In the second device the pipe is connected with a constant water-supply, such as a faucet or the water-supply pipe of the house. After the water leaves the float-box it runs down through the pipe, and the action of the apparatus from this point on is exactly like that of the No. 1 apparatus before described.

It will be observed that but little fuel is required to operate this apparatus, for the heat is conserved and used over and over again, whereas by the ordinary method of boiling water and allowing it to cool off naturally all the heat required for raising its temperature to the boiling point is thrown away. For example, if water is discharged from the apparatus 3° F. higher in temperature than its initial temperature, but 3 units of heat are lost for each pound of water treated, whereas by the ordinary method of boiling water, assuming that the initial temperature of the water is 62° F., it must be raised to 212° F. to reach the boiling point, and each pound of water treated must therefore have 150 units heat put into it, all of which is again lost in cooling. Therefore it is obvious that this system is 50 times more economical in fuel than the ordinary method.

A photograph (Fig. 2) is shown of the essential part of the mechanism to illustrate the arrangement of the division of the two columns of water whereby the diffusion of the heat is made so nearly perfect.

The domestic size illustrated (in Fig. 3) will sterilize from 3 to 5 gallons of water per hour, and deliver the same at from 1° or 2° to 6° or 8° higher in temperature than its initial temperature, according to the rate at which it is operated.

With gas at $1.00 per 1,000 feet, the sterilization of 60 quarts or 15 gallons of water costs one cent. With kerosene at 8 cents per gallon, 100 quarts or 25 gallons cost also one cent.

Boiling-hot water may be obtained at any time by merely stopping the cold discharge-opening with the finger, when the cup 8 will fill with boiling water and overflow at the spout.

The water thus sterilized is not "flat," as it can boil for only the fraction of a second, and so soon as it boils it runs over into cup 8, and is in a place where heat cannot reach it again. Moreover, the water is kept closed within the apparatus and any vapors remain with it, and are reabsorbed before it is discharged from the apparatus. As is well known water as ordinarily boiled is flat, insipid, and unpalatable, by reason of having much of its oxygen and other palatable gases driven off by long-continued boiling.*

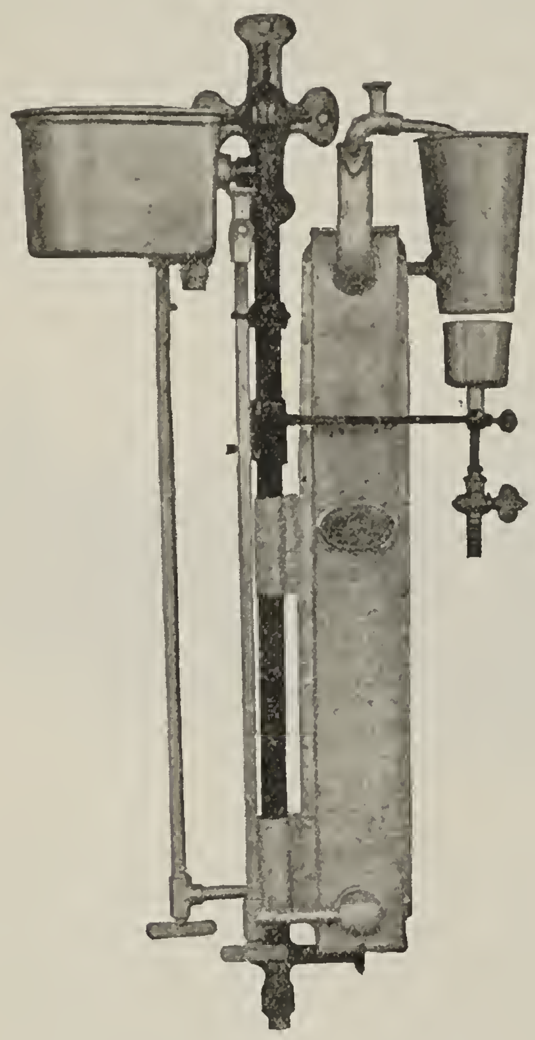

FIG. 3.

It is entirely practicable to sterilize water on a large scale by this process, as for example the entire water-supply of a city, town, hotel, office-building, private house, etc. As the apparatus is increased in size its economy becomes greater; thus in a very large apparatus it is possible to sterilize from 4,000 to 5,000 lbs. of water with but one pound of coal. All the larger apparatuses are best operated by a fire of coal, but oil or gas can be used.

Correspondence.

THE NEW YORK DEPARTMENT OF HEALTH AND SALE OF ANTITOXIN.

By JOHN B. COSBY, M.D.,
Commissioner.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

DEAR SIR:—The issue of the PHILADELPHIA MEDICAL JOURNAL of February 25 contains a letter from Dr. H. M. Biggs, director of the Bacteriological laboratories of this department, and some editorial comments on it, relating to diphtheria in New York City and the production of diphtheria-antitoxin. I desire to direct your attention to several points in this connection. The issue of the PHILADELPHIA MEDICAL JOURNAL of February 11 says: "The high mortality from diphtheria in New York and Philadelphia is disgraceful." As a matter of fact the actual diminution in the number of deaths from diphtheria and croup in New York City since 1894, and the diminution in the death-rate from diphtheria, and croup in New York City since 1894, compared with 1898, has been greater than that of any great city in the world. May I respectfully ask, is this condition "disgraceful"?

The PHILADELPHIA MEDICAL JOURNAL, February 4, page 236, contains this table:

FIGURES PHILA. MED. JOURNAL.		ACTUAL FIGURES.	
Antitoxin fund--sales of vials of antitoxin by Board of Health,	$10,104 20	Amount received 1898, sales antitoxin all kinds, including malleine and tuberculin	$13,963 32
At the same rate for the year	40,416 80	Value same rate, amount actually used or given away 1898	43,999 47
At the average price of $1.00 per vial, the surplus in vials, about	40,000 00	The total expenditures of the Division of Pathology and Bacteriology, including the diagnosis, research and vaccine laboratories and the antitoxin stable for the year 1897 (figures for 1898 are not yet completed) were . .	61,901 78
Amount actually used "in the proper performance of its duties"	3,350 00		
The surplus marketed vials	40,000 00		
Amount that might have been used . .	10,116 00		

The inference from the editorial comments of both February 4 and 25, would be that the figures used are all from the city records. Such is not the case; most of them are estimates which are wide from the truth. The issue of February 4 further says "if we examine the clinical results we are astonished to learn that in 1898, for the first 6 months, there were in New York City 3,319 cases of diphtheria, with a mortality of 916, that is, 27.59%." As a matter of fact, for the first 6 months of 1898, there were 7,051 cases of diphtheria and croup reported to the New York Board of Health, with 1,095 deaths; diphtheria and croup mortality 15.5% instead of 27.59% as given in the editorial in question. Dr. Biggs' letter further shows that for the year 1898 the diphtheria-mortality for the boroughs of Manhattan and the Bronx (which alone have been under the control of the Board of Health until January 1, 1898) was 12.2%, and for Greater New York 15.8%.

The number of cases of diphtheria in the article (so stated) refers to the number of cultures examined and found to contain diphtheria-bacilli, and the deaths are those from diphtheria alone, not including croup. It seems hardly possible that any one could mistake the number of cultures in which diphtheria-bacilli were found for the total number of cases of diphtheria actually occurring in the City, especially when the total number of cases of diphtheria was also reported for the same period. In some of the boroughs certainly not more than one-third of the cases of suspected diphtheria are examined bacteriologically; no regulation of the Board requires that every case of suspected diphtheria shall be examined bacteriologically.

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* For the cuts and foregoing description, furnished at our request, we are indebted to the manufacturers, The Waterhouse-Forbes Company, 220, 222 South Fifth Street, Philadelphia, Pa. [Editor PHILADELPHIA MEDICAL JOURNAL.]

The statement that the Board "has not, nor ever has had, a single horse in its own laboratories," is true in the sense that its laboratories are not designed for the care of horses, and the Department of Health has no stables where its horses can be kept; but the inference that the Department of Health does not own and has not always owned its horses is absolutely untrue. It owns and has always owned all of the animals used for the production of diphtheria-antitoxin and other antitoxins.

The horses employed by the Health Department are kept and have always been kept, at the stables of the New York College of Veterinary Surgeons, and the Department of Health pays for their care and maintenance, exercising, the taking of temperatures and veterinary attendance and the use of laboratory facilities at the rate of $25.00 per month per horse. Dr. Biggs is President of the Board of Trustees of the New York College of Veterinary Surgeons, and it was through his influence that these arrangements were made, which have been and are still very greatly to the benefit of the Department and its work.

Dr. Biggs has no more relation to the financial matters connected with the sales of the laboratory products than has the editor of the Philadelphia Medical Journal. They are solely in the charge of the clerk of accounts and supplies in the office of the Secretary of the Board.

It has seemed to me that these statements should be made, as the inferences thrown out by your editorials are both entirely unjust and untrue.

TRAVELING TRICK OPTICIANS.

By J. L. SEIBERT, M.D.,

of Bellefonte, Pa.

To the Editor of The Philadelphia Medical Journal:—

To-day I mail you a marked copy of this week's issue of *The Democratic Watchman* which contains a correct account of the arrest, imprisonment, and final disposition of, we believe, the same two men of whom Dr. M. V. Ball, of Warren, Pa., advised the profession in the Journal of February 18, under the caption of "Some of the Ways of some Opticians."

Quoting Dr. Ball we can say "had we known at the time (of the hearing before the justice) all the tricks they had played, they would be in limbo now." But acting on the advice of our attorneys we decided not to push the case any further than stated in the article in the *Watchman.*

By publishing in the Journal so much of the report referred to in this case as your judgment and space will permit, you no doubt will greatly assist in preventing these men, and others so disposed, from imposing themselves on innocent people.

[The excerpt from the newspaper mentioned says the names used in registering at the hotel were A. G., and A. I. Goulson, of Buffalo, N. Y. The report adds: "The men spent Tuesday night behind the bars, but were released Wednesday at the hearing, after refunding all of the money, except the $5.00 to Mrs. Bush's domestic, paying $17.80 costs and promising to leave the State. They left town Wednesday afternoon for better fields. Reports have been received that they had worked Warren, Oil City, and Lock Haven people."—Ed. Phila. Med. Jour.]

GLAUCOMA TREATED BY AN OPTICIAN.

By F. G. MURPHY, M.D.,

of Kansas City, Mo.

To the Editor of The Philadelphia Medical Journal:—

Mr. P——, aged 54 years, of Clear Lake, Iowa, came to me for treatment of his right eye, which was at that time totally blind, and quite painful. He informed me that Professor —— an eye specialist (whom I knew to be an optician), had examined his eye, and had told him if he would wear a pair of glasses that he prescribed the eye would get well. He wore the glasses as directed and became entirely blind. An iridectomy which I performed relieved the eye from pain, but did not restore his vision. In questioning the man, I learned he thought from the way this optician advertised and talked that he was medically informed. How was this man to know the difference between an ophthalmologist and an optician? Physicians had sent their patients to this same "eye specialist" and his family-physician rents part of a store he owns to a jeweler and sends his eye-cases to him.

A physician who sends his eye-patients to a jeweler or optician, more certainly does harm to a community than an advertising quack, for patients usually have unlimited faith in any man whom their family-physician recommends, and look upon a quack with a little suspicion. I know of a number of physicians who send their eye-cases to jewelers and opticians, and inconsistent as it may seem they pose as public benefactors, denounce osteopathy and all other pathys as an imposition on the public, and talk a great deal about how Smith across the street violates the code of ethics.

No. 20 Diamond Building.

[We have had a number of similar cases, and have heard of others. The details of three were recently given us in a letter from a prominent oculist of Philadelphia. It is strange such victims will not sue these quacks. The wretched business cannot be stopped, we fear, in any other way.—Ed. Phila. Med. Jour.]

Treatment of Gonorrhea.—Kreissl (*Chicago Medical Recorder*, January, 1899) thinks the silver-salts the most efficient agents in the treatment of gonorrhea, but calls attention to the reaction following each application, enjoining abstinence from further irritating solutions until such reaction has passed, but advising constant use of mild solutions meanwhile. He is strongly opposed to the use of the steel sound, thinking it often the cause of general infection. In regard to pronouncing the gonorrheal process extinct, with a view to the marriage of the patient, he thinks the tests should be most thorough and opinions conservative. [G.C.C.H.]

Scleroderma with Hemiatrophy.—Lindsay Steven (*Glasgow Medical Journal*, December, 1898) reports a fatal case of scleroderma with pronounced hemiatrophy of the face, body, and extremities, under observation for 12 years, with the results of postmortem examination, and submits the following conclusions: (1) Scleroderma is a trophoneurosis due to changes occurring in the trophic cells of the central nervous system, certainly in those of the spinal cord and probably also in those of the brain. (2) As a result of these changes the bloodvessels controlled by the diseased cells are first of all affected. (3) Following upon the derangement of the blood-supply caused by the central nervous disease, the atrophic changes in the skin and subjacent tissues are slowly developed. [G.C.C.H.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending March 25, 1899:—

Tuesday, March 21—College of Physicians. Section on Ophthalmology.

Wednesday, March 22—County Medical Society.

Thursday, March 23—Pathological Society.

A Newspaper Advertisement.—"Charity for worthy poor people and those in moderate circumstances; an eye specialist will give examination and treatment of the eyes free of charge, at his private office, to all who send their names to H 231, Press office. Satisfaction guaranteed."

Keil's Medical, Pharmaceutical, and Dental Register-Directory and Intelligencer, according to advance-sheets of the fifth edition, presents some marked improvements, a noteworthy feature being the placing of the street-directory of physicians in the front of the book. It is a valuable reference-work, and bears internal evidence of care in compilation and revision.

Dr. Simon Flexner, professor of pathologic anatomy in Johns Hopkins University, Baltimore, Md., has been elected professor of general pathology and morbid anatomy in the University of Pennsylvania, and has accepted the position. He will enter upon his new duties about October 1 of this year. He succeeds Dr. John Guiteras, who recently tendered his resignation to take effect at the close of the present academic year. Dr. Guiteras intends going to Havana, Cuba, to continue his medical studies and teaching.

Health Report of Pennsylvania.—The following report has been issued by Dr. Benjamin Lee, secretary of the Pennsylvania State Board of Health:—

Since my last report of February 11, 1899, smallpox has been reported in Pennsylvania as follows: Bedford County, Six-Mile Run, 1 case; Somerset County, Berwind, 1 case; Blair County, Altoona, 1 case, contracted from case previously reported; Huntingdon County, Saltillo, 5 cases; Fulton County, McConnellsburg, 1 case; Allegheny County, Homestead, 1 case; O'Hara Township, 1 case; McKee's Rocks, 3 cases.

Epidemic cerebrospinal meningitis has been reported as follows: Philadelphia, 45 cases, 15 deaths.

Typhoid fever has been reported in Philadelphia as follows: Cases, 1570; deaths, 164. Since January 1, 1899, 3,649 cases and 380 deaths have been reported.

An Act Relating to Costs in Suits against Physicians, Surgeons, Dentists, for Malpractice.—The following bill has been introduced into the Pennsylvania Legislature:

SECTION 1.—Be it enacted by the Senate and House of Representatives of the Commonwealth of Pennsylvania in General Assembly met and it is hereby enacted by the authority of the same, That in all suits which shall hereafter be brought to any court of this Commonwealth against any practitioner lawfully practising medicine, dentistry, surgery or obstetrics to recover damage for malpractice, the person bringing such suit, before being entitled to proceed shall first file with the prothonotary of the court in which the suit is brought a bond with one or more sufficient sureties, to be justified before the prothonotary, or, if the exceptions are filed to his justifications, then or within twenty-four hours after the defendant has appeared by the court or any of the judges thereof in which said suit is brought, and said bond shall be in such sum as will cover the payment of all costs which shall include in addition to those now recoverable by law an item in the sum of one per centum of the damage claimed by the plaintiff in said suit, the amount of such item to be paid to the defendant, provided a final judgment be rendered in said action in favor of the defendant.

The Relation of Water-supply to the Occurrence of Typhoid Fever.—Dr. A. C. Abbott, chief of the bacteriologic department of the Board of Health, and professor of hygiene in the University of Pennsylvania, has prepared some interesting statistics bearing upon the relation of the condition of the water-supply to the occurrence of typhoid fever, and illustrating incidentally the value of the introduction of a filtered water-supply. His figures, in brief, are as follows: Pure mountain springs: Munich and Vienna, 4.0 deaths per 100,000 inhabitants. Properly filtered water: Hague, Berlin, London, Rotterdam, and Edinburgh, 8.3 per 100,000 inhabitants. Ground-waters, springs, wells: Frankfort, Dresden, and Paris, 14.7 per 100,000 inhabitants. Impounded surface springs: Brooklyn, New York, Boston and New Haven, 23.1. Normal rivers, pollution eliminated through the agency of time, dilution, sedimentation, etc.: Trenton, Montreal, Omaha, New Orleans, St. Louis, and Minnesota, 28.5. Large lakes subject to pollution: Toronto, Milwaukee, Detroit, 30.3. Upland streams and small lakes, water-sheds inhabited: Denver, San Francisco, Reading, Providence, 42. Rivers and wells known to be polluted: Philadelphia, Atlanta, Cincinnati, Albany, Jersey City, Pittsburg, Camden, and Washington, 60.8.

Vital Statistics of Philadelphia for the week ending March 11, 1899:

Total mortality 520

Diseases.	Cases.	Deaths.
Pulmonary tuberculosis 66, intestinal tuberculosis 1		67
Pneumonia 56, congestion of the lungs 5		61
Typhoid fever	419	39
Nephritis 28, uremia 9		37
Apoplexy 27, paralysis 9		36
Marasmus 16, inanition 10, debility 7		33
Heart-disease 19, inflammation of the heart 5, fatty degeneration of the heart 3		27
Inflammation of the brain		28
Senility		25
Carcinoma 16, tumor 4		20
Convulsions		18
Diphtheria 10, membranous croup 6	55	16
Gastroenteritis 12, cholera infantum 3, cholera morbus 1		16
Cerebrospinal meningitis	34	12
Casualties 8, burns and scalds 3		11
Bronchitis		10
Scarlet fever	32	1
Pleuritis 7, peritonitis 6, rheumatism 6, cirrhosis of the liver 4, diabetes 4, intestinal obstruction 4, suicide 4, aortic aneurysm 3, alcoholism 3, diarrhea 3, influenza 3, suffocation 3, appendicitis 2, pertussis 2, anemia 1, congestion of the liver 1, dysentery 1, erysipelas 1.		

Pathological Society of Philadelphia.—At a meeting held March 9, DR. DAVID RIESMAN presented a communication on **typhoid ulcers in the esophagus,** and exhibited the specimen and drawings. The patient, 17 years of age, had died from cardiac asthenia, during the latter part of the attack of typhoid fever. At the necropsy, on the upper part of the anterior wall of the esophagus there was found a chain of 4 ulcers, which together measured 23 mm. in length. In addition there was discovered an ulcer in the appendix, 4 leaflets at the pulmonary valve, and marked hyperplasia and slight atheroma of the aorta. Allusion was made to the rarity of observations relative to lesions of the esophagus in typhoid fever. The discussion was participated in by DRS. H. A. HARE, ALFRED STENGEL, JOSEPH SAILER, and DAVID RIESMAN.

Dr. Joseph Sailer presented a specimen of **typhoid ulcer in a Meckel's diverticulum,** and also exhibited two drawings of a **brain of a low grade imbecile** with epileptic attacks. There was diffuse sclerosis of the left hemisphere with scattered foci of smaller and harder gyri.

Dr. Alfred Stengel presented a specimen of **colloid carcinoma of the stomach,** with peritoneal extension and metastasis to the liver, through the diaphragm, to the pleura, pericardium, and the lungs.

Dr. William G. Spiller presented a specimen of **bilateral pachymeningitis hæmorrhagica interna,** from a patient aged 9 years.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held February 27, Dr. W. B. Ewing reported a case of almost **universal eczema** in a man who at times presented a peculiar blushing of the fingers of both hands. The diagnosis of Raynaud's disease was under consideration. Dr. R. W. Stewart reported a case of **actinomycosis** in a man. When the patient first came under his observation, he had a fluctuating tumor in the abdominal wall. An incision permitted the discharge of a quantity of pus. The abdominal wall was at least 3 inches thick. The wound healed, but a few sinuses persisted, from which there was a purulent discharge, in which small yellowish granules were detected by Dr. J. Schlensog, when examined microscopically. A second operation was done and the entire mass removed. The patient left the hospital in good condition. Later, the same condition developed in the chest-wall. At a third operation a large portion of the chest-wall was resected, together with a portion of underlying lung. The cavity left was packed with gauze, the patient making a good recovery. Cerebral symptoms developed after a short interval, and death soon followed. No autopsy could be obtained, but it was believed that metastasis to brain had been the cause of death. Dr. Pettit reported the case of a young woman in whom the left thigh and leg suddenly became swollen and edematous. The patient's uterus had been cureted 1½ years before, but at the time of observation the pelvic organs were normal. Opinions were asked regarding probable cause of the venous obstruction. Dr. Ewing inquired if the patient was suffering from obstinate constipation.

Dr. R. W. Stewart reported a case of **acute obstruction of the portal vein following arsenical poisoning.** The abdomen and legs suddenly became enormously distended, but the swelling disappeared completely in 48 hours.

Dr. Pettit read a paper on **Tuberculosis of the hip-joint,** and reported 2 cases. The importance of an early diagnosis and appropriate treatment were emphasized. If the case is seen early, rest, extension, good hygiene and nourishing food may suffice. If the patient does not do well on this line of treatment, opening the joint and removing the diseased focus was advised.

Philadelphia Neurological Society.—At a meeting held February 27, Dr. F. Savary Pearce reported a case of **ataxia for nosological diagnosis.** Dr. C. K. Mills thought that the case might be one of cerebrospinal syphilis or gliosis of the cord and basal ganglia; a cerebellar lesion would hardly explain all the symptoms. Dr. F. X. Dercum said that possibly hereditary syphilitic disease of the cerebellum might be the cause of the clinical manifestations.

Dr. G. E. de Schweinitz read a paper on **Retrobulbar neuritis and facial palsy** occurring in the same patient and reported cases.

Dr. Wendell Reber read a paper on **Unilateral Arygll-Robertson pupil.** Dr. de Schweinitz said that he had seen two or three cases presenting this condition. He believed that the lesion was probably nuclear. Dr. F. X. Dercum had seen one case in addition to those mentioned by Dr. de Schweinitz, occurring in a patient with paresis. Dr. W. G. Spiller spoke of the extraordinary degeneration of the "pupillary fibers" within the optic nerve obtained by removal of the iris, and of the far-reaching conclusions to be drawn from these experiments if they were confirmed. Dr. F. S. Pearce wished to know why myosis often existed with Argyll-Robertson pupil. Dr. de Schweinitz replied that reflex iridoplegia might be associated either with myosis or mydriasis. Dr. J. K. Mitchell mentioned a case in which the Argyll-Robertson pupil was the only sign of tabes.

Dr. Wm. W. Sweet and Dr. William G. Spiller reported a case of **tumor of the cerebellum.** The symptoms of a cerebellar growth had developed within a few months, and at the necropsy a round-cell sarcoma was found within the middle lobe of the cerebellum. Degeneration of the posterior columns was observed. A stellate figure near the macula was found during life. Dr. de Schweinitz said he had seen the star-shaped figure in the macula in cases of cerebellar tumor, in one case of a tumor of the motor area of the brain, and in other cases of optic neuritis unassociated with intracranial lesions.

Dr. M. W. Zimmermann reported cases of **reversal of the perceptive limits,** and exhibited charts. He thought that moderate contraction of the visual fields alone was not conclusive, but that extreme contraction, in which the fields for white or form suffered relatively more than the color-fields, suggested very strongly the presence of hysteria. Complete reversal, and persistent reversal, when of considerable extent and not explained by organic lesions, were almost certain evidences of hysteria. Dr. de Schweinitz spoke of the value of the tests made by the perimeter, and referred to some work done by himself and Dr. J. K. Mitchell on the visual field. Dr. Spiller asked whether any of the ophthalmologists present had seen hysterical hemianopsia, and referred to two cases presented in Paris and reported in the literature, which he had had the opportunity of observing. Dr. de Schweinitz said he had seen this condition in one patient, and he thought another case had been reported by Dr. J. H. Lloyd.

College of Physicians of Philadelphia—Section on General Medicine.—At a meeting held March 13, Dr. D. J. Milton Miller reported a **case of intrathoracic tumor** and presented the patient, a man aged 38 years. During the past 14 months he has complained of pain in the left chest, and for the past 8 months a tumor has been visible. The patient complains also of dyspnea, lividity of the face, and loss of weight. There are no enlarged veins, or glands of the neck, face, or axilla. The tumor extends from the second to the fifth ribs; its right border is limited by the left edge of the sternum; to the left it merges gradually with the chest-wall. Examination of the blood revealed a moderate lymphocytosis. It was suggested that the growth was possibly a lymphosarcoma. Dr. James Tyson suggested the possibility of the tumor being a chondroma.

Dr. Charles W. Burr read a paper entitled: **Some of the sensory symptoms occurring in cerebral palsies.** He reported 3 cases of organic hemiplegia, in the first of which there were associated hemianesthesia, hyperalgesia, and partial loss of temperature-sense; in the second, inability to recognize objects held in the right hand, and partial loss of temperature-sense (the necropsy revealed a tumor involving the basal ganglia); in the third, left-sided anesthesia to touch, pain, and temperature, but ability to recognize objects held in the left hand. Associated hysteria was suspected in the third case. In the discussion, DR. WILLIAM G. SPILLER referred to the fact that dissociation of sensation can no longer be recognized as pathognomonic of syringomyelia, as it has been observed in a variety of other disorders. There occurs, however, a dissociation of the syringomyelic type.

DRS. JOHN H. MUSSER and JOSEPH SAILER reported a case of **typhoid fever complicated with manifestations of the hemorrhagic diathesis, or blood-dyscrasia.** The patient was a man, aged 19 years, who rather early in the course of an attack of typhoid fever presented numerous hemorrhages in the mucous membrane of the mouth, pharynx, and nose, and subcutaneous and intermuscular hemorrhages in various parts of the body. At the necropsy there were found a patulous foramen ovale, only two leaflets at the aortic valve, and a typhoid ulcer in a Meckel's diverticulum, in addition to the usual lesions of typhoid fever.

DR. H. A. HARE reported a case of **acute thyroiditis with thyroid poisoning.** The patient was a woman, who, following some injury to the right side of her neck, developed an enlargement of the right lobe of the thyroid, with fever, cardiac palpitation, distention of the peripheral vessels, particularly those of the face, etc. The general symptoms were thought to be due to a sudden outpouring of thyroid substance into the circulation. The case terminated spontaneously in recovery. No similar case could be discovered in the literature, most of the reported cases progressing to suppuration and terminating fatally. In the discussion DR. MUSSER referred to a case of thyroiditis following typhoid fever, progressing to suppuration, and ending in recovery.

Philadelphia County Medical Society.—At a meeting held March 8, DR. EDMUND W. HOLMES read a paper entitled **Modern Anatomy.** He outlined the methods formerly in vogue in teaching anatomy, and stated that he considered antiquated the method whereby main reliance is placed upon didactic teaching. He advocated that more attention be paid to dissection, and to the demonstration of already dissected parts to small classes of students. In addition, the students should have a previously assigned task that they should study prior to the demonstration, and the comprehension of the previously dissected part should be facilitated by museum-specimens and wet specimens in tanks readily accessible. The study of anatomy should be pursued during each of the 4 years of medical study. During the first year main attention should be directed to the bones; during the second, dissection and redissection should be practised; during the third, dissection in applied anatomy should be taken up; and during the fourth year, the student should have ample opportunity for the dissection of special regions of the body. Courses in biology should preface the medical studies, and in the medical colleges there should be less didactic teaching and more practical histology, embryology, and comparative anatomy. The essentials of these may well be learned in the schools before the student enters the medical college. In discussion, PROFESSOR SPENCER TROTTER spoke of the study of zoology, botany, anatomy, physiology, histology, embryology, and comparative anatomy in Swarthmore College; PROFESSOR FORBES detailed the methods pursued in the teaching of anatomy at Jefferson Medical College; DR. BEATES spoke of the lamentable lack of knowledge of anatomy on the part of many of the applicants to the State Board for license to practise medicine in Pennsylvania; DR. A. HEWSON thought there was need of more anatomy in the medical curriculum and of more time in the dissecting-room. DR. ALLIS called attention to some of the defects in the present methods of teaching anatomy; DR. CHARLES K. MILLS noted the necessity of more practical and vigorous methods; PROFESSOR HOLTZ spoke of the teaching of anatomy and physiology in the High School; DR. JOHN B. ROBERTS referred to the necessity of directing more attention to living anatomy than to dead anatomy; DR. W. M. L. COPLIN spoke of proceeding from the study of anatomy to that of histology; DR. DEFORREST WILLARD thought didactic lectures of value in furnishing a systematic course in anatomy, but conceded the value of laboratory instruction; DR. J. P. MUNN spoke of the value of dissection; DR. JOHN H. GIBBON emphasized the value of the study of living anatomy. The discussion was closed by DR. HOLMES.

DR. JOHN R. ROBERTS read a paper entitled: **The necessity of force in the treatment of Colles' fracture of the radius.** DRS. LEONARD, HEWSON, GIBBON, DAVIS, ALLIS, BEATES, and ROBERTS participated in the discussion.

DR. JAMES C. WILSON introduced a preamble and resolution that the Society should take some action relative to the bill at present before the legislature of Pennsylvania, according to the provisions of which vaccination as a requisite for the admission of children to the public schools, shall be abolished. The resolution was adopted, and a committee, composed of Dr. James C. Wilson, Dr. John H. Musser, and Dr. Allan H. Hulshizer, appointed to present the preamble and resolution to the committee of Legislature having charge of the bill.

Philadelphia Pediatric Society.—At a meeting held March 14, DR. C. S. POTTS exhibited a girl, 15 years of age, with **Friedreich's ataxia.** No other member of the family had the disease, the history being otherwise negative. The symptoms presented by the patient were impairment of intellect, disturbance of speech, nystagmus, absence of knee-jerks, and talipes.

DR. C. W. LE FEVER reported a case of **acute dilatation of the heart** in a boy 4 years of age, apparently following an attack of pneumonia. There had been extensive edema of the legs, but this had disappeared under the use of digitalis. Although the increased area of cardiac dulness diminished, a mitral systolic murmur persisted and remains after a period of several months. This was thought to be due to the inelasticity of the fibrous tissue of the valves, which, when once stretched, did not regain its normal state so readily as the heart-muscle. The patient was presented for examination and in the discussion DRS. A. O. J. KELLY and J. P. C. GRIFFITH asked if the diastolic thrill and murmur, in addition to the systolic murmur and evident hypertrophy of the heart discernible, do not rather indicate that there had been an endocarditis.

DR. J. H. JOPSON exhibited a boy, 3 months old, in whom the **omphalo-mesenteric duct had persisted and remained patulous,** causing a fecal fistula at the umbilicus. DR. ROSENTHAL mentioned having seen a similar case in a patient, 7 weeks old, and DR. L. J. HAMMOND had observed the condition in an infant one day old.

DR. T. S. WESTCOTT presented a **home-made measure for sugar of milk,** consisting of a glass-jar on which a label was pasted having lines indicating the weights of different amounts of sugar of milk.

DR. F. SAVARY PEARCE reported a case in which traumatism in the neighborhood of the right elbow had been followed by

complete monoplegia of the forearm. Operation disclosed a contusion of the musculo-spiral nerve with laceration through nearly half of it. With the persistent use of massage and galvanism regeneration has occurred to a remakable degree.

DR. L. J. HAMMOND read a paper on **Cerebellar abscess in children,** with remarks on the diagnosis. In the etiology, in addition to suppuration of the various sinuses, traumatism, even slight in degree, has a decided importance. Five cases were reported, the diagnosis being confirmed either by operation or by autopsy. The complex of symptoms indicating the condition includes: A half-unconscious state with muttering; lateral decubitus; retraction of head; flexion of arms and legs, the arms being moved constantly in one direction; frequent repetition of an act following a command, such as protrusion of the tongue; pupils dilated but responsive; scaphoid abdomen; slow respiration; sugar in the urine; no localized paralysis.

DR. GRIFFITH reported a series of cases: **Acute yellow atrophy of the liver** in a boy of 7 years; **angioneurotic edema** in a girl of 2 years; **thigh-friction** in 2 girl infants; **peritonitic pneumonia** in a boy of 9 years. The boy having been sent into the Hospital with the diagnosis of appendicitis, pneumonia only being present; **meningitic typhoid** fever in a boy of 10 years, meningitic symptoms being so strong as to obscure the diagnosis for a time; **nervous incontinence of feces** in a boy, associated with nocturnal and diurnal enuresis.

DR. GEORGE WOODWARD reported a case of **streptococcous milk-infection,** which was discovered by the Board of Health inspection. The use of the milk was followed by acute intestinal disturbances, and examination showed the milk to contain pus-corpuscles and streptococci. Inspection of the herd from which the milk came showed that suppuration existed in the udder of one of the cows.

DR. J. H. MCKEE read a paper on **The developmental influence of play,** analyzing the characteristic tendencies of the games at different ages and pointing out the great use which could be made of them for the development of the individual.

The Necessity of Vaccination.—The Pennsylvania State Board of Health has reissued the following circular, which is quite as opportune now as five years ago, the date of its first appearance:—At the last regular meeting of the State Board of Health of Pennsylvania the following preambles and resolution were unanimously adopted:

"WHEREAS, Efforts are being constantly and persistently made to deceive and mislead the people of this Commonwealth respecting the value of vaccination as a preventive of smallpox, and

"WHEREAS, In the experience of this Board, these efforts have seriously interfered with the work of stamping out epidemics of smallpox by health-authorities in the State, and have thus added greatly to the public danger from this disease, therefore

"*Resolved*, That the Secretary be instructed to prepare a statement of statistical and other facts relating to vaccination, and send it to the newspapers of the State, to the end that our people may be enabled to act intelligently on a matter so essential to their safety."

In conformity with the above instruction, I beg leave respectfully to submit a brief statement of the deliberate decision of the medical profession of the entire civilized world, on this important subject, as epitomized in the resolution adopted by the recent "International Congress of Public Health," at Chicago, that the said Congress "desires to affirm, in the strongest possible manner, its belief in the value of vaccination as a preventive of smallpox," and also, of the grounds on which this decision rests.

Arguments against vaccination as a preventive of smallpox do not, as a rule, accurately set forth the real opinions of physicians on this important question. For this reason the Board deems it proper to present the following as the embodiment of the experience and views of the medical faculty in reference to the subject:

First. Successful vaccination with genuine virus does exert a protective power against smallpox.

Second. After a successful vaccination there is a period of some months or years in which its protective influence is far greater than that of a previous attack of smallpox itself would be.

Third. Following this period of well-nigh perfect immunity, there is a very slow and gradual diminution of the protective influence which renders subsequent re-vaccination advisable.

Fourth. This period of partial protection, in the vast majority of persons, lasts throughout life.

Fifth. Smallpox, in vaccinated persons, nearly always takes the form of "varioloid;" the attack being less severe, far less dangerous and of much shorter duration than the disease in un-vaccinated persons. The mortality among those who have taken smallpox a second time, is five times as great as that of varioloid.

Sixth. Every widespread epidemic of smallpox shows that vaccination not only vastly diminishes the number of cases, but also greatly lowers the mortality among those actually attacked by the disease.

Seventh. The operation of vaccination, like any other wound of the skin, may, *theoretically*, be the means of introducing disease of more or less serious nature. But, *practically* such accidents are so rare that the vast majority of physicians *scarcely witness a single case in a life-time.*

Eighth. The very exceptional occurrence of an occasional case of disease caused by vaccination, simply argues the necessity for care in the propagation and selection of virus, and during and after the operation; but furnishes not the slightest reason against the universal employment of vaccination as a precaution against the far greater perils of smallpox.

It will be time well spent to consider, for a moment, what those perils were before the introduction of vaccination.

It is safe to say that for several hundred years previous to Dr. Jenner's happy discovery, one-sixth of all the people in Europe died of smallpox. If we estimate, as there is good ground for doing, that one-fourth of those attacked die, taking mild and severe epidemics together, we shall arrive at the conclusion that two-thirds of the entire population were attacked by it. We are told by Lady Mary Wortley Montagu that every third person, met upon the streets, was more or less disfigured by its ravages. An old song which has reached us from those days says, "from smallpox and love few men remain free." One can scarcely pick up a romance written in the last century without finding this dreaded disease figuring in its pages. To-day, as we know, a city of a million inhabitants, as, for instance, Philadelphia, may go for a year or several years even, without a death from this cause. This result has been achieved by infant vaccination. But long intervals of immunity bring carelessness in this regard, and when, under some favoring atmospheric influence, the disease occasionally finds a foothold, it still discovers ample material to feed upon in the persons of the unprotected, as in Philadelphia and other cities of this State in the years 1871 and 1872, and in the city of Reading during the present year.

Thousands of lives and millions of dollars were the price paid by Philadelphia for neglect in adopting this precaution.

But vaccination in infancy is not enough. It renders the person immune for a time, but as the tissues change in the period of rapid renewal during childhood, susceptibility again returns. Common consent places the period of complete renovation of the tissues at about seven years. It is therefore desirable that the child should be revaccinated at the age of seven, and at least once again during adolescence. A scar on the arm is not sufficient evidence of protection. The scar should be a *typical* one; that is, it should have numerous minute pits or depressions in its surface. A small typical scar indicates successful vaccination much more certainly than a large scar not presenting these appearances. Dr. William M. Welch, of Philadelphia, who has made the most careful study of modern times of this subject, in his capacity as Physician-in-Charge of the Municipal Hospital of that city, and has recently presented his results, founded on the observation of 5,000 cases, in a paper read at the Pan-American Medical Congress at Washington, a few months since, shows that in persons vaccinated in infancy, more than three times as many deaths from varioloid take place in those having poor scars, as in those having typical scars.

Of seventy-eight unvaccinated infants under one year admitted to that hospital, suffering from smallpox, fifty-seven died, a mortality of 73.07%, while of vaccinated infants of the same age none died. Of four hundred unvaccinated children admitted, between the ages of one and seven years, more than half died, while of thirty-five vaccinated children of the same age, only two died, a percentage of 5.70. The general death-rate from varioloid in Europe and this country, taking hospitals and private families together, has been put by very careful observers at 3.30%. Scarcely any other known disease affecting the general system has so low a mortality. On the other hand Dr. Welch's tables show that in true smallpox, at the present day, taking the results of malignant and mild epidemics together, 58.38% of those attacked and treated in hospital, die. This demonstrates clearly that the disease has lost none of its old-time virulence, although it is true now, as it was two hundred years ago, that in some epidemics a milder type of infection prevails. This has been notably so in the recent outbreak in Reading. The verdict of the Health Officer of that city, in favor of the protective value of vaccination, is most unmistakable and conclusive. Not a single instance has occurred, according to his statement to this board, in which an individual vaccinated under the direction of the local board of health, and not already infected with smallpox, has developed the disease. The duty, therefore, which devolves not only upon boards of health, but upon all persons of intelligence and influence, and especially upon those leaders of opinion and disseminators of information, the editors and publishers of journals, to make these facts generally known and to enforce their importance both by precept and example, is too plain to need more than to be pointed out. May I venture to express the belief that your well-known devotion to the public good will lead you to assign this communication such prominence in your valuable journal as the importance of the subject calls for?

Against the Repeal of the Vaccination Law.—Committees from the College of Physicians, the Philadelphia County Medical and the Pediatric Societies appeared before the Committee on Education at Harrisburg, on Tuesday, to protest against the repeal of the present vaccination law. They found the opposition represented by an attorney in the pay of the Antivaccination Society, a Mr. Taylor, a person described as a doctor, but proved, upon his own statement, to be a "graduate" of Buchanan's notorious diploma-mill, and a physician of English origin with a homeopathic degree. The attorney, Mr. Oscar Beasley, began with a noisy and insolent speech about the prejudice, ignorance and narrow-mindedness which had always been the marks of the physician, and, after a good deal of this talk, announced that he would prove by unimpeachable expert testimony and the witness of all the best physicians in the world that syphilis and vaccinia were one and the same, and that dreadful horrors were the result of vaccination. The Buchanan graduate followed, after Mr. Taylor had stated his opinions, with wholesale accusations of the Board of Health, its employes, and medical men altogether. Mr. Allen, the introducer of the bill under discussion, asked him, for the information of the committee, where he graduated. He shied at the question, and said it was a personal matter, but had finally, after much shuffling, to state that he was a graduate of the "Eclectic College." This ended his usefulness, and the next witness was put forward, Dr. Leverson, professed antivaccination agitator, who was understood to say he had himself been inoculated with syphilis by means of virus from the calf. His full history of this interesting case was somewhat incomprehensible and it did not appear that any known physician had made the diagnosis. By the time he had announced his propositions and made proclamation of what he would prove, the time allotted to the proponents had elapsed. Dr. J. K. Mitchell, for the College of Physicians, made a statement of what vaccination had done and of the profession's belief in its efficacy and limitations, and suggested that Dr. Leonard Pearson, the State Veterinarian, who was present, should be asked as to the possibility of inoculating the lower animals with syphilis. Dr. Pearson quoted Nocard, Bollinger, Dickerhoff, and Koch as declaring from their own experience its absolute impossibility. Dr. Welch made a most convincing presentation of the statistics of smallpox and the protection afforded by vaccination and revaccination, quoting from his own vast experience and producing an evident impression upon his hearers. Dr. J. C. Wilson spoke energetically and with great force and clearness, and said what he thought of the plan pursued by the opponents of vaccination in the debate of insult, trivial questions, and bad manners, and declared gentlemen coming before a committee of the State Legislature to present their views of a serious technical matter should not be subjected to the vulgar insolence of a paid attorney.

The opposition to the present law was in fact a farce. Mr. Allen, who is an intelligent and educated man, has been deceived into associating himself with notoriety-seekers, bogus doctors, and hired agitators.

The committee of the Legislature and a considerable audience of legislators and visitors listened to the debate with attention and some of them asked keen questions. We predict that the bill will be killed in committee, but that will not release us from the need of continuing to educate the public on the subject.

NEW YORK.

Dr. Allan McLane Hamilton, of New York, has been elected a Fellow of the Royal Society of Edinburgh.

Gifts to the New York University.—At the meeting of the Council of the New York University, on March 6, the chancellor announced the receipt of gifts of money amounting to $50,000. Of this sum, $20,000 will go to the School of Applied Science, $10,000 to the Woman's Law class, and the balance will be divided between the Medical School and the general endowment.

A New Building for the Woman's Hospital.—Eight well-known women of New York City have contributed $42,000 towards the erection of a new building for the Woman's Hospital, and the managers consequently announce that it is their intention to begin work on the new building within a few weeks. The new edifice will occupy only the portion of the present site towards Lexington Avenue, and it is estimated that it will cost about $400,000.

A Suit Against the New York University.—The old trouble between the former University Medical College and the University proper has broken out afresh, this time taking the form of a suit brought by the Medical College Laboratory of the City of New York against the New York University, to recover certain properties, notably the old college building and apparatus. The amount involved is nearly a quarter of a million of dollars, and the ground for the action is the allegation that the conditions under which the property was conveyed to the University have not been fulfilled.

Cornell University Medical School.—On March 9 plans were filed for the elegant new building for this school, to be erected by Colonel Oliver H. Payne, at a cost of $500,000. It will front on First Avenue, extending along that avenue from Twenty-seventh to Twenty-eighth Street, and running back 100 feet. It is to be 5 stories high, and constructed of Indiana limestone and red brick. It will be entirely fireproof, the interior being finished, for the most part, in glazed brick and tile. Colonel Payne has contributed no less than $1,500,000 to Cornell University for the purpose of establishing in New York one of the best equipped medical schools in the world, and has started a large endowment fund.

Trained Nurses' Silver Jubilee.—On the evening of March 6, 800 nurses, representing the 20 schools in Greater New York, and dressed in the uniforms of their respective schools, assembled in the grand ballroom of the Waldorf-Astoria hotel to celebrate the completion of the first quarter of a century of trained nursing in this country. It was just 25 years ago that the first class of 5 trained nurses was graduated from the Bellevue Training School, and the choir of St. Thomas' Church, which gave the music on that first occasion, also furnished it on the present occasion. The anniversary exercises were presided over by Bishop Potter, and the principal address was delivered by Dr. William M. Polk.

Living After an Electric Shock of Very High Voltage.—Joseph Hampel, an electrician who was working on a switchboard at a power-house in New York City, had an almost miraculous escape from death by electricity. The wrench which he was using, it was ascertained afterward, had short-circuited the powerful street-car current, and the latter had passed through his body, burning off most of his clothing, blackening his body and burning a large hole in the floor into which the man fell. The man succeeded in rushing so far as the middle of the room, and then became unconscious. The man revived shortly after the arrival of the ambulance-surgeon, and a report from the hospital, 3 days later, stated that he was making a satisfactory recovery. The current went through Hampel's body to a metallic hand-rail, and burned the hands of two fellow workmen. In a piece of Hampel's shoe, it is asserted, every one of the metal pegs had been melted. An electrician in the building declared that he believed the man must have received a current of 2,000 volts; but while this seems very doubtful, it is evident from the large number of cars supplied with power from this current, that it must have been a very powerful one.

A New Building for the Post-Graduate Training School.—Harris C. Fahnestock has decided to erect at a cost of $100,000 a building for the Post Graduate nurses, as a memorial to his deceased wife. Three lots have been purchased opposite the entrance of the New York Post-Graduate School and Hospital, having a frontage of 48 feet and a depth of 100 feet. It is the intention to erect on this ground the best equipped training school for nurses in this country, which will be known as the Margaret Fahnestock Training School for Nurses of the New York Post-Graduate Hospital. There will be accommodations for seventy or more nurses, and also a diet-kitchen, lecture-rooms, sitting-rooms and other apartments.

Unsanitary Bake-Shops.—At the instigation of the Bakers' Union a bill has been introduced into the Assembly of New York State, which prohibits work in bake-shops between 6 o'clock on Saturday evening and 3 o'clock on Sunday afternoon, and bars from employment in such shops any person afflicted with tuberculosis or a communicable disease of the skin. It also forbids the exposure for sale of bread or cake in any place where it is exposed to contamination from street-dust or other sources. It is pointed out that at present hardly any of the numerous bake-shops in New York City observed the laws already passed for the protection of their employes, and that in many of the poorer districts not only is there no supervision over the health and cleanliness of those employed in these places, but the men are often compelled to sleep in the shop after completing their work.

Bellevue "Mike" is Dead.—But few of the many students who have attended lectures and clinics in Bellevue Hospital will fail to recall the little man who worked about the hospital and carried over his right eye an enormous pendulous flap of redundant skin containing numerous fibromata. This man, Michael Kelley, entered Bellevue Hospital on April 23, 1874, and had lived there ever since. It was commonly reported that this man was not content with selling his body to the late Dr. James R. Wood, but resold it afterward to two other members of the visiting staff. He was a familar figure at many clinics, and at one time was exhibited by Dr. Wood at many clinics in Europe. His disease was considered to be fibroma or neurofibroma of the skin, and it was unattended by symptoms except those caused by the weight of the growth. He was about 67 years of age at the time of his death, and had apparently been as well as ever up to within a few hours before. The immediate cause of death was thought to be chronic nephritis. He was of stunted growth, and possessed limited intelligence. Dr. Harlow Brooks, who made the autopsy, states that there were numerous nodules beneath the subcutaneous tissues, resembling lipomata, but much firmer. It is to be noted that there was no symmetry in their distribution, and that they had no connection wlth the nerve-trunks. Nodules were also found in the esophagus, in the stomach and in various portions of the intestine. The autopsy also revealed a curious fold in the intestine, which recalled the fact that this man had, at times, presented symptoms of mild intestinal obstruction.

Buffalo Academy of Medicine—Surgical Section.—At a meeting held March 7, Dr. Chauncy P. Smith read a paper entitled **Foreign bodies in surgery,** in which he made a strong plea for better surgical skill in the use of living tissues as against the use of clumsy mechanical contrivances—homoplasty vs. heteroplasty. He showed by the use of cases, that prosthetic appliances, while probably serving a temporary use, were always removed either by nature or the surgeon, while skilled adaptation of contiguous structures seldom required subsequent attention. He advocated the use of animal ligatures on the same grounds. While recognizing the possible usefulness of the Murphy button, he believed that skilled operators could unite the gut as quickly and with as great security as they could apply the button. In discussion Dr. E. A. Smith in the main agreed, as did also Dr. Herman Mynter.

Dr. J. H. Dowd read a paper entitled **Urinary infection—its prevention.** He believes that, omitting the gonococcus, such infection is due to the use of instruments sterilized or unsterilized in a more or less septic canal which has not been disinfected. He showed a cheap apparatus for disinfection, consisting of a 6-ounce syringe with a tip protected by a shield, and stated that he used formaldehyd in a strength of 33⅓%. He believes that internal medication will not usually disinfect the genito-urinary tract and that reliance must be made upon injections. In discussion the internal administration of urotropin as a urinary disinfectant was enthusiastically recommended in doses not to exceed 5 grams in 24 hours; greater dosage having produced strangury and hematuria.

New York Academy of Medicine.—It has been arranged that three general meetings of the Academy shall be held in March devoted to discussions on syphilis. At the meeting held on March 3, Dr. L. Bolton Bangs read a paper on **The treatment of syphilis in its early stages.** He favored excision of the initial lesion, the administration of mercury to the point of tolerance, and careful attention to the general health. His plan is to begin the administration of mercury without waiting for secondary manifestations, and to give it preferably at first by the mouth, suspending the remedy from time to time, and substituting mercurial inunctions. So long as the glands remained enlarged it was an indication that the treatment must be persevered in. It was generally best to pursue the treatment for a period varying from three to six years.

Dr. Robert W. Taylor read a paper on **The treatment of secondary syphilis,** in which he took the stand that the old Ricord method of free mercurialization, together with the use of iodid, was infinitely better than the plan, now too commonly followed, of giving much smaller doses and intermittently. Mercury given before the generalization of the syphilitic products not only did not benefit the patient, but actually interfered with its subsequent action. Moreover, this early treatment served to obscure and alter the natural development of the lesions, and often was responsible for the physician losing proper control over his patient. If the disease were energetically attacked as soon as the general eruption made its appearance, it could be thoroughly and promptly controlled in 95% of all cases. At first, the protiodid of mercury should be given in pill-form, and cautiously increased. When the rash was declining, its thorough eradication would be promoted by several courses of mercurial inunctions, taking in successively the various portions of the body-surface. After this, it would generally be easy to persuade the patient to discontinue the pills and depend on inunctions alone. After 15 or 20 inunctions at intervals of 1 or 2 days, the treatment should be interrupted for 3 or 4 weeks. When, for any reason, it became necessary to suspend the inunctions for a time, it was his custom to make use of a strong "mixed treatment." After about 5 months the patient would ordinarily present no further evidences of the disease. After a short interval, another course of treatment should be given, extending over 3 or 4 months. During the second year, the treatment should be given for 2 or 3 months and then intermitted for about 2 months. In most cases, under this plan of treatment, faithfully carried out, the disease would be cured in about 2½ years.

Dr. George H. Fox discussed the **differential diagnosis of syphilitic eruptions and signs in the skin of former syphilis** by means of a series of lantern slides.

Dr. R. H. M. Dawbarn presented an interesting resume of **the stigmata of syphilis in children** which he had collected from recognized authorities.

At the meeting of the Academy held on March 9 Dr. Leonard Weber took up the consideration of **syphilitic affections of the heart.** He said that such signs as weak impulse, irregular heart-action, a tendency to syncope, dyspnea on slight exertion, and attacks of angina pectoris should always be looked upon as possibly indicative of syphilis, even in the absence of any history of syphilitic infection. He had studied a series of 125 cases for a great many years, and had, in every instance, obtained a satisfactory result from the combined use of mercury and the iodids.

Dr. J. George Adami, of McGill University, contributed a paper on **Syphilitic affections of the liver in adults and in children,** in which he emphasized the fact that studies of syphilitic disease of the liver afforded no ground for drawing distinctions between secondary and tertiary syphilis. The chief lesions met with in the congenital form were: (1) well-formed gummata; (2) miliary gummata; (3) both miliary gummata and general fibrosis, with enlargement of the organ; (4) general atrophic cirrhosis without gummata. It was not improbable, he said, that the extensive fibrosis in the liver was due to parenchymatous changes set up by the effect on the liver-cells of the effort to excrete toxins. It was not probable that the liver was commonly involved in the post-natal variety of the disease. The large gummata were the most characteristic lesions of syphilis of the liver. In both the adult and infantile liver gummata might appear at any time after the disease had become generalized. An alteration in the adult liver, not seen in that of the infant, was the development of tumor-like outgrowths, somewhat resembling malignant disease.

Dr. A. Jacobi spoke of **visceral syphilis in children.** He stated that combinations of syphilis and tuberculosis were found at an early stage in cases in which the syphilis was derived from the father and tuberculosis from the mother. The heart was not often involved. The thymus gland was not often affected by hereditary syphilis, and although the bronchial glands were commonly enlarged, this was not true of the other lymph-bodies. Both the spleen and liver were swollen and contained gummata. The intestine was not often the seat of syphilitic lesions in children. Attention was also called to cases of "retarded syphilis," those in which children of about 5 years, while not exhibiting direct evidence of syphilitic infection, show malnutrition and imperfect development, and improve promptly when given antisyphilitic remedies.

Dr. E. H. Grandin read a paper on **Syphilis in relation to obstetrics,** in which he laid stress on the danger incurred by the physician who did not take the precaution of inspecting the genitals before making a digital examination. He contended that the fetus was infected with syphilis through the male, for in no other way could he explain cases in which children born of syphilitic women had presented no syphilitic lesion, and those in which syphilitic infants had infected their mothers. The infection must take place through the placenta, and only when the placenta is in a pathologic state. He thought it well to treat all cases of habitual abortion with antisyphilitic remedies, subjecting both parents to the treatment. He predicted that the time would come when legislation against certain marriages would be demanded by an enlightened public opinion. Laws against the marriage of syphilitics already existed in Massachusetts and in Texas, but what was needed was national legislation of this kind. In the general discussion, Dr. Andrew H. Smith called attention to the fact that the iodids were not only antisyphilitic but also lightened the work of the heart by acting as arterial dilators. Dr. A. Jacobi said that an extensive experience had convinced him of the value of prolonged medication with mercury and iodid in many cases of inflammatory thickenings in the female pelvis. Dr. B. Lapowski said that the iodids acted beneficially in syphilis because in the presence of microorganisms these salts were decomposed, and the iodin set free.

Buffalo Academy of Medicine—Section of Pathology.—At regular meeting, February 21, Dr. Benjamin H. Grove read a paper on **Intraocular growths,** stating that the uveal tract is made up of the iris, ciliary body, and choroid. Intraocular growths are generally found originatng from some portion of this tract, and especially from that part known as the choroid. The retina is likewise affected. Intraocular tumors, to be sure, constitute a comparatively small percentage of ocular affections, still they are among he most interesting, owing to their serious effects, both local nd constitutional. For convenience' sake let us take the parts of the eye in their order, beginning from the front with he iris. Gummata, though strictly speaking not tumors, might be mentioned as one of the conditions associated with ystemic derangement. These consist of yellowish or redish-yellow nodules, scarcely more than 1 to 4 mm. in diamter, more often solitary, disappearing under treatment, and eaving behind generally a permanent scar or atrophy of the ris. This appears naturally in the so-called tertiary period f syphilis, in which gummata in other organs are found. When gummata form in the ciliary body, however, it is a erious matter. They give rise to a severe type of cyclitis, roducing a violent plastic and suppurative inflammation ith intense pain, which usually results in the loss of the ye. Strictly speaking, tumors rarely occur in the iris. The rincipal varieties met with are cystic, tuberculous, and saromatous. Serous cysts occur in the iris, which are filled ith a clear substance, and which are developed within the roma of the iris. They are usually single, and limited to he eye. They are supposed to be the effect of the foration of a sac, in consequence of a wound or operaon, or they result from the proliferation of cells introucted into the anterior chamber. For example, if an elash should fall in through a wound, cells from the c of the hair may originate a cyst. They slowly inease in size, pressing back the iris and may disturb vision seriously. The treatment is excision in the early stages, otherwise sympathetic inflammation may be produced and enucleation of the eyeball will be necessary. Tubercles appear chiefly in children as grayish-red irregular nodules, commonly at the periphery of the iris, accompanied by signs of moderate inflammation, pericorneal redness, haziness of the cornea, photophobia and lacrimation. They become larger and multiply, and may in a few months fill the anterior chamber, rendering the eyeball hard and painful, and end in perforation. The pigmented sarcoma is more common than the white. There is usually but a single tumor, and it may grow upon any part of the iris and is generally unilateral. It occurs at any age, but generally between 20 and 40 years of age. When melanotic its cancerous nature is obvious; if white, it is distinguished from tubercle, at least in the early stages, by absence of inflammation, the slowness of its growth, and by being smoother and more rounded in form. Sarcoma of the iris neglected causes death. If small it can be removed by an iridectomy, as has been done by Drs. Arlt, Kip, Knapp and others. The differential diagnosis of tumors of the iris sometimes presents difficulties. A non-pigmented nodular tumor may be a syphilitic growth in the form of a papule or a gumma, a solitary tubercle, or an unpigmented sarcoma. The distinguishing marks are as follows: (1) The sarcoma contain most vessels, the syphilitic growths have fewer, while the tuberculous masses scarcely any vessels passing through them. (2) Papules of the iris are situated only at its pupillary and ciliary margins, while other tumors may take their origin from any point whatever of the surface of the iris. (3) With syphilitic and tuberculous tumors, iritis appears earlier than with sarcoma. The general examination of the patient as regards syphilis or tuberculosis, is, of course, very important. All tumors of the ciliary body are, practically speaking, malignant, and distant organs may become affected. According to Dr. Ernest Fuchs the following tumors have been described as originating from the ciliary body: Sarcomata, myoma, carcinoma, and angioma.

The most frequent neoplasm of the entire uveal tract and practically of the choroid is sarcoma. Generally it appears as a pigmented growth (melano-sarcoma) more rarely without pigment (leuko-sarcoma). Sarcoma of the choroid in the majority of the cases occurs between the ages of 30 and 50 years. It is very rare under the twentieth year. Men are more frequently affected than women. The growth is usually circumscribed, in which case it may or may not have a pedicle. Sarcoma may be either round-celled or spindle-celled, and the ordinary degeneration to which this form of tumor is subject are seen in these choroidal growths. Sarcoma of the choroid is almost invariably a primary growth; the choroid coat being rarely affected by a metastasis occurring from a tumor in some other portion of the body. The tumor arises from the layer of the large vessels, and its most usual situation is near the posterior pole of the eye. The development of a sarcoma of the choroid can be divided into 4 periods: (1) The origin or quiet period; (2) the inflammatory; (3) the extra ocular, or when the growth bursts through the scleral boundary; (4) the period of metastasis. The diagnosis is difficult often in the first stage as the disease resembles somewhat a detachment of the retina, this membrane being pushed forward by the underlying elevation, the whole being surrounded by a serous effusion. By carefully looking through this retinal covering, however, the brownish mass beneath may be sometimes recognized covered by irregular choroidal vessels. If the growth is non-pigmented, however, the differential diagnosis is uncertain. (Noyes mentions a case where he removed an eye with detached retina supposing it to be a case of sarcoma.) If the growth is situated far forward it is possible to examine it by means of oblique illumination through a dilated pupil. In the inflammatory or second period symptoms of increased tension arise, pain in the brow, diminished sensation of the cornea, shallowing of the A. C. and dilatation and tortuosity of the perforation episcleral vessels. Ophthalmoscopic examination is no longer possible, the localized detachment of the retina becomes general by increased serous effusion. The lens may become cataractous and a severe irido-cyclitis may be set up. Finally the sclerotic coat becomes ruptured or the disease may pass backward into the brain, or metastasis may occur in the liver, spleen or lungs, etc.

Sarcoma of the choroid may be confused with glioma of the retina, detachment of the retina, as previously mentioned, or with glaucoma in certain stages. The special difference in glioma is either congenital or occurs in infancy or early childhood. In glioma the tumor involves the structure of the retina, while in sarcoma the retina serves as a covering to the growth. Sarcoma scarcely ever appears before 30 years of age. In detachment of the retina the defect in the field of vision is not so sharply circumscribed and the ophthalmoscope shows more of a wavelike and tremulous condition of the retina. In glaucoma there is remission of the acute symptoms and the increased tension is more or less amenable to myotics such as eserin, etc. The prognosis is always bad unless enucleation of the eyeball is made within a year or two after the tumor appears. Tubercle also occurs in the choroid, but its detection is difficult and uncertain. Angioma, enchondroma, and rarely carcinoma have been found. Carcinoma generally affects both eyes and is always, it is said, metastatic after carcinoma of the breast.

Glioma is the only important neoplasm which occurs in the retina. It is either congenital or confined to early childhood. Among the older writers it passed under the name of fungus hematodes, etc. Glioma, in contradistinction to intraocular sarcoma, is never pigmented. It begins to develop from the granular layers of the retina, and generally from the inner layer. It develops with considerable rapidity and either bursts the eyeball or extends along the optic nerve to the brain. Like sarcoma, its progress of growth may be divided into 3 or 4 stages. In patients suffering from glioma the surgeon notices a bright whitish or golden-yellow reflex emanating from the interior of the eyeball. For this reason such an eye has been called amaurotic cat's-eye. The diagnosis is generally made without difficulty, but there is a condition resulting from purulent choroiditis, especially in the early stages, which more or less simulates glioma in its early life. As a result of this purulent choroiditis, deposits may be formed in the vitreous which take on the appearance of glioma. This is known as pseudo-glioma. The most important distinctive mark lies in the tension of the eye. In genuine glioma this is normal in the beginning and afterwards is increased. In pseudo-glioma diminution of tension soon sets in which precedes the shrinking of the eye. The subsequent course renders the true state of the case perfectly clear, inasmuch as glioma continues to grow. It is not safe, however, to wait for this change, for the prognosis is in all cases unfavorable and especially if the growth has at all advanced. Enucleation of the eyeball at as early a date, with division of the optic nerve as far back as possible, is the only treatment, and even then relief is not certain. In 5 out of 6 cases of glioma in the speaker's practice the malignant growth finally caused death. In the one case operated on 8 years ago there had been no return 2 years ago, or 6 years after the enucleation of the eyeball.

NEW ENGLAND.

Thurber Medical Association of Milford, Mass.—At a meeting held March 2, Dr. S. J. Gallison, of Franklin, read a paper entitled, **Why any laws regulating the practice of medicine?** He advocated a higher standard of medical education, and more effective legislation to discourage quackery.

A paper on **Whooping-cough,** by Dr. H. Edwin Lewis of Burlington, Vt., was read by the secretary.

Boston Medical Society.—At a meeting held March 9 the following officers were elected for the ensuing year. President, Dr. Gustavus Liebman; vice-presidents, Dr. R. K. Noyes, Dr. J. S. Lockart; secretary, Dr. W. A. Butman financial secretary, Dr. P. Sosnoski; treasurer, Dr. Shapiro directors, Drs. L. Frumson, M. N. Goodman, V. Bychower M. Gerstin, A. Rovinsky, C. Parker, J. S. Lockart. The following resolution was unanimously adopted: *Resolved* That the Boston Medical Society is opposed to, and protests against, the passage of the so-called "Osteopathic bill" now before the Massachusetts Legislature.

CHICAGO AND WESTERN STATES.

For and Against Quackery.—We noted in our issue of last week that the West has furnished additional evidence of its progressiveness, in that the legislature of Oklahoma had passed a bill prohibiting the practice of so-called Christian Science. We stated that it was believed that the Governor would sign the bill. It now appears that the Governo has vetoed the bill.

Northwestern University Woman's Medica School.—Dr. Marie J. Mergler has been elected Dean o Northwestern University Woman's Medical School, in plac of Dr. I. N. Danforth, resigned. Dr. Danforth has bee elected Dean Emeritus. The yearly course has been change from one of 2 semesters to one of 4 semesters of 12 week each, beginning the first of July, October, January, and Apri Three semesters will be required; the other semester will b optional. The number of regular students will be limite to 100, 25 in each class. They will be admitted to compet tive examination for place in class only after having con plied with the requirements of the State Board of Health.

Chicago Medical Society.—At a clinical meeting hel March 8, Dr. O. T. Freer presented a case of **aneurysm o the aorta.** The patient, aged 60 years, had been sick year with shortness of breath and palpitation. Six week ago her voice became cracked. For the past month she ha had pain under the sternum and down the left arm to th elbow. The apex-beat is displaced down and out to the six interspace, 1 inch out from the nipple. There is dulne over the manubrium sterni and 1 inch to the left of th sternum in the first and second interspaces. There are n murmurs. There is stenotic high-pitched tracheal breathi if the patient exerts herself or coughs. Laryngoscopy sho complete paralysis of the left vocal cord, which is in th cadaver position. An x-ray picture shows a heavy shad under the manubrium sterni extending down to hea shadow. Pulsation can be felt in jugular fossa. Trach tugging can not be surely determined. The location of th aneurysm is believed to be the arch of the aorta.

D. F. Kreissl presented a **renal calculus** which was molded in a calyx and which he had removed by ureter-catheterization. In the literature only 2 similar cases are reported, one by Kolischer and the other by Casper. He further demonstrated his **stricture localizer** and his **urethrotome.** The localizer allows of an exact determination of the position, length, and configuration of strictures in the anterior urethra, preventing cutting according to a set pattern on the floor or the roof of the canal. The urethrotome is a modification of the Otis and is only 5 inches long. Another innovation is the graduated scale on the handle of the urethrotome knife and a screw on top of the dial permitting an exact estimate of the length of the desired incision.

Chicago Medical Society.—At a meeting held March 1, Dr. K. G. Anthony read a paper on **Gummata and chancre redux.** He first directed attention to the fact that gummata often develop at the seat of injury and that when they do so develop and there is no history of previous syphilitic disease, they are frequently not diagnosed even when absolutely typical in appearance. The second part of his paper was an argument in support of the view that there is no such thing as a rehardening of an old chancre or chancre redux and that lesions which have been reported as chancre redux are gummata.

Dr. Hugh T. Patrick read a paper entitled **Seven one-minute points on syphilis of the nervous system,** of which the following are the conclusions: (1) Syphilis of the nervous system is rarely syphilis of nerve-tissue, except secondarily. It is, as a rule, syphilitic arteritis, syphilitic meningitis or gumma, the first being the most and the last the least frequent. (2) To call syphilis of the nervous system tertiary is inadvisable as it tends to promote confusion in the mind of the practitioner. As a matter of fact it may occur before disappearance of the primary sore and more cases occur within the first year after infection than in any other. Syphilis of the nervous system does not appear after a long period of quiescence (20 to 25 years). (3) In women a negative history of infection or secondary infection is valueless and in man is worth but little more. A positive history is of great value. It is well to remember that the innocent, and apparently innocent, may contract syphilis. (4) At present we are not warranted in calling tabes, general paresis or ordinary arteriosclerosis, syphilis of the nervous system, although the important role of syphilis in the etiology of these affections cannot be doubted. (5) The ill-defined but current impression that syphilis of the nervous system is nearly always curable is a mistake. Syphilitic paralysis is generally due to arterial obstruction and such a lesion, produced by syphilis, is no more amenable to treatment than the same lesion due to other causes. (6) There is just one special rule for the treatment of nervous syphilis—give mercury and give iodid and give enough of each. (7) Enough mercury means sufficient at first to touch the gums while the mouth is kept immaculate, and the continuance of an amount just short of this. Enough iodid means about 120 grains 3 times daily. This will be tolerated if always given after meals and diluted in from 8 to 16 ounces of water.

Dr. Maximilian Herzog read a paper on **The histopathology of syphilis.** He first referred to the work which had been done with reference to the supposed microorganism of syphilis, and said that nothing in this line of work can be accepted as final and conclusive evidence, because we would have to relinquish all claims upon the necessity of establishing a clear bacteriologic causal nexus, were we to adopt any one of these microorganisms as the proven fundamental etiologic factor of this disease. He then gave a general outline of the histology of syphilitic lesions as it is usually described in the textbooks, and referred to his own investigations in which he had like Rieder, in Germany, made use of Weigert's new stain for elastic fibers. By the aid of this stain one is enabled to study to great advantage the vascular changes which play such an important role in the histo-pathology of syphilis. He stated that his studies had enabled him to confirm in the main Rieder's results. Rieder states that the vascular changes are found particularly in the lymphatics and veins, while the arteries are comparatively free. Most of the lymphatics in the syphilitic foci are more or less completely occluded by an endovasculitis. The veins generally show an extensive periphlebitis and also an endophlebitis. The latter frequently is brought about by a subendothelial and not by an endothelial proliferation. The periphlebitis leads to the formation of fibrous connective (cicatricial) tissue. In lymphatics or veins completely thrombosed there are sometimes seen newly formed capillaries. Evidences of a mesophlebitis are likewise found. The arteries on the other hand show decidedly less evidences of changes of their walls proper, but one can often see an enormous cell-proliferation around the arteries (periarteritis). Such periarteritic as well as periphlebitic cell-masses are sometimes found surrounded by a delicate ring of elastic fibers, so that it appears that these proliferations take their origin from the perivascular lymph-spaces. The cells forming the perivascular and the tissue infiltration in general are of the following types: Small lymphoid cells, polymorphonuclear leukocytes, plasma-cells and plasma-mast-cells, sometimes giant-cells. One of the conclusions Herzog draws from the histologic picture of syphilis is that the infection of the bloodvessels occurs from the perivascular lymph-spaces. The paper was illustrated by microscopic sections and microphotographs.

Dr. Gustaf Kolisher demonstrated his operation-cystoscope, supplied with scissors, curets, galvanocaustic snare, caustic carrier, forceps. He emphasized the value of this instrument for different minor endovesical operations: Removal of ligatures and other foreign bodies from the viscus, cureting ulcers, cauterizing fissures, removal of benign tumors. All can be performed without narcosis and do not provoke any serious hemorrhage. This cystoscope is the size of a modern cystoscope and can be introduced through any normal urethra without dilatation. Dr. Kolisher demonstrated the removal of ligatures and tumors on a model he constructed for this purpose.

Dr. C. O. Young presented a case of **hydrocephalus** in a girl, aged 4, of a healthy family. She was born without the use of forceps, the labor being a rather easy one. When she was 5 months of age, her parents noticed that her head was large. Her mother nursed her until she was 3 years old. She has never made any effort to talk or walk, but does recognize her parents. The disproportion between the size of the head and body is very striking. The head measures 25½ inches (65 cm.) in circumference. The treatment has consisted of mercurial inunctions, 3 grains of potassium iodid 3 times daily, and lumbar puncture every two days. Despite these, however, the condition of the patient has not improved.

Dr. W. F. Dickson reported a case of **cystic kidneys** and presented the specimens. The patient was a woman, aged 55 years at death. When 25 years old she began to have convulsions which were attributed to over-study. They recurred at intervals of from 3 to 12 months, until she was 40 years of age, when they ceased. When 39 years of age, she began to complain of pain in her sides. These pains recurred at intervals of 3 or 4 months, were very severe, lasted 3 to 5 days, and were followed by diarrhea and a discharge of blood and pus from the rectum. A diagnosis of appendicitis was subsequently made and at the operation performed in March, 1895, the discovery was made that both kidneys were cystic. She recovered well from the operation, ether having been the anesthetic. In January of this year she developed hematuria, her urine prior to this time being found practically normal on repeated examinations. There were neither edema nor convulsions until a few days prior to her death, when edema of the neck and face, and slight twitching of the hands and arms developed. At the necropsy the kidneys and liver were found cystic.

SOUTHERN STATES.

Cerebrospinal Meningitis in Washington, D. C.—There has been a sudden outbreak of this disease in Washington. The first death was reported March 5; since then there have been 11 deaths. The disease has not been confined to any limited district in the city, though most of the cases have occurred in the southwest section.

Smallpox Situation in Washington, D. C.—The smallpox situation has been complicated by the discovery of a case in a colored school in the city, a few days ago, by an officer of the Health Department, who visited the school on other business. The number of pupils in attendance is about 600, and the Health Departmant undertook to vaccinate all not showing recent marks of the operation. It is likely that the District Commissioners will decide upon rigid enforcement of compulsory vaccination. Nine cases, all in colored persons, were found in one house in the northwest section of the city, a few days ago. There have been 51 cases in the city, all but three in colored persons, and no deaths.

Medical Society of the District of Columbia.—At the last meeting, Dr. S. S. Adams read a paper on **The results in administering the antitoxin of diphtheria as an immunizing agent.** There had been several outbreaks of diphtheria in the Children's Hospital prior to December 1, 1897, and upon that date every child in the hospital, and all entering after that date, a total of 422, were given an immunizing dose; 100 units to infants, 250 to those between 2 and 6 years old, and from 300 to 500 to those over 6 years of age. Seventeen contracted diphtheria and 2 died. The maximum immunity was 6 months, and the minimum 11 days; the average duration being 51.1 days. His conclusions were: First, that there was no definite conclusion as to the value of antitoxin as an immunizing agent, but that the larger the immunizing dose the longer the period of immunity. Second, that there were no injurious effects upon the kidney. Third, that there were no pathologic effects observed except urticaria in 2 cases.

Clinico-Pathological Society of Washington, D. C.—At the last meeting, Dr. Francis R. Hagner read a paper entitled **Metallic silver as suture and dressing in surgery from a practical and bacteriologic standpoint.** He exhibited some interesting experiments showing the antiseptic action of silver wire by placing sutures of silver wire, catgut, silkworm-gut, horsehair and silk on agar-plates of staphylococcus aureus. After being in the thermostat for 48 hours all the sutures were covered with the growth except the silver wire, the growth only approaching to within an eighth of an inch of the suture. Again he showed some guinea-pigs whose abdomens had been sutured with silkworm-gut and silver wire, and then had staphylococcus aureus rubbed in. Stitch-abscesses formed in the case of the silkworm-gut and not in the silver-wire sutures. He also showed some tubes inoculated with microorganisms in which silver foil and other dressing had been deposited. The growth was considerably less in the tube with the silver foil than in any of the others.

Sacculated Fecal Concretions in the Intestine and Appendix.—At a recent autopsy performed by Dr. Glazebrook in Washington, D. C., the walls of the cecum, the ascending colon and the first part of the transverse colon contained over 20 nearly-closed spherical sacs, situated at various points in the circumference of the gut and occupied by hard, dark masses of fecal matter which closely resembled gallstones in size, shape and appearance. In some of the pouches the concretions had perforated the mucous and muscular coats and lay upon the peritoneal. The gut presented no evidence of inflammation about the pouches, and the encapsulated masses could be expelled by pressure and the sacs turned inside out. The orifice of the appendix was entirely occluded by a dome-shaped mass of semi-solid fecal matter, which also extended into the appendix. It projected a half-inch into the cecum and was covered by a reflection of mucous membrane except for a pin-head area at the apex. The patient died suddenly of cardiac disease, and this condition of the intestine and appendix had given rise to no symptoms during life.

MISCELLANY.

International Association of Railway Surgeons.—The next annual meeting will be held in Richmond, Va., May 31, June 1, and 2, 1899.

One of the Expense Items.—Killed in battle and accidentally shot in the Philippines since August 6, and including to-day's report, 93; died of wounds, 24; died of disease, 234; total deaths, 351. Wounded, 400. Total deaths in the army since the outbreak of war with Spain down to February 28, 5,731.

Diluted Milk, Quack Medicines, and the Board of Health.—Attention is called to the fact that the Health Board, while confiscating all milk which it finds has been diluted with water, although not necessarily impure, does not undertake to take similar action against fraudulent quack medicines. Its rule is that if a proprietary article is found to contain substances injurious to health its sale is stopped, but if it is found to be simply fraudulent, although not injurious, no action is taken. "Our business," says Sanitary Superintendent Roberts, "is simply to look out for and protect the life and health of the people of this city and not to protect them from fraud or to punish the perpetrators. We are not charged by law with the duty of reporting to any branch of the city government cases of fraud, and we have neither the time nor the disposition to undertake to do so without express mandate from proper authority."—[*Public Ledger*, New York correspondence.]

Obituary.—Dr. Henry Parker Quincy, Boston, March 11.—Dr. W. J. Reinhard, Bethlehem, Pa., March 13, aged 45 years.—Dr. John A. Benson, professor of physiology in the College of Physicians and Surgeons, Chicago, March 9.—Dr. B. G. D. Moxley, Greenwich, Prince William County, Md., aged 90 years.—Dr. William G. Jeffries, Essex County, Va., March 4.—Dr. Henry C. Scott, Baltimore, Md., March 3, aged 71 years.—Dr. John E, Prichard, Baltimore, Md., March 1.—Dr. James Wood, assistant surgeon, U. S. V., of Newburg, N. Y., in Havana, Cuba, March 3, aged 30 years. Dr. Stephen E. Ranney, North Bennington, Vt., March 1, aged 76 years.—Dr. Heyden Nichols, Brooklyn, N. Y., March 4, aged 65 years.—Dr. Elliot C. Howe, Troy, N. Y., March 2, aged 71 years.—Dr. A. C. Simonton, Vernon, La., March 6.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague have been reported to the Supervising Surgeon-General of the U. S. Marine-Hospital Service for the week ended March 11, 1899:

Smallpox—United States.

			Cases.	Deaths.
Alabama:	Mobile	Feb. 25	1	
California:	Los Angeles	Feb. 17-25	15	5
District of Columbia:	Washington	Feb. 18-25	10	
"	"	March 1-4	5	
Georgia:	Savannah	March 2	1 new case. Origin probably in North Carolina.	
Florida:	Jacksonville	Feb. 25-March 4	3	
Illinois:	Biggsville	March 7	1	
"	Cairo	March 7	26	
"	Dana	March 7	1	
"	Murphysboro	March 7	2	
Indiana:	Evansville	March 3	1	
"	New Albany	March 5	1	
Indian Territory.—Secretary Territorial Board of Health of Oklahoma states, March 4, that nearly fifty deaths have been reported to him.				
Maine:	Lewiston	Feb. 25-March 4	2 cases.	
Michigan:	Watervliet T'p.	March 2	1	
Nebraska:	Omaha	Feb. 18-25	3	
New York:	New York City.	Feb. 25-March 4	7	1
No. Carolina:	Burlington Franklin Co.	March 1	3	1
Ohio:	Brooklyn	Feb. 7-27	1	
"	Dialton	" "	1	
"	Franklin	" "	2	
"	Gallipolis	Feb. 26	2	
"	Sandusky	Feb. 7-27	2	
"	Shenandoah	"	1	
"	So. Charleston	"	1	
"	Sunbury	"	3	
"	Toledo	"	1	
"	Wellington	"	1	
"	Willoughby	"	1	
So. Carolina:	Harry County	March 9, Smallpox outbreak reported.		
Tennessee:	Memphis	March 1-7	14 cases.	
Virginia:	Alexandria	March 6-9	5	
"	Norfolk	March 4-7	20	
"	"	March 8	2	

Smallpox on Vessels.

Steamship "City of Kansas," at Memphis, Tenn., March 7, 1 case.
Steamship "Thomas Brooks," at Santiago de Cuba, from Guantanamo Bay, Feb. 3.

Smallpox—Foreign.

Brazil:	Rio de Janeiro	Jan. 13-20	12	5
"	Bahia	Feb. 4-11	2	
China:	Tientsin	Jan. 4-11	1	
Russia:	Moscow	Feb. 4-11	6	3
"	Odessa	Feb. 11-18	1	1
"	St. Petersburg	Feb. 4-11	3	1
"	"	Feb. 4-18	4	
"	Vladivostock (Siberia).	Nov. 1-30	1	
In other parts of the same maritime district 21 deaths.				
Turkey:	Constantinople.	Feb. 13-20		10
"	Smyrna	Feb. 3-12		1

Yellow Fever.

Brazil:	Rio de Janeiro.	Jan. 13-20	32	13

Cholera.

India:	Calcutta	Jan. 21-28		16
"	Madras	Jan. 28-Feb. 3		4

Plague.

India:	Bombay	Jan. 24-31		540
		Officially reported proably 1100		

Changes in the Medical Corps of the U. S. Army.

Shields, Major George Franklin, brigade-surgeon, is relieved from duty as brigade-surgeon First Brigade, Second Division, Eighth Army Corps, and will report to the commanding general, First Brigade, First Division, Eighth Army Corps, for duty as brigade-surgeon; this in addition to his duties in connection with the Board of Health.

Bragg, Edward R., acting assistant surgeon, is relieved from duty with the Third U. S. Volunteer Signal Corps, and assigned to the packer's camp at Boniato, Cuba.

Dunshie, John F., acting assistant surgeon, is assigned to the Third U. S. Volunteer Infantry at Guantanamo, Cuba.

Fraser, S. J., acting assistant surgeon, now at the U. S. General Hospital, Presidio, is assigned to duty as attending surgeon on the U. S. transport "Roanoke," and will proceed on that ship to Manila, P. I. Upon completion of this duty he will return to his station, Presidio.

Gill, C. R., acting assistant surgeon, is assigned to duty in the department of Matanzas.

Lewis, Captain William F., assistant surgeon, is granted leave for 7 days.

Hartsock, First Lieutenant Frederick M., assistant surgeon, leave granted, is extended 7 days.

Maclean, Donald, Jr., acting assistant surgeon, will proceed to Savannah, Ga., and report to Major Daniel M. Appel, surgeon commanding U. S. General Hospital at that place, for duty.

Wales, Major Philip G., brigade-surgeon, the order relieving him from further duty with the Second Army Corps is suspended until his services can be spared.

Banister, Major William B., brigade-surgeon, the order relieving him from further duty with the Second Army Corps is suspended until his services can be spared.

Flagg, Captain Charles E., brigade-surgeon, the order relieving him from further duty with the Second Army Corps is suspended until his services can be spared.

Phillips, Major John L., chief surgeon, the order which relieves him from duty with the Second Army Corps is suspended until he shall have properly completed his present duties and disposed of his medical property in his charge.

Wales, Major Philip G., brigade-surgeon, the order which relieves him from further duty with the Second Army Corps, is suspended until the muster out of the Second Army Corps and final disposal of the hospital at Greenville, South Carolina.

The following changes in the stations and duties of officers are ordered:

Ford, First Lieutenant Joseph H., assistant surgeon, is relieved from further duty at the U. S. General Hospital, Fort McPherson, and will proceed to Savannah, Ga., and report at the U. S. General Hospital for duty.

Curry, J. J., acting assistant surgeon, is relieved from further duty at the U. S. General Hospital, Fort Myer, and will proceed to Savannah, Ga., and report at the U. S. General Hospital for duty.

Anderson, C. L. G., acting assistant surgeon, is relieved from further duty with the hospital train at Atlanta, Ga., and will proceed to Savannah, Ga., and report at the U. S. General Hospital for duty.

Halsell, John L., acting assistant surgeon, now at Fort Sam Houston, will report to the commanding officer, Sixth U.S. Infantry, for duty to accompany that regiment to Manila, P. I.

Menage, H. E., acting assistant surgeon, now on duty at Fort Sam Houston, will report to the commanding officer of the Sixth U. S. Infantry for duty to accompany that regiment to Manila, P. I.

Richmond, Shannon. acting assistant surgeon, is relieved from further duty at Camp Wetherill, Greenville, S. C., and will proceed to Huntsville, Ala., and report to the commanding officer, battalion of the Sixteenth Infantry, for duty to accompany that command to Manila, P. I.

Combe, Major Frederick J., brigade-surgeon, leave for 40 days is granted.

Combe, Major Frederick J., brigade-surgeon, on expiration of his present leave, will proceed to Santiago, Cuba, for assignment to duty.

Newgarden, Captain George J., leave for 4 months on surgeon's certificate is granted.

The following changes in the stations and duties of officers of the medical department are ordered:

Lynch, Captain Charles, assistant surgeon, now on temporary duty at Fort Sam Houston, is relieved from further station at Fort Point and will report to the commanding officer, Sixth Infantry, for duty to accompany that regiment lo Manila, P. I.

Whittington, William L., acting assistant surgeon, now on duty at Fort Sam Houston, will report to the commanding officer, Sixth Infantry, for duty to accompany that regiment to Manila, P. I.

Darnall, First Lieutenant Carl R., assistant surgeon, will proceed to Havana, Cuba, for assignment to duty.

Sims, George K., acting assistant surgeon, on expiration of his present leave, will proceed to Fort Monroe and report to the commanding officer, Sixth Artillery, for duty, to accompany that regiment to Manila, P. I.

Sims, George K., acting assistant surgeon, is granted leave for 10 days.

Roberts, George W., acting assistant surgeon, will proceed to Fort Porter and report to the commanding officer, Thirteenth Infantry, for duty, to accompany that regiment to Manila, P. I.

The orders which honorably discharge the following named medical officers from the volunteer army are revoked:

HARRIS, Major HENRY S. T., brigade-surgeon (captain and assistant surgeon U. S. A.).

KENDALL, Major WILLIAM P., brigade-surgeon (captain and assistant surgeon, U. S. A.).

RAYMOND, Major HENRY I., brigade-surgeon (captain and assistant surgeon, U. S. A.).

The following changes in the stations and duties of officers are ordered:

RAYMOND, Major HENRY I., brigade-surgeon, is relieved from further duty with the Second Army Corps and from station at Fort Niagara and will proceed from Fort Porter and report to the commanding officer, Thirteenth Infantry, for duty to accompany that regiment to Manila, P. I.

KENDALL, Major WILLIAM P., brigade-surgeon, is relieved from further duty at the U. S. General Hospital, Savannah, Ga., and will proceed to Plattsburg Barracks, and report to the commanding officer, Twenty-first Infantry, for duty to accompany that regiment to Manila, P. I.

HARRIS, Major HENRY S. T., brigade surgeon, is relieved from further duty at Fort Sheridan and will proceed to Fort Crook and report to the commanding officer, Sixteenth Infantry, for duty to accompany that regiment to Manila, P. I.

CALVERT, First Lieutenant WILLIAM J., assistant surgeon, will proceed to Fort McHenry and report to the commanding officer, Sixth Artillery, for duty, to accompany that regiment to Manila, P. I.

HARTNETT, First Lieutenant EUGENE H., assistant surgeon, will proceed to Fort McHenry and report to the commanding officer, Sixth Artillery, for duty, to accompany that regiment to Manila, P. I.

WATERHOUSE, First Lieutenant SAMUEL M., assistant surgeon, is relieved from further duty at the U. S. General Hospital, Fort McPherson, and will proceed to Savannah, Ga., and report at the U. S. General Hospital for duty.

DADE, WALTER H., acting assistant surgeon, now at Chicago, Ill., will proceed to Fort Crook and report in person to the commanding officer, Sixteenth Infantry, for duty, to accompany that regiment to Manila, P. I.

ROBINSON, Major SAMUEL Q., surgeon, leave granted, is extended one month.

Changes in the U. S. Marine-Hospital Service, for the seven days ended March 9, 1899:

COBB, J. O., passed assistant surgeon, to proceed to Savannah, Ga., for special temporary duty. March 9.

FRICKS, L. D., assistant surgeon, to report at Washington, D. C., for special temporary duty. March 4. To proceed to the Reedy Island Quarantine station and report to the medical officer in command for temporary duty. March 8.

RAMUS, CARL, acting assistant surgeon, to proceed to the Cape Charles Quarantine station and report to the medical officer in command for duty and assignment to quarters. March 6.

BROCK, G. H., hospital steward, to proceed to New Orleans, La., and report to the medical officer in command for duty and assignment to quarters. March 9.

BROWN, F. L., hospital steward, to proceed to the Cape Charles quarantine station and report to the medical officer in command for duty and assignment to quarters. March 6.

SLOUGH, CHARLES, hospital steward, to proceed to San Francisco Quarantine station and report to the medical officer in command for duty and assignment to quarters. March 9.

TROXLER, R. F., hospital steward, to proceed to San Francisco, Cal., and report to the medical officer in command for duty and assignment to quarters. March 9.

APPOINTMENTS.

RICHARDSON, T. FARRAR, of Louisiana, commissioned as assistant surgeon. March 9.

KING, W. W., of Michigan, commissioned as assistant surgeon. March 9.

THORNBURY, FRANK J., of New York, commissioned as assistant surgeon. March 9.

RAMUS, CARL, of Illinois, commissioned as assistant surgeon. March 9.

HUNTER, WALLACE R., of Pennsylvania, to be acting surgeon for duty at the port of Erie, Pa. March 9.

TROXLER, ROBERT F., of Kentucky, to be junior hospital steward. March 4.

Changes in the Medical Corps of the U. S. Navy, for the week ending March 11, 1899:

Rear Admiral A. S. CROWNINSHIELD, W. K. VAN REYPEN, R. B. BRADFORD, E. STEWART, G. W. MELVILLE, P. HICHBORN, M. T. ENDICOTT, C. O'NEILL, Chiefs of Bureau in the Navy Department, Rear Admirals from March 3.

Professor Ray Lankester, the director of the National History Museum (British Museum), has been elected a correspondent of the French Academy of Science.

Foreign News and Notes.

GREAT BRITAIN.

Lord Lister has been made a correspondent of the Paris Academy of Medicine.

Royal Medical and Chirurgical Society.—At the annual meeting held March 1, Mr. Bryant was reelected president.

Mr. Walter Frank Raphael Weldon, M.A., F.R.S., late Fellow of St. John's College, Cambridge, and professor of zoology at University College, London, has been elected Linacre professor of comparative anatomy at Oxford in place of Professor Ray Lankester, resigned.

The new laboratories of the Middlesex Hospital Medical School are now completed and are equipped with all the best modern appliances for the purpose of instruction and original research. An inaugural conversazione will be held on the evening of March 15, in the new buildings, when many objects of interest will be exhibited.

Fothergillian Gold Medal.—The council of the Medical Society of London, on the recommendation of a special committee, have awarded the Fothergillian gold medal for 1899 to Dr. S. Monckton Copeman, "in recognition of his researches on the preservative effects of glycerin upon vaccine lymph and of the benefits in a practical sense that have arisen therefrom."

The League of Mercy is a union which has been formed under the patronage of the Prince and Princess of Wales to further the object of the Prince of Wales' Hospital Fund for London. The special design of the League is to encourage personal effort for the good of the hospitals, and an "Order of Mercy," a form of decoration, has been established which will be conferred as a reward for gratuitous personal services. It is good to see that the services must be personal, and that the rich man's check will not buy him the distinction which the poor man's unselfish work may gain.

The Health of the British Navy is shown by the latest report of Sir Henry Norbury, K. C. B., the Director-general of the Naval Medical Service, to be not only in a satisfactory but an improving condition. Sir Henry Norbury's figures deal with the completed year 1897, and he is able to show that during this year, not only compared with 1896, but also compared with the average of the previous decade, the aggregate number of cases of disease and injury exhibit a decreased ratio; while the death-rate for the British Navy of 1897 is the lowest recorded since these annual reports have been issued, *i. e.*, for over 20 years.

The Presidency of the Royal College of Physicians of London.—Sir Samuel Wilks, President of the Royal College of Physicians of London since 1896, has, it is stated by the *Lancet*, signified his intention of not offering himself for reelection to that post. His immediate predecessor in the presidential chair, Sir Russell Reynolds, held office for only two years, but his tenure was cut short by his regretted death; Sir Andrew Clark and Sir William Jenner, who came before Sir Russell Reynolds, both held office for five years The next election takes place on March 27, and the choice of the Fellows will probably fall upon Sir William Broadbent, if he offers himself for election, or Dr. W. S. Church Sir Richard Douglas-Powell, and Dr. W. H. Dickinson will also possibly be strong candidates.

The Late Dr. Charles Joseph Arkle, who died in London at the end of February after two days' illness from acute pneumonia, was a man for whom his friends and pupils were prophesying a brilliant career. He was assistant physician to Charing Cross Hospital and had made his mark at that important metropolitan school as a lecturer and clinical instructor. He was a practical man as well as a learned one, and his cordial manners no less than his athletic achievements—Dr. Arkle was a celebrated football player and an expert mountaineer—had endeared him to several generations of students both at Charing Cross Hospital and at University College Hospital, where he was for a long time resident medical officer. Dr. Arkle was but 37 years of age.

At the annual meeting of **the Royal Medical and Chirurgical Society,** which was held at the room of the society on March 1, Mr. Thomas Bryant was reelected president; Dr. G. F. Blandford, the well-known alienist; Dr. Samuel Gee, physician to St. Bartholomew's Hospital; Mr. H. G. Howse, surgeon to Guy's Hospital; and Mr. Reginald Harrison, a vice-president of the Royal College of Surgeons of England and a specialist in urinary diseases, were elected vice-presidents; Dr. W. S. Church, physician to St. Bartholomew's Hospital, and Mr. J. W. Howard, surgeqn to St. George's Hospital, were elected treasurers; and Dr. Thomas Barlow and Mr. Rickman Godlee, both members of the staff of University College Hospital, were elected secretaries.

The late Sir John Struthers, who died on February 24, at the advanced age of 76, was emeritus professor of anatomy in the University of Aberdeen and late President of the Royal College of Surgeons of Edinburgh. He was a noted figure in Scotch professional life. He was for many years a highly successful teacher of anatomy at Edinburgh in what is known as the "extra mural school;" but in 1863, when he was 40 years of age, he accepted the chair of anatomy at Aberdeen, which he held for 26 years. In spite of his long sojourn at Aberdeen he always remained closely identified with Edinburgh, where he was at different times President of the Royal College of Surgeons, President of the Physical Society, Manager of the Royal Infirmary, and chairman of Leith Hospital. The presence of Sir William Turner as a candidate prevented him from becoming professor of anatomy in the University of Edinburgh, but in many direct and indirect ways he worked for the benefit of anatomic teaching in Edinburgh. Sir John Struthers was also a force in medical politics and was for 9 or 10 years an energetic and outspoken member of the General Medical Council.

The Public Health of London and the New London Municipalities.—Trust an English Conservative for a good startling piece of revolutionary legislation! Mr. Balfour, the leader of the House of Commons, has introduced a bill to erect the local vestries of London into municipalities, so that there will be a mayor of Kensington, a mayor of Westminster, a mayor of Hampstead, and so on. The violation that this dismemberment of the great metropolis will do to historic associations—if the bill passes—is undoubtedly very great, and already London's most able and popular historian, Sir Walter Besant, has denounced the scheme as stupid as well as unrighteous. "But we medical men," writes a London physician, "consider that Mr. Balfour's proposal is all for the good of the public health of London. Under the vestry system public health has not prospered. The control of sewage schemes and the regulation of unsaniary property has been left to a class of persons unable to deal with the question at issue. The new municipalities will attract a better class of citizen, with whom the medical officer of health should find it easier and pleasanter to work. Also, if the scheme decentralizes all the rest of London it should have no such dire effect on the public-health work, all the important branches of which will remain under the jurisdiction of the London County Council and its medical officer."

CONTINENTAL EUROPE.

The German Public Health Association will meet in annual session in Nuremberg, September 13 to 16, 1899.

Medical Education in Constantinople.—Professor Rieder Bey, who was some time ago entrusted with a commission to reorganize the Turkish Imperial Faculty of Medicine, and also the School of Military Medicine of Constantinople, has presented a detailed report in which he recommends a considerable extension of the courses of clinical instruction and practical studies. The pupils of the Military Medical School will in future be required to attend Professor Rieder's clinic for 2 years after taking their degree before they are sent to join their regiments.

Medical Women in Roumania.—It is stated in the *British Medical Journal* that by a recent ordinance of the Superior Sanitary Council of Roumania, women will not henceforth be permitted to hold the office of *plasa* medical officer (a sort of Poor-law doctor paid by the State), or physician to a communal hospital. Only large hospitals, with special departments for diseases of women, are to be allowed to have female physicians or surgeons on the staff. As there are very few such hospitals in Roumania, this ordinance practically closes the door of public employment in the face of the medical woman in that country.

International Congress of Hygiene and Demography.—According to the *British Medical Journal*, the tenth meeting of the International Congress of Hygiene will be held in Paris in August, 1900. The division of Hygiene will comprise 7 sections, as follows: 1. Microbiology and Parasitology applied to Hygiene. M. Laveran is president, and M. Netter, secretary, of this section, in which the questions to be discussed are the measurement of the activity of serums; the prophylaxis and preventive treatment of diphtheria; meat-poisoning, its causes and the means of its prevention; pathogenic microbes in soil and water (cholera, typhoid fever, and other diseases); the part played by water and by vegetables in the etiology of intestinal helminthiasis. 2. Chemical and Veterinary Sciences applied to Hygiene; Alimentary Hygiene, in which the questions to be discussed are canned provisions and the means of preventing accidents; unification of international control; the establishment of a general and uniform system of inspection of slaughterhouses, etc. 3. Engineering and Architecture applied to Hygiene, in which the question to be discussed is the protection of water-supplies. 4. Personal Hygiene, in which the question to be discussed is contagious patients from the hospital point of view. 5. Industrial and Professional Hygiene. 6. Military, Naval, and Colonial Hygiene, in which the question to be discussed is the means of ensuring the purity of water from the point of view of colonial hygiene. 7. General and International Hygiene (Prophylaxis of Communicable Diseases; Sanitary Administration and Legislation), in which the questions to be discussed are the prophylaxis of tuberculosis in regard to individuals, families, etc.; the compulsory notification of communicable diseases, its necessary consequences (isolation, disinfection) and its results in different countries; the prophylaxis of syphilis; and the international prophylaxis of yellow fever.

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

February 25, 1899. [No. 1991.]

1. The Earth in Relation to the Preservation and Destruction of Contagia. G. V. Poore.
2. On Some Clinical Aspects of Granular Kidney. Samuel West.
3. A Case of Inversion of Uterus by a Fibroid; Enucleation of Fibroid and Reposition of Uterus. G. Ernest Herman and Leslie Durno.
4. Suprarenal Gland Extract as a Hemostatic. E. A. Lermitte.
5. Death under Chloroform. Charles W. Cathcart.
6. The Open-Air Treatment of Consumption. G. A. George.
7. Puerperal Eclampsia; Convulsions of Mother and Child; Recovery of Both. A. Barnes Hughes.
8. Functional Aphonia. William Finlay.
9. Green Stools in Enteric Fever and Dysentery. W. J. Buchanan.
10. Fibromyomata of the Vagina. A. E. Aust. Lawrence.
11. A Case of Belladonna-Poisoning. Reuell Atkinson.
12. Case of Traumatic Rupture of the Duodenum and Jejunum. A. Sheen.

1.—The earth is largely composed of excreta and dead remains of animals and vegetables. It varies in composition with the varying conditions of subsoil, climate, flora and fauna, and undergoes seasonal variations necessitated by the various alterations in growth and decay. Mutual interaction of earth, air, and water must always be borne in mind. It is the life in the earth, both vegetable and animal, which helps by its influence on vegetation to maintain the quality of the atmosphere; again it is the earth which gives the quality to springs and river-water. The chemical composition of the earth is complex and constantly changing. There are certain organisms which are constantly found in the earth and which appear ubiquitous. These are probably necessary, and so long as we have a whole skin and uninjured mucous membranes they do us no harm. The fact that for the growth of some of these the access of air is necessary, while others obtain their oxygen from the medium in which they grow, and others again are able to take in oxygen from either source, has formed the basis of a classification of these organisms which has assisted our understanding. Saprophytes, including those which produce wound-infection, are presumably of service in bringing about the decomposition of organic bodies. Whether we are able to check the growth and multiplication of these facultative parasites outside the body is doubtful, and whether or not we should profit by doing so is still more doubtful. Among the organisms which are habitually found in the earth is the bacillus of tetanus. It is said to be present in almost all rich garden soils and the presence of horse-dung favors its occurrence. It is strictly anaerobic. On account of this fact one is justified in supposing that tillage of the soil which brings it in contact with the air and sunshine must be unfavorable to its growth and virulence. The bacilli must die out under such conditions, and the inoculation of the spores alone has been shown to be incapable of setting up tetanus. It is remarkable that in the face of the ubiquity of the cause, tetanus in man should be so rare. This is probably in part due to the fact of our wearing boots. Anthrax is a disease which is undoubtedly connected with the soil. The persistence of the anthrax-spore in the earth, according to Poore, does not admit of a doubt, but there is no evidence that man is ever affected directly from the earth. How far anthrax in animals is due to inoculation rather than to feeding is yet in question. Diarrhea is a disease which, in its epidemic form, is supposed to be engendered in the earth, but that it is a soil-disease remains to be proven. Plague has been in the past regarded as a soil-disease, but recent evidence has materially modified this opinion. Diphtheria has by some authorities been considered a soil-disease, but the data necessary to confirm this are wanting. The recent investigations of malaria make us hesitate to consider this disease wholly one of soil origin. Yellow fever, beri-beri, swine-fever, cancer, thread-worms, hydatids and ankylostoma duodenale are among the suspected, but as yet unproven, soil-diseases. [s.m.h.]

3.—Herman and Durno report a case of **chronic inversion of the uterus** due to a fibroid tumor attached to the fundus uteri. The tumor, weighing over 20 pounds, was removed and the uterus replaced by taxis. [w.k.]

4.—Lermitte has employed **extract of suprarenal gland** in a case of pernicious epistaxis with most marked success; so much so that no attack of the hemorrhage occurred after the first application. Lermitte suggests that the extract should be employed in all cases where hemorrhage is difficult to control. [s.m.h.]

5.—Cathcart reports a case of **death under chloroform.** A child, aged 11 years, was anesthetized for the purpose of removing a rectal polypus. The only cardiac abnormity noted before the operation was reduplicated second sound in the mitral area. Chloroform was administered by the drop-method on a single fold of towel which was held at a good distance from the mouth. Anesthesia was apparently complete in 5 minutes. The child winced once or twice after the operation was begun and was given 3 or 4 more whiffs of chloroform. It was then permanently withdrawn. The breathing suddenly became a little irregular. This irregularity passed away to recur again, accompanied by paleness, dilated pupils, imperceptible pulse, and muscular relaxation. The face later became intensely livid. Artificial respiration was done, and at intervals when it was omitted, voluntary movements were observed. Stimulation and artificial respiration were without effect, the child dying in a short time. The heart was thought to have failed before respiration. [g.b.w.]

7.—Hughes reports a case of **puerperal eclampsia** occurring in a primipara during labor, during which he was able to feel the clonic spasms of the child in utero. [w.k.]

8.—Finley recommends the treatment of **functional aphonia** by repeated exercises against resistance. For this purpose, with the laryngoscopic mirror in the left hand, the non-cutting laryngeal forceps is introduced into the mouth. During a deep inspiration the point is pushed down through the open glottis and placed between the vocal cords. The patient is now told to phonate, and during these attempts the blades of the forceps are kept well apart, thus resisting the action of the adductors. [s.m.h.]

10.—Lawrence reports a case of **sloughing fibromyoma,** equal in size to a hen's egg, situated in the anterior vaginal wall. [w.k.]

11.—Atkinson observed the following **symptoms after the administration of a 2-grain belladonna pessary.** Within an hour the patient, a woman aged 62 years, was in a constant state of movement. She made fruitless endeavors to raise herself in bed. She picked at the bedclothes and removed imaginary things from the bed. Her mouth was open, her tongue dry, and both pupils were moderately dilated. She failed to recognize her physician, and talked incessantly in a rambling, incoherent manner. Her skin felt dry and hot, but the temperature was normal. In attempting to administer some medicine with a spoon she started violently at the moment the spoon touched her lips. The approach of a candle in order to study the reaction of the pupils gave the same result. Her face was much congested. There was no stertor. This condition continued for almost 12 hours, after which she awakened with a slight headache, but without any recollection of what had transpired. [s.m.h.]

Lancet.

February 25, 1899. [No. 3939.]

1. The Earth in Relation to the Preservation and Destruction of Contagia. G. V. Poore.
2. Some of the Clinical Aspects of Granular Kidney Samuel West.
3. On Two New Modifications of Enterorrhaphy, with a Short Review of the Subject. Alexander MacLennan
4. The Operative Treatment of Typhoid Perforation of the Intestine, with a Report of Three Cases; One Successful. J. E. Platt.

5. Cases of Hemorrhage Causing Great Distention of the Male Urinary Bladder. Reginald Harrison.
6. The Ocular Phenomena associated with Cheyne-Stokes Respiration. Arthur L. Whitehead.
7. "Colles' Law" or "Wallace's Law"? John A. Shaw-Mackenzie.
8. Note on the Radical Cure of Hydrocele by Perineal Excision of the Greater Part of the Sac. H. Milton.
9. Note on a Rapidly-growing Ovarian Tumor complicating Pregnancy; Ovariotomy; Miscarriage; Recovery. Daniel Mowat.
10. Note on a Case of Bradycardia. Charles Ormerod.
11. A Case of Sarcoma of the Corpora Cavernosa; Removal; Remarks. W. H. Battle.
12. A Case of Purpura Hemorrhagica in which Streptococci were Found in the Blood; Necropsy. E. Cureton.
13. A Case of Chronic Infective Endocarditis Treated with Antistreptococcic Serum. J. H. Abram.

2.—West in his second lecture takes up first the subject of albuminuria. In **granular kidney** the albumin is usually small in amount and constantly present. He believes that the so-called physiologic albuminuria is always pathologic, even if not always renal, when the amount of albumin is more than the merest trace; and probably pathologic even in those cases when there is but a trace and no good cause obvious. Every patient must therefore be carefully examined, every possible cause of albuminuria searched for, and every other condition of the patient noted. If the albuminuria is found to exist alone it may possibly be harmless or accidental and of no serious significance. If renal derivatives are found as well as albumin, it must almost necessarily be due to renal disease, and this is in all probability also the case when no renal derivatives are found in patients in whom the arteries are thickened and the pulse-tension is high. Albuminuric retinitis is one of the later manifestations of interstitial nephritis. In most cases of granular kidney, if the patients live long enough, it does ultimately develop, but a large number of patients with granular kidney die from other causes, such as hemorrhage in the brain, and consequently fail to reach the stage in which albuminuric retinitis develops. Its significance is always grave, not only with respect to sight, but also to life. Generally speaking, the duration of life after its appearance is short, but when the patients are in the best condition to take care of themselves, life may exceptionally be prolonged for some time. [s.m.h.]

3.—After discussing the various methods of **enterorrhaphy** which have been devised, MacLennan suggests a method the chief features of which are: the insertion of a grooved, decalcified-bone cylinder into the proximal end of the intestine, and ligaturing the intestine firmly into the groove; the invagination of the distal end of the intestine into its own lumen over a loop, formed by passing both needles of a doubly-threaded silver wire through its wall; the proximal end containing the cylinder is then pushed into the distal end so far as the groove, and the wire, over which the distal end is invaginated, is now drawn firmly, bringing the serous surfaces of the two ends of the intestines in contact. A modification of this method is suggested by invaginating the distal end over a rubber ring. [For a proper understanding of this method, which at least seems to possess the merit of simplicity, it may be necessary to study the cuts accompanying the article. m.b.t.]

4.—Three cases of **operation for typhoid perforation of the intestine** are reported: A man, aged 37, who had suffered from apparently mild typhoid fever, was taken with sharp, shooting pains below and to the right of the umbilicus on the eleventh day of the disease. The abdomen became hard and distended, liver-dulness disappeared and perforation was diagnosed. Operation was undertaken 22 hours after the onset of symptoms of perforation; gas and feculent fluid escaped on opening the peritoneum, and the intestines were found greatly distended. A perforation ¼-inch in diameter was found opposite the mesenteric attachment of a loop of ileum lying near the pelvic brim. This was closed by Lembert sutures, free irrigation with hot saline solution was used, and a rubber drainage-tube was inserted. The operation lasted 50 minutes. At times there was considerable distention, and convalescence was complicated by a relapse, but complete recovery eventually followed. In the second case, occurring in a boy of 17, abdominal rigidity, distention, and tenderness; loss of liver-dulness and retching occurred on the twenty-eighth day of a severe attack of typhoid fever. Celiotomy was performed 18 hours after the perforation, and gas and feces were found on opening the abdomen. Perforation had taken place in a loop of the ileum passing from the iliac fossa into the pelvis. The opening was closed, the abdomen flushed with hot saline solution, and drainage inserted. The operation, which lasted 40 minutes, was followed by collapse, from which the patient partly rallied after intravenous infusion of 2 pints of saline solution, but death followed 8½ hours after the operation. A third patient, aged 22, was taken with symptoms of perforation on the nineteenth day of a severe attack of typhoid fever. Gas and feculent fluid were found on opening the abdominal cavity 19 hours later. A perforation in a loop of ileum situated near the pelvic brim was easily found, and the treatment was the same as in the preceding cases. Operation lasted 45 minutes. For a time the patient did well, but then sank and died 2 days after the operation. At the necropsy a kink in the transverse colon was found, which was perhaps responsible for the fatal result. In spite of the large amount of fecal matter which had escaped, peritonitis had been limited to the neighborhood of the perforation. Platt has found reports of 17 cases in addition to the 83 cases reported by Keen, which, with his own cases, makes a total of 103 cases, with 21 recoveries. He believes that if operation be undertaken within 24 hours of the time of perforation, that recovery would follow in from 25% to 30% of the cases, in which without operation a fatal result would inevitably occur. [m.b.t.]

5.—Harrison reports the case of a man aged 37 whose **bladder** was **distended** to the level of the umbilicus **from hemorrhage** which followed dilatation of a stricture of the urethra under anesthesia. The clotted blood was removed by means of a large litholapaxy catheter evacuator and speedy recovery followed. In a second case, occurring in a man of 72, the bladder was enormously distended and it was found necessary to break up the blood-clots with a smooth-bladed lithotrite before it was possible to remove them with the evacuator. The man had been catheterizing himself for some years, but it is believed that the hemorrhage was a result of vesical apoplexy rather than the use of the catheter. In a third case, that of a man 47 years old, bleeding followed the dilatation of a stricture of the deep urethra. External urethrotomy was performed and an enormously distended bladder was emptied through the perineal wound. [m.b.t.]

6.—Whitehead reviews the subject of the **ocular phenomena associated with Cheyne-Stokes respiration.** The ocular symptoms met with in association with this condition are of considerable variety, and they are sometimes observed in what may be called a Cheyne-Stokes state or condition apart from any disturbance in the rhythm of respiration. Two cases illustrating the latter condition are reported. The first occurred in a man aged 23 years who had a chronic left otorrhea from which he developed a meningitis. There was no respiratory irregularity, but the pupils, although equal and reacting to light, showed periodic rhythmic fluctuations in size. At the beginning of the cycle the pupil was about 1.5 mm. in diameter, and gradually and steadily dilated up to about 5 mm., subsequently slowly contracting to its former size, the whole stage occupying about 50 seconds. After remaining contracted for a few minutes, the cycle was repeated. The autopsy showed localized meningitis over the affected temporal bone with some flakes of lymph dotted about over the general surface of the pia mater. The second patient was a man aged 32 years, who died as the result of a subdural abscess following a left acute otorrhea which, at the autopsy, was found to have burst through the dura mater and to have involved the right lobe of the cerebellum. During life the respirations were normal, but the pupils displayed the same periodic movements which were recorded in the first patient. Some special condition of the respiratory and other centers is unquestionably responsible for the whole series of phenomena in such cases. It has been shown in frogs that the respiratory center is automatic, and when free from the influence of the higher centers becomes periodic in action. Other medullary nuclear centers governing the heart's action and blood-pressure exhibited the same periodic tendency when cut off from the influence of the higher centers. If by cerebral pressure, by uremic blood or deficient arterial supply, or by the administration of certain drugs, the control of the higher centers is limited or abolished, the lower centers will tend to show periodic variations in the manifestation of their activity, more or less regular inversely as the control is exercised. This is the condition which has been described as the Cheyne-Stokes state. The anatomic relations between the various centers affected in this state are obvious and that any one or several or all may be involved is equally clear, but the cause of the selective action is as yet unknown. [S.M.H.]

7.—The question of priority in regard to Colles' or Wallace's law is discussed and Wallace's work is reviewed. [M.B.T.]

8.—Milton has found difficulty in avoiding suppuration in operating for **hydrocele** by incision directly through the scrotal tissues and he has been troubled with hemorrhage after operating by Kocher's method, dislocating the hydrocele into the inguinal canal. While still adhering to the principle of dislocation he has been able to avoid the disadvantages mentioned by displacing the hydrocele to the perineum. [M.B.T.]

9.—Mowat reports the removal of a rapidly growing **ovarian cyst** producing serious symptoms during pregnancy. The patient was 3 months pregnant and aborted 2 hours after the removal of the cyst. Convalescence was complicated by a slight attack of phlegmasia alba dolens, but she ultimately recovered. [W.K.]

10.—Ormerod observed a patient, aged 83 years, who was the subject of **attacks of syncope.** An examination of the heart showed it very slightly increased in size. There was a faint systolic murmur at the apex, the sounds at the base were clear and all sounds were weak. A special feature of the case was a condition of bradycardia which had persisted for a year. The pulse varied from 30 to 36 beats per minute. It was attributed to degeneration of the heart-muscle. [S.M.H.]

11.—**Sarcoma of the corpora cavernosum** is a condition of extreme rarity. A case is reported occurring in a man, 50 years old, in whose past and family history there was nothing worthy of note. He had had difficulty in micturition 2½ years previously, and 6 months later a swelling appeared in the middle of the perineum which caused slight pain on walking. At the time of operation the tumor was fixed, smooth and rounded, and about the size of a duck's egg. An incision was made in the median line of the perineum, the tumor, which was in connection with the left corpus cavernosum, was dissected away, and the severe oozing which resulted was arrested by means of the cautery. The wound was packed and a catheter was left in the urethra for 25 days. A little over 2 months after the operation the patient left the hospital with the wound in the perineum completely healed. Six months later the growth reappeared in the scar, and a little over a year from the first operation a second was undertaken. Owing to free hemorrhage not all the growth was removed, and as the patient did not return as was requested, it went on to a stage where operation seemed inadvisable, and death followed soon after. Microscopic examination showed the tumor to be a spindle-celled sarcoma. [M.B.T.]

12.—Cureton reports a case of **hemorrhagic purpura** in a boy aged 11 years. He had been ill for 3 weeks before coming under observation. There was no family-history of hemophilia or of rheumatism. He was quite ill when admitted, with a temperature of 100.4° F., a small, soft, compressible, and rapid pulse. He was very anemic and blood was constantly oozing from his gums. His body was covered with a purpuric eruption, the spots varying in size from a split pea to a pinpoint, and in color from a dark purple to a bright red. There was no swelling nor pain of the joints. The ophthalmoscope showed marked retinal hemorrhages. The urine contained a trace of albumin. The patient gradually failed and died the twentieth day of his stay in the hospital. Two days before death he developed a systolic bruit in the pulmonary region. Some rhonchi and rales were audible in both lungs. There was a remarkably rapid diminution in the number of red cells in the last few days of life. Three days before death they numbered 1,680,000, and on the day of death 310,000. Leukocytes were not estimated. The conditions revealed at the autopsy were well-marked hemorrhages into the walls of the heart, into the mucous membrane of the stomach, and a few hemorrhages over the upper surface of the liver. There was an absence of the right kidney, the left was lobulated, weighed 6 ounces, and showed no hemorrhages. There were a few scattered hemorrhages in the walls of the intestinal mucous membrane. Blood taken from the chambers of the heart gave colonies of streptococci. [S.M.H.]

13.—Abram reports a case of **chronic infective endocarditis** which occurred in a woman aged 39 years. The patient when admitted to the hospital was much emaciated, and her temperature was 102.5° F. She had diarrhea and the physical signs of mitral stenosis. A diagnosis of infective endocarditis was made and confirmed 9 days later by the appearance of a splenic embolism. Her blood was examined and streptococci were found in large numbers. An injection of 10 cc. of antistreptococcic serum was made into the buttock daily for a period of 2 weeks. The only effect seemed to be a steadying of the temperature and an improved general condition. After an interval of a week 9 more injections were given without any better result. The patient persistently failed and eventually died. Postmortem blood-cultures made from the splenic substance showed numerous colonies of staphylococci, but no streptococci. [S.M.H.]

New York Medical Journal.

March 11, 1899. [Vol. lxix, No. 10.]

1. A Study of the Natural History of the Clinical Manifestations and Pathological Changes in Disease of the Lungs among the Insane. H. A. Tomlinson.
2. On a Polymorphous Cerebral Tumor (Alveolar Glioma?) containing Tubercles and Tubercle-bacilli. Claribel Cone.
3. Puerto Principe, Cuba; Its Sanitary Conditions and Vital Statistics. S. T. Armstrong.
4. The Postpartum Management of Uterine Displacements. Eugene Coleman Savidge.
5. Some Observations on the Use and Abuse of Quinin in the Group of Fevers known as "Calentura." L. C. Carr.

1.—Tomlinson believes that **phthisis among the insane,** in old institutions like the hospital at St. Peter, is a proportionately more common cause of death than in general practice outside of the large cities, 46% of the deaths in the past year in the State Hospital at St. Peter being from tuberculosis. From a careful study of the morbid anatomy of the lungs and abdominal viscera of the insane, he concludes that fibrosis is always present in some degree, greatest in the primarily defective, least in the unstable class. It is most common in the kidneys, next in the lungs, the heart being least involved. The records at St. Peter show that all patients not dying from cerebral hemorrhage or the acute illnesses of hospital-life die of pulmonary phthisis or nephritis. In all cases of nephritis there exist some degenerative and destructive changes in the lungs, and when the pulmonary condition is the cause of death, the kidneys are involved. The habits and mode of life of the average chronic insane patient account very readily for these degenerative changes. Any irritation of an organ will induce not only a determination of blood with increase of nutrition and function, but also an actual hyperplasia of the connective-tissue framework of the organ. The persistence or increase of such irritation will readily turn a normal into an abnormal process, resulting in a hyperplasia that is pathologic, an increase of connective tissue sufficient to interfere with function, and the after-contraction of which will be the beginning of the process of degeneration. In defective organisms where resistance is reduced the resulting fibrosis will be more extreme. Such conditions are found among the insane. [S.M.H.]

2.—The portion of Cone's article published in this number of the Journal is devoted to a classification of **brain-tumors** and a description of the leading characteristics of glioma and endothelioma, which includes a very careful critical review of the literature relating to this subject. [S.M.H.]

3.—Armstrong calls attention to the **defective sanitary conditions** existing in Puerto Principe, Cuba, and their influence upon vital statistics. He points out the necessity of the early establishment of sanitary reform on the part of the Government of the United States. [S.M.H.]

4.—Savidge has definite convictions on the **postpartum management of uterine displacements.** (1) All postpartum displacements are of the same general nature. (2) The question of their prevention is one of the gravest importance, having a bearing upon longevity itself. (3) In some few cases "no matter what you do" the womb will obstinately remain displaced. (4) Trusting any postpartum case to nature is the wrong thing to do. (5) Doing the right thing will obviate most of the displacements and rob those that persist, of their danger. (6) There is a right thing to do. The tampon, carrying its medication, reduces the engorgement of the uterus, supports the heavy organ and stimulates involution. Patients are ready to get up after parturition, regardless of tradition, only when the uterus has involuted. Mundé has for many years advised the introduction of a pessary as a cure for an old retrodisplacement before a parturient woman, so afflicted, was allowed to leave her bed, at the time when all her pelvic organs were undergoing involution. [W.K.]

5.—Carr, with the idea of testing the efficacy of **other forms of medication in malaria,** took a certain number of patients suffering from this disease who had not received previous medication and treated them **without quinin.** He reports 13 cases in which various forms of medication were resorted to, and from a study of these, reaches the conclusion that in cases of mild malarial poisoning the patients who receive no quinin convalesced more rapidly and recovery was far more satisfactory than in cases of the same class which had been treated in the hospital with quinin and libitum. Under the quinin-treatment anemia persisted, the appetite was capricious, and convalescence was generally tardy and unsatisfactory. The sense of hearing and the nerve-centers were temporarily impaired and there was a tendency to recurrence of the malarial paroxysms. [S.M.H.]

Medical Record.

March 11, 1899. [Vol. lv, No. 10.]

1. The Relation of Movable Kidney and Appendicitis to Each Other and to the Practice of Modern Gynecology. George M. Edebohls.
2. On the Treatment of Cardiac Neuroses. Theodor Schott.
3. The Other Side of the Antitoxin Question. J. Edward Herman.
4. Headache and Its Relation to Diseases of the Eye, Ear, Throat and Nose. J. Wilkinson Jervey.

1.—Edebohls finds that **chronic appendicitis** is frequently associated with symptoms indicating **movable right kidney,** and in consideration of the relations existing between these conditions he has summarized his conclusions: (1) Chronic appendicitis, as proven by my clinical and operative work, is present in from 80% to 90% of women with symptom-producing movable right kidney. This frequency constitutes chronic appendicitis one of the chief, if not the chief, symptom of movable kidney. (2) Chronic appendicitis, by reason of its frequency, the protracted suffering and serious impairment of health which it entails, and the dangerous possibilities of implanted acute attacks of appendicitis, may be considered the most important complication of movable right kidney. (3) My statistics show that 20% of all women have movable kidney or kidneys; that 4% of all women have symptom-producing movable kidney or kidneys; that 4% of all women have appendicitis; that while 3.5% of all women have both symptom-producing movable kidney and appendicitis, only 0.5% of all women have appendicitis and well-anchored kidneys. The startling nature and importance of the conclusions to be drawn from these statistics does not invalidate the latter. (4) Satisfactory investigation of the relations of movable kidney and appendicitis became possible only after the discovery and elaboration of my method of palpation of the vermiform appendix. It remains impossible to those not practically familiar with the method. (5) Chronic appendicitis may be the only symptom of movable right kidney. (6) Some of the symptoms commonly ascribed to movable kidney are often in reality due to the concomitant appendicitis. (7) The relations existing between movable right kidney and chronic appendicitis are those of cause and effect. A movable left kidney never produces appendicitis. (8) Movable right kidney probably produces chronic appendicitis by indirect pressure upon the superior mesenteric vein, the return circulation of the appendix being hampered by compression of the vein between the head of the pancreas and the spinal column. (9) Chronic appendicitis associated with movable kidney shows no tendency to resolution or spontaneous cure, with restoration of a normal appendix, while the right kidney remains movable. The only cure possible, under these conditions, is by slow progress to appendicitis obliterans. (10) In 12 of my cases of coexisting movable right kidney and appendicitis, the appendicitis apparently ended in resolution and remained permanently cured, after right or bilateral nephropexy, without any attention to the appendix. (11) Recovery from appendicitis after right nephropexy may only be expected in cases in which the associated chronic appendicitis is of comparatively recent origin. (12) In a minority of cases only of associated movable right kidney and chronic appendicitis will either nephropexy alone, or appendectomy alone, meet all the indications. The majority of patients require both operations to restore them to full health. (13) Both operations, right nephropexy and appendectomy, may be simultaneously performed through one and the same lumbar incision extending along the outer margin of the erector spinæ muscle from the twelfth rib to the crest of the ilium. [W.K.]

2.—Schott believes that there are **3 forms of cardiac neuroses: sensory, motor, and neurasthenic.** The sensory neuroses are divided into pseudo-angina, vasomotor angina pectoris, and true angina-pectoris. The first form usually occurs in young persons. It may be associated with anemia or neuropathic inheritance, and is occasionally produced by infectious diseases, locomotor ataxia, local diseases of the pericardium, or poisons. The vasomotor type must be assumed to be the result of spasmodic contraction of the vessels, and is accompanied with dyspnea. True angina pectoris appears to be characterized by imperfect systolic contraction, giving rise to an occasional rhythmic pulse, which may appear to the finger as slow, and on the sphygmogram as very frequent. The most characteristic motor-neurosis is palpitation. It may be produced by any of the causes that give rise to a sensory neurosis. Probably the ventricles of the heart are over-filled during its existence, and beat strongly, without giving rise to a corresponding alteration in the pulse. Neurasthenia cordis has 2 types of symptoms; the excitomotor, and the depressive. There is often a feeling of depression, palpitation, and finally, in the second stage, the appearance of all the characteristic symptoms of neurasthenia. Schott naturally prefers baths and passive movements to drugs or other methods that may be employed in the treatment of these diseases. The baths should usually be effervescent, and should not contain too much salt. In true angina, or when it is desirable not to increase the arterial pressure, the balneologic treatment should be avoided. The most valuable form of gymnastic exercise is the passive movements, which should first be performed by an assistant, but may later be safely entrusted to the patient. Sphygmographic tracings, showing alterations before and after baths, are given. [J.S.]

3.—Herman marshals the **arguments against the treatment of disease by antitoxins.** He presupposes that a specific should cure every case in which it is given sufficiently early in the course of the disease. It should reduce the death-rate, and keep it below the lowest average obtained by other methods of treatment. Of the various diseases in which antitoxin treatment of various kinds has been employed, the only one in which success has been obtained in the case of human beings is smallpox, although for lower animals and of course for human beings also a certain degree of immunization can be obtained towards the anthrax-bacillus and against hydrophobia. Tuberculosis-serum, Carasquilla's leprosy-antitoxin, antistreptococcic serum and pneumonia-serum, are practically worthless; at least there is no positive evidence that any one of them influences the course of the disease. Cholera, yellow fever and plague serum have also been employed with doubtful benefit. The blood of convalescents from measles, scarlet fever, and erysipelas, has given no convincing results. Up to the present, no clinical experience has occurred with snake-serum. Tetanus-antitoxin, although efficient in the laboratory, is useless at the bedside. Finally, Herman speaks of the subject of antidiphtheric serum. He is by no means convinced that it is of any use, and quotes the opinion of various pathologists and clinicians who are equally skeptical, or, at least, more conservative than the ordinary advocates. He begins his argument by summarizing the reasons why the diphtheria-bacillus is probably not the cause of the disease, and finds that the only proof that it is, is the possibility of the production of a pure culture. It is neither found in every case of diphtheria, nor does it in the lower animals produce a similar disease. Even admitting the pathogenicity of the Klebs-Löffler microorganism, the method pursued in the preparation of antitoxin is so different from the production of immunity by the actual infection of the human being that the antitoxin is probably not efficient in curing the latter condition. [The paper appears to be unfinished; it is of course only a special plea, and should be criticised as such. J.S.]

4.—Jervey calls attention to the frequency with which **headache is produced by disease of the upper air-passages or the ears.** He quotes 6 cases as typical of the various conditions responsible for cephalalgia, but which are frequently overlooked. In one, there was a bursa in the pharynx, in another, hypertrophic rhinitis; in a third, atrophic rhinitis; in a fourth pharyngitis and laryngitis; in a fifth, acute catarrhal otitis media, and in the sixth impacted cerumen in both ears. The most frequent situation causing headache, therefore, is the naso-pharynx, next in importance is the nose itself, and finally the ear. [J.S.]

Medical News.

March 11, 1899. [Vol. lxxiv, No. 10.]

1. Paracentesis Pericardii; Report of a Case. James Hawley Burtenshaw.
2. Some Statistics upon Sero-Therapy in Tuberculosis. J. Edward Stubbert.
3. Operative Gynecology on the Insane. W. P. Manton.
4. Treatment of Fracture of the Patella. Lewis A. Stimson.

1.—From 100 cases of **paracentesis pericardii** collected, 38.4% made complete recovery, the rest dying anywhere from a few minutes to 6 months or more after the operation. The case reported by Burtenshaw is interesting because of the following features: (1) The patient was 60 years of age; (2) the onset was most sudden, so that effusion was found in the sac as soon as pericarditis was diagnosed; (3) there was a conspicuous absence of any etiologic factor, such as trauma, tuberculosis or rheumatism; (4) there was an almost entire absence of pain during the whole of the illness; (5) the typic attacks of asthma from which the patient suffered before the pericarditis developed, disappeared entirely after the pericardial effusion had formed. The patient died 37 days after the paracentesis had been performed. [G.B.W.]

2.—Stubbert, having received some antitubercle-serum from de Schweinitz, which had been prepared by injecting 2 cows and a heifer with tuberculin, or liquid culture-media, employed it in 82 cases of pulmonary tuberculosis at the Loomis Sanitarium. The serum had been tested upon guineapigs, and found to possess distinct immunizing power. He reports his statistics as follows: Expectoration improved in 82% of the cases; appetite improved in 81%; weight improved in 78%; temperature diminished in 49%; disappearance of the tubercle-bacilli in 13%; apparent immunity obtained in 21%; diminution of the bacilli in 35%; improvement in cough in 79%, and general improvement in 78%. In cases of laryngeal tuberculosis, the number of which is not stated, healing of the ulceration occurred in 50% when ulceration was present. When not present, the disease was arrested in 46% of all cases. Stubbert has also employed the antistreptococcic serum in those cases in which there was reason to suppose that a mixed infection, due to the streptococcus, was present. Altogether 6 cases were treated. In the first the expectoration ceased after one injection, and it did not recur for a number of days. In the second case, cough and expectoration increased after the injection, but subsequently improved. The third patient had a dry cavity at one apex and was given 4 injections, after which the streptococci disappeared. The fifth case received 2 injections, and the streptococci disappeared for 5 months when they returned. The sixth patient has had no streptococci in the sputum for 6 weeks. Several other patients reported as cured of pulmonary tuberculosis have subsequently been examined, and the recovery has apparently been permanent. [J.S.]

3.—Manton reports the **gynecologic operations** performed during two years at the Eastern Michigan Asylum for the Insane. Twenty-eight operations were performed on 17 women. Subsequent to operation, 4 patients were cured of mental disorder (23.52%), 3 improved mentally (17.64%), and 10 remained unimproved mentally. There was no mortality from operation. Of the 4 patients who recovered, 1 had melancholia, the duration of the mental attack being unknown; 1 had melancholia, which had existed 9 months; 1 had acute mania of 10 weeks' duration, and 1 had had acute mania for 19 months. The recovery of mental health in more than 33% of the cases treated is certainly very encouraging. Although credit is due to operative interference, the quiet and methodic habits of asylum life, food, internal medication, and the regulation of bodily functions must be looked upon as contributing to the general upbuilding of the patient's physical health, and of equal importance in the reestablishing of mental integrity. [W.K.]

4.—Stimson, in treating **fracture of the patella,** prefers, for the uniting of the fragments, to use an ordinary catgut or silk suture, passed through the periosteum alone, instead of drilling and using heavy silk or silver wire. The reason for this, he claims, is that when the leg is straight very little influence is exercised by the quadriceps femoris muscle toward the separation of the fragments, and that the more accurate suturing holds the fragments in better apposition. [G.B.W]

Boston Medical and Surgical Journal.

March 9, 1899. [Vol. cxl, No. 10.]

1. Remarks on the Desirability of a More Careful Study and Extended Use of Hydrotherapeutics. James J. Putnam.
2. On Retrodisplacements of the Pregnant Uterus. Malcolm Storer.
3. Notes from the Surgical History of a Field Hospital (Camp Alger, Va.). William H. Devine.
4. Volvulus of the Sigmoid Flexure, Three Times Relieved by Laparotomy. Edward Milton Foote.

1.—Putnam draws attention to the fact that few physicians have any real **scientific knowledge of hydrotherapy,** and that most practitioners make but little use of it. In chronic affections he has found it especially valuable in those accompanied by debility, anemia and neurasthenia. The bath, he prefers, should be given at about noon, because the power of reaction then is greater then in the early morning. In feeble patients it should be preceded by a rest in bed, and after the bath it is well for the patient to go through a few light exercises. He discusses the effect of the bath and notes the character of the reaction that should follow. Reaction is secured by having the skin warm before the bath and by using friction during the bath and after it is over. Shock from sudden use of cold water is not wholly objectionable. It is better to use tepid baths, gradually decreasing the temperature from bath to bath than to use a warm bath into which cold water is run until the temperature of each bath is gradually lowered, for the reaction is better when the bath is taken from the beginning at as low a temperature as the patient can stand. Shivering and blueness of the finger tips are not necessarily bad signs. Children require less depression of the temperature of the bath in order to develop a reaction. In any patient if but a small portion of the body is to be treated lower temperatures can be used than in case the whole body is to be subjected to a reaction. For wet-packs and the like, coarse linen sheets or damask table-cloths are better than cotton sheets, as they absorb better and give better surfaces for friction. A stream of water delivered under high pressure as a douche causes better stimulation and greater reaction than simple sponging or immersion. Much caution should be used in giving the baths to elderly individuals. [D.L.E.]

2.—Storer discusses **retrodisplacements of the pregnant uterus.** In this condition spontaneous cure will be limited by 4 factors: adhesions, the sacral angle, the character of the displacement, and the degree of the displacement. Given an incarcerated uterus, if the displacement be not corrected by nature or art, various results may follow. Sometimes pregnancy goes on to full term, the uterus becoming sacculated; much more frequently abortion takes place, probably from interference with the blood-supply. In fact, nature is so apt to cut the Gordian knot in this way that many cases of habitual non-syphilitic abortion must be due to this cause. These retroflexed uteruses have naturally much difficulty in expelling their contents. Challeix has reported 3 cases of extreme flexion in which the fetus was retained 8, 5, and 1 month respectively after its death. If abortion does not take place grave results are generally not long delayed. Gottschalk has collected 67 deaths from this cause, and Storer has found 10 more, making a total of 77. Of these 13 were from rupture of the baldder, 18 from uremia, and most of the rest from sepsis, its origin being practically always in the bladder. [W.K.]

3.—Devine reports two cases showing the practicability of **operating in a field hospital.** One was a case of rupture of the spleen resulting from a kick of a horse, and the other a case of appendicitis. The first died, but the second recovered. [G.B W.]

4.—This **case of sigmoid flexure, 3 times relieved by operation** is probably unique in the history of medicine. The patient was a deaf mute, also mentally imperfect and about 22 years of age. At the first operation there was marked distention of the colon with gas and liquid feces, so much so as to require puncture before the volvulus could be reduced. The second attack came on about 6 months after the first and this time the operation was only resorted to after bimanual manipulation, with one hand in the rectum had failed to reduce the volvulus. The condition of the patient was so bad at this time that no radical cure was attempted. At the third attack, which occurred 7 months after the second, a radical operation was done, consisting in the stitching of the gut to the abdominal wall. The patient up to date has had no return of the trouble. [G.B.W.]

Journal of the American Medical Association.

March 11, 1899. [Vol. xxxii, No. 10.]

1. Congenital Deformities of the Hands. Francis R. Sherwood.
2. The Histopathology of Hypertrophic Rhinitis in Children. J. L. Goodale.
3. The Pathology of Epidemic Cerebrospinal Meningitis. Daniel N. Eisendrath.
4. Etiology of Alopecia Prematura. J. M. Blaine.
5. Cardiac Rheumatism. Joseph M. Patton.
6. Relation of Chorea to Rheumatism. Robert B. Preble.
7. Excision of Tonsils. W. H. Peters.
8. The Treatment of Diseases of Pigmentation. John V. Shoemaker.
9. Molluscum Contagiosum. Wm. Frick.
10. Convenient First Dressings in Leg Fractures. Edward H. Trickle.
11. Malarial Hematuria. F. G. Du Bose.
12. The Etiology of Seasickness. William Edgar Darnall.
13. Conservatism in Railroad Surgery. H. Hatch.

1.—Sherwood gives a brief and interesting review of what is known at present with regard to the **etiology of congenital malformations of the hands.** A case is reported, and cuts from photographs and x rays are given. [M.B.T.]

3.—The literature of epidemic **cerebrospinal meningitis** is discussed, and a case is reported occurring in a woman 67 years of age. At the necropsy a thrombus was found that filled the longitudinal sinus. The convexity of the cerebrum and the superior surface of the cerebellum were covered with a thick gelatinous exudate. The characteristic organism was found in the exudate. [M.B.T.]

4.—See this Journal, Vol. II, page 100.

5.—The opinions of various authorities are considered as regards the symptoms and frequency of **endocarditis and pericarditis** associated with acute rheumatism. Patton believes that the character of impulse and indefinite nature of the heart-sounds, the position of the apex-beat above and inside the limits of dulness, and the alteration of the area of dulness with the change of position of the patient, are the most valuable signs in differentiating between effusion and cardiac dilation. [M.B.T.]

6.—Preble concludes that there is some relation between **chorea and rheumatism,** as rheumatism is much more frequent in children suffering from chorea than in children in general. Rheumatism excites chorea by the selective action of toxins upon the motor cells of the cortex, causing functional affections but no structural changes, and the disease shares this relation to chorea with a great number of other infectious diseases. [M.B.T.]

7.—Peters claims priority in the use of the snare for instantaneous écrasement of the tonsils. He describes his instrument and the method of its use. [M.B.T.]

8.—See this Journal, Vol. II, page 100.

9.—See this Journal, Vol. II, page 100.

10.—The following method of application of **first dressings in fractures of the leg** is recommended. The leg is wrapped with cotton and suspended in cheese-cloth, two strips of thin board, shaped to fit the anterior contour of the legs, are clamped in against the sides of muslin until they meet, thus closing the cloth around the leg like a stocking. Extension is made during the application of a plaster-of-Paris bandage which is carried back and forth along the leg. Extension must be continued during the time required for the plaster to set, the clamps are then removed, and the leg thus cased is again suspended in cheese-cloth. [M.B.T.]

11.—DuBose reports the successful treatment of 10 cases of **malarial hematuria** without a death by the following method: As soon as the diagnosis is made, morphia and atropia are given hypodermically, followed immediately by 10 grains of calomel. Five grains are repeated every 2 hours for 4 or 5 doses. Thus administered, DuBose has never seen mercurial poisoning or drastic purging. The drug acts as a powerful diuretic. Morphia, atropia, and cocain are administered hypodermically 3 times daily. Copious drafts of skimmed milk are given, and a large saline enema is administered, and sinapisms are applied across the back. [M.B.T.]

12.—The reflex impulses set up by the rhythmic motion of the endolymph of the semicircular canals of the ear are considered the most general causes of sea-sickness. [M.B.T.]

13.—Hatch believes that in serious injuries the surgeon should not consider whether the Symes, Lisfranc or other typical operation should be performed, but how much he can save of the part to make it useful to the owner. [M.B.T.]

American Gynecological and Obstetrical Journal.

January, 1899. [Vol. xiv, No. 1.]

1. The Conservative Treatment of the Diseased Ovary. Joseph Tabor Johnson.
2. Remedial Treatment of Cystitis in the Female. J. H. Etheridge.
3. Chemical and Microscopical Examination of the Urine, with Special Reference to the Diagnosis of Cystitis. J. A. Wesener.
4. Instrumental Examination of the Bladder. William T. Belfield.
5. Instrumental Examination of the Bladder in the Diagnosis of Cystitis in the Female. M. L. Harris.
6. Surgical Treatment of Cystitis in the Female. Alexander Hugh Ferguson.
7. The Prevention of Cystitis in the Female. G. A. Kletzsch.
8. Celiotomy in the Treatment of the Incarcerated Pregnant Uterus when Irreducible. Henry D. Fry.
9. The Pathology of Endometritis. Joseph McFarland.
10. Parasitic Invasion of the Milk Ducts in Three Nursing Women, with Results Serious to the Nursing Children. Edgar D. Smith.
11. Bloodless and Aseptic Vaginal Hysterectomy. John Byrne.

1.—Johnson defines conservatism and discusses the recent advances in **conservative gynecologic surgery.** In cases where one ovary and tube have been removed on account of the presence of a tumor or an abscess, and the other ovary and tube found somewhat involved, the diseased portions have been resected, and the healthy portions stitched together with perfect recovery. Pregnancy subsequently occurred in several such cases. As a result of the increasing conservative treatment of the diseased ovary, many patients may be saved from the premature occurrence of the menopause with all that it implies. [W.K.]

2.—Etheridge subdivides the **medicinal treatment of cystitis** into constitutional and local. The chief constitutional treatment is to increase the functions of the alimentary canal and of the skin, render the urine unirritating, and relieve pain and vesical tenesmus. The diet should be carefully regulated; milk is the most universally used agent. The bill of fare should consist largely of fluid food, as milk, broths, yolk of egg, beef essence, etc. Opium is the supreme agent for the relief of vesical suffering. Excessive acidity or alkalinity should be corrected. The local treatment should be performed with complete antiseptic precautions. Before using medicines the bladder should be washed out with normal salt-solution or saturated solution of boric acid. The injection should be small in amount and given slowly. In simple cystitis the sovereign remedy is silver nitrate, one-tenth to one-half per cent. When there is ulceration or suppuration, carbolic acid, one drop to the dram, is of use. If the urine is loaded with pus, tannin, (10 grs. to the ounce) is of great value. Opiates and other analgesics should not be used in the bladder, because the mucous membrane is not an absorbing surface, and they do not relieve pain. [W.K.]

3.—Wesener advises, in the case of females in whom **cystitis is suspected,** the urine should be obtained by the catheter; this rule, if followed, will avoid the possibilities of contamination from the vagina. For the detection of pus in the urine, the chemical test of Vitali is recommended. The suspected urine, if alkaline, is treated with enough acetic acid to make it slightly acid; filter and add to the residue a few drops of freshly prepared tincture of guaiacum. If pus is present, the inner surface of the filter takes on a blue tint. Clinically cystitis may be differentiated from pyelitis by washing out the bladder with sterilized water immediately after urination; examine the urine collected, and also the washings for pus. If the water contains a considerable amount of pus, the disorder is probably cystitis. [W.K.]

4.—The **cystoscope** has practically created **cystology.** It is very valuable in determining the existence of stone in the bladder, particularly in those cases in which the sound fails in detecting its presence, and is a great advance over the sound in the matter of tumors of the bladder. In the diagnosis of tuberculous or nontuberculous ulcers, fissure of the vesical neck, and hemorrhoids of the bladder, the instrument is of great value. [W.K.]

5.—Harris describes an instrument which he has devised, **the urine segregator,** which enables the separation of the urine of one kidney from that of the other. This instrument does not displace the cystoscope and vesical speculum, but possesses the following advantages: (1) It collects the urine so that it may be analyzed; (2) it does this without entering the ureters, thus obviating the danger of infecting the kidney; (3) it not only enables the differentiating of bladder from kidney disease, but aids in determining the exact condition and functional capacity of each kidney, which is so essential in all diseases of the urinary tract; (4) its use is so simple that extraordinary skill is not required. [W.K.]

6.—Ferguson, in discussing the surgical treatment of cystitis in women, condemns **colpocystotomy,** claiming it does not cure, nor does it facilitate the proper treatment of the inflamed, ulcerated, or diseased portion of the bladder. If rest and permanent drainage are deemed best, then suprapubic cystotomy would meet the indications, without causing the discomforts of a vaginal fistula, or demanding subsequent operation. [W.K.]

7.—Kletzsch believes the practice of **introducing the catheter by touch responsible for many cases of cystitis.** The meatus should be exposed, the parts cleansed thoroughly, and the clean catheter introduced without carrying infection. In labor, the early recognition and treatment of complications aids in the prevention of cystitis. Two things are important in the prevention of bladder troubles; to avoid introducing a cause from which a cystitis might arise, and to relieve the patient of the one present without the introduction of another through any action of the physician. [W.K.]

8.—Fry discusses **indications for celiotomy** in cases of irreducible incarcerated pregnant uteri, and reports the following case operated on, April 24, 1896. The patient was a colored woman, 23 years of age, a multipara, who entered the hospital complaining of severe bearing-down pains and bladder symptoms. She passed her urine every half-hour with much pain and tenesmus. Gestation was advanced between 3 and 4 months, and examination revealed a retrodisplaced uterus. All efforts to correct the position having failed, the abdomen was opened, the fundus released and brought forward and fastened by two buried silk-sutures to the abdominal wall. The patient made an uneventful recovery and left the hospital June 10. She passed through a normal pregnancy and returned at its termination to be delivered after a natural labor. The puerperium was free from complications and when she was finally dismissed from the institution her uterus was in normal position. [W.K.]

9.—McFarland, in a careful study of many varieties of **endometritis,** has arranged a classification according to the pathology, etiology, symptoms, histology, duration and position of the inflammation of the endometrium. [W.K.]

10.—Smith reports 3 cases in which **parasitic invasion of the milk-ducts** proved detrimental to the nursing child. He believes the parasites are those of scabies, but not those usually seen, being of much smaller size. [W K.]

11.—Byrne reports two cases of **vaginal hysterectomy** for adenocarcinoma of the corpus, in which neither ordinary forceps nor ligatures were employed. The instrument used was Skene's electro-hemostatic forceps. The broad ligaments were clamped by the forceps and a suitable current of 3 minutes' duration served to cook and desiccate all the tissues within its grasp. In neither case did the temperature reach 100° at any time, and recovery was rapid, uneventful and complete. [W.K.]

Münchener medicinische Wochenschrift.

January 24, 1899. [xlvi. Jahrg., No. 4.]

1. Cerebral Amaurosis after Blepharospasm. Baas.
2. On Congenital Primary Hypertrophy of the Heart. Simmonds.
3. A Discussion Concerning Subcutaneous Rupture of the Intestines. Schoenwerth.
4. The Question of the Availability of Clay as an Antiseptic and Aseptic Bandage-Substitute. Langemak.
5. A Correction-Corset for the Treatment of Scoliosis. Dreesmann.
6. Report of the Statistics of Surgical Work in the University Polyclinic at Munich in 1898. F. Klaussner.
7. A Professional Opinion upon the Dwelling-House Question. Buchner.
8. Cremation. Karl Francke.
9. Cremation and Epidemics. Heil.

1.—Baas reports the case of a child who was brought to the clinic suffering from persistent **spasm of both of the eyelids.** A phlyctenular conjunctivitis was discovered, and treated. A bilateral kanthoplastic operation was performed. The eyes then remained open, but it was discovered that the child was completely blind. As it had seen well before, and as the pupils reacted freely, and the eye grounds were normal, an explanation for this blindness was difficult to find. The child finally died of bronchial pneumonia and neuritis. The eye-nerves and the whole optic tract, including the visual centers in the cuneus, were examined without the discovery of any microscopic lesion. Cases of blindness after phlyctenular spasm have occurred not infrequently. Laber suggested that they might be either reflex or the result of a forgetfulness of the use of the eyes. Hysteria does not appear to have been present in any case. Ordinarily, the children recover, learning to see exactly as does the newborn infant. Baas is unable to accept wholly the theory that they have forgotten the use of their eyes, and believes that they avoid visual perception because previous to the palpebral spasm, such visual perceptions were painful or at least unpleasant. Amaurosis following phlyctenular spasm is, according to him, a disease that does not find a place in any of the classifications used to-day. It appears to be a purely functional condition, or at least an anatomic one, not recognizable as such. He suggests that we should regard it as a retrogression to an earlier stage of intellectual development, that is, to a period in which the visual perceptions do not exist. As a result of this change, there are often alterations in the character. [J.S.]

2.—Simmonds reports the results of the autopsy on a child that died during birth. Both of the parents were healthy, and the child itself did not appear to be abnormal in any way, except that the **heart,** after evacuation of the blood, weighed 44 grams, more than **twice the normal**

weight. The wall of the right ventricle varied from 0.75 to 1 cm. in thickness; the left from 1 to 1.25 cm. The septum was 0.75 cm. wide. Microscopically, the muscle appeared to be normal. All the valves were perfectly normal, and the vessels going from the heart exhibited no alteration in the size or structure. The case is, therefore, one of uncomplicated, primary, **congenital hypertrophy of the heart.** Virchow has described a diffuse myoma. It is possible, however, that it is due to cardiac lesions occurring during fetal existence, and disappearing completely before birth. Very few cases have hitherto been recorded. [J.S.]

4.—The advantages which **dry clay possesses as an antiseptic or aseptic dressing** are as follows: It is very cheap and not poisonous. It has a strong drying action, making the secretion markedly less, so that the dressings need not be changed so often. It is not only in itself odorless, but possesses deodorizing properties. It is absolutely non-irritant. Because of its drying quality in suppurating amputation stumps it causes shrinking and the formation of wrinkles which hasten the growth of the skin over the part. The disadvantages are a tendency toward the formation of crusts around the edge of the wounds and the development of tender exuberant granulations. The clay before being used should be heated to 150° C. in order to obtain it in a very finely pulverized state. [G.B.W.]

5.—The **apparatus for the correction of scoliosis** as suggested by Dreesmann possesses a new idea, in that it consists of two separate portions both fitting tightly around the body. The lower one is fastened to the pelvis and acts as a fixed point, while the upper, by means of rubber bands and other appliances, is made to turn and twist according to the necessities of the case. [G.B.W.]

8.—There are at present 23 crematoria in Italy, at least 25 in America, 3 in England, 2 in France, 2 in Sweden, 4 in Germany. Francke takes up the **question of cremation** from various points of view, first, the *hygienic side.* Inhumation, he states, is not destructive to pathogenic germs; during putrefaction many toxic albumins and alkaloids are developed, which may be washed into the subsoil-water. The use of the same grave for several corpses, at legally-set intervals, mingles the deleterious matters well with all of the soil, and may bring them to the surface. Second, the *economic question.* In Munich, graves may be reopened for additional interments after 7 years; in other cities the period of rest is from 10 to 30 years. Reinterment requires removal of the bones, at times of soft parts which are usually placed in a heap. Then the boards of the coffin often remain, and the wreaths, etc. All these must eventually be destroyed. Even with the successive use of the same graves, the cemeteries of cities are rapidly growing small, and the older ones in the heart of the municipality have a great real estate value. Then there is much impiety in the reopening of graves, and the author advocates the Jewish custom, which holds graves sacred and prohibits their opening. Cremation is much cheaper than inhumation; in Paris the cost is but 60 cents, in Hamburg $2. Cremation also obviates the dangers of exposure during inclement seasons, on the part of the friends of the dead. Third, *the judicial question.* It is so rare that the law resorts to exhumation for the purpose of securing evidence that this point can be disregarded. In England there is only one legal disinterment for every million burials. Fourth, *the religious question.* Cremation has nothing to do with religion. Moreover, prominent Catholic priests and Protestant theologians approve of it. Fifth, *personal safety.* The fear of being buried alive has almost vanished. Cremation has no influence in this matter. Sixth, *the esthetic question.* The author has a poetic fancy, and after drawing the picture of disintegration of the body in the grave, says that cremation places at the end of a life a rapid and lofty conclusion. Seventh, the *technic question.* The body is not consumed by livid fire, but is first dried by moderately hot air, and then consumed by air heated to from 800° to 1,000° C. In conclusion, the author refers to what has been accomplished in Bavaria, which is practically nothing, for the State has always refused its sanction. [D.R.]

9.—Heil advocates the **cremation** of bodies during **epidemics,** and recalls that mass-cremation has been in vogue for several ages on the battle-field. It was employed before Paris in 1814, at Sedan in 1871, in Russia, after Napoleon's defeat, in 1813, in Chino-Japanese war, and recently at El Caney in Cuba. [D.R.]

Berliner klinische Wochenschrift.

January 16, 1899. [26. Jahrg., No. 3.]

1. A Skiagraphic Demonstration in a Case of Tabes Affecting the Feet. P. Jacob.
2. Remarks on the Treatment of Congenital Hip-dislocation by Bloodless Reposition. A. Lorenz.
3. How Long will it take Bacteria, Introduced into the Portal Vein, to Arrive in the General Circulation, and when will they begin to Manifest Themselves Through the Liver and the Kidneys? G. Fütterer.
4. A Research into the Manner of Regeneration of the Blood in Chlorosis. O. Schaumann and E. V. Willebrand.

1.—Jacob describes a case of **tabetic foot** (pied tabétique) in a woman of 46. The condition appeared early, at a time when the signs of locomotor ataxia were yet indistinct. A **skiagraph** of the affected foot, the right, showed that the process was a combination of hypertrophy and atrophy of bone, and that the deformity was not merely due to disease of the joint or to contractures. Hence **osteoarthropathy** was a better designation for the pied tabétique than arthropathy. As the patient had sustained a fracture of the ankle of the right foot in her youth, the question naturally suggested itself as to whether the old fracture had anything to do with the subsequent development of the osteoarthropathy. No definite answer can be given, the author says, but a number of cases have appeared, especially in the American literature, in which injury of a joint preceded an arthropathy. [D.R.]

3.—Fütterer found that if bacteria (bacillus prodigosus, bacillus pyocyaneus) were injected into the portal vein in dogs, they appeared in the jugular vein in less than a minute, showing that the **liver is normally readily permeable by microorganisms** introduced in this way. Similar experiments made with tubercle-babilli, on a monkey, a calf, dogs, and rabbits gave negative results. As this was contrary to his expectations, Fütterer intends to repeat the experiments with other tubercle-bacilli cultures. He also investigated the elimininination of microorganisms injected into the portal vein. The bacteria (bacillus prodigiosus) at once entered the general circulation, and their elimination through the liver and kidney began within a few minutes. In the process of elimination the liver plays a more important role then the kidney. [D.R.]

4.—Schaumann and V. Willebrand have made a study of the **blood-regeneration during convalescence from chlorosis.** They found that the number of corpuscles reaches the normal much more rapidly than does the hemiglobin; indeed, the number of erythrocytes at first exceeds the normal considerably, and then diminishes gradually. The mean diameter of the red corpuscles also increases during convalescence, and, after attaining a maximum, diminishes. This increase in the mean diameter is due in part to a decrease of small cells, and in part to an increase in large cells. The blood-regeneration in chlorosis is the same as that after traumatic anemias, but is different from that of pernicious anemia. In the latter the hemiglobin-value of the corpuscle may be 1 or more. The authors would explain this difference in the following way: Under normal conditions there is a constant formation and destruction of corpuscles. During the destruction the iron is split off and, according to Quincke and others, is in part used for the new formation of hemoglobin, and in part excreted. In pernicious anemia there is an excessive destruction of red corpuscles, and a great deal of iron is liberated and deposited in the body. Thus there is a superabundance of available iron, and this may account for the fact that the red cells in pernicious anemia are often richer in hemoglobin than normally. In chlorosis it is generally assumed that there is a deficiency of iron in the system, and therefore the hemiglobin increases more slowly during convalescence than the number of erythrocytes. Some observers obtained different results in chlorosis. This probably depends on differences in the amount of reserve iron in the system, which reserve, in chlorosis, comes from the medicinal iron. The authors employed principally Blaud's pill and rest in the treatment of their cases of chlorosis; they tried ovarian extract also, but without satisfactory result. [D.R.]

January 23, 1899. [26. Jahrg., No. 4.]

1. Thrombosis during Pulmonary Tuberculosis. H. Ruhl and Hierokles.
2. On the Strength of Solutions to be used in local Anesthesia. R. Gradenwitz.
3. On the Working Capacity of the Heart in Fatty Degeneration. A. Hasenfeld and B. Fenyvessy.
4. A Peculiar Case of Rupture of the Aortic Valve. F. Ostwalt.
5. Remarks upon Treatment of Congenital Hip-Displacement by Bloodless Reposition. Adolph Lorenz.

1.—**Thrombosis** occurred 19 times in 1,778 cases of **pulmonary tuberculosis.** Of these 6 patients were between 20 and 30, 7 between 31 and 40, 5 between 41 and 50, 1 was 60 years old. Of the patients 12 were women, 7 men. They were practically all advanced cases of phthisis in which death ensued within one or several months. The thrombosis affected a great variety of veins, most frequently those of the lower extremities. Pathogenetically, the condition is one of marantic thrombosis. The treatment consists in absolute rest in bed and elevation of the limb, which should be wrapped in cotton. [D.R.]

4.—A man, 68 years old, presented himself with embolism of the central artery of the retina of the right eye. An aortic regurgitation was found, and on investigation, Ostwalt came to the conclusion that the patient had had a **rupture of one of the aortic cusps.** Seven days before, and one day before the onset of the eye-trouble, the patient had overexerted himself, and at once experienced palpitation of the heart, and an inguinal hernia made its appearance. After several months the diastolic murmur over the aortic valve disappeared, and the heart-area was normal. Ostwalt thinks that the increase of blood-pressure during the violent effort, acting, probably, in a valve somewhat altered, produced a rupture of a leaflet, probably at the free edge, and that the tear was filled with clot, a portion of which caused the embolism, while the rest subserved purposes of organization. Curious was the fact that the man had scarcely any pain; usually there is acute pain referred to the precordia, epigastrium, or between the shoulders. [D.R.]

5.—(Continuation.) Lorenz had a case of **congenital hip-dislocation** in a patient who suddenly died while an attempt was being made to reduce the luxation. The hip and leg were preserved in alcohol so that they might be studied at some future time. It was found that a space which would admit the tip of the first finger, and which was surrounded by the ilio-psoas muscle led to the acetabulum. The head of the bone surrounded by the capsular ligament was found 4 cm. above the acetabulum. The acetabulum itself was filled with fibrous tissue which when removed left a well formed bony socket. While in practice the stability of a reduced congenital luxation is not what had been expected, in this case, after the socket had been freed from fibrous tissue and the leg flexed on the thigh to a right angle and the thigh abducted 90°, the head of the femur got a good firm hold on the acetabulum. In treating a case of congenital hip-luxation by the bloodless method the limb should be fixed in that position which offers most mechanical difficulties to a reluxation, rather than be put in such a posture as would be comfortable to the patient. Inward rotation sometimes is of considerable service in reducing the dislocation, and because this procedure causes the head of the femur to exert more pressure on the fibrous tissue in the acetabulum it is a good plan to fix the limb in a moderately inward-rotated position. [G.B.W.]

Wiener klinische Wochenschrift.

January 26, 1899. [12. Jahrg., No. 4.]

1. Pemphigus neonatorum. Luithlen.
2. Concerning the Cause of Harelip and Cleft Palate. Johann Fein.
3. A Professional Opinion by the Medical Faculty in Vienna. Neumann.

1.—Luithlen describes **pemphigus neonatorum** as a disease that, if it is not present at birth, does not develop before the third day, rarely later than the fourteenth. The eruption, which, unless complications occur, is not accompanied by fever, is characterized by the appearance of round or oval blisters upon the apparently normal skin. These blisters at first are transparent, slightly yellowish, and are surrounded by a reddish border, which in rare cases invades the surrounding tissue. The blisters are usually broken, and in severe cases give rise to an appearance that resembles pemphigus foliaceus of adults. After the blisters have broken, the raw surface is covered by a membrane, beneath which the skin rapidly recovers. Complications, except those due to other diseased conditions, rarely occur. The disease is unquestionably infectious. It is difficult, however, to explain those cases in which the eruption is present at birth. Ordinarily, the children are infected either by the physician or the midwife, who may themselves be suffering from the disease. Almquist has discovered a form of the staphylococcus pyogenes that apears to have some etiologic relation, and names it the micrococcus pemphigus neonatorum. Luithlen has had the opportunity of studying the histologic changes in two cases. He finds that the epidermis in the blisters is separated from the rete by the herpetic infiltration. The rete is covered by detritus, but otherwise appears to be normal. The bloodvessels of the corium are usually distended. Staphylococci are found at the edge of the blister; otherwise the skin is perfectly normal. The blister-fluid contains degenerated cells and leukocytes. The infection usually takes place from various contaminated articles used in bathing the child. The period of incubation is 3 days. The differential diagnosis is to be made from pemphigus syphiliticus, in which the blisters soon become pustular; from bullous eczema, in which the skin becomes generally reddened; from herpes tonsurans, from the fact that in the latter a primary, although healed, lesion may be discovered, and areas of yellowish discoloration may be observed. Occasionally, a septic exanthema will give rise to blister-formation, particularly that variety known as pemphigus gangrænosus. The duration of the cases rarely exceeds 6 or 8 weeks. The treatment consists in omitting the baths and covering the body with some mildly antiseptic powder. [J.S.]

2.—After discussing the various theories which have been advanced to account for the occurrence of cleft palate, Fein calls attention to the frequent association of this condition with enlarged pharyngeal tonsils and adenoid vegetations. He believes that during early fetal life an enlarged pharyngeal tonsil may grow between the forming halves of the palate and thus prevent an obstacle to their union. A number of cases are reported in which cleft palate was associated with enlarged pharyngeal tonsil, and it is suggested that even a remnant of tonsillar tissue in adult life may be left from a greatly hypertrophied condition which existed during childhood. In the case of a newborn child, a left-sided cleft palate was found in association with a very large overgrowth of tonsillar tissue which almost completely filled the space between the openings of the eustachian tubes. For complete proof of the correctness of this theory it will be necessary to find a case in which an enlarged pharyngeal tonsil lies between the halves of the cleft palate during the early life of the fetus. [M.B.T.]

Deutsche medicinische Wochenschrift.

January 19, 1899. [25. Jahrg., No. 3.]

1. Contributions to the Doctrine of Natural Immunity. L. Lewin.
2. Ankylostoma-anemia. O. Leichtenstern.
3. Contribution to the Knowledge Concerning Antipyrin Intoxication. G. Graul.
4. Concerning Parachymosin. I. Bang.
5. A Case of Precocious Puberty. Klein.

1.—Lewin states that **natural immunity** does not depend on the presence of antitoxins in the blood. To confirm this he fed rabbits with **atropin** or with **belladonna** leaves or fruit and found that they could consume enormous quantities. One animal within 13 days received the equivalent of nearly 3 grams (48 grains) of atropin; another so much as 4 grams. The blood-serum of these rabbits did not have the slightest power to protect guinea pigs against atropin-poisoning or to cure them. The author then formulates several theses based on biochemic principles concerning curative effect, toxic effect, and absent effect of substances introduced into the body and absorbed.

Curative Effect.—Change of function, through temporary, limited chemical influence or disease-products, or on normal chemic products of the cell-body or the body-fluids.

Toxic Action.—Disturbance of function though long continued, unlimited chemic influence on the products of the cell-body or the body-juices, by means of which new poisonous substances are formed or normal ones, essential for function, are eliminated.

Absent Action.—1. Absence of chemic affinity between the substance introduced or its decomposition-products and the disease-substances or the normal cell-products 2. Inability on the part of the introduced substance to act on important chemic substances because these substances, on account of individual condition or the position of the animal in question in the animal kingdom, are not present or are present in insufficient quantity. 3. Functional inertness of the substance introduced because by reason of individual predisposition or position of the animal in the zoologic scale the chemic substances constitute isomeric or other modifications which do not react to ordinary doses. 4. Combination of the substance introduced with the chemic products of the cell-body or the juices forming new substances which are harmless. 5. Up to a certain point automatically acting compensatory-chemic, or other forces might be called into play which would antagonize the functional disturbance caused by the poison. Lewin was not able to immunize guineapigs against atropin by injecting emulsion of brain and spinal cord of normal rabbits and rabbits fed with atropin. [D.R.]

2.—Leichtenstern points out the frequency with which **ankylostoma** is found in the inhabitants of the tropics. The dangers from the parasite increase with the number present in the intestine. No race possesses an immunity if the number reaches several hundred specimens. [D.R.]

3.—Graul observed an interesting group of **toxic symptoms** on himself after the ingestion of **antipyrin** (1.0 in the form of migrainin). The symptoms were dryness in the mouth, painful redness and swelling of the fingers, vesicles on hard palate, salivation, purpuric eruption on legs, eczema of scrotum, edema and vesicles of lower lips, edema of prepuce, fever, and rapid pulse. He was sick more than a week. [D.R.]

4.—Bang has found that the labferment (chymosin) of the human stomach is really not chymosin but **parachymosin,** a substance that differs considerably from chymosin. The hog's stomach also contains only parachymosin, and it was in commercial pepsin obtained from the hog that he discovered the new substance. The sheep's stomach and that of fishes (pike), contain chymosin. [D.R.]

5.—A little girl, 2½ years old, had fully developed breasts, hairy genital organs, and menstruated. The child was undersized; there was no sense of shame, such as has been described in **pubertas præcox.** The family-history was negative. [D.R.]

Centralblatt für Gynäkologie.

November 28, 1898. [22. Jahrg., No. 47.]

1. Automatic Activity of the Embryonic Heart Three Hours After Death. Franz Neugebauer.
2. The Treatment of Retroflexed Incarcerated Gravid Uterus. A. Duhrssen.
3. Treatment of the Umbilical Cord. R. Freiherr v. Budberg.

2.—Duhrssen, speaking of the controversy between Ahlfeld and Zweifel in regard to the **treatment of the incarcerated, retroflexed, pregnant uterus,** reiterates his opinion that the methods advocated by Zweifel, of producing artificial abortion, should be used in a majority of cases. He believes that the attempt to replace the uterus entails danger to the mother, and that Ahlfeld's method of frequent catheterization and wearing of the ring-pessary is ineffectual. [W.K.]

3.—V. Budberg advocates the use of **alcohol in dressing the stump of the umbilical cord.** In practice among the poor he found so many cases of suppuration that he thinks it desirable to recommend this treatment which he has used in 200 cases among the poorest and most unclean class of people, never seeing a case of suppuration after its use. He observes that the cord dries up rapidly, and after it falls the umbilicus is left dry and healthy. He recommends alcohol because it abstracts the water, dissolves the fat, and acts antiseptically. His method is as follows: He compresses and strips the cord, freeing it as thoroughly as possible of blood and gelatinous matter, and then carefully folds it in a pledget of absorbent cotton saturated with alcohol. Over this a second layer of cotton is fastened by the band about the body. This dressing is to be changed once or twice daily until the dropping of the cord. [W.K.]

December 3, 1898. [22. Jahrg., No. 48.]

1. A Case of Extirpation of the Spleen During Pregnancy for Traumatic Rupture. R. Savor.
2. Further Discussion of the Syncitium Question. J. Phannenstiel.

1.—Savor, of Vienna, reports a case of **extirpation of the spleen during pregnancy** on account of a traumatic rupture. The patient, aged 31, had her last menses January 4, 1898, and the first fetal movements, May 18. July 2 she had a dispute with a drunken man, by whom she was kicked in the left side of the abdomen; whereupon she was immediately seized with severe pain in the abdomen which increased in intensity, interfering with her breathing and movements. She was brought to the clinic 2 hours later, at 10 P.M. On examination there was found a small, weakly-built, poorly-nourished woman, with anxious expression of countenance, skin and mucous membrane very pale, temperature 36.9° C., pulse, 84; weak, quick, short respiration. Chest organs were normal. There was no fracture of ribs, dulness over spleen was not great; fundus of the uterus reached to the umbilicus. She was rachitic, and had a flat pelvis. There were old lacerations of the perineum and os uteri, and the os was sufficiently dilated to admit a finger. No positive indications for operation being found, the patient was put to bed and absolute rest ordered. The next morning at 9.30 the anemia had not increased, there was a tympanitic area in the left flank and a constant feeling of pressure, no meteorism, but continuous pain in the abdomen and beginning on the left side; urine was clear, containing no blood. Patient was very restless, and 3 hours later a dulness was found in a portion of the tympanitic area that reached to the mammillary line. The symptoms becoming progressively worse and indicating internal hemorrhage, either from uterine or splenetic rupture, an operation was determined upon and begun at 3 P.M. Incision was made in middle line. As soon as an opening was made in the peritoneum there was a plentiful flow of blood. The intestines were much swollen and injected. The uterus was found intact, of the size of the sixth month of pregnancy. The spleen was then examined. On its anterior surface was felt a long vertical shelf, like a projection, formed of coagulated blood. Immediately behind this was a deep laceration in the tissue. The incision in the middle line was provisionally closed, and an opening was made to the left under the ribs, the peritoneum opened, and the spleen lifted out. As the laceration could not be sutured, the pedicle was ligated and the spleen removed; the pedicle then returned to its place. The abdomen was drained as thoroughly as possible and both incisions closed. The operation lasted one hour, and at its close the pulse was 120, no worse than before the operation. Patient did nicely until about 11 A.M. the next day, when bleeding from the genitals began. The os uteri was dilated somewhat and the head of the fetus pressed down into the pelvis. There was beginning abortion; but the bleeding soon stopped spontaneously, absolute quiet and morphia were ordered, the labor pains ceased and the os uteri dilated no further. The patient made an uneventful recovery and was allowed to leave the hospital July 23. August 29 she returned by invitation, and was found to be very well. Both laparotomies had healed and she complained only of some bleeding from the genitals, but not sufficient for her to call for a physician's aid. There was no increase in the size of the thyroid, cervical or axillary glands, only the inguinal glands were enlarged, but hard and solid. The pregnancy progressed to a normal end, and the patient was delivered at the clinic of a living male child, well-developed and without abnormities; and during the time of its stay at the hospital it grew unusually well. Nothing abnormal was marked in the puerperal period. The extirpated spleen was 13 cm. long, 9½ cm.

broad, 5 cm. thick, and weighed 250 grains. The vertical laceration on the anterior surface extended also to the posterior surface where it separated into two portions. Beside these lacerations there was sub-capsular hemorrhage. [W.K.]

December 10, 1898. [22. Jahrg., No. 49.]

1. The Question of Reflexa Placenta. H. CRAMER.
2. The Treatment of Ulcerating Carcinoma of the Cervix by Means of Constant Heat. F. WESTERMARK.

1.—Cramer calls attention to Hofmeier's studies regarding the **development of the placenta** to a greater or less extent **in the decidua reflexa.** He adds another to the few cases of this kind already reported. A quadripara, 29 years old, who had had her last menstruation 3 months previously, was suddenly taken with hemorrhage and pains. On admission to the hospital, the os was found dilated, and it was possible to remove the ovum by means of the finger. The ovum was 8 cm. long and 4 cm. in breadth. The thickness of the decidua vera was only 3 mm., while the decidua reflexa was 16 mm. in thickness. No embryo was found, but the interior of the ovum contained a clear yellow fluid. Cramer discusses the possible causes which may give rise to this form of abortion, but is able to offer no satisfactory explanation. [W.K.]

2.—Westermark of Stockholm reports the result of using **constant heat in cases of inoperable ulcerating cancer of the cervix.** The heat is applied by means of water, at the temperature of 42° to 58.5° C., circulating through a spiral silver tube retained in the vagina constantly for 48 hours. He has employed this method in 7 cases, in all of which the ulcers healed rapidly by granulation, and the disagreeable odor and the bleeding ceased. [W.K.]

December 24, 1898. [22. Jahrg., No. 51.]

1. A Peculiar Case of Masculine Pseudohermaphroditism. SCHULTZE-VELLINGHAUSEN.
2. Senile Atrophy of the Oviduct. P. WENDELER.

2.—Wendeler states that the formation of pseudo-glands through the adhesion of folds in the tube is probably the result of an inflammatory process, rather than an evidence of **senile atrophy** as supposed by Schnaper. In preparations of normal oviducts from patients of 70 years of age or over, he has also never found a thinning of the epithelial coat to any great extent. On the other hand, he has seen this condition very often at the necropsies of women at every age who had died from inflammatory conditions. Instead of overgrowths of fresh connective tissue, he believes that sclerotic [tissue-processes are more characteristic of senile atrophy. [W.K.]

Centralblatt für Chirurgie.

February 4, 1899. [26. Jahrg., No. 5.]

1. Sterile or Antiseptic Ligature-Material. C. HALGLAR.
2. Extirpation of the Rectum by the Abdomino-Vaginal Route. C. SCHWARZ.
3. On the Technic of Gelatin-Moulding. O. VULPIUS.

1.—No matter how sterile ligature-material may be at the outset of the operation, it cannot help but become contaminated, in many cases, some time during the operation, by being drawn through the fingers. For this reason, in the Basel Surgical Clinic, an **antiseptic ligature-material** has been introduced, and during the past 4 months, no suppuration attributable to infected ligatures has been observed. The ligatures are impregnated with mercuric chlorid by boiling in a sublimate solution for a short time, and are kept in a strong watery solution of corrosive sublimate. [C.H.F.]

2.—When **carcinoma of the rectum** involves the upper portion of the rectum, or perhaps a portion of the sigmoid flexure too, and is surrounded by adhesions, and associated with involvement of the mesenteric glands, the growth should be removed by the abdomino-vaginal method. The advantages of combining an abdominal operation with the original Rehn method, lies in the fact that there is no danger of the peritoneal cavity becoming contaminated with the bowel-contents; when adhesions exist, these can be more easily dealt with, and such glands as may be infected can be removed without much difficulty. Schwarz reports a case in which he carried out this plan of operation for the first time with pleasing results. [C.H.F.]

February 11, 1899. [26. Jahrg., No. 6.]

1. Resection of the Cervical Sympathetic in the Treatment of Epilepsy, Basedow's Disease, and Glaucoma. TH. JONNESCU.

1.—Jonnescu publishes in this article the results of his experience in 61 cases in which either for **epilepsy, glaucoma, or Basedow's disease,** he **resected all or portions of the cervical sympathetic.** The question as to how many of the sympathetic ganglia should be resected is a matter of dispute. A simple neurotomy is, however, an irrational procedure; but to what extent the resection must be carried out depends upon the disease, for the relief of which the operation is performed. In the case of Basedow's disease, the best results can only be obtained by total resection; this alone will sever all connections of the sympathetic system with the eye, thyroid gland, and the heart. From the upper ganglion pass the nerve-trunks to the eye, while the lower ganglion gives off accelerating fibers to the heart, secretory nerves to the thyroid gland and vaso-dilator fibers. Resection of but one of these ganglia would, therefore, in Basedow's disease, be an irrational procedure. Of the 8 cases of this affection operated upon, in 7 the entire cervical sympathetic chain was resected on both sides, and in one upon one side. The effects of the operation are, first, the disappearance of the exophthalmos, marked improvement in the general condition, and disappearance of the nervousness; afterwards the tachycardia, pulsation in the carotids, and, lastly, the enlargement of the thyroid, disappear. Of 10 operations 6 were followed by complete recovery, and 4 by a material improvement. The former were all primary, the latter secondary cases. As applied to epilepsy the principle of the treatment lies in the alteration of the cerebral circulation, the conversion of a condition of cerebral anemia to one of permanent congestion, the latter doing away with the poor nutrition of the nerve-cells or freeing them from the irritation of toxic products. In reflex epilepsy the effect of the operation is to interfere with transmission of irritating substances from the viscera to the brain. As for Basedow's disease, so also for epilepsy, nothing short of complete and total resection of the sympathetic ganglia on both sides of the neck will yield the best results. Of 45 operations upon epileptics 6 patients died a longer or shorter time after the operation, either during an epileptic seizure or as a result of severe intercurrent disease. Of the remaining cases, but 19 have been under observation for a period of time sufficiently long to make the results valuable; of these 55% were cured, 28% improved, and 15% unimproved. Of course the greatest benefit will be derived from the operation in those cases of more recent development, although the results of the operation warrant its trial in every case, no matter what the duration of the disease may be. In the application of this operation for the relief of glaucoma, resection of the superior ganglion will suffice. In many instances the most striking results followed; there was a diminution of ocular tension, contraction of the pupils, disappearance of the periorbital pain, as well as of the convulsions (in irritative glaucoma), a manifest improvement of vision, as well as increase of the field of vision. In other words the benefits to be obtained are so marked as to place the operation ahead of all other measures recommended for the treatment of glaucoma. [C.H.F.]

February 18, 1899. [26. Jahrg., No. 7.]

1. A Reply to the Article of Dr. H. Braun. S. KOFMANN.

1.—In reply to Braun's criticism of his paper on the **removal of blood from a part as a means of local anesthesia,** Kofmann expresses his belief that Braun's opinion is incorrect when he states that the anesthesia is caused by pressure on nerves, rather than the interruption of the blood-current. He considers that the emptying of the bloodvessels permits compression of the nerves and that this is an important factor in producing anesthesia, but the anesthesia is also in part the result of the lack of blood. It is possible to produce local anesthesia by this method, exercising pressure upon the tissues and thus compressing the vessels and nerves, without the use of cocain, and several cases are cited in which this method was carried out with almost entire success. Several authorities are quoted in support of the view that local anesthesia from pressure is the result of local anemia. [M.B.T.]

Revue de Médecine.

January 10, 1899. [49me Année. No. 1.]

1. On the Treatment of Epilepsy by Excision of the Sympathetic. Jaboulay and Lannois.
2. Erysipelas and Acute Articular Rheumatism. G. Monteux.
3. The Normal Senile Heart; Xerosis of the Heart. (With 6 Figures.) Boy-Teissier and Sesques.
4. Idiopathic Pulmonary Congestion (Woilliez's Disease). Carrière.
5. Pulmonary Actinomycosis. Sabrazes and Cabannes.

1.—A number of cases of epilepsy are recorded in which good results were obtained by the excision of the sympathetic nerve. The first was in a boy, 18 years of age, who had two forms of attacks. One form came on abruptly without any aura and with typical tonic and clonic convulsions; the other form was preceded by an aura consisting of a feeling of constriction in the throat, there were grimaces of the face and convulsive movements of the upper extremities. If the patient were supported, the legs were extended, the trunk was flexed at the hips, and the head fell upon the chest; the arms were held against the chest, flexed at the elbow; in about a minute there would be clonic movements of the right arm, and then appeared a phase of stertor and the eyes would be turned upward with the appearance of an ecstasy, and he probably had hallucinations at this time; there was never incontinence of urine during these attacks. There had been no improvement upon bromids, so excision of the sympathetic was done, and the pneumogastric was stretched, with the result that two months later he had two attacks, and in the following seven months had been free from attacks. A number of other cases are reported in which marked improvement seemed to follow this operation. In one case there was an especial improvement of the moral state. In a number of cases there were distinct signs of hysteria. None of the cases were observed for any considerable time after the operation, and the majority of them were not freed from their attacks, though the attacks had become somewhat less frequent. [D.L.E.]

2.—A case of **erysipelas** is reported which occurred in a man of 37 who had previously had **articular rheumatism.** His attack began on June 7 with distinct erysipelas; by the 13th his condition had improved greatly, but fever reappeared, and there was swelling of the knees and ankles; within 3 days his pains and joint-swellings became generalized and there were typical acid-sweats of unpleasant odor. Under the influence of the salicylates the pains disappeared, the general condition improved, the joint-swellings subsided, and the patient recovered nearly entire health. Some recurrence appeared temporarily, but was entirely controlled by the use of salicylates. He describes other cases collected from the literature in which polyarthritis occurring with erysipelas was controlled by the use of salicylates. Monteux closes with the remark of Achalme that it is a question whether it is a secondary infection or whether one should attribute the articular affection to the streptococcus. Achalme inclined to the latter view. Monteux however does not assent to this, but believes there are cases of typical acute articular rheumatism which occur in association with erysipelas, but are not dependent upon the microorganisms causing the latter disease. [D.L.E.]

3.—Boy-Teissier and Sesques insist that there is a **form of change occurring in the heart** which is not due to actual disease of this organ, but is merely **the alteration which takes place with advancing age,** the parenchyma becoming exhausted as the years pass, and its activity being replaced by activity of the less specialized tissues—the fibrous connective tissues. The heart which they describe is usually slightly enlarged; there are often small milky plaques on the exterior, particularly on the right ventricle nearer the apex; the endocardium is usually almost normal. Microscopic examination shows that the change is almost entirely an increase in the general mass of connective tissue throughout the whole substance of the heart. The point upon which they especially insist is that this increase is not most marked around the bloodvessels, but is seen between the muscle-bundles, and that the muscle itself does not show any distinct change. The striations remain practically normal, perhaps in a few areas being somewhat obscure, and occasionally there is a deposition of granules in the muscular fibers. The arteries show some proliferation in their walls, being at times sufficient to cause considerable diminution of the lumen, but the increase in the connective tissue of the adventitia is not greater than in the surrounding tissues, and is directly continuous with it. The veins show very much the same change. They do not think this can be considered as a form of arteriosclerosis, because the individuals in whom it has been observed were always beyond 70 years of age, many of them 80 or 90 years old. No analogous appearances were ever seen in the hearts of younger individuals. This is an exceedingly late period for the appearance of arteriosclerosis, and besides this, in many of those individuals who showed xerosis in marked degree, there was practically no sclerosis. Clinically, they state that the apex-beat is to be found slightly depressed, and somewhat toward the left. In some cases it is difficult to palpate, and is merely a diffuse shock. Percussion shows some enlargement of the heart, but auscultation usually presents nothing distinctly abnormal, though the first sound seems somewhat feeble. One point especially noted is that with an apparently almost normal heart, so far as the physical signs go, any slight exertion, such as walking, causes a marked increase in the rapidity of the heart-action. The sphygmogram is about normal, the arteries show practically no change, subjective symptoms are few and are usually occasional pains of moderate severity situated in the precordia. Occasionally there are tender points over the heart. [D.L.E.]

4.—Carrière concludes his article. **Idiopathic pulmonary congestion** is most frequent in the winter and spring, and between the twentieth and fortieth years of life. Exposure to cold and traumatism seem sometimes to predispose to the disease; there have been various theories to explain it, the most striking one being that it is an abortive pneumonia; examination was made of the fluid obtained of puncture of the lung and of the sputum. In the latter case, 14 specimens of sputum being examined, 9 of these showed the pneumococcus; while microscopic examination of the fluid obtained from 10 punctures showed in 7 instances the presence of the pneumococcus, and the same organism was found in 8 instances upon culture. He concludes that the disease is the localization in the lung of infection by an attenuated pneumococcus. [D.L.E.]

5.—The article is a brief review of **actinomycosis of the lungs.** This localization of the disease may be either primary or secondary, but is likely to be primary. Sometimes it affects only the superficial portions of the bronchi, but it is essentially an ulcerative disease, and usually has three stages. In the first, the bronchi and lung-tissues are affected; it then becomes pleural, and also involves the thoracic walls, and finally results in fistulas. Oftentimes the deposits are surrounded by sclerosis, though they have a marked tendency to break down and result in suppuration. In rare cases the onset of the disease is acute, and its course very rapid; commonly it appears slowly and insidiously, with cough, some fever, and, as the pleura becomes invaded, there are severe pains, more constant fever, and incessant cough, with an expectoration of fetid material suggestive of gangrene of the lung. It may then progress to the production of large tumors of the chest, which finally break down and form fistulous tracts, and are likely to invade the surrounding tissues, and involve the diaphragm and the abdominal cavity. The duration of the disease is from 4 months to 8 years. The drugs which have been most successful are potassium iodid and eucalyptus. If, however, there is any involvement of the chest-wall, surgical treatment should be undertaken; and as an evidence of the extent to which one dare go and the brilliant results that may follow, they quote the case of Karewski (*Berl. klin. Woch.*, No. 15–17, 1898), previously abstracted in this Journal. [D.L.E.]

Sundry French Journals.

1. Calculous Cholecystitis. Perforation. Localized Peritonitis Due to Fetid Pus. Presence of Anaerobic Microorganisms in the Pus. Zuber and P. Lereboullet.

(*Gaz. Hebd. de Méd. et de Chir.*, Dec. 18, 1898. 45me Année, No. 101.)

2. Diphtheric Angina with Croup; Intubation of 7 Days' Duration; Death by Spasm of the Larynx. E. Ausset. (*Gaz. Hebd. de Méd. et de Chir.*, Dec. 22, 1898. 45me Année, No. 102.)
3. Compensatory Hypertrophy of the Kidneys in the Course of Chronic Nephritis. A. Chauffard. (*Sem. Méd.*, Dec. 21, 1898. 18me Année, No. 63.)

1.—Zuber and Lereboullet report the case of a married woman, aged 36 years, who complained of sharp abdominal pains with tympany and vomiting. There was nothing of importance in the family-history. The patient had had typhoid fever 14 years previously and an attack of hepatic colic 7 years before, that had lasted 12 days. Eight days before admission to the hospital, the patient was taken with an attack of **hepatic colic** that lasted 5 days without being particularly severe. On the evening of the fifth day the pains became sharper, took on a "tearing" character, and persisted for several days. During this period there was a subicteroid tint of the scleræ, tympany, pain in the region of the gall-bladder, induration and dulness; the general condition was satisfactory. On the following day, the patient was much worse; the abdomen was much more prominent; the pain was more generalized, but with persistent accentuation on the right side; the puffiness was more marked and the dulness was more extensive. The tongue was covered with sordes and there was persistent constipation. A diagnosis of **perforating cholecystitis with localized peritonitis** was made. The symptoms grew worse and the patient was operated upon; but death supervened. At the operation a focus of purulent peritoneal inflammation was discovered that contained a thick, yellowish-green pus of a fetid odor. The entire right upper portion of the peritoneal cavity seemed to be involved in the process. A supposed thickened vesicle was found, the cavity of which was obliterated by recent inflammation, and in which palpation failed to reveal any trace of calculus. The autopsy showed, however, that this was not the gall-bladder. On examining that portion of the abdominal cavity that lies in relation with the ascending colon, a pocket of pus was found that contained 2 gall-stones. At the autopsy, the gall-bladder was found surrounded by a mass of inflammatory exudate. The common bile-duct was perfectly healthy and permeable and its termination in the duodenum was normal. On the other hand, the cystic duct was considerably thickened and, just above the point of formation of the common duct, was obliterated. The gall-bladder presented a large perforation on its anterior surface. This perforation opened into an atrophied cavity, the walls of which were thickened. The pus contained strictly anaerobic microorganisms in great abundance and a few aerobic streptococci. [J.M.S.]

2.—Ausset reports the case of a child, aged 2 years, that had been **intubated for laryngeal diphtheria.** The tube was left in for 7 days and, after the diphtheria was cured, was removed, but had to be replaced on account of spasm of the larynx. The patient coughed up the tube while preparations were being made for a tracheotomy, and, before the tube could be reinserted, the child died. The spasm was caused by laryngeal ulcers. [J.M.S.]

3.—In comparing a series of autopsies on subjects of **nephritis,** it will be noted that, in cases in which the disease produces the large white kidney, the two organs are uniformly diseased and usually to the same degree. Histologic examination shows that the process is of about the same extent and duration on the two sides, and that there has been no chance for the establishment of the condition that Chauffard calls compensatory renal hypertrophy. On the other hand, when the nephritis is chronic, the lesions are different on the two sides of the body. For example, one of the kidneys may be markedly atrophied, while the other may be normal in weight. The surface of the diseased organ becomes irregular, covered with tubercles, or strewn with granulations of varying size. Even on section different areas of the same gland will present contrasts; in some parts the cortex will be decidedly atrophic, while in other areas there will be no change. If the pathogenic agent has not acted in massive dose or has not been highly toxic, the resulting lesions will be unequally distributed through the organ, leaving portions of the gland for a varying length of time in a state of anatomic and functional integrity. In 1889, Tuffier ("Experimental Studies on the Surgery of the Kidney," Paris, 1889,) made partial and successive resections of the kidneys in the same animal, and showed that it was possible to remove kidney-substance to the amount of the normal weight of both organs in the animal experimented upon. The hypertrophy of the portions of the kidney remaining took place very rapidly, and compensated for the loss of the destroyed portions of the organ. Chauffard then relates the case of a woman, aged 40 years, who died of uremia in his hospital service. Clinically, the nephritis was accompanied by marked albuminuria and was of long duration, as the cardiac hypertrophy indicated. No information could be obtained that indicated the cause of the disease or the actual date of its appearance. At autopsy the left kidney weighed 30 gm. Its surface was finely grained and the capsule stripped comparatively easily. Upon this depressed base 2 tubercles, each about the size of a hazel-nut, could be seen; they were slightly flattened, not encapsulated, and were directly continuous with the surrounding parenchyma. One of these occupied the inferior pole of the gland, and the other the middle part of the posterior surface; they were of a reddish-gray color, and were much less sclerosed than the remainder of the organ. In the neighborhood of these prominences the renal cortex preserved its normal thickness, while in the other parts of the gland it was almost wholly atrophied. The right kidney weighed 80 gm. Its surface, after the capsule had been removed, was entirely covered with unequal tubercular prominences, round or lenticular in shape, single or in groups, and separated by shallow fissures. The thickness of the cortex was a little better preserved in the neighborhood of the prominences than it was in the vicinity of the fissures. The renal arteries were normal on both sides. Histologically, the depressed portions presented an almost total sclerosis of the parenchyma; all the glomeruli were converted into little masses of fibrohyaline substance; the convoluted tubules were only recognizable by the hyaline thickening of their basement membrane and by the colloid cylinders that they contained; all were surrounded by a fibrous, vaguely nuclear matrix. At the points of union between the prominent and depressed parts of the organ, the atrophic and sclerotic processes were in full development; the glomeruli presented all degrees of the hyaline degeneration, and of glomerulocapsular symphysis; the tubules were still recognizable, but were much altered. Some were almost obliterated by the thickness of the hyaline substance in their walls, while others contained colloid cylinders, or were compressed and atrophied by the surrounding sclerosis, and were lined by a flattened, scale-like epithelium. In the portions of the kidneys that remained free from the disease and in the state of functional sufficiency, the glomeruli were healthy, without capsulitis or hyaline change; they filled the capsules of Bowman, and their manifest increase in volume showed them to be in a state of hypertrophy. The intertubular septa were scarcely thickened, without fibrosis or embryonic infiltration. The tubules were lined by cubic or modified columnar epithelium, the protoplasm of which was of normal aspect, without fatty granulations or mucoid masses; their nuclei presented the normal chromatic reaction. The cavities of the tubules were dilated and contained only a small amount of reticular exudate, without cylinders of any kind. There was no thickening of the basement membrane. All these histologic characters were of maximum clearness in the vicinity of the hypertrophic tubercles of the kidney that was farthest advanced in the atrophic process. In other parts of the section, the separation between the diseased parts and the portions of the gland that remained healthy was less decided. Here and there, in the midst of the sheets of sclerosis, groups of normal or hypertrophied glomeruli and healthy or hypertrophied tubules were sharply defined. These facts should demonstrate that compensatory hypertrophy of the kidney is present in white granular kidneys, in nephrosclerosis with fine granulation, and in "tuberous nephritis." The dilatation of the tubules is not due to the stopping of the flow of urine by the sclerotic process, because if that were the case the cavity of the capsule would be involved, as it is in cases of aseptic ligature of the ureter. In simple compensatory hypertrophy, the glomeruli even more than the convoluted tubules should be the chief seat of the change. [J.M.S.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.,

of Philadelphia.

Therapeutic Experiments with Large Doses of Creasote in Pulmonary Tuberculosis.—Savoire (*Wiener klinische Rundschau*, January 1, 1899) draws the following conclusions: (1) The poisonous effect of creasote is very slight. (2) The administration of creasote in daily doses of 8 to 10 grams—in one instance, in fact, 15 grams—even though continued for several months, was not productive of any disturbance of the gastro-intestinal, circulatory, or secretory apparatus. (3) This creasote-therapy results in an increase of appetite and a gain in weight; in a remission of the cough, diminution of night-sweats, lowering of temperature, decrease of expectoration, disappearance of the bacilli in many instances, and continued hindrance to the progress of, not a cure of, the disease. (4) Creasote has no effect upon the development and growth of the tubercle-bacillus. Even in a 30% creasote-bouillon, it retains its virulence and productive power. (5) The poisonous quality of the extract of a tubercle-bacillus culture is very materially diminished if the use of that extract—the bacilli having been separated—is preceded by creasote. It appears that creasote has a chemic effect upon the bacillary toxins. (6) The favorable effect of creasote in pulmonary tuberculosis appears traceable to: (*a*) a bactericidal effect of creasote against the bacilli which are associated with the tubercle-bacillus—streptococci, pneumobacilli, etc.; (*b*) stimulation of the metabolism which increases and strengthens phagocytosis; (*c*) a chemical effect of the phenol group which leads to a neutralization of the toxins. The chemical action of creasote increases with the quantity. (7) Creasote is to be used only in noncachectic tuberculous patients (first and second stages). It may be administered—(*a*) as a subcutaneous injection of creasote in olive-oil, 1 to 15. Myrtol or eucalyptol may be added to the solution; (*b*) as a continuous inhalation, with 6 to 10 grams of a 33% alcoholic mixture; (*c*) by mouth, during meals, either in oily solutions or in milk as an emulsion, in increasing doses, beginning with 40 drops and reaching 300 drops.

Chronic Naso-pharyngeal Catarrh.—Many a chronic nasal catarrh, with big glands around the neck, requires sometimes but two or three daily salt-water irrigations (1 to 130, warm) of the nose, and, if the children be large enough to do so, gargling. The addition of 1% of alum will often be found useful. This treatment, however, must be continued for many months, and may require years. Still, there is no hardship in it, and no excuse for its omission. A. Caillé's many eloquent appeals have done much to popularize it. The nasal spray of a solution of silver nitrate, 1 to 500 or 1,000, when there are erosions, will accelerate the cure. Its application must be repeated every other day for some time. Not infrequently has a treatment which was considered obsolete when I was young been of great service to me. It consists in the internal administration of the tincture of pimpinella saxifraga. It is certainly an efficient remedy in subacute and chronic pharyngitis and laryngitis. I generally give it to adults, diluted with equal parts of glycerin and water, a teaspoonful of the mixture every two or three hours, with the warning that no water must be taken soon after; children in proportion.—Jacobi, in *Therapeutics of Infancy and Childhood.*

A New Preparation of Orthoform.—Klaussner (*Münchener med. Wochenschrift*, October 18, 1898) calls attention to a new preparation of orthoform introduced by Heinz and Einhorn. The new preparation is said to have the following advantages over the old: 1. The powder is more homogeneous, whiter in color, and does not form in lumps to such an extent. 2. It is much cheaper, and since its action is manifested in a 10% to 20% mixture with starch or other powder, its price is no longer prohibitive. Orthoform as a local anesthetic has proved serviceable in a great many internal and external painful affections. Neumayer and others have found that, insufflated in tuberculous laryngitis accompanied by severe pain, it causes anesthesia for 18 to 36 hours, allowing solid food to be taken with comfort, and thus improving the general health. Other clinicians have employed it in painful gastric affections in doses of 15 grains, and have found that, while it relieves the pain of gastric ulcer, simple or malignant, with certainty for some hours, it has no action if there is no solution of continuity. Good results have been obtained in skin affections—prurigo and herpes zoster. A 5% ointment relieves the pain of corneal ulcer. In dental practice it has been found serviceable in relieving the pain associated with caries of the teeth, and in gynecologic practice as a local anesthetic for cureting or plugging the uterus. It has been praised as an application to anal fissure, malignant ulcers, and bedsores. Orthoform has the great advantage over cocain in being non-poisonous.

[Orthoform appears as a white, crystalline powder, odorless and tasteless. It is dissolved slowly and sparingly in water, but in sufficient amount to produce anesthesia of healthy mucous membranes, or of ulcerated surfaces. The powder itself is used to produce complete anesthesia, and for wounds and ulcers an ointment is recommended. The hydrochlorate is more soluble, but is too irritating for application to sensitive surfaces. Kallenberger (*Berlin. klin. Woch.*, March 21, 1898) gives a very favorable report of its use in surgical cases, and finds that it acts as a local anesthetic whenever sensory nerve-endings are exposed; that it is a non-toxic agent, thus permitting the use of large quantities on raw surfaces and that it is a powerful antiseptic. Lichtwitz (*Medical Record*, June 4, 1898) reports a case of paroxysmal sneezing with hydrorrhea of 6 years' duration which was promptly cured by the insufflation of orthoform. Ingals and Ohls (American Year-Book of Medicine and Surgery, 1899) state that they have found it an excellent application after nasal operations to check hemorrhage and relieve pain.]

The Treatment of Gastrointestinal Intoxication in Infants.—Perrier (*Annales de médecine et de chirurgie infantiles*, November 15, 1898) recommends in light forms unaccompanied by general phenomena, such as vomiting, diarrhea, tumid abdomen, stationary or diminished weight, the suspension of milk, substituting for it boiled water, or slightly alkaline water, rice-water, barley-water, etc. The following prescription should be given:

℞.—Benzonaphthol	4½ to 9 grains.
Salicylate of bismuth	7½ to 15 "
Sirup of orange flowers	450 minims.
Mucilage of acacia	1,350 "

M. A teaspoonful every 2 hours.

If the dejecta are fetid, infrequent, and if there is tympanites, give:

℞.—Calomel	¾ to 1½ grain.
Sugar of milk	1½ "

In those forms in which to the before-mentioned symptoms are added fever, fetid breath, foul tongue, thirst, and loss of weight, milk should always be suspended, water alone being given. Gastric and intestinal lavage with boiled water or a .7% saline fluid should be practised; warm, moist compresses should be applied to the abdomen, and if there is hypothermia hot baths should be given, while tepid or cool baths should be used with hyperthemia. Thirty cubic centimeters (about 450 minims) of artificial serum should also be injected every 3 or 4 hours.—*New York Medical Journal.*

Acute Bronchitis in Old People:

℞.—Sodium iodid	90 grains.
Codein sulphate	5 grains.
Fluid extract grindelia	6 fluidrams.
Sirup tolu to make	3 fluidounces.

Teaspoonful every 3 hours.

—Patton, *Clinical Review.*

Exophthalmic Goiter.

Anders states that in two cases of exophthalmic goiter, recovery followed the persistent use, for about 6 months, of the following prescription:

℞.—Extract of digitalis	4 grains.
Extract of ergot (Squibb)	½ dram.
Sulphate of strychnin	½ grain.
Arsenate of iron	2 grains.

Make into 24 capsules.

Sig.—One three times a day, after meals.

Simple Acne.—McKinney (*Maryland Medical Journal*, November 18, 1898) advocates as the remedy par excellence for simple acne calcium sulphid. The proper dose is ½ gr. twice daily, and this dose should be steadily increased until 4 such tablets are taken each day. If the taste is objected to, it may be disguised by sugar-coating, or the drug may be given in capsules. In case of excessive gastric irritation, it may be desirable to begin treatment with 1/10 or 1/5 gr. In the acute stages of the trouble, arsenic does no good. The physician should spend a little time at each visit in gently squeezing out the larger comedones, and cureting the smaller ones with the comedone-extractor. The pustules should be lanced at the base in a slanting direction, and the point of the needle or lancet swung around in the abscess-cavity, to break up its contents. An antiseptic can best be applied in the form of a soap containing sulphur or bichlorid of mercury, with which the face can be washed at night.

The following are other good antiseptic preparations:

Sulphur precip.	1 dram.
Ether	7 fluidrams.
Alcohol	12 fluidrams.

External use.

The lotion should at first be applied only at night, but after the skin becomes accustomed to it, it may be used advantageously several times a day.

If an ointment is desired, it may be prescribed as follows:

Sulphur precip.	1 dram.
Rose-water ointment Lanolin	of each 1 dram.

External use.

Another good combination is:

Potassium sulphid Zinc sulphate	of each 1 dram.
Water	to make 4 fluidounces.

External use.

If the skin remains discolored after the papules and pustules have subsided, an ointment of tar and sulphur, or ichthyol and sulphur should be used, rubbing it into the skin for a half-hour each night. The use of very strong stimulants, as naphthol, resorcin, caustic potash, etc., is to be avoided, as their effect is often very injurious to the skin.

Iron in the Diseases of Infancy.—The majority of pale, feeble-looking children are not benefited by the use of iron, and many of them are made worse by it. Their pallor is secondary to existing dyspepsia and, as the iron increases this, it does no good. Delicate children who have been taking Parrish's sirup, or some other chalybeate preparation for months without improvement will often at once gain in appetite, color, and brightness if that is changed for an ordinary alkaline and bitter tonic:

℞.—Bicarbonate of sodium	3 grains.
Tincture of nux vomica	1 minim.
Compound infusion of gentian, up to	1 dram.

In some cases of anemia and dyspepsia, however, the indigestion is secondary to the anemia. In these, and in cases of anemia where the digestion is not much impaired, iron is of the greatest service. A convenient form for administration to infants is reduced iron (gr. ½ to 1 thrice daily after food). In older children some form of iron wine may be used, or if there is constipation, the sulphate along with a laxative:

℞.—Sulphate of magnesium	2½ grains.
Dilute sulphuric acid	1 minim.
Sulphate of iron	¼ grain.
Sirup of ginger	2 minims.
Peppermint water, up to	1 dram.

The compound sirup of the phosphate of iron is easily taken by children; as, however, the sirup in it may cause acidity, it is often better to give a preparation in which glycerin is substituted for the sirup.—JOHN THOMSON in *Guide to the Clinical Examination and Treatment of Sick Children.*

For Removing Foreign Bodies from Beneath Nails.—Soften the nail by an application of a 10% solution of caustic potash, scrape away the softened portion with a piece of glass, repeat the application and the scraping, until the foreign body is exposed, when it can be easily removed.
—*Nouveaux remèdes.*

The Treatment of Purpura.—The patient in all kinds of purpura should be confined to bed. Whenever a definite cause for the purpura is discoverable, a clue to the treatment will be supplied. In the infective diseases it invariably indicates a very grave condition, and calls for support by nourishing food and stimulants, while at the same time some of the hemostatics to be subsequently mentioned, especially turpentine, should be administered. In syphilitic purpura potassium iodid should not be given, for it appears in some cases to increase or to initiate the hemorrhages. In many cases of rheumatic purpura oil of turpentine appears to act as a specific; it should be given in 10 to 20 minim doses in capsules, or suspended by means of tincture quillaiæ saponariæ or mucilage. The following mixture I have used in numbers of cases with the happiest results:

℞.—Ol. terebinth	10 minims.
Quillaiæ sapon	10 minims.
Aquae cassiæ to make	1 ounce.

Sig.—To be given 3 times daily.

Prof. Boeck, of Christiania, recommends antifebrin in 5 to 10 grain doses in these cases. Salicylates, in my experience, as well as in that of Prof. Boeck, have little or no influence for good. In cases in which no discoverable cause can be ascertained, as well as in many in which there is a recognized cause, turpentine is, on the whole, the best remedy. Ergot and hamamelis may be tried, but they have not proved very efficacious in my hands. Calcium chlorid, suggested by Dr. Wright of Netley, is indicated when deficient coagulability of the blood is proved or suspected, and certainly should be tried when other remedies fail. It should be given at first in 20 grain doses, every 3 or 4 hours, the dose being reduced later to 15 or 10 grains; as when given in excess it diminishes the coagulability of the blood. Iron, as preparations of the perchlorid and persulphate, appears useful in some cases in the attack, and should be given in convalescence to remove the anemia which so commonly results in severe cases. In Henoch's purpura [a form associated with abdominal symptoms—vomiting, colic, and intestinal hemorrhage—often occurring in paroxysms over a period of several weeks or months] Henoch himself has seen benefit from an ice-bag applied to the abdomen; in chronic cases he recommends iron perchlorid. Osler in 2 cases saw benefit from arsenic, which appeared to control the tendency to recurrences. In other cases, however, it failed.—STEPHEN MACKENZIE in *Allbutt's System of Medicine.*

An Ointment for Chapped Hands.

Comby recommends the following:

℞.—Menthol	1 part.
Salol	2 parts.
Olive oil	10 parts.
Lanolin	30 parts.

—*Journal des Practiciens.*

Tuberculous Laryngitis.

℞.—Menthol, Sulphuric ether, Ol. pini sylvestris,	of each 2 drams.
Tincture of iodin.	
Comp. tinct. of benzoin to make	2 ounces.

M. Sig.—Ten or more drops to be dropped on the sponge of on oro-nasal inhaler, to be worn indoors as often and as long as is convenient.
—W. FOWLER.

Acute Coryza.

℞.—Atropin sulphate	1/15 grain.
Powdered camphor	24 grains.
Codein	2 grains.
Terpin hydrate	20 grains.

Make into 12 capsules.
Sig.—One every three hours.

Herpes Zoster.

℞.—Bismuth subgallate, Talc	of each 4 grams.

Profuse Sweating of the Feet.

Unna recommends:

℞.—Ichthyol	25 parts.
Water	15 parts.
Lanolin	25 parts.

Original Articles.

IN MEMORIAM—WILLIAM PEPPER.[1]

By WILLIAM OSLER, M.D.,

Professor of Medicine, Johns Hopkins University.

In *Rugby Chapel*, that noble poem in memory of his father, Matthew Arnold draws a strong contrast, on the one hand, between the average man, who eddies about, eats and drinks, chatters and loves and hates—and then dies, having striven blindly and achieved nothing; and, on the other, the strong soul tempered with fire, not like the men of the crowd, but fervent, heroic and good, the helper and friend of mankind. Dr. William Pepper, whose loss we mourn to-day, while not a Thomas Arnold, belonged to this group of strong souls, our leaders and masters, the men who make progress possible.

There are two great types of leaders; one, the great reformer, the dreamer of dreams—with aspirations completely in the van of his generation—lives often in wrath and disputations, passes through fiery ordeals, is misunderstood, and too often despised and rejected by his generation. The other, a very different type, is the leader who sees ahead of his generation, but who has the sense to walk and work in it. While not such a potent element in progress, he lives a happier life, and is more likely to see the fulfilment of his plans. Of this latter type the late Professor of Medicine at the University of Pennsylvania was a notable example—the most notable the profession of this country has offered to the world.

William Pepper began life under conditions which are very often unfavorable to success. His father, a distinguished physician, the professor of medicine in the school in which his son was educated, belonged to a family of position and influence. For the young man there were none of those tempering "blows of circumstance," no evil star with which to grapple and grow strong. Quite as much grit and a much harder climb is needed to reach distinction from the top as from the bottom of the social scale, and to rise superior to the *res abundans domi* has taxed to the uttermost many young men in this country. We have heard enough of the self-made men, who are always on top; it is time now to encourage in America the young fellow who is unhappily born "with a silver spoon in his mouth." Like the young man in the Gospels, he is too apt to turn away sorrowfully from the battle of life, and to fritter his energies in Europe, or to go to the devil in a very ungentlemanly manner, or to become the victim of neurasthenia. To such the career I am about to sketch should prove a stimulus and an encouragement.

At the age of 21, in 1864, the year of his father's death, Pepper graduated from the Medical Department of the University of Pennsylvania, having previously taken the B.A. degree. What now were the influences which sent this youngster bounding up the ladder three rungs at a time? In the first place, the elder Pepper was a clinical physician of exceptional abilities; but more than this, intellectually he was a son of the great Louis, one of that band of much loved American students, whom Louis sent to their homes with high ideals, with good methods of work, and with a devoted admiration of their chief. The talk at home while young Pepper was a medical student must often have been of the old teacher, of his ways and works, of his noble character and of his loving heart. The father's mental attitude had been moulded finally by Louis, and the son's early work shows deep traces of the same influence. Indeed all through life the clinical manner and habits of thought of the younger Pepper were much more French than English or German. In this respect he differed widely from his contemporaries who became dominated by the Vienna and Berlin Schools. Dr. Pepper, Sr., died a few months after his son's graduation, leaving him a moderate competency, and the example of a life devoted to all that was highest in our profession. It is interesting to note that the two diseases portrayed most skilfully by Louis, typhoid-fever and phthisis, were those which both the elder and the younger Pepper studied with special ardor.

For more than a century the Pennsylvania Hospital has been the nursing mother—the pia mater—of the kings of the clinic in Philadelphia, but in the long list of medical officers given in Morton's history of that institution you can find no young man who made his connection with the hospital so immediately productive as William Pepper. To it I attribute the second potent factor in his rapid professional development. In the summer following his graduation he served temporarily as apothecary. In 1865 he was elected one of the resident physicians, and had as a colleague his friend, Edward Rhoads. On the completion of his service he was appointed pathologist to the Hospital and curator of the Museum, positions which he held for four years. He immediately threw all his energies into the study of morbid anatomy, and in 1868 was appointed lecturer on the subject in the University. Making autopsies, working in the Museum, studying tumors and microscopic specimens, his time could not have been more fortunately spent, for in these early years he thus obtained a knowledge of morbid anatomy which stood him in good stead when time became more precious and engagements numerous. Throughout his entire career this work lent accuracy and firmness to his diagnosis. He never forgot the value of morbid anatomy, nor the debt which he owed to it. I have known few practitioners more keen (or more successful) in obtaining permission for autopsies. Very often he would send an especially interesting specimen to my laboratory, knowing that I would gladly get it ready for his clinic. Quite early in my association with him I saw that he had served an apprenticeship in the dead-house. He could come into the clinic and pick up a heart which he had never seen, but only felt and heard, and go at once to the seat of the disease.

The descriptive catalogue of the Pathological Museum at the Pennsylvania Hospital was issued in 1869, and while a large portion was from the pen of Dr. Morton, every page bears witness to the careful and thorough manner with which Dr. Pepper had worked over the specimens. The early volumes of the Transactions of the Pathological Society attest his zeal in this study.

As the third powerful element in his progress I place his association with Dr. John Forsyth Meigs, in the revision or the well-known work, *The Diseases of Children*. The third edition had appeared in 1858. The fourth edition, by Meigs and Pepper, was practically a new work. Dr. Meigs was an exceedingly busy man, and the bulk of the revision fell to his junior. The descriptions of disease were admirable, the pathology well up to date, and the authors broke away in a remarkable manner from many of the traditions and routines of old-time practice. If you compare Meigs and Pepper of 1870 with the third edition, or with the contemporary books on the same subject, you will see what a radical work it was for that date. To one section of the edition we may turn with special interest, namely, to diseases of the cæcum and appendix. Nowhere in literature, I believe, before 1870, is the importance of the appendix so fully recognized, or is there so good a description of the results of perforation. One cannot but regret that no edition of this work appeared after the sixth, in 1877. The experience gained by Pepper, while still a very young man, in the preparation of this work, was of incalculable value. It familiarized him with the literature, gave him an insight into the art of book-making, brought him into close personal contact with a man with remarkable medical instincts, and altogether was a circumstance which, I think, may be justly regarded as one of the three most powerful influences during the formative period of his career. Indeed, in many quarters Dr. William Pepper, Jr., as he used to be called, really never got the credit for the association with Meigs in the work on *Diseases of Children*. For years I had the impression that it was his father who was the joint author of the work; and even quite recently, since Dr. Pepper's death, I heard a man well versed in medical literature and interested in diseases of children, express great surprise that the Pepper of Meigs and Pepper was the late Provost of the University.

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[1] An address prepared to be delivered at the opening of the session of the Johns Hopkins Medical School, October, 1898.

In 1870 *The Philadelphia Medical Times* was started, but the health of Edward Rhoads, who had been selected as editor, had failed so rapidly that the opening of the new enterprise was entrusted to his friend, William Pepper, who brought out the first twelve numbers of the journal, and then transferred the editorship to the late James H. Hutchinson. I have glanced over Vol. I, to glean indications of Pepper's early work. Among five or six contributions two are of particular interest, as they indicate the sort of work this young man was doing in clinical medicine. At page 274 is recorded a case of scirrhus of the pylorus with dilatation of the stomach, an ordinary enough case nowadays, but one which has gone into literature and is often quoted on two counts: first, the accurate study of the peristalsis of the stomach-wall, which was visible, and made the subject of very careful electrical experiment; and, secondly, the practical point of using the stomach-tube, at that date a novel procedure, and, so far as I know, not previously practised in America in cases of the kind. The other contribution, still frequently referred to in the literature, on Progressive Muscular Atrophy of the Pseudo-hypertrophic Type, is one of the most exhaustive contributions to the subject made up to that date, and is a model of accurate clinical and anatomical study.

An advertisement in a supplement to one of the numbers gives us an idea of the sort of work he was doing at this time in teaching. In conjunction with H. C. Wood, Jr., he announces a course of practical medicine at the Philadelphia Hospital, to extend throughout the months of April, May and June. They announce that between them they have 175 patients under their care. Dr. Pepper was to meet the class at 8 A.M. on Tuesday, and Dr. Wood at 9.30 A.M. on Friday.

It seems to me that for so young a man, Pepper had a great deal of good sense to have avoided the pitfalls of medical journalism. He must have seen at an early date that to be successful in it meant practically the sacrifice of everything else.

By the end of December, 1870, young Pepper, then only a little past 27 years of age, already had a well-established reputation as a teacher and worker. I do not know of another instance in the profession in which a man at his time of life had made so favorable a start. From this date on we may divide his life into three periods,—to 1881, when he was appointed Provost of the University, his Provostship, 1881–1894, and the short period since his resignation from that office.

The decade from 1871–80 demonstrated that a man of men, to use a phrase of Milton's, had arisen in the profession in Philadelphia, a man with both "*geist* and go," one who could not only blow a trumpet-blast loud enough to awaken the slumbering conservatives of his native city, but who could command a following which enabled him in spite of all opposition to set on foot much-needed reforms. As illustrating his activity during this period, I can allude, and only briefly, to three important pieces of work. The removal of the University to West Philadelphia doubtless made her friends aware of the possibilities of the situation. In the Medical School, then a relatively much more important section, the plans had been organized for well-equipped buildings and laboratories in West Philadelphia. An exceedingly judicious plan, for which I do not know whether Pepper was solely responsible, but one in which he had his whole heart, was the organization of a hospital to be under the control of the faculty and trustees. Blockley was within a stone's throw of the new buildings of the Medical School, and its rich stores of material were available, but it was a very wise and far-seeing scheme which regarded the clinical equipment as an integral part of a medical school which should be under the immediate supervision of the faculty. For many years it was a hard struggle to make both ends meet, and even when I joined the faculty of the University in 1884, the hospital was constantly in need of funds (and much besides). One thing it never lacked, hopefulness on the part of Dr. Pepper, who never for a moment consented to look at the dark side of the picture, always saw a few years ahead, predicted success in the days when the debt was the greatest; and with many other schemes on hand he never let an opportunity slip to forward the interests of that part of the institution which he loved, perhaps, better than any other. In 1881, the Vice-Provost, in an address at the inauguration of Dr. Pepper as Provost, expressed the popular feeling as follows: "To him who has pleaded for mercy to the helpless sick, as a lover would plead his own cause; who, working with other men of goodwill, took by tacit election the headship among them; who has touched with a master hand the springs of influence—to him public esteem has given the wreath as the moral architect of our Hospital." It is gratifying to think that he lived to see it placed on a solid basis of success, with the maternity department splendidly organized, the Pepper Clinical Laboratory, which he himself gave in memory of his father, the center for high-class work, and the new Nurses' Home and the Agnew Wing in full operation.

Were I asked to name the most satisfactory single piece of work in Dr. Pepper's life, I should say unhesitatingly that which related to the promotion of higher medical education. This little volume[2] contains two addresses, one delivered October 1, 1877, the other October 2, 1893. They represent a a forecast and a retrospect. At the time of the removal of the University to West Philadelphia the University Faculty was a strong one, but it contained a number of men who were saturated with old-time prejudices, and who were bitterly opposed to any change in the methods of medical education. Once before, in 1846, the University had made an attempt to elevate the standard of medical education, but unsuccessfully. In 1871, the Harvard Medical Faculty had been taken in hand

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[2] Higher Medical Education; Two Addresses, by Wm. Pepper. Lippincott & Co., 1894.

and reorganized, so that the example had been set, but there was probably no school in the Union in which the outlook for reform was thought to be less hopeful than at the University. The struggle was a hard one; the brunt of it fell upon the young men, more particularly upon Pepper, who was the very head and front of the new movement. The plan of reorganization was not carried without much bitterness; indeed, it looked at one time as though the faculty would split, as Professor Rogers, who did resign, very nearly carried with him several strong colleagues. As Dr. Pepper says in his second address, speaking of the inauguration of the new system in 1877: "We thought, too, alas, of the long and painful controversy, lasting almost five years, over the proposition to again elevate our standard of medical education, and of how the end had been attained only at the cost of old friendships and of the allegiance of valued associates, whose convictions remained unchanged as to the injury that would be worked to the University by the proposed advance." The movement was immediately successful, and the changes then made were but precursors to other more radical advances. It was always a source of great gratification to Pepper to feel that the plans for which he had worked so hard had been crowned with such success. Years hence these two addresses, with their appendices, will be regarded as perhaps the most valuable single contributions to the literature of the phenomenal educational movement through which we have lived during the latter quarter of this century.

The third event of which I spoke was the organization of the medical department of the Centennial Exposition of 1876. I only mention it as one which gave him an opportunity to demonstrate how strong were his executive abilities.

In 1881 Pepper was elected Provost of the University of Pennsylvania. The feeling was unanimous that he was the man in whose hands the destiny of the institution would at any rate be safe, but no one could have predicted such a decade of development as took place under his management. The material progress is indicated by an increase in the acreage in West Philadelphia, from 15 to 52; the number of students increased from 981 to 2180, and the fees of the students during the same period more than trebled. I do not know that there has been an instance of such remarkable growth in any University in this country, unless it has been in a newly established one, such as the University of Chicago. That the University to-day occupies a position in the very first rank of educational institutions is due to the energy of William Pepper.

Passing without further comment the work of his Provostship, since this has been dwelt upon with great fulness in various obituary notices, I may here refer to several important undertakings during this period. There had never been published in this country a composite work by native writers, corresponding to the System of Medicine by Reynolds or to Ziemssen's Encyclopædia. A circular was issued in November, 1881, to the joint authors, but it was more than three years subsequently before the first volume of the system was issued; the five volumes were then published in rapid succession, the fifth appearing in 1886. While unequal, as all such systems must necessarily be, it remains a great work, and contains articles which have become classical in American literature. It proved to be perhaps the most successful literary venture ever made in this country by a medical publishing company, and it extended widely the reputation of the editor.

For many years those of us whose work lay in the special field of medicine had felt that a society was needed in which we could meet our fellows in the same line of work. As early as 1881 I had written to Dr. Tyson, shortly after my first visit to Philadelphia, urging the organization of such a body, but it was not until the winter of 1885–86 that the initial steps were taken to form the "Association of American Physicians." I remember well in the preliminary meetings how by tacit consent Dr. Pepper assumed the headship, and in formulating the details and in arranging the final organization his executive abilities made the work very easy.

A few years later a much more difficult scheme was engineered by him to a successful issue in the welding of the various special societies into the Triennial Congress of American Physicians and Surgeons. Much of the success of the first meeting in 1888 was due to the admirable manner in which, as Chairman of the Executive Committee, he shaped the policy of the organization. One astonishing feature in his character was the intense energy and enthusiasm with which he threw himself into these and similar schemes. Letters of suggestion here, of advice in another quarter, conferences, caucuses,—as if, indeed, he had nothing else on his mind, nothing to do but the business on hand. He always appeared at a meeting prepared, knowing exactly what was needed, and, as I have said, taking the headship by tacit consent, the business was "put through" in a way not always seen in gatherings of medical men.

For many years Dr. Pepper had advocated a closer union between the United States and the Latin-American republics, the commercial and intellectual relations of which he maintained should be with this country rather than with Europe. Practical expression to the conviction he gave on organizing the first Pan-American Medical Congress (of which he was President), and in interesting the governments of the South American States in his Commercial Museum.

Though a chief promoter both of the Association of American Physicians and of the Congress of American Physicians and Surgeons, he was a warm advocate of the claims of the National Association, the meetings of which he very often attended, and in the success of which he was deeply interested. Of late years the extraordinary calls upon his time made attendance upon medical societies very difficult, and more than once he has expressed to me his deep regret that unavoidable engagements either prevented it altogether or made his visits hurried and unsatisfactory.

For some years before his formal resignation of the Provostship, Dr. Pepper had felt that he had done as much as any one man could, and that it was in the interest of the University that he should give way to someone else. It was his hope, I know, to be able to resign at the end of his ten years' service, but circumstances delayed his action until 1894.

But it was not for rest, or for any warning that he was doing too much, that he asked to be relieved from the cares of the University. Other great schemes had been absorbing his energies. For years he had been impressed with the importance of museums and collections. The Wistar Museum of Anatomy had been a source of great satisfaction. In 1891 he undertook the establishment of the Archæological and Palæontological Museums. The strong personal interest which he took in Archæology encouraged his friends to hope that he had at last found a hobby which might divert him from more trying duties. He could talk on the outlook in Babylonia, button-holing some local Dives, and impressing him with the needs of their last University expedition, as though he had no other interest in life. To the next man it was of the wonderful "finds" in Florida or Peru, and of their great importance in the history of the early races of this continent. It was extraordinary how he could warm up in talking of these and allied subjects, and his quick, receptive mind and retentive memory enabled him to grasp the important points in the problems to be attacked.

For a quarter of a century he devoted his marvellous energies to the University of Pennsylvania, believing that in serving her he could best serve his city and State. The last years of his life were given to promote the material and intellectual welfare of his native town. The success of the museum schemes gave courage to his ambition, and he began the organization of the Commercial and Economic Museum, of which he was president at the time of his death. His desire was to see about the University of Pennsylvania a great group of museums which would not only illustrate the past and present history of man in all his relations, but which would reflect the commercial and economic aspect of his present activities, and particularly one in which the raw and manufactured products of the world would be represented, a place in which the business man of Pennsylvania could be put in touch with producer or consumer in any country. An immense scheme, involving millions of dollars, it has advanced to a stage in which not only is success assured, but in which people are beginning to appreciate what a boon has been bestowed on a great manufacturing city.

And then, as if such a colossal enterprise were not sufficient to keep him busy, he undertook the organization of a Free Library for Philadelphia. It was no doubt through his influence that his uncle had given a quarter of a million dollars for the purpose. This library was very near to his heart, and its remarkable success in so short a time was, he has told me, a source of the keenest pride. Not long before his death he secured a bequest of a million dollars for a public art-gallery.

From this hurried sketch you may get an idea of the ceaseless energy and activity of his life, but it would be very incomplete without some specific reference to his work as a practising physician. The medical profession in every country has produced men of affairs of the first rank, men who have risen high in the councils of nations, but with scarcely an exception the practice of medicine has not been compatible with such duties. So absorbing are the cares of the general practitioner or the successful consultant, that he has but little time to mingle in outside affairs, and the few who enter public life do so with many backward glances at the consulting-room, and with well-grounded forebodings of disaster to professional work. But Dr. Pepper maintained to the end the closest relations with the profession, both as a consultant and a teacher. To me one of the most remarkable features of his life is the conscientiousness with which he attended to a large and exacting practice. That amid such multifarious cares and duties he should have been able to maintain an undiminished activity in his calling is perhaps the greatest tribute to his genius. As a teacher his forte was in the amphitheater, where he displayed precision in diagnosis, great lucidity in the presentation of a complicated case, and a judicious and thorough knowledge of the resources of our art.

Naturally, as he became more and more involved in outside affairs, he became less able to contribute important papers to medical literature, but a glance through the files of the *American Journal of the Medical Sciences*, and the *Transactions of the Association of American Physicians* show during the past ten years a large number of very valuable contributions, many of them in collaboration with younger men. The journal literature of the same period is full of more ephemeral contributions in the form of clinical lectures.

I have already referred to several important early contributions. Among others of special importance I may mention his studies on pernicious anemia, the first made, I believe, by any physician in this country, and his contributions to Addison's disease. In tuberculosis he always took a very warm interest. For many years he was supposed to be a victim of pulmonary tuberculosis, and indeed the autopsy showed that he had a healed patch of the disease in one lung. In lectures and in numerous general articles he dwelt upon the great importance of the disease. One of his most interesting contributions was on the local treatment of cavities in the lungs. He also made an extensive investigation into the subject of pulmonary tuberculosis in the State of Pennsylvania. Diseases of the stomach and intestines were always favorite subjects of study. His papers on appendicitis were of special value, particularly those upon the relapsing form of the disease. His work on pulmonary tuberculosis early led him to make careful inquiries into the climate of different sections of the country, and few members of the profession had a more accurate knowledge of the subject. He was a strong believer in the value of the mineral springs of this country, and some years ago, with Dr. Daland, he collected an enormous amount of material which was the basis for his Report on the Mineral Springs of America. In 1893 he edited the American Text-Book of Medicine, which had a large sale, and served to keep his name prominently before the profession.

As a man the late Provost formed a most interesting study, and as I had such a warm appreciation of his character, I may, in the privilege of friendship, say a few words of a more personal nature.

I remember as though it were yesterday the occasion of our first meeting in 1881. I had come to Philadelphia to look over the museums and hospitals. I was much impressed with his cordiality, the ease of his manner, the freshness and elasticity of his mind. He was just starting to his lecture, and I was delighted to accompany him. For years I had not listened to a clinic so well and so artistically planned, and conducted with such readiness. I did not see him again until I became his colleague. In five years of pleasant fellowship in the Faculty of the University of Pennsylvania I remember to have been seriously vexed with him but once, and that was on account of my present confrère, Howard Kelly. A number of us had backed that Kensington colt—as we called him in those days—I forget for what appointment. I only remember that I was very keen about it at the time. At the last moment Pepper entered a dark horse, who won easily to our great chagrin. To my warm expostulations he listened with great patience, but after about five minutes of that delightful persuasiveness which was so freely at his command, I left him, not only with all bitterness assuaged, but almost sorry that I had not supported his candidate. In Athens he would have been called a sophist, and I do not deny that he could, when the occasion demanded, play old Belial, and make the worse appear the better cause, to perplex and darken maturest counsel—but how artistically he could do it!

His faults? I am not here either to portray or to defend them.

> "They say, best men are moulded out of faults;
> And, for the most, become much and more the better
> For being a little bad."

He was human, and to those of a man he added the failings of a college president. To some sedate Philadelphians he seemed a modern Machiavelli, but a man engaged in vast schemes with many clashing interests is sure to be misunderstood, and to arouse sharp hostility in many quarters. The average citizen, if he does not understand, is very apt to dread or to dislike a new Ulysses.

In many ways the American is the modern Greek, particularly in that power of thinking and acting, which was the strongest Hellenic characteristic. Born and bred in one of the most conservative of cities, surrounded by men who loved the old order, and who hated change, or even the suggestion of it, Pepper displayed from the outset an adaptability and flexibility truly Grecian. He was preeminently a man of felicities and facilities, to use a somewhat flash but most suitable phrase. Matthew Arnold's comment upon the happy and gracious flexibility which was so incarnate in Pericles has often occurred to me in thinking of the character of the late Provost: "Lucidity of thought, clearness and propriety of language, freedom from prejudice, freedom from stiffness, openness of mind, and amiability of manner." There was another Grecian feature which must not be lost sight of. You remember in the Timæus how the Egyptian Priest said to Solon: "You Hellenes are never anything but children; there is not an old man among you . . . . in mind you are all young." To the very last there was a youthful hopefulness and buoyancy of spirits about Pepper that supported him in many trials and troubles. I never knew him despondent or despairing. If things looked dark, if plans and projects on which his heart were set had miscarried, he met the disappointment with a smile, which robbed it of half its power. The persistency of this buoyant hopefulness often wore out the most obstinate opposition; in fact, it was irresistible. Nor was it the hopefulness which we condemn as visionary, but a resourceful hopefulness, based on confidence in himself, and, most valuable quality of all, capable of inspiring confidence in others.

Nor must I neglect to bear testimony to his inherent kindiness of heart. Busy and prosperous, and so much absorbed in large projects and with the care of lives very mportant in a community, a great physician is apt to slight the calls of the poor and needy, whose lives are of importance only to themselves. Necessarily his contact with such s in the hospital wards. The family physician has not a monopoly of the charity work. The consultant has often to take a share, and with his large and varied associations, Pepper had an unusual number of calls upon his time and sympathy, as well as upon his purse, and to all he responded with a gracious liberality. Only a year or two ago an intance came to my notice which illustrated his kindness. From one of the lower counties of Maryland one of those sad wrecks which "the little red school-house" is apt to make of women, had been under Pepper's care at the University Hospital. She had improved very much, had been able to eturn to work, but after a time had again broken down. She had written to him for advice. In reply he urged her to put herself under my care at the Johns Hopkins Hospital, which was much more accessible, and he offered to give her a note of introduction to me. I was much impressed by the kindly tone of the letter, which was written with his own hand (an unusual event of late years with him), and full of consideration and sympathy.

Not endowed, it was supposed, with a very strong constitution, the wonder is that he should have been able to do so much and to live so long. The 'bridle of Theages,' an inherited or acquired delicateness which has often proved in its possessor a blessing to the race, was no checkrein to him; and I have heard him say that he preferred the life of a salmon to that of the turtle. Though premature in one sense, his death came after he had seen fulfilled the desire of his eyes, and to the rich life which he had lived the future could have added but little, though doubtless his restless spirit would have driven him into fresh fields. The reformation of medical education, the reorganization of the University of Pennsylvania, the establishment of a great Commercial Museum and a Free Library—these and a score of minor plans he had either seen completed or well under way. Surely if ever a man could sing a *Nunc Dimittis* it was William Pepper! But as no man liveth, so no man dieth to himself, and we may mourn with those who shared his inner life, and who so generously gave so much of it to us of the profession and to the public. For them we feel his loss to be irreparable, his death to be premature. For them we could have wished an extension of his time to the Psalmist's limit.

I have no desire to criticise the method of his life. Exceptional men cannot be judged by ordinary standards. The stress and strain of thirty years told severely on his arteries, and for two or three years there had been unmistakable warnings in attacks of angina pectoris. He kept at work with vigor unabated until last spring, when he had signs of dilatation of the heart, with bronchitis and dyspnœa. The last time I saw him, in May, I think, he was in bed, improving rapidly, he said, and very cheerful, talking much of his plans, particularly of the Commercial Museum and of the Library. He spoke of a purposed visit to the Pacific Coast, and of the good it was sure to do him. Then came the sad announcement of his death in California—a shock to all his friends, since, with the discretion which we doctors often exercise, the secret of his serious attacks had been well kept. I may be permitted to quote one or two extracts from a letter from his physician, who was with him at the time: "He died at eight in the evening with a copy of *Treasure Island* in his hands. At seven I had left him gazing upon Mount Diabolo, shadowed in the gathering darkness. I was called at eight and found him in the attitude and with the expression of *angor animi*, from which he never roused. He had suffered a few months before with cardiac dilatation; at the time of his death he was recovering the lost compensation, and appeared on the clear road to recovery. He had said a few days before 'the battle has been won.' Throughout his illness he exhibited the most perfect disposition and the greatest patience and forbearance. . . . The fatal attack was, I think, about the seventh, extending over a period of three years; the last previous attack was in April, at the time he was lecturing upon angina pectoris. He knew that the end must come some day, but he did not expect it so soon. I have never seen so beautiful a nature in sickness; his conduct and disposition were worthy of Marcus Aurelius."

With such a book as *Treasure Island* in his hand, we can imagine that the great Enchanter of the Pacific had filled his mind with the possibilities of peace and quiet (so long denied him)—possibilities turned instantly to realities with the summons to the peace and quiet of an eternal rest. Some lines of the same writer express both the spirit in which William Pepper utilized his time in the service of his fellow-men, and the chief lesson of his life to us who survive:—

"Contend, my soul, for moments and for hours;
Each is with service pregnant, each reclaimed
Is as a Kingdom conquered, where to reign."

THE RELATIONS OF CERTAIN NEUROSES TO THE PELVIC AND GENITAL DISEASES OF WOMEN.[1]

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Those who have observed the evolution of modern gynecology are not unmindful of the constant tendency to more rational and sound gynecologic teaching and practice, and no single occurrence of the past decade indicates the trend of thought more clearly than the symposium upon the relation of pelvic to nervous diseases at the Denver meeting of the American Medical Association.

There were differences of opinion, of course, but there was great unanimity in regard to many of the points heretofore at issue; and the problems, in the solution of which these men have been so long engaged, may now be considered as well on the way to final settlement.

The main points upon which practically all could agree, were: (1) a patient may have at one and the same time both pelvic and nervous diseases which may be, and as a matter of fact often are, absolutely independent of each other so far as the production of one by the other is concerned; (2) pelvic diseases and lacerations of the soft parts may exist for years without marked symptoms till some other physical conditions arise to bring them into notice and develop them as factors of the case; (3) though this be true, the existence and perpetuity of these pathologic pelvic conditions, when once they have become prominent symptomatically, is a bar to the cure of the nervous symptoms and the restoration of the patient to good health; (4) pelvic and other operations upon the genitals of women must in every instance be done for existing disease or distortion of these organs and never for reflex symptoms which may be supposed to originate from healthy and normal organs, it being agreed that such a pathologic process is impossible, and such operations are prohibited by our present knowledge of the subject; (5) when disease of the genitals exists, or laceration of the soft parts in which more or less cicatrization has occurred, there may be present, as an element of the case, profound reflex disturbances which can only be regarded as a phase or expression of the genital malady; (6) the cure of these complicated cases presenting both nervous and genital diseases of the concurrent and interdependent type will ordinarily demand that all possible causes of reflex disturbance be eliminated primarily and previous to the institution of systematic treatment of the nervous condition, which can then be carried on with nothing to hinder the process of repair; (7) to this end in such cases the neurologist and gynecologist must cooperate, combining their efforts to master what sometimes proves to be a most intractable group of symptoms, comprising those of the tangible and evident genital lesions and extending through the whole list of intangible, elusive and almost incomprehensible manifestations of neurasthenia, hysteria, and even some forms of insanity.

Of the above conclusions there are but three in regard to which adverse opinion was expressed, the others being unanimously endorsed as sound and the true expression of the best opinion of the leading thinkers and workers in this field at the present time.

The third, fifth and sixth of the conclusions, as I have cited them, were not concurred in by all of those taking part in the discussion, and one or two of the neurologists took decidedly opposite grounds. Still, the greater number of those participating in the symposium were disposed to endorse them.

The able and admirably expressed objections of the dissenters and the eminent place they have made for themselves in the front ranks of modern medical thought will give their views great weight, even though they be in the minority. The history of Medicine, as well as the history of every other science, has often proved the minority to be right and the majority to have been in error, and the questions involved are of such importance that all well-founded adverse opinions must be met and answered or they serve to retard the scientific end at which we aim.

May our patients present various reflex nervous disturbances more or less general in character which are associated with and dependent upon, in the relation of cause and effect, pathologic pelvic or genital conditions? May such pathologic conditions, when once they have become prominent symptomatically, be a bar to the cure of the reflected or referred nervous symptoms or disease? In the treatment of such cases should the pelvic lesion be eliminated as a factor before the systematic treatment of the nervous disease is undertaken?

The solution of these questions cannot be reached by the acceptance of the mere *ipse dixit* of any man or set of men, but must be evolved from the knowledge, experience, experiments and research of all; and it would appear that we have given too much consideration and weight to the empirical evidence offered, and too little thought and consideration to the known facts as they are given us by the anatomist, physiologist and pathologist.

The exhaustive and laborious papers of Henry Head "On Disturbances of Sensation, with Especial Reference to Visceral Disease,"[2] and James Mackenzie. "Some Points Bearing on the Association of Sensory Disorders and Visceral Disease,"[3] bear with particular force upon this matter, and yet in all the discussions of the last few years they have been ignored so far as I have been able to observe, though there has been nothing said or done during that time in the least to detract from their force and effect.

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[1] Read at the meeting of Western Surgical and Gynecological Society at Omaha, Neb., December 28, 29, 1898.

[2] *Brain*, vol. xvi, 1893, and vol. xvii, 1894.

[3] *Brain*, vol. xvi, 1893.

An extensive review of the interesting and important conclusions as presented in these papers is out of place here, and a perfect understanding of them can only be had by a careful reading of the originals; but an outline of them, with some allusion to the argument, can help us to a better understanding of the problems now before us for consideration.

Head and Mackenzie are agreed that "the pain of visceral disease is not always localized by the patient over the organ affected." Ross first explained this fact by the ingenious hypothesis that the pain of visceral disease was "referred along the distribution of the somatic roots which come off from the same level of the cord as the sympathetic fibers of the organ affected." An enormous advance was made when Mackenzie described the cutaneous tenderness which is so frequently associated with the pain of visceral disease, for here we have a symptom which is distinctly more objective than that of pain only. To summarize, they further agree that (1) the pain of which the patient complains always lies within the areas of tenderness, if these be present. Should they be present at one time and absent at another, but the pain remain, tenderness is always found to make its appearance in the area which is said to be painful. (2) The tenderness is not deep-seated, but is always cutaneous or subcutaneous. (3) These areas of tenderness bear a definite relation to the different organs affected, but in many cases lie at a considerable distance from the organ affected. The pain produced by stimulation is not produced by any action on the organ itself, which may lie at a considerable distance from the tender spot. Again, the tenderness may be on the right side, though the organ affected lies on the eft side of the body. (4) The superficial reflexes are usually exaggerated over the tender areas produced by visceral disease.[4]

"Studying the subject from a purely clinical aspect, uch are, in brief, some of the reasons that influence me in considering the pain of visceral diseases to be of a referred character, *always somatic*, *never splanchnic*. (Italics mine. H. G. W.) I willingly admit that I am not able to explain the source of all pains, and many patients complain of pain to me unexplainable. Yet with this view present in my mind, and with extended xperience, these cases become less numerous."[5]

Illustrative examples are given of this referred pain of visceral disease, such as the well known arm-pain of angina pectoris, the right-shoulder pain of certain diseases of the liver and diaphragm, the referred pain nd retracted testicle of renal and ureteral calculus, the back-pain of prostatic and rectal diseases, the retention f urine after painful rectal operations, and last, but by no means least for the purposes of this paper, the well-known pains in groins and back and hips and thighs, under the breasts and on the head, from ovarian, tubal, and uterine diseases.

In regard to the generalization of pain, tenderness, and other nervous phenomena originating from visceral disease, it is made apparent that this may take place through one or all of three ways: (1) An organ receiving most of its nerve-fibers from one side of the cord nevertheless has some from the other side, so that visceral disease may be the cause of pain or tenderness at the same spinal level on the side of the body opposite to that upon which the viscus is situated; (2) through diffusion from a center, as in the neuralgias set up from an aching tooth but spread into the areas adjacent.

> "If I am anemic, or if the pain remains untreated until my bodily health is affected, I no longer have a localized area of tenderness, but the pain, and with it the tenderness, spreads until the whole of one-half of the head and even the neck may be intensely tender. Thus at last the pain of an aching tooth has produced tenderness over areas which bear no relation to the affected organ. (3) Certain viscera, such as the uterus and breast, are naturally closely related to one another. Thus suppose pain and tenderness to exist in consequence of the disease of one of these organs, the next area that will be affected when this pain and tenderness spreads, is that belonging to the associated organ. . . . This is the phenomenon which I have been accustomed to call 'generalization' of visceral pain and tenderness, and is of such common occurrence as to form a very important factor in the clinical picture of many diseases.
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> "Anemia is one of the commonest causes of such generalization. A patient may be anemic and yet suffer from no pain or tenderness. But so soon as some cause for referred pain is present, generalization at once begins. Thus if an anemic menstruates she not only has pain over the tenth dorsal areas corresponding to the ovary, but she has pain and tenderness over the areas of the sixth dorsal (heart), seventh dorsal (stomach), occipital and midorbital (eyes, etc.). If an anemic man or woman have a toothache or suffer from hypermetropia, they may have the most widespread tenderness and pain. And yet if the cause is removed this pain does not cease, at any rate immediately, for the resistance of the center being once broken down is with difficulty recovered.
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> "In every such case of anemia I believe the starting-point for such generalization will be found in the affection of some organ. . . . Where widespread tenderness of the head and neck are present, and headache is a marked feature, some error of refraction is often present. . . . In some cases the starting-point of the pain is in the cough of some lung or bronchial affection. . . . A very large number start originally in the pain of chronic dyspepsia, and an even larger number in the pain caused by some irregularity in the pelvic viscera.
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> "Thus it is not sufficient simply to treat the anemia or to treat the original cause and point of primary manifestation of pain, *but both must be corrected*." (Italics mine.)

This logical view of the phenomena under consideration, confirmed by the observation and experiments of Head, Mackenzie, and Ross, and so fully in accord with the clinical experience of many accurate observers, would seem to be indisputable, and the failure of surgery to cure under certain conditions is fully explained. It is evident that the part played by the reduced resistance in the nerve-centers from long existing visceral disease, and the rational treatment of this condition subsequent to operation, have not sufficiently attracted our attention. We have expected too much from the elimination of the peripheral irritation which has determined the generalized symptoms; and have failed to appreciate the necessity for patient and persevering, and sometimes long-continued, after-treatment of a character likely to restore the tone and resisting power of the general nervous system.

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[4] Head, *Brain*, vol. xvi, 1893, pages 55 and 56.

[5] James Mackenzie, *Brain*, vol. vi, 1893, page 331.

The evolution of the present views as to the efficacy of the surgical treatment of traumatic epilepsy may be cited as an illustration, for it is now conceded that late trephining and elevation of an old depressed fracture of the skull is quite likely to fail of itself to cure the resultant epilepsy after the epileptic habit has been established, although an early operation might have prevented the epilepsy. The results of modern surgery have been so wonderful, and its application so varied, that too much is often expected as the direct and sole result of the surgical operation; the swing of the pendulum is bringing opinions and practice to a much more rational and sound basis.

In the discussion to which allusion has been made a well-known neurologist of Philadelphia took the most radical position against the interdependence of pelvic and nervous diseases, as well as that against the performance of surgical operations in the treatment of such nervous diseases as neurasthenia and hysteria. His well-known views were set forth in a paper read before the Philadelphia Obstetrical Society June 2, 1898, and published in *The American Gynecological and Obstetrical Journal* for August.

A careful reading of this paper and of the discussion it elicited is most gratifying in that it clearly shows how little difference there is in the views of the best neurologists and gynecologists regarding this important matter, and that in truth the differences are far more apparent than real. He says for instance: "Contrary to what might perhaps be inferred from the general tenor of my remarks, I believe, that in neurasthenia, operations for the cure of actual pelvic lesions are indicated and should, other things being equal, be performed. We remember that in neurasthenia there is added to nervous weakness, nervous irritability; that there is an increased reaction to local impressions, and I maintain that it is just as proper and just as clearly indicated to correct local pelvic disease in neurasthenic patients as it is to give such patients glasses to relieve their ocular symptoms." On the other hand he concludes among other things that: "There is no relation between pelvic disease and hysteria (and neurasthenia) even when the two affections coexist in the same case;" and, "that the pain-areas of hysteria bear no relation to disease of the deeper structures" (page 128.) "These are especially areas of hyperesthesia under the breasts, so-called 'inframammary tenderness' and areas of hyperesthesia above the groins, grossly misnamed 'ovarian tenderness'" (page 126).

While it is difficult to make the above expressions seem entirely compatible with each other, and utterly impossible to comform the latter to the experiments and opinions of Mackenzie, Head and many practical gynecologists, the essential differences of opinion, as they affect the management of cases coming under this heading, are remarkably little, and it must be recognized and conceded that the neurologists and the gynecologists are much nearer unanimity than they have ever been before.

It is evident that agreement is near when the most conservative neurologists "believe that in neurasthenia operations for actual pelvic lesions are indicated," and gynecologists proclaim that "pelvic and other operations upon the genitals of women must in every instance be done for existing disease or distortion of these organs and never for reflex symptoms which may be supposed to originate from healthy and normal organs."

Every gynecologist of wide experience knows, and most of them will admit, that surgical operations for the cure of reflex pains believed to be of genital origin, very often fail of their purpose. Occasionally this is true even when gross disease of the pelvic viscera has been demonstrated and eradicated. It is evident that at times our surgery does not go far enough, that it is not complete and finished in detail; or that the post-operative treatment has been inadequate. It is not enough in seeking the source of a neurosis of pelvic origin to exclude disease of the ovary underlying the point of referred pain, nor is the most necessary surgery, however rationally and deftly done, all that is required to effect a cure.

The conclusions of Mackenzie and Head are clear upon this point, and in the light of their findings it must be borne in mind that pain upon one side may have its origin in the ovary of the other side or in any viscus receiving its sympathetic nerve-supply from the same segment of the cord, or one intimately associated with it. In the search for the cause of such pain all the pelvic viscera must be examined and disease of all removed or excluded, and the operation must be so completed as to leave no pathologic conditions as the result of the work; *i. e.*, no dead ligatures or extensive adhesions. More important than all, the after-treatment must be so conducted as to eliminate the acquired pain-habit, just as the epileptic habit should be eliminated after trephining. Neither party to the old controversy has been entirely in the right. The successful management of these trying cases will call for the best and united efforts of both the neurologist and the gynecologist, either often being unable of himself to interpret all the phases of the malady.

It is apparent that we must answer in the affirmative two of the three questions asked in the first part of this paper, *i. e.*, (1) our patients may present various reflex nervous disturbances more or less general in character which are associated with and dependent upon, in the relation of cause and effect, pathologic pelvic or genital conditions; and (2) such pathologic conditions, when once they have become prominent symptomatically, may be a bar to the cure of the reflected or referred nervous symptoms of disease. There yet remains for consideration the query whether, in the treatment of such cases, the pelvic lesion should always be eliminated as a factor before the systematic treatment of the nervous disease is undertaken.

It would at a first glance seem that the affirmative answers to the other phases of the problem carried with them the affirmative answer to this one, were it not so well known that the clinical histories of multitudes of just such cases not only fail to support such an answer, but, on the other hand, point to the very opposite one.

In the whole domain of medicine no better opportunity is given the physician and surgeon for the exercise of careful judgment and strict integrity of purpose than is presented in the settlement of this question as it comes up for consideration with each individual case. No possible ground exists for the view that the pelvic operation should always be done as a preliminary to other treatment, for such generalization is particularly unwarrantable here, each case being a law unto itself and demanding a most careful investigation of all its phases. Some cases will demand immediate operation, some a more or less prolonged course of preparatory treatment before operation, some postponement of all operative procedures till practical cure of the nervous symptoms is secured, and others must not be operated upon at all, even for evident pelvic lesions, unless the operation is imperatively demanded as a means of preventing impending death from some acute, virulent or malignant disease.

Broadly speaking, an experience of 20 years leads me to think that the cases in which we may most certainly hope for and expect great improvement in nervous symptoms associated with female genital lesions are those in which there is neurasthenia, together with lacerations of the soft parts, accompanied by infected, retrodisplaced or prolapsed pelvic organs. Wise and well-executed surgery, followed by judicious after-treatment, almost invariably gives the most satisfactory results in such instances, and this experience is confirmatory of another, *i.e.*, that women who have borne children are much more certain of a surgical cure of reflex nervous symptoms than those who have not, be they married or single.

The cases most unfavorable for the surgical cure of reflex nervous symptoms, even when actual pelvic lesions exist and are believed to have been a factor in their production, are those occurring in hysteric unmarried women who have no reserve of nervous energy, who seem to be greatly improved immediately after operations, which they bear particularly well and even seem to enjoy, but who soon relapse and are again as ill or worse than ever before, regardless of what may have been done for them, or of how well it may have been done. Sexual perverts, masturbators and conception-preventers are the very worst of this class, and when the pain-habit or the hysteric state has in such individuals become thoroughly established it may be looked upon as well nigh incurable, at least by surgical means alone. Every neurologist and every gynecologist of experience can recall many such cases. They have had repeated pelvic, plastic, and kidney-fixing operations, operations for ventral hernias, dead ligatures, peritoneal adhesions, etc., etc., until more or less complete evisceration precludes the possibility of further surgery. Then they are left to drag out a wretched existence, having gone steadily from bad to worse with each new procedure.

All gynecologists, neurologists, and physicians, all medical students and a few patients should read at least once a year that classic introduction to "The Clinical Gynecology" of Keating and Coe, by Dr. William Goodell. While some of it may fairly be considered too broad and pessimistic for the present day, it is on the whole so wholesome and sound in tone and application that it should serve to prevent much of the unnecessary and injurious pelvic surgery still rampant in all "civilized" countries.

In regard to the class of cases to which allusion has just been made the closing paragraph of this remarkable paper should be ever before us, and I cannot refrain from quoting it here. Goodell says: "In conclusion, the riper my experience the more firmly am I convinced that in the treatment of women's diseases the possibility of a nerve-origin or of a nerve-complication should be the *fore*thought and not the *hind*thought of the physician. I, therefore, have arrived at a very short gynecologic creed; I believe that the physician who recognizes the complexity of woman's nervous organization and appreciates its tyranny, will touch her well-being at more points, and with a keener perception of its wants, than the one who holds the opinion that woman is woman because she has a womb."

Some who have had the patience to follow me through this paper and to consider the questions as presented will doubtless feel that there is a certain lack of continuity in the reasoning and that the conclusions drawn from it are incompatible and inconsistent; there are in my own mind, however, certain perfectly clear, and, to me, logical, deductions to be drawn from what has preceded, and if these are not clear to others it must be attributed to my inability to express them coherently.

I present the following conclusions:

1. Nervous symptoms or actual disease of the nervous system may be produced in a reflex way from the pelvic or genital diseases of man or woman.

2. Reflected or referred pains, usually neuralgic in type, may also be so produced.

3. The observations of Head and Mackenzie demonstrate the above, but teach that referred pains are not always produced by a disease of the organ which they overlie, but that they may be due to disease of some

organ having its sympathetic nerve-supply from the same segment of the spinal cord, or even due to a disease of some allied organ elsewhere in the body. Thus the so-called ovarian pain may be produced from a disease of the opposite ovary, it may be due to disease of other pelvic viscera (rectum, uterus, bladder, etc.), it may be caused by other pelvic conditions induced through sexual perversion, though they be accompanied by no gross lesions or macroscopic manifestations, and as a matter of fact I believe the last mentioned cause is a common one in the etiology of this ovarian pain, inframammary tenderness, and the neurasthenia and hysteria with which they are so often accompanied. Pelvic and genital hyperemia and hyperesthesia are usually found in conjunction with the other phases of this malady, and the flushing face and other evidences of vasomotor disturbance at least suggest a genital origin.

4. Pelvic and genital diseases—organic and functional—must, whenever possible, be cured as a part of a scheme of rational treatment of those patients presenting the nervous manifestations of such lesions.

5. Timely and judicious surgical work will, in selected cases, do much to cure the nervous symptoms arising from actual pelvic disease or dyscrasia. *Timely*, *judicious*, and *selected* are the words to which I ask attention. A late operation may fail, as in epilepsy; injudicious surgical work always does more harm than good; and it is only those cases that have been chosen with great care, that should be operated at all.

6. Chronic hysteric patients with an old and established pain-habit are the least likely to be permanently benefited by surgical operations, and operations must be done upon such individuals only after careful consideration and consultation with the neurologist, and only for evident and palpable local disease, the cure or relief of which is believed to be positively essential to the health and wellbeing of the patient.

7. The surgical treatment of pelvic inflammation or infection, subinvolution and uterine displacements or prolapses of the pelvic viscera and the old lacerations accompanying them in child-bearing women, is most promising and satisfactory when a cure of their nervous sequels is sought. Such cases yield the best results attainable, both local and general, immediate and remote.

8. The elimination of the peripheral cause is but one step in the treatment; the effect remains to be treated and must be intelligently and persistently treated until cured, if indeed cure is yet possible. Surgery may remove the cause, but surgery alone is in many instances inadequate for the cure of the effect.

9. The local and original cause can only be cured by treatment prescribed for and directed to the local disease. This treatment must often be surgical.

10. Rest, massage, electricity, hypernutrition, moral suasion and suggestion are inadequate for the cure of the local cause, as is surgery for the cure of the effect. It is quite as reasonable to expect them to cure abscess or tumor of the brain and their symptoms as to expect them to cure the lesions and symptoms of like pathologic processes in the pelvis.

ESSENTIALS IN THE TREATMENT OF TUBERCULOSIS.[1]

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The first and greatest essential in the treatment of tuberculosis is the breathing of pure air. The patient should lead an outdoor life. By this I do not mean that he should follow an outdoor occupation for 8 or 10 hours daily and shut himself up in the house for the remainder of each 24 hours. Nor do I mean that he should enjoy a life of leisure in the open air during the hours of sunshine and spend the remainder of his existence in badly-ventilated rooms. He should, on the contrary, breathe the outdoor air 24 hours out of every 24. He should live, so nearly as possible, in a state of nature, using his house as an aborigine would the shelter of a tree, or hill, or cave, simply to shield himself from the elements when they are unruly, or when he needs rest. He should remember that windows are intended to *admit* light and air; that if they are closed they cannot admit air, and if they are draped they cannot admit light. Light—sunlight—is essential to the health of every individual during his waking-hours. Air is essential to his well-being at all times, whether he be awake or asleep. If he is deprived of either, he is injured just in proportion to the amount he has been robbed of. Civilization, luxury, and æstheticism deprive us of the real comforts of a natural life. The so-called comforts which accompany wealth and civilization bring in their train disease and death. Carpeted rooms, collecting all sorts of filth; draped windows, excluding light and air; night-work and night-pleasures; overfeeding, improper diet, improper cooking, and lack of exercise are responsible, not only for consumption, but for almost every disease to which man is subject. The danger to life and health from this source far outweighs the dangers to the savage from the chase and tribal wars.

As a rule the man who most nearly leads a natural life is the man who possesses the best health and leads the longest life, and consequently has the greatest amount of happiness. The age in which we live, the circumstances of our birth, our education and environment, all preclude the leading of a natural life; but, taking all these factors into consideration, we can still live sufficiently in accord with the indications of a natural life to enjoy good health, and in most instances to regain lost health.

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[1] Read before the New York Medico-Surgical Society, December 5, 1898.

The first law of nature to be observed and rigidly lived up to in the treatment of tuberculosis, is to breathe a pure air at all times—day and night. As pure air cannot be obtained in closed rooms, it necessarily follows that the patient must practically live out of doors. His windows must never be closed, summer or winter, day or night. If they are he will breathe a vitiated air—an air deprived of its oxygen (which he has consumed in a few inspirations) and loaded with his own exhalations. If he closes his windows at night, no matter how well he may be fed and groomed, no matter what medicine he may take, no matter what serum or antitoxin may be administered, no matter how carefully he may be nursed, and no matter what distinguished medical attendants he may have, his malady will be progressive and he will surely succumb to it at last. On the other hand, if he takes no medicine, has no medical attendant, lives in the open air, takes nutritious food, and keeps his windows open at night, he will probably recover, provided the disease was not too far advanced before he began his reformed method of living.

The patient's room should face the south, so as to receive all the sun possible. Sunlight is the greatest germicide and should be allowed to pour into the room unobstructed all day. No curtains, shutters or drapery of any kind should be used to obstruct or modify in any way the sun's rays. Sunlight is better than iron and manganese to increase the number of red blood-corpuscles. If it is too hot in summer the patient can etire to the shady part of the room. In winter his sun-bath will always be grateful. His room, in other words, hould be a solarium. The windows of a room occupied by a consumptive should not only not be draped r obstructed in any way, but they should be wide open t all times. The only excuse for closing them temporarily would be to prevent the beating-in of rain during storm. If the storm was protracted the patient hould, for the time being, seek any room which would llow of open windows.

Light of any kind at night has a tendency to disturb he patient's nervous system. It is contrary to nature nd should be prohibited. The patient's bedroom hould nct be heated. His body-heat should be conserved in winter by proper night-clothing and bedclothing. In the selection of this quality is to be hought of first. Wool—pure wool, unmixed with any ther fabric, is the only thing to be considered. Cotton, nen, or silk are too good conductors of heat and too oor absorbents to be used. The patient, therefore, hould wear woolen night-clothing, he should sleep etween woolen sheets, and he should have all the bedcovering he requires to make him comfortable. This overing should be made of unmixed wool. We then et the warmth without the weight of bedclothing.

It is best that the bedroom should have no carpet, but a floor either of hard wood or covered with oilcloth or linoleum, so that it may be readily wiped over with a damp cloth. There should be painted walls that can be wiped down in the same way, and no drapery to collect and disseminate dust. At the same time the room should not look like a prison. A couple of small rugs, that can be removed daily and shaken, will brighten it up; and the furniture, no matter how inexpensive it may be, can be artistic and kept in perfect order. A couch and an easy chair, preferably made of rattan, or bent wood and cane, will add much to the patient's comfort.

The question will naturally be asked: Is it not essential that the patient be sent away from home—to Colorado, or Southern California, or the Adirondacks, or Sullivan County, or some elevated region? No; it is not essential. In some cases it may be desirable to send the patient into the country to live, and these patients will always do better and improve faster in the country, other things being equal, than they will in the city. But other things are not generally equal. The patient's home, with its material and mental comforts, is an important factor, and of very great value in restoring him to health. The regulation of every moment of a patient's life by his physician is of the utmost value, and as a rule the country doctor is not equipped with the necessary knowledge to give a case of this kind the proper care and consideration. Nor has he the influence with the patient possessed by his own physician or a specialist in tuberculosis.

When it is considered desirable, however, for the patient to remove, either temporarily or permanently, to the country, we are called upon to decide as to the best place for him to locate, or to pass judgment upon a locality which he has selected. He is seeking the best quality of air—where can it be found? What should guide us in deciding for or against any given locality? An elevated region, *per se*, has, in my opinion, no influence whatever over the disease. Patients do as well at the sea-level as in high altitudes. The points of importance relate particularly to the nature of the soil and the natural drainage of the locality. The natural watersheds should be such that the place is well drained, and the soil should not hold moisture. The house should be isolated and should not be shaded by either hills or forests. It should have a concreted, well-ventilated cellar, and the disposal of sewage and its relation to the drinking-water should be investigated. A malarious region is contraindicated. If these conditions are favorable, I care nothing about the elevation or prevailing winds. All I ask is sunlight and air and a perfect soil. I would avoid a region where fog was prevalent. So much for climate, in which, in its accepted meaning, I must confess I do not believe.

If the patient determines upon a permanent change of residence he should select a place possessing the advantages outlined, and at the same time one where there is a medical practitioner of sound common sense, and sufficiently up to date in the study and treatment of tuberculosis. If, however, his desire is only for a temporary change I would strongly advise him, if it be possible, to enter a sanatorium. It is absolutely necessary, if he is to improve, that every act of his life be regulated, and this can most safely and most thoroughly be done in a well-regulated sanatorium. When he leaves the sanatorium he should be thoroughly imbued with a knowledge of the nature of his disease, and the methods to be followed to prevent its recurrence or its development in other members of his family.

I would lay particular stress upon the objectionable features of all open resorts for consumptives. The boarding-houses and hotels at these resorts teem with invalids; as a rule there are no sanitary rules or regulations, either of a public or private character; and dietetic and hygienic regulations cannot be carried out. Last, but not least, it is a very difficult matter to find at these open resorts a physician qualified to give the patient proper attention. At one of the principal open resorts in this State I have seen consumptives spitting upon the lawn of a hotel accommodating 200 guests. At this same hotel a tuberculous patient was taking 13 different kinds of medicine; another had not been examined by his physician for over a year; and still another, with tuberculous laryngitis, had been under treatment for 3 months, had never been examined, and was being treated by spraying the throat with a hand-atomizer. These 4 patients had 4 different medical attendants, all of whom, simply because of the facts I relate, I should consider incompetent practitioners.

Whether the patient draws his supply of pure air from mountain-top or sea-level, in the city or in the country, he must be taught how to breathe. In febrile cases, in which active changes are going on in the lungs, complete rest is absolutely necessary; but when the febrile movement is slight and of short duration, or altogether absent, the patient should, several times daily, have regular chest-exercises, directed by his physician, the variety and duration of the exercises varying with the requirements of the case. These, as well as general exercises—walking, cycling, etc.—will all compel the patient to breathe deeply. In the *Sanitarian* for March, 1898, I have outlined the exercises and hygienic measures considered advisable for developing the chest and promoting tissue-changes, and shall therefore not dwell on them here.

One more word in this connection: We should not forget that the nose has important functions in connection with respiration. Nasal obstruction, if it exists, must, therefore, be corrected, and the patient's nostrils restored to a condition to permit of free nasal respiration.

Of equal importance with a plentiful supply of fresh air in the prevention and treatment of tuberculosis is the matter of diet. It is absolutely necessary that the digestive apparatus should be in good condition, and that sufficient food be taken, *digested*, and *assimilated*, to not only sustain life but to overcome emaciation. We have to build up as well as support the tissues. Take care of the patient's digestion and nutrition and let the cough take care of itself. If gastric or intestinal indigestion exists it must be remedied at the outset if we are to hope for a favorable outcome for the patient. The bowels should be regulated, and a natural evacuation should be had daily. Tissue-changes should be encouraged by the cold or tepid rain-bath or needle-bath every morning, to be followed by friction of the surface; and, when the physical condition of the patient permits, by properly directed physical exercise. If he be too weak, the nurse should sponge the surface with cold or tepid water or alcohol, and promote reaction by brisk rubbing with the hand. Daily massage may also be used with great benefit.

The patient should take, in the main, foods that are highly nutritious, and, at the same time, easy of digestion. The most perfect of these is milk. I believe so firmly in milk as a food for the tuberculous, that I never allow a patient to object to taking it in some form. It may be given hot or cold; raw, boiled, sterilized or peptonized; mixed with lime-water or a carbonated water in any proportion. The patient may take skim-milk or buttermilk; or, if he can afford it, kumyss, kefir, or matzoon. But milk in some form he *must* take, and take in sufficient quantity. The minimum quantity for 24 hours should be 2 quarts, but I endeavor to get patients to increase the amount to 3 quarts. The objection is often made that milk disturbs digestion. It may do so in some few instances, but I have yet to see a case where intelligent modification of milk by the physician failed to make it well borne by the patient. Next in importance to milk should be placed eggs—3 to 6 every 24 hours, preferably raw or slightly boiled, but varied, from time to time, to suit the patient's taste. Suggestions should be made by the physician in reference to the different methods of preparing eggs—scrambled, shirred, poached, fried, raw (beaten in milk with or without a teaspoonful of sherry added), baked or boiled custards, omelette plain, or with jelly, cheese, tomato, parsley, or some other relish. The yolks may be separated and the whites only eaten. Anything for variety, but stick to the eggs. Next come flesh-foods, and of these select the most nutritious—beef and mutton. One pound of beef or mutton should be taken every 24 hours, either boiled, baked or roasted. Fats have always played an important part in the treatment of consumption, and they are of very decided value. In the above dietary, milk contains 4%; eggs 10%, and beef or mutton 15% of fat or hydrocarbons, the remainder being nitrogenous principles, water and salts. Instead of increasing the hydrocarbons by the administration of codliver-oil (which is distasteful to most patients), it is better to give butter, a quarter of a pound daily. The carbohydrates (starches and sugars) should be given in very limited quantities. The stomach is doing its full share of work in digesting the nitrogenous food, and should not be impeded by the presence of the carbohydrates, over which it exerts no influence. A limited quantity of carbohydrates is however, indicated. A slice of toast or the crust of a roll at each meal, and a tablespoonful of potato or other starchy vegetable, will be sufficient to meet the requirements.

From what has just been said it will be seen that the minimum quantity of food for 24 hours would be 2 quarts of milk, 3 eggs, 1 pound of beef or mutton, 6 ounces of toast or crust, 3 ounces of starchy vegetable, and 4 ounces of butter. If the patient can digest and assimilate more he should do so, but this quantity he *must* take if progress is to be made. The patient should be weighed by the physician before beginning this diet, and under the same conditions regarding clothing, his weight should be recorded weekly thereafter. A steady gain will be observed until the patient approaches his old standard of health. If there is no gain it is either because the disease has progressed too far or the patient is not taking the amount of food prescribed for him. This occurs very seldom, however, as the gain of the first week will so encourage the patient that he will strive each week to add to his weight. In this way the most valuable aid may be had from the patient himself. Indeed, without the patient's intelligent cooperation it will be next to impossible to make progress in a case of tuberculosis.

Another essential in the treatment of tuberculosis is he use of the thermometer. This tells more regarding he condition of the patient and the activity of the disase than any other means. But to be of value the emperature-range must be properly observed through most of the 24 hours. If the patient is fortunate enough o have a trained nurse in attendance there will be no ifficulty experienced in getting a temperature-record very 2 hours from early morning until late at night. It s worse than a farce for the physician to place any value hatever upon the temperature taken only when he ees the patient. It may be normal then, but this does ot say that it has not been so high as 105° and as low s 93° within 24 hours.

What, then, shall be done when there is no nurse in tendance? Teach *the patient* to use the thermometer. atients with ordinary intelligence can be taught this half an hour, and I know of no way in which a ysician about to undertake the care of a consumptive n better spend a half hour. My own plan is to have e patient purchase a good lens-front, self-registering ermometer, teach him how to use it, and then have m take and record his temperature every 2 hours om 8 A.M. until 10 P.M. for 3 consecutive days before acing him under treatment.

Now we have our record before us, of what use is it? Let us suppose the case to be one presenting all the objective and subjective signs of consolidation, or consolidation with beginning softening, in which bacilli have been found in the sputa. The thermometer shows a slightly subnormal ($\frac{1}{2}$° to 1°) early-morning temperature, and a normal range throughout the remainder of the 24 hours; or there may be a rise of a degree for an hour or so in the afternoon or evening. The case is practically afebrile. We know it to be one of simple infection. Take this patient and place him under strict sanitary regulations, deep drafts of pure air day and night, forced nutritious feeding, out-door exercise, bathing, etc., but do not give him a particle of medicine of any kind, and he will make a record for any climate or sanatorium he may happen to be in. If you have a pet medicine or serum, and do not give him too much of it, he will make a reputation for it; and in many cases where large and harmful doses of favorite remedies are administered this afebrile case will, under the strict hygienic rules suggested, add to the reputation of the remedy, for the patient will not only be able to overcome the tuberculosis, but also the injurious effects of the medicine.

Take, on the other hand, a case presenting almost identical symptoms, but in which the temperature is from 2° to 5° below normal in the early morning, and in which, during the afternoon or evening, it rises to between 101° and 105°. As a rule these cases do badly, in spite of all that can be done for them. But they will do much better when treatment is directed with a knowledge of the daily range of temperature. A glass or two of hot milk when the temperature is subnormal, and abstinence from food when the temperature is high, will add greatly to the comfort of the patient. In these febrile cases, exercise is out of the question. The rest-cure is indicated, but always in connection with hygienic measures regarding the constant breathing of fresh air, and the care of the skin.

In many of these febrile cases streptococci may be found in the sputa. In these cases the temperature will often suddenly drop to normal after a few hypodermic injections of Marmorek's serum. I have seen it drop to normal and remain so after an injection of 10 c.c. Why it should do so in one case and not in another I cannot tell, but there are probably other germs than those we are able to recognize, that are responsible for the rise of temperature. This fever is also often due to the absorption of the products of decomposition in the bronchial tubes, and may be controlled, either in whole or in part, by methods that will prevent this decomposition. First among these is the thorough emptying of the bronchial tubes. These are the cases in which cough should be encouraged, not by expectorants, but by deep breathing and chest-exercises taken at regular intervals, and particularly after rising in the morning and before retiring. Next in importance in these cases is the breathing of fresh air day and night, summer and winter. I have frequently seen cases where there was a daily rise in temperature of from 4° to 6°, and where the patient's nights were made miserable by loss of sleep from incessant coughing, treated by simply opening the windows in the sleepin-gapartment, with the result, in from 1 to 4 weeks, of normal temperature and quiet, undisturbed sleep throughout the night.

Pure guaiacol, vaporized by compressed air, and inhaled deeply and continuously for from 5 to 15 minutes once or twice daily, is also of very decided benefit in lessening the bronchial secretion, as are also intratracheal injections of menthol and guaiacol in a neutral oil.

·The temperature is also an indication for the employment or non-employment of the various serums. With the exception of the serum of Marmorek, none should ever be employed until the temperature-range is normal or nearly so. How could we otherwise determine whether the rise was due to the serum or not? Serum of any kind should never be administered in sufficiently large doses to produce a rise of temperature, and during its administration a record of the body-heat should be made every 2 hours to determine whether there be reaction.

In closing I would like to call attention to another point of great importance in the treatment of tuberculosis,—the influence of the physician over the patient. Their relations should be such that the physician has the most absolute control over every act of the patient's life, and no deviation from rules laid down for the patient's guidance should be tolerated for a moment. The physician must control him as perfectly as if he were an inmate of an institution. Occasionally there may be some little difficulty in exercising such strict control, but as soon as the patient begins to gain in weight and improve generally there will be no further trouble. It is a good plan to have the patient keep a diary, in which to record in detail every act,—his time of rising, retiring, bathing, exercising, temperature, weight, cough, etc., also the exact quantity and variety of food taken at each meal. This record should be carefully inspected by the physician at each visit, and suggestions made when necessary.

I have here called attention to what I consider the *essentials* of treatment. There are, however, many other things of value. Serotherapy, creasote, guaiacol, ichthyol, benzosol, strychnia, tonics, the pneumatic cabinet, inhalations, etc., all have their indications, but they are not *essentials.*

Memorial to the late Professor Kanthack.—Friends of the late Professor Kanthack are taking steps to found a memorial in his honor. At present it is intended to collect a fund, the income of which shall be given to Mrs. Kanthack during her lifetime, and after her death the principal applied to establish some permanent memorial to Professor Kanthack.

A CONTRIBUTION TO THE SUBJECT OF WEIL'S DISEASE.

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In 1886, from the observation of 4 cases, Weil described the disease which has since been known by his name. The cases were characterized by a sudden onset, with the symptoms common to the invasion of most febrile conditions, and by the rapid development of enlargement and tenderness of the liver, enlargement of the spleen, jaundice, and renal symptoms. The symptoms lasted from 5 to 8 days, after which defervescence occurred by lysis. In 3 of the cases, after a period varying from 1 to 7 days, the fever returned. In 2 of these cases, all the other symptoms also recurred and lasted 5 to 6 days. After weighing the various possibilities, and comparing the cases carefully with anomalous types of relapsing fever and bilious typhoid, Weil came to the conclusion that the condition was probably one before unknown in medical literature.

Since Weil's publication was made, numerous cases have been reported in various countries (150 up to 1897), and a lively discussion has arisen: first, as to whether the condition described is novel or not; and second, if it be novel, what symptoms differentiate the disease. Wagner described two of the earliest cases, and showed the inconstancy of some of the symptoms. In his first case there was no albumin in the urine, nor was the liver enlarged. In the second case he was not certain of the enlargement of the liver and spleen. In neither case was there a relapse. He considered it as a new disease. Aufrecht calls the condition "Die acute Parenchymatose." Although this title accurately describes the lesions (as we shall see later), his cases do not seem to be genuine ones. The first publication to throw some light on the subject was that of Fiedler, who claims to have recognized the condition before Weil. His 9 cases all occurred in butchers, in the summer-time. He considers the jaundice the only constant symptom. He notes herpes in 3 cases and erythema in 1.

The first fatal case is that reported by Brodowski and Dunin. The autopsy showed parenchymatous degeneration of the liver, spleen and kidneys, and also a small-celled infiltration along the vessels of the liver.

Nauwerck observed 2 cases, both of which terminated fatally. At the postmortem examinations the livers showed fatty and necrotic degeneration. In the first case there was necrosis of the mucosa and sub-mucosa of the intestinal wall, wherein were seen heaps of bacilli "unlike any described before." These have been claimed to be identical with the bacilli later isolated by Jaeger, but there can be no certainty on this point.

Fraenkel observed a case in a patient suffering from erysipelas of the scalp. While the erysipelas was disappearing, the patient developed the typical picture described by Weil; the relapse was also present. Because of this case, Fraenkel denies the existence of a special condition, and prefers to call the symptom-complex "acute infectious jaundice." While this case may have been one of streptococcic septicemia, it may also have represented a concomitant attack of Weil's disease in the sense in which I shall later use that term. Stirl, Werther, and Pfuhl believe that Weil's disease is an entity, and that it is due to the ingestion of decomposing organic matter. Hueber confirms this view, as all his cases occurred in persons who bathed in, or swallowed, polluted water.

In 1891, in one case that terminated fatally, Jaeger isolated from the organs, and in one case that ended in recovery, from the urine, a variety of proteus, pathogenic for mice and pigeons, causing fatty degeneration of the liver. A year later he found the same bacillus in the urine in a large number of cases, and in the organs of a second fatal case. As it had been claimed that the disease was due to drinking and bathing in contaminated water, he examined the water of the Danube at the place where his patients had bathed, and found the bacillus in it. He heard that in a village on the other side of the river there was an epidemic among fowls, characterized by jaundice, and that some of the dead fowls had been thrown into the river. He examined some of the bodies and again found his bacillus. The chain was completed by finding 4 cases of Weil's disease in the town, the inhabitants deriving their water-supply from the contaminated river.

The bacillus discovered by Jaeger differs especially from the bacillus proteus vulgaris, in the development of a greenish fluorescence in its cultures on agar; and he accordingly named it the bacillus proteus fluorescens. He found the bacilli in the urine of 4 cases, but never in the blood. He succeeded in proving its viruence for mice and pigeons, when inoculated into the peritoneum, under the skin or intravenously. He ound, after the death of the animals, fatty degeneration and infiltration of the liver, the organ often being full f small white spots (which he does not minutely deribe). There was also some round-celled infiltration round the vessels of the liver. The kidneys showed atty degeneration and cloudy swelling of the epitheum and small-celled infiltration. The spleen was nlarged, and there were large and small hemorrhages n the other organs. The mice died in a characteristic ttitude, analogous to that found in mouse septicemia. n three chickens and one goose that died in the village earby, he found jaundice; his conclusions are interesting, but some are unproven. He believes that Weil's disease is a distinct entity; that its cause is proteus; that the bacillus causing it is no particuar proteus. (This statement needs further corroboration. I have only negative evidence on this point. I have seen 6 cases of marked infection from the bacillus proteus vulgaris, in all of which a decided agglutination-reaction was present in the serum of the patients; in none of these was there jaundice.)

A resume of the history of Weil's disease shows how varied have been the views concerning it. At different times it has been considered as being an abortive typhoid, endemic yellow fever, bilious fever of Griesinger, polyarthritis with absorption-icterus, and even relapsing fever. Many of the cases reported, undoubtedly, do not belong in the class described by Weil, though the symptoms were very similar. There can be little doubt, however, as Jaeger has shown, that there exists a class of cases with the symptom-complex described by Weil which are due to the bacillus proteus fluorescens, and that they occur most commonly after the ingestion of infected water, or decomposing meat. If we understand Weil's disease to mean this, there is certainly little objection to the name being retained. I believe however, that it would be better to cull these cases "infectious by the bacillus proteus (fluorescens)." Hardly any reference to the bacillus proteus fluorescens can befound since Jaeger published his discovery. Neelsen described a bacillus which does not correspond to Jaeger's, just as Freund's does not. Pfaundler (who is the most recent investigator to examine a case of Weil's disease bacteriologically) found a bacillus of the proteus class in the urine of his patient and in an abscess of the jaw which occurred later. In his article he does not give exact details concerning the bacillus found, but states that it probably corresponds with Jaeger's. The blood-serum in his case gave an agglutination-reaction (thread-reaction) with the cultures of the bacillus.

The case which I wish to describe is of double interest: first, in that a bacillus was found which corresponds accurately to that described by Jaeger; and second, in that a bacillus was isolated from the pus of an appendicular abscess.

Clinical History—H. L, 21 years, bartender in a boarding-house in a village where the sewerage was very defective. Admitted into the Mount Sinai Hospital July 20, 1898. Three weeks before, he had severe abdominal colic, nausea, no vomiting; the bowels were constipated. He went to bed; an ice-bag was applied. The pain later became localized in the right iliac fossa. After a week, the pain disappeared and he went back to work. July 18, the pain returned and was very intense. Bowels moved daily. He had no chills and no fever. On admission there was found in the right iliac fossa a tender, hard, irregular mass. The temperature was 101. The urine was negative.

On July 22, he was operated on by Dr. Lilienthal, and a large collection of very malodorous pus was found, cultures from which were sent to the laboratory. On July 23, his temperature was 100.4; there was slight jaundice. July 24, temperature 101.2; moderate jaundice; headache. During an examination made on the 25th, it was found that the liver-dulness extended from the third intercostal space to just below the free border. The edge was palpable and tender. Splenic dulness extended from the sixth intercostal space to just below the free border of the ribs; the edge of the spleen could just be felt. The urine showed a trace of albumin and bile. The jaundice was very distinct. The symptoms then all gradually abated, and the patient was free from constitutional symptoms after July 28. The dulness of the liver and spleen had returned to normal limits, and the urine was free from albumin. The appendicitis wound healed kindly.

Bacteriologic Examination.—Inoculations on agar, made at the time of the operation from the pus, revealed pure cultures of a bacillus which corresponds accurately to that described by Jaeger. It shows the greatest variety in form and size, some of the bacilli resembling cocci, while others even form threads. It is actively motile and does not stain with the Gram method. On agar, it gives a diffuse growth, very thin at first, but later quite thick, and there soon develops a delicate, greenish fluorescence. Some of the colonies liquefy gelatin, others do not. Bouillon-cultures show a diffuse cloudiness after one day, with a marked growth at the surface. Indol is rapidly developed, and the reaction becomes markedly alkaline. In deep inoculations into all the solid media, gas is formed. From all the cultures, a peculiar unpleasant odor is emitted. Milk is coagulated in 24 hours. For a fuller account (illustrated) of the characteristics of the bacilli, I refer to Jaeger's second article.

Cultures from the urine showed no proteus colonies. On July 25, 10 cu. cm. of blood were taken from one of the veins of the arm and inoculations made on various culture-media, all of which remained sterile. The blood showed no Widal reaction. It gave a partial agglutination-reaction with cultures of the proteus when examined, after 24 hours, after the method described by Pfaundler. The absence of a complete reaction is probably to be accounted for by the fact that the blood was tested 3 days after the beginning of the marked symptoms, as it has been found that the proteus-reaction is frequently of very short duration.

To test the virulence of the bacillus, inoculations were made into three rabbits.

Rabbit 1.—One cu. cm. of a 24-hour bouillon-culture was injected into a vein of the ear. Death after 24 hours. Lungs congested at bases. Liver large; pin-point hemorrhages on the surface; small whitish nodules, size of pinhead, throughout liver. Spleen enlarged and congested. Cultures from the spleen, liver and heart-blood showed the bacillus proteus fluorescens in pure culture.

Rabbit 2.—One cu. cm. of same culture inoculated intraperitoneally. Death after 19 hours. At point of injection, large area of congestion and edema, with numerous gas-bubbles. Large amount of fluid in right pleural cavity; small amount in left. Large amount of turbid fluid in abdomen. Hemorrhages in the walls of the intestines. Liver large; contains white nodules similar to those mentioned above, but larger in size. Cultures from all the organs and from the heart-blood show the bacillus proteus fluorescens in pure culture.

Rabbit 3.—One cu. cm. injected subcutaneously on back. Death after 18 hours. At the point of injection is a large edematous area, with numerous gas-bubbles. A culture shows the bacillus pure. Lungs show congestion at bases. Liver shows the same white nodules. Cultures from organs same as above.

Microscopic Examination of the Livers.—The sections show cloudy swelling of the epithelium and some fatty degeneration. Corresponding to the small white nodules, are found areas of more or less marked degeneration, in some places amounting to necrosis. Some of the areas show beginning infiltration with leukocytes. In some places there is a small, round-celled infiltration around the vessels. The bacilli are seen in small numbers, especially in the necrotic areas.

Two rabbits, fed with cultures of the bacillus for several days, did not seem to be affected in any way.

The change in the livers described is no doubt the same as that to which Jaeger refers. In this connection it is interesting to note that Norway describes, in an account of a postmortem examination of a case of Weil's disease, the occurrence of small yellowish spots, which were almost fluid, in the liver; they contained no pus. It seems evident that the bacillus proteus fluorescens has a special tendency to cause changes in the liver, degenerative and necrotic. What role the toxin and what role the bacillus plays has not been determined for this particular variety of proteus. As regards the bacillus proteus vulgaris, Meyerhof has recently shown that it is a real infectious agent, the effects of the injection of a given amount of a bouillon-culture being 20 times as marked as the injection of an equal amount of filtrate.

I am indebted to Dr. Lilienthal for allowing me to use the clinical data for publication.

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FOURTH COLLECTIVE REPORT ON THE LOCAL APPLICATION OF COLD IN ACUTE PNEUMONIA.

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As an introduction I wish to state that since my last collective report on the influence of cold on acute pneumonia, published in December, 1896, I have made a further collection of similar cases from a number of my professional friends;[1] and of these, with the cases collected from my own practice (not including those seen in consultation), making a total of 80 cases,[2] a condensed tabular history is herewith given.

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[1] To whom I desire to express my warmest thanks.

[2] Dr. O. R. Couch, Boston, Mass., treated 21 cases in his dispensary service with the ice-bags, with one death. Details of these cases are promised, but have not yet been received.

No.	Sex.	Age.	Highest temperature.	Highest No. of respirations.	No. of days from rigor to crisis, or to subsidence of fever.	Delirium.	Single or double.	Recovery or death.	Personal history of pneumonia.	Personal history of rheumatism.	Remarks.	Name and Address of Reporter.
1	F.	10	105°	36	3	Yes	S.	R.	No	Yes	After 2 days of ice-application fever was subdued.	Geo. F. Stone, New Freedom, Pa.
2	F.	12	104°	42	5	Yes	S.	R.	Yes	No	"These children cried when the ice was removed before resolution occurred. Many claim that ice cannot be used in private practice. This is nonsense. Any nurse capable of giving medicine can also apply the ice-bag."	" " "
3	M.	46	105.5°	50	4	Yes	D.	R.	Yes	Yes	Ice only necessary for 3 days. Whole chest covered with it.	" " "
4	M.	24	104°	40	4	No	S.	R.	No	No	"Under the ice the inflammation melted like snow under a July sun."	" " "
5	F.	40	103.4°	40	7	No	S.	R.	. . .	. . .	Ice was not applied for 6 days after the chill. 2 days' use of ice brought the temperature to normal point.	W. J. Flitcroft, Paterson, N. J.
6	F.	12	104°	. .	3	Yes	S.	R.	. . .	. . .	2 days of ice reduced the fever entirely. Its influence was marked.	B. G. Godfrey, South Bend, Wash.
7	F.	34	104.6°	. .	8	Yes	S.	R.	. . .	. . .	Ice not applied until the sixth day, when the temperature was 104°. In a day afterward it came down to 100°, and the following day to 99.4°.	" " "
8	M.	11	103°	36	6	No	S.	R.	No	No	Ice relieved pain and dyspnea.	T. J. Bell, Tyler, Tex.
9	M.	5	104°	40	6	Yes	S.	R.	No	No	. . . .	J. C. Knipe, Logan, Pa.
10	F.	30	104°	38	6	Yes	S.	R.	No	Yes	Ice relieved pain and dyspnea.	J. R. Care, Worcester, Pa.
11	M.	40	104°	36	7	Yes	S.	R.	No	No	Ice not applied until third day, after which delirium subsided.	" " "
12	M.	7	104°	60	6	No	S.	R.	No	No	Ice not applied until third day, when respirations were 60.	" " "
13	F.	42	103°	32	6	Yes	S.	R.	No	No	On the fourth day a hot poultice was substituted for the ice and the patient became worse in every way. Ice was replaced.	" " "
14	M.	5	104°	62	10	Yes	S.	R.	. . .	. . .	Ice was applied very irregularly in this case.	" " "
15	M.	19	102.4°	36	. .	Yes	D.	D.	No	No	*Postmortem:* Effusion in both pleural and pericardial cavities. Left pleura contained about a pint, and the pericardium 12 oz. of fluid. Pleural adhesions where ice had not been applied. The whole of right, and lower lobe of left lung hepatized. "This is the first case I lost since I abandoned the poultice for the ice 6 years ago."	" " "
16	F.	56	102°	32	7	Yes	S.	R.	No	No	Patient had a very delicate constitution.	" " "
17	F.	38	103°	40	8	Yes	D.	R.	No	Yes	Ice had a marked influence on the pain in chest, dyspnea and restlessness.	" " "
18	M.	Abt. 45	103.2°	36	2	No	S.	R.	Yes	No	Reporter believes this an aborted pneumonia. He further says: "Many claim that the ice treatment is only suitable for hospital and not for country practice. I find it to be the simplest and the only one suitable where cases can only be seen once daily. I always give directions to apply the ice until it causes marked chilliness."	J. E. Taylor, Rockland, Pa.
19	F.	17	. . . .	. .	. .	Yes	S.	R.	.	. . .	Ice relieved dyspnea and distress in chest.	P. F. Metz, New Haven, Conn.
20	M.	31	. . . .	. .	. .	Yes	S.	R.	Yes	. . .	Ice over whole chest.	" " "
21	F.	28	. . . .	. .	. .	Yes	S.	R.	No	. .	. . . .	" " "
22	M.	40	. . . .	. .	. .	Yes	D.	R.	Yes	Yes	Covered chest with ice.	" " "
23	F.	27	. . . .	. .	. .	Yes	S.	R.	No	Yes	Ice relieved pain in chest and dyspnea.	" " "
24	M.	41	. . . .	. .	. .	Yes	S.	R.	Two previ's attacks	Yes	Ice all over the chest.	" " "
25	F.	12	104°	47	5	Yes	S.	R.	No	No	"Parents intelligent people, very fearful of ice at first, within 24 hours became enthusiastic as they saw the increased comfort of the patient."	Geo. F. Church, Saratoga Springs, N. Y.
26	M.	31	103.2°	40	4	No	S.	R.	No	Yes	Case of rheumatic pneumonia. Besides the ice to chest patient received salicylates and calomel.	Thomas J. Mays, Phila.
27	M.	21	103.5°	64	10	Yes	D.	R.	No	No	Pleuro-pneumonia; slow recovery on account of pleural complication.	" "
28	M.	42	101.4°	30	6	Yes	S.	R.	No	No	Ice was applied to head also.	" "
29	F.	38	104.5°	48	7	Yes	D.	R.	No	No	Case of grip-pneumonia. Patient also received salicylates.	" "
0	M.	24	104°	36	7	Yes	S.	R.	No	No	Made a slow recovery.	" "
1	F.	48	103°	50	6	No	S.	R.	No	No	Promptly responded to the ice-application.	" "
2	M.	50	103°	42	7	Yes	S.	R.	No	No	Ice acted promptly.	" "
3	M.	35	102.2°	56	. .	Yes	S.	D.	. . .	. . .	Septic pneumonia from onset; 5 days after chill, empyema developed; 1 pint of pus removed; pleurisy most prominent complication.	D. J. M. Miller, Phila.
4	M.	28	105.4°	30	. .	No	S.	R.	. . .	. . .	Marked pleurisy. Ice certainly relieved this, but had no influence on temperature.	" "
5	M.	38	105°	40	. .	Yes	S.	D.	. . .	. . .	Death occurred after crisis had taken place.	" "
6	M.	38	105 5°	40	. .	Yes	S.	D.	. . .	. . .	Violent delirium, great dyspnea, marked cyanosis, albumin in urine. Baths, 60° F., were employed to relieve nervous symptoms. Death 2 days after admission, and fifth of disease.	" "
7	M.	16	103°	35	6	No	S.	R.	. . .	. . .	Ice had marked influence on dyspnea, pain in chest and restlessness.	" "
8	M.	31	103°	40	6	No	D.	R.	. . .	. . .	Good deal of pleurisy. Ice seemed to give great relief, but cannot say it influenced temperature materially.	" "
	M.	28	103.5°	35	. .	Yes	S.	R.	. . .	. . .	Hypodermic exploration showed pus in pleural cavity, which disappeared without operation.	" "
	M.	59	103°	50	. .	Yes	D.	D.	. . .	. . .	Patient was an alcoholic, with a weak heart. Small amount of albuminuria.	" "
	M.	23	104°	45	6	No	S.	R.	. . .	. . .	Patient was a moderate drinker.	" "
	M.	50	104°	35	8	Yes	S.	R.	. . .	. . .	Patient found ice agreeable.	" "
	.	22 mos.	105.6°	72	7	. . .	S.	R.	No	No	Uninterrupted recovery.	L. Maywit, Chicago, Ill.
	F.	15	105°	50	6	Yes	S.	R.	No	Yes	"Effect of ice truly marvelous."	A. Stuart, Elmira, N. Y.
	M.	30	105°	42	7	Yes	S.	R.	No	No	"Effects *very* good. Believes the ice to be the best treatment yet found for pneumonia."	M. H. Cardwell, Portland, Ore.
	M.	9	106°	60	6	Yes	S.	R.	No	No	. . . .	" " "
	F.	2	105°	. .	8	Yes	S.	R.	No	No	Good recovery.	" " "
	M.	5	105°	. .	5	No	S.	R.	No	No	This was the reporter's own child.	C. B. Bastian, Saliadasburg, Pa.
	M.	30	106°	60	7	Yes	S.	R.	No	No	After sponging patient for 3 days with cold water temperature was 106°, pulse 150; snow was then applied and continued, and in 40 minutes temperature was 103° and pulse 115. Uninterrupted recovery.	J. B. Boucher, Hartford, Conn.
	F.	7	104°	40	9	Yes	S.	R.	No	Yes	Lost all power of coordination, speechless, and impaired deglutitions. Slow recovery.	F. Alleman, Lancaster, Pa.
	M.	31	104°	50	. .	Yes	D.	D.	. . .	Yes	Recent syphilitic infection. Autopsy showed consolidation of entire right and lower lobe of left lung.	" " "
	M.	26	104°	30	9	Yes	S.	R.	No	No	"Improvement very decided."	" " ",
	M.	23	103.4°	36	6	. . .	S.	R.	No	No	A good recovery.	S. H. Friend, Milwaukee, Wis.
	M.	27	103°	60	14	No	D.	R.	No	No	Snow between towels applied. Patient requested frequent changes of snow-pack.	" " "
	M.	9 mos.	105°	98	. .	. . .	D.	R.	. . .	. . .	Cheyne-Stokes respiration when cold was applied. Amelioration in 2 hours. Complete recovery.	" " "
	M.	23	101°	36	. .	No	S.	R.	No	No	Cold-water applications.	" " "
	M.	32	105.2°	. .	. .	Yes	D.	R.	No	No	Cold compresses applied.	Palmer C. Cole, New York.

No.	Sex.	Age.	Highest temperature.	Highest No. of respirations.	No of days from rigor to crisis, or to subsidence of fever.	Delirium.	Single or double.	Recovery or death.	Personal history of pneumonia.	Personal history of rheumatism.	Remarks.	Name and Address of Reporter.
58	M.	3	103°	64	2	No	S.	R.	No	No	First 24 hours restless. Ice applied then and sleep followed in 30 minutes. 36 hours after ice was applied, temperature and respiration became normal.	O. C. McDannell, Lowell, Mich.
59	F.	4	103.5°	50	7	No	S.	R.	No	No	1 ice-bag applied uninterruptedly for 6 days.	" " "
60	F.	7	103°	. .	6	No	S.	R.	No	No	2 small ice-bags for 4 days.	" " "
61	M.	32	106°	. .	6	Yes	S.	R.	No	No	2 ice-bags for 4 days.	" " "
62	F.	64	102.5°	. .	10	No	S.	R.	No	No	1 ice-bag for 5 days.	" " "
63	M.	24	105.5°	. .	11	Yes	D.	R.	Yes	No	3 ice-bags for 4 and then 1 for 3 days.	" " "
64	M.	19	106°	. .	7	Yes	D.	R.	No	No	Ice applied for 8 days.	" " "
65	M.	8	104°	. .	6	No	S.	R.	No	Yes	2 ice-bags for 4, and then 1 for 2 days.	" " "
66	M.	17	105°	. .	7	Yes	S.	R.	No	No	3 ice-bags for 4 days.	" " "
67	F.	70	103°	. .	10	Yes	S.	R.	Yes	No	2 large ice-bags for 6, then 3 for 3, and then 1 for 3 days.	" " "
68	M.	35	104.5°	. .	5	Yes	S.	R.	No	No	Pain and dyspnea relieved in a few minutes after ice was applied to chest.	R. R. Eaton, Lowell, Mich.
69	M.	19	106°	. .	. .	Yes	D.	R.	No	No	3 ice-bags applied on each side. In 24 hours temperature below 103°.	F. T. Simpson, Hartford, Conn.
70	M.	14	105°	. .	. .	Yes	D.	R.	Yes	No	4 ice-bags applied.	" " "
71	M.	9	106°	. .	. .	Yes	D.	R.	. . . .	. .	In an epidemic of influenza in the Hartford School for the Deaf, Dr. Simpson had 17 cases complicated with pneumonia. 5 were treated without ice-bags, with one death; while the 12 reported here—the severest—were treated with ice and all recovered. He says the ice was seldom objected to; on the contrary, it seemed agreeable; and not only the fever and delirium, but the distress and restlessness were noticeably decreased. He also makes the practical and pregnant observation that mutes are especially liable to pulmonary diseases.	" " "
72	M.	15	104.5°	. .	. .	No	S.	R.	. . . .	. .		" " "
73	M.	18	105°	. .	. .	Yes	S.	R.	. . . .	. .		" " "
74	M.	18	105°	. .	. .	. . .	S.	R.	. . . .	. .		" " "
75	M.	14	105°	. .	. .	. . .	S.	R.	. . . .	. .		" " "
76	M.	8	105°	. .	. .	. . .	D.	R.	. . . .	. .		" " "
77	M.	8	105.5°	. .	. .	No	D.	R.	. . . .	. .		" " "
78	M.	13	105°	. .	. .	No	S.	R.	. . .	. .		" " "
79	M.	8	105°	. .	. .	. . .	S.	R.	. . . .	. .		" " "
80	F.	9	105°	. .	. .	. . .	S.	R.	. . . .	. .		" " "

Sex.—The sex is given in 79 cases, of which 56 are males and 23 females.

Age.—The age is given in 68 cases. The number occurring in each decade is as follows: Under 2 years, 2 (one 9 and the other 22 months); between 2 and 10 years, 13; between 10 and 20, 9; between 20 and 30, 13; between 30 and 40, 17; between 40 and 50, 8; between 50 and 60, 4; between 60 and 70, 1; between 70 and 80, 1.

Highest Temperature Range.—This is noted in 74 cases, as follows: In 3, 101°, 101.5°, and 102° respectively; in 3, 102.5°; in 12, 103°; in 7, 103.5°; in 16, 104°; in 4, 104.5°; in 16, 105°; in 7, 105.5°; in 6, 106°. It will be noticed that the last 12 cases in the table occurred among children in the Hartford School for the Deaf, whose ages ranged from 8 to 18; that the temperature of these patients was uniformly high; and that by comparing their temperature with that of the first 12 on the table, of the same ages, it is 1.16° higher. This is a point of considerable scientific interest; for when one takes into account the important part that is played by the nervous system in the fever of pneumonia, as well as in the pathology of the disease itself, it is not strange that this difference in temperature obtains. I think it may be laid down as a rule that an unstable nervous system conduces to high temperature. This is especially true in infants, whose nervous systems are notoriously irritable and excitable, and the same is also true of the hysterical class and of other neurotics. I have long observed that deaf-mutes and the feeble-minded are likewise endowed with a remarkably impressible and unstable nervous system, and it is this that renders them so vulnerable to high fever and to diseases of the respiratory organs.

The Mortality.—Out of the 101 cases included in the present collection 7 died, making a death-rate of 6.93%. Out of the total number of 400 cases in the four collective reports so far made there were 17 deaths, giving a total death-rate of 4.25%.

Sudden Death from Pulmonary Embolism in a Case of Carcinoma of the Neck.—Ludvig Hektoen (*Western Clinical Recorder*, January, 1899) gives a full report of the pathologic findings at the necropsy held on the body of a woman, 67 years of age, who had had a portion of the left side of her tongue removed 1 year previously for carcinoma. A secondary infiltration of the tissues of the left side of the neck occurred, however, which was removed by careful dissection. The patient did well for the first 24 hours and then suddenly became cyanotic and expired. There was found to be partial thrombosis of the left carotid artery; thrombosis of the internal jugular vein; embolism of the pulmonary artery. It is thought evident that the thrombus in the internal jugular vein had formed some time before the operation, probably on account of the pressure of the tumor. Manipulation of the vein at the operation may have dislodged the mass which occluded the pulmonary artery. [M B.T.]

Granuloma of the Face and the Extremities.—Francis J. Shepherd (*Journal of Cutaneous and Genito-Urinary Diseases*, January, 1899) relates a strange case having puzzling characteristics, which he calls, provisionally, granuloma, although admitting the possibility of its being an example of the so-called sarcoid tumor linking granulomas with sarcomas. Observation of the case extended over a period of ten months. The lesion appeared a week after confinement as two little lumps, flat on top, on the left side of the face, which grew larger, finally touching but not fusing. Small openings appeared from which oozed yellowish matter. The lumps afterward became excavated and discharged a foul-smelling, thin, sero-sanguineous fluid. The lower eyelid became involved. A similar lesion appeared later on the outer surface of the right leg and passed through the same changes. The growths were raised about ⅜ inch, were pinkish in color, and had a spongy feel. Pruritus was excessive, but pain was noticed only on pressure. Microscopic examination did not reveal parasites or characteristics resembling sarcoma, etc. A strong mercurial ointment produced a cure in 3½ months, leaving well-marked, dark-red scars, showing considerable loss of tissue. From the occurrence of the lesion on the leg and from the effect of th mercurial ointment an infective origin was inferred. A late point of interest was the developing of an inflammation o the knee joint having three fistulous openings and discharging a red, grumous material. In this no tubercle-bacil were found, although the injection of tuberculin was attende with a decided reaction. A similar swelling appeared late below the left greater trochanter. Inoculation practised o guinea-pigs failed to give rise to tuberculosis. [G.C.C.H.]

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Ancient and Modern Grip.—It seems to have been the universal belief whenever a new epidemic of grip swept over a country or over the world, that the disease itself was new. *The Spectator*, for example, speaks of the disease as being not only not of recent origin, but as extending so far back as 1837. Our contemporary, *The British Medical Journal*, shows that epidemics of the disease not only broke out so long as 50 years ago, but that they occurred at least 700 years ago, the Handbook of Hirsch listing the epidemics from 1173 to 1874 in ten pages. In 1427 it was called in Italy the *mure* or *murre;* in 1510 in all Europe it was named *the coccoluche;* in 1562 the English termed it *the new acquaintance*, and also the *catarrhal feaver;* in 1675 it was called *epidemic cough*, while still later Huxham named it *feveret.* In our own time the belief is gaining ground that not only influenza but also the "common cold," if not due to a common germ, are at least due to different germs. The seriousness of both diseases is being better recognized, and hardly any discovery is more needed than that of the microorganisms to which directly and indirectly so much sickness is due.

Danger from Insignificant Wounds.—Golebiewski, of Berlin, has recently published an article entitled, "Zur Prognose der unbedeutenden Stich- und Risswunden an den Händen und Fingern," in which he records the more or less serious results following slight injuries of the hand and fingers, which were at first treated (or maltreated) by the patients. In all, 70 cases are reported. Of 13 injuries of the thumb, permanent disability resulted in 60%, and the average loss of time during treatment was 33 weeks. There was recovery of complete use of the hand after injury in 9 cases out of 15, but the average duration of treatment was 20 weeks. It is unnecessary to quote further from this interesting paper: the serious and even fatal results which sometimes follow slight injuries are well known to all who have observed the practice of our large out-patient departments and dispensaries. The strange part of it is that physicians do not take better care of themselves; the very men who are most familiar with these facts and are most exposed by constantly coming in contact with all manner of pathogenic bacteria, are often the most careless. Every medical man certainly owes it to himself and to those possibly dependent upon his life and labor, to keep in mind the serious cases of septic infection which are so common in our profession, and to disinfect carefully and protect even the slightest scratches.

Alcoholism in France.—Some interesting facts relating to the consumption of alcohol and bearing upon the relation between alcoholism and crime have recently emanated from Paris. According to the investigations of a French physician it appears that 2,000,000 hectoliters of 100 hydrometer-degree pure alcohol are consumed annually in France, or the equivalent of 5,000,000 hectoliters of 40 hydrometer-degree ordinary alcohol. In 1850 it was estimated that the consumption of pure alcohol in France equalled $1\frac{1}{2}$ liters per head of the population; in 1896 it had increased to 4.19 liters, apart from the use of wines, beers, and cider. Inclusion of this last increment would raise the per-capita amount to 14 liters of 100 hydrometer-degree alcohol, as compared with 10.5 liters in Belgium, 10 liters in Germany, and 5 liters in Sweden. A corresponding increase in the number of drink-places in France has taken place—from 280,000 in 1850 to 500,000 in 1896, or one for every 30 adults of the population. In Sweden the annual consumption of alcohol between the years 1830 and 1834 equalled 23 liters per head, and the number of murders committed, 59; while during the 3 years from 1875 to 1878 the annual consumption of alcohol was only 5 liters per head, and the number of murders only 18.

The lunatic at large has become a serious factor in modern life. It is difficult to get medical men to certify to a patient's insanity and fitness for detention in a public or private asylum, because they know that if the patient gets temporarily better and is released he will almost certainly bring an action against them. Physicians who have had experience among lunatics are only too familiar with the vindictive delusions of the chronic monomaniac and refuse point-blank to sign certificates consigning such people to asylums, as long as the present state of the law does not prevent legal proceedings on his return to apparent sanity. As a consequence the number of persons who in their own interests as well as in those of the community, ought to be in asylums has become ominously large, a fact which more than one tragedy has recently brought home to popular knowledge. This state of things is capable of remedy by the addition of a simple and short clause or law guaranteeing to medical men the same security that judges enjoy when in their judicial capacity they impose upon their fellow-citizens punitive sentences. A joint committee of the British Medical Association and the Medico-Psychological Association has interviewed the Lord Chancellor by deputation upon the subject, and it is possible that the result may be some legislative procedure that will remove the present reluctance of medical men to sign lunacy certificates.

The Abuse of the Tincture of Iodin.—In spite of all that has been written and said in regard to the uselessness and possible harmfulness of the indiscriminate use of the tincture of iodin, it continues to be used for all sorts and conditions of ailments and injuries. And it is not alone the druggist or the backwoods practitioner, who graduated from a two-years' school 25 years ago, that is guilty of this abuse. We still see men in city hospitals who are supposed to have a reasonable knowledge of pathology and the principles of surgery, who apply the tincture of iodin to the skin immediately about a boil or a superficial abscess, or to a simple sprain. Does not the tincture of iodin produce a local inflammatory condition? And will it not tend to still further aggravate the local inflammation which already exists in the case of the boil or the superficial abscess? Is it not rest and massage that are needed in most cases of sprain, whether it be of the ankle or of the thumb? How much more rational to aid nature to get rid of the tissue which is already damaged by infection beyond the possibility of repair, in the case of the boil or abscess, by softening the tissues by the application of an antiseptic poultice; and how much more likely to aid repair in the case of the sprain is splinting or strapping with adhesive plaster to give the parts rest. Blistering the skin with a heavy coat of tincture is often practised in the early treatment of appendicitis, to the disgust of the surgeon who has to operate later. These are only a few examples from a large number of abuses which might be cited. We do not wish to condemn the use of iodin in all cases; there are certainly many conditions in which it does good, but we believe there is still too much of the slopping of tincture of iodin upon every injury that presents itself without thought as to the pathology of the case.

The Energy Developed by a Nerve-Center.—Mr. Victor Horsley has made an interesting experimental study on this subject, and reports his results in the winter number of *Brain*. The paper, which is too long and technical for full analysis here, seems to point to some conclusions which may be briefly indicated. A main problem was to differentiate the amount of force evolved by the cortex from that evolved by the spinal cord in any given response as recorded in a muscle. Horsley concludes that the nerve-centers do not cause the whole explosion of the potential contractility of the muscle, and that the discharge from the cortex is not as potent as that caused by stimulating the motor nerve. The average "lift" derived from the cortex is only about three-fifths of that obtained from excitation of the motor nerve. The cortical center, however, is capable of evoking more work from a muscle than is a spinal-center. Horsley also confirms the original demonstration of Franck and Pitres that the clonic factor in a motor convulsion is of cortical origin. This is also in accord with the clinical observations of neurologists and surgeons who have long known that electrical stimulation of the exposed fibers in the corona radiate (after removal of the cortex in the human subject) causes tonic, not clonic, spasms.

These results are of interest, and some of them are of direct clinical value. General pathologic conditions, such as distemper in the lower animals, affect these results, as Horsley shows, and the effects obtained are small. Fatigue-effects are shown in the slow development or complete absence of the tetanic element of the clonic spasm derived from the cortex. This suggests that some interesting clinical observations of this kind might be made in cases of the fatigue-neuroses. The great obstacle to utilizing these methods is of course the fact that they require a precision of instruments, and a skill in the use of these, that are not commonly available in clinical work.

Heredity and Crime.—The Annual Report of the Eastern Penitentiary in this city, just received, contains some exceedingly interesting statistics which tend to throw light on the subject of the family relationships of crime. Of 517 convicts received during the year 1898 there were 58 who had had relatives in prison. This means that not less than 11% of these convicts presented a family-history of crime. Of this number not less than 18 had had more than one relative who had served one or more terms in prison. These relatives, it is to be noted, were usually near of kin, as, for instance, fathers, brothers and cousins. Since many of these convicts had served more than one term in jail, an astonishing aggregate of family criminality is shown by the records of this one prison alone for one year.

The significance of these figures is still further brought out by the fact that of the 517 convicts admitted during the year, 91, or about 18%, had previously served one or more terms in this prison alone. These graduates in crime furnished, of course, a large proportion of those who had had criminal relatives.

It is fruitless, perhaps, to moralize over these figures. They present, however, a vast and confusing problem in penology. Little can be said here about the practicability of utilizing these facts for the benefit of human society. We suppose the old methods will prevail, and these jail-birds will continue to be caged and liberated with alternating regularity until the end of the story. The penitentiary, like its fellows, will continue to graduate its quota of students in crime, and men will say that there is nothing better to do, and that the doctrine of heredity is only a fancy of scientists and a resort of medico-legal experts.

These figures, however, do not lie. They are startling in their nakedness and in the candor with which they are presented by the inspectors of the penitentiary. These officials themselves do not attempt to draw conclusions from them, but merely present them in their bald reality to the world. That these figures must have value and significance, however, in the eyes of the inspectors, is evident from the care with which they are presented in tabular form. We suggest that the inspectors themselves should take this problem more seriously to heart, and out of the plenitude of their knowledge and experience attempt something like a scientific study of this question. We should like to know, for instance, what are its bearings upon the reformation of convicts? Does it mitigate or aggravate the offence? Does it suggest any modification of the existing methods of sentencing and incarcerating these prisoners. Or is the whole subject merely a *confusum chaos* from out of which looms up nothing clear, except the outlines of the prison with its open door receiving again and once again these victims of degeneration?

The Capital Punishment of Women.—The recent execution in Canada of a woman named Poirier, for the murder of her husband, has again directed attention disagreeably to a much debated question. The case of Mrs. Place still further emphasizes this subject. We do not pretend here to review the facts and the law in either of these cases, for we are not thoroughly familiar with them. Our ignorance, however, is not greater than that of the sentimentalists who oppose capital punishment for women. They care little, as a rule, for the law and the facts, but base their opposition almost entirely upon sentiment, and bolster this up usually, as well as they are able, with a specious plea of insanity. This was conspicuously so in the case of Mrs. Whiteling, who was hanged in this city some years ago for the murder of her husband and children. Another case was that of Mrs. Druse, in New York State, who also murdered her husband under circumstances, as we remember, of extreme exasperation. It is noteworthy that most murderesses commit the crime from a sexual motive; or, at least, that the motive has some relationship with the sexual life. All the women mentioned here, for instance, except Mrs. Place, murdered their husbands, and Mrs. Place tried to murder hers. The plea of insanity suggested is therefore likely to be one that is supported, if possible, by some aberration in the sexual function. If the criminal happens to be of middle life, the menopause is, of course, seized upon as the exciting cause of a psychosis, the most prominent symptom of which is an impulse to murder a husband. But, unfortunately for them, all the women who commit murder are not at the change of life. The woman Poirier, for instance, was only 30 years old, and had a paramour who was her fellow conspirator and was hanged with her.

It is difficult to argue against the emotions. These are often illogical—and not more so when they lead to murder than when they exonerate it in a woman. From the standpoint of pure justice, sex is no excuse for crime. It is just as atrocious for a woman to commit murder as for a man; just as undesirable to be slaughtered by a Catharine de Medici as by an Alva. The plea of insanity should be guarded just as jealously in the one case as the other.

Curiously, from the mere sentimental standpoint, this subject is full of contradiction. For political crimes women have been executed in history just as freely as men, and have not suffered any special ignominy from the fact. On the contrary a special luster seems to cling about the names of the queens and female assassins who have perished on the scaffold. Mary Stuart, Marie Antoinette and Charlotte Corday were not model characters, but the manner of their deaths has placed a halo, not a cloud, over their names. It would seem, therefore, that men do not shrink so much from imposing a violent death upon a woman, as they do from plunging her name and memory into the infamy which forever remains after a mere criminal hanging. It is the degradation of sex that appals, not the execution of a woman. This instinct is irrepressible in noble-minded men, but we doubt whether it should be allowed too often to become operative.

Goethe as a Scientist.—In a recent instructive paper on the "Problem of the Vertebrate Head" (*Journal of Comparative Neurology*, November, 1898) Mr. H. V. Neal, of Knox College, refers to the fact that two of the most important morphologic conceptions of the nineteenth century are attributed to the poet Goethe. One of these is that a flower is a modified branch, and its organs metamorphosed leaves; the other, that the head and trunk of vertebrated animals were once composed of like segments, and that these, by slow adaptive changes, have been differentiated. Neal's paper is a luminous attempt to demonstrate the truth of the poet's theory—a theory which, by the way, has been very generally adopted by morphologists. The author succeeds admirably, in our judgment, in demonstrating the respective metameres of the encephalon, which, in the highly developed vertebrates, stand for the original segments in the lowly organism from which this great stock has descended. The demonstration is not more interesting than the thought is suggestive, that the poet's mind, trained and directed rather to the practice of literature than of science, should have discerned this profound secret of nature, which, apparently, was hopelessly buried in the developmental changes of vast ages.

Goethe, however, it should be remembered, prided himself not a little on his scientific attainments. He had a theory of colors, to which he clung tenaciously (and, we think, uselessly); and in his Conversations he refers exultingly to the contest in the French Academy between Cuvier and Geoffroy St. Hilaire, in which he claims that his own position, with reference to a moot point in anatomy, which he had held for fifty years, was vindicated by the latter scientist. He complains, also, that his discovery of intermediate bones was at first utterly ignored.

Some, perhaps, may regret that such a perceptive and fertile mind was not devoted more systematically to the cause of science; especially as contemporary criticism seems to be inclining to the view that, as a moral and literary force, Goethe has been somewhat overrated.

As a somewhat noteworthy example of the difficulty of securing a rigid scientific conception of Goethe's original idea of a segmented vertebrate brain, we may refer to the curious fact that in the same journal that contains Neal's paper there is also one by Dr. Adolph Meyer, in which this writer allows himself considerable license in mapping out the respective encephalic segments. Dr. Meyer's interesting paper, which is based largely on the work of German histologists, is evidently intended for practical neurologists, and this may account for a freedom in treating this subject, which is in somewhat striking contrast with Neal's method.

The Treatment of Ectopic Pregnancy, with Especial Reference to the Possibility of Recurrence.—It is probable that extra-uterine pregnancy results from a multiplicity of causes, of which mechanical obstruction is perhaps the most usual. The condition itself is unfortunately too common, and we are at present without practicable means to prevent its occurrence. When, however, it has been once detected and the patient is fortunate enough to escape with her life, the question arises, what shall be done to remove the possibility of its recurrence? It is true that the reported cases of this complication are as yet few, and the answer may be given that the physician does well not to cross a bridge until he reaches it, but none the less the subject is one of sufficient importance to make it worthy of serious consideration.

We think it will be agreed that in the event of operation for the removal of an ectopic gestation-sac or its products, the tube and ovary on the opposite side should, if diseased, be also removed in whole or in part; but it may not be possible to decide with certainty from the macroscopic examination whether those appendages are healthy or not, so that under most conditions their removal will be justifiable if this can be safely undertaken. To the small number of cases of extra-uterine pregnancy occurring on both sides of the same patient, either at the same time or at intervals, Ferguson (*Edinburgh Medical Journal*, February, 1899, p. 145) contributes an additional one in which an interval of four years separated the two pregnancies, the first of which was treated by the expectant method and the second by operation.

An apparently healthy woman, 29 years old, who had borne two children, one delivered by crossbirth and the other at 7 months, and both not surviving, was seized suddenly, after 4 months of amenorrhea, with shivering and violent abdominal pain, chiefly on the right side. Poultices and hot applications were employed and the woman was confined to bed for many weeks, feeling very ill for the first week or two. On recovery menstruation returned, but 4 years later, after an amenorrhea of 2 months, the woman was seized with pelvic pain and retention of urine. After catheterization of the bladder a fluctuating, tender swelling, about the size of a goose-egg, was found on the left side of the uterus, which was itself enlarged and pushed to the right. In this situation and slightly above the level of the fundus uteri was a fairly hard, somewhat irregular body, which yielded the impression of being ovarian in origin or, possibly, a pedunculated fibroid. A small shred of membrane was passed through the vagina after the examination, which on microscopic investigation proved to be a bit of typical decidua. The case was looked upon as one of left tubal pregnancy at about the third month, and it was thought probable that there had been some hemorrhage into the mesometrium. The tumor steadily increasing in size and the symptoms demanding active intervention, abdominal section was performed on the eighth day, disclosing on the left side the characteristic appearance of a tubal pregnancy. Despite the gentlest manipulations the sac ruptured posteriorly and blood-clot and fresh blood escaped into the peritoneal cavity. The sac was removed with comparative ease, together with the corresponding ovary, which was closely attached to it, and the hemorrhage was soon controlled. On the right side an irregular nodulated swelling was discovered, attached by a narrow pedicle (close to the right cornu of the uterus) to a much dilated and tortuous tube, which was adherent to the fundus uteri. The tube resembled small intestine in appearance and size and was filled with serum—a well-marked hydrosalpinx. The swelling proved to be a lithopedion contained within a sac which was filled with the bones of a four-months' fetus. The sac lay in the peritoneal cavity and looked as if it had been originally extruded through the peritoneal covering of the tube. The right ovary was cystic and was removed at the same time. The patient made an uneventful recovery.

The Function of the Thymus Gland.—We know comparatively little concerning the functions and the uses of the so-called ductless glands, but there is reason to hope that the not very remote future will shed much light upon this obscure subject. Existing knowledge would suggest that these organs play some part in the chemistry of the body, through the action of what we have learned to call internal secretions, which, probably, are formed as well by glands with, as by those without, excretory ducts. It is thus thought that through the derangement of this internal secretion, disease or abnormal activity of the thyroid gland gives rise to myxedema or cretinism or exophthalmic goiter, of the adrenals to Addison's disease, of the hypophysis to akromegaly, of the thymus to progressive muscular dystrophy; and attempts have been made, in some instances successfully, to apply practically this hypothesis to the treatment of several of the disorders named. Of the function of the ductless glands we are, however, yet in ignorance; and it is therefore with more than ordinary interest and attention that we take up for consideration some views offered by Beard (*Lancet*, 1899, i, No. 3934, p. 144) with regard to the function of the thymus gland. Kölliker has shown that the gland arises from the epithelium of a gill-pouch, and he has stated that the original epithelial cells give rise to lymph-cells or leukocytes. Others have contended, on the other hand, that the leukocytes that form an integral part of the thymus gland soon after its origin have migrated thither from the exterior, possibly from the mesoblast. Beard now brings to the support of Kölliker's view facts that show that the thymus is the parent-source of all the leukocytes of the body. Having noted in a vertebrate animal, the smooth skate, that for a long period of development the blood contained only nucleated colored corpuscles, he was led to inquire into the period at which leukocytes made their appearance, with the result of finding that at this time the spleen had no existence, there was no rectal gland or cecum, and lymphoid structures of any and every sort were entirely wanting. Further investigation showed that the first leukocytes of the body were formed by and from the epithelial cells of the thymus gland, whence they migrate into the mesoblast and gain entrance into the blood. Although the observations were made upon only one vertebrate animal, and that a fish, it is thought that they can be extended to all vertebrates, including man.

Having fulfilled its primitive function, and having perhaps no other, the thymus ordinarily atrophies early in life. Occasionally it persists for a longer time and even permanently, and it will be interesting to determine if such glandular tissue as remains possesses functionally active elements, and also to note the condition of the lymphatic tissues and the numbers and the relations of the white corpuscles of the blood. In this connection also it is interesting to recall that the enlarged thymus gland sometimes gives rise to respiratory disturbance known as thymic asthma; and that in a number of cases of sudden death the only abnormity found was such an enlarged gland, associated in some instances with hyperplasia of the spleen and the lymphatic tissues generally. The thymus gland has been found enlarged in a number of cases of exophthalmic goiter, and this condition has been thought to be of etiologic significance. Finally, Ohlmacher (see this Journal, Vol. I, No. 1, p. 33) has reported three cases of *grand mal* in which the thymus was persistent and other evidences of lymphatic hyperplasia were present, and he suggests a pathologic relationship between the anatomic conditions and the clinical manifestations.

Prohibition and Ether-Tippling.—Between the bishops, the people, and the legislatures, the prohibitionists are nowadays having plenty of difficulty. There is a not unjustifiable skepticism on the part of many regarding the practicability and efficiency of the measures that have been proposed to check the consumption of alcohol. It is conceded that in some parts of the United States, at any rate, absolute prohibition could not be enforced, and it is questionable if heavy taxation and high licenses are really satisfactory substitutes. The experience in certain provinces of Eastern Prussia seem to indicate that perverse humanity will persist in self-poisoning, no matter what the teachings of the moralist or the mandates of the government. Dr. Sommer has recently written an article in which he expresses his consternation at the substitution of ether for alcohol, as a result of increased taxation upon the latter substance. The employment of ether, in the form of Hoffmann's anodyne, has been more or less common for a long time, but never to the extent of calling it a popular form of intoxication. In 1887, it appears, the tax upon brandy and strong drinks was considerably raised in Ostpreussen, and, as a result, the consumer was obliged to pay more for his tipple. The price of ether, however, which is produced from untaxed alcohol, was not affected, and the result has been that a liter of brandy costs 1.30 Mark, and a liter of ether only 1.00 Mark. A further difference was found in the fact that a smaller quantity of ether sufficed for profound intoxication, and that the reaction was much more rapid. As a result of this, the populace turned to the consumption of ether, mixing it with alcohol or drinking it without dilution; as much, according to Dr. Urbaniwitz, as one-fourth liter of the pure drug being taken at once. Sommer states that in the small district of Memel, 8,580 liters of ether were sold in the year 1897. Moreover, large quantities were brought in by sailors, fishermen, and travelers, which are not included in the amount given. The peasants, when questioned regarding the effects, stated that the sense of internal warmth is more distinct and prompt, and the recovery from intoxication not so disagreeable as is the case when brandy is used. Apparently the typical lesions of chronic alcoholism, that is, cirrhotic liver and kidneys, are produced. It appears in this case, that not only has the increased cost of alcohol been of no benefit to the population, but has directly influenced them to the employment of a poison far more dangerous and more serious in its consequences, and that this poison has been found by them more agreeable and satisfactory. Of course, similar measures could be applied to ether, that is, increasing the tax, the necessity for a physician's prescription, or some of the other plans suggested, and used for the purpose of restricting injurious habits; but the facility with which the opium-eater secures his drug is sufficient guarantee that it is not possible to trust all the retail druggists in this respect, and it is doubtful if the ingenuity of the populace would not find another and even more deleterious substitute. Fortunately, in this country, ether is practically unknown to the populace as a means of producing intoxication, the only instance of the habit that ever came under our observation occurring in a young physician.

Cleanliness should be the gospel of the physician not less than that of the surgeon. When a choice exists, asepsis is to be preferred to antisepsis. This is the principle on which depends the success of the public rain-bath so warmly and so successfully pleaded for first just ten years ago by Dr. Simon Baruch, of New York. Since that time, such public baths have been established in New York, Chicago, Philadelphia, and probably other cities, and they have done an immense amount of good in conducing to the health, and adding to the comfort of a portion of the community that needed them most, and were least able to secure them,—to say nothing of their influence for moral effect. We learn that there is in course of construction in New York City a splendid bath-house, to cost $95,000, for the accommodation of 2,500 bathers daily. It might, perhaps, have been better, instead of erecting such a single large building, to have erected a considerable number of smaller ones in various accessible portions of the city. The usefulness and the success of these baths will depend, in no small degree, upon their proximity to those for whose use they are intended.

Suggestions to Writers: No. 26. The Adjective of Pons.—The use of *pontine* in recent articles in this JOURNAL, and of *pontal* in the new translation of Edinger's "Nervous System," has led to a consideration of the whole question. If the Romans had derived no adjective from *pons* it might be necessary for us to decide between the analogies of *montanus* or *montensis* from *mons;* of *dentatus* from *dens;* and of *mentalis* from *mens.* But *pontilis*, although post-classic, was the regular adjective from *pons*, and its English form (Angloparonym) is *pontile. Ponticus* (English *pontic*) is the adjective of *pontus*, the sea. *Pontinus* (English *pontine*) was originally *Pomptinus*, and refers to a district of Italy. In short, *pontilis* and *pontile* are legitimate and sufficient, and the use of any other adjectives tends to cause confusion and bring discredit upon medical and anatomic scholarship.

Editor and Reader, No. 19. Riding the Two Horses at Once.—One of the oldest and newest tricks of the medical advertisement sharper is first to advertise his secret nostrum to the lay public and secure the universal use of the same by the ignorant, and then to turn about face and divulge the constitution of the drug, and, through silly and covetous medical journals, advertise it direct to the profession. He tries thus to ride the two horses, *Quack* and *Doc*, at one time in the medical circus. Occasionally the plan is reversed and when an advertiser has first secured the acceptance of a preparation by the medical world he then turns his attention to lay advertising. If he can thus get medical men to accept his preparation and testimonialize it, he has a better chance in direct lay advertising. It is quite an expert bit of work to thus hoodwink both the profession and the public. But it is only possible through the avarice or something else of medical journal advertising departments. Some time ago the profession was set laughing by a journal (one extremely virtuous in its own conceit, but whose theoretic virtue was of that narrow and fanatic quality which always ends in vicious practice) which, while duly horrified at the thought of advertising "proprietary" preparations (especially in other journals) was willing to accept the advertisement of a drug whose virtues were praised in the street-cars, yellow journals, etc., as just the thing for diseases which only physicians should treat. This ad. was acceptable because the advertiser having conquered the lay world was willing to divulge the article's make-up. Men with judgment and who value medical progress more than the indulgence of their personal conceit know well enough that there are many things besides secrecy that should cause rejection of an offered advertisement. These thoughts have been suggested by the fact that in a prominent medical journal there is a full-page advertisment (bringing in $800) of a drug long advertised to the public, tons of which are sold each year to anybody, to servant-girls and at the soda-water counters; the professional ad. is so slightly and clumsily disguised that every doctor knows it is the same old mixture for testimonials of which shop-girls receive a clock. Strange medical journalism that! Does it suit reputable advertisers? Does it suit the profession? We suspect that "Doc"-horse is tired of the act and will dump the clown off on his head.

Dr. Gee's Lumleian Lectures on Bronchitis, Pulmonary Emphysema, and Asthma, for the advance-sheets of which we are indebted to the editor of the *British Medical Journal*, will be read with interest by all practitioners. In another column we give the essential parts of the first lecture delivered on March 16, before the Royal College of Physicians of London. The second and third lectures were to be delivered on March 21 and 22, and will be published in succeeding numbers of this JOURNAL.

The Medical Advertising Bureau write that they did not furnish the figures or statements used in our quotations from *Printers' Ink* (page 517, March 11), and that they are in no way responsible for the article in *Printers' Ink.*

Special Article.

BRONCHITIS, PULMONARY EMPHYSEMA, AND ASTHMA.[1]

The Lumleian Lectures, Delivered March 16, Before the Royal College of Physicians of London.

By SAMUEL GEE, M.D.Lond.,
Fellow of the College and Physician to St. Bartholomew's Hospital.

LECTURE I.[2]

[Dr. Gee opens his lecture by briefly reviewing the advance of medical science since the days of Hippocrates, attributing the change from ancient to modern doctrine as to the origin of catarrhal disease to the progress in anatomy and to Harvey's great discovery. He defines pulmonary catarrh as signifying a disordered function of the pulmonary mucous membrane, the result being an excessive secretion. The corresponding lesion of structure (inflammatory changes in the membrane) is called bronchitis.]

On the Causes and Forms of Bronchitis.

The use of the word "bronchitis" marks the predominant influence of morbid anatomy. Bronchitis and pulmonary catarrh, although for the most part they denominate different aspects of the same disease, yet do not exactly tally; bronchitis is not always catarrhal; for instance, it may be attended, not by flux of mucus, but by formation of false membrane.

Causes.

[Judging from clinical experience, Dr. Gee considers bronchitis one of the commonest of disorders in all ranks and conditions of life. He cites a case of pulmonary catarrh caused by the irritation of nitric-acid fumes, as showing that bronchitis may be caused by conditions in which microorganisms play no part, although they may enter after and increase the irritation. But the cause of bronchitis is seldom so simple as this. He continues:]

Breathing dust has long been recognized as a cause of pulmonary catarrh; for instance, Ramazzini two centuries ago devoted several chapters of his book *De Morbis Artificum* to the diseases, chiefly pulmonary, which attend dusty trades. At the outset it seems to be necessary to distinguish between dust which is alive and inanimate dust. Taking inanimate dust first as being the less complex topic, we must again distinguish between dust which contains soluble constituents and that which does not.

Insoluble dust is in most cases of mineral nature, yet the air of a cotton mill is smoky with vegetable dust. The bronchitis resulting from dusty trades is very chronic, insidious in onset and slow in progress. Insoluble dust is supposed to act as a merely mechanical irritant to the bronchial membranes, but can we say that any sort of dust is absolutely insoluble? And when we endeavor to look more deeply into the matter other doubts arise, as usual. We suspect that the tendency to bronchitis which prevails among workingmen in dusty trades is often aggravated by intemperate habits in respect of alcohol and tobacco. Probably in some workmen there is an original disposition to suffer in this way, such as we see in many asthmatics, who are very sensitive to dust. Moreover, the dust of unclean and ill-ventilated rooms will be very likely to contain morbific microbes and the irritation of the air-passages set up by inanimated dust will favor the operations of the many bacteria which are potent to cause bronchitis. It obviously would be very improbable that these microbes should swarm in impure air and should not be found in the upper air-passages of man. And thus, as a matter of fact, our mouths, noses, and throats harbor many morbific microbes in a latent state; they are there awaiting a favorable opportunity for becoming active and virulent, when, to quote the Virgilian phrase of which Sydenham was so fond, *qua data porta ruunt*.

Although it is probable that inanimate dust is sometimes noxious by reason of its soluble constituents, yet it is not easy to point to many instances of this kind. The dust of ipecacuanha, which is often referred to, produces asthma rather than catarrh, but it may be that this is a distinction without real difference.

The topic of living animated dust follows in natural order. The best instance of this kind of dust is afforded by the pollen of grass, which seems to have been proved capable of causing hay-fever in some suceptible persons, though that in which the irritant power of pollen inheres is not known. And the question is complicated by the fact that in a few persons the mere odor of roses and some other flowers seems enough to provoke catarrh, although, since the famous experiment of Dr. J. Noland Mackenzie, with an artificial rose, we have learned how large a part in the production of such a catarrh can be played by the power of the imagination. Moreover, the particles which convey the smell of flowers must be far too minute to be rightly called dust, and therefore we will not pursue the subject here, but only remark that hay-fever affords the best evidence of that idiosyncrasy which predisposes to catarrh.

The catarrh which is caused by the living dust thrown off by certain moulds and fungi is sometimes a much more serious affair. The best known of these fungi is the dry rot of deal wood—merulius lacrimans. The disease it sets up is sometimes fatal. Besides the catarrhal symptoms indicated by the epithet "lacrimans" there are signs of poisoning of the whole body. The fungus grows upon the mouth and fauces, whence we may assume that the morbific agent consists of living seeds which under favorable conditions will strike root in the human body, will increase and multiply—will become, in fact, true parasites, and will poison us with their secretions.

Grass pollen is morbific, dry rot is morbific and parasitic, but they are only accidentally so; it is not the purpose of their life to cause disease in man. But there are certain living particles called "microbes" which are essentially morbific and parasitic, which to the best of our knowledge are that and nothing else, which continue to exist by causing disease and for that sole purpose, as it seems to us—which are morbific or nothing at all, because, being merely parasitic in animals, it follows that if these animals ceased to exist the microbes also would become extinct. Some of these microbes are found almost everywhere; they pursue the steps of men and are apt to attack us at all times and places. But some microbes thrive only under certain circumstances; the best known of these causes of bronchitis are typhoid fever and influenza. In some forms of bronchitis the disease is local, and it extends itself upon the mucous membrance; the catarrh is protopathic. But in typhoid fever and influenza the case is different; the catarrh is deuteropathic and secondary to infection of the whole system. These two diseases are members of the great class of specific fevers, and we are compelled by analogical reasoning to believe that other members of that class which are still more powerful causes of bronchitis are also microbic in nature—for example, measles and whooping-cough. How they cause bronchitis is a question not yet ripe for answer, meanwhile we assume that some irritant is conveyed to the mucous membrane by the blood.

We have now passed from the simplest to the most complex causes of bronchitis, so far as our knowledge will allow, and yet by far the greater number of actual cases of bronchial catarrh remain unexplained What is the explanation of a common cold? We can hardly doubt that chill by exposure of the body has often something to do with it, but how? Let us note that colds are seldom caught, as we say, in pure air—at sea, for instance—no matter how great the exposure. Let us note also that common colds are often contagious, with an incubation-period of about three days. You will remember the deeply interesting experience of the St. Kilda cold, a fact which seems to be well proven notwithstanding the incredulity of Dr. Samuel Johnson, and which seems to show that persons who are not themselves suffering from catarrh may yet convey the disease to others, and that a cold past and gone confers temporary immunity. We have heard of late that upon some of the small islands in the Torres Strait the natives, until they took to wearing clothes, were exempt from coughs and colds; but it is difficult to understand how the mere fact of clothing pure and simple can have been the cause of those disorders. It would seem to be more probable that the inhabitants have been infected by their clothes or other means, and that the catarrhs have been really due to the intruding foreigner, who brought along with him his civilization and his diseases.

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[1] From advance-sheets by the courtesy of the editor of the *British Medical Journal*.

[2] Lectures II and III will be delivered March 21 and 23, 1899.

The Catarrh.

Of the signs which make bronchitis manifest in the living body, the most important is the catarrh, the excessive secretion of mucus. We might expect that physicians would pay great attention to the sputa, and such has been the fact from the earliest times. A sharp distinction has been drawn, since Hippocrates at least, between transparent sputa and opaque sputa; chiefly for prognostic reasons based upon the old doctrine of the concoction of humors, opacity being the sign of maturity and a stage which the secretion must pass through before the catarrh can end in recovery. In truth, the distinction is not of great value; however true it may be of acute coryzal secretions that the mucous discharge becomes muco-purulent on the way to recovery, we do not always mark these stages in bronchitis even when acute, while in chronic bronchitis the distinction is of small importance, either prognostic or diagnostic. How common it is to see mucous and purulent sputa in the same spitting-pot; to see purulent sputa floating or lying in thin transparent, colorless mucus; probably the different secretions come from different parts of the bronchial tract. How common it is to observe that sputa expectorated at different times of the day are different in character, the secretion being, for example, nearly pure mucus throughout the day, but much more purulent the first thing in the morning, after sleep.

Pituitous Catarrh.

To the general rule that the distinction between crude and concocted sputa is unimportant there is one exception worthy of special note. Laennec, in his chapter upon pulmonary catarrh, has much to say concerning a form of catarrh which he calls "pituitous." He uses the word "pituita" in a sense of his own; he makes it signify colorless, transparent, stringy sputum, frothy at the top, and which when the froth has been removed, resembles water stirred up with white of egg. We must all recognize the truthfulness of this description. Louis compared the sputum to gum-water, Borsieri to soapsuds. It is to be wished that the word "pituita" be used to denote this kind of sputum only, because there is no doubt that the catarrh which Laennec calls pituitous does present peculiar characters.

He remarks that pituitous catarrh is symptomatic of other pulmonary disease besides mere bronchitis, especially edema of the lungs and miliary tuberculosis. With respect to edema of the lungs, let us note that the albuminous or serous expectoration which occasionally ensues upon paracentesis for pleural effusion, and which depends upon acute edema of the lungs, and which always brings danger and often death, has to the eye all the characters of pituitous flux. Testing the sputa can alone distinguish the two: serous expectoration is highly albuminous; pituita is not albuminous at all.

[In support of his position that not only miliary tubercle, but massive gray tuberculous inflammation may be attended by pituitous expectoration, Dr. Gee cites a case under hospital treatment having all the physical signs of ulcerating tubercle of the lung save that the sputum was glairy and did not contain the bacilli. Postmortem showed the lung solid with gray tubercle from apex to base; there were only two cavities, and those of small size.]

Besides pulmonary edema and tubercle there are two other diseases of the lung which are often attended by pituitous expectoration—namely, the congestion which is consequent upon a dilated heart and contracting cancer.

Pituitous catarrh is sometimes "idiopathic"—a word which we need not be afraid to use providing we attach a definite meaning to it. The original and etymologic meaning of the word is its true meaning, and pituitous catarrh is idiopathic when it constitutes the whole of the disease. It is sometimes acute, sometimes chronic, and in either case is a very serious condition. The acute catarrh occurs at all ages, and often in persons perfectly healthy, who have shown no previous tendency to pulmonary disease. The secretion rapidly becomes so profuse that it puts life in jeopardy, and will sometimes even kill by suffocation in a day or two. Yet for the first few hours the attack resembles a common cold with cough, and there are no peculiar symptoms attending the earliest stage which enable us to foresee that we have to do with the beginning of so formidable a disease. It does not always kill; sometimes it runs the course of ordinary severe bronchitis and ends in recovery.

Chronic pituitous catarrh is more common. It is serious on account of its obstinacy. To Laennec's admirable description of this disease there is nothing to add unless it be to say that it does sometimes attack persons in the prime of life.

Peculiar Kind of Bronchitis.

There is a form of disease which may justly claim to be called catarrhal if we use that word in its strict etymologic sense. Graves, speaking of the condition referred to, says: "When an old person reduced by some previous disease catches cold and gets in consequence a sudden and remarkable hoarseness so that he can only speak in whispers; when in addition to this he has cough, stridulous breathing, and copious muco-purulent expectoration, you may be sure that the case is a bad one and the patient in most imminent danger." He goes on to say that the disease is accompanied by considerable fever, and that he did not recollect that he had ever seen an attack of this kind that did not terminate fatally. Graves cites two cases in detail of this condition, both terminating fatally in a very short time.

[Dr. Gee states that this form of bronchitis sometimes occurs in old people whose health has not been impaired by some previous disease, and cites a case of a lawyer who died four days after exposure to a chilling east wind. He notes as a peculiar symptom in this case fetid expectoration, occurring within 48 hours after the onset of the attack, (too soon to have been caused by gangrene of the lung) and which he attributes to decomposition of the secretions. A case occurring in a boy 7 years old is cited to prove that disease of this kind is not peculiar to the old. In this case the dyspnea was so urgent as to call for tracheotomy, which was done with temporary relief, the child dying, however, in a few hours with all the signs of pulmonary dyspnea.]

It is likely that the disease in question is essentially of the same nature as edema glottidis—that is to say, a specific inflammation spreading rapidly, like erysipelas. Hippocrates uses this very word, and in several places speaks of erysipelas in the lung, but to identify the disease thus designated by him is not easy.

Dyspnea.

To breathing with conscious effort we give the name of dyspnea. It arises from a peculiar sensation which is not always of the same kind. Two sensations at least can be distinguished. One is sensation of want of breath and impels to inspiration; another sensation impels to expiration. The feeling of want of breath arises within the chest and seems to involve all the thoracic organs. The feeling which impels to expiration seems to arise from the windpipe—that is to say, a patient suffering from expiratory dyspnea will refer this feeling to the manubrium sterni and region of the trachea. This tracheal sensation closely resembles the feeling which impels to cough, and it is the cause of that expiratory groaning which is so common during the uneasy sleep of patients suffering from bronchitis, emphysema, or heart disease. I do not refer to snoring or stertor, which are inspiratory noises. Thus, medical physiology requires two respiratory centers, one for inspiration and one for expiration.

It has been said that in bronchitis attended with laborious breathing the chief difficulty is in inspiration; that the expiratory act, on the contrary, is always accomplished with comparative ease; and that these phenomena of laborious breathing, particularly the long-drawn, exhausting, inadequate inspiration, are probably quite peculiar to obstructive bronchitis. But surely these propositions are far from being universally true. Even in slight bronchitis occurring in a man who never had bronchitis before the expiration may be much more forced than the inspiration in consequence of the provoking tracheal sensation spoken of before. In chronic bronchitis, when the patient raises phlegm with difficulty, the most obvious thing about the respiratory movements in many cases is the forced expiration. If we would see inspiratory dyspnea in its highest degree and purity, it is not to bronchitis, but to laryngitis, that we must look; to angina laryngea, not angina bronchialis. In mere bronchitis we seldom see anything like the inspiratory dyspnea of croup.

Lividity.

Lividity is not a marked symptom of bronchitis except in the worst cases. When we see a patient whose dyspnea amounts to orthopnea, and whose lips are purple or almost black, we suspect at first sight disease of the heart rather than disease of the lungs. Again, if we see great lividity in a case of bronchitis, we suspect some complication—for instance, pulmonary emphysema, extensive collapse, broncho-pneumonia, scattered tubercle, or distended heart.

The phrase "suffocating catarrh" has been used in senses so varied that some persons have suggested that it should be wholly discarded. Even apoplexy and croup have borne that name. We can continue to use it only on condition that suffocating catarrh shall signify bronchitis in which the patient is in danger of being stifled by bronchial secretion thrown out more rapidly than it can be expectorated. The metaphoric phrase "paralysis of the lungs" has been applied to these cases of catarrhal infarctus. We meet with suffocating bronchitis under three conditions. First, in infants; and a main cause of their liability to suffocating catarrh is to be found in the shape of their thorax, which being almost circular on horizontal section is incapable of more than small lateral expansion. The only extraordinary enlargement which their chest can undergo is by vertical elongation, upwards by means of the accessory inspiratory muscles and downwards by excessive diaphragmatic contraction. Moreover, their ribs are often soft and rickety. Next we meet with suffocating bronchitis in adults when they are attacked by pituitous catarrh in a severe degree. And, thirdly, suffocating bronchitis is common as an exacerbation of chronic bronchitis in persons who are for the most part advanced in life.

In these cases, postmortem, we often find that form of pneumonia which bears no name adopted universally. Our own nomenclature gives us the choice of three names. We may use the name "lobular pneumonia," in contradistinction from lobar pneumonia; or "broncho-pneumonia" in contradistinction from pleuro-pneumonia; or catarrhal pneumonia in contradistinction from what has been called "croupous pneumonia." The name of broncho-pneumonia is to be preferred. Croupous pneumonia is what Polonius would have called a very vile phrase. It is amusing to note how the Lowland Scotch word "croup" (the cognate English word "roup"), which signifies a certain kind of noise, has come to be applied to a morbid exudation—a perversion due to foreign pathologists who could not have known the meaning of the word which they were using or abusing. And thus croup, having undergone this strange metamorphosis in the course of his travels abroad, comes back disguised to his native land and we receive him with open arms. Such are English ways.

Broncho-pneumonia is the last stage of inflammation extending downwards along the air-passages into the pulmonary lobules. Catarrh implies a mucous membrane; but the bronchioli which feed the pulmonary lobules with air possess no mucous membrane; in these parts, therefore, lobular hepatization takes the place of bronchial catarrh. The difference in the products of exudation depends more upon the situation of the disease than upon any difference in its cause. The microbes found in lobular pneumonia are the same as those found in bronchitis, although the relative frequency with which they are found is not the same in the two diseases. To the last volume of *St. Bartholomew's Hospital Reports* Dr. Horton Smith has contributed a valuable paper upon the bacteriology of acute broncho-pneumonia. He finds that the microbe most frequently present is pneumococcus, less frequently streptococcus, and still less frequently staphylococcus. He finds that the broncho-pneumonia of typhoid fever is due to those common microbes, and not to the special typhoid bacillus. But he thinks that the broncho-pneumonia of diphtheria and influenza most frequently depends upon their several proper and peculiar microbes; and yet that in a few cases the pneumonia is not specific—that is to say, none but the common pyogenic microbes are found. One very practical truth has been well established—namely, that in measles the frequency with which broncho-pneumonia occurs is dependent upon the degree of impurity in the air breathed. The main cause of death in measles is broncho-pneumonia, and the mortality in some epidemics has been so high as 50%. Thus any mysterious change of type or epidemic constitution seems to be resolved, so far as concerns measles, into the condition of the air breathed by the patients. Hence the necessity for isolation, for ventilation, and for cleanliness.

The pneumonic part of broncho-pneumonia is a postmortem disease, or, in other words, it can seldom be detected with certainty during life. In severe progressive capillary or suffocating bronchitis which threatens the patient with death we may assume that lobular pneumonia is present, inasmuch as it is the last stage of the disease. Neither symptoms nor physical signs help us much; the patient is too ill to bear prolonged examination; nor does it matter in the least whether we detect the pneumonia or not, for our treatment is the same in both cases.

Chronic Bronchitis.

Chronic bronchitis associated with emphysema, and in all respects like the disease common in old people, is by no means very uncommon in the young, that is to say, in patients under 20 years of age. But this is the case, especially among the lower classes of the people; among the well-to-do, chronic bronchitis is uncommon in the young. When we bear in mind that with asthma it is quite the reverse—that juvenile asthma is common among the well-to-do and uncommon among the lower classes—the suspicion arises that we have to do with what is essentially the same disease assuming different forms under different conditions of life. The poor are very careless with regard to their health, and it is probable that through neglect what would otherwise be asthma becomes a chronic pulmonary catarrh.

The heart is dilated more easily in children than in adults, and thus cases of juvenile chronic bronchitis gradually pass into a state wherein the symptoms of dilated heart predominate over those of the original disease. [Case cited.]

That predisposition which tends to make bronchitis chronic is often hereditary, and is often acquired. In many persons a powerful assistant cause of the chronic bronchitis is alcohol. Sydenham alludes to this fact when speaking of "peri-pneumonia notha," which no doubt for the most part consisted of febrile exacerbations of chronic bronchitis. He says that the disease "affects those who are of virile age, or, what oftener happens, those who are older and have been too much given to spirituous liquors, especially to brandy." The evil effect of alcohol is sometimes seen in persons who cannot be justly called intemperate, and a marked diminution of the tendency to bronchitis will sometimes occur in patients who become total abstainers after having been in the habit of drinking not more than a usual quantity of wine. The swollen, deeply red, and irritated soft palate of many hard drinkers probably affords a clue to the nature of alcoholic bronchitis.

Postmortem examination of the bodies of persons past middle life reveals the fact that their chronic bronchitis is seldom unassociated with chronic nephritis, arterio-capillary sclerosis, chronic endocarditis, or pericarditis, or myocarditis, and atheroma of the aorta, not to speak of pulmonary emphysema—lesions which constitute an important part of the condition which we designate "old age."

That a tendency to chronic bronchitis and a tendency to gout concur in many patients is a frequent experience, and there can be no objection to our expressing this fact by calling the bronchitis gouty, provided the evidence of gout be sufficient. But I fear that gouty bronchitis is often talked about when the evidence of gout is small. Before the term "gouty" is predicated of any disease the reasons for the affirmation ought to be carefully examined. To define the word "gout" is not possible; the essential nature of gout we do not know. Doubtless there are satisfactory criteria or notes of gout, such as regular attacks in the hand or foot, tophi and the discovery of uric acid in the blood. But medical men are often content with much lower probability than this when they pronounce a patient to be gouty, and I am far from saying that they are wrong. Howbeit the name of "gout" has been extended in meaning so as to include a vast number of diseases, but whether these speculations are as sound as they are ingenious, whether they are solid structures grounded on truth or no more than the phantoms of a lively imagination, I will not take upon myself to determine. Time will show. *"Medicina non ingenii humani partus et sed temporis filia."*

PHTHINOID BRONCHITIS.

There is a form of chronic bronchitis which bears a close resemblance to tuberculous pulmonary consumption; the disease is nothing but bronchitis, yet the symptoms are those of phthisis pulmonalis. The interest of this topic is mainly antiquarian for us, because it throws an important light upon the progress of pathology. Before the invention of auscultation the patients alluded to were necessarily believed to be suffering from pulmonary consumption, and, indeed, they were so suffering in the original sense of the phrase. For the epithet "consumption," or "phthisis," related to the condition of the whole body, to the progressive emaciation in fact, while the word "pulmonary" indicated that the disease, whatever it was, which caused the emaciation, was seated in the lungs. This was the sense in which Richard Morton used the phrase in his admirable book entitled *Phthisiologia*. In the phthinoid or consumptive form of bronchitis there is an abundant expectoration of purulent sputa. The early physicians knew of no source of pus but an ulcer, and hence they inferred that the lungs were ulcerated. The first man to discover that this was not the case was that singularly accurate observer Antony de Haen; but even after he had shown that the lungs, examined postmortem, were, to all appearances sound, free from all ulceration, and yielding not a drop of pus on section, yet matters were not much advanced for practical medicine because the diagnosis could not be made during life. And here the subject stood until the time of Laennec. Perhaps you remember that Sir Thomas Watson confessed in his lectures that he once made this mistake, and pronounced a young woman to be in the last stage of consumption who soon afterward made a rapid and complete recovery, he having omitted to auscultate her chest. Even auscultation does not always enable us to distinguish these cases with perfect certainty, but since Robert Koch's discovery of the tubercle-bacillus we have a potent auxiliary to diagnosis in the microscopic examination of the sputa.

CONCLUSION.

In conclusion, we will revert to the results of our search into the causes of bronchitis. We found it to be highly probable that most catarrhs are due to a specific infection, and they often depend upon contagion spreading from man to man. This doctrine has very important bearings upon medical practice. It leads us to believe that the means by which we may prevent catarrh are to be found in ventilation and cleanliness, if, indeed, ventilation be not a kind of cleanliness. Experience confirms this belief. When epidemic catarrh prevails, where do we find most of our patients? In those houses which are obviously the worst ventilated, even though they be the spacious houses of the rich. And where do our patients catch their catarrh? Either in houses of the kind which I have mentioned or in buildings where men most do congregate, especially in offices, shops, and churches. Large shops and stores, public museums and libraries, are ventilated as little as possible for fear of their contents being spoilt by smoke and dust. Many churches both in town and country are never properly aired for another reason—namely, because their architecture does not admit of it. Those "rich windows which exclude the light" do worse than this—they exclude fresh air. The revival of Gothic architecture has been, from the sanitary point of view, a great mistake. Our despised forefathers of the eighteenth century erected plain and simple buildings which could at least be well aired, well lighted, and kept warm and comfortable; nay, even the much ridiculed churchwarden, with his brush and pail of whitewash, was a praiseworthy minister of health. Modern dwellings are no better than the churches. In the matter of domestic sanitation people have fixed their attention too exclusively upon the drainage and the water-supply; light and air are not reckoned. Many of the large red-brick houses which have been built in great numbers at the West End of London and elsewhere during the last 25 years cannot be properly ventilated. The well of the staircase ought in every house to be a reservoir of pure air, and to have an independent supply from without. But in many houses the staircase cannot be ventilated except through the rooms, and, in fact, it never is ventilated. Nor are the rooms themselves much better off; their heavily mullioned windows are designed with small regard to the transmission of light and air. The subsidiary and merely ornamental arts, which do no more than please the eye, are studied to the neglect of that far greater art which promotes the happiness and welfare of the whole man—the art of preserving health.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Meetings of Philadelphia Medical Societies for the week ending April 1, 1899:

Monday, March 27—Neurological Society.

Profits by the Charity Ball.—The sum of $9,000, representing the net proceeds of the recent Charity Ball, has been divided equally among the children's wards of the University Hospital, St. Christopher's Hospital for Children, The Pennsylvania Society to Protect Children from Cruelty, and the Sanitarium Association of Philadelphia.

Memorial to Dr. William Pepper.—At a meeting in the office of Mayor Warwick, March 17, the committee to prepare a memorial to the late Dr. William Pepper, decided to erect a bronze statue of Dr. Pepper on the City Hall plaza. The following committees were appointed to carry out the project: Art Committee, Dr. Alfred C. Lambdin, John Wanamaker, Dr. J. M. Da Costa, Alfred Gratz, and Dr. Edward Brooks; Finance Committee, Justus C. Strawbridge, S. R. Shipley, S. B. Huey, John H. Converse, Daniel Baugh, H. Dale Benson, Hampton L. Carson, Dr. H. C. Wood, and John B. Gest.

Vital Statistics of Philadelphia for the week ending March 18, 1899:

Total mortality		520
Children under 5 years of age		127
Diseases.	**Cases.**	**Deaths.**
Pulmonary tuberculosis		71
Pneumonia 58, congestion of the lungs 7		65
Heart-disease 33, inflammation of the heart 9, neuralgia of the heart 4, fatty degeneration of the heart 2		48
Typhoid fever	477	44
Nephritis 22, uremia 8, cirrhosis of the kidneys 1		31
Apoplexy 15, paralysis 7, softening of the brain 4		26
Senility		24
Marasmus 8, debility 8, inanition 7		23
Inflammation of the brain 17, congestion of the brain 5		22
Gastroenteritis 14, cholera infantum 7,		21
Bronchitis		17
Convulsions		15
Diphtheria 9, membranous croup 3	75	12
Casualties		11
Cerebrospinal meningitis	21	11
Scarlet fever	35	1
Influenza 6, peritonitis 6, diarrhea 5, intestinal obstruction 5, hepatic cirrhosis 4, pleuritis 4, cyanosis 3, teething 3, dysentery 2, erysipelas 2, gangrene 2, cystitis 2, rheumatism 2, suffocation 2, pertussis 2, diabetes 1, appendicitis 1, jaundice 1, measles 1, poisoning 1, suicide 1.		

Dr. J. M. Baldy has been appointed, by Secretary of State Hay, delegate to the International Congress of Gynecology and Obstetrics to be held in Amsterdam, August 9 to 12, 1899.

Coroner's Physician of Philadelphia.—Dr. Henry W. Cattell has resigned, and has been succeeded by Dr. William Scott Wadsworth, at present resident pathologist to the Presbyterian Hospital.

Philadelphia Neurological Society.—At the meeting to be held March 27, Dr. B. Sachs, of New York, will deliver an address entitled: **Erythromelalgia and allied conditions.** The members of the medical profession are invited to be present at the meeting.

Northwestern Medical Society of Philadelphia.—At a recent meeting held March 7, Dr. Frank Massey spoke of some **unusual features of the recent epidemic of influenza.** The most frequent anomalous features noted were urticaria, rheumatoid joints, and neuroparalytic keratitis.

Dr. Wendell Reber reported 2 cases of **fracture of the orbit with consecutive emphysema of the lids and orbital tissues.** In both cases, the fracture resulted from a fist-blow in the face, and the emphysema was produced by blowing the nose within an hour after the injury. In the second case the emphysema would rapidly subside, but the lids could again be inflated at will by vigorous nose-blowing. In considering the site of the fracture, the author came to the conclusion that in such cases as he reported, the fracture could only occur either by involving the lacrimal bone alone, or by separation of the lacrimal bone from the orbital plate of the ethmoid bone.

Dr. William Egbert Robertson presented a specimen of a **button-hole mitral valve,** and in speaking of endocarditis in general and of the insidious development of valvular disease of the heart in particular, urged the necessity in every case of infectious disease of careful auscultation of the heart, which, however, was not of itself sufficient. Inspection, palpation, and percussion of the cardiac region were of equal importance, although too much stress should not be placed on the heart-sounds alone, as they were sometimes equivocal and misleading.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held March 13, Dr. E. S. Montgomery reported a **case for diagnosis.** A man, aged 46 years, was suddenly seized with rapid tremors in the left leg, followed by twitching of the muscles of the neck and congestion of the face. These seizures came on every 5 minutes. Later there developed some swelling of the neck with blueness of the skin. There was no paralysis of motion, sensation was preserved, and there was no evidence of any central lesion. The condition subsided completely in a few days, leaving the patient in a somewhat weakened condition. No opinions were offered as to the nature of the case.

Dr. P. J. Eaton, believing an **epidemic of German measles** imminent, requested the Fellows to note where the eruption first appeared and the amount of glandular swelling in cases coming under their observation.

Dr. J. H. Anderson reported a case of **traumatic dislocation of the astragalus-axial rotation.** It was excised with a good result.

Dr. R. W. Stewart reported the case of a man who had **ruptured both quadriceps-extensor muscles** on different occasions, each time by a fall. One tendon was totally severed while the other retained a small tendinous expansion of the vastus internus. This man had been going about for years and presented but little evidence in his gait of so severe an injury. He had never been operated upon.

Dr. S. N. Pool read a paper on **Eclampsia.** The theories of numerous authorities as to its etiology were given, but none were held to be perfectly satisfactory. Recent investigations would seem to indicate that it is due to a toxemia the nature of which remains unknown, plus defective elimination by the various emunctories. Renal insufficiency is almost invariably followed by eclampsia, but the presence of albumin in the urine does not always mean that the kidneys are insufficient, nor does its absence indicate normal renal activity, or immunity from eclampsia. It is stated that 6% of pregnant women have albumin in the urine, but in a series of 94,935 pregnancies collected from various sources there were but 462 cases of eclampsia. In these cases as many women had convulsions during labor as before and after labor combined. Prophylaxis is very important. Though eclampsia is not to be regarded as the result of nephritis, yet the presence of albumin in the urine is a danger-signal. The urine should be examined every two weeks during the latter part of pregnancy, and if evidence of nephritis be found milk-diet hot-water baths and hot-air baths, purgatives, alkaline waters, and iron in some form are indicated. If under these measures the general symptoms became aggravated, the question as to the induction of premature labor comes up. Should convulsions occur and the usual sedatives, chloral, the bromids, morphin, etc., fail, induce labor by introducing a bougie into the uterus. If the convulsions complicate labor the same remedies with chloroform are to be used. Croton-oil may be given. Veratrum viride was thought to have been praised too highly. Venesection is preferable (extracting 10 to 18 ounces of blood), followed by the introduction of normal saline solution. If labor is at all advanced, terminate it as soon as possible. Convulsions after delivery are to be combated with the usual sedatives combined with measures calculated to stimulate the various excretory organs.

NEW YORK.

Bequest to the Buffalo General Hospital.—By the will of the late Elizabeth H. Gates, $50,000 is bequeathed to the Buffalo General Hospital.

The New York Ophthalmic Hospital.—At a recent meeting of the directors of this hospital, it was reported that during the month of February 883 new patients had received treatment, and that, on an average, 120 prescriptions had been filled daily.

Fracture of the Fifth Cervical Vertebra.—A few days ago a woman, 59 years of age, while putting out clothes from the third floor of a flat-house, lost her balance and fell to the yard below. She was conscious when picked up, and examination at the Harlem Hospital showed a fracture of the fifth cervical vertebra. She was paralyzed below the shoulders, but her mind remained clear. A weight-and-pulley traction-apparatus was used to maintain extension on the injured spinal column. She remained conscious and able to converse with those about her almost up to the time of her death, three days after the occurrence of the fracture. The case was seen and studied by a number of physicians.

Charitable Institutions Seek to Draw Heavily on the City Treasury.—There is a bill now pending in the New York Legislature which, if passed, Mr. Coler, the City Controller, says will mean that the city will have to give

$5,000,000 to charitable institutions. This would mean that public charity would receive as its share more than 10% of the expenses of the city government. Mr. Coler has sent a protest to Albany against the bill, and asserts that most of the money that many of the so-called charitable institutions receive is used to pay the salaries and living expenses of the officers. He believes that the appropriation of city money for private institutions should rest entirely with the Board of Estimate, and that all mandatory laws granting fixed appropriations to private institutions and societies should be repealed.

Skin-Grafting by the Flap Method.—An interesting operation of skin-grafting by raising a large flap was done about a week ago by Dr. Joseph D. Bryant at Bellevue Hospital on the arm of a man, for the relief of disabling cicatricial contractions following an extensive burn. As grafting with small pieces of skin had failed to accomplish the desired purpose, the contracted tissue was dissected away until the arm could be well extended, and a suitable surface had been secured. An incision was then made in the skin on the left side of the chest, and a flap raised measuring 12 inches in length by 5 in width. The freshened surface on the arm was brought under this flap, and secured by sutures and suitable dressings. Of course, after this large graft has become firmly adherent to the arm, the connecting bridge of skin will be severed.

State School of Public Health.—A bill introduced into the Legislature by Assemblyman Henry, and favorably reported to the Assembly by the Ways and Means Committee, provided for the establishment of what is called "A State School of Public Health." It is to be located near First Avenue and Twenty-sixth Street, New York City, and an appropriation of $50,000 is made, half for fitting up this building for the use of the New York University for the purpose mentioned, and half for the purchase of the necessary supplies and apparatus for the school. It is intended that in this school shall be conducted laboratory researches regarding the nature of infectious and contagious diseases and the purity of water and various food-stuffs. By an amendment it is provided that the school shall give free instruction in sanitation to all members of local boards of health who make application for such instruction.

Rapidity of Vision in Railroad Men.—Not long ago it was thought to be thoroughly up to date if would-be railroad employes were tested as to their ability to distinguish unerringly between different hanks of colored worsted, particularly between red and yellow; now, it is said, railroad managers have discovered that slow sight and not color-blindness is the great thing to guard against. Dr. J. F. Valentine, chief surgeon of the Long Island Railroad, says that he has met with a relatively small number of color-blind men, while it was not at all uncommon to meet with abnormal slowness of sight or with limited range of vision. Most of the men with these defects are of middle age or beyond. Dr. Valentine, in testing for these visual defects, makes use of an apparatus placed 7 or 8 feet above the line of ordinary vision of the person being tested, and provided with flags and lights of different colors. The test consists in first making flags of different colors appear for a moment only, so that the test is made simultaneously for quickness of vision and color-blindness. This having been done, different colored electric lights are successively made to glow momentarily, and the candidate is asked to name the colors. This light-test is even more severe than the daylight-test, but it is thought well to err on the side of too much caution. Of course, in actual practice it rarely happens even on an engine running at a high speed that the signal lights cannot be seen for a considerably longer period than in this examination.

Horse-Butchering.—The citizens of Greater New York received a rude shock when, in the course of the trial of a case prosecuted by the Society for the Prevention of Cruelty to Animals, the superintendent of that society announced to the Court, that a slaughter-house was in operation, just across the river, in New Jersey, where horse-meat was converted into sausages and sold to residents of the poorer districts of the city. He went on to say that a number of men were engaged in a regular business of buying up old and decrepit horses and selling them to the proprietors of slaughter-houses in New Jersey and on Long Island, and that the flesh of these animals is then pickled and packed in barrels or made into sausages. Within the limits of Greater New York such slaughtering must be done secretly, as it is against the law, but up to the present time it has not been prohibited by law in New Jersey, and there is no secrecy about the business. It is pretended that all the horse-meat is exported to Norway, but those familiar with this trade laugh at this pretense. A few days ago the State Board of Health of New Jersey instructed its counsel to draft a bill to be presented at once to the Legislature, the object of which was to give complete supervision over the traffic. A prohibitory law was not deemed wise because horse-meat as an article of food was not regarded as dangerous or hurtful, although it was a kind of food that would bear close watching. The New Jersey legislators are said to be almost unanimously in favor of prohibiting or at least restricting this business, but it is so late in the session that it may be found difficult to enact a suitable law before adjournment.

New York Academy of Medicine—Section on Surgery.—At the meeting, March 13, DR. C. L. GIBSON exhibited a fairly good functional result obtained in an old neglected fracture of the condyles of the humerus by resection of the humerus.

DR. CARL BECK exhibited a patient on whom he had done **a modification of the Bassini operation.** His modified method was as follows: An incision was made along the outer border of the rectus, exposing its lower third and a portion of Poupart's ligament. After division and dissection backward of the aponeurosis an oblique incision was made across one-third of the width of the rectus, and the fibers were pulled downward so as to avoid tension. The divided aponeurosis was then approximated above the cord. The operation was an experiment, but was done because one year ago he had done a Bassini operation on this man, and the hernia had recurred.

DR. BECK also exhibited a case of **cholecystotomy in transposition of the viscera.** The exploratory laparotomy had afforded an opportunity for verifying by actual inspection the diagnosis of transposition of the viscera, and the sinus still left after the cholecystotomy furnished ocular proof at the present time of the fact that the gallbladder was on the left side in this patient. In the discussion, DR. W. B. COLEY expressed the opinion that Dr. Beck's modification of the Bassini operation was wholly uncalled for except perhaps in those quite rare cases in which an inguinal hernia was of the direct variety. He was inclined to believe that the reason for the failure of the Bassini operation in the case presented was that the incision had not been carried sufficiently high to permit of a proper transplantation of the cord. Dr. Beck replied that his proposed modification was intended only for very large hernias. It should be remembered that in his most recent report, Bassini had admitted 3% of recurrences after his operation.

Dr. R. F. Weir reported **five cases of gastroenterostomy performed by the method of Braun and Gallet.** In 4 of the cases an entero-enterostomy had been done in addition to the gastroenterostomy on the posterior wall of the stomach. All had recovered without the slightest gastric disturbance, and, with a single exception, the buttons had been discharged within two weeks after operation. In the exceptional case the button had not been discharged at all, and it had been subsequently demonstrated by the aid of the x-rays that the button had fallen back into the stomach. Dr. Weir was inclined to attribute this mishap to the fact that, following a suggestion of Gallet, he had modified the usual technic by introducing the halves of the button separately, by the aid of catch-forceps, into the two " legs " of the intestinal wound, and then dividing the septum by crushing with forceps. A sharp febrile reaction had occurred, apparently indicating that sloughing had occurred, and that, as a result, the opening had been unduly enlarged.

Dr. William H. Park read a paper on **the use of streptococcus-serum,** in which he detailed a few clinical cases, but chiefly his experience with this serum in laboratory work. As conclusive proof of the power of the streptococcus-serum, under certain circumstances, to protect animals against streptococcus-poisoning, attention was called to an experiment in which 3 rabbits received simultaneously injections of high-grade streptococcus-serum and a culture of streptococcus, while 3 control-rabbits were not given the streptococcus-serum, but about one-tenth of the dose of culture used in the first 3 animals. All 3 of the rabbits that had received both serum and culture lived, while all 3 of the controls promptly died. This serum had been found active against several varieties of streptococci, differing widely from one another as to source and virulence. As streptococcus-serum would often lose its potency in 3 or 4 weeks, even the best obtainable in the market could not be depended upon, and hence the necessity for its manufacture, as wanted, at Board-of-Health laboratories. There was good reason for believing that the streptococcus-serum could be used in cases of streptococcus-infection with good therapeutic effect up to the time when the streptococci began to appear in the blood, but certainly not later. In suitable cases, in which the infection was, at least, largely due to the streptococcus, it was proper to try the streptococcus-serum; at the same time, the physician should not look for very brilliant results in the present state of our knowledge.

NEW ENGLAND.

A peculiar suit-at-law, and one intended to be instructive, it is stated, has been brought by a Boston physician against a dealer in pets in that city. The doctor is suing to recover the price of an Angora kitten sold to his wife, together with such damages as may be allowed for the trouble to which he has been subjected. The cat died within a week after its purchase, and the doctor satisfied himself by a postmortem examination that the cause of death was tuberculosis of an acute type. Believing that his family had been unduly exposed to the danger of contagion, the doctor brought suit. In reality, however, the action is being brought with a view to attracting the attention of the public to the grave danger to which, the doctor says, many people heedlessly expose themselves. Pets like Angora cats, he says, very often spread disease, and he has no doubt that a child or person not in good health, who might have played with his wife's late pet, would have contracted the disease. He considers the selling of an animal under the circumstances to be a very serious matter. In this case he also sees an explanation of mysterious cases of disease, where the friends of the stricken ones find themselves unable to tell how it was contracted.

CHICAGO AND WESTERN STATES.

Chicago Clinical School.—Dr. Aller T. Haight has been elected professor of ophthalmology.

St. Luke's Hospital, Chicago.—Dr. William H. Rumph has been elected gynecologist to succeed Dr. Ferdinand Henrotin, resigned.

Personal Cleanliness in the Public Schools.—It is said that the School Council of Cleveland, Ohio, actuated by a desire to maintain the school-children in a condition of constant cleanliness, has determined upon placing bathtubs in the basement of a new school about to be erected. It is proposed that a good scrubbing be given each child attending the school as indications may call for the administration of soap and water. It is said that the council took this action only after careful consideration of the question from many standpoints, but it evidently failed to consult the opinions of the parents, who much resent the impeachment as to the personal cleanliness of their children, and indignation is said to be reaching a high point. Many assert the innovation an insult to the respectable people of the neighborhood, and threaten to remove therefrom; others, however, more than suggest that a bath would be a good thing for many of the children of the vicinity.

Denver Clinical and Pathological Society.—At a meeting held March 10, Dr. W. W. Grant exhibited specimens as follows: (1) Carcinoma of the breast; (2) carcinoma of the bronchial glands, secondary to carcinoma of the male breast; (3) carcinoma of the cervix uteri; (4) dermoid cyst of the ovary; (5) a cystic appendix; (6) a gangrenous appendix; (7) a cheesy pus-tube; (8) a uterine mole.

Dr. Robert Levy exhibited two **papillomas of the larynx,** and related his experience with adrenal extract in nose and throat operations.

Dr. H. G. Wetherill exhibited an enormous hydrosalpinx in which the fimbriated extremity was completely and firmly closed.

Dr. W. H. Bergtold reported a case of **arterio-sclerosis** with relief of symptoms from use of thyroid extract.

Three cases of **cerebrospinal meningitis** were reported, one by Dr. Moses Kleiner, and two by Dr. H. T. Pershing.

Dr. T. J. Gallaher related his experience with **artificial sponges** in nasal work.

Dr. Edward Jackson reported a case of **iritis** which went 2 weeks without treatment by reason of the patient having been fitted with glasses by an optician.

Dr. H. G. Wetherill reported a **case of ovarian cyst** with adherence of the sigmoid completely encapsulating the cyst, thus causing signs of an intra-ligamentous cyst.

Dr. Sol Kahn, of Leadville, reported a case of **congenital constipation,** the patient having no action of the bowels for several months at a time.

Dr. Charles A. Powers reported an experience with bandaging the extremities in a case of **fatal hemorrhage,** which caused him to doubt the advisability of such procedure for fear of causing coagulation in the vessels of the extremities.

DR. G. E. TYLER reported un unusual **vaccination-rash.**

Denver and Arapahoe Medical Society.—At a meeting held March 14, DR. J. N. HALL reported 3 cases of **leukemia** seen by him in the past 14 months. The blood-examination was made in each case by DR. GEORGE H. STOVER.

CASE I.—Spleno-myelogenous leukemia. Male, age 47, father living, mother died of dropsy. No history of syphilis or other serious illness. Three years ago he noticed increased size of abdomen, and for several months has noticed exhaustion, breathlessness and debility upon attempting to work, and has had occasional indigestion, otherwise in fair health. When examined April 1, 1898, he appeared moderately anemic; abdomen was protuberant; there was no enlargement of accessible lymphatic glands; the spleen reached to within 2 inches of the pubes and slightly to the right of median line, the notches being easily felt; the liver was not materially enlarged; lungs and heart, normal; no edema, and tongue clean; urine normal. Temperature varied between 98° and 100°; pulse 90 to 100, of low tension. Blood-count showed erythrocytes, 2,890,000; leukocytes, 331,000; ratio, 1 to $8\frac{7}{10}$. Differential count: Small mononuclear cells, 4%; large mononuclear cells, 11%; myelocytes, 55%; polymorphonuclear cells, 30%; eosinpohiles, 0.75%. Many normoblasts were found. The patient received arsenic for several months, but gradually failed and died in September, 1898. At the autopsy, the spleen weighed 6¼ pounds; the liver was normal to gross appearance. The right kidney was a pus-sac, little but the capsule remaining; a large fresh blood-clot filled its cavity. The spleen was exhibited.

CASE II.—Spleno myelogenous leukemia, female, aged 44; family-history negative; had malaria mildly when a child; she has had 3 children; no miscarriages. She was first seen November 21, 1897. For 18 months she had complained of dyspnea, slight dry cough, progressive enlargement of the abdomen, slight edema of feet and loss of weight from 170 to 120 pounds. She was moderately anemic. Her temperature was 99.3°; pulse 104, of fair quality. Lungs and heart were normal, except for faint systolic murmur, probably hemic. The liver was practically normal. The spleen was so large as to give the woman the appearance of being 7 months pregnant, reaching to the navel and within 2 inches of the pubes. The notch was specially distinct. There was slight enlargement of the axillary and inguinal glands. The blood-count showed red cells moderately diminished, the ratio of white to red being 1 to 5. Differential count: Small mononuclear cells, 9%; large mononuclear cells, 10%; myelocytes, 50%; polymorphonuelcar cells, 30%; eosinophiles, 1%; many normoblasts. The patient was given arsenic and is comfortable.

CASE III.—Mixed lymphatic leukemia, male, aged 8 years; family-history, negative; no specific history. The patient had had measles and chickenpox as a baby, diphtheria at 3, pneumonia at 5. In October, 1897, the cervical and inguinal glands became swollen, and from January 1, 1898, he was confined to bed for 8 weeks, there being slight cough all this time; he lost 12 pounds. His temperature rises daily to about 101°, and the pulse varied from 120 to 144. He has had 6 to 8 loose evacuations daily. Two aspirations in hepatic region have given negative results. When examined November 18, 1898, the patient was fairly developed, sallow, thin, weighed 49 pounds, and showed no distinct jaundice. Temperature was 102.1°; pulse 128, of good quality. The tongue was covered with thick whitish coat. Urine, 1016, specific gravity; no albumin, sugar or casts. The lower abdominal veins were distended, the abdominal wall protruding, but there was no ascites. Liver-dulness extended from the fourth rib to 2 inches below costal margin, with markedly rounded edge. Posteriorly dulness extends upward to eighth rib. The splenic area was 3 by 4 inches, rather higher than normal, the edge palpable. The heart was normal, and the lungs practically so. Blood-count: red cells, 4,500,000; very many of them microcytes; a few nucleated red cells, and a few megalocytes; hemoglobin, 60%; color index, 73. White cells, 35,000, of which 18% were large lymphocytes; 32.8% small lymphocytes; 1% eosinophiles; 1.2% myelocytes; and 47% polymorphonuclear cells. Patient improved under arsenic and is living.

DR. HALL spoke at some length of the differential diagnosis of these conditions.

DR. CHAS. A. POWERS read a paper on methods and results in 175 cases of **simple fracture of the femur.**

SOUTHERN STATES.

Louisiana State Medical Society.—The annual meeting will be held in New Orleans, April 25, 26, and 27, 1899.

Cerebrospinal Meningitis in Washington, D.C.—There were 22 deaths in 19 days ending March 18 reported at the Health Department. It is not known how many cases exist in the District, since the health-office only receives the death-certificates.

Smallpox Situation in Washington, D.C.—The disease is now apparently on the wane. After an entire week in which no cases were discovered, one young woman was found, on March 19, suffering with the disease. There are now 17 cases under treatment in the smallpox hospital.

Smallpox at Arkansas' Capital.—It is reported that the members of the legislature of Arkansas, in session at Little Rock, were panic-stricken March 16 when it was announced that physicians had diagnosed the illness of Senator Lankford as smallpox. After a half-hour's debate, the House voted to have all its members vaccinated.

Medical Department of the University of Virginia.—At a meeting of the Board of Visitors of the University, held March 3, it was agreed, upon recommendation of the Faculty of Medicine, to establish a hospital in connection with the medical school, and $20,000 was appropriated for the construction of the necessary buildings. Beginning with the next session, the course in medicine, preliminary to graduation, will be extended to 4 years.

To Study Tropical Diseases.—Dr. Simon Flexner, professor of pathologic anatomy in Johns Hopkins University (recently elected professor of general pathology and morbid anatomy in the University of Pennsylvania to succeed Dr. John Guiteras, resigned), and Dr. Lewellys F. Barker, associate professor of anatomy in Johns Hopkins, are about to go to the Philippines to study the characteristics of the diseases prevalent in that portion of the tropics. They sail from Vancouver, March 27, and expect to remain away about 6 or 8 months. They take letters of introduction from President McKinley and Secretaries Alger and Long to the naval authorities at Manilla. Three medical students, J. M. Flint, of Chicago, F. P. Gay, of Boston, and Robert Garrett, of Baltimore, accompany them as voluntary assistants. The expenses of the expedition are defrayed by liberal personal gifts from a few friends of Johns Hopkins University.

Imperforate Hymen, Enlarged Uterus.—There occurred in the private service of Dr. T. F. Mallan, Providence Hospital, Washington, D. C., a case of imperforate hymen in a girl 17 years old, who had been under observation for the past 15 years. There had been an entire absence of menstruation with incontinence of urine, for which tonic treatment had been given at various times. A few days before admission to the hospital the patient was seized with severe paroxysms of abdominal pain, thought to be due to indigestion. Finally an abdominal examination revealed a firm movable tumor, first thought to be a floating kidney, extending from the pubis to the umbilicus and laterally into the right iliac region. The external genitalia presented a cystic protrusion fluctuating upon pressure of the abdominal tumor. Crucial incision of the hymen emptied the vagina, uterus and probably its right tube of a half-gallon of sanious fluid. On bimanual examination the os admitted the index-finger and the vaginal walls were distended into a cavity about the size of two fists. The patient made a complete recovery.

Orleans Parish Medical Society.—At a meeting held March 11, the case of a **youthful mother,** whose labor was complicated with postpartum hemorrhage, was related by DR. M. J. MAGRUDER. In this patient, a white girl born in April, 1886, the menses made their appearance in the summer of 1897; in February, 1898, at the age of 11 years and 10 months, she ceased to menstruate. The course of her pregnancy was marked by nothing uncommon. November 21, 1898, at 3 P.M., labor began; on the 22d, at 1 P.M., she was delivered of a 9-pound baby. So far as known to the relater this is the **largest living child born to so youthful a mother.** The birth of the child was followed by an alarming hemorrhage, the uterus having failed to contract. The hand was inserted into the uterus and the placenta delivered; ergot was given hypodermically; hot intrauterine injections were used, checking the hemorrhage, but coagulating the lining of the uterus, a complete cast of which was expelled in 3 or 4 days. Meanwhile the patient had become unconscious from the great loss of blood; the radial pulse could not be detected. Hypodermic injections of atropin, digitalin, nitroglycerin and strychnin were given. Nearly two pints of saline solution was infused subcutaneously over the abdomen. The pulse could again be felt at the wrist after two hours. At midnight, 11 hours after delivery, the girl regained consciousness. The puerperium was uncomplicated.

Dr. H. A. Gabert made a preliminary report of a case of **spinal curvature** of 3 years' standing, exhibiting the photographic negative of the case. The patient, a woman, had been troubled with rheumatic pains for a number of years, when it was observed that the neck was becoming flexed on the trunk; this flexion has progressed to such an extent that the chin and the sternum are in contact and the woman is not able to extend the neck.

Clinical Society of Maryland.—At a meeting held March 17, Dr. J. Whitridge Williams read a report upon **a successful Cesarean section.** The patient was an unmarried woman, aged 22, who was admitted to the obstetrical ward of the Johns Hopkins Hospital. The operation was necessitated by the presence of a parovarian cyst of the left side, which had become impacted in the pelvis. Dr. Williams' intention had been to operate one week before the expected labor. Owing to a miscalculation in time, labor began one week sooner than was expected, and the operation was actually performed during parturition. The child was delivered through the abdominal incision in less than three minutes. After the incision in the uterine wall had been sutured, the ovarian cyst was removed, and the abdominal incision finally closed. The whole operation lasted 53 minutes. The child lived and the mother made an uneventful recovery. In 1897, R. G. McKerron, of Aberdeen, made a report of 183 cases, collected from the literature, in which labor was obstructed by ovarian tumors impacted in the pelvis. Of these, 49 were simple ovarian cysts, 40 were dermoid cysts, 9 were malignant growths, and the balance fibroids, etc. The cases with dermoid cysts were most fatal, 40% of them dying. One-third of all the 183 cases died. The various operative procedures recommended for the treatment of this complication were discussed. For impacted ovarian cyst, puncture through the vaginal wall is the most popular. Dr. Williams believed that Cesarean section performed shortly before the expected labor gave the best results.

Drs. Stewart Paton and Robert Reuling gave a **demonstration of serial sections of the brain.** They are making vertical, coronal serial sections of the whole of the left half of the brain. Several of these made through the anterior half of the internal capsule, stained by the Weigert method, were shown to the society. These sections were to be accurate reproductions of the plates in Wernicke's Atlas. The following method of hardening the brain had shortened the old process in which Müller's fluid was used by from 6 to 8 weeks. The brain is hardened first in formalin, then in alcohol, and then in thin, moderately thick and finally in thick celloidin. The sections were pointed out as being of great value in teaching the normal anatomy of the brain, as well as in the study of pathologic lesions.

Dr. A. D. McConachie reported a case of **cerebellar abscess of otitic origin.** The patient was a boy, 12 years of age, who for 3 years had suffered from an otorrhea of the right ear, which developed during the convalescence from an attack of typhoid fever. One year ago the patient had suffered from severe pain on the right side of the head and became comatose. These symptoms were relieved by the sudden discharge of a large quantity of pus from the right ear. He had remained well until February 2, 1899, when pain in the right side of the head again developed, associated with great irritability. These were the only symptoms. The case was seen in consultation with Dr. Hartwig. The tympanic membrane was found perforated. February 3 the mastoid cells were opened and some pus found. The boy did well until February 10, when he became semi-unconscious, restless and apathetic. There was some retraction of the head. The patient seemed better on the 11th, but died suddenly, having take a considerable quantity of food one hour before death. An autopsy was obtained, and an abscess of the right cerebellar lobe was found which contained 2 ounces of pus. The bone over the mastoid was found completely necrosed, and the meninges very much inflamed. The interest of the case rested in the entire absence of localizing symptoms. Dr. McConachie regretted his inability to obtain cultures at the time of the autopsy. Dr. Reiche referred to the careless way in which otorrheas were treated by the profession, and advocated a persistent, vigorous treatment until the discharge was cured. Dr. Reuling pointed out the marked variance in the results of operations on brain-abscesses. McEwen had operated on 19 cases with 18 cures. Agnew had lost every one of 18 cases operated on.

Johns Hopkins Hospital Medical Society.—At a meeting held March 20, Dr. Eugene Opie reported a case of **hemochromatosis.** The patient, a man, was perfectly well until six weeks before his death, when he developed a typical attack of typhoid fever. The patient's blood showed a characteristic Widal reaction. During the course of the disease the skin over the face, neck, hands and pubes became markedly pigmented, so much so that Addison's disease was suspected. Three days previous to death there was neither bile nor sugar in the urine. The main feature at the autopsy was the very marked grade of pigmentation of the liver, pancreas, lymphatic glands, mucous membrane of various portions of the intestine. Microscopically the pigmentation was found also in the heart-muscle and in the kidneys. There was hypertrophic cirrhosis of the liver and chronic interstitial pancreatitis. The adrenals were normal. There were typhoid ulcers in the intestine, and the typhoid bacillus was cultivated from the blood and various organs. The pigment was shown to be of two kinds on microscopic examination. One was an iron-containing and the other an iron-free pigment, the former giving the characteristic Berlin-blue color with potassium ferrocyanid and hydrochloric acid. In 1889 von Recklinghausen suggested the name hemosiderin for the former and hemofuchsin for the latter. In this case both forms were found together in some of the organs, as in the liver, whereas in other situations one would be found alone. Von Recklinghausen, who first described the disease, called it hemochromatosis. He, as well as others, considers it an independent disease, the changes in the organs, for example, the hypertrophic cirrhosis of the liver and the chronic interstitial pancreatitis, being dependent on the destruction of the hemoglobin of the blood by some poison of doubtful origin. Dr. Opie was of the opinion that the cases of bronzing of the skin with glycosuria described by Hanot were really instances of hemochromatosis. DR. WELCH stated that the disease was rare and that his personal knowledge of the condition was practically limited to the present case. He expressed some doubt as to the advisability of considering the changes in the viscera secondary to the breaking up of the hemoglobin of the red corpuscles. In reply to Dr. Welch DR. OPIE stated that there seemed to be some other factor than the mere dissolving out of the hemoglobin necessary to cause the changes in the organs. Simple water and toluidin-diamin, although they both cause a solution of the hemoglobin, fail to produce the organic changes. DR. OSLER stated that the case was clinically of interest as it was an example of a case with pigmentation of the skin without the lesions of Addison's disease. He had seen marked skin-pigmentation in four cases of hypertrophic cirrhosis of the liver, in 2 cases of anemia with very much enlarged spleen and in a case of myocarditis.

DR. CRAIG reported a case of **typhoid fever associated with quartan malaria.** In the absence of Dr. Craig his paper was read by Dr. THAYER. The patient, a physician on duty at Chickamauga, was forced to go to bed October 5, 1898, with the characteristic early symptoms of typhoid fever. The Widal reaction was obtained on October 12. October 15 he had his first severe chill. This was followed October 18, 72 hours later, by a second chill when the characteristic quartan parasites were found in the blood. There were in all 5 or 6 chills at intervals of 72 hours apart. Typical quartan organisms, as shown by the exhibited drawings, were found on repeated occasions. The malarial infection did not appear to have influenced the course of the typhoid attack. DR. OSLER stated that this case showed that all the three types of malarial organisms may occur associated with typhoid. The occurrence of tertian and estivo-autumnal infections with typhoid fever had been frequently observed. DR. THAYER remarked that many cases of combined malaria and typhoid fever were said to have occurred among the soldiers in the various hospitals last summer, but he doubted whether they occurred together as frequently as was supposed, owing to the fact that so few cases had been reported.

DR. STEWART PATON read a paper on **Some objections to the neuron theory.** According to the neuron theory each neuron is considered as a unit or independent individual. The work of Apáthy, Nissl, and Beta on the nerve fibrillæ, according to Dr. Paton, seemed to throw considerable doubt on this point. This was especially true of the most recent publication of Beta, who showed that a nerve fibril may enter a ganglion-cell by one of the protoplasmic processes, and, instead of terminating in the cell, leave it again by way of a second protoplasmic process. Dr. Paton held that there was no proof to show that such a fibril originated within the cell, and until such proof can be brought forward we have no right to consider that each nerve-cell is independent of all others. DR. WELCH was inclined to support the neuron theory and thought that there was not as yet sufficient evidence for its overthrow.

DR. DOBBIN reported a case of **fatal pulmonary embolism in puerperal infection.** The patient had been attended in confinement by a midwife. Labor was obstructed by a pelvic deformity. A physician was eventually called in, who secured the woman's admission to the hospital. The child was found dead owing to a prolapsed cord. The face presented. Delivery was effected by means of the cephalotribe. The streptococcus pyogenes was grown in pure culture from the uterus just after delivery of the child. Sloughing of the vesico-vaginal wall with the formation of fistulæ occurred as a result of the prolonged pressure of the head during labor. On the 22d day after delivery the patient began to complain of pain in the left leg which became much swollen and a typical phlegmasia alba dolens developed. About two weeks later the patient died very suddenly shortly after a vaginal irrigation had been given. At the autopsy a yellow coagulum was found to fill both the right and left pulmonary arteries. DR. WELCH said that the diagnosis of pulmonary embolism was easy in this case, but in many instances this is not so. Pulmonary embolism is frequent after operations on the abdomen or on the pelvic organs, and in such cases is not so easily recognized. The same is also true in cases of chlorosis and varicose veins. He referred to a sign mentioned by Litten, who in one case heard a systolic murmur at the second left cartilage and a diastolic and systolic murmur at the second right costal cartilage. DR. THAYER recalled a case of embolism in chlorosis, in which he believed, from the auscultatory sounds, that he happened to be listening to the heart at the time that the embolus was passing through the right chambers on its way to the lungs.

MISCELLANY.

Act of Congress Providing for the Investigation of Leprosy in the United States, etc.—The following bill has been introduced into Congress: Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That the Supervising Surgeon-general of the Marine-hospital Service, under the direction of the Secretary of the Treasury, shall appoint a commission of medical officers of the Marine-hospital Service to investigate the origin and prevalence of leprosy in the United States, and to report upon what legislation is necessary for the prevention of the spread of this disease, the expenses of this investigation, not exceeding the sum of five thousand dollars, to be paid from the fund for preventing the spread of epidemic diseases.

Obituary. — DR. WILLIAM WALDO VAN ARSDALE, of New York City, in Atlantic City, March 17.—DR. OLIVER MARCH, dean of the Northwestern University, at Evansville, Ill., March 18, aged 79 years.—DR. AMELIA CHRISTIE PERRY, Hornellsville, N. Y., March 16, aged 60 years.—DR. J. D. LITTLEFIELD, Jamestown, N. Y., March 11.—DR. FRANK T. BARWIS, New York City, March 9, aged 38 years.—DR. JEREMIAH WILSON, Alexandria, Pa., March 8, aged 65 years.—DR. AMOS ALLEN, Grafton, N. Y., March 8.—DR. JOHN BUTTS, Vicksburg, Miss., March 11, aged 72 years.—DR. JOHN M. DUNLAP, Indianapolis, March 14, aged 70 years.—DR. ASAHEL HAWLEY HEATH, New York City, March 10, aged 76 years.—DR. THOMAS J. HEARD, Galveston, Tex., March 8, aged 85 years.—DR. SAMUEL R. OLLIPHANT, Mobile, Ala., March 3, aged 71 years.—DR. WILLIAM H. SHATTUCK, Pawtucket, R. I., March 11, aged 77 years.—DR. JOHN K. WARELE, Hudson, N. Y., March 4, aged 74 years.—DR. WILLIAM BURKITT, Keokuk, Ia., March 12.—DR. T. M. CULLIMORE, of Beatrice, Neb., at Jacksonville, Ill., March 4.—DR. C. S. WILMORE, Kirksville, Ky., March 4, aged 70 years.—DR. JAMES B. HERRON, Alleghany County, Pa., March 18.—DR. LEE KAHN, Leadville, Col., February 26, aged 32 years.

The Study of Yellow Fever in Havana.—The following report of Dr. Eugene Wasdin, surgeon, to the Supervising Surgeon General of the U. S. Marine-Hospital Service, is of interest:

HAVANA, CUBA, March 3, 1899.

SIR:—I have the honor to state that the laboratory work has progressed satisfactorily here during the month of February. Three cases of fever of a suspicious nature have been seen, all of them in the medical service of the army of occupation. In one case, that of Private Smith, of the Eighth Infantry, there was much diversity of opinion as to diagnosis, our own being in favor of yellow fever prior to and after death. For, in addition to the clinical facts presented, I was able to isolate from the living blood the bacillus icteroides of Sanarelli, thus allowing for the first time the presence of this organism to act as corroborative evidence of the disease. In one case brought to necropsy heretofore have we been able to first isolate this organism from the blood, and at subsequent examination to isolate it from the organs. In this case the organism was isolated in pure culture from the spleen. Of the two other cases, I saw one at Guanajay in Private Perkins, of the 202d New York Volunteers. From an imperfect history and the status presented I differed from the diagnosis of yellow fever, and from blood taken and carefully cultivated I could only obtain a species of proteus. In the third case there was difference of eminent local opinion, but blood taken on the fourth day gave no evidence of the Sanarelli organism. A few comparative necropsies have been done, and it is intended to continue these during the greater prevalence of the yellow fever. The isolation of the toxins and experimentation with them has progressed favorably under Passed Assistant Surgeon H. D. Geddings. He has determined that the toxin of the bacillus icteroides is most potent, the degree of toxicity or value being but little less than that of the pest organism. We are now testing the value of the anti-amaryllic serum in the case of animals inoculated with the organism isolated here, comparing them with others inoculated with bacillus icteroides. We can but regret the impossibility of obtaining cases in greater number, yet the outlook is promising.

Health Reports.—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Supervising Surgeon-General of the U. S. Marine-Hospital Service for the week ended March 18, 1899:

SMALLPOX—UNITED STATES.

			CASES.	DEATHS.
ALABAMA:	Mobile	March 10	4	
CALIFORNIA:	Los Angeles .	Feb. 25–March 4 .	9	2
DISTRICT OF COLUMBIA:	Washington . .	Feb. 25–March 4 .	10	
“	“ . .	March 4–11	11	
FLORIDA:	Jacksonville . .	Feb. 18–25	2	
GEORGIA:	Savannah . . .	March 8	7 case. One among troops returned from Arecibo.	
KENTUCKY:	Louisville . . .	March 3–11	53	1
LOUISIANA:	New Orleans . .	Feb. 25–March 4 .	9	
“	“ . .	March 7	10	
ILLINOIS:	Chicago	March 10	1	
INDIANA:	Clark Co. . . .	March 1	Smallpox	rep'd
“	Daviess Co. . .	“ 1	“	“
“	Floyd Co. . . .	“ 1	“	“
“	Greene Co. . .	“ 1	“	“
“	Jefferson Co. .	“ 1	“	“
“	Marion Co. (Indianapolis) .	“ 1	“	“
OHIO:	Cincinnati . . .	Feb. 24–March 3 .	29	1
“	“ . . .	March 11	1	
PENNSYLVANIA	Homestead . .	Feb. 11–March 11 .	1	
“	Altoona	“ “ “ “ .	1	
“	Bedford Co. . .	“ “ “ “ .	1	
“	Fulton Co. . .	“ “ “ “ .	1	
“	Huntingdon Co.	“ “ “ “ .	5	
“	Somerset Co. .	“ “ “ “ .	1	
VIRGINIA:	Alexandria . .	March 9–12	5	
“	Lynchburg . .	March 4–11		2
“	Norfolk	March 8–10	18	
“	Portsmouth . .	March 4–11	25	
“	Richmond . .	March 6–13	5	
TENNESSEE:	Madison Co. . .	Feb. 13–March 11 .	53	
“	Hardeman Co.	March 1–11	1	
“	Shelby Co., Memphis . . .	Jan. 30–March 11 .	36	
“	Oliver Co. . . .	March 3–11	7	
TEXAS:	Bryan	Jan. 29–Feb. 13 . .	24	
“	Monterey . . .	March 2	3	
WASHINGTON:	Spokane . . .	Feb. 25–March 4 . .	1	

SMALLPOX—FOREIGN.

BRAZIL:	Rio de Janeiro .	Feb. 20–27	6	6
CANADA:	Quebec	March 10	2	
EGYPT:	Cairo	Feb. 4–11		1
ENGLAND:	London	Feb. 19–25	2	
INDIA:	Calcutta	Jan. 28–Feb. 4 . .		2
“	Madras	Jan. 28–Feb. 3 . .		1
MEXICO:	Mexico	Feb. 19–26	2	1
RUSSIA:	Moscow	Feb. 5–12	4	5
“	Odessa	Feb. 18–25	2	1
“	Warsaw . . .	Feb. 11–18		3
TURKEY:	Constantinople.	Feb. 20–26		16

YELLOW FEVER.

BRAZIL:	Rio de Janeiro.	Feb. 20–27	47	28
“	Barranquilla .	Feb. 5–12	1	1
“	“ .	Feb. 12–18	1	1

CHOLERA.

INDIA:	Calcutta	Jan. 26–Feb. 4 . .		12

PLAGUE.

INDIA:	Calcutta	Jan. 28–Feb. 4 . .		1

Changes in the Medical Corps of the U. S. Army.

EGAN, Major P. R., surgeon, is relieved from duty as chief surgeon, district of Ponce, and will proceed to Guayama in connection with the work of vaccination in the division of Guayama. Upon the completion of this duty he will report by letter to the commanding general of the department for assignment to duty.

REYNOLDS, Captain F. P., assistant surgeon, medical inspector, will make an inspection of the medical department and the sanitary conditions of the posts of San Juan, Santurce and Bayamon.

REBERT, M. A., acting assistant surgeon, will report to the surgeon in charge of the district hospital, Cavite, P. I., for duty.

HEG, Major ELMER E., brigade-surgeon, is assigned to duty in the department of Santa Clara.

AGRAMONTE, ARISTIDES, acting assistant surgeon, will report for assignment to duty in the yellow fever hospital at Havana.

HERMAN, MEYER, acting assistant surgeon, will report to the commanding general, department of Santa Clara, at Cienfuegos, Cuba, for assignment to duty.

PERLEY, Major HARRY O., surgeon, is granted leave for 15 days on account of sickness. March 10.

LEWIS, Captain WILLIAM F., assistant surgeon, is relieved from further duty with the Eighth Cavalry, and from temporary duty as examiner of recruits in Baltimore, Md., and will proceed to Madison Barracks and report to the commanding officer, Ninth Infantry, for duty, to accompany that regiment to Manila, P. I.

SHAW, Captain HENRY A., assistant surgeon, is granted leave for two months on surgeon's certificate. March 10.

HARTNETT, First Lieutenant EUGENE H., assistant surgeon, the order of March 8, which relates to him, is amended so as to direct him to proceed to Fort Monroe and report to the commanding officer, battalion Sixth Artillery, for duty to accompany that battalion to Manila, P. I.

FLETCHER, RICHARD M., JR., acting assistant surgeon, will proceed to Fort Harrison for duty.

GOLTRA, N., acting assistant surgeon, is relieved from further duty at Anniston, Ala., and will proceed to Fort Douglas for duty.

REIFSNYDER, JOSEPH C., acting assistant surgeon, is relieved from duty at Greenville, S. C., and will proceed to Fort McHenry and report to the commanding officer, Sixth Artillery, for duty, to accompany that regiment to Manila, P. I.

WOODSON, Captain ROBERT S., assistant surgeon, is relieved from further duty in the department of Santiago, and on expiration of his present leave will proceed to Fort Clark for duty.

HEPBURN, JAMES H., acting assistant surgeon, will proceed to Plattsburg Barracks and report to the commanding officer, Twenty-first Infantry, for duty to accompany that regiment to Manila, P. I.

HARRIS, Major HENRY S. T., brigade-surgeon, is granted leave for 14 days. March 14.

FAUNTLEROY, First Lieutenant POWELL C., assistant surgeon, is relieved from further duty on the U. S. hospital ship "Missouri" and will report at the U. S. General Hospital, Savannah, Ga., for duty.

AISENMAN, WOLF, hospital steward, on duty in the office of the chief surgeon, Seventh Army Corps, Havana, Cuba, is transferred to Fort Columbus.

EVERTS, Captain EDWARD, assistant surgeon, is assigned to duty at Fort Mason.

RAYMOND, Captain THOMAS U., assistant surgeon, is relieved from duty at Fort Mason.

A board of medical officers is appointed to meet at Washington, D. C., for the purpose of making recommendations relating to a revision of the standard supply table and field supply table, as published in the Manual for the Medical Department, approved June 17, 1898. Detail: Major WILLIAM R. HALL, surgeon; Major LOUIS A. LA GARDE, surgeon; Major EDWARD C. CARTER, surgeon; Captain EDWARD L. MUNSON, assistant surgeon.

BARTLETT, ROBERT L., acting assistant surgeon, is relieved from further duty at Anniston, Ala., and will proceed to New York City and report to Major HENRY S. KILBOURNE, surgeon, medical superintendent of the transport service, for duty.

Changes in the Medical Corps of the U. S. Navy

for the seven days ended March 18, 1899:

BELL, W. H., assistant surgeon, detached from the Naval Hospital, Washington, D. C., and ordered to the "Vixen."

AVERILL, H. D., assistant surgeon, detached from the "Iowa" and ordered home.

ULSH, W. H., assistant surgeon, detached from the Naval Hospital, Philadelphia, Pa., and ordered to the "Glacier" April 6.

McCLANAHAN, R. K., assistant surgeon, detached from the "Richmond" and ordered to the Naval Hospital, Philadelphia, Pa.

KINDLEBERGER, D., medical director, retired, granted leave abroad from April 15.

Foreign News and Notes.

GREAT BRITAIN.

Influenza is now rife in many parts of England.

The Middlesex Hospital.—New school buildings of the most modern design and complete equipment have just been opened in connection with this hospital.

The next **President of the British Association** is to be Sir William Turner, M.D., F.R.S., Professor of Anatomy in the University of Edinburgh and President of the General Medical Council.

Mr. Kipling's illness has been made the subject of floods of wild conjecture in England; and some of the lay disquisitions on the symptomatology, etiology, pathology (and any other 'ology that can be imagined) of double pneumonia have made wonderful reading.

The New Food and Drugs Bill in England from which medical men and practical sanitarians had hoped much, turns out to be a measure of narrow protection. Foreseeing men had expected that some standards of purity, etc., would be set up under the new act; that the vexed subject of preservatives would be gone into and that a line would have been drawn between the useful and the fraudulent sophistication of food-stuffs; and that public analysts would be required for the future to qualify by examination for their posts. But foreseeing men have been disappointed. Mr. Walter Long's bill is chiefly concerned in protecting British agricultural and dairy produce from competition by legislating at the ports of entry against adulterated articles from abroad.

The Milroy Lectures of the Royal College of Physicians of London, which were this year delivered by Dr. G. V. Poore (as we have announced), were of unusual practical interest and have been read in the medical press by many beside medical men. For sewage-disposal is a problem of the first interest to all thinking men who dwell in towns, and the burden of Dr. Poore's eloquent words was that dry systems of sewage are right; that the earth never becomes a medium for the spread of contagia, and that modern methods of sanitation in respect of the disposal of excreta have been simply "the happy hunting-ground of 'sanitary' tradesmen who have fattened on the rate-payer." Dr. Poore is convinced that the only chance for the agriculturist to get a living from the land lies in the due enrichment of the soil, and that it is a pure delusion that chemicals can ever replace dung. Of course Dr. Poore is an enthusiast in the cause of dung, but his lectures contained some startling facts and some even more startling figures, both of which were so well marshalled that they were bound to attract attention.

The Diet of Prisoners in British Prisons.—This important subject from an economic and humanitarian standpoint alike has been submitted to close investigation by a departmental committee, which has now issued a carefully-drafted and well-reasoned report. The committee's recommendations on the whole may be summarized as making for better and more liberal dietaries. In taking this view they have been influenced by the fact that the existing scale of feeding for prisoners was arranged at a time when the feeding of the nation as a whole was coarse and careless; but the national style of living has so much improved of late years that the evil-doer can no longer live and preserve health on the fare supplied him in jail, so that something perilously like starvation is now added to his legal punishment. In particular it is recommended that the food of juvenile criminals should be better, for it is desired to treat them rather as degenerate than vicious, and to make of their prison a reformatory from which they may be expected to emerge better in body and mind alike. More, it is believed that if their physical health can be improved, their moral health will improve *pari passû.*

The General Medical Council.—The Executive Committee of the General Medical Council, which has recently held its usual meeting in London, has had submitted to it by the Italian Ambassador a somewhat important matter. As is well known to all English-speaking people, English and American medical men can and do practise medicine in Italy, and attend most of their country folk. In England an Italian medical man can only practise with the usual disabilities of the foreigner. That is to say that he can live by fees received as a medical man, as any layman can live by quacking; but he has no legal status, unless he happens to possess a British degree also. He cannot sue for his fee, he cannot give evidence in a court of law, he cannot sign a sick or death certificate, and he cannot hold a public or State-paid appointment. The Italian physician has been for a long time casting an envious eye at the big fees paid by wealthy foreigners in his country to their compatriot medical men, and steps to preclude the English and American physicians from practising in Italy without Italian degrees would certainly have been taken ere now, had not the Italian Government felt that wealthy foreigners would not come to Italy at all if they could not enjoy there the medical advice of persons of their own nationality. Italy is not rich enough to run the risk of losing the invaluable custom of the alien, and the cry of the Italian medical man for protection against foreign competition has so far gone unheeded. Now the Italian ambassador has requested the General Medical Council to consider a scheme of reciprocity, a scheme under which the Italian physician would be able to practise in Great Britain as the English physician can practise in Italy. The members of the Executive Committee of the General Medical Council have expressed themselves in favor of some such measure of reciprocity.

CONTINENTAL EUROPE.

The second Spanish Congress of Otorhinolaryngology will convene in Barcelona, May 24, 1899.

University of Basel.—Professor Garre, of Rostock, has declined the chair of surgery, to succeed the late Professor Socin.

The German "Physicians' Day" has been definitely fixed for April 21 and 22, and the meeting will be held in Dresden.

University of Pisa.—Dr. Augusto Ducrey has been appointed ordinary professor of dermatology and syphilography.

A Remedy for Seasickness.—A French physician recommends the use of spectacles with rose-colored glass as a remedy for seasickness.

The French Oto-Laryngological Congress will meet in Paris, May 1, 1899. The questions proposed for discussion are (1) anosmia, to be introduced by Dr. Collet; (2) the testing of the sense of hearing, to be introduced by Dr. Bonnier.

University of Giessen.—Dr. Julius Geppert, of Bonn, has been appointed professor of Materia Medica, to succeed Professsor Geahtgens, retired.

Another Monument to Pasteur.—A monument to Pasteur is to be unveiled at Lille, April 9. On the same day the Pasteur Institute of Lille will be formally opened.

Two New Signs of Death by Drowning (from Paris).—(1) The presence of a clear, limpid liquid in the peritoneal cavity; (2) the presence of a large quantity of clear and almost colorless urine in the bladder.

Inspection of Preserved Meat in the French Army.—The Minister of War has appointed Prof. Pouchet (Faculté de Médecine) and Prof. Nocard (École d'Alfort) to investigate the preserved meats issued to the French Army.

University of Greifswald.—Dr. August Bier, extraordinary professor in the University of Kiel, has been appointed ordinary professor of clinical surgery, to succeed Professor Helferich, who succeeds Professor von Esmarch in the University of Kiel.

A curious postmortem emigration of a lumbricus is reported from Paris. A soldier committed suicide by shooting himself. The ball entered under the chin, traversed the brain, the skull, and lodged in the ceiling of his room. Death was instantaneous. At the autopsy a lumbricus was found in the brain, and 6 others in the pharynx.

Medical Graduation in France.—During the academic year 1897–98 the total number of degrees granted by the seven medical faculties of France was 1,180. Of these 661 were conferred by the Paris Faculty, 167 by that of Lyons, 121 by that of Bordeaux, 96 by that of Montpellier, 56 by that of Toulouse, 51 by that of Lille, and 28 by that of Nancy. In 1896–97 the total number of medical degrees conferred was 1,106; in 1895-96 it was 1,059.

Société d'Obstétrique, de Gynécologie et de Pædiatrie is the name of a new society recently organized in Paris. The president is Professor Pinard, the vice-president, M. Terrier; the general secretary, M. Varnier; the annual secretaries, MM. Baudron and Legueu; the archivist, M. Potocki; the treasurer, M. Champetier de Ribes. Professors Hergott, of Nancy, and Moussous, of Bordeaux, were elected honorary members at the first meeting.

The French Medical Congress will meet in Lille, July 28, 1899, under the presidency of Dr. P. Grasset, of Montpellier. The questions proposed for discussion are 1) affections of the myocardium, to be introduced by Dr. Huchard, of Paris, and Dr. Renaut, of Lyons; (2) affections of the lymphatic glands and leukemia, to be introduced by Dr. Denis, of Louvrain, and Dr. Sabrazès, of Bordeaux; (3) drug-addictions, to be introduced by Dr. Simon, of Nancy, and Dr. Heymans, of Gand.

Alcohol and the French Army.—The growing consumption of alcohol by certain classes in France is causing a certain amount of anxiety to the military authorities, evidenced by a series of posters which have been placed in all the barracks of the garrison of Paris, which clearly expose to the eyes of the soldier the ravages produced by alcohol on the human system. These bills, exhibited in the dormitories, lavatories, and dining-rooms, show the internal organs of a person addicted to drink, and those of a sober, healthy man. These diagrams are accompanied by a notice which enumerates the effects of alcohol from pathologic and moral standpoints.

Hereditary Polyuria and Polydipsia.—Dr. Variot, of Paris, reports a case of polyuria and polydipsia in a child aged 3 years. The patient imbibed 5 liters of liquids a day. The stomach was extremely dilated. The disease began, without an appreciable cause, when the child was 11 months old. The history of the case disclosed the facts that the mother was a polyuric until the age of 17. The maternal grandmother had the same affection. The father was an alcoholic; and lastly the sister, who died at the age of 17 months, was equally a polyuric. The autopsy disclosed diffuse sclerosis of the liver.

The sale of organotherapeutic remedies has been forbidden by the authorities of Austria, except when prescribed by a physician. The druggists, in addition, have been advised to procure their preparations from reputable firms only. These orders have been promulgated because of the growing tendency on the part of the public to make use of thyroid preparations upon their own initiative, a practice that has led to some serious accidents, and because of the difficulty of determining whether the preparations contain the active principles that they should.

An International Congress for Childhood will be held in Budapest, Hungary, during the latter part of September, 1899. It will continue 5 days and there will be 5 sections. The medical section will be presided over by Dr. Bokay Janos. The questions proposed for discussion are: (1) The hygiene of the infant in the family; (2) the care of foundlings, morally abandoned children, or paupers; (3) the care of sick infants and of those with bodily defects; (4) places for play and recreation; (5) school hygiene; (6) the hygiene of minor children employed in factories and other establishments; and (7) alcoholism. In addition there will be a judicial section, a pedagogic section, a charitable section, and a philanthropic section.

Bile-Inoculation and Rinderpest.—The Ceylon Government Veterinary Surgeon, G. W. Sturgess, it is stated in the *British Medical Journal*, has published a report on the successful experiments he has recently made with bile-inoculation as a preventive against rinderpest. The disease appeared among the cart-bullocks belonging to Messrs. Lipton, Limited; 80 were attacked, 50 yielded to treatment and recovered, and 30 died. Mr. Sturgess then obtained permission to try the bile-inoculation method. He inoculated four healthy bulls, and tied them up for a week by the side of an infected animal in an infected shed, but none of them contracted the disease, nor were any of them ill. Mr. Sturgess describes the method as very simple, and quite harmless if properly carried out.

The Röntgen Rays in Spain.—A laboratory for the application of the Röntgen rays was opened in Madrid, February 20, under the name of Instituto Radiografico de España. The institute, the installation and equipment of which are on a magnificent scale, is said to have cost some two million pesetas (£80,000). We gather from the *Siglo Medico* that the impression produced by the size of the place, the luxurious manner in which it is fitted up, and the wealth of apparatus which it contains, on the large assembly of medical men and journalists who were present at the opening, was one akin to stupefaction. The Director of the Institute is Dr. Mezquita. In view of the statements that have appeared as to the grave financial position of Spain, one can hardly help wondering where the large sum of money mentioned above was obtained; but however it may have been got, it must be admitted that it has been applied for a useful purpose. If money on a proportionate scale is forthcoming for medical institutions generally, Spain, even if she dies politically, according to Lord Salisbury's cheerful prognosis, has a vigorous scientific life before her.—[*British Medical Journal.*]

An undergraduate mutiny in the University of Turin was recently in progress. It seems that Professor Fusari, a capable teacher with scientific qualifications, was appointed to the chair of anatomy against the wishes of the students, whose preferences were for another man. The appointment of Professor Fusari having been confirmed, the students of the advanced classes boycotted him and submitted him to all manner of insults. While lecturing to a number of the first-year students, who had the courage to attend, Professor Fusari was again interrupted. The police endeavored to quell the disturbance and arrested several of the more prominent rioters. Later in the day more arrests were made, but the disturbance not ceasing and an attempt being made to rescue the prisoners, a regiment of infantry was called upon to preserve the peace. It is stated that the authorities are examining the circumstances of the rioting with a view to inflict punishment.

Prognosis in Erysipelas by Examination of the Blood.—Speaking at the meeting of the Society of Biology held February 18, M. Chantemesse, it is stated in the *Lancet*, took occasion to remark that there existed hardly any clinical signs by which could be diagnosed the course of an attack of erysipelas, whether it would resolve or whether, if once resolved, a relapse would follow. Examination of the blood in erysipelas, whether made during an attack or during the period of convalescence, furnished valuable information upon this matter. The curve of the number of leukocytes in a case of erysipelas followed very closely that of the temperature, but this leukocytosis did not show equally throughout the various blood-elements. There were polynucleated cells which showed an increase as soon as the malady was established, while at the same time the number of mononucleated cells diminished, such diminution occurring chiefly in the lymphocytes. When recovery took place it was signalized by a fall in the number of polynucleated cells. The eosinophile cells which fell in number during the course of the illness only appeared again when the blood-infection was altogether at an end. M. Chantemesse had noticed that sundry suppurative affections which appeared in the course of erysipelas were generally of favorable import, for he had often noticed patients with erysipelas recover who had suffered from this complication. M. Malassez stated that some time ago he had occasion to examine the blood in a number of cases of erysipelas. He had always noticed profuse leukocytosis, and the formation of an abscess in such patients produced a veritable shower of white corpuscles. M. Vagnez said that he had often been able to prognose in septic affections by finding marked leukocytosis in patients who were under treatment.

MISCELLANY.

Obituary.—Francis Nottidge MacNamara, M.D., late professor of chemistry in the Medical College of Calcutta.—Dr. Manuel Joaquim Saraiva, professor of hygiene in the Medical Faculty of Bahia.—Dr. Hugues Evariste Desrosiers, professor of materia medica in the Medical Faculty of the Laval University.

Inoculation Against Typhoid Fever at Lucknow.—The *British Medical Journal* states that by invitation of the military authorities, Professor Wright, who is now working on the Plague Commission, paid a flying visit to Lucknow to inoculate the garrison troops against typhoid fever, which continues to be very prevalent in the cantonments. The men undergoing the operation included over 300 of the Third Hussars, and 120 of the Cameronians, together with several officers. Thus three stations have been visited—Bangalore, Rawal Pindi, and now Lucknow.

Inoculation against Typhoid Fever.—The India correspondent of the *Lancet*, states that inoculation against typhoid fever seems so far to have been very successful. Professor Wright (Netley), one of the Plague Commissioners, inoculated a large number of soldiers at Rawal Pindi and in the course of a lecture he gave instances of its value. He reminded his audience that 1500 troops were attacked with it in India every year and that 300 died. He alluded to the Maidstone epidemic and stated that of the 200 nurses and attendants at the lunatic asylum 95 were inoculated, not one of whom took typhoid fever, while of the remainder who refused to be inoculated 19 suffered from the complaint and died. He instanced also 8 young subalterns who went to Khartoum. Six of these were inoculated; the other two took their chance. Both of the latter were attacked with fever and one died; the 6 others remained well. The symptoms following inoculation were malaise and slight fever lasting generally not longer than 24 hours. 3,000 troops have now been inoculated.

International Congress on Tuberculosis.—A congress to discuss measures against tuberculosis will be held in Berlin from May 24 to 27, under the patronage of the German Empress, and under the honorary presidency of Prince Hohenlohe, the Imperial Chancellor. The following is the program:

I. *Dissemination of Tuberculosis.*—(1) General Remarks on the Dissemination of Tuberculosis and its Import as a National Disease (Koehler, Berlin); (2) Relations Between the Outer Conditions of Life and the Diffusion of Tuberculosis (Krieger, Strassburg); (3) The Diffusion of Tuberculosis Amongst the Part of the Population Subject to Compulsory Insurance (Gebhard, Luebeck); (4) Tuberculosis in the Army (Schjerning, Berlin); (5) Tuberculosis Amongst Domestic Animals and its Relation to the Dissemination of Disease Among Human Beings (Bollinger, Munich).

II. *Etiology.*—(1) The Tubercle-Bacillus in its Relation to Tuberculosis (Flügge, Breslau); (2) Ways and Means of Infection (C. Fraenkel, Halle); (3) Mixed Infection (Pfeiffer, Berlin); (4) Heredity, Immunity, and Disposition (Loeffler, Greifswald).

III. *Prophylaxis.*—(1) General Measures for the Prevention of Tuberculosis (Roth, Potsdam); (2) Prevention of Tuberculosis in Infancy (Heubner, Berlin); (3) Marriage (Kirchner, Berlin); (4) Living-Rooms, Work-Rooms, and General Intercourse (Rubner, Berlin); (5) Hospitals (von Leube, Würzburg); (6) Food (Virchow, Berlin).

IV. *Therapeutics.*—(1) Curability of Lung-Tuberculosis (Curschmann, Leipzig); (2) Medicinal Therapeutics of Lung-Tuberculosis, inclusive of Inhalation (Kobert, Rostock); (3) Treatment of Lung-Tuberculosis with Tuberculin and Similar Remedies (Brieger, Berlin); (4) Climatic Therapeutics, including Sea-Voyages, Forest Air, etc. (Sir Hermann Weber, London); (5) Hygienic and Dietetic Treatment of Lung-Tuberculosis and Sanatorium Treatment (Dettweiler, Falkenstein).

V. *Sanatoria.*—(1) Development of the Sanatoria Movement (von Leyden, Berlin); (2) Financial and Legal Supporters of the Sanatoria Undertakings; (3) Cooperation of Sick-Clubs and their Doctors with the Sanatoria Treatment; (4) Sanatoria Buildings (Schmieden, Berlin); (5) Inner Arrangements of Sanatoria and Curative Results (Werner, Berlin); (6) Care of the Families of Sanatoria Patients and for Discharged Convalescents (Panwitz, Berlin).

The Governments of the States of the German Empire, the municipal authorities of the greater towns of Germany, the medical corporations, the employers' associations, the medical faculties of the German universities, and other bodies have been invited to send representatives to the congress. The presidents of the congress are the Duke of Ratibon and Professor von Leyden.

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

March 4, 1899. [No. 1992.]

1. On the Individual Value of the Symptoms in Perforative Peritonitis, more Especially as Regards Operation. Charters J. Symonds.
2. On the Anatomy and Surgery of the Peritoneal Fossæ. B. G. A. Moynihan.
3. The Earth in Relation to the Preservation and Destruction of Contagia. G. V. Poore.
4. A Case of Acute Dermatitis caused by Handling the Rhus Toxicodendron. Frank Nicholson.
5. A Case of Urethral Stricture in which Death Occurred 15 Hours After Passing a Catheter. H. W. Webber.
6. Cyst of Posterior Vaginal Wall. G. W. H. Tawse.
7. Decrease of Uterine Myoma after Excision of Breast. R. Lynn Heard.
8. The Treatment of Hemophilia. J. B. Siddall.
9. A Cartridge in the Right Bronchus. W. A. Moffat.
10. Gangrene of the Lung Treated by Creasote Vapor. W. Devereux.

1.—Symonds believes in **early operation in appendicitis,** especially if the case is supposed to be a **perforative** one, but not until the various symptoms have been carefully studied. Pain is an important guide, especially indicating operation, when it is continued and not simply a localized tenderness. Distention of the abdomen from gas, which does not yield to the tube or a turpentine-enema by the second or third day, indicates progressive disease and the case will probably require operation. Also, a general distention without localized tumors or dulness, but with general pain and tenderness, is of grave significance. Vomiting, as a rule, demands operation, and the more severe and continuous the vomiting the more urgent is the demand. Fever indicates operation under the following conditions: (*a*) temperature ranging from 102° to 104° for two days, which shows that a septic condition exists in the wall of the appendix; (*b*) a fall in the temperature after 4 or 5 days with continuance of other symptoms does not necessarily indicate a subsidence of the disease; (*c*) the absence of pyrexia does not contraindicate operation. The period of repose which sometimes follows the acute onset must not be mistaken for real improvement, but we must look out for the fever, for distention unrelieved by the tube, and for increased swelling in the right iliac fossa. We must also not forget to observe the general condition of the patient. [G.B.W.]

2.—Moynihan, after the examination and study of over 200 human bodies and 34 fetuses of various ages, recognizes the following **peritoneal fossæ** existing in the neighborhood of the duodenum: (1) the superior duodenal fossa; (2) the inferior duodenal fossa; (3) the posterior duodenal fossa; (4) the duodeno-jejunal fossa; (5) the intermesocolic fossa; (6) the infraduodenal fossa; (7) the paraduodenal fossa (the fossa of Landzert); (8) the mesenterico-parietal fossa (the fossa of Waldeyer); (9) the parajejunal fossa (the fossa of Brösiki). **Duodenal hernia** is of two kinds, left duodenal hernia and right duodenal hernia, and there is an intrinsic difference in the two varieties, not only in the mode of growth, but also and chiefly in the points of origin of the two forms The left duodenal hernia is characterized by the presence of the inferior mesenteric vein in the neck of the sac, by the spreading of the hernia either outward, upward, or both, and by the hernial sac, consisting of a single layer of peritoneum. The right duodenal hernia is much rarer and has its origin in the fossa of Waldeyer. [G.B.W.]

4.—Nicholson reports a case of **poisoning from handling the rhus toxicodendron.** The patient, a young woman of 19 years, had had 7 similar attacks, the origin of which she was not able to determine. Investigation showed that several other members of her family had been similarly poisoned. Suspicion rested upon a rhus toxicodendron vine which was growing over the porch of the house. The servant who removed the vine developed a severe attack of acute dermatitis, which confirmed the view that this vine was the origin of the other attacks. [It is interesting to note that this plant, which we look upon with such dread and take every opportunity to destroy, is quite extensively cultivated in certain parts of England. S.M.H.]

6.—Tawse reports the removal of a **cyst from the posterior vaginal wall.** An attempt was first made to enucleate it, but this proved impossible owing to the thinness of its walls and its intimate relation with the tissues forming the septum. An elliptical piece was, therefore, excised from its wall, evacuating 1½ ounces of gelatinous fluid, and the cavity scraped and swabbed with 1 in 10 carbolic lotion. The vagina was lightly packed with iodoform gauze. According to Kelly, vaginal cysts may be divided into 3 classes according to their origin; into those arising (1) from the vaginal glands, (2) from epithelial nests included in the scar-tissue following a trauma, (3) from Gartner's ducts. The small cysts occasion no symptoms whatever. The chief clinical symptoms of the larger ones are obstruction to marital intercourse and to labor; often the patient's first intimation that there is anything wrong is when a part of the cyst protrudes at the vulva. [W.K.]

7.—Heard reports a case in which a large **uterine myoma decreased rapidly in size** after the removal of the breast for scirrhus. The usual firm condition gave place to softened tissue, which, with further considerable diminution in size, conduced greatly to the patient's comfort. [W.K.]

8.—Siddall treated 3 cases of **hemophilia** successfully by the internal administration of **dilute sulphuric acid,** in doses of 20 minims 3 times daily. He has used the same treatment with good results in epistaxis, and, combined with 10-grain doses of potassium sulphate, in bleeding piles. [S.M.H.]

10.—Devereux reports the successful use of creasote-vapor in a case of gangrene of the lung occurring in a boy aged 11 years. The condition was apparently secondary to an attack of pneumonia. [S.M.H.]

Lancet.

March 4, 1899. [No. 3940.]

1. On the Earth in Relation to the Preservation and Destruction of Contagia. G. V. Poore.
2. The Anatomy and Surgery of the Peritoneal Fossæ. B. G. A. Moynihan.
3. On the Use of Diphtheria-Antitoxin in General Practice, with the Results of the Treatment of 122 Cases of Diphtheria. J. Richardson Armstrong.
4. Observations on the Cerebro-Spinal Fluid in the Human Subject. St.Clair Thomson, Leonard Hill, and W. D. Halliburton.
5. On Acute Affections of the Skin and Mucous Membrane of the Mouth in an Early Stage of Myxedema; Primula Obconica an Alleged Exciting Cause in One Case. Robert Kirk.
6. Injury to the Vagina, the Rectum, and the Pelvis; Subsequent Necrosis of the Pubes, and Prevesical Abscess; Operation; Recovery. H. Betham Robinson.
7. Vanishing Tumors. D'Arcy Power.
8. Actinomycosis (?) of the Omentum; Death from Pyemia. Henry Hanford.
9. A Case of Ophthalmic Herpes with Hypopyon-keratitis. Percy Flemming.
10. Two Cases of Abdominal Section in which Unusual Pathological Conditions were Met. S. Knaggs and E. A. Wright.

1.—In his second lecture Poore calls attention to the fact that the bacillus typhosus will grow best in any water-logged soil rich in organic matter, and that, although aerobic, it can be cultivated as an anaerobe, even in an atmosphere containing carbonic acid, and that the bacillus seems to be definitely destroyed by sandy and peaty virgin soils. **The germs of disease are ubiquitous.** In the study of immunity, the qualities of virulence and vulnerability are most important. It is well established that the virulence of some of the microbes varies immensely with the conditions of soil, temperature, air, sunlight, etc., under which they are grown, and it is a fact that must be remembered that it is not always the pure cultivation which manifests most virulence. The health and vigor of the individual are all-important in relation to infective diseases. The enervating influence of a tropical climate upon Europeans is recognized as a potent predisposing cause of infective diseases, and if to the effects of climate be added those of inordinate fatigue and insufficiency of food, the risks of infection are greatly increased. It is altogether possible that certain bacilli lie dormant in the body, ready to assert themselves when bodily enfeeblement reaches a certain pitch. Overcrowding and unwholesome occupations reduce resistance and make one therefore more liable to the development of disease. Almost all infective diseases are especially fatal to those who live in the midst of filthy surroundings. Wherever putrefaction is going on, and wherever anaerobic organisms are growing in a filth-sodden soil, unwholesome gases such as CO_2, H_2S, CH_4 and H are being given off. The constant breathing of these gases in the crowded courts of a great city may so lower the vitality of the body as to increase its vulnerability to infection of all kinds. Odors may have power which neither the chemist nor the bacteriologist can gauge. It is an established fact that any infective organism may gain access to the body through the smallest conceivable wound, whether of the skin or the mucous membrane. The infections brought about by flies, ticks and mosquitos are at present attracting much attention from bacteriologists, and it seems probable that the **danger of certain soils and climates** may be shown to be due in an increasing degree to the insects which find in these localities the various conditions necessary for their existence. It is possible further that an abrasion of the skin made by an insect may merely serve as a point of entrance for infective organisms abounding in the soil and in the immediate surroundings of the individual, and having no necessary connection with the insect itself. It seems certain, however, that in the majority of instances which have been worked out, the insect serves as an intermediary host for a specific organism which affects a specific animal. It is a matter of common knowledge that a very shallow layer of compact earth will remove the bacteria and much of the organic matter of water percolating through it. The greatest danger to shallow wells is to be found in subterranean collections of filthy fluid which gradually leak through the earth with a gradually increasing hydraulic pressure. If there be no such dangers in the immediate neighborhood, then a properly constructed shallow well is safe. All that it is necessary to do to obtain perpetual immunity from pollution to wells is, after having once properly located them, to obtain control of sufficient ground around each well to serve for all time the purposes of filtration. The deep burrowing of the earthworms and the cracking of the earth during periods of drought are dangerous elements, since they serve to conduct surface-water to considerable depths without its passing through that biologic filter, the humulus. Harvest deprives the earth of its green protecting mantle, and the upward drainage-action of the roots. The removal of hop-poles during the harvest of hops, the roots of dead trees acting as guiding channels from the surface to the supplies of springs, and burrowing animals are all dangers of a similar nature. Where there is a fairly thick layer of earth above a spring there is safety rather than danger in the cultivation of the overlying soil. Gathering ground for water remote from the haunts of man is liable to contamination from animals and birds dead in the runnels which primarily collect the rainwater and consequently water percolated through well-cultivated land is safer than that running off a neglected waste. [S.M.H.]

3.—In Armstrong's experience the injection of antitoxin-serum gives far better results than any other **treatment of diphtheria.** It greatly lowers the mortality of the disease. In England the general practitioner does not employ this treatment so often as he should, and some do not employ it at all. In 120 cases treated in the past 18 months, the severe cases received antitoxin, and the mild ones iron perchlorid combined with ammonia acetate internally. The injected cases did much better than the noninjected ones and recovered in a much shorter time. The average time for the disappearance of the membrane from the throat after injection was $2\frac{3}{4}$ days; in the noninjected cases, $5\frac{2}{3}$ days. The disappearance of the membrane in both classes marked a distinct improvement in the condition of the patient. In the injected cases the patient was then practically convalescent. Heart-weakness was much less frequent in the injected cases. During the year 1897, 42 cases of diphtheria were treated. Of these 22 were injected and 20 not injected. Six deaths occurred, making a mortality of $14\frac{2}{7}\%$, with a 9% mortality for the more severe injected cases, and a mortality of 20% for the noninjected cases. During 1898, 80 cases were treated, many of them of the very worst forms of the disease. There were only 3 deaths, giving a mortality of 3.75%. Fifty five of the cases were treated by injections of antitoxic serum, 25 with the internal administration of the solution of iron perchlorid and a solution of ammonia acetate and brandy, without injection. In 2 of the fatal cases antitoxin was refused by the parents at the time it was advised, and only submitted to when death was imminent. In the third fatal case, a very severe one, a second injection was refused by the parents. These 3 deaths occurred in January of 1898. During the remainder of the year 72 consecutive cases were treated without a death. The mortality for the 2 years, 1897 and 1898, including the injected and noninjected cases, was 7.5%. In each case 1500 units of antitoxic serum was injected under the skin of the abdomen. In only 5 cases out of the 77 was a second injection called for, this being given after an interval of from 2 to 3 days. Armstrong, however, advocates the renewal of the injection, if there is no improvement, within 24 hours. Nine of the cases developed post-diphtheric paralysis, and 1 died in the ninth week from pneumonia. There were no bad effects following the use of antitoxin. One child developed a scarlatinal eruption accompanied by acute pains in the joints 10 days after the injection of the antitoxin. This condition disappeared in 2 days. [S.M.H.]

4.—Thomson, Hill and Halliburton, having under their care a woman suffering from **continuous dripping from the nose,** made a study of the character of the discharged liquid. A careful chemical examination showed it to be **cerebrospinal fluid.** These cases are ordinarily the result of traumatic injury to the cribriform plate of the ethmoid bone. In this instance the escape of fluid was spontaneous. The case will be fully reported later, as it seems to be the only one of its kind on record. The present paper is occupied with a study of the composition of the fluid and the variations it presents under different circumstances. It was always collected in a sterilized glass vessel, and the examination was made as soon as possible. The fluid was perfectly clear, colorless, with a slightly alkaline reaction, and a specific gravity of about 1005. Microscopically it showed no cells or other deposit. It gave no precipitate with acetic acid and contained a proteid coagulable by heat and small in quantity. This proteid was precipitable by saturation with magnesium sulphate, showing it to be a globulin. Albumin and other proteids were absent. The fluid contained a substance which reduced Fehling's solution. The reasons for concluding that the liquid was cerebrospinal fluid were (1) its clear, watery character; (2) its low specific gravity; (3) the small amount of proteid in it and the absence of albumin; and (4) the presence of a substance related to pyrocatechin. In addition to the above observations the rate of flow, the difference of composition at different times of the day, the influence of straining, posture, and abdominal compression on the flow and composition of the fluid, and the effect on blood of intravenous injection of the fluid in animals were looked into. As to the rate of secretion of cerebrospinal fluid the amount formed in 24 hours varied from about $\frac{1}{12}$ to $\frac{1}{2}$ liter. A comparison of the morning and evening fluids showed that the qualitative examination of the fluid collected the first thing on several mornings gave the same results as that of specimens collected the last thing in the evening. Both were distinctly alkaline. The evening fluid was slightly poorer in both classes of solid constituents than that of the morning. The difference is chiefly due to the alteration in the organic solids, probably due to decreased capillary pressure during sleep lessening the rate of exudation of water. This finding confirms the theory of nervous activity and sleep advanced by Cavazzani and Obersteiner. The flow of cerebrospinal fluid is accelerated by all those circumstances which raise the cerebral capillary pressure. The increase of flow is accompanied by a decrease in the percentage of solid matter. The chemic examination of the fluid which escaped passively and that which escaped under straining were the same qualitatively. The proteid was probably less abundant in the fluid passed during straining. Experiments made with abdominal compression confirmed those recorded in the preceding section. The vena cava pressure was raised, which increased the cerebral capillary pressure, and in this way increased the volume of the cerebrospinal fluid secreted. Increase of volume, as before, was accompanied with fall in the percentage of solids present. It had been shown by some of the authors that the cerebrospinal fluid obtained from cases of brain atrophy, especially from cases of general paralysis of the insane, when injected into the jugular vein of animals, caused a marked lowering of arterial blood-pressure which was partially cardiac in origin, but principally due to the local character of the organ on the neuro-muscular apparatus of the peripheral vessels, especially in the splanchnic area. This result was supposed to be dependent upon a toxic substance (choline) contained in this fluid and doubtless derived from the disintegration of lecithin in the brain. The fluid obtained from the present case was also injected in a similar way. The results were entirely negative. Choline was searched for chemically, but not found. [S.M.H.]

5.—The evidence introduced by Kirk to show that the cases described in this article are cases of **true myxedema** is not very convincing. [S.M.H.]

6.—The case of a girl, 10 years old, is reported, who was run over by an omnibus, injuring the lower abdomen and pelvis. The **mucous membrane of the vagina was completely torn away** at its orifice, and there was a rent in the rectovaginal septum. The tissues were stitched in their original positions so far as possible. Infection followed, and an abscess formed in front and to the left of the bladder. This was drained through an incision above the pubis, and later a piece of necrosed bone was found in the vagina which had exfoliated from the pubis. The further progress of the case was uneventful. [M B T.]

7.—Seven cases of **vanishing tumors** are reported, among which is that of a boy from whose neck a large cystic lymphangioma was removed. An attack of lymphangitis followed about 2 weeks after the operation, and 2 months later a tumor was again found, located in the posterior triangle of the neck. Several recurring attacks of lymphangitis followed, and after each attack the swelling seemed smaller. Nine months after the operation the tumor had vanished. Microscopic examination showed the growth to consist of cysts formed of dilated lymphatics. In a second case a girl, aged a year and 10 months, was suffering from jaundice with hectic temperature. The stools were white and offensive and the abdomen distended. An exploratory operation was performed, and the liver was found free from adhesions, but much congested. A trocar and cannula were passed into the liver-substance, in different directions, without showing any trace of abscess; the abdomen was closed and a good recovery followed, together with the disappearance of the swelling and tenderness. Power suggests that the inflammation may have been tuberculous, and that the rationale of a cure may have been the same as in those cases of serous peritonitis, which recover after simple incision. [An explanation which seems to be equally probable is that the congestion was relieved by the formation of a network of bloodvessels in adhesions following the operation. The reducing of hepatic congestion and establishing collateral circulation by bringing about adhesions has recently been suggested by Talma in the treatment of hepatic cirrhosis.] In a third case the abdomen was opened for the removal of a tumor situated between the umbilicus and pubis, but on account of its adhesions to neighboring organs its removal was impossible. The tumor was dark red in color, soft, solid, and covered with large, tortuous veins. The patient made a good recovery from the operation and returned 3 months later, when the tumor was found to have entirely vanished. This is believed to be a possible case of spontaneous disappearance of a sarcomatous growth. In a fourth case an exploratory operation was made and a growth apparently malignant, which it was impossible to remove, was found surrounding the gallbladder. Four months later the patient returned, and several surgeons were unable to feel the tumor, but a few months later the patient died in another hospital of carcinoma of the pancreas. The temporary disappearance of this tumor is thought to be explained by the relief of congestion by the bleeding at the operation. [M.B.T.]

9.—Flemming observed a man, aged 54 years, admitted to the hospital for a burn on the head received in a gas explosion, who later developed a severe **ophthalmic herpes with hypopyon-keratitis.** [S.M.H.]

10.—A case of **perforative appendicitis simulating a strangulating hernia** is reported in a lad, aged 19, who was the subject of congenital hernia. On incision the abdomen was found filled with pus, but no evidence of hernia was detected. The patient's condition admitted only of washing and draining the abdomen, and death followed a short time later. The whole cause of the trouble was discovered at the necropsy. A case of apparent **intestinal obstruction** is reported in a woman 52 years of age. Celiotomy was performed and a badly congested piece of intestine found. There was no actual obstruction, but the loop of intestine was thrown into folds by a calcareous gland imbedded in the mesentery. The intestine liberated itself on the removal of this gland. Death followed soon after the operation. [M.B.T.]

New York Medical Journal.

March 18, 1899. [Vol. lxix, No. 11.]

1. On a Polymorphous Cerebral Tumor (Alveolar Glioma?) Containing Tubercles and Tubercle-Bacilli. CLARIBEL CONE.
2. A Remarkable Case of Epilepsy in which 519 Seizures Occurred in 49 Hours; Notes on Treatment; Death; Pathological Findings. WILLIAM P. SPRATLING.
3. Preliminary Report on Examinations of the Urine in the Insane. With a Report of 202 Cases. EDWIN G. KLEIN.
4. Cholecystitis. JAMES E. MOORE.
5. The United States Army-Ration, and its Adaptability for Use in Tropical Climates. LOUIS L. SEAMAN.

1.—(Continued.) The case described by Cone occurred in a woman aged 65 years. No history could be obtained, as she died 3 days after coming under notice, and during that time was unable to articulate. The autopsy was negative except as to the brain. In the left tempero-sphenoidal lobe was a **deeply situated tumor.** It was about 3 by 4 cm. in size and had an area of necrotic tissue surrounding it about a half-centimeter in width. It occupied about two-thirds of this lobe, corresponding with the second, the lower portion of the first, and the upper portion of the third temporal convolutions. It extended inward, pressing upon the convolutions of the island of Reil. The necrotic area was more noticeable toward the upper portion of the lobe than below. There was no metastases, nor was there any evidence of tuberculosis in other organs. The tumor was an irregularly lobulated mass, and the surface was covered by a membrane-like tissue from which projected numerous filamentous processes. It was grayish-white in color, firm and elastic. On section the cut surface was dotted and streaked with fine lines of translucent gray. This gray substance was markedly developed in the center, where it formed a trabeculated network. Within this gray substance were several small circumscribed areas of necrosis. At one point the tissue was soft and sponge-like, and from this sponge-like tissue the capsule could be removed with moderate ease. At other points it was firmly adherent. Many sections stained by various methods were examined. The tumor showed a very varied structure in its different parts. Where the lobules were most circumscribed the type of growth was less uniform. In the lobules the structure in some places resembled that of simple medullary carcinoma. In other lobules the type of growth was that of tubercular carcinoma or of adenoma. One nodule embedded in the tumor was made up of a sarcoma-like tissue containing giant-cells. Toward the center of the tumor, where the lobular arrangement was lost, were numerous bloodvessels, each surrounded by a distinct colony of cells which extended inward so far as the intact intima. These stood out conspicuously against the loose-meshed reticulum and gave the impression of perithelial angiosarcoma or endothelioma. In other areas there was a diffuse arrangement of small polyhedral cells mingled with highly refractile fibers. This appearance was suggestive of neuroglia fibers and gave the impression of glioma-formation, but there were no typical neuroglia cells. Of the many histologic types of which this tumor was composed, each one could be traced as a transition-form from some other. Studied under a higher power the capsule was found to be made up of fibrillated connective tissue arranged in parrallel lamellae, in which were layers of small round cells. These cells extended into the tumor along the fibrous processes that divide the mass into lobules. Hence they extended into the lobule along the stroma about the alveoli. They even invaded the alveoli at times, producing a diffused admixture with tumor cells. Accompanying the lymphoid cells were sometimes epithelioid cells, and an occasional giant-cell with homogeneous protoplasm and a peripheral arrangement of its nuclei. These cells were sometimes grouped into discrete microscopic tubercles, which were mostly confined to the stroma, but which at times involved the alveoli. By the use of Gabbet's carbol-fuchsin stain tubercle-bacilli were demonstrated. The polymorphonuclear leukocytes infiltrated the tumor in various places, especially in the stroma. Pyogenic cocci could not be found. Within the bloodvessels were many polymorphonuclear leukocytes and thrombi. When the thrombi completely plugged the lumen they were often surrounded by circumscribed areas of necroses. That portion of the capsule, which, under the low power, appeared homogeneous and highly refractile, resembled embryonic brain-tissue when stained with hematoxylin and eosin, but was found to contain fibrin when Weigert's fibrin stain was used. (To be concluded.) [S.M.H.]

2.—Spratling had under his care a woman, aged 22 years, who had been **an epileptic since infancy.** Her early attacks were of the petit-mal type, but later changed to the grand-mal type. At the present age her intelligence was of a low order. She was averaging from 15 to 18 attacks per month. She was able to do good work and there was no appreciable physical impairment. On the night of July 31, 1897, at 1 o'clock, she had 3 severe seizures in rapid succession. Fearing that these serial attacks were the possible forerunner of a fatal condition, she was given the following dose, which Spratling has used under similar conditions with good effect:

℞.—Tinct. opii. deod.	5 minims.
Potass. bromid.	30 grains.
Chloral. hydrat.	20 grains.
Liq. morph. (U. S.)	1½ minims.

There was no recurrence of the attacks for 5 hours. She then had 17 attacks within the next 2 hours, and a repetition of the above dose again checked them for a period of 8 hours. At this time they again recurred, and were not influenced by any form of treatment. Their order of origin and progression was absolute and fixed, and occurred in the following manner: (1) Bending of the first joint of the right thumb at right angles to the thumb; (2) drawing of the bent thumb into the palm of the hand; (3) the opening of the 4 fingers held stiffly together at the third joint at right angles to the palm of the hand; (4) the embedding of the ends of the 4 fingers into the palm of the hand over the contracted thumb; (5) the bending of the hand and forearm upward in such a manner as to closely approximate the same to the upper arm. Then the entire arm was drawn up and out at right angles to the body. The right side of the face contracted, and the head was drawn to that side, while the right side of the body and the right leg were next involved. The interesting point is that so long as the patient was kept under profound chloroform-narcosis, which was the case for 9 consecutive hours out of the 49 that the convulsions lasted, the right side only participated in the convulsion. The entire left side was involved in a quick general spasm in all attacks when the patient was not under chloroform. This particular order of origin and invasion occurred 519 separate and distinct times, not varying in any way whatever. The periods between the seizures were markedly uniform, the intervals being never less than 10, never longer than 15 minutes. There was at no time a cessation of the fits. The patient was conscious between the seizures until she had passed through about 200. She took some nourishment in the brief moments between the attacks. Referring to another case in which serial attacks to the number of 200 occurred, in one day, Spratling notes the fact that he measured the force of the contractions during the attacks by means of a dynamometer. There was a difference of 8 points between the right and left hands; the power exerted by the morbid contraction of the muscles during a fit was much greater than could be produced by the patient at pleasure after having fully recovered from this severe series of attacks. The brain was removed from the first patient and on inspection revealed nothing abnormal. The bloodvessels and the coverings were not engorged; in fact, the superficial aspect of the brain was rather pale. The convolutions covering the right hand and forearm centers were especially studied, but nothing found. It was shipped to the New York State Hospital's Pathological Laboratory for further study, but was injured in transit, and no report could be made. [S.M.H.]

3.—Klein makes a preliminary report on **examinations of the urine of 200 insane cases.** The average quantity passed in 24 hours was 1125 cc. in male, 1020 in female. The average specific gravity was 1019. The reaction was invariably acid. The amount of total solids was under the normal. The urea was decreased. Phosphates were decreased in nearly all the excited cases, and increased in the depressed patients. Oxalates were in excess in 6 of the depressed patients. The chlorids were found increased in 3 epileptics immediately following the seizures, and in 1 general paralytic following a convulsive attack. Excess of uric acid was frequently observed in dementia, and several times in general paralysis. Excessive urates were usually associated with dyspepsia. Peptone was found present in 2 of 12 cases of general paralysis. Albumin was found 4 times in the 200 cases. There was frequently reduction of copper in the presence of uric acid. Glucose was present 6 times. Two of these cases were general paralytics. [S.M.H.]

4.—Moore believes that **cholecystitis is a more common condition than is generally thought.** It is an infectious disease, usually the result of the bacillus coli communis, but all the pyogenic organisms are found at times. It frequently complicates typhoid fever, pneumonia, and all acute infectious diseases. Distended gallbladder frequently results in an attack, causing abrasions and circulatory disturbances, and thus reducing local resistance against infection. Impacted gallstones, especially in the common duct, sometimes cause the condition from distention. Distention and consequent cholecystitis are doubtless sometimes the result of closure of the ducts from inflammatory swelling of their own walls. Probably the most common channel of infection is through the blood. The pathology of the disease is the same as that of inflammation of any other organ of like structure. The symptoms consist usually of a chill followed by a rise in temperature, pain, tenderness, and a tumor in the right hypochondriac region with a temperature of 102° F. Diagnosis in a typical case is comparatively easy, but many are atypical and in these the diagnosis may be very difficult or impossible. It is most likely to be mistaken for appendicitis. Differentiation can be made only by distinct localization, but even this may fail, because each of these affections may extend into the territory of the other. When doubt exists an exploratory incision in the appendiceal region is advised, because appendicitis is of more frequent occurrence. Failing to find the trouble here, exploration should be made in the region of the gallbladder with 1 or 2 fingers, and, if necessary, a second opening should be made in that region rather than extend the primary opening on account of the danger of subsequent hernia. To differentiate from obstruction of the bowels the presence of a decided temperature would suggest cholecystitis, while distention of the abdomen would point toward obstruction. Careful palpation of the gallbladder region will usually detect the tumor. Leukocytosis would indicate suppurative cholecystitis. The occurrence of abdominal symptoms in typhoid fever or any infectious disease should lead to a careful examination of the gallbladder-region. The point of differentiation between this condition and pyelitis rests upon a careful examination of the urine. Many mild cases of cholecystitis are doubtless overlooked. As understood at present it is a very grave condition. The particular dangers are rupture, sepsis, and gangrene. Through early diagnosis and treatment a very large percentage of the severe cases can be saved. It is a surgical disease and should always be so considered. Mild cases with little or no distention should receive a laxative like castor-oil, and be kept at absolute rest in bed. Opiates should be avoided on account of the danger of masking the symptoms. In cases of severe inflammation or inflammation accompanied by much distention operation is the only rational treatment. The gallbladder must be opened and drained. Operation is indicated in cases complicating infectious diseases just the same as in cases of unknown cause. If the gallbladder is gangrenous, cholecystectomy should be done, with drainage. The proper incision is along the outer margin of the right rectus muscle, beginning at the tenth rib and extending downward from 1½ inches to 2½ inches. To extend the opening carry the incision downward, and, if necessary, across the rectus muscle. If the bladder is distended the contents should be drained off with a trocar to avoid soiling the peritoneum. It should then be drawn into the wound and opened and explored with the finger. Stone should be removed if present, and the edges of the wound and the bladder fastened to the fascia in the upper end of the abdominal wound with numerous stitches of fine black silk. A medium-sized rubber tube should be introduced for drainage. When the peritoneum has not been soiled the wound should be closed. If so, a gauze drain should be introduced for 48 hours. Six cases illustrating this subject are subjoined. [S.M.H.]

5.—Seaman does not believe **the United States Army ration** is the proper one for use in tropical climates. The food-products of each zone will be found in every case to be those which are peculiarly adapted to the particular needs and requirements of the zone's inhabitants, and where the climate creates a demand for an excessive animal diet, nature furnished it, or vice versa. In the tropics there is a scarcity of animal food, but an abundance of food that yields nourishment with low heat-producing qualities. This law should be respected. [S.M H.]

Medical Record.

March 18, 1899. [Vol. lv, No. 11.]

1. Final Report on Schlatter's Case of Removal of the Stomach. Carl Schlatter.
2. Cursory Remarks on Organic Affections of the Stomach. George S. Dickinson.
3. Phlebitis; A Clinical Study. Margaret A. Cleaves.
4. The Spontaneous Motion of the Red Blood-cells. W. Moser.
5. Some Thoughts on Therapeutics. J. E. Parrish.

1.—A report is given of the condition of Schlatter's famous case of **total extirpation of the stomach** during the last months of the patient's life. The operation was performed September 6, 1897, and the patient left the hospital in good condition about the last of May, 1898. In August she returned, having lost 2 kilos in weight, which was thought to be due to the difficulty of obtaining suitable nourishment. About the beginning of September painful sensations were experienced in the left hypochondrium after taking solid food, but liquid food was not complained of. October 2 a hard nodular tumor, the size of a child's hand, was felt in the left hypochondrium, and enlarged, hard, lymphatic glands could be felt in the supraclavicular region. October 18 severe pains were felt in the abdomen and lumbar region, and patient was compelled to go to bed because of general weakness. Her condition became gradually worse and she died October 29, one year and nearly 2 months after the operation. At the necropsy a mass of metastatic carcinomatous nodules about the size of 2 fists and consisting of enlarged mesenteric glands was found extending from the transverse colon. The retroperitoneal, bronchial, and supraclavicular glands were also affected by the disease, and the pleura was studded with carcinomatous nodules, from the size of a pinhead to a split pea. The lower portion of the esophagus was dilated, due in part to the carcinomatous infiltration of its inner wall. [M.B.T.]

2.—Dickinson reports a case which occurred in a man of 50, whose symptoms began with indications of pyloric obstruction without any evidences of carcinoma. Operation was considered, but the patient died before it was undertaken. The diagnosis had been **benign stenosis of the pylorus,** and this was found after death, the condition being, however, somewhat unusual. There was a funnel-shaped thickening of the stomach in the anterior and posterior walls near the pylorus, and including the pylorus, the latter being entirely obstructed. In some portions of the intestinal tract there was ulceration, in other parts there were almost complete occlusions. The microscopic examination of the thickened pylorus showed that the tissues were wholly fibrous. The remainder of the paper consists of cursory remarks upon other affections of the stomach. [D.L.E.]

3.—A number of cases of **phlebitis** which had been extremely resistant to the usual treatment are first reported. There is then a description of the proper method of using electricity in these cases, and the results of the treatment in the cases detailed is described as being exceedingly satisfactory, almost entire cure occurring within a very few weeks. It is recommended that the treatment should be begun in the acute or subacute stage unless the case is suppurative. The continuous current should be used; the dose given should be accurately measured in every instance, and never exceed 5 milliamperes in the early stages, being gradually increased, if necessary, up to 20 milliamperes. Violent muscular contractions especially should be avoided. [D.L.E.]

Medical News.

March 18, 1899. [Vol. lxxiv, No. 11.]

1. Rabies and Its Preventive Treatment; an Analysis of Cases. Follen Cabot.
2. The Cauterization of Wounds Infected with the Virus of Rabies after an Interval of 24 Hours. Follen Cabot.
3. The Relation of Diagnosis and Prognosis in High Grades of Gastric Stagnation. A. L. Benedict.
4. An Interesting Case of Hydrophobia: Recovery. John J. Ligget.
5. A Case of Hydrophobia. C. Gerstmeyer.

1.—Cabot reports the case in which the President of the Society for the Prevention of Cruelty to Animals refused to give portions of the brain and spinal cord of an animal that had died of **suspected rabies** for **inoculation-experiments.** [An allusion has already been made to this in the editorial columns.] He reports 15 cases of suspected rabies treated by the Pasteur method, with 1 death and 14 recoveries. In 12 cases, the dog was proven to be rabid by the inoculation of guineapigs with a preparation of the cord. In 2 cases, it was probably rabid, but no inoculations were made. In 1 case it was apparently not rabid. Cabot does not believe that the autopsy alone enables one to make a definite diagnosis of hydrophobia. He gives in detail the histories of 4 cases. The first, a woman of 51 years, had received 28 severe lacerating bites. Injections of the dog's spinal cord into guineapigs produced the characteristic symptoms of the disease. The patient did not believe that hydrophobia existed, and did not apply for treatment until 4 weeks after the bites. No cauterization or other treatment except an antiseptic dressing had been employed. She was given altogether 24 injections; the treatment being finished 20 days after application. Toward the last, she began to complain of severe pain in the right arm, which interfered with sleep. Forty-seven days after having been bitten, the pain in the right arm increased greatly in severity, there were frequent attacks of vomiting, and the patient felt very weak. At this time, the wounds were dark red and painful when touched. There was no difficulty in swallowing. A day later dysphagia was present, and an attempt to examine the throat caused spasm of the diaphragm. The right arm was distinctly paretic. The patient had frequent attacks of severe pain with dysphagia, became steadily weaker, had attacks of opisthotonos, and finally died of exhaustion. Cabot believes that this was a case of typical hydrophobia, because the dog was proven to be mad. The cord was administered only two weeks before the disease developed and another patient was treated with an emulsion of the same cord without any bad symptoms. The gradual paralysis of the arm in which a nerve had been injured, also tends to confirm the diagnosis. The second patient developed symptoms 11 weeks after the injury. He then had difficulty in breathing, mild fever, and rapid pulse. There was severe spasm of the muscles of respiration and deglutition, almost complete insomnia, and great thirst, although swallowing was very difficult. In the course of 24 hours he seemed to be suffering from great mental distress, then developed a mild delirium, and died of exhaustion. There were marked changes in the cortical cells of the brain, but no other lesions. A portion of the brain was inoculated into guineapigs, causing rabies in 7 days. The third patient had been bitten 44 days before her death. There was some difficulty in swallowing, gradually increasing weakness, and death at the end of 4 or 5 days from the first symptom. A dog bitten by the same dog that had bitten the woman, developed typical furious rabies. The last patient, a man of 60, felt well for 14 days after being bitten. He then had pains throughout the body and a smarting sensation in the wound in his face. He became depressed, and restless, had difficulty in swallowing, and finally died in a paroxysm. The common characteristics of these cases are severe dog-bites, an interval of incubation from 5 to 11 weeks, the brief course of the disease from 3 to 5 days, the presence of spasms increased by irritation, of difficulty in swallowing, and the increased flow of saliva. Finally, the rapid pulse, clear mind, and the absence of a tendency to bark or bite. Cabot, in conclusion, describes the method of giving preventive inoculations of attenuated rabidic spinal cord, proposed by Pasteur, and quotes some statistics showing the great value of this method. He also gives the opinions of various veterinarians, all of whom agree that rabies is a distinct and characteristic disease by no means uncommon in the United States. [J.S.]

2.—Cabot has made a number of experiments in order to determine **whether cauterization of the wound inflicted by a mad dog is of any use**, what is the best cautery, and after what time is its employment useless. Sixty guineapigs were inoculated in the thigh near the sciatic nerve, and after 24 hours the wound was opened and thoroughly cauterized with fuming nitric acid. Of these, 91% recovered, and of the 26 controls, 95% died. Similar series of experiments were made with the actual cautery, and 70% of the cauterized animals recovered, and 89% of the non-cauterized animals died. A third group was cauterized with pure silver nitrate, under the same conditions, with 55% of recoveries, and 84% of deaths in those not cauterized. Finally, the wounds were simply opened and swabbed out with absorbing cotton, with 31% of recoveries in those thus treated, and 84% of deaths in control-animals. He concludes that fuming nitric acid is the most effectual substance for cauterization, and that it is of great value if employed within the first 24 hours. [J.S.]

3.—Benedict discusses the possibility of recovery in cases of **marked dilatation of the stomach.** He reports the case of a man, 55 years of age, with insufficient motor-power of 13 years' standing. Even 9 hours after a meal, the stomach would extend an inch to the right of the median line and far below the umbilicus. HCl was sometimes found about 4 hours after eating. There was apparently a considerable amount of pepsin present. After a month of vigorous treatment, the stomach had nearly reached its normal position. In spite of this successful result, Benedict is rather doubtful about the prognosis in such cases. In regard to the value of the examination of the gastric mucous membrane, Benedict expresses himself as very doubtful. He states that in many cases, the same lesion is not found in all parts of the stomach, and he is opposed to the method of Hemmeter of deliberately endeavoring to tear off a piece of the mucous membrane for the microscopic examination. Gastric distention, due to obstruction, is of course more serious if cancer of the pylorus is the cause. In some cases, however, a tumor at the pylorus may be purely fibrous in nature, and therefore an unfavorable prognosis should not be given too hastily. [J.S.]

4.—Ligget reports the case of a man of 34, who was suddenly attacked with pains in the stomach. The next day he still had pains and convulsive tremors in all the limbs. Later in the day he had severe spasms. The following day five able-bodied men had difficulty in keeping him in bed. He was violent and endeavored to bite those surrounding him. After 24 ounces of blood had been withdrawn, he appeared to faint, and there was cessation of the spasms. The condition of the patient continued to grow worse in spite of vigorous treatment of various kinds. Between the spasms he was conscious, and was always able to predict their occurence. The first symptoms were lateral movements of the eyes, then the lids would open widely, the patient would spring up, get on his hands and knees and make vigorous efforts to get out of bed. He tried to bite those about him, and would forcibly eject saliva from his mouth. The breathing was hurried and difficult. The jaws were mobile, and there was no spasm of the fingers. A history of having been bitten a year or two before by a dog was obtained, and a diagnosis of **hydrophobia** made. Accordingly the patient was given in the course of 28 hours 260 grains of calomel, which cured him completely, but unfortunately produced a mild attack of ptyalism. [It will perhaps be permissible to feel slightly skeptical regarding the diagnosis of this case. J.S.]

5.—Gerstmeyer reports the case of a child, who 6 weeks before had been **bitten by a vicious watch-dog.** The patient had suddenly developed convulsions which recurred upon the slightest external irritation. The symptoms had begun with inability to masticate food, followed later by convulsions and extreme terror. Application of cold to the spine apparently relieved the spasmodic condition, but she died in the course of 24 hours. [J.S.]

Boston Medical and Surgical Journal.

March 16, 1899. [Vol. cxi, No. 11.]

1. Ostitis Typhosa. Charles Greene Cumston.
2. Abdominal Hysterectomy for Cancer of the Cervix. J. C. Irish.
3. Concerning Lay Suggestions on Medico-Military Affairs. Edward L. Munson.
4. A Case of Sporadic Cretinism. Franklin W. White.
5. A Case of Exophthalmic Goiter. J. N. Coolidge.

1.—Cumstom reports a case of **ostitis** of the tibia **following typhoid** in which rapid cure followed opening the medullary cavity of the bone and curetment of the same. The cultures made from the semi-liquid medulla gave an abundant growth of staphylococcus aureus. Ostitis following typhoid may be due to infection of the bone with either a purely pyogenic organism or a pure culture of Eberth's bacillus or to a mixed infection. The tibia is the bone usually attacked, and unless relieved the disease generally goes on to suppuration and necrosis. [G.B.W.]

2.—Irish believes that in all cases of **cancer at the os** the operation chosen should be **abdominal hysterectomy,** because the direction and extent of infection may be more clearly determined, and by this route complications may be readily recognized and more of the diseased structure removed. He describes the technic employed and considers abdominal hysterectomy the only operation justifiable in cancer of the cervix. [W.K.]

3.—Munson relates some of the difficulties experienced in the Surgeon-general's office, as a result of suggestions of various kinds made by outsiders. Some of these have valuable medical secrets for sale at almost any price up to $50,000. Another group is full of suggestions as to what ought and what ought not to be done; one quack offering to preserve the soldiers from death and disease at $10 per capita. The majority of yellow-fever experts with a specific remedy came from the northern portion of the country, or from temperate countries, such as Germany and Russia. A list of 70 remedies suggested for this disease is given, commencing with almond oil and ending with the intravenous injection of raw-onion juice. One man had discovered that leprosy was produced by cannibalism. Such letters as are quoted in part seem to be more remarkable on account of their orthography than for any other reason. On the whole the article is rather humiliating to one believing in the intelligence of the American middle classes. [J.S.]

4.—White reports the case of a girl, 2 years of age, born of parents apparently healthy, although the mother died later of pneumonia. There was nothing in her early history to indicate disease excepting very slow development. She now presents all the **typical characteristics of a cretin;** is dull, placid, makes curious inarticulate noises, has the thick tongue and lips, flat nose, pendulous abdomen, and dry skin. The anterior fontanelle is still open, and not all of the teeth have appeared. There is marked lordosis, but otherwise the skeleton is normal. The lymphocytes constituted 32% of the leukocytes, but there was no leukocytosis. As no trace of the thyroid gland can be felt through the skin, it is supposed that it is absent. [J S.]

5.—Coolidge reports a case of **exophthalmic goiter** in a patient who, at the age of 18, had an attack of grip, and subsequently noticed dyspnea upon exertion. About 6 months ago she felt a sudden sharp pain in the epigastrium while drawing water, and was unable to work afterwards. The dyspnea and palpitation became very troublesome, and she developed tremor of the hands. When examined a month later, her temperature was 101°, her pulse 160, and loud blowing murmurs were heard over the cardiac area. There was no exophthalmos, and no enlargement of the thyroid. Ten days later she was very much better, but the improvement, however, did not continue. The case is interesting because there is no neuropathic history, and the cardiac symptoms were the first to develop. [J.S.]

Journal of the American Medical Association.

March 18, 1899. [Vol. xxxii, No. 11.]

1. Physicians—Expert Witnesses; Somes Reforms. Henry Wollman.
2. Leukoplakia; Psoriasis; Lupus Vulgaris. John V. Shoemaker.
3. Christian Science. Edmund Andrews.
4. Acute Tuberculous Infection. H. A. Hare.
5. Gunshot-Wound of the Abdomen. Richard Douglas.
6. Phonation. Ephraim Cutter.
7. Why Sycosis? Alfred E. Regensburger.
8. Recent Researches in Ringworm. William Thomas Corlett.
9. Rickets. Charles O'Donovan.
10. Some New Points on Infant Feeding. W. G. A. Bonwill.
11. Gout or Rheumatism. J. J. Caldwell.
12. Metallic Mercury. Albert Bernheim.

1.—Among the suggestions given for the benefit of expert witnesses are, that they avoid joking on the stand or a tendency to show off by the use of Latin words and technical language, that they avoid volunteering information or an appearance of intense partisanship. [M B T.]

2.—See this Journal, Vol. II, page 100.

3.—Andrews briefly reviews the doctrines of Christian Science as stated in the 107th edition of Mrs. Eddy's book. [M.B.T.]

4.—Hare calls attention to the form of **pneumonia arising from typhoid infection.** A case is cited which occurred in a girl, 10 years old, who was suddenly taken ill with a rigor and fever which speedily rose from 103° to 105°. There was little cough, some dyspnea, the pulse was 120 to 130. Restlessness was constant and there was delirium. The right middle lobe of the lung was consolidated, there was dulness on percussion and absence of vesicular sounds. Similar signs were present at the left apex. On the second day of the disease the rose-rash of typhoid fever appeared on the chest and belly and the liver and spleen were enlarged. Acute pulmonary infection by the bacillus of tuberculosis frequently takes a similar course. The case of a man 30 years old is mentioned who had been exposed to cold and wet and was taken with a severe chill followed by high fever and sweating. There was no history of previous illness. The entire left lobe was consolidated, and there were signs of general bronchitis. The man died in active delirium at the end of 15 days, and the necropsy revealed widespread miliary tuberculosis. [M.B.T.]

5.—Five cases of **gunshot wounds of the abdomen** are reported. In one of these cases in which there were 4 perforations of the intestines, an abscess followed and death resulted, which was attributed to faulty technic and septic surroundings. In the second case two perforations of the colon were sutured and recovery followed. Of two cases of injury to the small intestines, in one of which 4 perforations were found, and in the other 6 perforations, an uneventful recovery followed. In the fifth case a lacerated wound 3 by 4 inches resulted from a discharge from a toy-cannon filled with rags and paper wadding. The laceration and stripping of the intestine from its mesenteric attachment necessitated the resection of 5½ inches of intestine and anastomosis with Murphy's button. A good recovery followed. [M.B.T.]

7.—See this Journal, Vol. II, p. 100.

8.—See this Journal, Vol. II, p. 101.

9.—The results of O'Donovan's investigation of **rickets** are in accord with the general teaching that improper food is the general etiologic factor in the production of the disease. Most of his cases occurred in children of negro blood. [M.B.T.]

11.—Attention is called to the relation between **gout and rheumatism** and affections of the heart. Treatment is discussed and strophanthin is preferred to digitalis because it is more soluble in water and more rapid of action. [M.B.T.]

12.—See this Journal, Vol. II, p. 324.

Annals of Surgery.

February, 1899. [Vol. xxix, No. 2.]

1. Air-Distention in Operations upon the Biliary Passages. Weller Van Hook.
2. Postpuerperal Psoitis. Walter C. Wood.
3. Hot Air in Joint-diseases. H. Augustus Wilson.
4. Employment of the Needle-holder whenever in Surgical Operations Suturing is required. Oscar H. Allis.
5. Two Cases of Hypertrophy of the Penis; One due to Traumatism, the other to Elephantiasis. Orville Horwitz.
6. The Anatomy and Surgery of the Frontal Sinus and Anterior Ethmoidal Cells. Howard A. Lothrop.
7. Contribution to the Surgery of the Kidney. A Report of Cases treated in the Roosevelt Hospital of New York in the Period from January 1, 1890, to October 1, 1898. Alexander B. Johnson.

1.—The use of **air-distention in operations on the biliary tracts** enables the surgeon quickly and safely to identify these tubes without overlooking any part of them, especially in the dissection of adhesions and neoplasms about the ducts. It is also useful in locating obstructions and determining the degree of obstruction. It enables the operator to open ducts safely, without the fear of incising a collapsed vein, and also to more effectually palpate the walls of the ducts, both from without and from within. It also enables the sounding of the ducts for stones or stricture by pasing the sound into the distended duct, either through the gall-bladder or through the opening in one of the ducts. [C.H.F.]

2.—**Psoitis, as a post-puerperal complication,** has received little attention in obstetric literature. Wood reports two cases that came under his own observation and two under that of Dr. Robert L. Dickenson. The history of one of his own was as follows: The labor was prolonged and difficult, and terminated by the use of forceps during anesthesia. Fever and prostration followed, but there was no evidence of intrauterine infection or pelvic peritonitis. At the end of the first week the patient had pain in the left side of the abdomen, and the left thigh became drawn up. After 3 weeks of misdirected treatment the patient came under Dr. Wood's observation, and at this time there was noted tenderness at the junction of the left lumbar and umbilical regions at the level of the iliac crest. This tenderness corresponded to a tumor about 5 inches long, 2 or 3 inches broad, and 1 or 2 inches thick, evidently situated deeply in the abdomen. It was hard, immovable, and did not fluctuate; the tenderness upon pressure was decided. All the joints were normal in contour and motion, except that extension of the left thigh was limited at 130°, and any attempt at forced extension beyond this point caused severe pain. The diagnosis lay between a psoas-abscess and an intra-peritoneal inflammatory mass in contact with the psoas-muscle. As an exploratory medium laparotomy excluded the existence of any intra-peritoneal complication, a second incision was made extending to the anterior superior spine of the ileum. The peritoneum was stripped back from the iliac fascia, and the psoas-abscess containing about four ounces of pus was easily demonstrated. Free drainage was provided and recovery was uneventful. Several theories have been advanced to explain this complication of the postpuerperal period. One is that a rupture of muscle-fibers had occurred with hematoma, and secondarily, indirect infection at this point of lowered resistance; the other is that of a direct infection of the cellular tissue around the muscle by way of the lymphatics. A study of the distribution of the lymphatic glands shows that the chain of glands lying in close contact with the psoas-muscle may become directly infected without an intervening metritis or cellulitis of the broad ligament, and that in other cases the psoas-muscle may be secondarily infected through the lymphatics, beginning in the broad ligament, and causing primarily a metritis or cellulitis. The diagnosis of this condition involves a consideration of surgical kidney, a perinephritic abscess, psoas-abscess complicating spinal caries, and a lumbar phlegmon, in which the origin of infection can be traced to a perforated appendicitis. As for the treatment, this should be carried out on general surgical principles. The literature is still insufficient to determine the best incision with which to approach a small psoas-abscess. [C.H.F.]

3.—In his experience with the **treatment of joint-diseases by superheated air,** Wilson obtained his best results in acute sprains of the knee, ankle, wrist, and elbow, when seen shortly after injury. In cases of acute and chronic gout, rheumatism, and rheumatoid arthritis, the results were most disappointing; not only was he not able in many cases to relieve pain to any degree, but in a large number of cases the condition seemed to be rather aggravated by the treatment. The improvement that has followed in cases of hydroarthrosis is attributed to the local sweating or the increased power of absorption, and in these cases a rather low temperature (300°), kept up for a longer time (2 hours), has been found more efficacious than a higher degree of heat for a shorter time. Fibrous ankylosis has been found most susceptible and benefited by the application of extreme heat. Beginning with the temperature at 300°, and running it up to 400°, it was found at the end of one hour's time that the joints could be moved without much force from 10 to 15°. A decided and appreciable benefit has been obtained in tuberculous arthritis, by recourse to the highest degrees of heat. The treatment is supposed to be beneficial by promoting absorption and repair of the tuberculous lesions. As to the application of the treatment, Wilson has found humidin of great value in absorbing the excess of moisture in the oven. [C.H.F.]

6.—[The elaborate series of articles, concluded in this number, upon the anatomy and surgery of the frontal sinus and anterior ethmoidal cells, is recommended to those interested in the subject. The articles are based upon an elaborate study upon the cadaver of the anatomy of the parts, and are profusely illustrated by splendidly executed drawings. The results that have been obtained are all founded upon an accurate anatomic basis, and cannot help but be of the greatest service in formulating the best operative procedures that could be employed in the surgical treatment of diseases of the frontal sinus and anterior ethmoidal cells. C.H.F.] .

7.—Continuing his article upon the **surgery of the kidney,** Johnson includes in this report 9 cases of pyonephrosis, 9 cases of tuberculosis of the kidney, 12 cases of renal calculus, and 7 cases of cystic degeneration of the kidney. [C.H.F.]

Archives of Pediatrics.

February, 1899. [Vol. xvi, No. 2.]

1. Cases of Tubercular Meningitis with Peculiar Respiratory Phenomena. HENRY DWIGHT CHAPIN.
2. Hemiatrophia Facialis Progressiva. FRANCIS HUBER.
3. Case of Ilio-Colitis in a Child aged Six Years, Simulating Intussusception. EDWIN E. GRAHAM.
4. Broncho-Pneumonia: Its Differential Diagnosis and Treatment in Children. M. S. MARCY.
5. Acute Thyroiditis with Suppuration. CHARLES S. SHAW.
6. An Unusual Case of Pericorneal Disease in an Infant. ADOLPH O. PFINGST.

1.—Chapin reports 3 cases of **tuberculous meningitis showing peculiar respiratory phenomena.** Shortly before death the respiration became very labored, with great dyspnea on inspiration. Air entered the lung very imperfectly. During inspiration there was drawing in of the chest-wall, sometimes dropping of the larynx. Breathing was entirely thoracic and the patients had all the evidences of severe membranous croup. In one case the dyspnea was irregular, at times being much worse than at others, and in this case the air seemed to enter the left side much better than the right, with the disparity more marked at the apices.

The autopsy in the first case showed excessive fluid about the brain. There was marked fibro-purulent exudation on the under side of the brain, especially at the pons medulla and optic commissure. There were small scattered miliary tubercles throughout this area, also on the inferior surface of the frontal lobe about the olfactory bulb, and on the inferior and superior surfaces of the cerebellum. Both surfaces of the latter were studded with tubercles, most marked on the upper surface, and there were tubercles along the fissure of Sylvius. The convex surface of the brain had a smooth, glistening appearance with a few small tubercles on both sides, its bloodvessels being markedly distended. There was an excess of rather turbid fluid in the lateral ventricles. The walls were soft and easily broken down. There were a few tubercles on the choroid plexus, but none in the lining of the ventricles. The bronchial glands were enlarged and caseous. There was a small, cheesy, tuberculous area in the lower left lobe.

The autopsy in the second case showed 25 cc. of cloudy fluid in the vertebral canal. There was a tuberculous exudate on the surface of the dura mater. The latter adhered to the periosteum of the vertebra, especially over the upper portion, so low as the fifth dorsal vertebra. The pia mater was slightly congested. There was no gross lesion of the cord. The dura mater of the brain was smooth and glistening, and its pia mater intensely congested with a serous exudate in its meshes, in some places compressing the brain and flattening the convolutions, especially over the anterior portion of the third frontal and about the fissure of Rolando on the left side. The pia was thickened, especially at the base of the brain and over the superior surface of the cerebellum and in the fissure of Sylvius. In these regions were found small miliary tubercles. The lateral ventricles contained 5 cc. of clear straw-colored fluid. The endyma was smooth and glistening, the choroid plexuses were markedly injected and studded with small miliary tubercles. The brain-substance was congested. There was miliary tuberculous involvement of the lungs and pleura. There were miliary tubercles also in some of the abdominal organs.

There was no autopsy in the third case. There was no explanation of the extreme stenosis or obstruction to the entrance of air. It was suggested as a possibility that pressure upon the laryngeal nerves by the enlarged bronchial glands or some cause acting upon the respiratory centers in the medulla was responsible. [S.M.H.]

2.—Huber reports a case of **hemiatrophia facialis progressiva.** The child was delivered by forceps, marks of the forceps remaining evident for a long time. When 4 months old there was distinct drawing of the mouth to one side. The lower jaw on the right side was flattened and has not kept pace with the normal development of the opposite side. At 5 years, her present age, the right side of the face, and particularly the lower half, is smaller, less developed and flattened than the left. The inferior maxilla presents almost a straight line from the symphysis to the ramus on the affected side, the development being about one-third of the normal. The teeth cannot be separated a greater distance than ¾ of an inch. There is a distinct diminution in the size and bulk of the bony, muscular and subcutaneous tissues on the involved side. The eye is somewhat contracted, and the lateral half of the nose decidedly smaller, especially the size of the anterior nares. The teeth are smaller and in a decayed state on the affected side. The ear is smaller on this side. Sensation is not disturbed. The lung is involved in the atrophy, and the striking feature of the case is the sharply defined limitation of the process to the median line. The mental development of the patient is not up to her years. As to the etiology, the history makes it clear that the lesion is due to traumatism with resulting degenerative neuritis. [S.M.H.].

3.—Graham reports a **case of ileo-colitis** in a child aged 6 years, in which the possibility of intussusception was considered. The child sickened with nausea, vomiting, and diarrhea. She had frequent stools consisting of blood and mucus accompanied by marked tenesmus. A male catheter introduced for the purpose of irrigation was halted 4 inches from the anus. Pressure upon the catheter caused considerable pain. The stools were preceded and accompanied by suprapubic pain and tenesmus. Gas was passed by the rectum. There was no abdominal distention nor tumor to be made out. On the sixth day of the disease the index-finger passed into the rectum disclosed a culdesac about half an inch deep over the entire circumference of the bowel, the central portion of the bowel being occupied by a soft prolapsed mass. An attempt to pass the finger into this produced great pain. The local condition remained the same but there was some general improvement in the next three days and the conclusion was reached that the existing fecal obstruction was due to prolapsed rectal mucous membrane. There was no fecal matter passed in the bowel-movements until the eleventh day. After this the stools gradually became normal and the child eventually recovered completely. The facts arrayed against a diagnosis of intussusception were absence of abdominal tumor, absence of abdominal distention, absence of severe recurring paroxysmal pain, absence of marked prostration, and the escape of gas from the rectum. [S.M.H.]

4.—Marcy gives a brief description of **bronchopneumonia** and recommends the application of cold water to the affected side with cold applications to the head, and in the event of the temperature going above 103°, cold plunges as the best method of treatment. [S.M.H.]

5.—Shaw treated a pale, anemic boy, aged 12 years, for trifacial neuralgia of 1 week's standing. A few days after coming under treatment, **enlargement of the thyroid gland** was noticed. It was about the size of a hen's egg, tense, painful and red. There was pain on swallowing and movement of the head, which resulted in rigidity of the muscles of the neck and slight retraction of the head. The temperature was elevated to 102.5° F. Fluctuation of the mass was detected at the end of a week. The gland was incised under chloroform, and an ounce of foul, ill-smelling pus evacuated. The wound was packed with iodoform gauze. Immediate relief followed the operation. The temperature fell to normal and the neuralgia disappeared. Within a week the wound was completely healed and the boy perfectly well. [S.M.H.]

6.—Pfingst observed in an infant, 10 days old, marked injection of both eyes around the cornea so sharply defined that it looked like a subconjunctival hemorrhage. Between the cornea and this reddened area on one side there was a small portion of the sclera to be seen. Otherwise it had the appearance of a **pericorneal injection due to some inflammatory condition.** The cornea was perfectly clear, the pupils responded to light and were of normal diameter. The illness had apparently begun on the sixth day of life. On about the seventeenth day the eyes were almost entirely healed. An examination of the fundus was not possible. [S.M.H.]

The American Journal of the Medical Sciences.

February, 1899. [Vol. cxvii, No. 2.]

1. Cerebellar Tumor. Archibald Church.
2. Carcinoma of the Pancreas. W. P. Northrup and C. A. Herter.
3. On the Presence of Neusser's Perinuclear Basophilic Granules in the Blood. Charles E. Simon.
4. Retrobulbar Neuritis. William George Sym.
5. Head-Nodding and Head-Rotation Usually Associated with Nystagmus in Very Young Children. Charles J. Aldrich.
6. External Urethrotomy. James R. Hayden.
7. A Report on Six Cases in which the Bacillus Aerogenes Capsulatus was Isolated. Charles Norris.

1.—Church reports a case of **cerebellar tumor** in a boy of 15, the interesting feature of which is that the existence of the tumor, which had previously been suspected from the clinical symptoms, was **demonstrated by the x-ray.** The growth was thought to be a glioma; its center was rich in dilated, thin-walled bloodvessels. [D.R.]

2.—In an inoperable case of **carcinoma of the pancreas,** an opportunity was offered to study the **effect of pancreatic juice upon the absorption of fat.** It was found that with the patient on a milk-diet, a decidedly excessive quantity of the ingested fat was lost, or in other words that fat-absorption was distinctly impaired. The fat-splitting process was accomplished, however, as fully as in health, which at first seemed difficult to explain. It is known, however, that microorganisms may break up these fatty acids, and it was demonstrated in this case that the bacterial activity of the intestine was more pronounced than in health. The putrefaction of proteids in the intestine was shown to be excessive, by the exceptionally strong reaction given by the indigo-blue in the urine. From evidence presented by these various tests, it could only be decided that either the bile or the pancreatic juice, or both, were wholly or partially excluded from the intestine. An exploratory operation showed the head to be extensively diseased, but there was no proof that the bile-ducts were not implicated also, and that the bile as well as the pancreatic juice was deficient in the intestine. [C.H.F.]

3.—Neusser and his pupils several years ago described certain **granules** located **in the leukocytes** of the blood, near the nuclei, and **having an affinity for basic dyes.** The presence of these granules they considered pathognomonic of the uric-acid diathesis. Neusser thought that the latter diathesis was associated with an increased elimination of uric acid, while his pupil Kolisch found a diminished excretion, but an increase in the elimination of the so-called xanthin-bases. Futcher repeated the studies of the Viennese, with different results. Simon has now also studied the subject, in an endeavor to answer these questions: (1) Are Neusser's granules found in the human blood under strictly normal conditions? (2) In diseased conditions are these granules confined to the blood of patients suffering from the uric-acid diathesis? (3) Does a constant relation exist between the presence of these granules in the blood and the elimination of uric-acid, xanthin-bases, or both?

The answer to the first question is in the affirmative; indeed, so constant is the presence of the granules in health that their absence in a supposedly healthy individual is by the author regarded presumptive evidence of some morbid process. Regarding the second question, it was found that the granules were present almost as constantly in diseased states as in health, and they were not more abundant in cases of gout, lithiasis, chronic rheumatism, and neurasthenia than in other conditions. Curiously enough, Neusser's granules were absent, or present in very small numbers only, in persons with malignant disease. But as they may be absent in other conditions as well, such absence cannot be considered a pathognomonic sign of malignant disease.

As to the last question, a study of 50 cases showed that there is no constant relation between the presence of the granules and the elimination of uric-acid or xanthin-bases. The fact was also brought out that while uric acid occurs in relatively increased amount in the great majority of cases of the uric-acid diathesis, the alloxuric coefficient is in reality the deciding factor, and plays an important role in the symptomatology of the condition. In conclusion the author insists on the importance of quantitative estimation in the diagnosis of the uric-acid diathesis. [D.R.]

4.—The name **retrobulbar neuritis** was introduced by von Graefe to indicate such inflammatory diseases of the optic nerve as arise by continuity of tissue with other inflamed parts, or such as take their origin not from alterations of intracranial pressure, but begin primarily in the optic nerve. The chief features of the disease are: (1) **Rapid failure of vision.** This affects principally or solely the central part of the field, and varies from a mere loss of definition of objects to a complete, though circumscribed, loss of light. In the less severe cases, two methods of testing are of particular value, viz., testing with colors and with Bjerrum's types. Red and green are apt to be lost and appear as yellow and white respectively. The periphery of the field is not restricted as regards color. Many patients say (this is not so apt to be noticed when one eye only is affected) that vision improves in the evening or in a dull light. It is not at all probable that there is any actual improvement in the acuity of vision, but it is true relatively that the patient sees better in a subdued light. He may complain of a fog or mist before the eyes, and this is not in proportion to the degree of defect of vision. (2) **Pain and tenderness** in the neighborhood, in those cases at least in which there is inflammation of neighboring structures. Spontaneous pain is rare, but there is often a sense of weariness or aching on moving the eyes in one direction. (3) **Absence of early ophthalmic signs** is a feature of great importance. Ophthalmic signs may, indeed, be absent altogether. The changes usually found in the later stages are: (*a*) slight general increase in the vascularity of the disc; (*b*) fulness and tortuosity of the larger veins; (*c*) a faint blur or haze over the disc; (*d*) slight indistinctness of the margin of the disc. (4) **The tendency to recovery** is an important feature in the unilateral type of retrobulbar neuritis. The causes of **unilateral neuritis** are: spreading to the nerve of local inflammation, syphilis, rheumatism, gout, malaria. Of bilateral neuritis the following forms are recognized: (*a*) those occurring with diseases of the spinal cord; (*b*) those occurring simply, *i.e.*, without relation to cord-lesion; (*c*) cases of so-called stationary scotomatous atrophy; (*d*) cases of so-called hereditary optic atrophy; (*e*) toxic amblyopia. In the treatment the diathesis must be attacked in the unilateral cases. Subcutaneous inections of pilocarpin are useful; and so are, according to some, potassium iodid and mercury, even when syphilis is not present. In the long-standing cases strychnin is the mainstay; but it has little influence on the course of the disease. [D.R.]

5.—Aldrich reports two cases of **head-nodding** and **head-rotation** in children. In the first, a breast-fed female child of 16 months, the movements were horizontal and rotatory, and were associated with horizontal nystagmus. In the second, a male child of 20 months, the movements were gyral in character; there was nystagmus in the right eye. Head-nodding is usually a transient affection, and appears to depend upon rachitis or some other nutritional disorder. It is most frequent between the ages of 6 and 12 months. The movements stop during sleep, in the recumbent posture, and generally when the eyes are closed. Nystagmus may be monocular or binocular, vertical, horizontal, rotary, or mixed and alternating. It often persists after the head-movements have disappeared. The affection, in Aldrich's opinion, bears no relation to epilepsy. As to its cause, rickets and other nutritional disorders and gastrointestinal irritation play a part. The treatment consists in the use of bromids; rest in the recumbent posture is also of value. If a rachitic or other diathesis is present it must be combated by the proper treatment. [D.R.]

6.—Close attention to certain points in performing **external urethrotomies** for strictures may prevent recurrences and annoying complications. The roof of the urethral canal should always be divided as well as the floor. In order to ascertain whether all of the stricture-tissue has been divided, the index-finger, with the palmar surface directed upward, should be passed into the perineal wound and down to healthy urethra, well in front of the stricture, and then backward on the roof of the canal into the bladder. The posterior urethra should be dilated with the index-finger, a measure which, if adopted, prevents postoperative tenesmus. Drainage is best attained by a large perineal tube, which is withdrawn in 2 to 4 days to be cleansed and then replaced; it should be removed permanently on the fifth to seventh day. Post-operative dilatation should be begun so early as the second day. [C.H.F.]

7.—Norris was able to isolate the **bacillus aerogenes capsulatus** from a series of 6 cases. The first was one of placenta prævia marginalis. The patient lost considerable blood, and died 5 hours after delivery of shock, ascribed to rapid extraction of child. At the autopsy, 24 hours postmortem, a rupture of the uterus was found. Air-bubbles were present in the liver, spleen, kidney, and other parts. The second case was one of acute leukemia, with terminal infection by the bacillus aerogenes capsulatus. The leukocytes are said to have outnumbered the red cells, but no blood-count is given. The third case was one of hypertrophic cirrhosis of the liver and dilatation of the heart. The liver crepitated on pressure after removal at autopsy. The bacillus probably entered through the digestive tract; perhaps a postmortem invasion occurred through ruptured esophageal veins. In the fourth case the bacillus was isolated from a gaseous phlegmon following a compound fracture of the right tibia. The fifth case was one of emphysema of the viscera (Schaumorgane), and the author was able to isolate the bacillus aerogenes capsulatus. The last was a case of hemorrhagic pancreatitis with multiple hepatic abscesses, and gas-holes in the liver. The bacillus was isolated. Pure cultures of the organism, which is anaerobic, injected into guineapigs, often fail to produce any local effects. Only the most actively growing fresh cultures cause a fatal gaseous phlegmon. Intravenous inoculation of pure cultures in rabbits is not followed by any effects. Intravenous injection of the hemorrhagic fluid obtained from the site of the gaseous phlegmon of an inoculated animal is usually fatal (in rabbits). It is probable that the bacilli produce a much larger amount of toxin in the body fluids, and attain a higher degree of virulence than in artificial culture media. This would explain why the hemorrhagic fluid of gaseous phlegmons is so much more virulent than pure artificial cultures. [D.R.]

Practitioner.

February, 1899. [Vol. lxii, No. 2.]

1. The Adirondack Cottage Sanitarium for the Treatment of Incipient Pulmonary Tuberculosis. E. L. Trudeau.
2. Dr. Trudeau and the Open-Air Treatment of Phthisis in America. J. G. Adami.
3. On Extroversion of the Bladder. W. J. Walsham.
4. A Case of Ovaritis with Cystic Degeneration. E. Stanmore Bishop and W. E. Fothergill.
5. The Treatment of Gout, Rheumatism, and other Affections by the Electrothermic Generator. Arthur P. Luff.

1.—Trudeau contributes an analysis of the **cottage sanitarium treatment of incipient tuberculosis** as instanced by the Adirondack institution in New York. The article is fully illustrated by views of the buildings, and an account of the general system of management is given. He concludes that (1) tuberculosis, if diagnosed in its early stages, is curable in a large proportion of cases; (2) it is therefore of vital importance that diagnosis be made early; (3) the best results in treating incipient tuberculosis are obtainable by the open-air treatment in special sanitaria situated in good climates; (4) the best plan of construction for such sanitaria is the cottage-plan or some one of its modifications. [G.C.C.H.]

2.—Adami follows upon the paper of Trudeau with an anecdotal resume of the inception of the scheme and its growth. He is inclined, however, to think that the excellent results obtained at the Adirondack sanitarium are not so much due to the climatic conditions of the place as to the rigorous carrying out of the methods there in vogue. The research-laboratory work is highly commended. [G.C.C.H.]

3.—Extroversion of the bladder is the result of a failure of union in the median line occurring in the developing fetus. The bladder appears turned inside out, showing the orifices of the ureters and on the upper part of the accompanying epispadias can be seen the openings of the common ejaculatory ducts. The symphysis of the pelvis is ununited. The radical treatment of extroversion of the bladder may be considered under the following heads: (1) destroying the mucous membrane of the bladder, so leaving the ureters open on the skin-surface; (2) conveying the urine to a more convenient situation; (3) diverting the stream of urine from the open bladder into a closed cavity such as the rectum or colon; (4) forming a new bladder. The last of these procedures is the best and the method of closing the bladder by bringing the mucous membrane into contact is preferable to the numerous other ways of forming a new bladder. For patients under 5 years of age, the operation as suggested by Trendelenburg, of separating the sacro-iliac joint so as to allow of approximation of the pubic bones, is the best procedure. But for patients over 5 years Mikulicz's method of uniting the edges of the bladder and then the recti muscles or Anderson's modification of using skin-flaps instead of dissecting out the recti, should be resorted to. Walsham reports a case of a boy operated on by himself some years ago who can retain the urine in the newly-formed bladder for 2½ hours. [G.B.W.]

4.—Bishop reports a case of **ovaritis with cystic degeneration.** The mass removed consisted of an ovary and tube with a small portion of broad ligament. A careful microscopic study of the ovary was made to determine the mode of origin of these cysts. In literature there is no lack of information about ovarian inflammation, and theories as to the origin of various kinds of cysts are plentiful; but the connection between the two conditions does not appear to have attracted much attention. When inflammation and cyst-formation occur in the same ovary, it is, of course, within the bounds of logical possibility that the inflammation caused the cysts, or that the cysts caused the inflammation, or, thirdly, that the two conditions are merely coincident, neither being caused by the other. In the case described, however, it seems clear that the infection of the pelvic organs by microorganisms of one or more kinds caused inflammation in and around the ovary, and that this inflammation prevented ovulation and caused the aborted Graafian follicles to form small ovarian cysts. This interpretation of the case, if it be correct, is not only of interest to the pathologist, but is of importance to the practical man; for ovarian cysts are usually regarded, along with most new-growths, as things which appear without warning or apparent cause, which grow for a time, and are at last removed by the knife. If, however, ovarian cysts are sometimes caused by inflammation of infective origin, it follows that sometimes, at least, their formation may be prevented by the prevention of ovarian inflammation, and, failing that, by its prompt treatment. [W.K.]

5.—Luff makes a preliminary communication upon the **use of the electrothermic generator,** in which he reports excellent results following upon the use of the apparatus in cases of gout, rheumatism, and rheumatoid arthritis. He thinks it is less useful in the last named than in the two former affections. Thus far he is unable to give any definite explanation, based on scientific data, of the mode of action of this superheated-air treatment, but is investigating it in regard to its effect on elimination, and also as to whether it causes any variations in the alkalinity of the blood. He is of the opinion, however, that an explanation of the beneficial effects is to be found in the increased local circulation promoted by it, and probably also in an increase of local metabolism. It is also just possible that the inductive influence of the magnetic waves arising from the electrically-heated wires may be a factor of some therapeutic importance. [G.C.C.H.]

Journal of Nervous and Mental Disease.

February, 1899. [Vol. xxvi, No. 2.]

1. An Acute Myxedematous Condition, with Tachycardia, Glycosuria, Melena, Mania and Death. William Osler.
2. Notes on the Toxic Properties of the Blood in Epilepsy. C. A. Herter.
3. A Case of Amyotrophic Lateral Sclerosis Presenting Bulbar Symptoms; with Necropsy and Microscopical Examination. F. X. Dercum and William G. Spiller.
4. Report of a Case of Tabes with Hepatic Crises; Autopsy. William C. Krauss.
5. Formation and Excretion of the Metaplasm Granules of the Neuron. Ira Van Gieson.

1.—Osler reports the following extraordinary case:—The patient, a man of 31, had previously been well. In October, 1896, he began to increase rapidly in size, and in less than three months had gained 37 pounds. Nevertheless, he felt quite well, although from time to time he had attacks of diarrhea, and on account of the dark color of the stools, it is possible that they contained blood. In February he became worse, at times was delirious, and had delusions. His face became bloated, and the eyes prominent. The skin, particularly over the chest, was congested, and there were brownish scars in the upper portion. Over the legs and abdomen there were numerous atrophic scars due to the great distention. The skin was particularly thick and firm, the thyroid gland probably slightly diminished in size. There were no disturbances of the nervous system. The pulse was very rapid, ranging from 120 to 136, and occasionally a beat was lost. The urine contained sugar, and a very large quantity of albumin. Later, the patient became febrile, and was put upon thyroid extract, which apparently caused an attack of mania. Nevertheless, the myxedematous condition diminished very rapidly under its use. Ultimately the patient died from exhaustion. No autopsy could be obtained. Osler calls attention to the fact that the clinical picture does not conform to any one disease, but apparently could be explained by assuming the **combination of exophthalmic goiter and myxedema.** In the discussion of this paper, Booth mentioned a case of exophthalmic goiter that had not improved after thyroidectomy, and had presented somewhat similar symptoms. [J.S.]

2.—Herter has tested the **toxicity of the blood-serum in 15 patients suffering from epilepsy.** The method employed was the infusion of defibrinated blood at the rate of 5 cc. a minute into the femoral vein of a rabbit until toxic symptoms appeared. Fourteen of the cases were treated by this rapid method, with negative results in 12. In 1 of the 2 positive cases the history was lost; in the other the attacks of epilepsy were associated with congestion and over-eating. A second group of experiments was made to determine the minimum dose that would prove fatal in from 12 to 36 hours. Four cases were employed, and in 2 of these the toxic values were slightly above normal, one of these being the case in which the fits were brought on by over-eating; the other 2 were normal. In 3 cases the blood was tested immediately after a grand-mal seizure, and then at intervals of 15, 16½ and 26 hours. The results were doubtful. In 2 cases the blood was drawn several weeks after the attack, and subsequently infused into a dog and into a Java monkey; neither animal showed symptoms that would not have developed after injections of normal serum. Herter admits that the results of his experiments were not conclusive. In not one of the 15 cases was there the slightest evidence that the blood was more toxic than normal during the intervals. He suggests that in future experiments, the rate of infusion should be limited to 2 cc. per minute, and that the infusion should be stopped at the first indication of involuntary spasm. This should be controlled by determining the minimum dose capable of producing death in from 12 to 36 hours. Not only rabbits, but also guineapigs and monkeys should be employed. [J.S.]

3.—Dercum and Spiller report a case of **amyotrophic lateral sclerosis** in a woman, 53 years of age, who, in the early part of 1892, had had pains in both legs. She soon became weak, and was obliged to use a cane. When admitted to the hospital, the legs were spastic and the reflexes exaggerated. Subsequently speech became indistinct, the arms became spastic and weaker, and she was finally bedridden. There were some contractures in the arms and legs; marked resistance to passive motion; the feet were in extreme extension; there was general wasting of all the muscles, particularly those of the right arms; there was considerable weakness of the muscles of the face; the tongue was protruded towards the right side, and there were fibrillary twitchings on both sides. There was a marked tendency to causeless laughter, but otherwise the mental condition was normal. Death occurred apparently from failure of respiration. At the autopsy, there was a gangrenous perforation at the top of the bladder which, however, had not produced peritonitis. Otherwise, aside from arteriosclerosis, the organs were apparently normal. The brain and cord were examined microscopically. Many of the cells of the anterior cornua showed more or less pronounced degenerative changes, but few of them were completely degenerated. The anterior spinal roots showed only moderate atrophy. Both pyramidal tracts were markedly degenerated, and there was an area of slight degeneration in the column of Goll. The motor nuclei in the medulla were apparently normal. Some amyloid bodies were found beneath the fourth ventricle, and in the spinal cord. Very peculiar bodies were found in the medulla about the vessels, which appear to have been colloid in nature. The giant-cells of the paracentral lobule were normal in appearance, but diminished in number. No traces of nerve-degeneration were found in the paracentral lobule, nor in the internal capsule stained by Marchi's method, nor in the pons in the cerebro-peduncles, nor in the capsule by Weigert's method. Finally, degeneration was found in one of the laryngeal muscles. The fact that bulbar symptoms existed without marked degeneration in the motor nuclei, is explained by supposing that the central neurons above this level were degenerated, and gave rise to the symptoms. In the discussion Fisher believed that amyotrophic lateral sclerosis was not a special disease, but merely a form of degeneration in the nervous system, and that it was rare to find the motor neurons alone involved. Dercum insisted that the symptoms indicated that the lateral columns were involved before the anterior horns. Mills did not believe that primary lateral sclerosis existed. Knapp, Mills, and Thomas expressed their agreement with Fisher's view. Spiller was certain that disease of the anterior horns without involvement of the pyramidal tracts could exist. [J.S.]

4.—Krauss reports a case of **locomotor ataxia** in a woman, 44 years of age, who, from time to time, suffered with severe neuralgic pains in the hepatic region, followed by the development of jaundice. These attacks occurred at intervals of from 5 to 6 weeks. The symptoms gradually became so severe that she was bedridden. She ultimately died of inanition. At the autopsy, sclerosis of the posterior tracts was found through the entire length of the cord. The liver and gallbladder were perfectly normal. Krauss supposes that some disturbance of the nerve-supply of the liver and gallbladder must have existed. In reply to Osler, Krauss stated that the patient had had no fever during the attacks. [J.S.]

5.—Van Gieson stated that when the nerve-cells were fatigued, they excreted **metaplastic granules** that clustered about the bloodvessels. [J.S.]

Berliner klinische Wochenschrift.

January 30, 1899. [36. Jahrg., No. 5.]

1. Concerning the Influence of the Diet in Determining the Diagnosis of Renal Insufficiency upon the Ground of the Lowered Freezing-Point of the Blood. A. V. KORÁNYI.
2. Concerning the Treatment of Urogenital Tuberculosis. B. GOLDBERG.
4. Remarks on the Treatment of Congenital Hip-Dislocation by Bloodless Reposition. A. LORENZ.
5. A Contribution to the Literature of Otology and Rhinology. L. KUTZ.

1.—The question whether in the case of renal disease there is **retention of excrementitious products** can only in rare instances be answered by a study of the urine. But a study of the blood is capable of supplying an exact answer. To this conclusion Korányi has come from an investigation of the **osmotic pressure** of the urine and blood. The **blood of healthy individuals has a freezing point** of — 0.56° C., from which the variations are almost *nil*, or at the most 0.01° C. Under pathologic conditions quite constant changes from the normal are observable: (1) In grave anemias and cachexias the freezing-point is less low than normally; (2) it is lower as soon as an accumulation of CO_2 occurs in the blood. In this case the freezing-point returns to — 0.56° C. if the blood is treated with oxygen; (3) the freezing-point sinks lower than — 0.56° as soon as the work of the kidneys is inadequate. This depression of the freezing-point is not influenced by oxygen. Another, a fourth, factor changing the freezing-point is **acetonemia.** Korányi's clinical studies seem to prove also that the determination of the freezing-point of the blood is of great importance for renal surgery, as it is the most delicate index of kidney-insufficiency, and has the further advantage of furnishing results that can be expressed in figures. A very interesting observation made by the author was that while the character of the food normally has no influence on the freezing-point, in cases of renal insufficiency it is of the greatest importance. The experiments were made on 5 series of rabbits—the first was for 2 days fed on oats, the second for 2 days on carbohydrates, the third for 2 days on somatose, the fourth for 2 days on oil, the fifth was starved for 2 days. Then the kidneys of all the rabbits were removed, and the animals killed after 5 or 6 hours. The carotid artery was opened in all, and the freezing-point of the blood determined. It was least changed in the animals fed as usual (oats); it was more depressed in the carbohydrate animals, still more in those fed on somatose, still more in the starved animals, but most in those fed only on oil. From these results it follows that the degree of renal insufficiency can be determined by means of the depression of the freezing-point only when the food is uniform. The depression of the freezing-point, *i. e.*, the osmotic pressure, increases in renal insufficiency because the blood is not cleared or not completely cleared of the excess of molecules arising from proteid metabolism. The depression of the freezing-point is the greater, the more albumin is decomposed and the less the permeability of the kidneys. But it is not alone the quantity of decomposed albumin that is of influence, but also the mode of decomposition. When the carbohydrates are insufficient the depression of the freezing-point increases. As small amounts of acetone greatly depress the freezing-point and as the lack of carbohydrates favors the formation of acetone from albumin, it is possible that the marked depression of the freezing-point in renal insufficiency and carbohydrate-hunger is due to **acetonemia.** [D.R.]

2.—Goldberg thinks that the value of surgical measures in **urogenital tuberculosis** has been overestimated. Palet found that of 136 persons nephrectomized on account of renal tuberculosis, 51, nearly 40%, died, and only 29 lived longer than a year. The cause of these bad results lies in the multiplicity of the tuberculous lesions. In Goldberg's own cases of urogenital tuberculosis, 31, there was not one in which a single organ of the urogenital tract was the sole seat of tuberculosis in the body. Tuberculosis of the testicle, epididymis or vas deferens is often the starting-point of a urogenital tuberculosis. Castration may remove the disease, but primary tuberculosis of the external genitalia is also amenable to medicinal treatment, and the author mentions a case in which the left testicle was tuberculous—the size of a fist—in which ichthyol-ointment, and, internally, pills of creasote and tolu-balsam brought about a marked improvement. For cases of primary prostatic tuberculosis the treatment is practically solely medicinal and dietetic. Tuberculosis of the ureter has no independent importance—it is associated with tuberculosis of the genitals and the bladder or with tuberculosis of the kidney. Its involvement in the latter case is connected with three beneficial consequences: (1) protection of the bladder and the other kidney against urinogenic infection, (2) facilitation of compensatory hypertrophy of the other kidney, and (3) revelation of a previously latent renal tuberculosis by the development of renal retention. In Goldberg's 31 cases the bladder was involved 23 times. The development of vesical tuberculosis with healthy genitalia is in the majority of cases a sign of primary disease of one kidney. In tuberculosis of the bladder the author disapproves of irrigation; catheterization should only be employed when absolutely necessary—metallic catheters should then not be used. Silver-nitrate injections do harm; sublimate-solutions are useful. He injects from 3.5 cc. of a solution of from $\frac{1}{4000}$ to $\frac{1}{10000}$. The treatment is instituted every day or two for from 4 to 6 weeks. Regarding **nephrectomy,** the author thinks that the existence and operability of a renal tuberculosis are not always sufficient indication for operation. The possibility of the latency and cicatrization of small cheesy foci in the kidney, the rarity with which the tuberculosis is limited to the one kidney, and finally the slight success of nephrectomy, point to the use of medicinal and dietetic measures in the early stages of renal tuberculosis. Climate and diet are important; of drugs, Goldberg uses creasote and guaiacol. Several cases in which improvement followed are quoted. [To be continued. D.R.]

Wiener klinische Wochenschrift.

February 2, 1899. [12. Jahrg., No. 5.]

1. On Agglutination. R. KRAUS and L. LOW.
2. On Local Surmenage as a Cause of Paralysis Agitans. KRAFFT-EBING.
3. Contribution to the Theory of Predisposition to Local Disease. LUDWIG HOFBAUER.
4. The Question of the Use of Methodical Hearing-Practice for Deaf-Mutes. HERMANN GUTZMANN.
5. Remarks on the Foregoing Criticism of Dr. Gutzmann. VICTOR URBANTSCHITZ.

1.—The **normal serum** of animals **is capable of agglutinating** certain bacteria, thus horse-serum agglutinates typhoid, colon, and pyocyaneus bacillus, vibrio Danubicus, vibrio Metschnikoffi, mouse-typhus, and staphylococcus; it does not agglutinate cholera-vibrio and plague-bacillus. The blood of one animal of a species may not agglutinate a certain bacillus, yet that of another animal of the same species may. Perhaps individual immunity plays a role in these cases. The serum of guineapigs agglutinates other bacteria than that of rats or rabbits. All species of serum, however, both of man and other mammals, agglutinate the bacillus coli; many also act on the staphylococcus. As the normal serum of newborn guineapigs does not agglutinate the colon-bacillus, while that of old animals does, the property of agglutination must be acquired. The possibility that an **auto-immunization** occurs by way of the intestinal tract suggests itself. Normal human serum generally agglutinates bacillus coli, pyocyaneus, staphylococcus, vibrio Danubicus, and mouse-typhus, while cholera, streptococcus, bacillus of Friedländer, etc., are not all agglutinated by it. Normal pigeon-serum transforms, *in vitro*, cholera, bacillus coli, and sometimes the typhoid bacillus, into granular or globular masses. An analogous phenomenon has hitherto been only observed under the influence of an immune serum, either in the peritoneum (Pfeiffer's phenomenon) or **in vitro.** Normal snake-serum has a peculiar effect—it causes bacillus coli, and typhoid bacillus to become smaller, thicker, and oval, and transforms them into "shadows." Regarding the **diagnostic value of agglutination,** it must be remembered that a specific agglutination appears in those diseases the bacteria of which contain toxic substances, as in typhoid, cholera, plague, and colon-infection and proteus-infections. In these cases the morbific and immunizing agent consists of poisons which are contained in the bodies of the bacteria themselves. In those infections in which the cause is toxin-producing bacteria (diphtheria, tetanus), agglutination has so far failed to be of diagnostic value. Pyocyaneus produces toxins and is poisonous itself—agglutination occurs and has been used for diagnosis. In the case of the pneumococcus, agglutination is not constant, equally uncertain is agglutination of the streptococcus. The staphylococcus, like the bacillus coli, is agglutinated so regularly by normal serum, that agglutination has no diagnostic value. Studies on the influenza-bacillus and the meningococcus have been negative. Pfaundler has described a thread-formation n bacillus coli and proteus, as a special agglutination-phenomenon. Kraus has seen it in colon, typhoid, cholera, pneumobacillus, and rhinoscleroma. The phenomenon is not specific, but is connected with agglutination, although he latter need not precede the thread-formation. As to the nature of agglutination, not much is known. The process is probably a mechanical precipitation, as already explained by he author in another article. [See PHILADELPHIA MEDICAL JOURNAL, Vol. III, page 373. [D.R]

2.—Krafft-Ebing calls attention to the importance of **overstrain** of an extremity in determining the localization of paralysis agitans. [D.R.]

3.—Hofbauer, in an interesting contribution, endeavors to ind an explanation for **local predisposition to disease.** t is well known that a trauma conditions a *locus minoris reistentiae,* and that a tissue, the cells of which have been damged, forms a favorable soil for bacteria. But the experiments have shown that a lowered vital activity of the cells avors the development of the bacteria only in case of direct ocal inoculation of the bacteria. If a local trauma is prouced in an animal, and the bacteria are injected intraenously, a more marked localization in the injured tissues oes *not* take place. Becker produced a subcutaneous fracure in rabbits, and several days later injected a pure culture f microorganisms into the jugular or auricular vein. Aside rom slight swelling, no change occurred at the seat of fracure, and the animals seemed to recover. A week later, or t the most in 12 days, the rabbits became ill again, an abscess ormed at the site of the fracture, and the animals died on he twelfth or fourteenth day. If the theory of the lowered itality of the cells were the correct one, the formation of the bscess should have taken place early, when the damage to the ells was at its height and the bacteria were present in the blood n greatest number. Other experimental evidence, as well as linical experience lead the author to the conclusion that redisposition cannot be dependent on a lessened resistance f the tissue. Disturbances of the circulation have been ocused in this direction. So far as passive congestion is concerned, it is not probable that it favors the localization of acteria; indeed, it has been shown that the increased CO_2 resent has a deleterious influence on bacteria. After citing umerous experiments and clinical data, the author enuncites the theory that **local predisposition is dependent n abundance of arterial blood-supply.** In the case f the fracture, the latter becomes a *locus minoris resistentiae* n the second week, when the reparative processes are in full wing, and the afflux of blood, in consequence, is increased. his is in favor of some connection between predisposition nd blood-supply. Several observers deprived the kidney of s nerve-supply, injected bacteria into the venous circulation, nd obtained their localization in the kidney. The cutting f the nerves paralyzes the vasoconstrictors and causes an ctive hyperemia of the kidney, and this hyperemia stands causal relation to the deposition of the bacteria. The uthor concludes from these various observations: (1) Those ternal influences (trauma, inflammation, nerve lesion), hich increase the local predisposition of the tissues in the se of general diseases, are accompanied by an increased ood-supply to the affected part. (2) Those tissues that are nature predisposed are characterized by an abundant ood supply. (3) The experimental production of active yperemia corresponds to an increase of the local disposition to disease. (4) The constant association of active hyperemia and tissue-predisposition suggests the view that there is a causal relationship between these two factors. The blood is the vehicle of the noxious agent, hence, an increased afflux of blood is equivalent to an increased afflux of the morbific cause. [D.R.]

February 9, 1899. [12. Jahrg., No. 6.]

1. The Operative Treatment of High-grade Myopia. E. Fuchs.
2. Two Cases of Echinococcus of the Eye-socket. Albert Blaschek.
3. A Case of Sarcoma of the Orbit; Extirpation; Recovery. II. Concerning Partial and Total Rhinoplasty. Jos. Preindlsberger.

1.—Fuchs advocates the removal of the crystalline lens for high degrees of myopia under the following conditions: The myopia should be of more than 15 D.; he operates only in case no serious change is present in the retina, for example, such as would produce a central scotoma; only patients under 40 years of age should be operated upon; an eye should not be operated upon in case the vision of the other eye is good. Fuchs adds that the operation is not absolutely necessary to the preservation of vision and that it is not entirely free from danger. After operation the eye should not be used during the entire day as one would use sound eyes. The operation affords no protection against such changes in the retina as occur in later years as the result of shortsightedness; such as atrophic processes of the choroid, hemorrhages or separation of the retina, etc. The wearing of extremely concave lenses is incompatible with many employments and such cases may be suitable for operation. [M.B.T.]

2.—In a search through literature Blaschek has been able to find reports of only 59 cases of **echinococcus of the orbit** since 1774. In Fuchs' clinic in Vienna out of 142,425 cases of diseases of the eye but 2 cases have occurred during 8 years. A detailed report of these cases is given, together with a discussion of the literature of the subject. [M.B.T.]

3.—A case of **sarcoma of the orbit** is reported in which the roof of the orbit and the cavity of the skull was invaded, occurring in a peasant 24 years of age. Extirpation of the growth was followed by a satisfactory recovery. Two cases are reported in which von Hacker's rhinoplastic operation was performed for **lupus of the face and nose.** One of the operations was partial and was performed upon a servant-girl, 38 years of age, with a fairly satisfactory cosmetic result. The second operation was performed on a girl, aged 20, whose nose had been completely destroyed by disease, with a rather unsatisfactory result. Preindlsberger believes that the wearing of an artificial nose will give more satisfactory results in most cases than the performance of a rhinoplastic operation. [M.B.T.]

Deutsche medicinische Wochenschrift.

January 26, 1899. [25. Jahrg., No. 4.]

1. Concerning Esophagoscopy. Th. Rosenheim.
2. A Study of the Etiology of Dysentery and Intestinal Fungi. Ascher.
3. Concerning the Usefulness of Hyrgol (Colloidal Mercury) in the Treatment of Syphilis. L. Falck.
4. The Prevention of Cancer of the Womb. Duhrrsen.
5. Concerning Carbolic-Acid Tablets. G. Meyer.

1.—Rosenheim records several cases which were difficult of diagnosis, and in which **examination by the esophagoscope** did not offer any great assistance. The first case occurred in a man 62 years old, without any previous history of illness; about 9 months before he was first seen he had begun to complain of difficulty in swallowing which constantly increased. He had emaciated very greatly, and the diagnosis was thought to be carcinoma of the esophagus. The examination with the esophagoscope gave no aid; nothing was seen but a paleness of the mucous membrane at the upper portion of the stricture; the actual opening into the stricture was not visible. His death occurred soon after and the trouble was found to be pulsion diverticulum. The course of the case, death occurring within a year after the first symptoms, is unusually rapid. The second case was in a man 58 years of age who complained that his food was arrested at the upper portion of his esophagus. He had been repeatedly examined elsewhere, and was told that he had cancer. The sound was arrested at the upper entrance to the esophagus; examination with the esophagoscope showed roset-like folds, covered with bright red, moist, shining mucous membrane. There was no ulceration, and no bleeding. Rosenheim diagnosed the case as one of spasm, and since other causes, especially hysteria, were absent, he is inclined to attribute it to the man's gouty diathesis. [The paper will be continued. D.L.E.]

2.—Ascher examined a number of cases of **dysentery** during an epidemic of this disease in various parts of Prussia. Cats were injected with portions of the stools, using preferably young cats, since they were more susceptible; the anus was denuded and then sewn together after the injection. Cats operated upon in this way and not injected, showed only a mild follicular enteritis. Small portions of a dysenteric stool were mixed with peptone-solution, and of two cats injected at the same time with the same stool, one remained living while the other died after 6 days. There were practically no differences in their bowel-changes from those seen in uninjected cats, though in one there was a bacillus found in the blood, liver and spleen. In another cat that died during ether-narcosis 3 days after injection, there was found a mass of bloody mucus in the bowel, and an abscess of the liver from which a streptococcus was obtained; there were no amebæ. Another cat showed no peculiar changes, and the fifth and sixth cats injected remained living, so that the results were not characteristic. In no case were amebæ obtained by culture, or seen upon microscopic examination. The streptococcus that was obtained, and which grew in the form of a streptobacillus, reacted to a dilution of 1 to 100 of blood-serum from the patients with dysentery, but it reacted in just as high a dilution with the blood from patients who had no dysentery. The injection of bouillon-cultures into cats caused a free, bloody diarrhea, and the streptobacillus was found postmortem in the spleen. Similar experiments with the streptococcus pyogenes and with the bacterium lactis aerogenes gave negative results, but negative results were also obtained from injection with the streptobacillus in 4 additional cases. Ascher's attempts to determine some definite bowel-flora were omitted after finding that in nearly all cultures new forms of microorganismal life were always appearing; he reached the conclusion that no description could cover in a broad sense the forms that one is likely to meet in the contents of the intestines. [D.L.E.]

3.—After repeated and varied experiments with **hyrgol,** Falk reaches the conclusion that it cannot be said that this substance is likely to attain a very secure position amongst preparations of mercury for therapeutic use, first, because of the impurities which are found in the preparations, and because of the great variations in strength; second, because the preparations keep badly; third, because for the above reasons the dose administered is never known; fourth, because the price is excessively high, and fifth, because no really energetic effect was seen from injections or inunctions. [D.L.E.]

4.—Dührssen says it is questionable if the profession knows **how many die of cancer each year,** and how it increases despite the fact of the better condition of the people. This is in contradiction to Schroeder, who wrote that it was a disease of the poor and poorly nourished. Dührssen claims that most of his cases are from the better classes, as does Williams, and asserts: (1) That the improvement of the condition of the people in England has doubled in the last 150 years, poverty is one-half less; but despite this, cancer has increased four fold. (2) The mortality from cancer is least among the poor and greatest among the rich. (3) In Ireland, where people are as poor now as 50 years ago, cancer has not increased. Williams gives overnourishing and an easy life as predisposing causes. In rich West London the cancer mortality is twice that in the poor district of East London, while among savages it does not exist. Of 325 cases of cancer in females, none were in prostitutes; and of 160 cases only one patient had had syphilis. (Williams), Dührssen states that 25,000 women out of 25,000,000 in Germany die of cancer uteri, of these only 10% to 30% are operable, and only one-third or one-fourth of the operable ones remain free from a return; hence only one-tenth of all cases of uterine cancer are saved from death by operation. To ameliorate this condition he says an early diagnosis should be made. This can be done by teaching women to seek (1) a physician's help in case of the smallest discharge or least sign of abnormity in the hemorrhage. (2) By obtaining the patient's consent to a thorough examination, bimanual and instrumental, by probe, excision, curetage, and exploration of the uterine cavity. (3) After diagnosis her submission to extirpation of the uterus. That is an ideal method which, where possible, without operation prevents the beginning of cancer. We have such a procedure. It is the elimination of the uterine mucosa with the help of Sneguireffschen vaporization. It has already been made public that this method, which is painless and safe, by a sufficiently long use of steam has obtained necrosis and expulsion or shedding of the whole mucosa. According to Billroth, Thiersch, and Waldeyer, carcinoma springs from the pavement-epithelium of the cervix, and cylinder-epithelium of the mucosa of the body of the uterus; this is all removed through vaporization and the cervix afterwards becomes small and hard. The same result can be accomplished by an operation of Dührssen's. He opens the abdomen through the anterior vaginal wall, pulls the uterus downward, and makes a T-shaped incision through its anterior wall, and removes the mucosa in this way, then closes the incision in both uterus and vagina. As this operation is extraperitoneal, it is much less dangerous than vaginal extirpation. The high amputation of the cervix (Schroeder) is a good prophylaxis since body-cancer occurs only in 3 to 10% of uterine cancer. Women who suffer from cancer mania never suffer from cancer, as with the slightest symptom of uterine catarrh they go to a physician. As a prophylactic measure all cases of uterine catarrh should be treated. In women between 40 and 50 any symptoms of bleeding and discharge should be attended to at once, and those at the climacteric with abnormal bleeding should allow the destruction of the mucosa by the use of vaporization, or zinc chlorid, or Dührssen's operation. [W.K.]

5.—Meyer notes the convenience that would attend the use of tablets of carbolic acid, and describes some tablets of this drug which he says are prepared with anhydrous boric acid which is added in the proportion of 20%. [The name of the firm producing these tablets is given in suspiciously plain print. D.L.E.]

Centralblatt für Gynäkologie.

January 7, 1899. [23. Jahrg., No. 1.]

1. Concerning the Attack of Puerperal Fever and the Practical Significance of a Definition of the Disease. R. Olshausen.
2. The Automatic Action of the Heart in the Human Fetus. E. Opitz
3. Müller's Operation for Prolapse of the Uterus. E. Wormser.

1.—At the present time **puerperal fever is considered a wound-infection,** having its origin in the genitalia of the puerperal woman. For this condition not only wounds, which are wanting in no case, are necessary, but also microorganisms. We may distinguish, theoretically at least, infections and intoxications; infections, if the microbes penetrate the tissues of the body; intoxications, if the germs remain in the genital tract and their toxins are absorbed. Several different germs may cause puerperal fever, but Olshausen questions if we should not limit the name to streptococcus and staphylococcus infections. He calls attention to the fact that tetanus, scarlet fever, diphtheria, and gonorrhea often take their origin in the genital tract. The exact definition of the word, puerperal fever, is of more importance in Berlin where all cases are officially reported the same as other contagious diseases. [W.K.]

3.—Wormser warmly recommends **Müller's operation.** He has found its performance easy and rapid, involving only a minimum amount of interference, which is a decided advantage in operating upon elderly patients, and recurrence f the prolapse is impossible. Although no outlet from the iterus is left, he has had no case of hydrometra or other omplication. In addition to 8 cases previously reported, Vormser is able to add 7 others. All have recovered without ny difficulty and have remained free of symptoms. [W.K.]

January 14, 1899. [23. Jahrg., No. 2.]

. Total Vaginal Extirpation of a Ruptured Uterus During Labor. A. J. IWANOW.
. The Treatment of Tubal Pregnancy by Vaginal Celiotomy, with Remarks in Regard to the Indications for this Method of Operating in Disease of the Uterine Adnexa. PH. BECKER.

1.—The case of a tripara, 23 years of age, is reported. Ier pains in the beginning of labor were very strong, but ecame weaker, and the uneducated midwife, who was in harge of the case, put her hand into the vagina and prob- bly into the uterus, at the same time exerting pressure with ie other hand on the abdomen. While carrying out this arbarous procedure, the pains suddenly ceased entirely and ie patient rapidly collapsed. Blood began to flow from the agina, and medical aid was sent for. The vagina was tamonned, and the woman transported to the hospital. On ntrance her pulse was scarcely perceptible, she was very nemic, and her extremities were cold. After the adminis- ation of stimulants, an examination discovered a hydro- ephalic head pressed against the symphysis. The head was erforated and delivered by means of a cranioclast. The mentum, which had prolapsed into the vagina, was replaced; ie placenta which was found near the diaphragm was re- ioved together with the membranes. Although aseptic ieasures were carried out, infection being suspected, the **terus was extirpated through the vagina** according) the usual method. The operation lasted 30 minutes. For ie following 16 days the patient had more or less fever, but ie gradually recovered and left the hospital entirely well on ie twenty-sixth day after the operation. [W.K.]

2.—Becker believes that the treatment of **tubal preg- ancy by the vaginal route** is not only possible, but lvisable under the following conditions: In case of abso- tely certain diagnosis, provided the pregnancy has not one on for more than 2 months; the pelvic measurements ould be normal and the vagina and pelvic floor elastic; ie uterine ligaments should be of normal elasticity; the erator should be familiar with the technic of vaginal op- ations, should be provided with a sufficient number of com- etent assistants, and should have good light. Two cases e reported which were successfully operated upon. [W.K.]

January 21, 1899. [23. Jahrg., No. 3.]

The Duration of Automatic Heart-Contractions after the Death of the New-Born. MARCHAND.
Of the "Suitability to its Purpose" of the Uterine Epithelium.
The Cranioclast Question.

1.—Marchand, of Marburg, has made a study from a num- r of cases of the duration of automatic heart-contractions ter the death both of the fetus and the child at term. He ids that in all warm-blooded animals this persists for several urs, lasting longer in the fetus than in the full-term child. the latter, however, he has observed 5 or 6 rhythmic con- ctions after opening the thoracic cavity. [A similar case is reported by Neugebauer in the *Centralblatt* for November , 1898. W.K.]

3.—Braun-Fernwald, of the clinic of G. Braun, of Vienna, eaks of the merits of the different cranioclasts in use, and lieves that of Braun to be preferable from its simplicity d lightness, and because it allows the operator to use the nd in the vagina with the instrument. He thinks the four- ded instrument described by Fehling to be unsuitable to e country physician, or any one save the specialist with spital facilities. From their clinical record, he states that om June, 1892, to December, 1898, they have had 22,000 ths with 115 craniotomies, in which there were 7 maternal aths. [It seems to us that by a judicious selection of the eration of symphysiotomy or Cesarean section, this per- ntage of craniotomy might be still further reduced, par- ularly where hospital facilities are convenient. W.K.]

Centralblatt für innere Medicin.

February 25, 1899. [20. Jahrg., No. 8.]

1. The Effect of the Grape-Cure upon Human Metabolism. B. LAQUER.

1.—The investigations were carried out upon a servant in the laboratory, who was in good physical condition. He was first given a diet composed of milk, tropon, ham, bread and butter, with one liter of water. The amount of nitrogen given in this period was exceedingly high, over 29 gm. In the second period the same diet was continued, and to it grape-juice was added in such a quantity that the man ingested over 200 gm. of grape-sugar in a day. During this period the grape-juice was given without the seeds or skins. In the second period the amount of nitrogen in the diet was much reduced, and the grapes were given whole, that is, including seeds and skins. The latter contained considerable tannic acid, and their chief effect was probably due to this substance. The results obtained were as follows: The carbohydrate of the grape-sugar caused a lessening of the nitrogen-excretion and increase of the body-proteids, increase in weight being much more marked than decrease in excretion of nitrogen. The uric acid was slightly decreased as was the acidity; the excretion of hippuric acid was but slightly affected; there was no evidence of an antagonism between the hippuric acid and uric acid excretion. Large amounts of grape-juice—that is, more than 4 or 5 pounds—caused diarrhea, increased the decomposition of albumin, and at the same time the excretion of the ethereal sulphates, and owing to these effects they interfered with the absorption from the intestine and abstracted water from the body, the result being a decrease in body-weight. If, however, the seeds and skins are taken with the grape-juice, the intestine is not disturbed in spite of the mechanical effect of the cellulose which is ingested, and there is more likely to be constipation and the weight increases. In spite of the large amounts of sugar taken during the grape-cure period, there was no alimentary glycosuria. [D.L.E.]

March 4, 1899. [20. Jahrg., No. 9.]

1. Investigations Concerning the Fermentation of Feces in Infants. (Preliminary Communication.) FRITZ CALLOMAN, Candidate of Medicine.

1.—The investigations were carried out as the result of a suggestion obtained by reading the previous work of Adolf Schmidt, on **fermentation of the feces** in adults, as a test for the amount of digestion of carbohydrates, the amount of fermentation being an indication of the amount of undigested carbohydrates. The present communication ends with the conclusion that up to the present it seems impossible to use this method as an indication of the amount of intestinal digestion in infants, since the conditions in normal infants vary so greatly, and it is impossible to separate them from the abnormal. [D.L.E.]

Centralblatt für Chirurgie.

February 25, 1899. [26. Jahrg., No. 8.]

1. Use of Silk in Place of Catgut as Suture-Material. L. HEIDENHAIN.
2. The Use of the Röntgen Rays in the Diagnosis of Renal Calculus. HANS WAGNER.
3. The Use of the Röntgen Rays in the Diagnosis of Renal Calculi. CHARLES C. LEONARD.

1.—Heidenhain reports rather unfavorable experiences in the use of catgut as **material for ligatures and sutures.** For 6 months he has used silk entirely in 300 surgical and gynecologic operations of the most varied character. Among these cases there has not been the slightest unfavorable result. The silk used is number 0, twisted, and it is sterilized by steam the day before the operation, and then placed in a $\frac{1}{10}$% solution of corrosive sublimate. The very favorable results, he believes, are, in part, due to a more careful disinfection of the field of operation and of the hands of the operator. [M.B.T.]

2.—Wagner has carried out a series of investigations to determine the value of **the x-rays in the diagnosis of stone in the kidney.** Four stones of phosphates, uric acid, oxalate of calcium, and of mixed oxalate of calcium and phosphates, were placed first directly upon the photographic plate and then upon the abdomen of a well-developed patient. The results were good in both cases. The poorest picture was given by the uric-acid calculus, the best by the oxalate of lime, and a moderately good one by the phosphatic calculus. During the past year the x-rays have been used as an aid in the diagnosis of all cases of stone in the bladder in the Breslau Surgical Clinic, and in all of them, 8 in number, excellent pictures were obtained. They were also used in 2 cases of renal calculus, and the location of the stone, as shown by the pictures, was exactly confirmed at the operation in one case and at the necropsy in the second case. [M.B.T.]

3.—Leonard has found, through his experience in the University Hospital, that phosphatic calculi are more transparent to the x-rays than any other form, the urates are less so, and the oxalates are in the least degree transparent. He has used the **x-rays** in 17 cases of supposed **renal calculus,** and in all of them has succeeded in obtaining the outline of the kidney; in 11 cases he found stone in the kidney, and the diagnosis was confirmed by operation. This method of diagnosis is absolutely harmless for the patient, and the location can be determined with mathematical precision. The early diagnosis which is made possible by this method allows of timely operation, and will avoid the high mortality which often results from operation in difficult and complicated cases. [M.B.T.]

Deutsche Zeitschrift für Nervenheilkunde.

December 22, 1898. [Bd. xiv, 1 & 2 Heft.]

1. Investigations upon the Anatomy and Pathology of the Lowest Segment of the Spinal Cord. L. Müller.
2. Contribution, Particularly to the Knowledge of the Pathologic Anatomy of Non-suppurative Encephalitis. Friedmann.
3. Chronic Inflammation with Ankylosis of the Spinal Column and the Ankle. Strümpell. Spondylose Rhizomélique. Mutterer.
4. Changes in the Spinal Ganglion Cells, and their Central Axis-Cylinders after Section of the Peripheral Nerves Belonging to Them. Cassirer.
5. A Typical Form of Multiple Sclerosis. Frank.
6. Annotation of the Critical Notices of Our Book "Normale und Pathologische Anatomie der Nervenzellen auf Grund der neueren Forschungen" on the Part of Nissl. Goldscheider and Flatau.

1.—Müller contributes an exceedingly long, clinical, and pathologic paper, which opens with a table of **motor and sensory functions of the spinal cord** from the first lumbar to the coccygeal segments. After a brief anatomic discussion, he reports in detail 7 cases. The first patient, a man, 37 years of age, after severe injury to the lumbar region, developed paraplegia with dissociation of sensation on the outer sides of both legs and complete anesthesia of the inner sides, the posterior portion of the thigh, and the gluteal regions. Ankle-clonus and the patellar reflexes were completely lost. The cremaster and abdominal reflexes persisted. The lesion is probably a traumatic myelitis of the conus terminalis. The second case, a man, 22 years of age, received a severe injury to the back while jumping from a height. Subsequently, station was poor, the gait showed the steppage character, the gluteal muscles were atrophied, and sensation impaired. The reflexes were exaggerated. The lesion was probably a traumatic softening in the conus. Subsequently the patient improved considerably. The third patient, a man 22 years of age, after carrying heavy weights for some time, was attacked by pain in the lumbar region. This disappeared, but returned later, and became exceedingly severe. Ultimately, both legs were completely paralyzed, there was complete anesthesia of the outer and posterior surface of the legs, and of the posterior surface of the thighs, and gluteal regions, and some reactions of degeneration in the muscle. Death occurred as a result of a severe bedsore. A microscopic examination showed the presence of an acute inflammation in the connective tissue between the roots forming the cauda equina. The fourth patient, a boy 15 years of age, received a severe injury to the lumbar region. Subsequently, there was partial paralysis of the right leg with atrophy of the muscles. The left lung appeared to be normal; the right gluteal region was atrophic, and the muscles did not react to electricity. There was total anesthesia in the posterior portion of the right gluteal region, thigh, leg, and of the portion of the right leg. The diagnosis was made of compression of the fibers of the right half of the cauda. The fifth case, a woman of 28, had suffered from severe pain in the right leg, commencing in the ankle, and extending upwards to the lumbar region. At this time, she burned herself in the gluteal region without feeling pain. Later, a deep, painless ulcer appeared in the right heel. Finally, 9 years after the first symptoms, pain appeared in the left foot. There was anesthesia in both gluteal regions, the posterior portion of the thigh, and in the right foot. Motion was not impaired, although the gait was somewhat dragging. A diagnosis was made of a slowly growing tumor in the spinal canal compressing the cauda equina. The sixth patient, a man 61, was suddenly attacked with pain in the lumbar region, associated with difficulty in urination. Later, the pains became more severe, the reflexes were increased, there was an area of anesthesia in the gluteal region, and one of hyperesthesia just above it. An operation was performed, and carcinoma of the prostate with metastasis in the pelvis and gluteal muscles was found. The operation confirmed the diagnosis of tumor pressing upon the cauda. The seventh patient, a man of 20, was attacked by severe pains in the right leg, followed by total anesthesia in the perineal and gluteal regions. There was atrophy of the right leg and, total anesthesia of the outer side of the right foot, the gluteal, and periscrotal surfaces and of the upper portion of the posterior surface of the right thigh. A tumor was observed on the right side of the sacrum. The condition gradually became worse, the area of anesthesia extending, and the pains increasing in severity until the patient died, apparently from exhaustion. The sacral plexus and the lower roots of the cauda were surrounded and compressed by a round-cell sarcoma, springing from the pelvis. It is probable that had an early diagnosis been made, the patient might have been relieved by an operation. Müller summarizes the results of his anatomic and pathologic investigations as follows: In the lower segments of the spinal cord, the anterior roots are few, the posterior roots numerous and large. No ganglion cells are found in the anterior cornua below the second sacral segment, but in the lowest segments large multipolar ganglion cells are found between the anterior and posterior horns. The posterior gray commissure is not found below the second segment. The fibers from the posterior columns pass into the gray substance. The pyramidal columns reach only to the third segment. The direct passage of fibers from the posterior lateral columns into the nerve roots can be observed in the lowest segments. Small spinal ganglia can occasionally be found inside the dura mater in this region, and cells similar to those found in the spinal ganglia are also observed in the posterior roots. The central canal widens out and opens into the subarachnoid space. Descending degeneration in the posterior column only occurs after almost complete transverse destruction, and rarely extends below the third segment. Descending degeneration below this region never occurs in the lateral columns. Ascending degeneration in the posterior columns is the same, whether the lesion be in the cauda or the sciatic plexus. In all three cases an ascending degeneration occurred in the anterior motor-roots that could be traced to the ganglion-cells of the anterior cornua. Finally as the result of his study of case 3, Müller concludes that there is apparently a primary acute inflammatory affection of the cauda that causes symptoms exactly similar to those of disease of the conus. [J.S.]

2.—Friedmann reports a very interesting case of **encephalitis** that he describes as **non-suppurative.** In the preliminary portion of the paper, he reports the case of a man, 28 years of age, who had been sunstruck, and upon recovering consciousness, 9 days later, found himself paralyzed in all four limbs. In the course of six years, there was considerable improvement, but there was still weakness of the extremities, some contractures, occasional cramps, and slight reduction of sensibility. Friedmann discusses this as a case of encephalitis following the sunstroke. Other causes of acute encephalitis are embolism, and influenza.

He reports a case of influenza that was followed by vertigo, vomiting, conjugate deviation of the head and the eyes to the right, paresis of the right facial nerve, loss of taste in the left half of the tongue, and some diminution of sensibility of the left side. The whole of the right side was anesthetic, particularly for touch and temperature, but the other sensations were also disturbed. The patient recovered completely in 7 weeks. The lesion must have been an area of softening or hemorrhage situated in the pons just in the region of the sensory root of the trigeminus. The third patient, a woman 52 years of age, had had an attack of influenza, followed two weeks later by apathy, motor aphasia, and right hemiparesis. The symptoms became rapidly worse, and 6 weeks later the patient went into collapse, and died. At the autopsy, a cyst was found in the white matter of the left cerebral hemisphere with a smooth detachable wall and filled with clear yellow liquid. It had ruptured into the lateral ventricle, which showed beginning reddish-white softening. There was general edema of the brain. Microscopcally, the cyst-wall was composed of a very cellular tissues omewhat spongy in structure. The lumen of the blood-vessel, was very considerably distended. Many of the cells showed karyokinetic figures. Micrococci were also found in the walls. Toward the white substance, the cyst-wall was defined by a row of epithelioid cells, and the adjacent white substance contained swollen neuroglia cells. The nerve-fibers were well preserved. In the softened area, the cells showed particuarly an intense proliferative activity, there being great numbers of karyokinetic figures, and also numerous compound granular cells. Between the cyst-wall and the softened area here was a zone, in which the tissue showed traces of a proliferation and organization. Friedmann appears to distinguish his case from ordinary suppurative encephalitis, which t certainly resembles very closely, by the fact that the maority of the cells in the exudate were of large size, and many of them showed the tendency to proliferate. These forms of ncephalitis may be produced by chronic irritation, injury, r, as in the present instance, by disease. He regards the ormation of the cyst as the result first of a softening, then rganization at the periphery with a formation of a wall, and he liquefaction of the contents. The condition, according to im, resembles diffuse glioma or gliomaptosis more closely han inflammation, although it begins with hyperemia, hemrrhages, exudates, the extravasation of round cells, necrosis f the tissue, and, only later, the proliferation of the large ells and organization. [J.S.]

3.—Mutterer reports the case of a man, 58 years of age, by rade a smith, who noticed, 8 years before examination, pain n the lumbar region. About four years later, there was ome stiffness in the spinal column, followed by moderate ains in the legs, and increasing difficulty in walking. The gidity of the spinal column gradually extended from below pwards. Aside from the severity of his occupation, no tiologic factor could be discovered. The spinal column was ompletely immobilized. There was a distinct kyphosis, so hat the head was bent considerably forwards, and slightly o the right. The soft parts in the neck were more indurated han is normal, but the muscles of the back were flaccid. here was considerable interference with the movement at he shoulder-joint. The hip joints were completely **anky-osed**, in a slightly flexed position. The knees were swollen, nd complete extension was impossible. The other joints f the extremities were apparently normal, and the muscles ell preserved. Mutterer calls attention to the characteristic manifestation of the chief symptoms of the disease and the pical course. He considers that the so-called rheumatic juries, such as the sudden transition from a hot to a cold mperature, possibly, in accordance with Baumler, as a ausative factor. Treatment is, of course, useless against e ankylosis. The changes in the soft parts, however, may e combated by energetic massage, and electric treatment of e muscles of the back. Salol appears to be the most usel drug for the purpose of controlling the pains in the joints. .s.]

4.—Cassirer removed a section of the **sciatic nerve** on ne side in 16 rabbits, and killed the animals at varying inrvals from 5 to 30, and then at the end of 63 days. The lls of the spinal ganglia connected with the nerve were vestigated by Nissl's method, and the spinal cord by Mari's method. In the spinal ganglia, 4 normal types of cells curred: First, a large round cell with sharply circumscribed clear nucleus, and one or more dark, deeply stained nucleoli. In the protoplasm there are usually concentric layers of Nissl bodies. Second, medium sized, usually clear cells, with a relatively large nucleus, surrounded by a layer of large, and then a layer of small Nissl bodies; at the periphery there is frequently a third layer of large bodies. In both these types the protoplasm does not stain. Third, cells of a regular polyhedral form. The nucleus is small, the Nissl bodies deeply stained, and the protoplasm also slightly tinged. Fourth, small round or triangular cells, with relatively large nucleus, surrounded by a deep-blue protoplasm in which a few Nissl bodies can be found. The pericellular space was never observed. At the periphery of the ganglia the cells were more thickly placed than in the center. In the pathologic specimens, changes could be observed in animals killed on the fifth day after the operation. These continued to increase in intensity, and extended up to the fifteenth day, but even at this period, numerous normal cells could be found in sections. From this period, the cells return to their normal condition with great rapidity, and at the twentieth day the change is very pronounced. After the thirtieth day, and even more after the sixty-third day, the great majority of cells are perfectly normal. The changes observed are as follows: The Nissl bodies become larger, collect about the nucleus, and in the periphery of the cells, chromatolysis occurs. The perinuclear Nissl bodies then begin to disappear, and finally nothing is left but a few dark masses just about the nucleus in the midst of a pale-blue protoplasm. Ultimately, the cell stains a homogeneous pale-blue. The nucleus approaches the periphery, and occasionally becomes somewhat irregular in outline, and takes the stain faintly. The most pronounced changes were only found in animals killed between the tenth and the twentieth days. Occasionally, granular unstained masses of material, that at first resembled vacuoles, were observed. Changes in the connective tissue of the ganglia were not observed. In the spinal cord, changes were not found until the twentieth day, but these then persisted at least until the sixty-third day. They consisted of degeneration of the fibers entering the cord from the sensory root of the operated side. Cassirer does not believe that all the changes necessarily imply complete destruction of the cell; indeed, he considers it certain that a number of cells become restored to functional activity. The changes in the spinal cord usually appear about 14 days after the first changes in the cells, and continue to increase in intensity, and it seems probable that the axis-cylinder only degenerates when the Nissl bodies are completely dissolved. [J.S.]

5.—Frank calls attention to the fact that many cases of **multiple sclerosis begin with failure of vision.** He reports the following instances from the clinic of Prof. Oppenheim, of Berlin. A man, 24 years of age, had had an inflammation of the left eye 7 years previously as a result of excessive work in a bright light. Improvement occurred, but the eye never recovered normal vision. One year ago he noticed weakness in the legs, and now has exaggeration of the reflexes and other symptoms of disseminated sclerosis. The second patient, a man, 31 years of age, 5 years ago suddenly noticed impaired vision. This increased so rapidly that in a month the patient could not recognize objects. Improvement occurred, but the eyes never recovered normal visual power. A year later he had attacks of vertigo, and later the characteristic symptoms appeared. The third patient, 27 years of age, had suffered from papillitis 3 years before examination. Vision was almost completely restored. Later the symptoms of the disease appeared. The fourth patient, a woman, 7 years ago had had weakness of vision in the left eye, which was later followed by diplopia. The symptoms of sclerosis first appeared a year later. The fifth patient, a woman, 49 years of age, had suffered from disturbance of vision 6 years ago, followed shortly by motor and sensory disturbances. The sixth patient, a woman, 23 years of age, noticed a year ago impairment of vision, and shortly afterwards the symptoms of sclerosis appeared. Frank concludes that **disturbance of vision is the initial symptom of multiple sclerosis,** and is by no means rare. Frequently it is difficult to elicit the symptom, however, for the patients have forgotten it. It is particularly important, because in many cases it renders possible the differential diagnosis between multiple sclerosis and syphilis of the brain. [J.S.]

Neurologisches Centralblatt.

March 1, 1899. [18. Jahrg., No. 5.]

1. The Misuse of Ether in Ostpreussen. Sommer.
2. A New Stain for the Nervous System. P. Kronthal.
3. A Contribution to the Discussion of Hypophysis Tumors. (Sarcoma Angiomatodes Hypophyseous Cerebri.) S. Pechkranz.

1.—See Editorial.

2.—Kronthal being dissatisfied with the methods of Weigert, Ehrlich, and Golgi, because they stain only a part, and as in the case of Golgi's method, only certain cells in a group, has endeavored to discover some other **method of precipitating metals in the ganglion cells and fibers** of the nervous system. As the reaction between lead and hydrogen sulphid is one of the simplest in all chemistry, he at first soaked his tissues in a solution of plumbic acetate and then in a solution of hydrogen sulphid. The results were rather unsatisfactory, particularly on account of the dense precipitate that formed in the tissues. This was probably due to the presence of formic acid in the formalin solution used for hardening, and it therefore occurred to him to use the formate instead of the acetate of lead. The method finally developed was as follows: The pieces were placed in equal parts of a 10% solution of formalin and saturated solution of lead-formate for 5 days, then in equal parts of 10% formalin and a saturated solution of hydrogen sulphid. In this solution they remained 5 days, and were then transferred to alcohol, imbedded, and cut. The sections may be mounted under a cover-glass, and maintain their sharpness of definition for at least 10 months. All the cells and fibers are clearly and sharply impregnated, and the processes of the cells are stained to their finest ramifications. The coloring material is unquestionably deposited in the substance of the cells, and not in the pericellular or intracellular spaces, as probably occurs in the case of the Golgi stain. For pathologic tissue, it also seems to be of value. The only case, however, that Kronthal has hitherto investigated was one of locomotor ataxia. In the cervical region the posterior columns were very dark, in the dorsal region were very light; this he explains by stating that when there is degeneration of the nervous tissue without proliferation, the degenerated part is clear. When tissue-proliferation takes place, it becomes darker than the healthy tissue. He was also able to detect degeneration in the pyramidal columns. The neuroglia-cells by this method have the typical rayed sun appearance which is found in the Golgi method. It is possible to stain the brain entire, although we judge that the impregnation is not very equal. By cutting thin slices of the brain, impregnating them, then removing the superficial portions, sections were obtained that were satisfactory for microscopic examination. [J.S.]

3.—Pechkranz reports the case of a boy, 17 years of age, who, at the age of 15, had suffered from very severe headache, the attack of pain lasting about a minute. The condition gradually grew worse; the patient's character changed, and there was difficulty in seeing with the left eye, with loss of the pupillary reaction to light. Finally, the headaches became almost continuous, there were violent attacks of vomiting, and in the intervals apathy and somnolence. The pupillary reactions were lost, and occasionally convulsions occurred. Upon examination, the patient was found to be well nourished, his body was of the feminine type, with very slight development of the genital organs, and very little hair. There was no increase in the size of the bones of the extremities, but the latter seemed to be swollen, although they did not pit upon pressure. The urine contained 3½% of albumin. The patient was blind, the eyes slightly protruded, and there was continuous slow rhythmic movement of the head from right to left. The muscular tone of the limbs of the right side was greater than that of the left. The patellar reflexes were increased, and there was ankle-clonus. Sensation appeared to be everywhere preserved. Finally, the patient developed trismus with severe convulsions, and although there was a brief period of improvement, he died ultimately in a comatose condition. There had been no fever, no emaciation, and when the patient was conscious, the intelligence, although somewhat limited, was normal in character. The diagnosis was made of **tumor in the region of the chiasm,** probably sarcomatous in nature. At the autopsy, a tumor of a dark reddish color was found at the base of the brain, not attached to the dura, but firmly adherent to the periosteum lining the floor of the sella turcica. It extended forward to the frontal lobes, laterally to the temporal lobes, and posteriorly to the pons, and compressed the crura. No trace of a hypophysis, tuber cinereum, infundibulum, or corpora albicantia was to be found. Both optic nerves were greatly compressed. There was considerable softening of the brain-substance. The tumor contained a considerable quantity of thick brown semi-liquid material, coming from a cavity lined by a smooth membrane in the central portion. Microscopic examination showed that the tumor consisted of large round cells containing large round nuclei, and occasionally vacuoles. The tumor mass was filled with hemorrhages, and the vessels showed extensive hyalin degeneration and considerable proliferation. It was therefore named sarcoma angiomatodes. [The paper is unfinished. J.S.]

Revue de Chirurgie.

December 10, 1898. [18me Année, No. 12.]

1. On Abdominal Hysterectomy, Total and Partial. Felix Terrier.
2. Descriptions of Cases of Appendicitis. Th. Weiss and Ch. Février.

1.—Terrier summarizes his results on **abdominal hysterectomy,** total and partial, as follows: 50 of the cases were supravaginal hysterectomies and furnished a mortality of 10%; in the remaining 25, which were total ablations, the mortality was 24%. The description of the cases is brief, and contains little original matter. [C.H.F.]

2.—Weiss and Février define **appendicitis as a folliculitis,** habitually complicated by lymphangitis, and divide the lesions into appendicular and peri-appendicular. They consider the disease an infectious folliculitis, and recognize a form of acute appendicitis with local peritonitis but without evidence of suppuration. They believe in the early and late periods for operation. The technic for operation, and the care of the postoperative period are described in detail. [C.H.F.]

January 10, 1899. [19me Année, No. 1.]

1. Lacerations of the Peritoneal Portion of the Rectum. Guérin.
2. Reduction of the Angular Deformity in Pott's Disease. P.
3. Injuries of the Pericardium and Heart. E. Loison.
4. Contribution to the Study of Trigger-Finger. Ch. Féré.

1.—In **injuries of the rectal region,** the results depend largely upon whether the peritoneum is affected or not, the high mortality of 80% being presented by cases in which the peritoneum is involved. The symptoms indicating peritoneal involvement are gone into in detail, and several illustrative cases described. The treatment must be carried out according to general surgical principles. [C.H.F.]

2.—In speaking of Calot's operation for **reduction of angular deformity of Pott's disease,** the lightening up of tuberculosis-areas elsewhere, the production of paraplegia, and the ulcers caused by pressure of the apparatus, are regarded as possible, and, at times, inevitable complications. A metallic suture of the vertebræ is not looked upon with much favor, as an aid to ankylosis. The prognosis should always be very guarded; although the author has not seen any definite failures, and the time has been too short to speak of permanent cures. The evidence furnished by skiagraphy is not trustworthy. [C.H.F.]

3.—Loison has collected 23 cases of **cardio-pericardial injury resulting from needle-puncture.** Of these 23 cases, 9 ended in recovery. In 2 of the cases of recovery, the foreign body was not removed. The difficulties of operation are well illustrated by the records of the cases described. [C.H.F.]

4.—Two groups of so-called **trigger-finger** have been recognized, the organic and the functional. Causes for the organic variety may be found in the tendons, fascia, muscles, or in conditions which will tend to modify the directions of muscular action, and the movements of flexion and extension. The functional class may be reflex, following local irritation, or may be a local manifestation of certain neuropathies. Cases of this class may arise independently of any voluntary movements. [C.H.F.]

Revue Mensuelle des Maladies de l'Enfance.

January, 1899. [Tome xvii.]

1. Concerning the Transmitted Sound (Transonance) of the Chest in the Pleural and Pulmonary Affections of the Infant. André Moussous.
2. The Theory of Baumgarten Concerning the Heredity of Tuberculosis. M. G. Kuss.
3. Phlebitis Obliterans of the Inferior Vena Cava in a Case of Tuberculosis, with Cavity-formation Occurring in Early Infancy. M. V. Griffon.

1.—Moussous has been led to study the **coin-sound in its application to diseases of the lung and pleura** on account of the difficulty of recognizing and differentiating between these various diseases in the infant. He has found that in the infant, as in the adult, the sound of the metallic shock is deadened and softened in traversing the healthy lung, and loses its silvery character. The percussion should be lighter than in the adult, and the ear not used in auscultation should always be covered. In the broncho-pneumonias, and the frank pneumonias, and in some cases of pulmonary congestion, the characters of the transonance were always studied by practising auscultation at the point where the vesicular murmur was suppressed or replaced by a souffle (whether there was dulness or not), the percussion being practised at a point on the same side of the thorax diametrically opposed to the point of auscultation. The results obtained were always the same. Not only the transonance was not pure and of silvery tone, but the perception of the shock itself was very feeble, and notably more deadened than at the level of the healthy lung. It disappeared even, sometimes absolutely. Tuberculous broncho-pneumonia furnished the same results as the simple broncho-pneumonia. In studying pleurisy with effusion, in addition to his clinical results, Moussous experimented on artificial effusions in the cadaver. The result obtained was the same as described by Pitres and Sieur as occurring in the adult—that the transonance of the metallic bruit is one of perfect clearness. There is possibly a less constant establishment of this sound, but, to say the least, the sound is always better transmitted on the side of the effusion than on the other side, although the silver tone is not always preserved in all its purity. This anomaly may often be due to old pleural adhesions, but Moussous is inclined to believe that the bulging of the diaphragm, as the result of abdominal meteorism, in preventing the liquid mass from being uniformly distributed anteriorly and posteriorly, is sometimes responsible for the condition. The new application of this method aids in differentiating between the various pulmonary conditions in infants, which is not always easy of accomplishment. [s.m.h.]

2.—As the result of an exhaustive study, Kuss reaches the conclusion that, contrary to the statements of Baumgarten, the immense majority of **infantile tuberculoses** are of the acquired type; contagion plays the essential role in the propagation of the malady in early life, the direct influence of heredity being secondary. [s.m.h.]

3.—The case described by Griffon occurred in an infant, aged 6 months. The child had been previously treated during an attack of bronchitis from which he recovered, but it was noticed during his stay in the hospital that there was slight enlargement of the spleen, that the abdomen was large and distended; that the glands of the groin and axilla were slightly enlarged and hard, and that there was a slight internal strabismus of the right eye. After an absence of 4 weeks the patient was again admitted to his ward, somewhat emaciated, cyanotic, dyspneic, with severe greenish diarrhea, attacks of vomiting, rather easily excited, and a history of having had some convulsions. There was a frequent paroxysmal cough. The spleen was more enlarged, and the lymphatic glands more perceptible. There existed the signs of an acute general bronchitis. While in this condition the child had a severe attack of varicella, following which he rapidly grew worse. There developed the signs of pulmonary involvement of the right base, which within the next 4 weeks advanced to the formation of a cavity with some evidence of involvement of the left lung. About 6 weeks later the child was almost moribund. At this time there developed an edema of the legs, which began on the left side. A few days later he died. The autopsy showed the left lung to be studded with small tuberculous foci. The right lung showed the same lesions over the upper lobe, while in the lower internal part of the right lobe there was found a cavity the size of a walnut, which contained caseous matter. The rest of the lobe showed a number of bronchial dilatations and some recent isolated and softened tubercles. There were a few tubercles over the surface of the liver. There were some miliary granulations at the inferior extremity of one of the kidneys. The intestine was studded throughout its length with hollow tuberculous ulcerations. The lymphatic glands of the mesentery and mediastinum were hypertrophied, some of them being caseous. The point of greatest interest was the fact that the inferior **vena cava contained a thrombus** in its lower half. The obliteration commenced immediately below the level of the renal vein, and extended almost to the iliac bifurcation. The vein was dilated between these two points, and formed a cylindroid tumor of firm consistence, 5½ cm. in length and 2½ in width. On section the thrombus was found to be composed of stratified fibrin. This adhered to the walls of the vein and were prolonged into the iliacs. There was no enlargement of the glands in the immediate region of the venous thrombosis. The histobacteriologic examination showed the **pulmonary tubercular follicles** to be devoid of giant-cells, caseous at their centers, and swarming with the bacillus of Koch. The bacilli were also disseminated in the parenchyma outside of the tubercles. The walls of the cavern were riddled with microbes. These were chiefly streptococci. Sections of the trunk of the vena cava, including the fibrinous clot and the adherent vascular wall, showed neither the bacillus of Koch nor streptococci, nor were there any tubercular follicles nor giant-cells. The thrombosis of the inferior vena cava was considered a secondary infection from the walls of the vein, the infective germ probably being the streptococcus. The failure to find any microorganisms in the bacteriologic research was attributed either to failure to develop those present by the staining-method used or to their disappearance at the time of the autopsy. The edema of the legs appeared late, and the postmortem suggested a long-standing obliteration of the vena cava. The latency of the obstructive symptoms was probably dependent upon the reestablishment of the circulation through the numerous collateral vessels. [s m.h.]

Sundry French Journals.

1. Palpitating Arrhythmia in Mitral Stenosis. Ernest-Jules Durand. (*Gaz. Heb. de Méd. et de Chirur.*, Nov. 6, 1898. 45me Année, No. 89. *Paris Thesis*, No. 517. 1897–98.)
2. Hereditary Syphilitic Coryza in the Newborn. S. P. A. Casacca. (*Gaz. Heb. de Méd. et de Chirur.*, November 13, 1898. 45me Année, No. 91. *Paris Thesis*, 1897–98.)

1.—Among the complications of **mitral stenosis,** bradycardia, tachycardia, arrhythmia, and palpitation may be noted. Tachycardia is rare; bradycardia is exceptional; and arrhythmia is more frequent. Durand has studied especially the **palpitation** that accompanies this condition. Palpitation is frequently observed without arrhythmia; but arrhythmia is rarely observed without palpitation. The association of arrhythmia and palpitation constitutes palpitating arrhythmia (**arythmiex palpitante**). Palpitating arrhythmia may be produced by defective function of the stomach, auricular thrombosis, arteriosclerosis, and pulmonary hypertension. The treatment of the condition should be directed against the causes of arrhythmia and of palpitation. There are certain cases of arrhythmia against which therapy is powerless. The stomach, in mitral stenosis, should be the organ to which especial care is directed, and medicines should be used with great care, because they may themselves produce the condition. This statement is true of all cardiac medicaments, digitalis in particular. [j.m s.]

2.—The diagnosis of **syphilitic coryza in the newborn** is often possible and may frequently be made before the pathognomonic symptoms of hereditary syphilis appear on the skin. Casacca thinks that all cases of coryza in the newborn, the evolution of which is not completed in 8 days, should suggest the idea of syphilis. In certain cases, in which the diagnosis is particularly doubtful, specific treatment will aid in clearing the condition. Ulcerative lesions of the nasal mucous membrane are rare, as are also osseous and cartilaginous lesions. On the other hand, syphilitic coryza in the newborn is frequently accompanied by lesions of the adenoid tissue of the nasopharynx. [j.m.s.]

Practical Therapeutics.

Under the charge of

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of Philadelphia.

The Treatment of Hyperpyrexia in Rheumatism.—Langwill (*Scottish Medical and Surgical Journal*, February, 1899), concludes that hyperpyrexia in rheumatism is more apt to occur in warm weather than in winter, and apparently with greater frequency in certain years; that it occurs in about 0.5% among adult cases of rheumatism; that it is practically confined to cases of the disease in persons over 14 years of age; that males show a greater proclivity than females; that it is more apt to occur in "first attacks;" that it may occur at any period of the disease, but probably the second week is the most common period of occurrence; that it may occur in mild cases of rheumatism as well as severe; that the onset of hyperpyrexia, while occasionally without warning, has usually premonitory symptoms, the chief of which is delirium. That cases of rheumatism showing persistence of pyrexia, in spite of full doses of salicyl-compounds, should be most carefully watched, since hyperpyrexia frequently ensues in such instances; that sudden cessation of articular pains without coincident fall of temperature, should lead to the suspicion of hyperpyrexia, especially if attended also by the cessation of sweating; that while the mortality of rheumatism is only about 3%, hyperpyrexia is probably one of the most important immediate causes of death in this disease; that the mortality of hyperpyretic cases is very high, probably over 50%; that the treatment by the application of cold in one of its various forms is the only justifiable method in cases of hyperpyrexia in rheumatism; that this treatment should be adopted even in cases apparently moribund, and even although visceral complications may be present; that while there may possibly be some risk of congestion of internal organs as a result of this method of treatment, this does not justify the neglect of what is practically the only remedy for an otherwise fatal condition; that the greatest care should be taken to prevent collapse ensuing in the patient as a result of the treatment by cold, which should be stopped entirely before the treatment falls to normal; that antipyretic drugs, while practically useless in the treatment of hyperpyrexia when present, may perhaps be of some service in preventing a recurrence of this after the temperature has once been reduced by means of cold; that in obstinate cases of recurrent hyperpyrexia, the method of treatment by "disintoxication of the blood" adopted by Barré may probably be of service as an adjuvant to the treatment by means of cold; that greater attention should be paid to the prophylaxis of rheumatic hyperpyrexia, and that more prominence should be given to the advantage of commencing treatment by cold at an early stage before excessive temperatures are attained; in other words, the general condition of the patient, rather than the mere height of his temperature, should be the determining factor for commencing the treatment by cold; that early and complete subjection of the patient to antirheumatic treatment would probably have some influence in preventing the occurrence of hyperpyrexia.

Acute and Subacute Dysentery.

Buchanan (*Indian Medical Gazette*, December, 1898) recommends the following mixture in dysentery:

℞.—Magnesium sulphate	2 ounces.
Aromatic sulphuric acid	3 drams.
Tincture of ginger	3 drams.
Cinnamon water to make	8 ounces.

Sig.—One to two drams every one or two hours, and continued for one or two days after the mucus and blood have entirely disappeared from the stools.

For the Cough of Bronchitis and Phthisis.

℞.—Morphiæ sulphate Potassium cyanid } of each	1½ grains.
Terpine hydrate	40 grains.
Eucalyptus oil	1 dram.

Make into 20 capsules.
Sig.—Once every 2 or 3 hours.

The Results Obtained With Antitoxin in Diphtheria at the New York Foundling Asylum for 1898.—Dr. W. P. Northrup (*Medical Record*, March 4, 1899) at a recent meeting of the New York Academy of Medicine stated that he had examined the records of the New York Foundling Asylum for 1898. The statistics collected for this year included only those cases in which the diagnosis of diphtheria had been confirmed by bacteriologic examination. There had been 67 cases of pharyngeal diphtheria, with 4 deaths; 24 cases of laryngeal, nasal, and pharyngeal diphtheria, with 9 deaths—a total of 91 cases, with 13 deaths, or a mortality of 14%. The antitoxin used was that prepared by the New York Board of Health. There had been no joint-complications and no pains, and at the present time the rashes were but rarely observed. Immunization had been found, in that institution, of greater efficacy in saving lives than the curative treatment. The cases of diphtheria developing in this institution, the speaker said, had been, of course, treated early, but there had been many children brought in from outside, sometimes with the disease far advanced. Of the 13 fatal cases, 5 had been under 1 year of age, 5 between 1 and 2 years, and 3 between 2 and 3 years old. None of the fatal cases had been eliminated in compiling the statistics. In all, the bacteriologic diagnosis had been that of true diphtheria. Many of these children had been affected with rickets and other diseases and had been poorly nourished. Considering the poor material, the results seemed to him exceedingly satisfactory.

Spray for Hay-fever.

Ingals and Ohls (*The American Year-book of Medicine and Surgery*) state that they have obtained much relief in hay-fever by the use of an extract of suprarenal capsule prepared as follows:

℞.—Adrenals	1 dram.
Boric acid	16 grains.
Cinnamon water	4 drams.
Camphor water (hot)	1 ounce.
Distilled water (hot) to make	2 ounces.

Macerate for 4 hours, then filter.

Sig.—Use as a spray to nose 4 or 5 times a day. This solution remains stable for several weeks.

[Swain, *Medical Record*, June 4, 1898) has also obtained good results in hay-fever, from the local use of an aqueous extract of suprarenal glands, which acts as a powerful vaso-constrictor and contractor of erectile tissue.]

Cocain in Rigid Os Uteri.—Farrar (*British Medical Journal*, September 17, 1898) advocates the use of cocain for rigid undilatable os uteri and reports 5 cases, all primiparæ, from 19 to 40 years old, in which cocain was used with unvarying success, and dilatation was always secured in a very few minutes. The cocain was used after failure by other methods. With and without chloroform he had attempted dilatation mechanically by hands, by instruments and by rubber bags; he had also administered chloral and morphin. His first application of cocain was made for the purpose of securing local anesthesia before incising the cervix, and he was greatly surprised at finding the os fully dilated on making an examination shortly after. In all of the cases complete dilatation occurred within 6 minutes. The cocain is used in a 10% solution, is rubbed over the external and internal surfaces of the cervix, and the cotton is allowed to remain in contact with the os for a few minutes. With 5 consecutive and successful cases and no failures, all of which were very obstinate cases, he thinks he is justified in claiming more than simple coincidence to account for the phenomenon. Since the report by Farrar several cases have been reported by others with equally successful results. May (*British Medical Journal*, November 26, 1898), in a primipara with eclampsia, having a very rigid os only slightly dilated, applied cocain in a similar manner while the patient was being chloroformed. By the time the patient was sufficiently anesthetized he was able to pass his hand into the os. Bidis (*British Medical Journal*, December 17, 1898) reports a case in a debilitated primipara, in whom the pains were feeble; the rigid os was completely dilated when be made his examination 10 minutes after applying the cocain. Taylor (*British Medical Journal*, October 29, 1898), in a letter adds the testimony of several cases with similar results and with no unpleasant symptons.—*Boston Medical and Surgical Journal.*

The Treatment of Acute Rheumatism in Children.—Of medical remedies, the most prominent is salicylic acid or its compounds; among these, salicylate of sodium or ammonium is well adapted. The dose to a child 5 years of age is 30 to 40 grains in divided doses in 24 hours; to a child of 10, 60 to 80 grains. It may be given in sirup or orange with spirits of lavender. The salicylates relieve the joint-affection and the pain, and their action is rapid; after the third or fourth day the dose may be diminished one-half or more. If no result has been seen from them in 3 or 4 days, they are not likely to produce any, and some other remedy had better be administered. Nor ought they be trusted to where heart-complications exist. Further experience, indeed, both in children and in adults, has only added to my conviction, expressed some years since, that the salicylates neither prevent pericarditis or endocarditis, nor benefit its course after it has set in. Their chief use is when there is much pain and the joint-affection decided; and it is always well in any case to give also alkalies from the start. When the circulation becomes depressed, or buzzing in the ears or giddiness occurs, the salicylates should be at once discontinued. . . . Under any circumstances, in instances of heart-complications or when a heart-lesion has existed from a previous attack, the alkalies are vastly preferable remedies. It is, indeed, to decided doses of the alkalies that we must trust. Fifteen to 20 grains of sodium bicarbonate in simple sirup and mintwater every third or fourth hour to a child 8 or 10 years of age, or 2 drams of the potassium acetate in divided doses in the 24 hours, form the proper average dose. These alkalies should be administered until the urine becomes alkaline or neutral, and then enough be ordered to keep it neutral.

Quinin is very valuable. . . . In doses of 6 grains daily to a child of 5 years of age it is an excellent remedy when the more acute symptoms have subsided, whether the alkaline or the salicylate treatment be the one pursued.

Opium is another remedy of great value. It allays restlessness and pain and procures sleep. In coexisting endocarditis or pericarditis it may be directed in small continuous doses, and is indispensable. The bromids relieve restlessness and excitability, and are not without influence on the course of the disease. Conjoined to chloral, they give rest at night; and Goodhart lauds the combination of 5 grains of the potassium bromid and 1 or 2 of chloral as almost a specific for the nightmare of rheumatism in young children. . . .

The local treatment of rheumatism consists in wrapping the affected joints in cotton-wool or, where they are very painful, in a flannel bandage saturated with a solution of potassium nitrate 1 to 2 drams to the ounce, to which laudanum, 20 drops to the ounce, has been added. For lingering swelling of the joints the rubbing in of iodin, 10 to 20 grains to half an ounce of lanolin and half-ounce of belladonna ointment, is well adopted.—J. M. Da Costa in *An American Textbook of the Diseases of Children.*

Hypertrophy of Tonsils.

. .—Iodin	6 grains.
Potassium iodid	12 grains.
Oil of peppermint	4 minims.
Glycerin up to 1 ounce.	

Sig.—Apply twice daily. —Thomson.

Headache of Hysteria.

℞.—Zinc valerianate,	of each	20 grains.
Iron sulphate,		
Extract of rhubarb,		
Asafetida.		

Make into 20 pills.
Sig.—One pill three times a day. —Collins.

The Medical Treatment of Appendicular Inflammation.—Dr. Herman B. Allyn (*Therapeutic Gazette*, January 16 says: "But even the most enthusiastic advocates of operation decline to operate in certain cases. I very well remember on one occasion calling a surgeon in consultation over a case of appendicitis. There was extensive tympanites but only slight fever, and the pulse was under 100. The aspect of the patient was, however, bad, and the surgeon declined to operate then, believing that if the abdomen were opened the patient would go into collapse and die on the table. He advised the use of epsom salt until the bowels were freely moved. This suggestion was carried out, and in 12 hours the patient was so much better that it was decided to wait still longer before operation. To make the story short, the patient fully recovered, and then declined operation, until another attack made him again change his mind. It may appear to others, as it seemed to me, that if the moderate use of salines will rescue a patient who is deemed so far gone by a surgeon that he would not survive an operation, it should also be a good treatment for milder cases in which the question of operation is never urgent."

Ointment for Stye.

℞.—Red oxid of mercury	1½ grains.
Vaselin	5 drams.

Make an ointment. Sig.—External use.

Gastralgia.

℞.—Chloroform,	of each	½ fluidounce.
Compound tincture of cardamom,		
Aromatic spirit of ammonia,		
Brandy.		

Sig.—A teaspoonful every 15 minutes or half hour.
—University Hospital.

The True Business of the Doctor.—"There is one part of their business that certain medical practitioners are too apt to forget; namely, that what they should most of all try to do is to ward off disease, to alleviate suffering, to preserve life, or at least to prolong it if possible. It is not of the slightest interest to the patient to know whether three or three and a quarter inches of his lungs are hepatized. His mind is not occupied with thinking of the curious problems which are to be solved by his own autopsy, whether this or that strand of the spinal marrow is the seat of this or that form of spinal degeneration. He wants something to relieve his pain, to mitigate the anguish of dyspnea, to bring back motion and sensibility to the dead limb, to still the tortures of neuralgia. What is it to him that you can localize, and name by some uncouth term, the disease which you could not prevent, and which you cannot cure? An old woman who knows how to make a poultice and how to put it on, and does it *tuto, cito, jucunde,* just when and where it is wanted, is better—a thousand times better in many cases—than a staring pathologist who explores and thumps, and doubts and guesses, and tells his patient he will be better to-morrow, and so goes home to tumble his books over and make out a diagnosis."—*Oliver Wendell Holmes.*

Hemorrhoids.

℞.—Fluid extract of hamamelis,	of each	16 parts.
Fluid extract of hydrastis,		
Compound tincture of benzoin		
Tincture of belladonna		4 parts.
Carbolized olive oil (5%)		32 parts.

Sig.—For external use. —Adler.

A Simple Operation for Ingrowing Toe-Nail.—Dr. J. G. McCallum (*Massachusetts Medical Journal*, January) records a method of treatment which he tried first *in propria persona*, all the usual methods having failed. He says: A triangular notch was made midway in the free edge of the nail, extending to its body. From the pointed margin of this notch a furrow was made, as near to the quick as possible, without penetrating it, through the middle of the root as far as the duplicature of the skin; a piece of cork was then inserted under the nail, whose bulk was large enough to extend a few lines on either side of the notch, as well as to fill compactly, without uneasiness, the interspace between the skin and extremity. This completed the "operation." In a few hours relief was marked, rapid improvement followed, and in a very short time it was quite evident that the cure was complete. The elevating tendency of the piece of cork caused the corners to be raised from the inflamed flesh, while at the same time the furrow through the center allowed the nail to flatten and the burrowing edge of the ingrowing corner to eventually pass over and beyond the limited space of its former confinement. Thus, it is plain, all the indications of cure were fulfilled. Since then he has pursued this plan of treatment alone in such cases, and in every one with unfailing success.—*New York Medical Journal.*

Original Articles.

THE TREATMENT OF DYSPHAGIA AND COUGH, ESPECIALLY IN TUBERCULOSIS.[1]

By W. FREUDENTHAL, M.D.,
of New York.

As it is not my intention to present a general review of the status of this subject, I take the liberty of bringing before you a few of the more recent methods and drugs, some of which I have tried for several years and found serviceable. In speaking of dysphagia and cough, I will restrict myself to the following four points: (1) Curetment; (2) the application of orthoform; (3) the use of heroin, and (4) the treatment with the electric light. As the three latter agents constitute to a certain extent entirely new modes of treatment, it will perhaps be difficult in some respects to formulate strict indications for each individual method, because I have frequently had occasion to employ all three simultaneously. I will first take up the subject of dysphagia.

I exclude here all those conditions which depend upon paralysis of the laryngeal muscles, or the muscles directly concerned in the act of swallowing, and will confine myself to those forms of dysphagia which in phthisical patients originate from suppurating ulcers and infiltrations in the pharynx and larynx. Any one who has treated many of these patients will coincide with me that the search for new therapeutic methods for these wretched persons, who suffer death a hundredfold, is fully justified. "These pitiable patients," says Schech (Heymann's *Handbuch der Laryngologie*, p. 1129), "to whom even the swallowing of their saliva, or the mere thought of the ingestion of food causes a shudder, suffer really the tortures of Tantalus, since, in spite of a good appetite and a bounteous table, they are unable to eat, and prefer rather to experience hunger and thirst." As you are aware, surgical intervention has been proposed for the relief of these horrible sufferings, and curetment has been considered by Heryng, its most assiduous and enthusiastic adherent, almost in the light of a panacea. For more than 8 years, or more accurately speaking, since the Berlin Congress, I have made use of curetment, and while in nowise so sanguine on this subject as Heryng and a few others, I do not occupy the position of v. Schroetter, who is very skeptical as regards operative intervention.

I am able to report 29 cases the history of which I have found, although I know that more than double this number have been operated upon by me. I will, however, base my conclusions only upon these 29 accurately described cases. Of these 18 were not improved, in 7 a slow amelioration occurred which could be attributed to the operation, and in 4 an almost immediate improvement took place. Of the 18 unimproved cases, 13 were in an advanced stage of pulmonary phthisis, that is, with formation of cavities, etc., and 5 were in the earlier stages. None of these 18 patients experienced any relief after the curetment; the majority, indeed, attributed the deterioration in their health to the operation, and in many cases I was of the same opinion. I was struck by the fact that a large number of infiltrations, with or without formation of ulcers, were in the interarytenoid space, forming the well-known polypoid excrescences on the posterior wall.

In the 7 patients of the second class slow improvement occurred, and I have noted this in affections of almost all parts of the larynx. As this amelioration constantly followed on the surgical treatment, I consider myself justified in ascribing it to the latter. Finally, in the last 4 patients the improvement ensued, so to say, over night. One example of the last group may prove sufficient in this connection.

The patient, a waiter, 29 years old, had suffered for 14 months with pain in the left side of the larynx. There was a cylindrical infiltration of the entire left false vocal chord. I amputated the latter as far as it was accessible, that is, as far as possible over its entire length, and the patient for the first time was now able to sleep through the following night without the use of any narcotic, as he joyfully informed me on the next day. I had him under observation for the following 14 days, after which he failed to return. I would remark that the patient, who was very energetic, remained away from work only on the day of operation, but otherwise pursued his vocation uninterruptedly.

After the lapse of a year he again came under my observation with exactly the same symptoms referred to the other (right) side, namely, pains, dysphagia, insomnia, and the identical infiltration previously present on the left side. The same operation produced an equally good result, notwithstanding that the pulmonary affection had progressed (no cavities). Soon after, the patient disappeared again, completely free from pain, and since then I have not seen him.

Three other cases which presented infiltration and ulceration on the epiglottis and the ligamenta ary-epiglottica, ran a similar although not quite so favorable a course.

In considering the last 11 cases, one would be inclined to regard these surgical operations in the nature of a salvation, but unfortunately we must not lose sight of the first 18 cases, in which the results were not good. And if I were asked to give the indications for curetment I would not be able as yet to state them accurately, in spite of the fact that many laryngologists have studied this subject for over a decade. An important factor is that we are still unable to observe or appreciate the extension of the tuberculous process to the invisible portions of the larynx, or the contiguous parts, or otherwise to form an idea of its progress, which is governed by laws as yet unknown to us.

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[1] Read before the New York Academy of Medicine, January 25, 1899, and before the German Medical Society of New York, January 4, 1899.

As for me, I always regard such intervention as an experiment, and leave the decision to the patient. I rouble myself very little with regard to the condition of the lungs, unless the patient be in extremis, or, of course, in case a pulmonary hemorrhage has occurred a short time previously.

We learn, therefore, from the above statistics that, while we have been able to effect some excellent results, we have not been spared marked disappointment in a arge number, and, indeed, in the majority of all cases. And Heryng's enthusiastic remarks[2] on this subject 11 years ago, when he stated that "Cicatrization was ffected, the ulceration removed, the accompanying in- lammatory process more or less diminished, and the dysphagia almost entirely relieved," certainly no longer holds true, for it is the dysphagia which we are so frequently unable to remove by means of curetment, and for the relief of which we are compelled to seek for ther remedies.

Fortunately we have recently come into possession f two new drugs, both of which have proved extremely erviceable. Although differing radically in their ffects, these remedies, when simultaneously employed n the treatment of dysphagia, have given extraordi- arily good results. They are heroin and orthoform.

Orthoform, which is now prepared as a clear white powder, seems destined, according to the investigations f Einhorn and Heinz in Munich, to replace cocain in large number of cases. It is a benzoic-acid deriva- ve, and, as it is soluble with difficulty in water, does ot act upon the skin, but does to some extent upon the ntact mucous membrane, and very powerfully at places where there has been a loss of substance, and where the rug can come in contact with the nerve-endings. It ossesses two properties which render it of special alue to us, its analgesic action and its freedom from oxic effects. I have insufflated so much as 0.6 gm., and ven more, of the pure powder into the larynx and achea, have employed it in children, and have never bserved toxic manifestations after its use. It must ot be forgotten, however, that a portion of the powder ntroduced into the larynx is always coughed out ence the quantity of the absorbed orthoform cannot e accurately determined. On the other hand, in Leyden's clinic,[3] orthoform has been given internally doses of 1.0 to 1.5 gm. daily, without inflicting any jury. We have therefore no reason to be timid in e application of this remedy.

Its main property, however, is analgesic, and this is extremely important in the treatment of the dys- agia of phthisis, that I must discuss it here in tail. We have seen that frequently the dysphagia es not disappear even after curetment, and we know at the relief which we are able to afford the patient with cocain, antipyrin, morphin, etc., is only transient. Furthermore, the application of cocain, aside from its toxicity, is followed by paresthesia which, in some patients, causes a complete disinclination to eating.

It is now over a year since I first employed orthoform, and, although I began my experiments with more than ordinary skepticism, I am constrained to say that it is a true analgesic. In September, 1897, I tried it first in the Montefiore Home in all cases of tuberculous affections of the larynx. I soon noted that patients with readily accessible ulcerations were especially adapted to this treatment. I employed the powder at that time in pure form, and observed that at places where it adhered readily it produced the most favorable and permanent results. Such places are the vocal chords, the flattened portion of the epiglottis, in and part also the ary-epiglottic folds, the point of bifurcation of the trachea, etc. On the other hand, it did not adhere so well to the posterior wall of the larynx, but was soon coughed out, and hence its effect was somewhat weaker. With this reservation I must concur in the statements recently made by Lichtwitz and Sabrazès, A. J. Scott, E. S. Yonge, and others. It is actually a fact that by means of the application of orthoform we are able to relieve pain, and cause a disappearance of the difficulty in swallowing, lasting, according to my experience, from a few hours to two days. These patients are not only able to take nourishment readily, and thereby are placed in a better position for a possible cure, but in favorable cases we completely remove the pain, which has so depressing an effect not only upon the patient but also upon the physician.

I have likewise observed that a diminution of the purulent exudation proceeds pari passu with the healing of the ulceration, as has been reported by others, and this without the application of other local remedies. Whether, however, this healing process is to be attributed to orthoform, I am not in a position at present to decide. A more extensive experience with this remedy will clear up the matter.

I have used orthoform in various combinations, at first as a powder without any addition, then in connection with zinc stearate, but found no advantage in this mixture. Recently orthoform in emulsion 25.0 : 100.0 ol. olivae, has been recommended by Carl Kassel[4], of Posen. I observed no advantageous features in this mixture, however, but it led me to the idea of adding menthol. The following emulsion was, therefore, prepared at my suggestion:

R.—Menthol	6.0
Orthoform	8.0
Ol. olivae, ad	30.0

Yet this did not give complete satisfaction either, since in this preparation the orthoform is rapidly separated, and we can never be sure how much of the drug

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Theodor Heryng: Die Heilbarkeit der Larynxphthise, etc. Stuttgart, 7, p. x.

Deutsche medicinische Wochenschrift, June 30, 1898.

[4] *Therapeutische Monatshefte*, 1898, p. 556.

has been used even after considerable shaking. I therefore again resorted to the powder, and occasionally obtained good results from the following:

R.—Orthoform	4.0
Menthol	2.0
Zinc stearate	4 0
M. Ft. pulvis.	

After consultation with a leading druggist of this city, he prepared for me the following emulsion with the yolk of an egg, which I would recommend particularly:

R.—Menthol	10.0
Ol. amygdal. dulc	30.0
Vitelli ovi (about two yolks)	30 0
Orthoform	12 5
Aquae dest. q. s. ad	100.0
Ft. Emulsio.	

This preparation is somewhat weaker than that previously in use, but it seems to me that nevertheless more orthoform is absorbed than from the other mixtures. I have had the best results with it, and would recommend it highly in this form. Occasionally, however, a very marked burning occurs after the injection of this mixture (I employ an ordinary laryngeal syringe), but this subsides after a few minutes and gives place to a feeling of euphoria. In very sensitive patients it is necessary to previously apply cocain, but this is no great disadvantage.

It seems to me that the combination of menthol and orthoform is a very good one. The antiseptic and analgesic properties of menthol have been thoroughly discussed by A. Rosenberg, and the drug has also been employed by Villemin, R. Koch, B. Fraenkel, and others. The combination of this remedy with orthoform appears therefore to be a rational procedure, and I hope that it will soon become popular in our practice. The yolk of an egg is to be recommended as a vehicle for this combination, since it does not decompose as might be a priori expected, but remains unchanged for a number of weeks. The reason for this is easily understood, since both menthol and orthoform possess antiputrefactive properties.

Another remedy which has become indispensable to me in affections of the respiratory organs is heroin, which I have employed for about six months.

This is a morphin derivative, and occurs in form of a white, crystalline powder which dissolves with difficulty in water, but is readily soluble in alcohol. It is best administered in tablets or powder. I have now and then ordered it to be taken with brandy or whisky. If it is desirable to give it in drop-form, a few drops of acetic acid must be added; the effects are then said to appear more rapidly. If we compare heroin with the salts of morphin and codein, we find that it possesses certain advantages which render it an important acquisition to the modern materia medica. Above all it is devoid of the disagreeable concomitant effects of morphin, such as nausea and vomiting. Indeed, as is well known, some persons, especially women, develop spasmodic attacks after the use of morphin. To all these patients heroin can be administered without the least risk. Aside from a certain feeling of lassitude, no unpleasant phenomena supervene. Thus, for instance, several weeks ago I saw a patient of extremely nervous disposition who suffered from an acute laryngo-tracheitis. Cocain was not well tolerated and morphin occasioned exceedingly disagreeable effects. As she had an intense, irritable cough I gave her heroin 0.004, and even after this small dose she felt easier at the end of about 30 or 40 minutes. She coughed but slightly thereafter while taking heroin three to four times daily.

An irritating cough is so prominent a symptom in most laryngeal affections that but a few months ago Stoerck[5] could assert with justice that "the action of morphin in the treatment of diseases of the larynx cannot be dispensed with; it is, when administered internally, certainly our most serviceable drug." This no longer applies at the present time. In these affections heroin is decidedly to be preferred to morphin, and this is not only true as regards adults, but also in pediatric practice, where heroin has proved very useful in some cases of pseudo-croup. I have given it here in doses of 0.0005 to 0.001 gm.

I have also tried heroin in bronchitis, and the following case may serve as an illustration:

Mr. G. S., 69 years old, has suffered for about 15 years with hay-fever. Last year his cough and asthmatic oppression were especially persistent and failed to disappear, although he consulted a number of physicians and tried everything possible. An examination revealed that he suffered from laryngitis and diffuse bronchitis. Besides this he had a pronounced cardiac lesion—hypertrophy and dilatation—extending on the left side beyond the parasternal line, together with mitral stenosis and insufficiency. It was probably on account of this cardiac affection that his physicians did not wish to give him large doses of morphin. I ordered heroin, 0.005, three times daily, and 10 days later the patient was able to leave the city, entirely free from cough. After two weeks he returned with a heavy cold and a recurrence of the cough, and I found it necessary now to give him doses of 0.01, three times daily. This relieved his cough considerably, and he has felt completely well since.

The removal or relief of the cough of phthisical patients is of the utmost importance for every practitioner. In this field heroin occupies a prominent place which. I believe, it will continue to hold. Hitherto morphin and codein have been our chief remedies, and we have been compelled to persist in their use even after habituation has already occurred. Under these circumstances heroin, which is effective in small doses, proves very serviceable.

I have a phthisical patient under treatment who has taken heroin for five months, without any habituation whatever being observed. Notwithstanding this, it has exerted a pronounced sedative action upon the cough. Another example, which at the same time distinctly demonstrates the action of orthoform, is as follows:

L. R., 31 years old, carpenter, was attacked two years ago with dryness and burning in the throat, which was followed by hoarseness. This sometimes disappeared, but recurred at the end of 6 months and then remained constant. He coughs day and night, is entirely aphonic, and suffers from terrible pain in the throat, so that he is able to take nourishment only with the greatest difficulty and in small quantities.

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[5] Heymann's *Handbuch der Laryngologie*, 12. Lieferung, p. 360.

Status præsens: Phthisis pulmonum (small cavity in right apex). Larynx: The left arytenoid is enlarged and ankylotic, the vocal chords slightly infiltrated with irregularly cicatrized margins, the epiglottis rigid, flattened, of a horseshoe shape and studded with ulcerations.

September 30: After cleansing the epiglottis, I insufflated orthoform in powder, after which the patient remained free from pain for four hours; the insufflation was repeated every second day. Dover's powder, 0.2 gm., three times daily.

October 17: Patient was able to swallow more readily, but still coughed a great deal. Heroin, 0.008, four times daily.

October 19: Cough diminished but still severe. Heroin, 0.01 gm. t. i. d. Fever and night-sweats.

October 23: Cough less marked but still troublesome. Heroin, 0.01 four times daily. Orthoform-menthol emulsion applied to the larynx.

October 27: Slight cough, still unable to swallow fluids, as these regurgitate through the nose. The ulcers are beginning to heal.

October 29: Patient was much troubled with fever; has no further difficulties in swallowing, and the orthoform was therefore tentatively omitted.

November 2: Pain on swallowing, orthoform emulsion resumed.

November 4: Pain on swallowing returned yesterday. Orthoform emulsion.

November 6: Pain has disappeared; patient is now able to swallow fluids.

November 13: Since November 2 antipyretics have been administered, but the fever and night-sweats persist. The cough has practically disappeared, and the heroin is entatively discontinued.

November 15: No pain on swallowing, but severe cough. Heroin, 0.01, four times daily.

November 17: Cough improved.

November 19: Has been exposed to a strong draught and coughs more. Heroin, 0 02, three times daily.

November 27: Still suffers from fever, notwithstanding the use of antipyretics. Cough considerably better, no difficulty in swallowing.

December 3: No fever. Healthy granulations on the piglottis. *No cough.* Very few rales over the lungs. Leaves he city in order to pass the winter in Arizona.

We therefore learn from the history of this case that both heroin and orthoform have really done us remarkable service. Heroin removed the cough and orthoform he difficulties in swallowing. If for the purpose of xperiments we omitted the heroin he began to cough, nd if the orthoform was discontinued he suffered from difficulty in swallowing. The results are not always so rilliant as in this and similar cases observed by me, ut constrain us nevertheless to make a trial of heroin nd orthoform in this class of diseases.

Heroin, moreover, has been praised by various authrs because, in contrast to morphin, it has no constipating tendency. On the ground of a long experience I annot coincide in this opinion. In about 10% of the ases constipation certainly occurred. This estimate is nly an average one, as I have no exact data. This contipation, however, is more pronounced in those patients who previously suffered therefrom, and in order not to e compelled to give up the heroin for this reason, I ave had the drug made up in combination with cascara agrada or aloin in tablet form, according to the following formula:

℞.—Heroin	0.005–0.006–0 01
Ext. cascara sagrada	0.03
℞.—Heroin	0.005-0.01
Aloin	0.006

In this combination, in which, of course, the cascara sagrada or the aloin can be increased as desired, heroin appears to be very serviceable.

As an outcome of my numerous observations regarding the action of heroin, I would especially emphasize that it has proved useful in the alleviation of cough, not only in the cases of tuberculous affections of the respiratory organs referred to by me, but also in many other diseases of the air-passages, in which cough is a prominent symptom.

Dreser[6] has pointed out that heroin exerts a specific influence upon the respiratory organs, not only diminishing the number of respirations, but increasing the volume of the inspired air and the force of expiration. This is an extremely important point, as stagnation of the secretory products in the air-passages is thereby prevented and respiration facilitated. While Dreser was convinced that heroin produces a far more sedative influence than codein, he regards it as a much less injurious remedy, in view of the fact that in the case of codein the relation of the effective to the fatal dose is as 1 : 10, while with heroin it is only 1 : 100.

Dr. M. Manges, of New York,[7] who employed it in various affections of the respiratory organs, obtained remarkably good results in the majority of his cases, even in those in which other remedies had failed. In phthisis he found that heroin not only ameliorated the attacks of cough, but also contributed to the reduction of temperature and the prevention of night-sweats.

Dr. G. Strube[8] confirms the observations of Prof. Dreser, and found that under the use of heroin the distressing cough was alleviated and even removed, and sleep promoted. In none of his cases were any unfavorable after-effects observed, and he therefore recommends this remedy highly in all diseases which are accompanied with dyspnea and cough.

According to my own experience I consider myself justified in recommending the application of heroin in all diseases of the throat and lungs which are accompanied with cough. The fact that it exerts no influence upon the heart or circulation permits of its use even in those cases in which a cardiac lesion exists.

There still remains for discussion another method, phototherapy, or the use of light for therapeutic purposes. It is always venturesome to advance such new ideas without first having undertaken physiologic investigations, and hence there is a risk that this method may be ridiculed exactly as massage, hydrotherapy and even electrotherapy were at the time of their introduction.

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[6] *Therapeutische Monatshefte*, September, 1898.

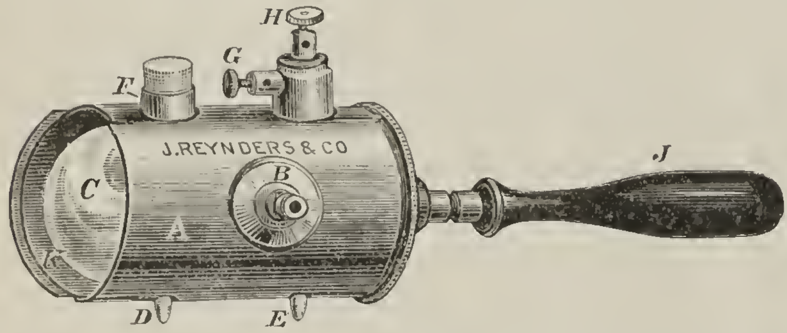
[7] *New York Medical Journal*, November 26, 1898.

[8] *Berliner klinische Wochenschrift*, No. 7, 1898.

I need not speak of the experiments which have been carried on continuously from the time of Moleschott up to the present day, and which have served to elucidate the influence of light upon metabolism. Everyone who has made even a superficial study of this subject must concur with Rubner, who says in his text-book that aside from the *thermic* influence of the light rays, light manifests special peculiarities and an indirect as well as direct influence upon the health of human beings. It is here that the *chemical* influence of the light rays is of such great significance.

I need only remind you of the influence of sunlight as well as of electric light upon the growth of plants, its effect in arresting the development of various bacteria, the self-purification of rivers produced by the sunlight, etc., in order once more to demonstrate to you that it is not the heat which effects all this, but purely and solely the chemic action of the sun or the electric rays. Willibald Gebhardt, in his highly instructive work, "Die Heilkraft des Lichtes" (Leipsic, 1898), has furnished a large amount of convincing testimony on this subject.

I myself was led to make such experiments in a very curious manner. In 1889, that is about 10 years ago, I had the honor to demonstrate before this society the transillumination of the larynx. One of the patients whose larynx I had frequently examined asked me one day whether I no longer employed "electricity," which always benefited her. As such patients who suffer with intense pain are usually not hysteric, I was constrained to give this matter my consideration. I applied the "electricity" by alternately placing the Voltolini light, modified by me, upon one or the other side of the larynx or upon the pomum adami. As this lamp has in the meantime probably fallen into disuse, I will repeat here my former remarks (*Medicinische Monatsschrift*, November, 1898):



"This casing contains an Edison incandescent lamp and in front of it a ball filled with water, which is similar to the globe commonly used by shoemakers, and subserves the double purpose of first concentrating the light by acting as a biconvex lens, and secondly of protecting the exterior of the neck from too intense heat. I have taken the liberty to make a few minor changes in this apparatus. In the first place I have increased the amount of light by using a higher power lamp. It also appeared to me that in some patients with a large pomum adami many of the rays of light were lost. For this reason I had the front part of the apparatus *K* (see figure) hollowed out and covered with rubber, so that it adapts itself better to the external contour of the neck. A handle *J*, which can be attached to a posterior or lateral surface *B*, seemed to me useful. Finally I had the globe more firmly attached, *D* and *E*, in order to protect it from breakage."

I then applied this lamp to one or both sides of the larynx or also in front, and usually allowed it to remain at the place of application until this became heated, ordinarily about five minutes. Several times I observed a formation of blebs after five to ten minutes.

At first I did not attribute any significance to this treatment, as I was at a loss for an explanation. Not until 1891, when I read the address made by Robert Koch before the International Congress in Berlin, was the matter clear to me. Koch referred to the influence of sunlight upon the tubercle-bacilli, a view which was soon adopted by Mignano (*Archiv für Hygiene*, Bd. 25) and others. Later Minck, a scholar of Buchner, Santori, Marshall Ward, and a host of other investigators demonstrated the same influence of electric light upon bacteria.

If therefore sunlight as well as electric light accomplishes all that which has been demonstrated by most eminent investigators, there remained only for decision the question whether light actually penetrates the tissues of the larynx. This could not appear doubtful to me, since I had examined hundreds of patients by means of transillumination, and had been able to see distinctly the interior of the larynx. It seemed to me that if any portion of the body were adapted for testing the influence of electricity, it must be the larynx.

My expectations were not entirely fulfilled, and I would ascribe this to the incompleteness of my apparatus, which only permitted me to apply the electric light for about five minutes to the diseased parts, after which it became too hot. Notwithstanding this I had some encouraging results, of which I would communicate the following:

Case I.—Mrs. R. H., 30 years old, mother of 4 living children, pregnant. Has suffered 4 weeks with pain in the throat, especially on swallowing. On retiring she has a feeling as if "oil were boiling in her throat."

Status præsens, February 24, 1892: Phthisis incipiens of both lungs. Mucous membrane of larynx very anemic; slight ulcerations on the epiglottis and on the right ligamentum ary-epiglotticum. I administered creasote with tincture of gentian (equal parts) in increasing doses until she took 70 drops three times daily. Besides this I applied the electric light to both sides of the larynx.

March 10: Up to this time the patient had only appeared every week. The sensation of "boiling" in the throat was better after each application of the electric light, but the improvement only lasted for a short time. Later it was still troublesome enough to disturb her night's rest. From now on she calls every second day for treatment.

April 15: The peculiar sensation described is still present, but much less marked; the pain less.

April 27: The sensation still present at night; pain inconsiderable.

June 5: The ulcers in the larynx have healed; she feels much more comfortable; no sensation of "boiling" in the throat at night; no dysphagia, but some cough.

June 20: Delivered of a child, and feels comparatively well.

June 26: Had a violent pulmonary hemorrhage, and died two days later in consequence.

Case II.—Mrs. M. S., 23 years old, had one living child. She has a feeling of rawness in the chest, and complains of dysphagia.

Status præsens, November 7, 1893: Phthisis pulmonum. (Cavity of the size of the palm of the hand below the right clavicle.) Acute pharyngo-laryngitis. Infiltration of both false vocal chords. Curetment refused.

November 17: She was given codein, creasote, and appliation of the electric light, the latter thrice weekly. Swalowing is much better, and she requests further application of the electric light.

November 24: Condition of the larynx is the same, alhough patient asserts that she is feeling better.

December 18: Patient feels quite comfortable, and travels o Lakewood and then to Georgia, remaining away altogether 10 weeks.

March 22, 1894: Patient had felt quite well up to a week go, when she was seized with a violent cough, and also vith a return of her former dysphagia. She was treated in he same manner as before.

May 10: She had again improved so much that she was ble to make a trip to the Adirondacks.

The patient had been under the treatment of various aryngologists and stated that nothing acted so well as he application of the electric light. I have heard iothing further from her, but she is said to have died n the Adirondacks in the autumn.

CASE III.—Miss L. B., 19 years old, singer. Had a hemorhage about 1½ years ago, coughs a good deal, has pain on wallowing, and has been hoarse for 4 months.

Status præsens, November 25, 1895: Phthisis pulmonum, oth apices being affected. Larynx: Epiglottis somewhat filtrated. Deep ulcer on the left vocal chord. Treatment: reasote, codein, antifebrin occasionally for the fever, and very second day application of the electric light to the left de of the larynx. Under this treatment she improved onsiderably, so that after three months, on February 28, 896, the ulcer had healed and the patient was absolutely ce from pain.

September 3, 1896, I again saw the patient and found her excellent health after a sojourn of six months in the ountry. The pulmonary affection was cured and no tuercle-bacilli were found.

January 6, 1897: Coughs again for the past eight days and troubled with slight dysphagia on the left side. Superficial lceration on the epiglottis (left side). Acute laryngitis and iffuse bronchitis. The ulceration was obstinate, and she as not restored to complete health till after the lapse of 14 eeks' (irregular) treatment.

I saw her again in December, 1897, and also in March, 1898, d was able to demonstrate a permanent cure.

These results demand consideration for a method of eatment which is so agreeable to the patient and so ee from all injurious effects as is phototherapy. We not delay a moment in subjecting the patient to in, if it can only be assumed that some relief is ereby afforded to him. Have we not all of us caused vere pain by applying lactic acid and in using the ret, as well as other methods, all without avail? herefore since the majority of my patients asked for e continuation of the treatment with the electric light cause of the benefit which they ascribed to it, am I questing too much in urging you to add this method your therapeutic resources? I am constrained to lmit that my results were but rarely so favorable as ey were in Case III, nevertheless such results cannot demonstrated in the majority of cases treated by all e other methods.

Finally, I would remark that I began my therapeutic vestigations with the electric light 10 years ago, but scontinued them notwithstanding my acquaintance th the studies of J. H. Kellogg, of Battle Creek, ich., because I could not at that time believe in their ientific character. Through the more recent bacteriologic investigations I was again induced to resume them, and quite recently a new incentive was furnished by the publication of E. Below (*Berliner klinische Wochenschrift*, p. 265, 1896) and by W. Gebhardt, whose book, cited above (aside from some unintelligible remarks), I would urgently recommend to every colleague.

I have now had attached a somewhat longer hard-rubber tube to the front part of my lamp, which prevents its direct contact to the body, and thus permits me to exert a more prolonged influence with the light-rays. I trust to derive better results from this modification than I have heretofore obtained.

By the application of all the measures discussed here—alone or in conjunction—we have perhaps made a slight advance in the treatment of these obstinate and painful conditions.

THE BEARING OF THE NEUROTROPHIC FUNCTION ON CUTANEOUS CONDITIONS.

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THE condition of the skin is constantly significant in estimating general systemic states, or in judging of the organic changes or functional disturbances of the deeper organs. Changes in its color, temperature or secretion, and eruptions or other alterations occur, so that we can in almost any case get the starting-point for an intelligent investigation. The inquirer is thus led to an acute infectious or inflammatory disorder, to a blood-dyscrasia involving blood-making organs, or to some deep-seated central nervous change. The mental, the respiratory, the circulatory, the digestive, the secretory and the excretory functions all more or less betray their condition by picturing it on the exterior.

To pursue this line of thought would lead me into a larger field than I wish to enter. The allusion is made with the intention of asserting, that if looked at in a broad way, all these cutaneous phenomena might be classed as expressions of what I would like to call the neurotrophic function. This term, I take it for granted, is new to the general reader. I am not aware that it has been used except by myself in my lectures on physiology some 6 or 8 years ago, and probably in some of my subsequent papers. It seems to me to be a convenient term to represent the action of the nervous system on metabolic processes. That this action lies at the very basis of all living structures I need not take time to demonstrate.

When we consider somewhat methodically the disturbances in the skin which are due to impaired nervous conditions, we find a class in which there is no apparent alteration in its constitution, no organic change, but in which some of the faculties of the skin as an organ of sense are suspended or changed. To this class belong certain cases in which sensibility to touch, to pain, to pressure, or to temperature is either in abeyance or by some alteration from the normal is increased, perverted, or dissociated from some connected sensation. Strictly construed, this class might better be omitted, since in the majority of instances the trophic disturbance is not in the skin itself, but in some portion of the sensory conducting apparatus. For the sake of completeness I have included it, and when it is assumed, as it safely may be, that nerve terminals are in some instances the portions that primarily or alone suffer nutritive changes, and concede that these properly belong to the structure of the skin, the license may not after all seem too bold.

In the second class of cases, in which again there is no perceptible organic change in the skin, there occur suspension or excess of the normal secretions, or some perversion of the perspiratory function whereby substances entirely foreign to its usual result, are eliminated. Anidrosis is almost always a symptom of certain stages of febrile and inflammatory diseases, is often associated with chronic processes like Bright's disease and diabetes mellitus, and may be assumed frequently to be more closely linked to the condition of the blood with which the cutaneous glandular system is supplied than to a more remote nervous mechanism. But it also occurs, as a symptom involving the entire or at least a very extensive portion of the integument, in some very grave nervous diseases, such as general paralysis, and locally in some others in which it can not be accounted for otherwise than by supposing the secretory function suspended by a nervous impulse. The objection may be raised that such an effect is not properly trophic, and this might for certain purposes of distinction be admitted, but for the present purpose I would prefer to assume, that an epithelial cell which does not secrete normally, must be abnormally nourished. Toxic drugs (of which belladonna is a good example) doubtless cause anidrosis through some central nervous impression, and it is not improbable that the toxic agents of infection during the febrile movement which they cause, act in the same way, notwithstanding the admission that has already been made that this symptom may possibly be the result of their circulation in the vascular system.

The condition known as dysidrosis occurs in weakly, neurotic subjects. It has some characteristics which would place it in a subsequent class. The skin becomes inflamed and vesicles form; later, by confluence of the vesicles, bullæ appear. The original trouble seems to lie in a distention of the sweat-ducts. The palms and soles are the parts usually affected.

Hyperidrosis, also found in acute diseases and as the result of medicinal agents, occurs as a partial affection in hysteria and epilepsy, that is, over some indifferent territory. Involving one-half of the body, or one-half of certain portions as the head and face, and denominated hyperidrosis unilateralis, it occurs in Graves' disease, locomotor ataxia, and other distinct nervous affections, but is also sometimes found as an isolated nervous symptom.

In other cases, the odor of the sweat is changed generally so as to be especially offensive, constituting osmidrosis or bromidrosis; or it may have a decided color, as chromidrosis, as has been noted in hypochondriasis; and, again, in hysteria or some central nervous affections there has been bloody sweating or hematidrosis.

A third class may be made of those conditions in which the only change from the normal is in deficiency or excess, or unnatural distribution of the normal pigment, the hair being affected like the skin. Leukoderma is one of the best examples. As an independent disease it is not accompanied by any sensory changes, but where it occurs after injuries to nerve-trunks, or after obstinate neuralgia, the part affected is usually anesthetic. Patches of highly pigmented skin with anesthesia, scattered irregularly over the body, also have been observed. In Addison's disease the skin becomes gradually dark. The organic changes in the suprarenal capsules are accompanied by atrophic and degenerative changes in the nerves. The general constitutional delicacy which is said to be constantly connected with albinism, both in human beings and in the lower animals, is most probably the expression of some innate deficiency of the nervous forces.

In a fourth class, there are, as prevailing phenomena, atrophic processes affecting the skin. Dermatologists have recognized atrophia cutis as an independent affection, occurring in both a general and a partial form. More often, however, it is the terminal stage of some preceding inflammatory or neoplastic condition. When occurring as a primary disease, it is most frequently found in the aged, constituting a senile atrophy. In some of these cases the process seems to be not simply atrophic but rather degenerative, the skin becoming brittle, and the connective-tissue bundles are converted into gelatinous masses, while all traces of vessels and nerves disappear. In the partial variety the patches are most prone to appear on the thighs, the buttocks, or the arms, and the subjects are younger than in the senile forms. A distinct atrophic form of skin-change is known as glossy skin of Paget, and occurs after traumatic injuries of the nerve-trunks. Scleroderma and morphea in their later stages might be classed here. but as their earlier characteristics place them in another class, they will be again referred to. Vitiligo, a very rare disease, resembling leukoderma except that atrophy accompanies it, belongs here. Alopecia areata is generally admitted to be a trophoneurosis. In some cases there is an accompanying neuralgia. In general alopecia, following acute infectious diseases, such as typhoid fever, and erysipelas, or occurring as a symptom of syphilis, the neurotrophic origin is also the most probable one.

A fifth class is one in which hypertrophic processes prevail. I mean to use the term hypertrophy with considerable latitude, meaning to include under it more than mere change in size, as it is questionable whether any disease exists in which the changes are simply quantitative, either in the direction of hypertrophy or atrophy, and especially with regard to the former. In probably all of these diseases there is a certain amount of edema and in many this is the more prominent symptom. In scleroderma the primary condition is an edema, with a discoloration, and a reduction of temperature of one or two degrees. The sweat and sebaceous glands are diminished in number so that the skin feels cooler and dryer than normal. In a later stage there is either sclerosis or atrophy. The sensibility is usually somewhat impaired. Morphea has characteristics almost similar to scleroderma except that in the beginning stages there is less edema, and it is less likely to become sclerous or hard; but the skin may atrophy and assume a thin, parchment-like character. Sclerema neonatorum is a fatal disease of infants in which a sclerosed, edematous, and often reddened or livid condition of the skin is accompanied by a low temperature and rapid reduction of vitality with impaired nutrition. It seems most frequently to be associated with some congenital defect of the brain or other vital organ. There are stages in the course of elephantiasis in which t would properly belong to this class, but in others it is characterized by destructive lesions, and then belongs properly to another class of which I wish to speak presently. The same may be said of leprosy.

In myxedema, the skin is dry and tense, and, contrary to what the name would imply, not actually edematous. Mental changes accompany the other symptoms. Extirpation or atrophy of the thyroid is at the bottom of the pathology, but the nutritive changes are most probably the result of nervous influence as it is changed in action by the absence of the thyroid funcion. Certainly in exophthalmic goiter, which is pathologically the antithesis of myxedema, the nervous perturbation is paramount. In the one disease there occurs a series of symptoms due to over-stimulation of nervous centers, and in the other a series due to abence of that stimulation. In cretinism there are skinhanges of an hypertrophic character, with the mental ype of the idiot. In akromegaly the skin is thickned in connection with enlargements of the bones of he extremities, and lesions of the pituitary gland underlie the pathology. Very probably, as in myxeema, the trophic influence of the nervous centers is irectly connected with the tegumentary and other hanges.

Dermatolysis is a condition described by Alibert, in which the skin and cellular tissue grows so as to hang in folds, affecting the eyebrows, face, neck, abdomen, or ulva.

In a sixth class are placed prevailing vasomotor phenomena not resulting in ulceration or necrosis. Raynaud's disease and angioneurotic edema may be disposed of here. Urticaria is a transient and acute disease or symptom most likely also dependent on vasomotor disturbance. The condition known as xanthelasmoidea occurring only in young children, and rarely, in which wheals appear, is probably also best classed here.

A seventh class can be made to contain all those numerous troubles in which, connected with nervous phenomena more or less grave, destructive skin-lesions occur; vesicles, bullæ, and ulcers arise at certain stages; in some of the diseases already mentioned, these supervene on the earlier stages. I refer especially to leprosy and elephantiasis. Herpes zoster is distinctly connected with neuralgia; Morvan's disease with its whitlows; the bedsores of spinal diseases; and the foot-ulcer of Charcot, connected with locomotor ataxia; are all good instances. Carbuncles are connected with debilitated and cachectic states. A bedsore on the buttocks is indicative of cerebral disease; on the sacrum, of spinal disease.

Without further attempt at methodic arrangement let me speak finally of erythematous patches and vesicular eruptions occurring in connection with nerve-injuries and neuralgias and even eczema as a concomitant of nerve-pains; and of the great prevalence of skin-disorders among the insane. The rashes and eruptions from ingestion of drugs, such as those which occur from belladonna and quinin, and from potassium bromid and iodid, most probably appear through an impression of the drugs on the nervous system. The affection known as acrodynia, which appeared in an epidemic form in Paris in 1828–29 was characterized by pains of great severity in the wrists and ankles, and was accompanied by an erythematous eruption. The observers of that time believed the symptoms to be due to spinal irritation.

By what mechanism the neurotrophic function is carried out, must in the present state of science be mainly left to speculation. There are, it is true, many scattered facts in physiology and pathology which afford a basis for theories, but nothing can yet be regarded as conclusive. The inference that there are impulses passing from the centers through the conducting paths to the periphery, which largely affect metabolism, can hardly be doubted. It is also very certain that there are special portions of the cerebrospinal axis which have specially to do with the generation of these impulses, thus constituting centers. The trophic centers are certainly very closely related to the vasomotor centers, but there are sufficient reasons for believing that they are not identical with them. It is generally conceded that there are trophic centers situated in the cord and probably found at almost every level. That the ganglia on the posterior spinal roots have trophic functions in relation to the sensory nerve-fibers is beyond doubt. There is considerable reason for believing the ganglia of the sympathetic also to be connected with trophic functions.

That such centers must exercise a trophic influence by means of fibers which conduct centripetally is self-evident. There is considerable difference of opinion as to whether fibers exist which conduct solely these impressions. There is quite a collection of evidence supporting such a view. There is also reason for believing that the function is composite in character, and that there are impressions which are excitory, and again, others which are inhibitory, and that these are carried by separate fibers. It has been found, for instance, that section of the second cervical nerve in rabbits and cats causes the hair to fall off the ear of that side, while section of the cervical sympathetic causes increased growth of the hair and of the ear itself. Continuous stimulation of the sciatic nerve in dogs led to hypertrophy of the limb and foot. It would seem, in a general way, as if the cerebrospinal system conveyed impulses which were conducive to growth, while the sympathetic exercised restraining influences. That the function is at least to a degree independent of the vasómotor system, seems likely from the fact that the corneal cells (the cornea being a non-vascular body) have been seen to contract under stimulation of the corneal nerves.

It has been shown that section of the trigeminus, which causes insensibility of the eyeball, leads to destructive inflammation of the organ. It has been argued that this is due to the irritation which ensues in consequence of destruction of the reflex processes which in the normal state defend the eye against the presence of dust and other foreign matter. By some very ingenious experiments, however, it has been found that a partial section can be so made as to result in maintaining the sensibility, and yet producing the destructive changes; and again that by a partial section of a different character the sensibility can be destroyed without bringing about a panophthalmia. Still further experimentation has shown that when the trigeminus is completely cut, and the superior cervical ganglion of the sympathetic at the same time extirpated, the eye, while losing its sensibility, will not ulcerate. It would seem, therefore, as already intimated, that the influence of the true trophic fibers carried by the trigeminus was wholly anabolic, while those of the sympathetic were wholly katabolic, and that the whole process was to a large degree independent of vasomotor phenomena. The fact that when both kinds of impulse are cut off, metabolism is still maintained, would indicate that living matter everywhere possessed certain inherent nutritive and stable properties which might maintain form and at least a degree of function, but that for the purpose of fine adjustment to the purposes of life, central connection with both constructive and destructive regulators is necessary. In the case of the heart it would appear that neither the influence conveyed through the pneumogastric nor that through the sympathetic is indispensable, so far as the maintenance of mere rhythmic action is concerned, but to enable it to adjust its force to the requirements of the organism which it is destined to serve under constantly varying conditions, such attachments become essential.

I formulate the following conclusions:

1. That trophic powers or metabolic properties are inherent in the tissues themselves.
2. That these are related in highly specialized organisms to impulses generated in gray nervous matter in the ganglionic systems of the cerebrospinal axis and the sympathetic.
3. That the impulses arising in the brain and cord are anabolic in their character, while those arising in the sympathetic are katabolic.
4. That the impulses are in each case conveyed over special fibers adapted to their function by virtue of their central and peripheral terminations.
5. That the field of dermatology offers exceptional and remarkable opportunities for the study of neurotrophic processes.

SOME SIGNS OF HEPATIC SCLEROSIS.

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Probably at least eight-tenths of hepatic diseases observed in the northern United States may be classified as sclerosis, that, is as interstitial hepatitis. The other two-tenths consist mainly of carcinoma and of catarrhal conditions, with at least a tendency to the formation of intrahepatic calculi, some of which are likely to lodge in the gall-bladder, or it may be that cystic calculus-formation coexists from the action of the same underlying cause. All the other diseases of the liver, abscess, acute yellow atrophy whether idiopathic or due to phosphorus, amyloid disease, perihepatitis, hydatid cyst, angioma, and other non-malignant neoplasms, are rare. Clinically speaking, it is impossible to demarcate hepatic congestion from hepatic sclerosis, not because we are unable to say when congestion exists, but because we cannot tell when it has ceased to be merely a circulatory disorder and has given rise to irritation enough to produce the beginning of interstitial change. On the other hand, in advanced cases of hepatic sclerosis, we expect more or less fatty degeneration, though rather in the way of an infiltration than of a metamorphosis. Perhaps there is the least of such change in the biliary cirrhosis of Hanot, the most in the atrophic drunkard's-liver. So usual is the association of interstitial hepatitis with fatty change that the word cirrhosis (yellowness) is almost always used instead of the more logical term sclerosis (hardening), which represents the essential morbid alteration. Indeed, it is quite common to hear the word cirrhosis applied to the kidneys or spinal cord or other organs, although utterly inappropriate. It is quite probable that catarrhal hepatitis is a disease of essentially bacterial origin, though not due to any specific germ. As has been demonstrated in regard to the gall-bladder, we should expect the colon-bacillus to be the bacterium most frequently present; but, just as nephritis may be both tubular and interstitial, so catarrhal lesions of the iver, excepting the acute forms, often go hand in hand with interstitial change.

The classification of hepatic sclerosis is yet in much confusion. It scarcely seems proper to make a formal division according as the trouble is or seems to be due to alcoholism, malaria, typhoid, syphilis, tuberculosis, etc., barring the obviously granulomatous forms of the two atter diseases. Indeed, much diversity of opinion exists as to etiology. Most American and English clinicians agree that alcohol is the principal cause, yet Viola, in a study of sclerosis at Padua and at Venice, disclaims the idea that alcohol produces interstitial change, supporting his belief by quoting certain experiments, mostly by Germans, to show that pure alcohol, administered to animals, causes cellular degeneration or, in many instances, no discoverable lesion. He admits, however, that fusel-oil and other ingredients of iquors are responsible for some cases and he even ascribes differences in the proportionate frequency of hepatic sclerosis in the two places to differences in the quality of the wine drunk, as well as to vaguely undertood climatic and social conditions. Bonnet emphaizes the etiologic relation of typhoid in causing Hanot's clerosis, while most authorities practically ignore this cause. Rovighi reports 6 cases of ordinary atrophic clerosis due to autointoxication from the gastro enteric canal and corroborates his idea of a causal relation by producing similar lesions experimentally by the introduction of phenol, indol, etc., into the circulation of animals. Most observers consider malaria as a fairly frequent cause of sclerosis of the liver, even in the north. Osler, on the other hand, speaks of the toxic products of faulty metabolism—including indigestion explicitly —as playing a minor role and of malaria as an excessively rare cause, though the vicinity of Baltimore affords ample opportunity for the observation of malarial diseases. With such conspicuous differences of opinion as to the etiology, it is obvious that we could carcely find a worse basis for a classification.

The simplest basis of classification is the time-honored one of atrophic and hypertrophic, but, as will be discussed later, these may represent clinical stages of the same process, while there is a little medical Franco-German war in progress as to the nature of so-called hypertrophic forms. Probably the truth lies between the old conception that the atrophic liver is always a shrunken hypertrophic liver and, conversely, that the hypertrophic liver is potentially an atrophic one, and the more extreme modern views that there are several distinct diseases characterized by enlarged liver, not counting amyloid, neoplastic and granulomatous organs.

Not to attempt a thorough discussion of so elaborate a subject, I would call attention to the fact that, after determining the size of the liver, we are wofully deficient in exact means of diagnosing its condition. By means of palpation, ordinary percussion or, simplest and most reliable of all, auscultatory percussion, we can make pretty positive statements regarding the size of the organ, the inability to map out the liver by auscultatory percussion depending almost entirely on excessive obesity and meteorism, false results occurring in cases in which a thin process of hepatic tissue overlies the hollow organs; but there are many cases in which necropsy has demonstrated marked interstitial and fatty change in a liver of normal size. There are also quite numerous clinical reports describing the shrinking of a liver during life from the hypertrophic to the atrophic form. Obviously, then, aside from the difficulty of diagnosing the beginning of any organic lesion, there are numerous instances of well-marked hepatic sclerosis that we cannot diagnose by what are usually considered the most reliable physical tests.

Signs of back pressure, both of biliary constituents and of the portal blood, remain; but jaundice is not characteristic of hepatic sclerosis, except of the biliary form of Hanot and of analogous cases of concomitant catarrh of the biliary radicles and interstitial change of atrophic form, or otherwise not corresponding to typic biliary hypertrophic sclerosis. Osler states that the jaundice of Hanot's sclerosis is slight, though Continental writers give the impression that it is quite well marked, though not of so high a grade as is to be seen in gross obstruction of the bile-ducts. Freyhan, for instance,[1] lays down a triad of signs that differentiate hypertrophic cirrhosis: Enormous and usually gradual increase in size of liver, intense icterus, usually with colored stools, and little or no ascites. He states that Mangelsdorf could find only 8 cases in the whole literature of atrophic cirrhosis attended with jaundice. It seems, however, either that care was taken to exclude complicated cases, or that mixed forms of catarrhal and interstitial disease are much more frequent in America. Taking hepatic sclerosis as a whole, it may be said that while sallowness is almost a uniform symptom, jaundice is almost always lacking; but sallowness is a common symptom of temporary conditions known as "biliousness," including many of autointoxication, and it is the natural complexion of many persons. Hence, while it may be called diagnostic, it can rarely be used to separate other troubles possibly simulating hepatic sclerosis.

Caput Medusæ is a familiar term, more familiar than the anatomic abnormity itself. It is so logical to expect back pressure from contracting interstitial tissue in the liver, damming back the portal blood and showing in the veins of the abdominal wall, that we remember the typic cases shown us in undergraduate days, and forget how seldom these signs are noted in practice, at least in practice among well-to-do patients, whom we see at our offices or at their homes. More frequent than the genuine caput Medusæ of back pressure in the liver is an imitation form due to local venous obstruction in an umbilical hernia. I have had occasion to examine a patient with moderate gastric dilatation and a liver reaching only from the fifth rib to the upper border of the lower common cartilage (*i.e.*, not much greater than the area of flatness demonstrable by ordinary percussion), whose abdominal wall presents not a trace of venous obstruction, though there is a small umbilical hernia. Visible abdominal veins are much more frequently seen in laboring-men who strain their muscles and who produce a moderate obstacle to the return circulation by using a belt instead of suspenders, than in any general series of cases of portal obstruction.

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[1] See *Archiv f. path. Anat. und Physiologie und klin. Medicin*, April, 1892; or my translation in the *Medical and Surgical Reporter*, July 30, 1892.

Hemorrhoids are present in by far the greatest number of cases of hepatic sclerosis, at least during some part of the disease; but, unfortunately, precisely the same remark holds good for persons in ordinary health, if we substitute some more appropriate word for *disease.* Esophageal varices are rarely diagnosed, and varicose ulcers of the stomach are little more discoverable. Even when their presence is suspected, we usually need to diagnose hepatic sclerosis to confirm the presence of the lesion in the alimentary canal. Thus, it would be putting the cart before the horse to speak of such internal evidences of hepatic sclerosis as diagnostic points. In general, the venous evidences of liver-disease are to be expected rather in ward-patients who have led lives of hardship than in private patients.

Much the same qualification applies to ascites, which seldom appears in patients in comfortable surroundings till after the diagnosis of hepatic sclerosis is an easy matter. Probably we cannot appreciate an ascites of much less than a quart, except in thin persons, with small body-framework. I would like to call attention to the great value of auscultatory percussion in making the diagnosis, especially in making a differential diagnosis between ascites and intraligamentary cyst or other cyst of large size. The translucency-test, as applied to eggs and hydroceles, is also of some value. A roll of pasteboard or a funnel may be used to exclude extraneous rays of light.

The examination of the urine yields little direct information as to the condition of the liver, though a complete analysis will often show an excess of indican, a diminished elimination of urea, an excess of uric acid or fluctuations in the salines; but these are due to conditions only indirectly connected with the state of the liver. Ten or 12 years ago it was proposed to administer a gram of benzoic acid and test for hippuric acid in the urine. Theoretically, the liver was supposed to effect this synthesis, and it was argued that if the benzoic acid passed through the body unchanged, hepatic insufficiency could be deduced. Unfortunately, neither then nor since has any test been given to differentiate between the two acids except elaborate quantitative tests, which could only be carried out by a professional chemist. Some 5 years ago I undertook a study of this test, depending on the recognition of hippuric acid by the microscope. Certain fallacies were fully realized in advance, *e.g.*, that hippuric acid might be formed without crystallizing out of solution, and that a partial conversion into hippuric acid could not be detected. In a case of single large abscess of the liver, hippuric acid was found; two examinations of the urine from a case of marked contraction of the liver also showed hippuric acid, though the patient had not taken benzoic acid except as it occurred in food; in a female with alcoholic sclerosis of at least 6 months' duration no hippuric acid was found after the administration of benzoic acid, the urine being otherwise normal except for diminution in the elimination of urea; several similar experiences showed that the test was of no value, at least until some philanthropic chemist should devise a reliable test for distinguishing hippuric and benzoic acids in solution. Some physiologists now believe that the transformation takes place in the kidney, so that the test could not possibly apply to hepatic disease. At any rate the formation of hippuric acid in a case of abscess would indicate that, however badly part of the liver may be disabled, other parts may perform the function of the whole; and this, too, is in accord with physiologic teaching that every hepatic lobule is a complete unit of liver-anatomy and liver-function.

Quite recently, the production of alimentary glycosuria has been used to test the adequacy of the hepatic function. If we think of the body as an engine, the blood is the fire-box, the liver is the tender and the fuel is mainly glucose. Into the tender is dumped, three times a day, the supply of fuel, about 450 grams of glucose altogether. Under normal conditions, the body has to secure its fuel from rather slowly separable masses, mainly consisting of starch. Cane-sugar, a double hexose, is more rapidly changed into glucose and absorbed, after it has once reached the intestine, than is the ordinary supply. In other words the task of stoking is considerably increased. By actual experiment it has been found that from 100 to 150 grams of cane-sugar can be administered at once to a healthy person without producing either glycosuria or saccharosuria, but that this is about the greatest strain that the glycogenic and other functions involved can stand. From the investigations of Achard and Castaigne and of Bard and Bonnet, we learn that while the production of glycosuria by such a dose is a fairly reliable sign of hepatic inadequacy, its absence is due, even nore frequently than to a normal performance of the hepatic function, to a slowness of absorption or, possibly, to renal impermeability. I would suggest that he appearance of saccharosuria instead of glycosuria may be interpreted as a failure of the invertin-ferment of the intestine. To test absorption we may administer methylene-blue in 5-centigram dose, when the color should be noted in the urine in about half an hour. This, of course, indicates gastric absorption, but we may, perhaps, infer that intestinal absorption varies concomitantly. From a limited experience, I would urge the joint use of these tests, and, even then, with considerable conservatism in drawing conclusions.

The following sign is quite often available comparatively early. So far as I know, it has never been described, yet it is perfectly possible that it has been discovered independently by another. In a compound curve, corresponding closely to the attachment of the diaphragm a number of arborescent venous tracings are seen. Each has a spread of branches and a height of about ¾ inch. Each trunk ends abruptly by dipping nto the deeper tissues. These marks are usually limted to the right anterior region, but they may extend to the left of the sternum or into the right axillary region. I have not observed them posteriorly. This sign, though often lacking, seems to be present especially in cases without other circulatory signs. Two cases are recalled in which it was present without anything else to suggest hepatic sclerosis except rather advanced age and certain vague symptoms. If, as appears probable, the arborescent veins are tributary to hose of the diaphragm, the latter must have a more ntimate relation with the portal system than is usually aught. Possibly this relation differs in different individuals. The sign certainly does not occur from stasis n the vena cava, as I have never observed it in such nstances unless there was also hepatic sclerosis.

A. F., a trainman, aged 34, was treated during the winter and spring of 1895–6 and of 1896–7 for gastric catarrh and atonic dilatation of the stomach, the heart being normal and he liver extending from the fourth rib to the costal arch. The patient did not leave his work except for a brief vacaion. In March, 1898, he reappeared and the first thing to attract attention was the arborescent venous phenomenon. The liver now extended only from the fifth rib to the upper margin of the lowest common cartilage, in the nipple-line. The dilatation had not relapsed.

Although heavy ordinary percussion yields the same imits as auscultatory, most clinicians estimate the perpendicular diameter of the liver only by the extent of absolute flatness. Hence, while there is no disagreement, the different standards must be taken into account in comparing statements.

In an article on the Education of the Sense of Smell[2] called attention to a peculiar faint sour odor sometimes detected in hepatic sclerosis. While of some value, it may be a pardonable breach of modesty to add that few persons have a sufficiently delicate sense of smell to enable them to use such a diagnostic criterion.

Among the signs of back pressure from the liver must be considered enlargement of the spleen. This usually occurs in all kinds of sclerosis, but, occasionally, the spleen also undergoes a fibroid contraction. Other causes of splenic enlargement, such as infectious disease, especially septic processes in the intestine, leukemia, chronic malaria, etc., must be excluded. The spleen is best mapped out by auscultatory percussion, though one must always be on guard not to get the posterior projection of the stomach instead. Ordinary percussion is often indecisive, and palpation is applicable only to extreme cases.

Although it is not uncommon to witness shrinking of a liver, while the case is under observation, few accurate records of such observations are on record. Personally, I can cite only one beside the case already alluded to. In October, 1895, the liver of the second case extended from the lower border of the fourth rib, "not quite to the costal arch," that is within the limits of the lowest common cartilage in the nipple-line, as shown also by the tracing of the dermographic marks. In January, 1897, the liver extended upward only to the fifth rib, the lower limit remaining the same. In the summer of 1898, there had been no further change. Bonnet[3] reports the case of a man, aged 35, who had Hanot's hypertrophic sclerosis. In January, 1897, the liver extended 5 fingers' breadth below the costal arch, in August, 1897, the same, in October 4, in November 3, in December 2 fingers' breadth. On January 20, 1898, the area of dulness had gotten back to normal limits and, on February 28, the lower border was at the level of the costal arch, as determined by palpation. Death of the patient prevented the continuance of this interesting series of observations.

In two instances of sclerosis with enlargement of the liver, both occurring with, and probably from, heart-disease and forming part of the symptom-complex that I have described under the term "multiple visceral lesion," there was marked consolidation of the lower part of the right lung, so that whispering pectoriloquy was unusually well heard. There was little if any hydrothorax, and it seemed that the consolidation was partly due to the upward pressure of the liver, though determined by local circulatory changes in the lung.

Of some value in the diagnosis of hepatic sclerosis is the condition of the stomach. Congestion of the stomach in hepatic disease is not merely passive, from obstruction to the portal branches, but is partly arterial, the resistance to the entrance of blood into the hepatic artery determining a greater outflow from other branches of the celiac axis. Possibly, in some individual cases, the arterial congestion may be in excess of the venous, and thus may produce a heightened activity on the part of the stomach. I have under treatment at present a young man from Pennsylvania, referred to me through the courtesy of Dr. E. O. Bardwell, whose liver extends only so high as the fifth rib. There seems to be no obstacle at the cardia. The acidity, both free hydrochloric and total, is about double what it should be. There is a history of alcoholism in the past, but nothing to account for the gastric condition directly. It may be that such a case as this illustrates the superactivity of gastric glands, due to diversion of arterial blood from the liver. Much more common are cases of subacidity and of a demonstrable catarrh of the stomach due to portal congestion. Gastric dilatation is often seen in connection with hepatic sclerosis, but then it is extremely common, in mild, atonic form, in any class of patients, and the more one studies the position and size of the stomach, the more one tends toward Bouchard's view that dilatation of the stomach is the explanation of a large share of the ills of humanity. There seems to be no possibility of making a categoric statement regarding the state of the stomach in hepatic disease. It may be congested, even arterially, or dilatated, or catarrhal, or hemorrhagic, but all these conditions may occur with a normal liver, and each might be regarded as primary and causative of the hepatic sclerosis, or, at least, as indicative of an underlying condition that might serve to produce interstitial change in the liver. Cases might be cited to show that dilatation and catarrh of the stomach may be cured, while hepatic sclerosis remains latent. The case instanced to show the gradual contraction of the liver is such a one, the stomach having been reduced to its normal size from a dilatation extending as low as the umbilicus, and having, since 1896, remained normal. There is a wide field of diagnosis in which two or more conditions, not positively demonstrable separately and not even necessarily productive of one another, lend mutual support. On the same principle of twisting threads of evidence together—each weak in itself and held to its neighbors by slight friction—the most absolute proofs of the legal profession depend. Gastrohepatic conditions afford a grand opportunity for this kind of diagnosis. For instance, the normal hepatic area often extends only to the fifth rib in women and occasionally in men. If, with such an area, we have a history of alcoholism and a gastric catarrh, or slight bleeding suggesting varicose ulcerations of the stomach, or if the spleen is a trifle enlarged, or if there is alimentary glycosuria, or if the arborescent venous forms are seen at the level of the diaphragm, a fairly strong cord of evidence is made upon which to support a diagnosis of sclerosis.

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[2] *Medical News*, 1898.

[3] *Archives Générales de Médcine*, 1889.

The diagnostic relation of gastric and hepatic conditions calls forth a few words in regard to an etiologic relation. Osler, as well as most of the early clinical writers, lays great stress on alcoholism as a cause of hepatic sclerosis. Various European studies, both experimental and clinical, seem to demonstrate that alcohol does not produce interstitial change, though it may produce cellular degeneration. However, this does not alter the practical effects of alcoholic beverages as fusel-oil and even proper ingredients of alcoholic beverages to produce interstitial change. The late Dr. H. F. Formad, of Philadelphia—always remembered by his students for his geniality as well as for his enormous acquaintance with pathologic organs—insisted that the drunkard's kidney was a congested, not a sclerotic one. Of much value in harmonizing apparently conflicting views on the subject of the effects of alcohol is the observation of Dr. Charles Cary, of Buffalo, that the fibroid changes of alcoholics are due essentially to bad nutrition, exposure to cold, various exhausting excesses, etc., which, in turn, depend on the benumbing of the mental faculties by alcohol.

It may also be questioned whether many apparent conflicts between text-book writers and practising physicians of wide experience, are not due to distinct differences in clientele. The former depend for their knowledge of disease largely on studies of ward-patients. Some of our most eminent writers have had almost no private practice, except in consultations, which do not afford the best opportunities for close observation. Others have, at one time or another, quite naively admitted that the patients who paid for their services did not receive the careful attention that was bestowed on patients in free beds. Altogether, we must recognize a considerable difference between disease occurring in well-to-do persons and in those whose maximum of comfort is attained in a hospital-ward. The latter, naturally, present disease in an exaggerated form.

My own impression is strong that hepatic sclerosis is, among private patients, largely due to intoxication from the stomach and bowel, and that alcoholism is not a particularly frequent cause. However, it must be admitted that, if hepatic sclerosis is made out, I do not hesitate to exclude alcoholism as a factor, even if the patient has not been a total abstainer, provided some other cause seems more important and that the indulgence in alcoholic beverages has been slight and at intervals. I well remember a case seen with a medical friend. The doctor remarked that the patient was an army-officer, whereupon I replied in jest that that fact would account for the presence of an alcoholic liver; but the doctor replied that the patient had been practically a total abstainer from drink, though he had been a gourmand. Excessive eating, particularly of meats and of sugars, both of which tax the liver directly, is common in America. Overloading of the stomach, unless perpetrated publicly and offensively, is not considered a matter for ethical consideration, as is the case with the use of liquors. Most restaurants not only serve an excess of meats, but serve meats that are just on the verge of decomposition, adding to the irritant effect on the liver by the excessive use of condiments. When we reflect that death from hepatic disease is practically never due to failure of bile considered as a digestive secretion, that serious interference with the glycogenic function rarely occurs—even in diabetes—that the lethal factor is an accumulation of poisons, most of them inseparable, connected with the secondary digestion of food, the a priori probability of alimentary intoxication as a cause of hepatic disease becomes great. In the majority of patients of all kinds, we have a history of more or less use of alcoholic beverages. Among such it has been the custom to ascribe hepatic sclerosis to the one factor of alcoholism, without regard to others that might be present; but even among the comparatively small class of total abstainers throughout life, hepatic sclerosis is not rare, and, so far as my own experience reaches, most such patients give a pretty distinct history of primary indigestion, with or without excess at the table. We must also admit that there is a sort of compensatory indulgence in edibles by those who are ascetics in regard to liquors. The butler who wished to know whether his master's guests were high or low clergymen, on the ground that the former required more wine and the latter more food, expressed crudely a fact, although the line may not be properly drawn according to religious differences.

REPORT OF A CASE OF POISONING BY ROACHES, WITH SYMPTOMATOLOGY.

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I wish to report a very peculiar condition, one of poisoning by roaches, that I observed recently. The following is a brief history of the case:

The patient, a nursling of 6 months, had an attack of grip for which Dr. J. C. Lynch was treating her. Dr. Lynch was going to leave the city temporarily, and asked me, if necessary, to see the case during his absence. At the time there were no symptoms other than those of grip and bronchitis.

Thirty-six hours later I was summoned to see the patient and found, in addition to the bronchitis and grip, the following symptoms, which appeared to me like some toxic condition, apparently of intestinal origin.

The abdomen was markedly distended and intensely tympanitic. The child seemed to be in great pain, and would draw its legs up and cry vigorously; after 2 or 3 minutes the pain would cease, and the child would stop crying, and immediately take to the breast as though it was very thirsty. There was about 10 minutes' interval between the paroxysms.

The pupils were contracted; the pulse was very rapid and weak; temperature was 103.4° F. in the axilla; there was vomiting, constipation, and extreme pallor. I arrived at the conclusion that the trouble was of intestinal origin, and due to some foreign body of a toxic nature. I inquired very closely if the child had been given anything to eat other than the mother's milk, also if the mother had taken anything that might produce poisonous symptoms, but received a negative answer. I was somewhat perplexed, but retained my idea that the trouble was of a toxic nature.

My idea of treatment was to empty the entire intestinal tract. Not knowing in what portion of the bowel the trouble was located, I thought it best to administer a brisk purgative by mouth. Accordingly I prescribed $\frac{1}{12}$-grain doses of calomel with $\frac{2}{3}$ grains of soda bicarbonate every 15 minutes for 6 doses, to be followed, if necessary, by one ounce of castor-oil; then, if no action of the bowels occurred, I was to be notified.

In about 2 hours the father called me up by telephone and informed me that the patient had passed 6 "cockroaches," and that the stools were of an extremely disagreeable odor.

I saw the child shortly after and found her resting much easier; the abdomen was very soft, the temperature was 100° in the axilla, and the pulse a trifle rapid but full and strong. The pupils were now dilated.

Shortly afterward the patient went to sleep and rested for 5 hours, the first real sleep in 2 days.

The intestinal symptoms at once began to clear, and so far as they are concerned the little one is well. There remains quite a bronchitis.

Just how the roaches found their way into the child's stomach I do not know. There seems to me only two ways possible, the child being a nursling; one that they crawled into her mouth while she was asleep, the other that she picked them up as she lay in the crib. The latter seems doubtful, for the child was barely old enough to pick up a roach, and again roaches are very active little creatures.

My solution of the problem is that the roaches were attracted to the child's mouth by the cough-mixture she was taking, as the mixture was of a sirupy nature. The floors of the sleeping-rooms were bare and were overrun with roaches. I have frequently noticed that roaches are more attracted by an uncarpeted floor.

After looking carefully over the literature at my command I have failed to find any reference to a similar condition. When Dr. Lynch returned he again took charge of the patient, and he informs me that she is doing nicely.

TWO CASES OF TRIPLE INFECTION.[1]

By AUGUSTUS A. ESHNER, M.D.,
of Philadelphia.
Professor of Clinical Medicine in the Philadelphia Polyclinic and College for Graduates in Medicine; Physician to the Philadelphia Hospital, etc.

WHILE it is not impossible that in consequence of the existence of a given infectious process certain substances are either introduced or generated within the infected organism that are antagonistic to the invasion or the activity of other pathogenic bacteria, there is not wanting evidence that two or even more infections may be present in association. Whether or not the comparative infrequency of this association is related to the possibility mentioned is a problem for future determination. In the absence of adequate evidence I hesitate to enter upon any speculations on the subject. If on the doctrine of probabilities alone two infections are unlikely to be associated, the likelihood of an association of three is obviously much less. It seems to me, therefore, not without interest to record two cases in which three infectious processes occurred conjointly. The first is as follows :

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[1] Read before the Section on General Medicine of the College of Physicians of Philadelphia, January 9, 1899.

A man, 23 years old, was admitted on August 13, 1898, to the ward for alcoholics of the Philadelphia Hospital. The breath was redolent of alcohol and tremulousness was marked. The man complained of weakness, which he attributed to exhaustion from excessive work, having, a day or two previously, according to his account, handled 9,000 pounds of ice. A month previously also he had been overcome by exhaustion from overwork. In youth the patient had had diphtheria and scarlet fever, and at the age of 22 a chancre, followed by symptoms of secondary and tertiary syphilis, including destruction of the uvula. The cutaneous covering of the extremities presented a number of roundish, soft, white scars and the penis showed destruction of tissue about the urethral meatus. The temperature ranged between 101° and 104°, the pulse between 80 and 128, the respirations between 24 and 36.

On August 26 it was reported by the Bacteriologic Department of the Board of Health that a specimen of blood that had been submitted caused agglutination and arrested the motility of typhoid bacilli in culture, and the patient was transferred to the medical wards.

On physical examination the chest was found fairly symmetric and full, and the expansion free. The pulmonary percussion-resonance was impaired on the left, and coarse rales were audible at the base of the right chest and all over the left, together with roughened breathing. The areas of hepatic and splenic percussion-dulness were increased. Examination of the sputum disclosed the presence of tubercle-bacilli on one of four occasions. The blood, on September 6, yielded again a positive response to the agglutination-test. There was present the characteristic offensive nasal discharge of ozena, which yielded in some degree to sprays and irrigations of hydrogen dioxid and potassium permanganate. The temperature continued to pursue an irregularly elevated course until September 4, when it declined to normal, and there remained until the 14th. It now rose again and persisted at a febrile elevation until the patient left the hospital, contrary to my advice.

The patient had, I am informed, been admitted previously to the hospital on several occasions, and he had been in the ward for alcoholics and in that for tuberculous subjects ; but I was unable to find the records bearing on his case, and therefore cannot say whether or not tubercle-bacilli had been found in his sputum at any other time than that noted in my report. It seemed possible to me that we might have to do with syphilis of the lung, but the finding of the bacilli (even though but once among 4 observations) leaves no alternative but to consider the pulmonary lesion tuberculous. It is, of course, not impossible that the lungs were the seat of both tuberculosis and syphilis; or it may be that upon the earlier syphilis was engrafted a subsequent tuberculosis.

Of the activity of the syphilis, I think the ozena was sufficient evidence. As to the existence of the typhoid fever there can be no doubt. We have thus a case in which there were present simultaneously syphilis, tuberculosis, and typhoid fever.

In the second case the triple infection was not rigidly contemporaneous, but sufficiently so I think to prove interesting in this connection. As the case will be reported elsewhere in extenso, I shall give here merely a brief outline of it.

The patient was an unmarried colored woman, 28 years old, who was admitted to the Philadelphia Hospital on August 13, 1898, with symptoms of typhoid fever, including a positive reaction of the blood with the agglutination-test. By the 21st the temperature had become normal, but about September 11 symptoms of pneumonia made their appearance, pneumococci being found in the sputum. The temperature declined gradually and was normal again by the 24th, although the pulmonary consolidation did not clear up. Death took place on the 27th.

Postmortem examination disclosed the existence of pulmonary tuberculosis in addition to the lesions of an unresolved croupous pneumonia and healed intestinal ulcers of typhoid fever.

The sequence of events in this case seems to have been a chronic and latent tuberculosis, with the intercurrent development of typhoid fever and the occurrence of pneumonia as a complication.

Indications for Operation for Gallstones.—According to Ewald (*Klinisch-therapeutische Wochenschrift*, December 25, 1898) when spontaneous healing is not to be expected and much suffering renders life unendurable, or when there is danger of some fatal complication arising, an attack of gallstones should not be regarded as cured until the gallstone has been found in the stool. If an unusually large stone is found, the inference is that it has gained access to the intestine by perforation of the gall-bladder and intestinal walls, though the author has found a stone the size of a hen's egg lodged in the ductus choledochus. The question as to how long delay in hope of a spontaneous cure is warranted depends a great deal on the patient, his strength, necessity to work and other factors. Acute or malignant complications demand immediate operative interference. Icterus lasting over two or three months in itself is a sufficient indication for operation. Fever, according to its severity and persistence, is indicative for abdominal section. [G.B.W.]

A Case of Actinomycosis.—Guido E. Caglieri (*Pacific Record of Medicine and Surgery*, December 15, 1898), reports a case of actinomycosis of the lung, pleura and chest-wall which at the outset closely simulated a typical case of pneumonia of the middle and lower lobes. After the tenth day there was a gradual remission of temperature from 105° to 101°, where it remained, with slight morning and evening remissions. No history of infection could be obtained. A sacculated pleural effusion on the right apparently having been discovered by physical exploration, a small quantity of thick, creamy pus was aspirated, and arrangements were made for operation on the following day. No pus was obtained on aspiration, and operation for empyema was deferred while tests were made for tubercle-bacilli. Further use of the exploring needle showed pus at some points and not at others, forcing the conclusion that pus was contained in numerous small saccules in the pleural membrane. The development of a band of extreme tenderness along the seventh rib, with the formation of an ovoid area of inflammatory congestion extending to the fifth rib, edematous and painful, caused recourse to incision and drainage. Three foci, consisting of masses of granulations, were found, each having sinuses surrounded by a collar of granulation-tissue, pale and edematous, with small sulphur-yellow granules here and there. Microscopic examination showed the presence of actinomyces. Treatment with potassium iodid and Fowler's solution proved ineffectual. The patient became dissatisfied and went to a hospital, where a diagnosis of lupus vulgaris was made and she was twice operated on. At the expiration of two months she was seen again, and at this period the sinuses were distributed all over the right thorax, before and behind, to the number of at least 12. She soon succumbed to general exhaustion. No postmortem examination was made. Caglieri concludes the case to have been one of acute bronchopneumonia due to the actinomyces hominis, with secondary pleural involvement and the formation of thoracic fistulæ. He claims the possibility of the existence of many such cases not diagnosed because of the microscope not being in more general use. [G.C.C.H.]

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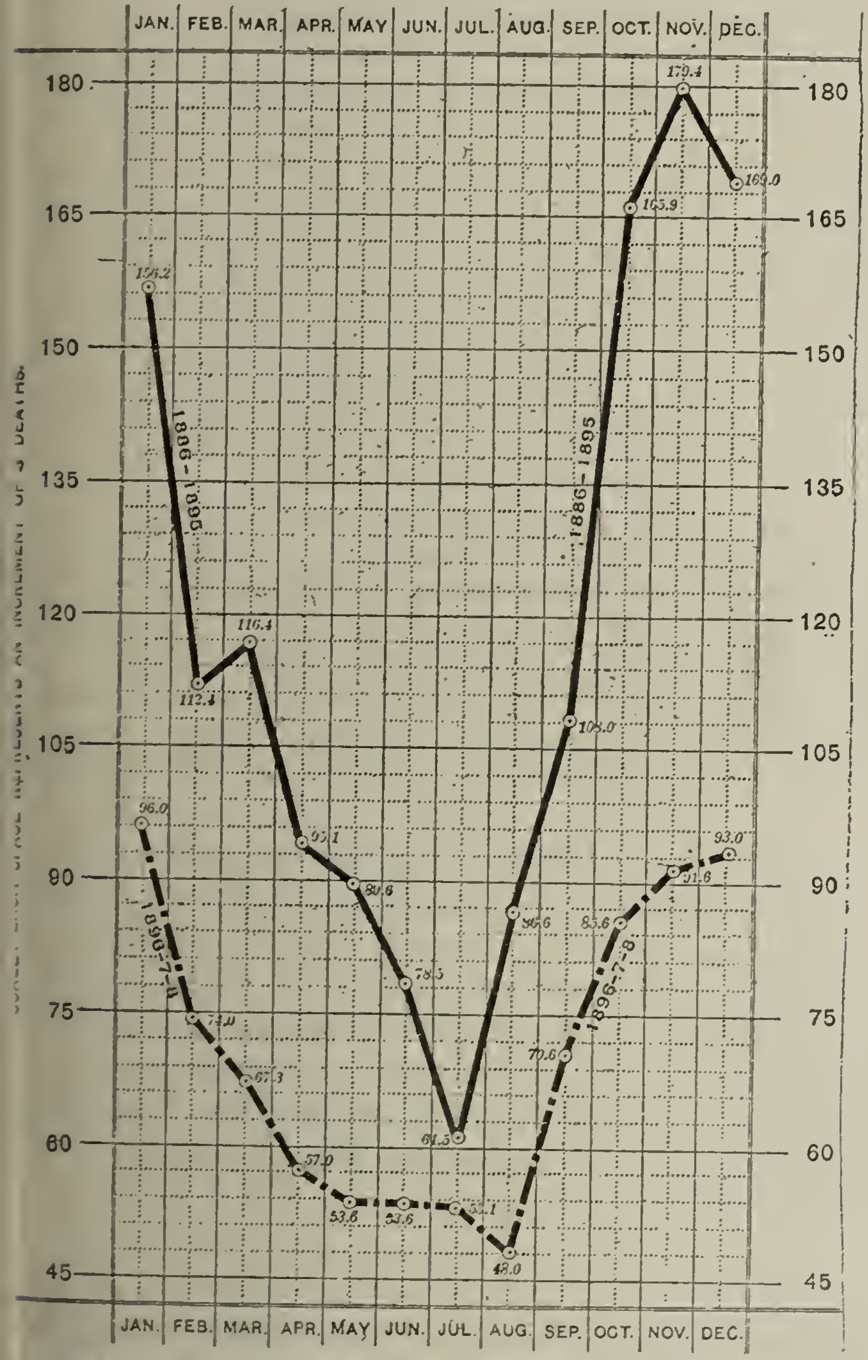
The results in Chicago of the treatment of diphtheria with antitoxin, as shown by advance-sheets of the forthcoming bulletin kindly sent us by the Board of Health, will gladden the heart of every physician. They are epitomized in the accompanying diagram we have hastened to reproduce.



AGRAM OF ACTUAL NUMBER OF DEATHS FROM DIPHTHERIA AND ALL CROUP IN CHICAGO BY MONTHLY AVERAGES: 1886–1898, INCLUSIVE.

This diagram does not deal with proportions of population nor with mortality-ies; but solely with the number of deaths from diphtheria and all croup that ere actually reported during the respective periods.

The upper continuous line relates to the ten-years pre-antitoxin period, 86–1895.

The lower dot-and-dash line relates to the three-years period of antitoxin-treatent, 1896–1898.

The figures near the circles are those of the average actual number of deaths om diphtheria and all croup for the respective months.

Multiplying the figures of any given month in the upper line by 10 will give e total number of such deaths for the ten such months of the pre-antitoxin riod, 1886–1895.

Similarly, multiplying the figures of any given month in the lower line by 3 ll give the total number of such deaths for the three such months of the anti-xin period, 1896–1898.

Thus, the average of all January deaths in the ten-years period was 156.2, and the total was 1,562; the average of all January deaths in the three-years period was 96, and the total was 288.

These figures are compiled from the Chronological Summary of Chicago Mortality: 1851–1896, published in the latest Biennial Report of the Department, that for 1895–96, and from the Monthly Bulletins of 1897 and 1898.

Only the indisputable elements have been used in the projection of the diagram, which shows that during the 10-years pre-antitoxin period, 1886–1895, there were 14,175 deaths from diphtheria and all croup—a yearly average of 1,417, while during the subsequent 3 years of antitoxin-treatment there were only 2,552 deaths from diphtheria and all croup—a yearly average of 851.

Thus, without regard to any change in population, there have been absolutely 566 fewer deaths from diphtheria and all croup each year of the last 3 years, than the average number of deaths from the same diseases during the preceding 10 years—an actual, not comparative or proportional, saving of 1,698 lives from this class of diseases during the antitoxin-period.

If only the 3 years before and after the introduction of antitoxin be compared, the decline is still more striking. In 1893–95 there were 4,505 deaths from diphtheria and all croup; in 1896–98 there were only 2,552 such deaths—a decline of 43%, or an actual saving of 1,953 lives in the last 3 years as compared with the preceding 3 years.

The record of the last 4 months is even more gratifying.

During November and December, 1898, and January and February, 1899, there were treated 100 cases in November, with 97 recoveries, 3 deaths—a mortality-rate of 3.0%; in December, 119 cases with 115 recoveries, 4 deaths—a mortality-rate of 3.36%; in January, 101 cases, with 94 recoveries, 7 deaths—a mortality-rate of 7.4%; and in February, 103 cases were treated, with 92 recoveries, 6 deaths and 5 remaining under treatment at the end of the month—a mortality-rate of 6.1% of the completed cases in February.

The totals for the 4 months are 423 cases treated, 398 recoveries, 20 deaths, and 5 remaining under treatment February 28. Average mortality-rate, 4.78% in the 418 completed cases.

There was no death among 129 cases treated on the first or second days of the disease, and only 3 deaths among 114 treated on the third day—a mortality of 1.23% in 243 cases.

Nine per cent. of the cases, or 38 in number, required intubation, with 30 recoveries and 8 deaths—a mortality of 21% for laryngeal stenosis, or less than two-thirds the mortality-rate of all diphtheria in Chicago prior to the introduction of antitoxin.

Professor Virchow once said in a similar connection: "All theoretical consideration (*re* antitoxin in the treatment of diphtheria) must give way to the brute force of these figures." It is not believed that any amount of rhetoric could add force to the facts and figures above presented.

The tremendous importance of making the injections in the early stages of the disease is clearly shown in the annexed table:

Table of 4,071 bacterially-verified cases of Diphtheria treated with Antitoxin by the Chicago Health Department between October 5, 1895, and February 28, 1899: Showing the Numbers first treated on different Days of the Disease and Proportion (percent) of these to Totals treated; Numbers of Deaths and Mortality (percent) of each Day-Group; Total Deaths and Mortality (percent) of the Totals of each Period and of the entire Period of 41 Months.

Periods.	Totals Treated.	By Days (or Stages) of Disease when Cases were first Injected with Antitoxin.																				Total Deaths.	Mortality—percent.
		Numbers Treated on—					Percent of Totals treated on—					Deaths Among those Treated on—					Mortality percent of those treated on—						
		1st day.	2d day.	3d day.	4th day.	Later.	1st day.	2d day.	3d day.	4th day.	Later.	1st day.	2d day.	3d day.	4th day.	Later.	1st day.	2d day.	3d day.	4th day.	Later.		
Oct. 5, 1895, to Dec. 31, 1896...	2,297	168	529	1,044	382	174	7.3	23.0	45.4	16.7	7.6	......	8	29	57	57	......	1.51	2.77	14.9	32.7	151	6.57
Jan. 1 to Dec. 31, 1897............	866	126	246	221	147	126	14.6	28.4	25.5	16.9	14.6	1	6	17	8	28	0.78	2 43	7.69	5.44	22.2	60	6.93
Jan. 1 to Dec. 31, 1898............	709	54	206	182	141	126	7.6	29.0	25.7	19.9	17.8	......	3	8	12	29	......	1.45	4.39	8.51	23.0	52	7.33
Jan. 1 to Feb. 28, 1899............	199	7	37	62	50	43	3.5	18.6	31.2	25.1	21.6	......	......	3	5	5	......	......	4.84	10.0	11.63	13	6.53
Totals and percentages........	4,071	355	1,018	1,509	720	469	8.72	25.00	37.07	17.69	11.52	1	17	57	82	119	0.27	1.67	3.77	11.39	25.37	276	6.77

Note.—The increased mortality of 1897 over 1896, and again of 1898 over both the preceding years, bears a direct relation to the proportion of cases first treated on the fourth day or later. In the first period, with a mortality of 6.57%, the proportion of cases first treated on the fourth day or later was only 24.3% of all cases. In 1897, with a mortality of 6.93%, the proportion was 31.5%; and in 1898, with an all-cases mortality of 7.33%, the proportion of cases first treated on the fourth day or later was 37.7% of all cases treated. The cases treated in January and February, 1899, are not numerous enough for similar comparison.

The reason for the increasing proportion of cases treated on the later days of the disease is the same as that which is causing the yearly reduction in the total cases treated by the Department, to wit: That physicians are more generally treating their own private charity cases of diphtheria. The majority of cases now referred to the Department comes from those who have not yet adopted the antitoxin-treatment nor the bacterial diagnosis; as a natural result these cases are first seen by the inspectors in the later stages of the disease.

How the President of the Royal College of Physicians of London is Elected.—In dignified bodies that would be free from all suspicion of even the shadow of politics the procedure of the Royal College of Physicians of London for the election of its president would seem to be a good one to follow. The rule laid down by the by-laws is as follows: "At the meeting assembled for the election of the President . . . every Fellow present shall, without any formal proposal or nomination, write down and place in the urn the name of one of the Fellows qualified to be elected whom he votes for as President . . . If the name of one of the Fellows shall have thus been placed in the urn by two-thirds of the Fellows present, he shall thereby be elected; otherwise the two names having the highest numbers shall be balloted for." Such an election would be truly a popular and representative one and would do much to break the slates and abort the plans of the wire-pullers and the politicians, from which even scientific and social organizations are not always free.

An argument against war comes from Russia, the land whence the proposal of disarmament also came, and the plea for peace may have been due in part to the awful fact of famine. We read that in Russia all the provinces of the Middle Volga district, thousands of square miles in extent and in the center of the empire, are on the verge of starvation. In four of the provinces scurvy and typhus fever are rampant. Children, deprived of milk, are dying by wholesale, and every portable object that the peasants own has been sold. The seed-corn supplied by the Government has been eaten for food. In the provinces of Samara the people are living upon boiled flour and water, or upon bread consisting of a little wheat mixed with chopped straw, and upon bran, acorns and weeds. For tea they are boiling raspberry leaves. In the famine of 1892 $60,000,000 were devoted by Russia for relief, but in 1896 the whole expenditure on agriculture upon which 85% of the Russian people depend, was only $22,500,000. In the same year the army and navy cost $260,000,000.

The Risks of Infection in Railway-Cars.—An illustration of the dangers to which those are exposed who are compelled to use public conveyances, as well as of the necessity of adopting suitable precautionary and corrective measures, is furnished by a recent investigation conducted by Dr. Petri, of the Imperial Sanitary Bureau of Berlin, who found that of 91 animals inoculated with material, principally expectoration, obtained from the interior of railway-carriages, nearly one-third died as a result, while of the remainder several on being killed were found to have become tuberculous.

In those that had died in consequence of the inoculation, staphylococci and streptococci were the organisms principally found. Tubercle-bacilli had previously been found by another observer in the dust from railway-carriages. Indiscriminate expectoration should be rigorously forbidden, particularly in public places and in public conveyances, and infraction of this rule should be adequately punished, at least by fine. While we may not hope entirely to eradicate transmissible diseases, the observance of a few sensible regulations will go far to diminish their prevalence and restrain their spread. To this end let us make and keep ourselves and our surroundings, together with the air we breathe and the water we drink, as clean, as aseptic as possible.

To cure or to prevent, is becoming the crucial question decisive as to quackery and true professionalism. A majority of the newspapers of the United States are controlled by the quacks, and their editorial and advertising columns ceaselessly reiterate that the professional animus is one of monopoly and trade-protection. Every pathologic circular issued in the interest of the hundred rampant medical humbugs and delusions repeats the charge with blatant and ill-spelled ignorance. Every one of these circulars and advertisements as loudly proclaims the ability of the advertiser to cure each and all of the cases of individual disease mentioned. In view of this combination of sincere ignorance and greedy cunning what answer can the profession make to the intelligent or semi-intelligent public? Plainly but one: The medical profession cannot be accused of selfish interest and trade-motives so long as its chief aim is not alone to cure, but to prevent disease. Even the poorest of logicians can see that a large body of men devotedly and successfully laboring to prevent the very diseases whose cure gives them their sole income cannot be accused of commercial motives. This then must be our final answer to the quack and the medical demagog. Just in so far as we are successful in proving this, just in so far do the arguments of the malevolents and fanatics fall harmless at our feet,—nay, even return to wound the dupes and the deceivers who fling the boomerangs. The chart we reproduce to-day of the work of the Chicago Board of Health in the reduction of the death-rate of diphtheria, the other charts recently given in our pages as to the influence of vaccination,—such things are facts that mark us off as men utterly differing in motives from the hordes of medical humbuggery whose single appeal is their self-assertion of ability to cure individual diseases. The salvation of medicine is that it seeks with heroic unselfishness to become preventive medicine. To practise and teach this lesson is our everlasting duty. Those who do not aid in practising it range themselves against the true profession of medicine and against the progress of humanity. If we aim only to cure we have no telling answer to make to the quacks.

Antivaccination Legislation in Pennsylvania.—So far as the possibility of legislation is concerned the antivaccination movement is at an end for two years; but no doubt the agitators will continue their efforts in other fields, and the physician should not neglect to arm himself with real information on the value of vaccination. The whole reliance of the antis seems upon England and English testimony or imaginings. The medical witnesses at Harrisburg did well to insist last week that we should not be expected to follow the lead of England in these matters. We have had experience and sufficiently severe lessons of our own in this country; the conditions are very different—chief among them the almost exclusive use of animal vaccine with us. The whole burden of the opponents' argument is the reiteration of the "Royal Commission," English this and English that, and their quotations are almost altogether from books written in England. Mr. Alfred Wallace is one of their great authorities in "The Wonderful Century," where side by side with the assertion that "vaccination is a failure and its penal enforcement a crime" he pronounces that two of the greatest achievements of this "wonderful century" are—mesmerism and phrenology! This is surely a remarkable specimen of the kind of "scientific mind" which sees no good in the most successful piece of preventive medicine that the world has produced. As to authorities on our side we especially commend the serious student to the articles summarizing the findings of the Royal Commission in Volume II of Allbutt's System of Medicine and to the remarkable statistics and long-continued observation of Dr. Welch in his several articles. The members of the committees sent to Harrisburg last week by the College of Physicians, the County Medical and Pediatric Societies were amazed to find that they were the only representatives of the profession who appeared to protest against the repeal of the present Vaccination-law. The societies of the rural counties, so many of which display in other ways laudable activity, should have been represented, as well as the City Societies of Pittsburg, and the lesser towns. Philadelphia as medical center of the State is both ready and willing to speak for the profession, and a protest from her may well be considered as giving voice to the sentiment of medical men at large; but as the physicians of other cities could not have known that Philadelphia would make herself heard on the subject they should have taken measures to express themselves at Harrisburg.

The health of the live stock of a community or State is a subject of great importance from both the economic and the sanitary point of view. Disease and death among such animals mean not only loss of earning and productive power, and of capital invested, but the risks and dangers of transmission to human beings. This is the era especially of prophylaxis, to which cure has become subordinate, and as a result of which the latter has become more easy of accomplishment. These facts are exemplified by the admirable scientific and practical work done and being done by the Department of Agriculture of the State of Pennsylvania, particularly its Veterinary Division, and by the State Live-Stock Sanitary Board, as shown by the report of the State Veterinarian, Dr. Leonard Pearson, made for the year 1898 to Secretary Edge.

Besides the general control and suppression of dangerous infectious diseases, the Live-Stock Board is responsible for the enforcement of the law requiring the inspection of dairy-cows, and cattle for breeding-purposes coming into Pennsylvania from other States. In the pursuit of this work about 21,000 animals were examined, and a number were found tuberculous and were condemned. During the year the prevalence of tuberculosis has been materially reduced and the distribution of the disease considerably restricted. Glanders has been almost entirely eradicated, preventive vaccination against it and against black quarter having been practised with satisfactory results. Rabies prevailed extensively in some sections of the State and parasitic diseases of calves and sheep entailed much loss in some counties. Cornstalk disease caused death in many cattle. Hog-cholera prevailed extensively, entailing a money-loss of $400,000 for the year. Tuberculosis was given particular study, special attention being paid to the infectiousness of the milk, the saliva, the expired air and the expectoration of tuberculous cattle, and of the dust of stables occupied by such animals; the influence of stabling, under different conditions, on the distribution and progress of tuberculosis in a herd; the comparative virulence for animals of various kinds of tuberculous material derived from human beings and animals; the influence of light and of darkness on the progress of tuberculosis; and the curative action of tuberculin. The Board has manufactured tuberculin in its own laboratory, sending out sufficient to test 52,000 cattle, a quantity that at the usual market-rates would have cost $6,500. The laboratory has further been used freely by veterinarians throughout the State, who have submitted specimens for diagnosis and study. In this way it has been possible in some instances to check in their incipiency outbreaks of dangerous disease. This work of the Department of Agriculture deserves the most cordial praise and commendation and is in every way to be encouraged. Eternal vigilance and aggressive activity are the price of safety.

What Ails the New York Board of Health?—The articles and facts we have published concerning the commercial and manufacturing aspects of the work of the New York Board of Health have in no particular been proved false, and have elicited a widespread interest. Many letters commending our action have been received and with these, three, perhaps four, expressing dissent from us, but only in the most vague and general terms. The official answers received have all been frankly published because we have no concealed or unfriendly feeling whatever in the matter. It is most noteworthy, however, that these answers only deepen the mystery evidently existing. They bristle with glittering generalities, general denials, and broad charges of "unfairness," "untruthfulness," "injustice," etc. But no clear-cut reply comes to the figures produced from official records, no disproof that the injections of antitoxin have cost over $13 each, no official figures from published reports that in the whole of New York City the mortality from diphtheria has been what is sometimes claimed, and what it should be. There is a deal of mystery that needs clearing up. What it is and where it is we do not pretend to know. We make no charges whatever against the distinguished scientist at the head of the bacteriological department, and any hint that personalities, prejudices and self-interests have governed us is denied as untrue, and turns the attention, moreover, from the real question at issue. No answer whatever has been made to the sole ground of our contention, viz., that with a dozen private manufacturers of antitoxin in our country making as good an article as that of the New York Board it is vicious political ecomomy and rank injustice for the government to enter into competition with its private taxpayers. It is beside the question that the Board has had great influence for good in the past in forwarding bacteriologic research and helping on medical progress. We contend that its commercialization has prevented and still prevents a far greater good and progress; or in other words, that the law authorizing and making possible its commercial competition with private industry has hindered, not helped, its beneficent work. The Board many times failed to meet the legislative committee at Albany on the repeal of the law, and when it did appear it failed completely to convince the committee by its arguments. We have before us the resolutions of several hospitals in New York against the Collier Bill which when analyzed amount to this—that the New York Board endorses itself. Deducting the duplicated names among the signers we find the number of New York physicians protesting against the repeal of the law is 27, while over 1500 physicians throughout the State and over 500 in New York City have personally endorsed the repeal.

From the official stenographer's report of the hearing before the committee at Albany on March 14, we quote, at present without comment, the following extracts. Dr. Cosby was asked by the Chairman:—

> "Doctor, is the same substance, of the same degree of purity, sold for a less price in Chicago than in New York?
>
> Dr. Cosby:—I will explain that, Mr. Chairman. Before I was Commissioner of Health, the Board manufactured some antitoxin that was not of the same strength. We did not think it good enough to use. The Board of Health of Chicago asked for it and thought they could use it there. They did take it for a less price than we sell it for to-day, sir.
>
> The Chairman:—It was not of the same strength?

> Dr. Cosby:—No, sir. It was inferior in its potency; it was not as strong. We didn't think it was fit to use among any class of people. We didn't use it."

From the same report we quote a reply of Dr. Biggs to a query of the Chairman:—

> "Mr. Wilson, President of the Board, said in regard to this lower cost, that the Chicago Board wanted it, and they could have it for fifty cents or a dollar a bottle, as it was thrown away."

The importance of pathologic research and the intimate relations that such research bears to clinical medicine and surgery are questions that, of recent date, have been accorded a considerable amount of attention. The necessity of establishing research-laboratories in connection with medical schools having been long conceded, it augurs well for the future of American medicine that efforts are being made to remedy defects of this nature wherever they exist. It seems, however, that the equal necessity of establishing and thoroughly equipping similar laboratories in connection with hospitals, that are not, in the strict sense of the word, teaching institutions, has been lost sight of. Renewed attention is directed to this subject by the recent erection and thorough equipment, by Mr. John D. Lankenau, president of the Board of Trustees, of a new Pathologic Institute at the German Hospital of Philadelphia—a short account of which we are pleased to give in another part of the Journal. Most commendable as is the establishment of laboratories in connection with medical colleges and hospitals attached thereto, deserving of still more encomiums are they who disinterestedly found such laboratories in connection with general and special hospitals.

It is idle, of course, to state that pathologic research is of purely scientific value, that it lacks practical importance, and that its results are not adaptable to the wants of the practitioner of to-day. Equally idle is it to say that the busy practitioner himself cannot engage in valuable scientific research. To controvert such statements we have but to refer to the example of Jenner; of Koch, who discovered the tubercle-bacillus at a time when he took an active interest in practical medicine; of Laveran, who discovered the malarial hematozoon when occupied with the duties of a French army-surgeon in a foreign land. As a matter of fact pathologic research is of paramount importance from etiologic, diagnostic, prognostic, and therapeutic standpoints. It is an axiom that no one can expect to resist successfully the onslaughts of disease unless he be thoroughly conversant with the nature of disease itself. It is because of this that the study of the etiology of disease almost entirely usurped the attention of scientific investigators until within the past few years. More recently the results of these patient investigations have borne fruit in the great attention being now devoted to the therapy of diseased conditions. The more assiduously, the more thoroughly, we investigate the etiology of disease, the more likely are we to establish a rational system of therapeutics. The knowledge that we gained a few years ago of the diphtheria-bacillus and its relations to diphtheria, was quickly followed by a mode of treatment of the disease, that, the world over, reduced the mortality from over 50% to less than one-half that. We still, however, have considerable to learn concerning the life-history of the diphtheria-bacillus, and doubtless this knowledge, when it is forthcoming, will be followed by corresponding improvements in the treatment of the disease. Nor is it an indication of a too sanguine spirit to expect equally favorable results of the investigations at present being prosecuted in different parts of the world respecting tetanus, streptococcus and other pyogenic infections, pneumonia, typhoid fever, yellow fever, plague, snake-bite, etc. Pathologic research has not only considerably increased our ability to diagnose certain diseased states by affording us the means for the detection of the causative agent, but has also pointed the way for the recognition of the disease even when the pathogenic agent may not be recovered from the infected body. Tuberculosis, malaria, anthrax, diphtheria, gonorrhea, typhoid fever, etc., are readily distinguished by the detection of the specific infecting organism in the particular case, but in the absence of such specific organism, some diseases may be recognized by observation of the effects of the products of the specific infective agent. It is possible to recognize glanders by the mallein-test, tuberculosis, particularly in cattle, by the tuberculin-test, typhoid fever in the human subject by the Grüber-Widal test, etc.

It is not bacteriologic research alone that has been productive of such lasting benefit to mankind. The study of the etiology of other diseases that are probably not of an infectious nature, but dependent upon disturbances of metabolism, and of the internal secretions of the body, etc., has been equally productive of good. Witness the marvelous results that attend the exhibition of thyroid extract in cases of myxedema and cretinism—a treatment based upon animal experimentation and clinical observation. It is quite obvious that in the study of the internal secretions, both of the ductless glands as well as of those provided with an excretory duct, we are but entering a domain fraught with highly interesting and important data. When we learn more of the functions of the thymus gland, of the thyroid gland, of the hypophysis, of the adrenals, of the spleen, of the lymphatic glands, etc., we will be in a position to better appreciate the diseased conditions consequent upon their derangement, and to institute rational therapy.

The beneficial results attendant upon the study of pathologic histology are universally acknowledged and require no reiteration. The marked improvement in the results of the operative treatment of tumor-formations are to a considerable extent the consequence histologic investigations of the nature of new-growths and their mode of dispersion.

Thus the important feature of all pathologic research, be it pathologic histology, pathologic chemistry, bacteriology, or animal experimentation, is the immense practical benefit to mankind in general to be derived therefrom. And it is the hope of assisting in the achievement of such that actuates most workers in this field. That which, however, is wanting throughout the country is the means of research, the requisite facilities, which comprise the necessary buildings, the necessary apparatus, and the necessary salaries to be paid to the trained investigators. It is hoped that such laboratories will shortly be considered absolutely essential to all well-regulated hospitals, and that men will not be wanting who will emulate the example of Mr. Lankenau, of the German Hospital. What better can be said of one than that he strove to better his fellow men?

"How They do It."—Some of the abstracting from "foreign journals" which graces the pages of the new Quaker City journal is taken bodily from the *Medical Record* without credit. A case in point is a long abstract on page 605 of the March 18th issue, taken from the *Medical Record* of February 4. The truth is, the *Medical Record* has the earliest and best extracts, and since the journal does not pay for its work of this kind, the young men are losing their enthusiasm and find it easier to go to a trustworthy rather than to the more difficult original source."—[*Medical Record.*]

We are glad the printer's "stone-man" made the omission noted—the proper credit was in Dr. Stevens' manuscript and was unintentionally cut out in "making-up"—because it gives our genial and urbane contemporary his single and coveted opportunity for displaying his characteristic courtesy and truthfulness. It would, of course, be useless to recall to his attention an appropriate Scotch proverb,—"Riven breeks should sit still!"

A medico-legal decision, if we mistake not, the first of its kind, has been rendered by a judge in Cincinnati in which a man sought a divorce on the ground that his wife had one artificial eye. It seems that the poor husband did not learn the fact during all the time of his courtship and not until he had been married a year and more. Thus is the old dictum disproved, that a glass eye is a thing everybody else can see through except the patient. The judge decided against the stupid husband, and that he had not a just cause for demanding a divorce. Was he moved by the fact that a lover and husband who was so blind to blindness deserved his fate, or was it rather admiration for the cunning of the woman? The fact, however, arouses a query as to the thorough-going application of the legal principle involved. In case of more extensive and multiform proofs of "fraudulent contract" where would the law draw the line? Is there no limit where falsification of the defects of nature, the ravages of disease and of time, would constitute legal grounds, for poor amblyopic husbands? What is the *sine qua non?* We remember to have heard of an instance of one poor man who fearing the hardness of heart of the law deemed discretion the better part of value. Arising early the morning after marriage his eye was attracted by striking evidences of "fraudulent contract," in the shape of false eye, false teeth, false hair, etc., etc., and while his wife slept he silently donned his clothes and disappeared forever. Is the Cincinnati decision not in danger of encouraging desertion, and of stimulating fashionable and scientific prosthesis beyond ethical endurance?

Correspondence.

TONSILLITIS OR DIPHTHERIA?

By W. H. TEN BROECK, M.D.,

of Paris, Ill.

To the Editor of The Philadelphia Medical Journal:—

I am satisfied that the apparently high rate of mortality in New York and Philadelphia is due to the fact that they do not report cases of follicular tonsillitis as diphtheria. This is done by many physicians elsewhere, either because they cannot diagnose their cases, or they wish to show a high percentage of cures. It is not uncommon for children to have "diphtheria" and be allowed to return to school in one or two weeks. The physicians in the above named places either make a more careful diagnosis, or are more conscientious men.

A NOTE ON THE HOSPITAL-ABUSE QUESTION.

By FRANCIS W. GALLAGHER, M.D.,

of El Paso, Texas.

To the Editor of The Philadelphia Medical Journal:—

Yesterday a patient called at my office who made in substance the following statements:

He was employed by one of the largest mercantile firms in New York City, and is now here owing to exhausting work on account of the late war. His wife, in a semi-professional position in New York City, has an income of one hundred and eighty dollars a month. He and his wife have been patients of the Vanderbilt Hospital of New York City, when requiring any medical attendance. He asserts it is a first-class place to go for treatment, and is cheap. The "best" people in New York, so he expresses it, go there. All that is required of them is to pay for the medicine prescribed. This latter, he says, comes higher than in the drug-stores. He has paid as high as two and one-half dollars for quite a small bottle of medicine, but this is only an occasional expense which he did not mind. I write this to give some idea of the way the "professors" are degrading professional work for the greatest good—that is, for individual name and gain.

DR. LEFFINGWELL'S POSITION.

To the Editor of The Philadelphia Medical Journal:—

Sir: Since you do me the honor to put questions, may I answer them? I cannot see that my position is so unreasonable as you imply.

"Our objection to Dr. Leffingwell's position (you say), is briefly this: If he is a believer in the benefits to humanity gained by controlled and proper vivisection, why does he fight so valiantly in the army of the antis? . . . Because there are a few and minor abuses to-day, that is no reason for joining the forces of antiscience." Agreed. But the fact is, I have neither joined those whom you so characterize, nor am I fighting in their ranks. For nearly 20 years I have steadily refused either to join any antivivisection society, or to permit the use of my name in honorary membership. Some of us, not ignorant of what we oppose, have raised the standard of State regulation of vivisection, as opposed to the unrestrained freedom which prevails. If some antivivisectionists are willing to sink their prejudices and support a measure less stringent than they would have preferred, it is their affair. I know that many of their associates are against all compromise, and oppose the bill.

You say this bill before Congress is bad. Well, at any rate, the principle that underlies it,—legal regulation of vivisection as opposed to absolute freedom to do anything whatever,—has received the approval of Herbert Spencer. As between Mantagazza and his American imitators, on the one hand, and Spencer on the other, I have not a moment's hesitation in deciding where to take my stand.

Albert Leffingwell, M.D.

Aurora, N. Y.

A CASE OF TETANY.

By W. H. SMITH, M.D.,

of Cincinnati, O.

To the Editor of The Philadelphia Medical Journal :—

Dr. Bundy's article on "A Case of Tetany, etc.," in the Journal for March 4, calls to mind a case which I at the time diagnosed as tetany.

In the spring of 1895 a young man, 21 years of age, apparently in good health, came into the office complaining of a sense of oppression. He stated that about 10 minutes previously he ran very hard for several blocks in an attempt to catch a car. After the lapse of a few minutes he complained of cramps in the hands and feet and in fact the twitching was noticeable. The cramps gradually extended up the extremities and involved the muscles of the abdomen and chest, causing extreme dyspnea. Every breath seemed as if it would be his last. Finally the twitching involved the muscles of the face, and, last of all, the tongue, preventing speech or even sound. The patient was somewhat cyanotic and his face had a pinched look. Every joint was flexed that was possible, and so forcibly flexed as to cause a cracking sound. The dyspnea was very great, the diaphragm evidently being involved.

The spasms gradually disappeared inversely to the order of onset, those of tongue and face subsiding first—and last of all, those of the extremities. The attack lasted probably 20 minutes, leaving the patient very much exhausted. The faradic current increased his sufferings.

The apparent rarity of this affection tempts me to send this report.

1404 John Street.

PELVIC DISEASE AND NEUROSES.

By F. X. DERCUM, M.D.,

of Philadelphia.

To the Editor of The Philadelphia Medical Journal :—

In the Journal of March 18, Dr. H. G. Wetherill, of Denver, in his paper on "The Relations of Certain Neuroses to the Pelvic and Genital Diseases of Women," quotes from a paper read by me before the Philadelphia Obstetrical Society, June 2, 1898, and published in the *American Gynecological and Obstetrical Journal* for August of the same year. His quotation is inaccurate and especially in one essential particular. Among other things he quotes me as saying, "There is no relation between pelvic disease and hysteria (and neurasthenia) even when the two affections coexist in the same case." The words "and neurasthenia," in parentheses, have been inserted by Dr. Wetherill. In my paper, my conclusions in regard to the relations between neurasthenia and pelvic disease on the one hand and hysteria and pelvic disease on the other are separately formulated. For instance, in regard to neurasthenia, I conclude "That there is no *necessary* relation between neurasthenia and pelvic disease." The word *necessary* is not only present but is printed in *italics*. It is hardly worth while to point out that its omission entirely invalidates the context. Secondly, in regard to hysteria, I conclude "That there is no relation between pelvic disease and hysteria, even when the two affections coexist in the same case." Dr. Wetherill evidently ignores the fact that hysteria and neurasthenia are nervous diseases essentially different and distinct from each other, that each possesses its own well-defined syndrome, and that each reacts in an entirely different manner to local disease—that in the one there is a psychic reaction and in the other a physical reaction.

1719 Walnut Street.

BREWER'S YEAST IN FURUNCLES AND CARBUNCLES.

By ALFRED GORDON, M.D.,

of Philadelphia.

To the Editor of The Philadelphia Medical Journal :—

In April, 1898, I had under my care an Irishman, 40 years old, of an unusually robust constitution, who for the past 3 years had been subject to furuncles on his neck and on the anterior parts of the thighs. Whenever they appeared, he was treated for about 2 months by his family physician. The usual treatment was applied, but almost every 5 months they reappeared. Some of the inflammatory spots were furuncles and some carbuncles. The patient consulted a number of physicians in this city, but although they effected a temporary cure, they could not prevent a recurrence of the condition, and the patient almost every 5 months became ill again. The first time I saw him, he had a large carbuncle on his neck, and a number of furuncles on his back and thighs. This time he had been under his physician's treatment for 6 weeks.

The history of the case made me think that the usual treatment would be of no avail, because it had been tried by others. I then recollected having seen a case in Paris, in 1894, in the clinic of the dermatologist, Dr. L. Brocq. It happened that a patient came one day to him, saying that he had been taking brewer's yeast for 2 weeks, and under its influence no new furuncles appeared, and the old ones disappeared with a remarkable rapidity.

Immediately I advised my patient to procure fresh brewer's yeast and take a teaspoonful 3 times a day. No other treatment was suggested, except that extreme cleanliness was advised. This was on Thursday. On the following Saturday the patient came back to me complaining of nausea and diarrhea, and stating that there was no improvement in the disease. I insisted most emphatically upon his taking the new remedy in spite of the diarrhea. The patient returned on Tuesday gay and contented; the peripheric inflammation had lessened to a great extent and the central nodules of all the furuncles had decreased remarkably in size. The patient, encouraged, kept on the treatment until the furuncles disappeared entirely.

I wish to call attention to one point, which seems to me of great importance. After 17 days' treatment, when all trace of inflammation had disappeared, I advised the patient to discontinue the use of the yeast. The nodules which still persisted, immediately showed a tendency to become painful and increase in size. The treatment was immediately resumed and continued for 4 weeks. In December the patient noticed some red elevated points on the neck and right arm. Without consulting me he himself obtained a bottle of fresh yeast at a brewery and began to take it. On the third day the inflammation began to subside and gradually disappeared.

Another characteristic point of the influence of the yeast is its power to check suppuration. I was surprised to see that the suppuration of one carbuncle, which was abundant, ceased to increase and gradually disappeared, so soon as the yeast began to show its influence on the furuncles. It appears that the yeast has a tendency to dry up the suppurative inflammatory tissue.

I have now under my care another case of generalized furunculosis. Although the patient is not yet entirely well, the yeast produced the most remarkable effect on the development of the boils. One of them on the neck was suppurating to a large extent, the area of inflammation being quite extensive. One could see the effect of the yeast on the third day, when almost all the inflammation disappeared and the suppuration subsided totally. The patient is taking 6 teaspoonfuls a day.

The clinical history of the two cases might be of a certain interest to some of the practitioners, who sometimes struggle vainly against the curious predisposition of some persons to this peculiar condition.

I made some investigations in the literature and found that the first paper published on the subject was by Mosse,[1] who claims that he had been using yeast for several years in the treatment of furuncles. The reason why the publication did not attract attention is, I suppose, that it was very brief and the details of the reported cases were not given.

It was only in 1894, that Debouzy[2] published the result of his observations on the subject. In 1895, Gobert[3] published 4 cases of furuncles treated with yeast. In 1896, de Backer published a book on the therapeutic ferments, in which he speaks in laudatory terms of yeast in furuncles. At last, very recently, L. Brocq[4] gives the most interesting history of his own case, where, after he tried for years colchicum and other remedies against his predisposition for furuncles, he had recourse to the yeast with great success.

The mode of administration is preferably in alkaline water, beginning with one teaspoonful of the yeast 3 times daily, and if necessary gradually increasing to 6 teaspoonfuls daily. Debouzy prescribes so much as 3 tablespoonfuls. It is always necessary to obtain the yeast as fresh as possible and change it every other day. De Backer says that brewer's yeast can be replaced by baker's yeast, but Brocq thinks that the first gives better results and is more easily digested. Personally, I used only brewer's yeast.

From the experience of the different authors mentioned above we can, I think, draw the following conclusions:

1. Brewer's yeast (cerevisiæ fermentum) prevents the further development and suppuration of the most rebellious furuncles and carbuncles.
2. It prevents repeated development of furuncles in persons predisposed.

N. E. cor. 11th and Pine Streets.

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[1] Mosse: *Lancet*, 1852, p. 113.

[2] Debouzy: *Journal de Méd. et de Chir.*, 1894, p. 476.

[3] Gobert: *Journal des Sciences médic. de Lille*, July, 1895.

[4] L. Brocq: *Presse médicale*, January, 1899.

TWO CASES OF HOMATROPIN INTOXICATION OR SUBSTITUTION, WHICH?

By A. D. McCONACHIE, M.D.,
of Baltimore, Md.

To the Editor of The Philadelphia Medical Journal:—

In your issue of February 23 you report the proceedings of the Buffalo Academy of Medicine and a resume of a paper "The present status of pharmacy and its possible improvement," by Dr. Long. In it, most cogent and important reasons are given for higher professional attainment and standards to do away with that most dangerous spirit, commercialism, and its attendant evils—counter-prescribing and substitution. In it the writer "believes the medical profession should encourage the professional and discourage the purely commercial in pharmacy, and by their aid every city should have a few first-class prescription pharmacies with the objectionable commercial features eliminated. That medicine and pharmacy should not be too widely separated, as medicine needs the help of pharmacy, so the latter should be able to look to medicine for her ideals and standards."

Let us join hands and enforce these ideal conditions. It is within our power and can be accomplished by boycotting every pharmacist whom we know to be guilty of such practices, and patronizing only those pharmacists who work in the interest of all concerned—the doctor, his patient, the public, and the pharmacist. A few of such ideal pharmacists can be found in all cities and towns. By adopting such measures such dangerous practices as are portrayed in the following cases will be avoided:

February 21 last a young woman, 30 years old, came to my office at noon to be refracted, having, for an hour previously, instilled two drops of a homatropin hydrobromate solution (gr. ss to ʒss) ordered a few days before, in each eye every 10 minutes for 6 times before coming. Upon her arrival her pupils were widely dilated and marked symptoms of intoxication present, as dryness of throat (so much so that she called for water every half minute or so during my attempt at examination), redness of skin, incoordination of movement, inability to walk to her carriage on dismissal. I assisted her to her carriage, after a very unsatisfactory examination due to incoherence produced by the drug, and she went home and became delirious and remained so for nine hours, calling in, until my arrival, her family physician some six hours after she left my office. I found her pulse 150, marked redness of face, speech incoherent and quite delirious and prostrated. Her family physician had in the meantime sent to the druggist for a copy of my prescription, which was given him and read thus:

Miss ———,
℞.—Homatropin hydrobrom.................. gr.ss.
Aquæ dest.. ʒss.
M. Sig.—Two drops in each eye every 10 minutes for 6 times before coming. McConachie.

The alarm of the relatives was quieted by assurance that all would be well in a short time, and that the young lady was poisoned, but not seriously, by the use of the drug, and that it was due to idiosyncrasy (an extreme susceptibility of the girl to its effects), or that some other drug had been substituted for the one ordered, and that if her dilated pupils and inability to read did not pass away after 48 hours, I could surely say that she had been given the wrong drug by her pharmacist, since such alarming symptoms were extremely unusual from the use of homatropin. I left the house, asking her relatives to bring her to my office 48 hours after, and if her pupils were still dilated I would then think it was substitution and not idiosyncrasy. She did so, and her pupils were still dilated and accommodation suspended. I dismissed her and asked her to again return 48 hours later. She came again with her eyes in the same condition as on her previous visit. Now I assured her it was not homatropin, and went to her druggist (one of our so-called "reliables") and he showed me a 1 gr. bottle of Merck's homatropin hydrobromate, with half of it gone, his statement being "this is the balance after filling your prescription. I had none in when your prescription came in and I sent to So-and-so" (mentioning a reliable firm). But on inquiry the said firm assured me that he had not purchased anything of the kind from them. Did he forearm himself after the alarm was given? Now what redress have we, myself and the patient? None but to boycott him eternally, which I shall certainly do.

Again, February 23 last, a young lady, 23 years old, was given a prescription similar in every particular to the one in the last case. February 24 she came to me in quite a similar, but not so markedly intoxicated condition as in the previous case. She had all the phenomena noted from mydriatic intoxication, including the above conditions, for 24 hours. She returned 48 hours after for final examination and prescription for glasses after the effect of the mydriatic had disappeared, as is usually the case, 48 hours after the use of homatropin. She was still under its influence (ocularly), and on the sixth day after still manifested paralysis of accommodation with mydriasis.

Now, Mr. Editor, can we not do something to protect ourselves and our patients from such gross malevolent misconduct on the part of our so-called "good pharmacists." I think so. Let us be exclusive and patronize only the worthiest, those so ably depicted by Dr. Long in his able essay.

I trust you will give this a place in your columns, so that others may be warned of ever-present dangers.

16 W. Franklin Street.

Traumatic Epilepsy; Recovery after Trephining.—N. Raw (*Liverpool Medico-Chirurgical Journal*, January, 1899) reports the case of a man, 25 years old, who fell 18 feet, striking the front of his head. No depression was discovered, but the man gradually passed into the status epilepticus, and one year after the injury operation was decided upon. A arge flap was reflected from the side of the head, and considerable depression of the right frontal and parietal bones was found; the entire depressed area was removed, and the adherent dura mater was freed. An uninterrupted recovery followed, and the man remains well 4 months after the operation. [M.B.T.]

Lupus Treated by X-Rays.—C. T. Holland, (*Liverpool Medico-Chirurgical Journal*, January, 1899) reports the case of a boy of 16, who had suffered from lupus for 5 years and had grown steadily worse in spite of the repeated use of caustics, scraping, and the other usual means of treatment. The diseased area was exposed to the rays from a vacuum-ube for 15 minutes 17 times within 3 months. After 11 exposures there was loss of hair from the side of the head, but the lupus was drying up, and, after 5 months, he was discharged with a perfectly healthy, white, soft scar. The oss of hair was only temporary. [M.B.T.]

Special Article.

ON THE NATURE OF PULMONARY EMPHYSEMA.[1]

The Lumleian Lectures, Delivered March 21, Before the Royal College of Physicians of London.

By SAMUEL GEE, M.D. Lond.,

Fellow of the College and Physician to St. Bartholomew's Hospital.

LECTURE II.[2]

In 1764 Dr. William Watson (who afterwards became a Fellow of our College and a knight) read before the Royal Society "an account of what appeared on opening the body of an asthmatic person." He described what he called "an emphysematous state of the lungs," a condition which he deemed to be due to an extravasation of air into the lungs from the "bronchia and vesicular substance," and what was no doubt vesicular emphysema of the lungs in the sense which we give to that phrase. Pulmonary emphysema has been known in one of its results—the barrel-shaped chest—from the time of the ancient Greeks. The lesion of the lungs themselves was first noted by Valsalva and Ruysch in the earlier part of the last century. However, Laennec was not far from the truth when in the first edition of his great work published in 1819, he said that "emphysema of the lungs, such as he had described it, seemed to him to be a disease hitherto unknown."

It is universally agreed that the note of pulmonary emphysema is to be found in enlarged capacity of the acini and lobules of the lungs beyond what can be produced in health by the deepest inspiration. This change in the structure of the lung, the anatomic characteristic of emphysema, is pretty thoroughly known; but when we come to inquire into the process which leads to emphysema the case is very different. For we cannot know the process in the same way as we know the result; we cannot watch the lungs becoming emphysematous; we can only argue about the process. Deprived of the intuition of sense, the light of Nature, we must follow the light of reason, and beware lest it prove to be *ignis fatuus.* And unfortunately we can get no help from experimental pathology; we cannot set up progressive emphysema in the lower animals and mark its stages in the same manner as we can set up inflammation. Hence the many theories of emphysema and long discussions which, however, do not dishearten me from attempting the difficult topic once more; my only fear is lest I should weary you.

Acute Emphysema.

The emphysematous process, like all Nature's processes, may be assumed to be complex, and we shall do well to begin by endeavoring to resolve it into its simplest elements. Nature itself helps us much by offering to our consideration a form of emphysema which certainly is simpler than ordinary emphysema and which seems to consist in a mere overdistention of the lung, the acute emphysema first adequately described by Fauvel in his essay upon capillary bronchitis. You know the condition—both lungs distended with air, as if insufflated by the fullest possible inspiration, but some parts of the lung distended more than this, emphysematous, in short, and especially so in the upper lobes and their anterior portions. You know that this acute emphysema is especially met with in young children who have died from suffocating capillary bronchitis or from diphtheric croup. Many of these children will have enjoyed the most perfect health until they are attacked by the bronchitis or croup, so that there is no question in them of any preceding disease of the lungs. The suffocating bronchitis will often prove fatal within a week from its beginning; croup will kill in a still shorter time, and there is a disease, very much less common, namely, hemorrhage into the air-passages, which may suffocate in a few minutes, acute emphysema being found postmortem in all cases.

Let us turn our attention to croup in the first place, inasmuch as it is often entirely free from one condition which might complicate the question, namely, collapse of the lung. For although fatal croup is usually associated with abundant puriform secretion into the small air-tubes of the lungs, yet in spite of this form of bronchitis there is sometimes no collapse at all even when the lungs have become highly emphysematous, so that collapse when present can be no more than somewhat contributory to the emphysema. In other words, the emphysema is but slightly, if it all, compensatory to any collapse. John Cheyne, in his book on the pathology of the laryngeal and bronchial mucous membrane published in 1809, frequently alludes to the emphysema and puriform catarrh of croup. For example, he says: "The lungs were so filled that they did not recede in the least when the thorax was opened; every surface which was cut poured out this puriform fluid from several points."

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[1] From advance-sheets by the courtesy of the editor of the *British Medical Journal.*

[2] Lecture III was delivered March 23, 1899, and will be published in a following issue of this Journal.

Setting collapse aside, the conceivable causes of acute emphysema are two, namely, dyspnea and cough; that is to say, the movements of dyspnea and of cough, not overlooking the fact that they usually concur. Here also the question is simpler in the case of croup. In capillary bronchitis both dyspnea and cough are great, and therefore the question of the associated emphysema is complicated. But in croup the dyspnea is extreme, while the cough is insignificant, or even absent, so that it may be left out of consideration, and all this in cases affording a high degree of insufflation and emphysema of the lungs.

We are thus led to infer that dyspnea is the cause of acute emphysema. Now, the movements of dyspnea are forced movements, inspiratory or expiratory, or both. But before proceeding further with this part of our subject let us cast a short glance upon the movements of breathing in general.

From the earliest times the diaphragm has been regarded as the essential agent of respiration. We may say of respiration, and not of inspiration only, because expiration is little more than a result of inspiration. Galen was the first to show that most of the intercostal muscles were ordinary muscles of inspiration. Guided by the researches of Duchenne we may disregard the exceptions which Galen made, and we may say that all the intercostals act simultaneously, and are employed in ordinary quiet inspiration. They not only raise the ribs, but keep the intercostal spaces tight during the descent of the diaphragm. When the intercostal muscles are paralyzed but the diaphragm is not, the upper two-thirds of the chest are motionless.

The chest may be roughly compared to a bow, inspiration to a bow when pulled upon by an archer, and expiration is little more than the elastic recoil of the bow when the archer lets go the string. But the inspiratory muscles do not altogether let go when expiration begins, they continue to act as moderators of the expiratory movements, and hence expiration is more gradual than it would be were it a mere elastic recoil. In short, the muscular contractions of expiration are persisting contractions of inspiratory muscles unless the expiration be forced, and then extraordinary muscles of expiration come into play.

Physiologists seem to be agreed that although the outward pressure of the air at the mouth during expiration is greater than the pressure inwards during inspiration, yet the forces concerned in inspiration are decidedly much greater than those of expiration. These propositions at first sight seem to be discrepant, but they indicate a provision in the human economy for repressing the greater powers of inspiration. The elastic retraction of healthy lung is not satisfied by the deepest expiration, and the lungs are provided with a considerable reserve of elasticity, so necessary is it to maintain sufficient deflation of the lungs, or in other words to keep them sufficiently empty of air. For if there be insufficient eflation there must be insufficient inflation.

In the forced breathing of healthy persons there is the same disproportion between the powers of the antagonist movements. But physiologic experiments relate to a few forced respirations studied in a healthy subject. The forced breathing of disease introduces a new set of conditions and requires that we proceed to an analysis. The extraordinary muscles of inspiration are chiefly 3; the sterno-mastoids, the scaleni, and the upper third of the trapezii. These muscles can be seen contracting during inspiratory dyspnea. Other muscles there are which assist to some degree, but to enumerate them is not necessary. These extraordinary muscles act by raising the upper part of the chest and fixing it so as to enable the ordinary muscles of inspiration to act with extraordinary power. The fixity of the clavicles and first ribs enables the intercostals to contract with their greatest power, and to elongate the chest in a direction upwards at the same time that the diaphragm elongates it downwards. Observation of the living patient shows us that forced inspiration tells chiefly upon the front part of the thorax above Harrison's furrow.

The extraordinary muscles of expiration affect quite another part of the chest. In a patient coughing violently we see the muscles of the abdominal walls, especially the recti, contracting so as to straighten and depress the front part of the chest below Harrison's furrow. The diaphragm being relaxed is necessarily driven upwards. If the largest air-tubes be obstructed by mucus or by partial closure of the glottis—as in the case supposed of coughing—it is very instructing to see how forced expiration dilates exactly the same part of the chest as that which is dilated by forced inspiration. Hence in diseases attended by cough or dyspnea the unfortunate upper and front part of the thorax has no chance—forced inspiration and forced expiration combine to keep it distended. Nature provides that the result of ordinary inspiration shall be fully countervailed by expiration; Nature provides extraordinary muscles to reduce the distention of the lower part of the chest caused by forced contraction of the diaphragm, but Nature provides no extraordinary means by which the injurious effects of forced inspiration upon the upper part of the chest can be repaired by forced expiration. On the contrary, both movements concur to the same end, or in other words, no muscular contractions can reduce over-distention of the upper chest, and if the inherent elasticity of the lungs and rib cannot reduce it nothing can.

We must be careful to distinguish between the voluntary forced breathing of a healthy person and the involuntary, instinctive, automatic forced breathing which attends dyspnea. Voluntary excessive movements soon fatigue, but automatic breathing is not attended by a feeling of fatigue, and so the extraordinary movements of dyspnea can be continuously kept up for hours, days, or weeks—or indeed, for months or years. This remark applies to the movements of breathing only, but by no means to those of cough; cough must be intermitting.

In regard to the acute emphysema of croup, in the living patient a very few hours of dyspnea suffice to produce a marked bulging on the front of the chest above Harrison's sulcus. After the patient's death we find that the corresponding part of the lung is the seat of a high degree of emphysema. The whole lungs are insufflated or distended with air, but nowhere is the emphysema so marked as in the situation just indicated. This is the very part of the chest which is most expanded by forced inspiration, and which is expanded by forced expiration also in case of cough but expanded by a different mechanism in the two cases. In deep inspiration this part of the chest-wall is expanded in the first instance and the expansion of lung follows, whereas in forced expiration and in cough this part of the lung is expanded in the first instance and it drives the chest-wall outwards. Cough produces emphysema here, according to the doctrine elaborated by Sir William Jenner in the following manner: The glottis is closed in preparation for a cough or for any great effort. Forcible expiration follows certain parts of lung are compressed from which air escapes but not being able to pass the glottis it is driven into those parts of the lung which are not compressed, especially the upper anterior parts so often mentioned. Expiration under these conditions can doubtless produce emphysema in certain places, but, in the case of croup, inspiration is by fa the more potent agent, being incessant in its operation whereas cough is only occasional, and sometimes there is n cough at all. Moreover, forced expiration cannot explai the highly insufflated state of the whole of both lungs, fo the distention caused by expiration must be partial.

We are yet far from having reached a full understandin of the mechanics of acute emphysema. We have arrive at an extraordinary expansion of part of the lungs, but th essential cause of the expansion lies deeper than this. Yo will understand what I mean when I ask this question, Wh does the expansion remain permanent? And I think th from what has gone before the answer will readily com Because Nature has omitted to provide the thorax wit muscles by means of which this acute emphysema could be prevented or overcome. The only means which Nature has provided towards this end is the elasticity of the lungs and ribs, especially of the lungs, and this means, unfortunately, is inadequate. It is vain to object that physiologic experiments prove forced expiration to be more powerful than forced inspiration, because these experiments deal only with the lungs as a whole, and cannot tell us anything about the respiratory powers of different parts of the lungs, which is the very thing we want to know. Can it be thought for a moment that the expiratory power of the upper part of the chest is greater than the inspiratory? Certainly not.

The elasticity of the lungs, then, falls sadly short of what is required of it during an emergency of dyspnea. How is this? Either the elasticity is defective absolutely, or it is defective only in respect of the increased demand made upon it, and probably both conditions concur; that is to say, the elasticity is called upon to do more than usual at the very time when itself is weakened and able to do less. In the first place, this unusual demand upon the pulmonary elastic recoil is due to the abnormal secretions in the air-passages, and the expired air has to overcome the resistance of these secretions in addition to what is the only obstacle to expiration met with in health—namely, the atmospheric pressure. The elasticity has too small a reserve; it is equal to overcome the atmospheric pressure, but not much more. Inspiration, being the more important motor of the upper lung, can draw air past the obstructing secretions, of which air expiration can expel only a portion, and thus much air comes to be imprisoned in the parts which are, or which become emphysematous. In the second place, the elasticity of the lung is probably damaged. We have already compared normal inspiration to drawing a bow, and it does not seem a very far-fetched simile to compare the result of an enormous number of forced inspirations to a bow which has been overdrawn, bent, and crippled. The elastic recoil of the lungs is weakened. So far as I know no careful microscopic examination of the pulmonary tissues in acute emphysema has ever been made.

And now to sum up the conclusions at which we have arrived. The feeble expiratory power of certain portions of the chest is a condition which predisposes the underlying portions of lung to suffer from acute emphysema in cases of croup. Given this predisposition, the aforesaid portions of lung become overdistended in consequence of forced inspiration or of forced expiration, or of both.

I have purposely avoided interrupting the chain of reasoning by allusion to the opinions of others, for it seems to me that the argument stands in no need of any such support, while as to opinions which are more or less contrary I hope you will agree with me that the limited time allotted to these lectures can be better spent than by engaging in polemics.

The acute emphysema of suffocating bronchitis will now be easily understood. This affection is referred to by Aurelian in his chapter upon peripneumonia, where he says that as the disease gets worse the chest becomes more protuberant. The causes of the emphysema are the same as in croup, but with this addition, that in peripneumonic catarrh more or less collapse of the lung is common, and tends to aggravate the distention of the rest of the lung, according to the mechanism explained by Sir W. T. Gairdner.

Chronic Emphysema.

Acute emphysema is a condition which often ends in complete recovery. Chronic emphysema, on the contrary, is a progressive disease. Although it was first adequately described by Laennec, it had engaged the attention of physicians long before his day, not, however, as a lesion found upon the postmortem table, but as a disease of the living subject. Being looked at merely from the clinical point of view, emphysema was usually called asthma; for example, Heberden, speaking of what must have been chronic bronchitis and emphysema, says: "When a constant cough has afflicted people in youth and adult life, in their old age they become asthmatic."

Laennec tells us that there was a time when he thought emphysema to be a very rare disease, but that afterward he became convinced that it is common enough. Virchow supplies figures intended to show that emphysema is not common. In ten years only 0.3% of all patients admitted into the Charité Hospital of Berlin were admitted on account of emphysema; in only 0.6 to 0.7% of the bodies examined postmortem was emphysema the chief lesion found, and in only 5.5% was there any emphysema at all. The statistics of St. Bartholomew's Hospital yield these figures; in 4 years (1894-1897) 9,928 patients were admitted into the medical wards; 165, or 1.66%, were believed to be emphysematous; 1,363 postmortem examinations were made, and emphysema was found in 154 bodies, or in 11.3%. Our figures justify Laennec's opinion; a lesion found in 11% of persons dying in the medical wards of a hospital cannot be called uncommon.

The anatomic sign of chronic emphysema consists in actual loss or atrophy of the lung-tissues, yet many pathologists of the first rank have expressed a different opinion—namely, that there is a hypertrophy of lung-tissue, either a hypertrophy preceding the atrophy or a local hypertrophy simultaneous with local atrophy. Laennec himself thought it highly probable that emphysema is usually accompanied by a certain degree of hypertrophy, finding that the lung feels firmer and less flexible when pinched between the fingers. Yet he recognized the associated destruction of tissue, as, indeed, such a man could not help doing when he examined emphysematous lungs in the manner which he recommends—namely, by inflating and drying them. Laennec's contemporary, Louis, was less sagacious; he admits no exception to his universal affirmation that emphysema implies increase or hypertrophy of lung-tissue. When we ask how Louis detected the pulmonary hypertrophy we get no clear information; he seems to have done no more than adopt Laennec's methods and to have examined the lung by pinching it and by drying it. These doctrines are not altogether incorrect, only we must express them a little more precisely. In the first place, emphysema in its earlier stages does not affect the whole lung or does not affect it equally. And next, the great and extensive atrophy of tissue cannot be gainsaid in the case of emphysema in its later stages, the lungs being examined according to Laennec's method; they feel as he says, no longer firm and inflexible, but soft and downy, and the loss of tissue is most obvious to the eye. Induration is a better name than hypertrophy to give to the abnormal firmness and rigidity of the alveolar walls, and this induration is always very partial, and found only in the earlier stage of the disease.

The microscope has not yet disclosed any primitive tissue-changes apart from mere atrophy, if such changes there be; and I need not refer to hypotheses such as that of Rainey, who deemed the primary lesion of emphysema to consist in fatty degeneration of the alveolar walls, or that of Villemin, who described a sort of granulation of the connective tissue which supports the capillary network of the lungs, for in all probability what both these anatomists saw were degenerative changes in the epithelium—changes secondary to a preceding failure of nutrition, whatever the nature or cause of that failure may be. Other pathologists have supposed a primary affection of the capillary bloodvessels or of the unstriped muscular fibers or of the epithelium, but the truth is that the earliest changes are very imperfectly known.

We are thus led on to survey the great field of strife in the topic of chronic emphysema. There is rarefaction of lung and there is destruction of lung. Does one cause the other, and if so how? And this is not all; we desire to look deeper still, and we ask how the primary defect, whether it be rarefaction or destruction, is brought about—to what is it due? In other words, what is the essence of emphysema? We wish, if possible, to witness emphysema in the making, and in as much as morbid anatomy can show us no more than the final result, I invite you to discuss the subject with me from the clinical point of view.

First, we will inquire what means we have for discovering the existence of emphysema in the living subject, and we are met at the outset by the fact that most of these patients suffer from manifest bronchitis also. These complex cases are not suitable for our present purpose; we cannot disentangle the symptoms of the two diseases so as to be able to say this is due to emphysema and this to bronchitis, while as to the physical signs of emphysema there are none, except in advanced cases, which are always complicated with bronchitis. If we require instances of emphysema quite unattended by catarrh, such instances are not to be found. However, let us consider a case of marked progressive emphysema in which the indications of bronchitis and catarrh are the least possible. A man about middle life begins to suffer from slight shortness of breath on exertion; he is short of breath—that is to say, the patient feels that he cannot inspire so much breath as he seems to need, in a sense like that in which we say that a man is short of money. His breathlessness increases slowly and insidiously until his breath is always short, but no signs of dyspnea, no laborious or extraordinary movements of respiration, are apparent so long as he is at rest, not until he makes some effort, such as that of talking, or moving the body; in cases still worse dyspnea persists even when the patient is at rest. The dyspnea of emphysema, like most other kinds of permanent dyspnea, is liable to paroxysms in which the shortness of breath becomes very distressing. These paroxysms are induced by any effort, such as hurrying, or even no more than straining at stool, raising the foot to enter a carriage, or lifting the arm to shave. A paroxysm will sometimes occur during sleep, and will suddenly awaken the patient, or will sometimes occur just as he is falling off to sleep. The mere taking of food may be enough to provoke an attack; so will any sudden change in the temperature of the air breathed, such as occurs on leaving a hot room. The paroxysm is sometimes very sudden and severe, and the patient's description of it sounds very much like that of an attack of angina pectoris—indeed, the heart probably does participate, for I have known a pulse which was habitually about 80 fall to 60 or 70 during the paroxysm.

Now, suppose a patient suffering from progressive dyspnea of this kind and from no other symptoms, no cough, no expectoration; and suppose we find by examining his chest that his lungs are enlarged, or, in other words, that he presents the physical signs of emphysema, we might well ask whether he were not the subject of protopathic emphysema. And some physicians say that they have met with such patients, and that therefore they believe in the occurrence of emphysema, pure and simple and uncomplicated. I cannot say that this has been my experience. I have never known this progressive dyspnea and emphysema to be unattended by cough and expectoration.

The cough is a tickling cough (tussis titillatoria) brought on by a troublesome sensation referred to the larynx. A person affected in this manner and who, in the spirit of the age, diagnoses the nature of his own disease, goes to a specialist who snips off the tip of his uvula or discovers an irritable spot in the larynx, but fails to afford relief. The cough, like the dyspnea, steals insidiously upon the patient until in the course of years he becomes liable to fits of coughing which are very severe, during which he becomes purple in the face and sometimes even suffers from giddiness—giddiness which is in any degree of intensity, from an attack so slight that the man declares that he has retained his sensibility throughout to an attack which amounts to total loss of consciousness, in which latter event the patient sinks to the ground and sometimes hurts himself in his fall; but even at its worst the coma does not last more than 2 or 3 minutes. The expectoration which attends the cough is very scanty and consists of pure mucus. Or it may be that there is no expectoration at all, or, at any rate, no exspuition.

Aretæus describes a class of persons whom he designates "pneumodes," a word which Stephanus interprets to mean *pulmonis vitio laborantes* or *pulmonarii*, and which seems to have the same meaning as the French word *poitrinaires*. Now, if it were not for one particular in Aretæus's picture of the disease we could not doubt that his "pneumodes" were cases of progressive emphysema. The disease, he says, is a kind of asthma, and there is little difference in the symptoms of the two diseases; all patients labor under shortness of breath as in asthma, but they have this as peculiar, that they cough as if about to expectorate, but their effort is vain, for they bring up nothing; or if anything is forcibly raised from the lungs it is a small, white, round substance resembling a hailstone. The thorax is broader than natural, but not altered in shape; the lungs, though free from suppurations, are filled with humors; in some cases the affection terminates in dropsy about the lungs or in anasarca. But the pneumonic disease proves fatal within a year from its onset, and this is so grave an objection to our supposing that Aretæus was referring to cases of pulmonary emphysema, that I should not have alluded to his description were it not for the peculiar sputum which he depicts, and which possesses the same characters as those of the sputum expectorated in the affection which Laennec denominated "catarrhe sec."

All physicians admit a close connection of some kind between bronchitis and emphysema—a connection in many cases so obvious as to be past all doubt, but in other cases not so. Laennec went so far as to say that emphysema is almost always the result of intense and extensive *catarrhe sec*. All writers on emphysema mention this opinion of Laennec's; few, if any, adopt it or even discuss it, but no opinion of that remarkable man can be passed over lightly. What does he mean by dry catarrh? He himself admits that the phrase is a contradiction in terms; to find appropriate names for diseases was not a strong point of his—witness his perversion of the meaning of the word "apoplexy" in his phrase "pulmonary apoplexy." But medical writing is full of this fault, and Laennec is no worse than many other physicians. A better name than dry catarrh would be dry bronchitis (*bronchitis sicca*), for the word "siccus" as applied to pulmonary diseases denotes scantiness or absence of expectoration. Stoll speaks of "pleuritis sicca" and "pleuritis humida;" Hippocrates of "dry orthopnea;" and the phrases "dry cough" and "dry asthma" are colloquial.

In the lungs of persons who died in an early stage of dry catarrh, Laennec used to find the mucous membrane of the bronchia swollen and dull-red or violet in color—conditions most notable in the smaller bronchia, which might be almost completely obstructed by the swelling. The extent of the swelling was not more than a few lines, the mucous membrane in the same tube above and below being natural. This local bronchitis was extensive in proportion to the duration of the disease. When the dry catarrh was universal, or even very extensive, it always ended by determining emphysema. He often found the partially obstructed tubes to be plugged by pellets of viscid mucus of the size of hemp or millet seeds, and it is these mucous pellets which make up the pearly sputa which such patients, even when they think there is little or nothing the matter with them, expectorate in small quantity every morning.

During life the dry catarrh often continues to a slight degree for many years, Laennec goes on to say, or it may be altogether latent, the patient noticing no more than that his breath is shorter than that of other men, especially upon exertion. This dyspnea increases gradually, and the patient becomes subject to attacks bad enough to deserve the name of asthma. The tendency to dyspnea is accompanied by cough, which at the beginning of the disease is, like the dyspnea, slight. The cough is attended by expectoration of what Laennec calls pearly sputa, which closely resemble the hailstone sputa (*chalazia*) described by Aretæus and Galen. Such is a brief summary of Laennec's characterization of his *catarrhe sec*.

Now, if we admit that a man in a state of perfect health ought not to cough or expectorate, and also that expectoration implies catarrh, it follows that at no period in the progress of emphysema is that condition unassociated with catarrh. Again, inasmuch as emphysematous patients always become in the advanced stage of their disease manifestly bronchitic or catarrhal, it is reasonable to believe that in the early stage also their cough and expectoration indicate slight bronchitis or catarrh. Lastly, the symptoms of progressive emphysema (as I have already attempted to depict them) and those of Laennec's dry catarrh seem to relate to the same disease looked at from two different points of view.

We have now reached a position which enables us to resume our discussion of the nature of emphysema. Starting from the note of progressive emphysema—namely, the atrophy of lung-tissue—the problem may be resolved into a choice between these alternatives. Is there a primary degeneration of lung-tissue, rendering it apt to be permanently distended and also to be destroyed particle by particle? Or is the atrophy due to distention of the lung, and, if so, what causes the distention? In briefer language, is the atrophy primary or secondary? The easiest answer is that which assumes the atrophy to be secondary to distention. Laennec asserts that "pulmonary emphysema is almost always developed in consequence of intense and extensive dry catarrh," and we have seen that clinical observation supports this opinion. But in speaking of the priority of catarrh we must understand it only as a priority of order and conception and not as a priority of time. Another argument in favor of

Laennec's opinion is this, that inasmuch as acute emphysema is undoubtedly dependent upon bronchial affections, it is probable by analogic reasoning that chronic emphysema likewise is so. I will not repeat Laennec's explanation, which you all know, concerning the manner in which he supposes dry catarrh to lead to emphysema, and I will only remark that his hypothesis is not so easily set aside as some people think by pointing out that the air-current at the mouth of a healthy man is more powerful during expiration than during inspiration, for the conditions in pulmonary catarrh are obviously not the same.

Let us fix our attention upon the fact of the barrel-shaped chest in cases of emphysema. It is a chest more capacious than a healthy chest could be rendered by the deepest and most powerful inspiration. The distended chest is a sign of distended lungs, and this fact puts before us a disjunctive hypothesis; either the distended chest distends the lungs, or the distended lungs distend the chest. Now the latter hypothesis affords no explanation at all, because it leaves the distention of the lungs unexplained; and the cause of this pulmonary distention or emphysema is the very thing we are asking for. Wherefore let us consider the former hypothesis, namely, that the distention of the lungs is consequent upon increased capacity of the thorax. In normal inspiration which fact precedes the other, dilatation of the lungs or dilatation of the chest? And by what powers can the chest be over-distended? Obviously by the inspiratory muscles, ordinary and extraordinary, and by no others. And if the chest be over-distended, what must ensue? Over-distention of the lungs, because the potential vacuum caused by extraordinarily deep inspiration is certainly not filled up in any other way.

In health the inspiratory distention of the lungs is exactly countervailed by the expiratory contraction. Why, then, in the barrel-shaped chest is this no longer the case? Obviously because the expiratory powers have been unequal to the task of restoring the chest to its natural shape and size. That is to say, the expiratory powers are no longer equal to the inspiratory. And is not this a sufficient reply to those who, relying upon spirometric observations made upon healthy people, reject Laennec's explanation of the mechanism of emphysema?

In emphysema, then, there is failure of expiratory power; nay, more, this is the essence of emphysema. Expiration being no longer able to rid the lungs of their exhausted air, ordinary inspiration cannot supply the necessary quantity of fresh air. And there is only one means by which the expiratory failure can be met, and that is by inspiratory movements extraordinary in power and amplitude. These extraordinary inspirations being repeated for weeks, months, and years, the chest becomes permanently over-distended, and hence the lungs become permanently over-distended, and this is emphysema.

We have no clear and certain knowledge respecting the nature of the expiratory failure. We may conceive it to be absolute or relative. Absolute—that is to say, the elastic and muscular movements of expiration are weakened; relative—that is to say, the resistance which expiration has to overcome is increased. (1) The notion of an absolute debility of expiratory movement must relate to the elasticity of the lungs only, because there is no reason for supposing the elastic or muscular movements of the chest to be primarily weakened. And thus we are led back to the question of degeneration of lung-tissue, either primary or secondary to other disease—an obscure topic which we will again defer for awhile. (2) But the notion of relative debility of expiration is that which lies at the bottom of Laennec's doctrine, the resistance to expiration being increased by the presence of mucous plugs in the air-tubes and by swelling of the mucous membrane. True, reply his critics, but these obstructions are equally great for inspiration as for expiration, and thus we are again met by the question concerning the relative powers of inspiration and expiration—a question which is answered by reiteration of the fact that Nature has provided us with very feeble means of reducing by forced expiration the distention of the chest and lungs produced by forced inspiration. The extraordinary muscles of expiration are inadequate, while as to the elastic tissues of the lung we may hazard the conjecture that if overstrained they do not easily recover, and it is only inspiration that can overstrain them.

Now, just to consider for a moment the question whether the over-distended chest can possibly be due to over-distended lungs. In other words, can we assume a primary over-distention of the lungs powerful enough to distend the whole thorax and to make it barrel-shaped? If so, what distends the lungs? Forced expiration is sufficient to distend certain portions of lung which are unsupported by bone or muscle, such as are the apices. But more than this is inconceivable; it is inconceivable that expiration, however forcible, can produce a shape of chest which is identical with that produced by forcible inspiration. Again, a favorite seat of emphysema is the undermost surface of the lung where it lies upon the diaphragm; how can coughing—an act during which the diaphragm is driven powerfully upwards—over-distend this portion of lung? Surely it is the powerful inspiratory descent of the diaphragm which produces this effect; and let us remember that the forced expiration of persons coughing, of musicians, or of horses tugging up a hill is rendered possible only by a preceding forced inspiration. In short we cannot understand the occurrence of a primary over distention of the lungs sufficient to distend the thorax.

Now to discuss and finally to dismiss the question of the degenerative lung-changes. In the first place, it is probable that the elasticity of the lungs is injured if the tissues be much or often overstretched, and any such loss of elasticity must tend to increase emphysema by weakening expiration. In the second place, it is very reasonable to believe that the anemia, which is the visible and undoubted result of over-distention of any portion of the lung, will cause degeneration and atrophy of the tissues thus imperfectly supplied with blood. In the third place, it is possible that there is such a lesion as primary atrophy of lung, analogous to the atrophy and perforations which we often observe in the omentum, falx cerebri, and valves of the heart. In the fourth place, it is not unlikely that the form of pulmonary emphysema in which the total size of the lung is not increased, "atrophous emphysema," is an atrophy of the second or third kind. And, lastly, there are good grounds for believing that even ordinary progressive emphysema with enlarged lungs is from its very beginning an atrophic process, even although to the mind's eye the destruction be secondary to the distention.

To end our inquiry by recapitulating the results at which we have arrived, I submit to your judgment these propositions: That pulmonary emphysema is chiefly due to forced inspirations, although forced expiration may to some small extent play its part. That the distention of the lung so far as it is due to inspiration is secondary to distention of the chest. That the forced inspiration is rendered necessary by a feeling of dyspnea. That the dyspnea which occurs at the beginning of pulmonary emphysema, and which determines it, is consequent upon obstruction of the air-passages. That in chronic progressive emphysema this obstruction depends upon bronchitis, either humid and attended with free secretion or dry with scanty secretion. That when once emphysema is set up, the dyspnea and the necessity for forced inspiration are increased by the natural defect of expiratory power in the lungs and in certain parts of the chest, Nature having provided means insufficient for reducing excessive inspiratory distention to the normal, and for thus emptying the lungs of residual air. That the degeneration and atrophy of lung-tissue are usually dependent upon preceding over-distention, although it is possible that pulmonary atrophy may to some extent be primary.

Allow me to conclude by appropriating the words of the most ancient of the Greek philosophic poets: "These opinions have seemed to me to resemble the truth."

Pharyngeal Growths as a Cause of Suppurative Inflammation of the Middle Ear.—J. W. Murphy (*Cincinnati Lancet-Clinic*, March 4, 1899,) believes that if more attention were given to the removal of obstructions about the pharyngeal end of the Eustachian tube, discharges from the ear would usually disappear without the mastoid operation. He is not opposed to the mastoid operation when clearly indicated, but in his experience he had found that the same careful, persistent treatment of many of these cases for 3 or 4 months, as is necessary after the mastoid is opened, will lead to equally brilliant results without this extensive operation. Several cases are reported in detail. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

The Annual Conversational Meeting of the Pathological Society of Philadelphia will be held April 27. Professor R. H. Chittenden, of Yale University, will deliver an address on autointoxication.

The Board of Health of Philadelphia has been abolished by recent act of the Legislature of the State of Pennsylvania, and in its place a Bureau of Health has been instituted in connection with the Department of Public Safety. The Bureau will be under the direction of a chief, and J. Lewis Good has been appointed temporarily to the position.

Kensington Hospital for Women.—According to the report for 1898, recently issued, 331 patients were treated in the in-patient department, and 282 patients, who made 942 visits, in the out-patient department. 545 operations, of which 134 were celiotomies, were performed. There occurred 13 deaths, 6 of which were after celiotomy. The total income amounted to $13,260.29; the total expenditures to $13,216.74. During the past year the new building, most admirably adapted to its purposes, has been occupied.

Huntingdon County (Pa.) Medical Society.—The quarterly business meeting will be held in the Court House, in Huntingdon, April 11, at 1 P.M. The election of delegates to the Medical Society of the State of Pennsylvania and to the American Medical Association, will take place. Dr. J. C. Stever, of Three Springs, will read a paper on Lacerations of the cervix of the uterus and perineum; the discussion will be opened by Dr. R. Myers, of Huntingdon; Dr. Charles Campbell, of Petersburg, will read a paper on metritis; the discussion will be opened by Dr. M. R. Evans, of Huntingdon.

Bradford County (Pa.) Medical Society.—The quarterly business meeting will be held April 11, at the Court House, Towanda, at 11 A.M. The election of delegates to the Medical Society of the State of Pennsylvania, and the American Medical Association will take place. Dr. C. H. Ott, of Sayre, will read a paper on the importance of early operation for tuberculosis of bones and joints; Dr. G. H. B. Terry, of Wyalusing, will read a paper on the prevention of tuberculosis; Dr. C. K. Ladd, of Towanda, will read a paper on the treatment of pulmonary tuberculosis. The discussion will be opened by Dr. M. C. Hunter, of Sayre.

Calendar of Meetings of Philadelphia Medical Societies for the week ending April 8, 1899:

Monday, April 3—Academy of Surgery. At this meeting, which will be held at the hall of the College of Physicians, corner Thirteenth and Locust Streets, Dr. N. P. Dandridge, of Cincinnati, Ohio, will read a paper entitled: **A comparison of the merits of suprapubic and perineal cystotomy.** The discussion will be opened by Dr. J. William White, and continued by Dr. Edward L. Keyes, of New York, Dr. Arthur T. Cabot, of Boston, and Dr. W. W. Keen. The members of the medical profession are cordially invited to be present at the meeting.

Wednesday, April 5—College of Physicians.

Thursday, April 6—Obstetrical Society.

Porto Rico is to be Thoroughly Vaccinated.—Chief Surgeon Hoff has laid out a systematic plan of operations which is very interesting, and it is the intention to vaccinate the entire population of the island. A vaccine station has been established at Coamo, and a large medical staff, with a great number of assistants and a complete outfit, will see this highly important business through. The island has been divided into 5 vaccination divisions under a director for each. No more important work than this has been undertaken since our possession of the West Indies. The natives are acclimated to yellow fever, but smallpox they cannot grow used to, and they have never had the sure preventive brought to their notice. The Medical Board must expect opposition, but the Porto Ricans will be doctored for their lasting good, whether they know it or not.—[*Public Ledger.*]

Pittsburg (Pa.) Academy of Medicine.—At a regular meeting held March 20, Dr. J. M. Douthett read a paper entitled **Some remarks on ethics,** which was discussed by Drs. Elterich, Litchfield and Mercur. The principal point of discussion was in regard to whether it was or was not advisable to let patients know the remedies they are taking for any particular purpose.

Dr. W. H. Mercur read a paper entitled, **Some remarks on the careful study of excretion as a guide to successful treatment of disease.** The importance of routine examinations of the urine was insisted upon. Drs. Anderson, Christy, Pettit, Singley, and Litchfield participated in the discussion.

Vital Statistics of Philadelphia for the week ending March 25, 1899:

Total mortality 530

Diseases.	Cases.	Deaths.
Pneumonia 68, congestion of the lungs 5 . .		73
Pulmonary tuberculosis		66
Heart-disease 45, neuralgia of the heart 4, fatty degeneration of the heart 3, inflammation of the heart 3		55
Typhoid fever	563	38
Marasmus 17, inanition 11, debility 3		31
Nephritis 22, uremia 4		26
Apoplexy 17, paralysis 8		25
Senility		24
Gastroenteritis 19, cholera infantum 3, . . .		22
Diphtheria 18, membranous croup 3		21
Bronchitis		19
Inflammation of the brain 13, congestion of the brain 5		18
Convulsions		15
Carcinoma, 13, tumor 1		14
Peritonitis		10
Cerebrospinal meningitis	13	9
Scarlet fever	29	2
Septicemia 8, casualties 7, influenza 5, poisoning 4, suicide 4, teething 4, pertussis 3, anemia 2, burns and scalds 2, cirrhosis of the liver 2, cyanosis 2, diabetes 2, dropsy 2, pleuritis 2, appendicitis 2, insanity 2, intestinal obstruction 2, strangulation 2, alcoholism 1, varicella 1, diarrhea 1, hemorrhage 1.		

Pathological Society of Philadelphia and Philadelphia Academy of Surgery.—At a joint meeting held March 23, Dr. A. C. Abbott read a paper entitled **The relation of the bile to infectious diseases,** in which he summarized the present state of knowledge concerning the antiseptic and germicidal properties of the bile with reference to the prevention of infectious diseases. The results of recent clinical and experimental observations were detailed.

Dr. John B. Deaver read a paper on the **surgery of the biliary passages.** He reported the results of his personal experience, which comprised the operative treatment of 40 cases, and drew deductions as to the appropriate treatment in various cases. Of the 40 patients operated upon 6 died.

In the discussion, Dr. Joseph McFarland referred to certain statistics bearing upon the frequency of gallstones, and spoke of their variety, their composition, mechanism of formation, the occurrence of perforation, etc. Dr. W. M. L. Coplin mentioned several instances of obstruction of the common bile-duct due to polypoid tumor and echinococcus cyst. Dr. J. P. Arnold narrated some experiments he had performed with a view of determining the action of the bile on vegetable alkaloids, which seemed to indicate that the bile has a distinct destructive action on these alkaloids, at least on strychnin. Dr. A. E. Taylor mentioned a case of fibrosis about the head of the pancreas leading to compression and obstruction of the common bile-duct. Death occurred from hemorrhagic pancreatitis. The president of the Pathological Society, Dr. W. E. Hughes, referred to some elements in the diagnosis of cholelithiasis.

Philadelphia County Medical Society.—At a meeting held March 22, Dr. Joseph Head read a paper entitled: **Lancing the gums, and the care of the teeth from the standpoint of the dental practitioner.** He advocated that special care be taken in the thorough cleansing of the teeth, particularly at night, and that after the taking of medicine likely to injure the teeth, something should be done to counteract its deleterious effect. After acid mixtures alkaline solutions should be employed, and in case there be a tendency for the mouth-secretions to be constantly acid, some alkaline solution should be used before retiring and not removed. He made a plea also in favor of lancing the gums of infants when any irritable or diseased condition could be clearly traced to dental irritation. In the discussion Dr. J. C. P. Griffith rather deprecated lancing the gums, believing that many conditions in no wise related to the teeth were incorrectly attributed to dental irritation. Dr. W. J. Taylor stated that he had observed considerable relief from lancing the gums. Dr. Mordecai Price stated that he was sure that lancing the gums resulted in premature decay of the teeth. In a few cases he believed that it might prove desirable.

Dr. E. D. Ferguson, of Troy, read a paper entitled **Cysts of the Urachus,** which will be published in a future number of the Journal.

Dr. A. A. Eshner reported **two cases of protracted erysipelas.** One occurred in a girl of about 15, with excoriations about the nares, and lasted for 3 months. The condition presented a close clinical resemblance to ivy-poisoning, but improvement took place under treatment with pilocarpin, together with the appearance of menstruation for the first time. In the second case, in a boy of 12, the disease had existed for 10 months and partook somewhat of the character of the wandering variety. Multiple, successive abscesses had formed and required evacuation. In this case also pilocarpin was employed with excellent results.

Philadelphia Neurological Society.—At a meeting, held March 27, Dr. James Hendrie Lloyd presented a young adult woman who had **total internal and external ophthalmoplegia,** the only ocular nerve not implicated being the left abducens. Bearing in mind the preponderating number of these cases of specific etiology, the patient was being given antiluetic treatment, although there was no history of syphilis. Dr. B. Sachs concurred that most of these cases were probably of syphilitic nature, but mentioned several in which there had been a previous history of alcoholism. Dr. William G. Spiller spoke of the views relative to the vascular origin of these cases.

Dr. B. Sachs, of New York, by invitation, delivered the annual address, his subject being **Erythromelalgia and allied conditions.** He made reference to the development of knowledge of the disease, first recognized and described by Weir Mitchell, and cited various views relative to its nature. He reported the case of a man, aged 36 years, without other manifestations of nervous disorder or cardiovascular disease, who had presented for about 8 months prior to the first observation, typical manifestations of erythromelalgia. He was under observation for some time and the diagnosis was undoubted. Finally an ulcer developed on the dorsum of the foot, and this increased in size and depth, and bled freely. Gangrene supervening, it was deemed essential to amputate, and the leg was accordingly removed above the knee. The patient recovered and 4 months after the operation he appeared entirely cured. Careful examination was made of the arteries, veins, muscles, nerves, and skin of the amputated leg. The arteries were found the seat of extensive disease, the nerves moderately degenerated, the veins slightly altered, the muscles somewhat atrophic, the skin and bones unaffected. He corroborated the view of Mitchell and Spiller that the disease is of peripheral origin, but believed the condition primarily dependent upon vascular changes. In support of this view he read the notes of two cases of cardio-vascular disease in which there were symptoms suggestive of erythromelalgia. He stated his opinion that erythromelalgia is not a disease sui generis, but a symptom-complex that may occur in connection with disease of the central nervous system. But it has been conclusively shown that it is associated with disease of the arteries and nerves, and that it is an arterial disease rather than a nervous disorder. In the discussion Dr. Wharton Sinkler recalled cases resembling erythromelalgia but without pain, and stated that he still felt that in typical instances of the affection, the primary changes are in the peripheral nerves. Dr. J. H. Lloyd inquired if any bacteriologic observations had been made. Dr. W. G. Spiller detailed the histologic alterations found in the case reported by Dr. Mitchell and himself, and compared them with those detected in Dr. Sachs' case. Noting the similarity, as had Dr. Sachs, he could not believe that one could affirm that the disease is rather arterial than nervous. He detailed also several clinical observations he had made lately. Dr. Charles S. Potts referred to a case of erythromelalgia he had observed. Dr. A. A. Eshner suggested the possibility of the affection being due to some poison elaborated in the system and capable of giving rise to selective disease of both the arteries and nerves. Dr. Joseph Sailer spoke of a typical case he had recently seen. Dr. F. S. Pearce spoke of the difficulty of sometimes differentiating periostitis from erythromelalgia. Dr. Sachs stated that no bacteriologic investigations had been undertaken, and stated his belief in the preponderating influence of disease of the arteries in the origin of the affection.

German Hospital of Philadelphia.—According to the report of the hospital for 1898, recently issued, there were admitted during the year to the medical department 1,580 patients; to the surgical department, including eye and ear cases, 1,411 patients; to the department of the U. S. Marine-Hospital Service, 584 patients; and to the Children's Hospital of the Mary J. Drexel Home, 411 patients, a total of 3,986 patients. There remained from the previous year, 153 patients, making a total of 4,139 treated during the year, an increase of 1,157 over the previous year. Of these 276 died. There were a total of 39,933 visits to the out-patient department. During the autumn Mr. John D. Lankenau, president of the Board of Trustees, bore the expense of sending several trains to the various army-camps to bring sick soldiers to the city. A total of 275 sick soldiers were treated, of whom but 4 died. In the surgical department 790 operations were performed, in the department of the U. S. Marine-Hospital Service 72, and in the Children's Hospital of the Mary J. Drexel Home 156. The total income for the year amounted to $71,606.14, and the total expenditures to $76,131.16. During the year many noteworthy improvements were made to the hospital through the munificence of Mr. Lankenau. These included an extension to the laundry-building, the addition of 3 stories to the older part of the hospital building, and the erection of a new **Pathologic Institute.** The latter is an isolated building situated about the center of the hospital grounds. It is 3 stories high, constructed of brown stone, and is surmounted by a copper tile roof. The first story is devoted to the room for keeping the bodies and the necropsy-room, the second to the clinical, pathologic, and bacteriologic laboratories, and the third to the museum. During the past year, 7,634 examinations were made in the pathologic department, as follows: Urine-examinations, 5,151; sputum-examinations, 386; blood-examinations, 566; necropsies, 101; specimens, removed by operation, examined, 414; bacteriologic examinations, 1,016 (Grüber-Widal tests, 616). In the drug-department, 28,316 prescriptions and renewals were furnished during the year. The laboratories for photography and skiagraphy have been provided with new quarters, and herein during the past year 658 skiagraphs of 521 patients were taken. In the department for scientific hydrotherapy, 250 patients were given 1,727 treatments.

College of Physicians of Philadelphia—Section on Ophthalmology.—At a meeting held March 21, Dr. J. T. Carpenter, Jr., presented a case of **bilateral extensive choroidal hemorrhage in the macular region** in a woman aged 45 years, who had always enjoyed good health. The atrophy of the choroid and retina were almost symmetric, although that in the right antedated that in the left by nearly 3 years. Both originated in hemorrhages, and both had absolute central scotoma. The patient had low myopia and astigmatism, and small posterior staphylomata. The hemorrhages occurred after prolonged and painful use of the eyes with badly-fitted glasses. Dr. S. D. Risley stated that the case was doubly interesting from the opportunity of studying the fundus-changes in different stages and from the danger to myopic eyes of inaccurately adjusted lenses.

Dr. James Thorington reported a case of **congenital coloboma of the choroid and iris** in both eyes without involvement of the lenses. The patient was a young woman who had no other congenital deformities. The mother stated as a possible cause that she had fallen downstairs 6 weeks before confinement. Vision, R. E., $\frac{6}{50}$; L. E., $\frac{6}{15}$. Coloboma of the iris and choroid in one eye has been recorded many times, but coloboma of both structures is very rare. Dr. Thorington exhibited for Dr. Oliver colored illustrations of the external appearance of coloboma of the iris and of coloboma of the choroid in different cases. In the latter case the region of the coloboma was nourished entirely from cilio-retinal vessels. Dr. de Schweinitz stated that he had seen 2 cases of coloboma of the choroid and 1 case of large coloboma of the optic nerve-sheath unassociated with ocular defects elsewhere. Dr. Harlan had seen a case of coloboma limited to the macular region. Drs. Sweet, Carpenter, Risley, and Ring also noted similar cases.

Dr. S. D. Risley exhibited a patient showing the **late result of implantation of a sponge in the orbit after enucleation.** Three months after the operation the orbit was well filled with new tissue, which, during the succeeding 6 months, had been absorbed. The final result was not better than is often seen after careful excision. The general sentiment of the meeting was opposed to the operation.

Dr. Risley also reviewed the history of 3 critical cases of **cataract extraction** in which he had introduced the **Kalt stitch** before making the corneal section. Recovery was rapid and normal in each case. He believed that the procedure was a useful one in cases where loss of vitreous was imminent. Dr. Oliver spoke favorably of the Kalt stitch in complicated cases.

Dr. Risley also described a case of **recurrent rheumatic iritis** of severe type in a man aged 35, with compound myopic astigmatism. After recovery from the last attack it was noted that a segment of the lower part of the iris did not react. He believed the condition to be one of adhesion between the capsule and posterior surface of the iris too far back to be demonstrated, and not one of paralysis of the iris-fibers.

Dr. G. E. de Schweinitz presented the history of a case of **fistula of the orbit** due to caries of the lacrimal division of the ethmoidal cells, and described the operations performed by himself and Dr. Walter J. Freeman for its cure. Dr. Zentmayer stated that Dr. W. F. Norris had operated upon a similar case with good result.

Dr. Harlan referred to the case of a 9-years-old boy in which a long-continued epiphora was followed by a **small bony tumor** situated above the lacrimal sac. The nose had been broken 6 years before and the septum was deviated and the nares obstructed. During operation, a cavity, large enough to admit the little finger in the frontal or ethmoidal cells, was opened and found to contain several drams of a dark fluid. A drainage-tube was inserted. There was rapid cure, without deformity, and with complete disappearance of the epiphora.

Dr. William Zentmayer read the notes of a case of **tumor of the orbit,** with secondary involvement of the lymphatics, in a 5-years-old child. A bloody tumor over the right parietal bone had formed 6 weeks before leading in 2 weeks to proptosis. The right eye is proptosed 1 cm., and cannot be replaced. Rotation outward is abolished, and upward movement limited. In the right eye there is choked disc, with minute hemorrhages and marked striation of the retina in the region of the macula, and in the left eye there is optic neuritis.

Dr. G. C. Harlan described the operation of **abscission and combined keratectomy,** and urged its more frequent substitution for enucleation, and its especial applicability to cases of painful absolute glaucoma.

Dr. H. F. Hansell reported a case of **atypical retinitis pigmentosa** in a child of 10 years, the characteristic features of which were extending patches of atrophy of the choroid and retina, associated with advancing degeneration of the optic nerves.

Dr. C. A. Oliver presented an illustration and gave the clinical history of an unusual case of **fibroma of the eyelid** (painful, subcutaneous tubercle of Wood).

NEW YORK.

Milk Must be Pasteurized or Sterilized.—On March 22 the Assembly Committee on Public Health reported favorably Mr. Trainor's bill making it a misdemeanor to sell in cities of more than 500,000 inhabitants milk or cream that has not been pasteurized or sterilized.

Correction.—In our issue of March 18, page 584, in the account of the proceedings of the Surgical Section of the Buffalo Academy of Medicine, Dr. J. H. Dowd is credited with advising the use of a 33⅓% solution of formaldehyd for urethra and bladder disinfection. This should read .33⅓% solution.

The Sale of Horse-Meat.—As the outcome of the public exposure of the extent to which horse-butchering was being carried on in New York City, and across the river in New Jersey, a bill was presented to the New Jersey Legislature on March 21. It provides that: "No person shall sell or offer or expose for sale, or in any wise aid in selling, or offering or exposing for sale any horseflesh unless every piece shall have conspicuously attached a tag, on which shall be printed or stamped in letters not less than one inch in height the word 'horseflesh.' Any person who shall violate any of the provisions of this section shall be liable to a penalty of one hundred dollars."

Dr. Van Arsdale's Marriage and Death.—Dr. William Waldo Van Arsdale, of New York City, was to have been married on February 21 to Miss Edith May White, daughter of Dr. and Mrs. Whitman V. White, but shortly before that date he was taken very ill with the grip. Although unable to leave his bed, he had rallied somewhat when the day arrived, and accordingly, on the evening of February 21, the marriage ceremony took place at his bedside in the presence of all the guests who had been invited to attend the church ceremony. Dr. Van Arsdale was well enough to be removed to Atlantic City four days later. After his arrival there he experienced a relapse, and, on March 17, death closed a very promising career.

The Breadwinners' Hospital for Women.—There is now in course of construction a hospital to be known as the Breadwinners' Hospital, the distinguishing feature of which is the prominence given to the system of private rooms. It is intended that there shall be but few ward-patients, and that the price of private rooms shall be very low. Every one admitted must pay something, but it is not expected that the hospital will be self-supporting. Dr. Alexander J. C. Skene, of Brooklyn, is so interested in this project that he has resigned the presidency of the Long Island College, with which he has been identified since 1862, in order that he may give more time to the new hospital. The officers are: George Foster Peabody, president; Spencer Trask, treasurer, and Dr. Charles G. Sproull, secretary.

The Sanitary Value of Trees in City Streets.—Renewed attention to the subject of the bearing on the public health of trees in the streets of cities has been aroused by Senate Bill No. 412, now before the New York Legislature, the object of which is to provide for the systematic planting and cultivation of trees in the streets of Greater New York under the care of the Department of Parks. Dr. Stephen Smith, who has taken a deep interest in this subject for very many years, and who has studied it personally in Paris and Washington, brought this bill to the attention of the New York County Medical Association at its last meeting, and, as a result, the Association sent a memorial to the Legislature, commending the bill most highly, both as a sanitary measure and as a means of improving New York City as a place of residence.

Extirpation of the Larynx for Epithelioma.—At the meeting of the Laryngological Section of the Academy of Medicine on March 22, Dr. Frank C. Ard, of Plainfield, presented a colored woman who had recovered from two radical operations on her larynx for malignant disease. She was 41 years of age, and had enjoyed good health up to the time of coming under observation in June of last year. Laryngoscopic examination at that time had revealed what was supposed to be a papilloma of the larynx. It was removed, but in September, when next seen, there had been a recurrence. Several pathologists who had independently examined this second growth had reported it to be undoubtedly epithelioma. The growth appeared to be strictly localized, and accordingly, after a preliminary tracheotomy, a partial laryngectomy had been done by Dr. George E.

Brewer. The growth had soon recurred, so, on February 19, 1899, Dr. Brewer extirpated the larynx according to the Solis-Cohen method. At the present time, the patient could indicate her wants in a whispered voice. Dr. Brewer remarked that if the precaution were taken to ligate the two superior thyroid arteries at the commencement of the extirpation, the operation would be practically bloodless.

The Collier Bill and the Chlorin Treatment.—On March 22, Mr. Collier's bill repealing the statute allowing the sale of vaccine and antitoxin by the Health Department of New York City, was reported favorably by the Assembly Cities Committee. Dr. William T. Jenkins seems to think that even though this measure should become a law, the Health Board could circumvent the intent of the law, for he is quoted as saying: "Of course, under that law we could not sell it [the antitoxin] in competition with private manufacturers, but I believe that the Board has power to condemn any of its property. The overproduct of antitoxin, therefore, might be officially condemned by the Board at intervals, and then sold to the highest bidder." In the same interview he makes this somewhat remarkable statement: "Personally, I do not think that the city should enter into competition with private persons in the manufacture of antitoxin, but I think the Board is justified in doing so. I believe that the Board gives away about $40,000 worth of antitoxin each year, while about $13,000 worth of the overproduct is sold annually." It is worth noting that Mr. Steinert, the council for the Board, does not coincide with Dr. Jenkins in the proposed scheme to nullify the Collier bill in the event of it becoming a law. Mr. Russell, who is interested in the Bracelin treatment of diphtheria by the use of chlorin, openly charges that the Health Board has discontinued the use of this chlorin treatment in the city hospitals in retaliation for his advocacy of the Collier bill. He alleges that Dr. Bracelin had furnished to the Board of Health his complete formula for producing the chlorin for this treatment, and that the tests already made under the supervision of the Health Board had shown a death-rate in the cases treated of less than 3%, as against a death-rate with their serum-treatment of more than six times as great.

New York Academy of Medicine—Section on Medicine.—Dr. William M. Leszynsky presented **a case of spinal cord disease** having two unusual features, viz.: (1) Absence of knee-jerk with presence of ankle clonus, and (2) a gluteus medius clonus.

Dr. Beaman Douglas read a paper entitled **Observations on the treatment of hay-fever.** He recommended treating the attack by irrigation of the nasal passages with a saline solution at a temperature of 106° to 114° F., after previous spraying with a 1% solution of cocain; this to be followed by applying, for four minutes, to sensitive parts pledgets of cotton moistened with a 4% solution of cocain. After this, phenol-camphor or a ten-grain solution of silver nitrate might be used with advantage. After the acute symptoms had subsided, it was well to use a spray of benzoinol containing a little menthol. He had found the extract of suprarenal gland almost a specific in hay-fever, and it acted well whether used in the form of a spray of the aqueous solution, or given internally in the form of compressed tablets. The tablets should be given at first every two hours until some prostration was noticed, and then the interval should be lengthened, but two doses daily should be taken throughout the hay-fever season. The vasomotor disturbances should be treated by daily cold sponging or spinal douches, and the internal administration of small doses of quinin and digitalis. In the discussion, Dr. Dwight L. Hubbard said that a solution of antipyrin would give nearly the same relief as cocain, and was far safer to use. In cauterizing nasal hypertrophies, much good and no harm would result if fine linear applications of the actual cautery were made. Dr. D. H. Goodwillie said that he believed many cases of so-called hay-fever were largely dependent upon the presence of pleuritic adhesions. Dr. Leszynsky took the ground that hay-fever was a neurosis in which autointoxication played an important part. All these cases required constitutional treatment. Dr. Achilles Rose said that a very efficient and harmless substitute for cocain in the treatment of acute rhinitis would be found in the carbonic-acid-gas douche.

New York County Medical Association.—At the meeting held March 20, Dr. Frederick Holme Wiggin presented a woman from whom he had removed a uterine fibroid weighing 17 pounds. The case was of special interest, aside from the size of the growth, because of the accidental cutting into the fundus of the bladder during a profuse venous hemorrhage which had obscured the field of operation momentarily. The bladder was carefully sutured from the inside with catgut, and a peritoneal flap from the tumor dissected up and used to protect the sutures in the bladder. Ten days after operation, urine began to escape from the lower angle of the wound, so a vesico-vaginal fistula was established. The patient had ultimately made a good recovery.

Dr. Francis J. Quinlan exhibited **a large fibromyxoma** which he had removed from the pharynx of a young girl.

Dr. Charles I. Proben exhibited **a blighted ovum** taken from a woman who had been supposed to be 5 months pregnant. Three months previously there had been a severe uterine hemorrhage, which had probably dissected off the membranes.

Dr. Ferd. C. Valentine demonstrated the action of his **modified Oberlander urethroscope.** Direct illumination was obtained from a tiny electric lamp which, although without any cooling device, could be used for 30 minutes at a time in the urethra without causing the patient any discomfort from the heat.

Dr. Hermann Grad reported of a **case of successful excision of a gastric ulcer.** The case had not yielded to the more usual methods of treatment. The main feature in the technic was the use of a circular wire support, secured to the stomach by a series of projecting loop-sutures before the incision was made into the stomach. The portion of the stomach-wall containing the ulcer was made prominent by means of a purse-string suture, and then this puckered mass was excised. Now, 8 months after the operation, the patient is at work and in fair health. In the discussion of this report, Dr. Parker Syms gave the following indications for operation: (1) Cases proving rebellious under medical treatment; (2) the presence of urgent symptoms, such as severe or long-continued hemorrhage, or indications that perforation is imminent, and (3) when it became impossible to properly nourish the patient. Dr. John F. Erdmann contributed to the symptomatology of gastric ulcer, by reporting 2 fatal cases, in which the actual condition had been perforating ulcer of the duodenum. Dr. T. H. Manley thought the wire support used by Dr. Grad would not allow of proper inspection of the interior of the stomach. Dr. F. Ferguson said that the majority of gastric ers that he had met with at postmortem examinations been situated between the middle of the stomach and pylorus, or where great difficulty would be encountered urgical procedures.

r. Louis Faugères Bishop read a paper on **The diagsis and treatment of fluid in the pleural cavities.** said that the very fact that the diagnosis of pleuritic effu- depended largely on the absence of certain sounds nor-lly present, made it difficult to make the diagnosis, for ry one knew how difficult it was to make patients breathe perly. In doubtful cases, exploratory puncture with a ll needle and syringe should be freely resorted to, and should not rest content with a single negative puncture. the discussion, Dr. John Blake White pointed out that risy with effusion was a common accompaniment of the ered vitality associated with prolonged mental worry. A mon cause of erroneous diagnosis in cases of pleuritic sion occurring in children, was to be found in the case h which the respiratory sounds in children were transted through the fluid. Unless a needle of rather large ber were used for exploratory puncture, the results would unreliable in a large percentage of cases. Dr. George ker Harrison emphasized the necessity, even in this arently insignificant operation of exploratory puncture he chest, of sterilizing the site of puncture as well as the ruments used. Dr. J. E. Traub spoke of the great tency to the development of tuberculosis in cases of longding pleuritic effusion, and cited illustrative cases. Dr. C. O'Brien said that if a few drops of sterile water were in the syringe attached to the needle used for exploratory cture, in case of the first attempt proving negative, a e pressure on the piston of the syringe would force some of sterile water into the track of the needle and clear it out.

r. Seymour Oppenheimer read a paper on **The effect atmospheric changes on the hearing in chronic arrhal otitis media,** which was founded on a study of cases. Of this number, 11 had afforded evidence of a eral atrophic condition of the tympanum, and in all these s the hearing had been decidedly affected. Thirty-two of patients had complained that the nasal obstruction from ch they suffered was most noticeable in rainy weather. chief factors were humidity, barometric pressure and temperature. In the discussion, Dr. Edward B. Dench ressed the opinion that atmospheric changes invariably cted cases of hypertrophic inflammation of the tympanic ity. Dr. C. G. Coakley thought that low temperature moisture, by chilling the body surface, and causing conion of the middle ear, were chiefly responsible for the nges in hearing observed.

CHICAGO AND WESTERN STATES.

hicago Neurological Society.—At a meeting held rch 24, Dr. Richard Dewey read a paper entitled **Congion and infection in nervous and mental dises and measures of prevention.**

ackson County Medical Society of Kansas City, .—At a recent meeting Dr. Kyger read a paper on **etetics as taught in the medical colleges.** He ommended having a chair on dietetics in every medical ege, in view of the fact that physicians at the time of their duation have no knowledge of the proper foods necessary patients.

cademy of Medicine of Cincinnati, Ohio.—At annual election, held March 6, the following officers were elected for the ensuing year: President, Dr. E. W. Mitchell; first vice-president, Dr. Elizabeth Campbell; second vice-president, Dr. Charles E. Caldwell; treasurer, Dr. S. E. Allen; recording secretary, Dr. Robert Ingram; corresponding secretary, Dr. F. E. Kugler; librarian, Dr. Arch. I. Carson; trustees, Dr. E. Gustav Zinke, Dr. Giles S. Mitchell, Dr. James F. Hendy.

Physicians' Club of Chicago.—At a meeting held March 27, the subject announced for discussion was, **Hospital ethics,** as follows: Relation of Hospital Staff and Internes, by Dr. James B. Herrick; Relation of the Executive Body to the Staff, by Dr. E. L. Moorehead; Relation of the Members of the Hospital Staff to Each Other, by Dr. H. J. Burwash; What Shall Be Our Attitude Toward Professional Mistakes? by Dr. Christian Fenger; Duty of the Hospital Physician to His Outside Brethren, by Dr. Weller Van Hook; What Would Professional Etiquet Demand? by Dr. John Ridlon.

Rocky Mountain Inter-State Medical Association.—According to the *Denver Medical Times*, the Rocky Mountain Inter-State Medical Association, which comprises Arizona, Colorado, Idaho, Montana, New Mexico, Utah, and Wyoming, at its annual meeting elected the following officers: President, Dr. Charles P. Hough, Salt Lake City, U.; first vice-president, Dr. Chas. K. Cole, Helena, Mont.; second vice-president, Dr. Clayton Parkhill, Denver, Col.; treasurer, Dr. E. Stuver, Fort Collins, Col.; recording secretary, Dr. S. C. Baldwin, Salt Lake City, U.; corresponding secretary, Dr. S. D. Hopkins, Denver, Col.

Kansas City (Mo.) Ophthalmological Society.—At a recent meeting Dr. J. W. Sherer read a paper on **skiascopy.** He recommended using the small plain mirror in a dark room, and prefers that the operator be quite close to the patient. Dr. F. G. Murphy exhibited a **new model of circular skiascope,** by which the surgeon is able to keep any lens directly in front of either eye of the patient with perfect ease, no matter how much the patient may move about. The instrument is inexpensive, contains 35 lenses, the light can be placed on either side of the patient, and either eye can be examined without moving the patient by slightly moving the instrument.

The Medical Profession of Chicago.—The following is abstracted from a column of complimentary remarks concerning Chicago and Chicago physicians, that appeared in a recent number of the *American Journal of Surgery and Gynecology*, published in St. Louis, Mo.:

> A curious feature of Chicago (medical) life is the willingness of the doctors to impart their knowledge to others. According to the catalogues issued in 1898, there are in that city 572 men who hold full "professorships" in colleges of acknowledged good standing—not to mention those in ill repute; 328 who are "instructors, assistant professors and demonstrators;" and 96 other than these who are clinical workers in college dispensaries! A total of 996 engaged in active college work! There can be no question that nowhere else on this globe can a showing one-fourth as great be made. Truly Chicago is to be the great "medical center" of the world.

Kansas City (Mo.) Academy of Medicine.—At a recent meeting, Dr. L. G. Burnett read a paper on **Friedreich's disease,** with report of a case and illustrative cuts, showing the location of the pathologic lesions as compared with those of tabes. After the discussion of the paper, Dr. S. C. James, a member of the Missouri State Board of Health, detailed some of the difficulties met by the physicians of the

State in trying to secure the passage by the Legislature of a bill regulating the practice of medicine. He said that the desk of every member of the Legislature was filled every day with letters from quacks, asserting that they were members of the leading medical societies of the community in which they live, and voicing the sentiments of all the leading physicians in denouncing the proposed medical law now before the Missouri Legislature. This bill was defeated a few days ago in the House. The physicians still have hope of passing a less radical bill recently introduced in the Senate.

The Profession and the Bosses.—On March 20, 1899, the physicians of Cleveland, Ohio, took a step which is probably unique in the annals of the profession. This city has suffered from an aggravated form of the municipal corruption which is so sadly prevalent in American cities. Good citizens of all classes are banding together in a great effort to make a first step at the overthrow of the corruptionists with the chances of success better than ever in the past, but still somewhat doubtful. It seemed that the medical profession as a body of educated men able to cast loose from the partisan support of the "bosses," and to act disinterestedly as good citizens simply, might do a signal service to their city. An organized effort to this end was determined upon and met with the hearty support of the whole profession without regard to sect. So successful was it that in one week's partial canvass 200 men had signed the declaration of principles, which is subjoined, and as many more had signified their desire to do likewise as soon as the papers could be got to them. Over 100 were at the opening meeting and many more will be present at the first large meeting March 23. The preamble below gives a clear idea of the scope of the organization from which much that is good for both the profession itself and especially the city of Cleveland is to be expected:

> We, members of the medical profession of the City of Cleveland, believing that municipal affairs have no proper or natural connection with State or National politics, and believing further that the duties of citizenship are higher and more binding than the claims of party, and that no political organization, while conducted in the interest of selfish and ambitious men as against the general welfare, can justly claim the support of good citizens; do organize ourselves into a permanent association for the following purposes:
>
> To use our best endeavors to promote the election of honest and competent persons to office in the city government, and to secure the appointment to subordinate positions of those of like qualifications. To oppose, to the best of our ability, the use of official powers to advance personal as against municipal interests. In short, to do what we can to aid in securing to this city clean, honest, broad-minded and business-like administration of municipal affairs, regardless of the pretended interests of parties, factions, cliques or individuals.
>
> And we hold that our attitude and action toward municipal government is in nowise inconsistent with membership in our respective political organizations for State and National purposes.

Chicago Medical Society.—A a meeting held March 22, Dr. Joseph B. De Lee read a paper on **The Treatment of sudden and severe postpartum hemorrhage.** He briefly reviewed the normal mechanism of hemostasis in labor, uterine contraction and retraction, the felting together of the uterine lamellæ and fibers, and thrombosis in the sinuses. In the study of the causes of hemorrhage, failure of one or the other factor will be noted, to which a third must be added,—accidental lacerations. Atony or lacerations, or both together, give rise to the worst hemorrhages. The atony arises from uteri exhausted by long labor, those that are congenitally weak or malformed, or poorly innervated; from too rapid emptying of the uterus; from retention of placental fragments or clots; from habit, usually dependent on endometritis or a myometritis. The lacerations that are the most dangerous are those involving
the deeper cervix and the lower uterine segment, especi
if the placenta be situated there. The treatment of post
tum hemorrhage should begin with prevention and in be
prepared. When any of the causes mentioned is pres
the attendant is warned. Exhaustion of the patient sho
be avoided, food and quieting medicines being administe
The patient should not be allowed to be completely
hausted before resorting to forceps. Care should be e
cised after the use of chloroform, and ergot should no
used during labor. The child should not be dragged ou
the uterus. A careful, gentle, not hurried treatment of
third stage. Thirty minutes is usually long enough for
placenta unless there is some indication to remove
sooner. The accoucheur should be well prepared to m
emergencies of this kind. There should be at hand ple
of sterile or antiseptic gauze for packing the uterus, a ste
douche-bag, sterile vinegar, plenty of hot water. The tr
ment should be quick and decisive. If the placenta be
delivered it should be removed at once, by vigorous m
sage until the uterus hardens, then a strong Credé
pression, or by the hand if necessary. After the th
stage one of the most successful means of stopping the h
orrhage at once is compression of the uterus. Compress
of the aorta is valuable. Another method sometimes use
is to draw the cervix sharply down to the vulva by vuls
forceps. The sovereign remedy against hemorrhage b
from laceration as well as atony is the utero-vaginal t
ponade introduced by Dührssen. In two cases, there bei
slight oozing through the gauze which though not danger
seemed undesirable and to be avoided, Dr. De Lee sewed
lips of the cervix together over the tampon, completely c
ing up the uterus. The effect was excellent. Sutures
gauze removed on following day. Ergot should be give
all cases, but one should not rely on it or wait for it.
anemia must be treated and the most successful rem
here is saline solution 0.6%, under the skin or into a v
As much as a gallon may be used in a few hours. Hy
dermically, strychnin and camphorated oil; ether for dan
ous syncope. Elevation of the foot of the bed to 25°. Ex
nal heat, and care in exposing the patient. Hot dri
especially coffee, and saline solution per rectum. While
these means the total amount of the blood can be quic
recovered, the oxygen-carriers, the red blood-corpus
require weeks and months. Dr. De Lee is experiment
with the injection of human blood mixed with salt-soluti
But little success has been obtained thus far. Five cases
reported, each showing the successful application of th
various modes of treatment.

CANADA.

Montreal Medical Journal.—Some important chan
have been made in the operation of the *Montreal Med*
Journal with the view of making it still more efficient an
conducting it on a more satisfactory basis. Drs. Willi
Gardner, F. G. Finley, Frank Buller, and H. A. Lafleur h
been added to the editorial staff, with Drs. Wyatt Johnst
C. F. Martin, J. M. Elder, D. J. Evans, Burgess, Stirli
Lockhart, Hamilton, Birkett, Webster, K. Cameron,
Wilson as collaborators.

Montreal Medico-Chirurgical Society.—At a re
lar meeting held March 20, Dr. A. G. Nicholls showed
following pathologic specimens: **Multiple diverticula**
the small intestine; Carcinoma of the prosta
Primary contracted kidney. The first specimen c
sisted of a portion of the jejunum which presented 50 di

la ranging in size from that of a dried pea to that of a ut. These were situated at the mesenteric attachment he bowel. They consisted in hernial protrusions of the ous membrane into the serosa, the muscularis being nt. The mesenteric vessels ramified over the surface. y contained no fecal material. The specimen was found utopsy in the case of an old woman of 64 years who had a double inguinal hernia for 30 years, and chronic bron- is for 25. She was of spare build. There was a physio- c tendency to the formation of such diverticula which eased with age. A fatty mesentery also predisposed. erences in the literature were scanty. The first mention in an article by Sömmering in Baillie's Anatomy about . Rokitansky first showed that these diverticula were ly hernial protrusions of the mucosa into the serosa. smann (*Virch. Arch.*, cxliv), had recorded a case in ch 400 diverticula had been found in the intestinal tract. his case those found in the large intestine were from rticula formed of all the coats of the bowel.

he carcinoma of the prostate was found in the case of a n, aged 74, who had suffered for from 10 to 12 years with ptoms referable to enlarged prostate. The cancer in- ed the whole posterior portion of the gland, projecting the bladder-cavity. There were secondary growths in retroperitoneal tissues, and on one rib. The contracted eys were types of the so-called "primäre Schrumpfniere" he German school, found in chronic alcoholism, gout, lead-poisoning. The kidneys weighed 100 and 95 grams ectively. The capsule was adherent, but the surface not ny degree granular. The cortex was diminished and the ey very hard. Microscopically there was very diffuse fibroid induration, without much cellular infiltration, extreme periglomerular fibrosis. The patient had had 6 cks of lead-colic in 8 years. The urine varied in amount n 25 to 81 ounces, sp. gr. 1005 to 1010; albumin ½ to 2 ns per liter; hyalin and granular casts in abundance.

rs. England and MacPhail reported a case of **death ing anesthesia.** The patient was suffering from a se cellulitis of the neck, but no abscess could be made While being anesthetized an abscess broke and pus was welling out of the mouth. The patient became very osed and stopped breathing. Tracheotomy was rapidly e, but without avail. At the postmortem a large abscess found on one side of the neck, and marked edema of glottis, epiglottis and arytenoid cartilages. Death seemed e due to suffocation combined with profound toxemia.

r. T. G. Roddick, M.P., opened a discussion upon **minion registration.** At present in Canada, mem- of the medical profession in one province are not allowed ractise in the other provinces of the Dominion without ing examinations and complying with many trouble- e regulations. For years it has been desired to devise e means by which the provinces would mutually agree ccept each others licenses, and also to have a central inion qualification which would enable the holder of a license to practise anywhere in the British Empire. resent by the provisions of the British North American the provinces have exclusive jurisdiction in educational ters, thus rendering it difficult to establish a central d.

. Roddick, who is the chairman of the committee ap- ited at the last meeting of the Canada Medical Association al with the matter, reviewed the history of the movement, iling his efforts to obtain information as to the feeling e part of the profession throughout Canada with regard to the subject. He reported that he had met with gratifying success, and presented a preliminary sketch of a bill which could be introduced into Parliament. The discussion was taken up by Sir William Hingston, Drs. Robert Craik, E. P. Lachapelle, R. F. Ruttan, F. J. Shepherd.

The society passed a resolution approving of the proposed measure and promising to further Dr. Roddick's efforts in every possible way.

MISCELLANY.

Obituary.—Dr. John H. Piper, Wheeling, W.Va., March 20.—Dr. John B. Moorman, Roanoke, Va., March 18.—Dr. J. Howard Parker, Gloucester, Mass., March 16, aged 32 years.—Dr. John H. Seabury, Yonkers, N. Y., March 16.—Dr. Sigismund Waterman, New York, March 15, aged 81 years.—Dr. George A. Orwig, Cleveland, Ohio, March 14, aged 44 years.—Dr. Henry Carey, of New York, at Lakewood, N. J., March 9.—Dr. W. W. Bland, surgeon to the 99th Pennsylvania Infantry during the Civil War, at Pottsville, Pa., March 28.

Health Reports.—The following cases of smallpox and yellow fever have been reported to the Surgeon-General of the U. S. Marine-Hospital Service for the week ended March 25, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
Alabama:	Mobile	March 17	2	
California:	Los Angeles . .	March 4-11	10	1
District of Columbia:	Washington . .	March 18-23 . . .	No new cases.	
Florida:	Jacksonville . .	March 4-18	1	
"	Key West . . .	March 12	1	
Indiana:	Evansville . . .	March 13	1	
Kansas:	Atchison Co . .	March 16	21	
"	Independence Co	" "	Reported.	
"	Sumner Co. . .	" "	2	
Kentucky:	Louisville . . .	March 9-16	26	2
Louisiana:	New Orleans . .	March 4-11	57	
Mississippi:	McLaurin . . .	. . . .		3
Missouri:	St. Louis . . .	March 15	10	
Montana:	Missoula . . .	Feb. 23-March 9 .	2	
New York:	New York City.	March 11-18 . . .	2	1
Ohio:	Cleveland . . .	March 11-18 . . .	17	
Texas:	Laredo	Feb. 25-March 4 .	59	19
Virginia:	Alexandria . .	March 15	1	
"	" . .	" 20	1	
"	" . .	" 22	No new cases.	
"	Norfolk	March 15-21 . . .	13	
Wyoming:	Cheyenne . . .	March 4-11	3	

SMALLPOX—FOREIGN.

Brazil:	Bahia	Feb. 11-25	3	
"	Rio de Janeiro .	Feb. 3-10	5	4
China:	Hongkong . . .	Jan. 28-Feb. 4 . .	3	1
England:	London	Feb. 18-25	2	
Mexico:	Chihuahua . .	Feb. 25-March 18 .		5
"	Mexico	Feb. 26-March 5 .	6	1
"	Vera Cruz . . .	March 2-16	1	
Russia:	Moscow	Feb. 18-25	7	
"	St. Petersburg .	Feb. 18-25	12	3
"	Warsaw	Feb. 18-25		1

YELLOW FEVER.

Brazil:	Rio de Janeiro.	Feb. 3-10	65	50

Changes in the Medical Corps of the U. S. Army.

Vaughan, Milton, acting assistant surgeon, is relieved from duty at Guantanamo. He will proceed to Baracoa, Cuba, for duty as surgeon.

Cruikshank, Charles G., acting assistant surgeon, will report to the commanding general department of Puerto Principe, for assignment to duty.

Marshall, Thomas R., acting assistant surgeon, is relieved from duty in the department of the Province of Havana and will report at Military Hospital No. 1, Havana, Cuba, for duty.

Wyeth, Major M. C., brigade-surgeon, will report for duty in charge of the medical supply depot, Havana, Cuba.

Hall, Major W. R., surgeon, will proceed to Camp Meade, Pa., on business pertaining to hospital accommodation for the sick and supervising the sanitary conditions of the camp during its occupation by volunteer troops.

Porter, Elias H., acting assistant surgeon, is relieved from further duty at Albany, Ga., and will proceed to New York City and report to Major Henry S. Kilbourne, surgeon, medical superintendent of transport service, for duty.

McKinney, David T., acting assistant surgeon, is relieved from further duty at Minneapolis, Minn., and will proceed to New Brighton, Pa., and report by letter to the Surgeon-general of the Army.

Polhemus, Captain Adrian S., assistant surgeon, leave granted is extended one month.

Bratton, First Lieutenant Thomas S., assistant surgeon, is granted leave for 10 days on surgeon's certificate, to take effect upon the expiration of the ordinary leave granted him Jan. 9.

Schreiner, First Lieutenant Edward R., assistant surgeon, is granted leave for 10 days from March 18.

Shockley, M. A. W., acting assistant surgeon, will procced from Fort Leavenworth to Havana, Cuba, for assignment to duty.

The following changes in stations and duties of officers are ordered:

Shores, E. J., acting assistant surgeon, when his services are no longer needed at Anniston, Ala., will proceed to Fort Caswell for duty.

Archer, James F., acting assistant surgeon, is relieved from duty at Fort Caswell and will proceed to Havana, Cuba, for duty.

Lee, Henry H., acting assistant surgeon, will proceed from Wells River, Vt., to Willett's Point for temporary duty.

The following named acting assistant surgeons will proceed from New York City to the places designated:

Spalding, Clarence M., to Rochester, N. Y.

Camp, Charles D., to Chicago, Ill.

Thomas, John W., to New Orleans.

Wells, Daniel D., acting assisting surgeon, now on leave, is relieved from further duty in the department of Santiago, and will proceed to Havana, Cuba, and report on the U. S. Hospital Ship "Missouri" for duty.

Wood, Halsey L., acting assistant surgeon, now in New York City, will report for assignment to duty on the U. S. transport, "Ingalls."

Goltka, John N., acting assistant surgeon, is relieved from further duty at Anniston, Ala., and will proceed to Fort Niagara for duty.

Wakeman, Major Wm. J., brigade-surgeon, is relieved from duty at Fort Niagara and will proceed to Philadelphia, Pa.

Hall, Major Wm. R., surgeon, will proceed to Camp Meade, Pa., on provision of hospital accommodation and upon completion of duty will return to this city.

Wilcox, Lieutenant-Colonel Timothy E., chief surgeon, is relieved from duty as chief surgeon, department of Matanzas, and will proceed to New York City, and report to the chief mustering officer, State of New York, for duty, to relieve Major Era Woodruff, surgeon, who will rejoin Fort Trumbull.

Cloud, First Lieutenant Marshall M., assistant surgeon, is granted leave of 15 days to take effect when services are no longer required at Camp Shipp.

Vaughan, Major Victor C., division surgeon, and Shakespeare, Major Edward O., brigade-surgeon, members of the Board of Medical Officers, and assigned to duty in this city, are assigned to duty in this city for an additional perion of two months, for the purpose of completing their report.

Brandenburg, M., acting assistant surgeon, is relieved from further duty at Tybee Island, Ga., and will proceed to camp at Land's End, S. C., for duty.

Harbin, William P., acting assistant surgeon, is relieved from further duty at Land's End, S. C., and will proceed to Fort Brown for duty.

Johnson, Walter K., acting assistant surgeon, is relieved from further duty at Fort Brown, and will proceed to Atlanta, Ga., for annulment of contract.

Fielder, Lawrence A., acting assistant surgeon, is relieved from further duty at St. Lawrence Barracks, and will proceed to Fort Morgan for duty.

Wilson, First Lieutenant James S., assistant surgeon, will turn over the medical supplies for which he is responsible to Major Marlborough C. Wyeth, brigade-surgeon, medical supply officer, Havana, Cuba, and report on the U. S. Hospital Ship "Missouri," at Havana, Cuba, for duty.

Pattison, George W., acting assistant surgeon, is relieved from further duty at the U. S. General Hospital, Fort Myer, and will proceed to Camp Meade, Pa., for duty.

Changes in the U. S. Marine Hospital Service

for the seven days ended March 16, 1899:

Williams, L. L., past assistant surgeon, to report to Surgeon C. E. Banks, Chairman Board of Examiners, Washington, D. C., for examination to determine fitness for promotion to the grade of surgeon. March 11.

McIntosh, W. P., past assistant surgeon, to report to Surgeon C. E. Banks, Chairman Board of Examiners, Washington, D. C., for examination to determine fitness for promotion to the grade of surgeon. March 11.

Perry, R. C., past assistant surgeon, to assume temporary command of service at Port Townsend, Wash., during absence of Past Assistant Surgeon C. H. Gardner. March 14.

Gardner, C. H., past assistant surgeon, to proceed to Seattle, Wash., and assume temporary command of service, relieving Acting Assistant Surgeon J. B. Eagleson; upon being relieved by a regular officer of the service, to rejoin station at Port Townsend, Wash. March 14.

Thoma, A. R., assistant surgeon, to report to Surgeon G. W. Ston Chairman Board of Examiners, Stapleton, Staten Island, N. for examination to determine fitness for promotion to the gra of passed assistant surgeon. March 13.

Wickes, H. W., assistant surgeon, to report to Surgeon G. Stoner, Chairman Board of Examiners, Stapleton, Stat Island, N. Y., for examination to determine fitness for p motion to the grade of passed assistant surgeon. March 13.

Cumming, H. S., assistant surgeon, to report to Surgeon G. Stoner, Chairman Board of Examiners, Stapleton, Stat Island, N. Y., for examination to determine fitness for p motion to the grade of passed assistant surgeon. March 13.

Relieved from duty at Washington, D. C., to take effect March 1899, and directed to rejoin station at New York, N. March 13.

Hastings, Hill, assistant surgeon, relieved from duty at Washi ton, D. C., to take effect March 31, 1899, and directed to proce to Cleveland, Ohio, and assume temporary command of servi March 13.

Fricks, L. D., assistant surgeon, assigned to dnty as Sanitary spector on U. S. transport "Sedgewick." March 16.

Richardson, T. F., assistant surgeon, to report by letter to Surge J. H. White for duty at the Immigration Depot, New Yo N. Y. March 10.

King, W. W., assistant surgeon, to report to medical officer in co mand, Detroit, Mich., for temporary duty and assignment quarters. March 10.

Thornbury, F. J., assistant surgeon, to report to medical officer command, Stapleton, Staten Island, N. Y., for duty and assig ment to quarters. March 10.

Ramus, Carl, assistant surgeon, to report to medical officer in co mand, Cape Charles Quarantine, for duty and assignment quarters. March 10.

Foster, S. B., acting assistant surgeon, granted leave of absence 20 days from March 10, 1899. March 11.

Maguire, E. S., hospital steward, upon being relieved by Hospi Steward C. H. Miller, to proceed to Evansville, Ind., a report to medical officer in command for duty and assignm to quarters. March 15.

Miller, Charles, hospital steward, upon being relieved by H pital Steward G. H. Brock, to report to medical officer in co mand, Detroit, Mich., for duty and assignment to quart March 15.

Stearns, W. L., hospital steward, granted leave of absence for days from April 12, 1899. March 11.

Kolb, W. W., hospital steward, upon being relieved by Hospi Steward F. H. Peck, to proceed to Norfolk, Va., and report the medical officer in command for duty. March 15.

Peck, F. H., hospital steward, upon being relieved by Hospi Steward C. G. Carlton, to proceed to the Tortugas Quarant Station, and report to the medical officer in command, for d and assignment to quarters. March 15.

Carlton, C. G., hospital steward, to proceed to Egmont Key Det tion Camp, and report to the medical officer in command, duty and assignment to quarters. March 15.

Beck, J. E., hospital steward, to report to medical officer in co mand, New Orleans, La., for duty and assignment to quart March 15.

Board Convened.

Board convened to meet at Washington, D. C., at 11 A.M., March 1899, for the physical examination of an officer of the Reve Cutter Service.

Detail for the Board: Surgeon C. E. Banks, chairman; Surg J. H. White; and Passed Assistant Surgeon G. T. Vaugh recorder.

Board convened to meet at Washington, D. C., at 9 o'clock A March 14, 1899, for the examination of officers of the service determine their fitness for promotion to the grade of surgeon

Detail for the Board: Surgeon C. E. Banks, chairman; Surg J. H. White; and Surgeon P. M. Carrington, recor March 10.

Appointments.

Oliver Stewart, of Michigan, appointed Acting Assistant Surg for duty at the port of Port Huron, Mich. March 11.

Julius E. Beck, of Ohio, appointed Junior Hospital Stew March 11.

Changes in the U. S. Marine-Hospital Servi

for the seven days ended March 23, 1899:

Godfrey, John, to proceed to Fort Huron, Mich., for special t porary duty. March 21.

Mead, F. W., surgeon, granted leave of absence for 10 days f April 11. March 17.

Banks, C. E., surgeon, detailed as inspector of unserviceable prop in the purveying division at Washington, D. C. March 21.

Williams, L. L., passed assistant surgeon, relieved from duty Washington, D. C., and directed to assume charge of the in gration inspection service at New York, N. Y. March 22.

Cobb, J. O., passed assistant surgeon, to proceed to Savannah, for special temporary duty. March 22.

Smith, A. C., passed assistant surgeon, to proceed to Savannah, for special temporary duty. March 22.

Eager, J. M., passed assistant surgeon, relieved from duty at W ington, D. C., and directed to proceed to Cleveland, Ohio, assume temporary command of service. March 22.

Wickes, H. W., assistant surgeon, granted leave of absence for two days from April 3. March 21.

Hastings, Hill, assistant surgeon, order of March 13, to proceed to Cleveland, Ohio, revoked, and directed to proceed to Seattle, Wash., and assume command of Service. March 22.

Grubbs, S. B. assistant surgeon, detailed as quarantine officer for the port of Cienfuegos, Cuba. March 17.

Von Ezdorf, R. H., assistant surgeon, to report to medical officer in command, South Atlantic Quarantine Station, for temporary duty. March 18.

McAdam, W. R., assistant surgeon, to report to medical officer in command, Tortugas Quarantine, for temporary duty. March 19.

Board Convened.

Board convened to meet at the U. S. Marine Hospital, Stapleton, N. Y., Wednesday, April 5, 1899, for the examination of assistant surgeons of the service to determine their fitness for promotion.

Detail for the Board: Surgeon G. W. Stoner, chairman; Past Assistant Surgeon L. L. Williams; and Past Assistant Surgeon W. P. McIntosh, recorder.

Changes in the Medical Corps of the U. S. Navy

for the week ending March 25, 1899.

Herndon, C. G., surgeon, detached from the "Richmond" and ordered to the "Prairie."

Hibbitt, C. T., surgeon, ordered to the "Baltimore," via the "Glacier."

Hibbitt, C. T., surgeon, orders of March 18th revoked; ordered to the "Baltimore," via steamer of April 12th, from the "San Francisco."

Freeman, G. F., assistant surgeon, detached from the "Vermont" and ordered to the Washington Naval Hospital.

Foreign News and Notes.

GREAT BRITAIN.

Rotunda Hospital, Dublin.—It is proposed to supply the operating room with sterilized air.

Sir William Roberts, M.D., F.R.S., a well known Manchester physician who removed late in life to London, and who is especially an authority on the chemistry of the digestive processes, has been forced by the state of his health to resign his position on the Statutory Commission for the Reconstitution of London University. Dr. Thomas Barlow, physician extraordinary to the Queen, and physician to Her Majesty's household, takes his place. The Statutory Commission is for the time being the body to which the settling of all the rules and details of the new London University, which is to be a teaching and not merely an examining body, has been confided.

Myelopathic Albumosuria.—At the meeting of the Royal Medical and Chirurgical Society, March 14, according to the *Lancet*, Dr. Bradshaw and Dr. Warrington, of Liverpool, made a communication on a rare case which clinically was at first characterized by the persistent occurrence of albumose in the urine which was present till death. Shortly before death indications of softening of the ribs and the sternum appeared and at the necropsy it was found that the softening of bones was due to multiple myelomata. The association of albumosuria and multiple tumors of bone has been recorded previously, the first case being by the late Dr. Bence Jones in 1847, but in all of these the bone-lesions were only discovered after death. Dr. Bradshaw and Dr. Warrington's case appears to be the first in which the diagnosis was made during life. The name of "myelopathic albumosuria" which they purpose to give to the condition, is an appropriate and convenient one and will distinguish it from other forms of albumosuria which are often associated with granular contracted kidney and with diseases attended by much formation of pus such as empyema.

Black-Water Fever.—Mr. W. H. Crosse, consulting medical officer and late medical superintendent of the Royal Niger Company, read an interesting paper recently before the Epidemiological Society of London based upon the experiences of nine years' medical work on the fatal West Coast of Africa. His remarks as to the treatment of black-water fever were given with great clearness. He considered three distinct factors to be present requiring therapeutic measures: (1) the attack of malaria, during which the hemoglobinuric paroxysm develops; (2) the malarial cachexia predisposing the sufferer to the acute attack; (3) the loss of hemoglobin "which in its effect differs in no way from an ordinary severe hemorrhage." The first of these factors could alone be influenced by the routine treatment of quinin, which must be given in full doses, and hypodermically if persistent vomiting prevent its administration by the mouth. Mr. Crosse holds therefore diametrically opposite views to Professor Koch, who has stated that "the treatment of black-water fever with quinin must absolutely cease." Cholagog purgatives followed by opium will then liberate the body from the accumulated toxins in Crosse's opinion; while strychnin and digitalis must be relied upon to combat asthenia.

The Medical Staff of the Seamen's Hospital, Greenwich, viz., Dr. Curnow, physician to King's College Hospital; Dr. James Anderson, C. I. E., a well-known authority in tropical diseases and a distinguished officer in the army medical staff; Mr. George R. Turner, surgeon to St. George's Hospital; and Mr. Donald Gunn, the ophthalmologist, have resigned their posts. The Seamen's Hospital is thus left without a medical staff, although the late officers very rightly continue to discharge their duties until their successors have been elected. The resignations are a protest against the rude treatment meted out by the lay governors to their medical colleagues. When the scheme for a School of Tropical Medicine in London was under consideration the lay governors of the Seamen's Hospital did not condescend to say a word to their medical staff, but pledged the hospital to support the new institution and even went so far as to imply that the teaching would be done by the gentlemen whom they were ignoring. Opinions are sharply divided as to the merits of the scheme under which the School of Tropical Medicine in London is to be started, but there are no two opinions as to the way in which the medical staff of the Seamen's Hospital have been treated. Discourtesy is the word employed by everybody.

The Sixth International Otological Congress will be held in London, August 8 to 12, under the presidency of Dr. Urban Pritchard. The British Organization Committee, which numbers over 70 members from Great Britain and the Colonies, has Mr. A. E. Cumberbatch for its treasurer, and Mr. Cresswell Baber for secretary-general. The meeting will be held in the examination hall of the Royal College of Physicians of London, and Royal College of Surgeons of England, and the following details have been arranged: August 7, a preliminary reception will be held by the president elect; August 8, 9, 10, 11, the Congress will be in session; and August 12, there will be an excursion for members and ladies. The official languages of the Congress are English, French, German, and Italian. The subscription, to include a copy of the Transactions, is fixed at £1, to be paid to the treasurer, Mr. A. E. Cumberbatch, 80 Portland Place, London, W., before the opening of the Congress. The subject chosen for special discussion is, Indications for Opening the Mastoid in Chronic Suppurative Otitis Media, which will be introduced by Prof. W. Macewen, of Glasgow, Dr. H. Knapp, of New York, Dr. Luc, of Paris, and Prof. Politzer, of Vienna. A museum of specimens and instruments relating to otology, shown by members, will be held during the meeting.

The Infectiousness of Phthisis.—At the local County court of Folkestone, the well-known Kentish port, a case was recently decided by the stipendiary judge of considerable importance to medical men and to the public at large, and more particularly to hotel-keepers. A gentleman died in one of the fashionable hotels last October on his way back from Cannes. He died of phthisis, and the medical man who signed a death-certificate to this effect advised that the furniture of the room occupied by the deceased should be disinfected and the bedding destroyed. The estimated cost of this procedure, viz., £19 13s. 6d. ($100), was claimed by the hotel from the executors, but the claim was disputed on the ground that the measures of disinfection had not been carried out, certain furniture not having been destroyed, the wall paper not having been stripped off and the wood-work not having been repainted. The hotel authorities then amended their claim and asked for a sum equivalent to the rent of the room for a month, during which time it was stated to have been left unoccupied after disinfection; at the same time they disputed the diagnosis of tuberculosis. The judge refused to go behind the medical certificate and disallowed all claim for repayment by the executors, except 15s., which sum the hotel proprietors were able to prove had been spent in fumigation, etc. The case is the first of the sort in England and proves how widely the doctrine that phthisis is infectious is now held. The decision so seriously affects the interests of hotel-keepers that it is sure not to remain long unchallenged.

The Results of Operation for Cancer of the Breast.—Mr. Watson Cheyne, F. R. S., has contributed to *The Lancet* a paper of much interest upon this topic. Three yeas ago, in the Lettsomian lectures of the Medical Society of London, Mr. Cheyne put on record the notes of 61 cases which had been operated upon at periods varying from one month to six years; in 21 of these from three to six years had elapsed since the date of the operation. As from three to nine years have now elapsed since these 61 cases were operated upon, Mr. Cheyne begins his further contribution to our knowledge of the subject by stating their present condition as far as he has been able to ascertain it. Without entering into details here, he shows that of the 61 patients 30 remain free from recurrence. He now gives a further list of 38 patients operated upon up to the end of 1897, which brings the total up to 99. The results of these 38 fresh cases, in which from one to three years have elapsed since the operation, is the following: 26 patients remained well without recurrence; one refuses to say how she is, but appears well; in 1 the result is unknown; 1 died suddenly about a fortnight after the operation; 7 died of recurrence; 1 (in whom there had been recurrence) recurred and has probably died; and 1 (in whom also there had been recurrence) recurred slightly, has been operated upon, and appears well. The total is 99 cases in which from one to nine years have elapsed since the operation and of these 56 certainly have as yet had no recurrence. From the nature of the cases described, it is clear that there has been no selection of suitable material; and it is Mr. Cheyne's conviction that about 50% of all cases of cancer of the breast will recover from the operation and remain free from recurrence if the original procedure is drastic enough. Especially is it necessary in his opinion that the removal of the skin should be free. "*The patient's chance,*" he says, "*lies in the first operation.*"

CONTINENTAL EUROPE.

University of Vienna.—Dr. William Winternitz has been appointed extraordinary professor of internal medicine.

University of Utrecht.—Dr. Hermann Snellen, professor of ophthalmology, will retire from his position at the end of the present semester, and will be succeeded by his son and present assistant, Professor Heinrich Snellen.

Austrian Balneological Congress.—The first meeting of the Austrian Balneological Congress was announced for March 28, 29, and 30. Among the communications promised were: The Influence of Baths, Hydropathy, and Climatotherapy on the Circulation and the Blood, by Professors Kisch and Glax; the Dangers of Infection in Health-Resorts and Regulations for their Prevention, by Dr. C. Ullman; Hydrotherapy and Climatology in Hungary, by Dr. Kuthy of Buda-Pesth.

The French Association for the Care of Tuberculous Children, according to the *Lancet*, held its annual meeting February 25, Dr. Herard, member of the Academy of Medicine, being in the chair. The treasurer in his report said that the association at the beginning of the year 1888 had only 12 beds; now it possesses 2 special hospitals at Armesson and Villiers with 350 beds and 2 convalescent homes at Noisy and Tremilly. The expenditure is 400,000 francs per year. In 10 years the association has treated 9,514 sick children, representing 326,859 days in the hospital, and 19,547 consultations. In the near future the convalescent homes will be increased to 4 in number and the children who have recoverd will be trained there to agricultural work and other out-of-door occupations which offer the best chance of a healthy future for them.

Adulteration of Coffee and Chicory in Belgium.—The following, dated Brussels, February 13, 1899, has been received by the State Department from Consul Roosevelt: The expert commission for examining alimentary commodities recently reported that there were numerous contraventions of the law relative to the trade in chicory and coffee. In consequence, the Minister of Agriculture has again called the attention of dealers and officers concerned to the fact that it is positively prohibited to sell or expose for sale chicory which at 100° C. loses more than 15% of its weight; chicory dried at this temperature leaving in the process of incineration more than 10% mineral matter in pulverized chicory or more than 8% in chicory in grain, the constituent parts of which, soluble in boiling water, will be less than 50%. As regards coffee, no substitute whatever for this commodity can be sold under any denomination comprising the word "coffee," its derivatives mixed, or homonymous, or the names of origin of the natural coffee.

The German Balneological College.—According to the *British Medical Journal*, at the Congress of Balneologists which met in Berlin March 2 to 6, the most noticeable address was decidedly that of its president, Professor O. Liebreich, on the Resisting Power of the Organism to Micro-organisms. Liebreich developed the idea that all therapeutic methods, however seemingly divergent, are at one in their final object, which is, to act on the cell. No one method excludes other methods, and no thoughtful physician will make use of one exclusively, but will take up this or that course of treatment judged as specially opportune, or suited to the peculiarities of the case. Dr. Brock read the yearly report, and congratulated the members on the first steps to success attained by their repeated petitions for sanitary improvements in German watering-places and health-resorts. Prince Hohenlohe, the Imperial Chancellor, had earnestly recommended the petitions to the attention of the German Federal Governments. And in Prussia something had already been done. A ministerial rescript had been sent to the provincial governors, directing them to appoint local boards of health (on each of which at least one medical man of the place is to sit), with power to superintend not only the public hygienic arrangements, but also the sanitary conditions of lodging-houses, hotels, etc.

MISCELLANY.

A Purposed International Sanitary League.—Prince Orbeliani, a Russian nobleman, purposes to establish an international sanitary league to supply a complete staff of bacteriologists, medical officers, chemists, and nurses (all of whom have gone through training in actual contact with epidemics) to deal with outbreaks in any country that may be affected. The prince sees no reason for counting absolutely on the supposed immunity of Europeans, in the present day, against plague which formerly carried off the populations of European cities by the hundred thousand. He argues that the danger threatening all countries ought to be encountered by the organized sanitary resources of all countries working together for the common safety.

International Congress of Gynecology and Obstetrics.—We have already announced that the next congress will be held in Amsterdam, August 8 to 12. The following are the topics arranged for general discussion: (1) The surgical treatment of fibro-myoma. (2) The relative value of antisepsis and improved technic for the actual results in gynecologic surgery. (3) The influence of posture on the form and dimensions of the pelvis. (4) The indication for cesarean section compared with that for symphysiotomy, craniotomy, and premature induction of labor. Among those who have consented to take part in these discussions are Drs. Doyen, Howard Kelly, and Schauta, who will treat the first question; Drs. Bumm, Richelot, and Lawson Tait the second; Drs. Bonnaire, Pinzani, and Walcher the third; and Drs. Leopold, Pinard, and Pestalozza the fourth. The official languages are English, French, German, and Italian.

The Elimination of Rinderpest in South Africa.—The campaign for the elimination of the rinderpest from the cattle of South Africa is being prosecuted by the Department of Agriculture of Cape Colony, and so far considerable success has been attained. Of such proportions was this plague that it is stated that 98% of the cattle were infected, and that of this number 35% perished. Three different systems of inoculation were tried by the inspectors, that of Dr. Koch, an improved method of Dr. Edington, and a process of Drs. Turner and Kolle. Using Dr. Edington's method in 23 districts, 393,777 head of cattle were inoculated, and the treatment resulted in a mortality of 32,464, or about 8½%. The value of the cattle thus saved is given at over $10,000,000, and shows the economic aspect of maintaining well-equipped scientific bureaus in the Department of Agriculture.

Obituary.—Dr. Bouchard, professor of anatomy in the Faculty of Medicine of Bordeaux, France.—Dr. Gustave Heinrich Wiedemann, professor of physics and chemistry in the University of Leipzig, March 24, aged 72 years.—Dr. William Highes Wilshire, formerly physician to Charing Cross Hospital, London, aged 83 years.—Dr. John Rose, honorary consulting surgeon to the Chesterfield and North Derbyshire Hospital, England, March 7, aged 76 years.—Dr. Mavrogeni Pacha, first physician-in-ordinary to his Majesty the Sultan, Constantinople.—Dr. Loir, sometime professor of toxicology in the University of Strassburg, and later in the Faculty of Science at Lyons.—Dr. H. M. Tarnowski, director of the St. Petersburg Maternity Hospital.—Dr. Vladimir Vasiljevic Ipjakoff, formerly lecturer in the University of Moscow.—Major James W. Evans, professor of pathology in the Calcutta Medical College.

The King's Medicines for the Plague, *Prescribed for the Yeare 1604 by the whole Colledge of Physitians, both Spirituall and Temporall, and now most Fitting for this Dangerous Time of Infection, to be Used all England Over. London, printed for Henry Goffon, and are to be Sold by F. Coules, at his Shop in the upper end of the Old Bayly, neere Newgate, 1636.* So runs the title-page of a tiny pamphlet containing some curious prescriptions for the prevention of plague. Among these are the following:

> Take three pints of Malmesie, a handful of Rue, as much of Sage, boyle these to a quart; then strain out the herbs, and then take an ounce of Long Pepper, Vinegar, and Nutmegs, all beaten small in a Morter, and put into the Wine, and boyle it a little, then take it off, and put into it one ounce of Mithridate, two ounces of the best Treacle, and a quarter of a pint of Aqua-Vitæ, and put all into the Wine and so keepe it.

One spoonful of this was to be taken "as soone as the party doth presume himself infected, luke-warme," and he was "to goe to bed, and sweat two or three houres, and then dry the body well, and keepe warme, and drinke no cold drink, but warme drinke and cawdels, and posset drinke with marigold leaves and flowers." Sanitation was not altogether neglected, for the following are indicated as things which "ought to be duly looked into," viz.:

> It is very convenient that you keepe your houses, streets, yards, back sides, sinks and kennels sweet and cleane from all standing Puddels, Dunghills, and corrupt moystures which ingender stinking savours that may bee noysome or breed Infection; nor suffer no dogges to come running into your houses; neither keepe any (except it be backward in some place of open ayre), for they are very dangerous and not sufferable in time of sicknesse, by reason they runne from place to place, and from one house to another, feeding upon the uncleanest things that are cast forth in the streets, and are a most apt cattell to take infection of any sicknesse, and then to bring it into the house.

If for "dogges" in this recommendation one should read "cats," the advice might have been issued by a modern M.O.H. The "Colledge of Physitians" has also something to say in regard to "ayring your roomes,' but this was to be done not by the free air of heaven, but with "charcole-fires," into which "a little quantity of frankincense, juniper, dried rosemary, or of bay-leaves" was to be put. "The King's Medicine against the Plague of the Soule," is prescribed *secundum artem.* The reader is directed to take the "herb of vertue" and the "herb of patience," to "straine these through the fine strainer of uprightnesse and integritie," to put thereunto "instead of white ginger . . . the hot ginger of love towards God and thy neighbour," to "adde also a good quantity of the comfortable treacle of hope," etc., etc.—[*British Medical Journal.*]

Odd Result of a Bee-sting.—G. H. Stover (*Bulletin of Johns Hopkins Hospital,* November, 1898) tells of a woman who had never been able to eat honey, and who was stung in the cheek by a bee. After recovery she had a craving for honey and could eat it with impunity. [D.R.]

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

March 11, 1899. [No. 1993.]

1. On the Pathology of the Thyroid Gland. GEORGE R. MURRAY.
2. On Some Clinical Aspects of Granular Kidney. SAMUEL WEST.
3. On the Earth in Relation to the Preservation and Destruction of Contagia. G. V. POORE.
4. On the Anatomy and Surgery of the Peritoneal Fossæ. B. G. A. MOYNIHAN.
5. Three Cases of Cyst of the Pancreas Treated by Incision and Drainage Through the Anterior Abdominal Wall. BILTON POLLARD.
6. Operation for Elephantiasis of the Vulva. IZETT ANDERSON.
7. The Treatment of Pneumonia by Iron Perchlorid. A. TREVAN.
8. A Case of Obstinate Hiccough. R. W. S. CHRISTMAS.
9. Parietal Osteoma Treated by Trephining: Improvement. HENRY HANDFORD.

2.—West in his third lecture studies the **symptoms and treatment of granular kidney.** The disease may exist for a long time without appearing to affect the health or producing symptoms. When symptoms do appear it may be considered as far advanced. The symptoms are divided into the cardio-vascular and toxemic. The former occur first, though both may be present together. The patients sometimes die from the former before the toxemic symptoms occur. The cardiac symptoms are summed up in heart-failure, and the vascular are first, hemorrhage and its results; second, degenerative changes, especially in the nervous system, the result of imperfect nutrition through the diseased vessels. Heart-failure is often the first symptom to cause anxiety. Acute pericarditis sometimes occurs and is always a very serious and late manifestation. The vascular lesions produce 3 sets of symptoms: Those due to rupture and consequent hemorrhage; those which result from nutritive disturbance in the parts supplied by the diseased vessels—this is especially met with in the central nervous system and in the eye; aneurysm, not only of the small vessels, but of the main trunks. Hemorrhage may take place into almost any part of the body, but the most serious effects are from hemorrhages into the brain. These may be very extensive or very minute (miliary aneurysm). Epistaxis is a common form of hemorrhage. Hematuria, generally originating in the bladder, is quite common. It is usually slight in amount and recurrent, this recurrent feature being of some diagnostic value. Sometimes in the last stages of the disease, the patient passes into an almost hemophiliac condition. Degenerative changes occur as the result of defective nutrition, in consequence of the diseased condition of the bloodvessels, but may also be toxic in origin. The toxemic symptoms are divided into those of acute onset and great severity, which usually lead to rapid death; and those of more gradual onset and longer duration, of less apparent severity and of very indefinite character. In order to designate their relationship with other allied clinical conditions, they should be designated as acute and chronic renal toxemia. In uremia toxemia may arise either when the metabolism may be normal and elimination defective, or when the metabolism may be increased or perverted while the elimination is normal or even increased. The acute symptoms are probably dependent upon defective elimination by the kidney. The majority of symptoms which bring the patient under notice are the result of chronic toxemia. Gastrointestinal symptoms are pronounced. Vomiting is frequent and obstinate. Diarrhea is quite common, in some cases extremely obstinate, and may be associated with cramps. The close association of chronic lead-poisoning and granular kidney supports the view that granular kidney is the result of the circulation of some toxic substance in the blood, which, like lead, excites cirrhosis in the kidney. On the other hand, it is also possible that certain persons suffer from lead-poisoning, because their kidneys are granular already. The appearance of health may be preserved for a long time, but usually as the disease advances the nutrition suffers. The cachexia stands in direct relation to the kidney-wasting, and, when it is extreme, there is well-advanced destruction of kidney-substance. This cachexia is characterized by anemia and asthenia, and to some extent by loss of flesh, but this is not so marked as in advanced malignant disease. The blood-changes are those of simple extreme anemia. The nervous symptoms are headache, sometimes vomiting, renal asthma, peripheral neuritis (very rare), and epileptiform convulsions. When the subcutaneous tissue is distended with edema, nutritional changes give rise to rashes from slight local causes. Rashes occurring in the absence of edema are probably of toxic origin. Those associated with edema are generally erythematous in nature and of little moment. Eczematous eruptions sometimes occur where edematous surfaces lie in contact with each other. Owing to reduced resistance to pathogenic organisms, the effects of wound-infection are very severe. Rashes occurring without edema are generally widespread, obstinate and of grave significance. They are erythema, pityriasis rubra, dermatitis exfoliativa, general eczema, and a discrete papular eruption. Fits and coma are the most characteristic symptoms of acute renal toxemia. Whatever the form acute uremia may take, the prognosis is extremely grave. The epileptiform convulsions are of less significance than is coma. The acute cases may develop signs of cerebral irritation, such as extreme restlessness, sleeplessness, and delirium, sometimes noisy and active, resembling delirium tremens. A fact not generally appreciated is the frequency of sudden death in cases of granular kidney. Little can be done in the way of prophylaxis or prevention, but most good can be accomplished in the earlier stages of the disease, which emphasizes the necessity of early diagnosis. The objects of treatment are, first, to prevent the disease from developing and to relieve the damaged organ so far as possible. To accomplish this, exposure and fatigue of either body or mind should be avoided, the general health kept at its highest level, proper food given, and the winter months should be passed in a warm, dry and genial climate. Care should be taken to guard against the accidents especially likely to occur, such as heart-failure and rupture of vessels. Symptoms should be counteracted or relieved as they arise. Of drugs, pilocarpin nitrate, given in small doses 2 or 3 times a day by the mouth, or in urgent cases by hypodermic, is the most useful. Headache, irritability by day and restlessness by night, vomiting and digestive disturbances, a foul tongue and dry skin often yield readily to a dose or two of this drug. While there is no present evidence of the existence of an internal secretion in the kidney, yet the cachexia which develops in chronic renal disease is not at all unlike that which is met with in Addison's disease or even in myxedema. Unquestionably clinically the late symptoms of granular kidney depend upon disturbance of the glands, which suggests the possibility of an internal kidney secretion. With this thought in mind renal extracts have been used to some extent, but chiefly in the late stages of the disease. If any good is to be derived from such treatment it must be administered before the symptoms are far advanced. In all of the several cases in which West has used renal tabloids, the results have been the same, namely, an increase in the amount of urine, and an improvement in the general condition. This improvement followed and appeared to be due to the action of the remedy. [S.M.H.]

4.—The **pericecal folds and fossæ** are primary and secondary; the primary being vascular in origin and the secondary dependent on the adhesion, sometimes wanting, between the cecum and ascending colon and the posterior abdominal wall. The primary folds are (1) an anterior, raised up by a branch of the ileo-colic artery as it runs over the anterior aspect of the ileo-colic junction; (2) a posterior, raised up by the artery to the appendix; (3) an intermediate, which is partly muscular and partly vascular in origin; (4) an accessory anterior fold due to a lateral branch of the ileo-colic artery. The secondary folds are: (1) The parieto-colic fold; (2) the mesenterico-parietal fold. The primary fossæ are the anterior vascular fossa, the ileo-appendicular fossa, and the fossa of Hartmann (fossa ileo-cecalis infirma), and the secondary fossa are the retro-colic fossa and the fossa iliaco-subfacialis (fossa of Biesiadicki). **Hernia** may occur into the ileo-appendicular fossa or the retro-colic, or the fossa of Biesiadicki, or the fossa of Hartmann. [G.B.W.]

5.—The 3 cases of **pancreatic cyst** reported by Pollard show clearly the advantages of treatment by drainage, all of them making good and permanent recoveries. The only bad condition was the weakness of the scar, which was present in all, and in 2 of the 3 cases small ventral hernias had developed. The clinical signs of the 3 cases were very similar, a large tumor occupying the epigastric and left hypochondriac regions and portions of the umbilical and left lumbar regions. They were only slightly movable. In each case there was a dull area in the left hypochondriac and lumbar regions. In 2 of the 3 a right diagnosis was made before the operation. [G.B.W.]

6.—Anderson reports a case of elephantiasis of the vulva occurring in a black girl, aged 25, operated upon in 1865. A clamp composed of two parallel bars of lancewood united at one end by a hinge and having several short sharp metallic pins on the inside of each bar, was applied and the masses removed. The right labium formed a large tumor 19½ inches in circumference, and the left labium was the size of a large turnip. The nymphæ and clitoris were also hypertrophied, but not to a great extent. [W.K.]

7.—Teevan recommends the use of **iron perchlorid** combined with large doses of digitalis in the treatment of **pneumonia.** [S.M.H.]

8.—In a patient, aged 50 years, suffering from very **obstinate hiccough** following an operation for hemorrhoids, Christmas prescribed 2 minims of a 1% solution of nitroglycerin with a dram of the spirit of chloroform in a half-ounce of water every hour. The hiccoughs began to diminish shortly after the first dose and in 5 hours ceased entirely. [S.M.H.]

9.—This case of parietal osteoma was a woman, 19 years of age, who had lost her vision to a large extent, had partial paralysis of the left side for some time before the growth became manifest. After the operation there was marked improvement both in her eyes and paralyzed limbs, though complete restoration of the normal functions did not take place. [G.B.W.]

Lancet.

March 11, 1899. [No. 3941.]

1. On the Pathology of the Thyroid Gland. George R. Murray.
2. The Earth in Relation to the Preservation and Destruction of Contagia. G. V. Poore.
3. The Anatomy and Surgery of the Peritoneal Fossæ. B. G. A. Moynihan.
4. X-rays: Improvements in Apparatus. John Macintyre.
5. Case of Postpartum Eclampsia with Recovery. John Brunton.
6. Note on the Flagella of Micrococcus Melitensis and Bacillus Pestis. Mervyn H. Gordon.
7. Replacement of a Severed Portion of the Nose. W. M. Abbot-Anderson.
8. Bradycardia in Influenza. Heinrich Oppenheimer.
9. Two Cases of Idiopathic Dilatation of the Colon. John R. Lunn.

1.—Murray, in the first of his lectures on the **pathology of the thyroid gland,** discusses the development and structure of the gland, its histology, the formation and absorption of thyroid secretion, the composition of the thyroid secretion, the results of loss of the secretion in animals, and the changes in the gland in primary myxedema. In the second lecture he considers the results of loss of thyroid secretion in the young, the effect of renewal of thyroid secretion, the effect of thyroid extract in athyroidism in animals, and the treatment of myxedema by thyroid extract. In primary and secondary myxedema in man we see the results of loss of thyroid secretion pure and simple, and consequently are able to remove the symptoms entirely by giving a sufficient supply of the secretion. The main objects of the treatment are to remove the symptoms by restoring normal metabolism as rapidly as possible without risk to the patient, and thereafter to continue a sufficient supply of thyroid secretion to maintain the normal rate of metabolism of the tissues generally. This necessitates the division of the treatment into two stages, first, the stage during which the tissues are gradually brought back to normal, which requires, according to the severity of the symptoms, from 1 to 3 months; second, the stage of maintenance of the normal rate of metabolism. The latter lasts so long as the patient lives, since the condition of the atrophied thyroid gland is not influenced by the treatment. The raw gland may be administered, but the liquor thyroidei is the best form for administration. It should be given in a single daily dose at bedtime. In advanced cases the early stage of the treatment must be carried out with great caution on account of the possibility of disagreeable cardiac symptoms due to degeneration of the cardiac muscle. For this reason the doses should at first be small, and the patient confined to bed. Any undue acceleration of the pulse up to 90 or 100 necessitates an immediate reduction of the dose, and the administration of stimulants and digitalis. Patients in the early stage of the disease are able to go about as usual during the treatment, but should be advised to avoid any unusual exertion. The initial daily dose in these cases may be 10 minims, gradually increased to 15 minims. Ordinarily no other treatment is required, but when anemia exists, it is well to give iron at the same time. As soon as all the symptoms of myxedema have disappeared, the first stage of the treatment is ended. In order to induce the patient to persist in the treatment, the remedy should be given as an essential part of the daily diet, and not as a medicine. The failure to continue the treatment results in a complete recurrence of the symptoms. When there is doubt of myxedema, thyroid extract may be given as a means of diagnosis. It is of great use in distinguishing between some of the cases with anemia and subcutaneous swelling, and cases of anemia with ordinary obesity, which they often closely resemble. One of the earliest signs of improvement under thyroid treatment, is the return of the temperature to the normal level. The myxedematous swelling gradually disappears from all parts of the body; there occurs corresponding loss of weight, which may amount to so much as 28 or even 56 pounds; the skin becomes warm and moist; occasionally there is some desquamation, especially of the palms of the hands and the soles of the feet. The hair-follicles resume their function, and a good growth of hair may succeed former baldness. The feeling of lassitude passes away; the mental processes become more active; and the amount of nitrogen eliminated is increased, this being almost entirely due to increase of urea in the urine. The number of red blood-corpuscles in the blood increases. The thyroid gland can be advantageously administered in all cases of delayed development in children, and all such cases should be carefully studied for signs of cretinism. Early initiation of treatment is the only hope of full physical and normal development in cretinism. The treatment consists in the administration of the gland until all symptoms have disappeared, and then a sufficient dosage to keep the symptoms in abeyance during the balance of the patient's life. The results of treatment, if begun at an early period, are quite as satisfactory in these cases as those of myxedema. In the well-advanced cases; marked improvement can be accomplished, but it is impossible to obtain full mental development in them. Special education should be carried out at the same time as the treatment, in order that the patient may be able to make the most of his renewed cerebral activity. [S.M.H.]

2.—Poore concludes that the dangers of applying dung to the soil are as nothing in comparison with the advantages. He believes that even in large cities a well-considered scheme for the application of offal and ordure in a dry state to the soil would be the most economic way of getting rid of it. The practice of agriculture is preeminently invigorating and healthy, and there is **no evidence that contagia spread in the soil.** To live in filth and to inhale the products of putrefaction given off by privies or pails of feces or by sodden ground result in disease, but there is no evidence whatever that disease thus generated is enabled to spread through the soil into the neighboring houses or street. Filth-disease, like many other forms of disease, is proportionate to overcrowding. The only chance of getting a living by agriculture lies in the due enrichment of the soil, and there is no chance of this so long as the only form of sanitation which receives any official encouragement is one which involves the systematic starvation of the soil. [S.M.H.]

4.—Macintyre describes a new interrupter of coils which, according to his view, has done much toward the development of **x-ray photography.** It has resulted in a most striking reduction in the time of exposure, while the brilliancy and steadiness of the fluorescent screen are greatly increased. As a result of experiments with this new development, he concludes, first, that the effects in the tube can be varied by increasing or decreasing the voltage to the primary coil; second, the current can be altered by difference in size and number of the active electrodes; and, third, the electrolyte affects the result, and the distance also between the two electrodes in the cell has an influence. [S.M.H.]

5.—Brunton reports a case of **postpartum eclampsia** occurring in a primipara, aged 22 years, who was delivered by forceps. The attacks did not come on until the day after delivery. The urine was highly albuminous. Recovery ensued after energetic treatment. [W.K.]

6.—Gordon believes the **micrococcus melitensis** possesses the power of voluntary motion. He has succeeded in demonstrating the presence of flagella by staining by Pitfield's or Van Ermengen's method. The majority possess but one terminal flagella. Occasionally there are 2, less frequently 3, and rarely 4. He believes this organism is allied to the alkali-producing type of the bacillus coli which he has formerly described. The **bacillus pestis** he has shown to have 1, sometimes 2, terminal flagella, and he has observed the organism move across the field of the microscope and then change its direction. [S.M.H.]

7.—While sharpening a knife on a steel a man struck his nose, cutting off a triangular piece, the base of which measured one-half an inch. The raw surface was washed with mercuric-chlorid solution and saturated boracic acid solution, and the part cut off was fixed in place by 12 fine silk sutures, fully 35 minutes after the injury. Hot compresses wrung out in boric solution were used every 5 minutes for 4 hours, when an antiseptic dressing was applied. The wound united by first intention and the stitches were removed on the fourth day. [M.B.T.]

8.—Oppenheimer describes 3 cases of uncomplicated influenza in which there was decided **bradycardia** occurring early in the attack. The lowest point reached in the first case was 40 beats to the minute, in the second 48, in the third 45. All the patients recovered and the heart-rate gradually returned to the normal. He finds this condition most pronounced in the cases where there is influenza of the gastrointestinal type. In these cases there is very marked prostration inversely proportionate to the frequency of the heart-beats. He believes that the bradycardia is due to the immediate action of the influenza-toxins upon the pneumogastric nerve or the ganglia of the heart. [S.M.H.]

9.—A woman, 86 years old, who had suffered for some months from abdominal pain and distention, died from heart-failure. At the necropsy the whole colon and rectum were found distended, the circumference being about 15 inches. No growth, stricture, compression or evidence of fecal impaction were found to account for the condition. In a second case, a woman, aged 66, who had taken cathartics for many years because of constipation, entered the hospital with symptoms of intestinal obstruction. The colon was opened under eucain-anesthesia and large quantities of flatus escaped. There was no shock from the operation, but the patient died 26 hours later. At the necropsy the rectum was found enormously dilated, 26 inches in circumference, and capable of holding as much as a bucket. No other pathologic lesions are mentioned. The cases are reported as examples of so-called **idiopathic dilation of the colon.** [M.B.T.]

New York Medical Journal.

March 25, 1899. [Vol. lxix, No. 12.]

1. The United States Army Ration, and its Adaptability for Use in Tropical Climates. Louis L. Seaman.
2. A Clear and Simple Temperature-Chart. Victor Cox Pedersen.
3. On a Polymorphous Cerebral Tumor (Alveolar Glioma?) containing Tubercles and Tubercle-Bacilli. Claribel Cone.
4. A Further Report on the Use of "Antiphthisic Serum, T. R." (Fisch) in Tuberculosis. A. Mansfield Holmes.
5. Bathing a Regiment. H. M. Cohen.
6. The Treatment of Chronic Ulcers of the Leg. John B. Corsiglia.
7. Gonorrheal Vaginitis and its Treatment. Harry Greenberg.
8. Report of a Case of Accidental Swallowing of a Brass Wire, and its Spontaneous Escape from the Stomach by Way of the Ninth Intercostal Space. William J. Gillette.

1.—The command in which Seaman served as surgeon was sent to Puerto Rico in good physical condition. Soon after its arrival, notwithstanding the utmost precautions, nearly every man suffered from diarrhea. The **defect of the United States army-ration** showed itself in these cases by keeping up the gastrointestinal irritation, weakening the patients and making them easy victims to the infectious diseases. Had it been possible to change the ration when its evil effects were first observed much of the illness of the late war would have been averted. The ration provided should have been richer in carbohydrates and much poorer in nitrogenous elements. Such a diet should have been administered some time prior to the invasion of Cuba and Puerto Rico. The pathologic features of the cases upon which autopsies were held, it mattered not what the diagnosis had been, presented many similar characteristics. The liver was almost invariably congested, the mucous membrane of the intestine pale and covered with a thick, tenacious, adherent mucus, the mucosa was hypertrophied, often deeply congested and ulcerated. The toughness of the opaque secretions obliterated the intestinal glands, causing atrophy and thus interfering with absorption and metabolism. The solitary follicles were swollen; Peyer's patches were elevated and frequently showed minute ulcerations; many of the cases in which these were found presented none of the characteristics of typhoid fever and failed to give the Widal reaction. These irregularities are unquestionably attributable to the character of the diet, which acted to intensify a simple catarrh. A salt-ration is the greatest predisposing cause to bowel-complaint. Next to this comes excess in fresh meats, and almost on a par with them are the tinned and dried beans. The native red or black bean was eaten by the soldiers without evil results. Tinned goods are dangerous, because they are so frequently in a state of fermentation, and should never be issued when the fresh article can be obtained. The object in selecting an army-ration should be to provide one that will furnish the necessary energy, and which at the same time can be digested and assimilated in a tropical climate without damage to the digestive apparatus. A suitable nonirritating diet will permit the simple catarrhal intestinal conditions which occur in the event of changes to warm climates soon to disappear, and in most cases sanitary precautions supplemented by an appropriate ration will prevent their recurrence. The first requisite, therefore, of a ration must be, that it is nonirritating and easily digested. It must be easy of transportation, proof against climatic changes, and susceptible at all times to the greatest flexibility. Flexibility should be a characteristic of the ration itself, and no new formula of diet should be enacted by Congress in which this is not embodied. The beef component and salt pork should be reduced one-half, farinaceous food being substituted. Salt ration should be issued not more than once or twice each week, and fresh meat should be provided from animals slaughtered at the point where issued. Hominy and rice are the most valuable among the cereals, and should be quadrupled in quantity. The native red or black bean should be substituted for the canned beans. Dried fruits, especially apples and prunes, should be added to the ration. The importance of proper cooking, especially in the tropics, should be more fully recognized. To accomplish this, schools for the training of camp-cooks should be established, and every officer should have a training in practical hygiene and camp-cooking. [S.M.H.]

2.—Pedersen describes a **temperature-chart** in which every third line is made heavier than the others. This makes it a landmark first, to itself, second to the lines above and below it. This marking further results in separating the chart into 4 zones which are designated as the subnormal, including all below 98.4° F.; slight fever, all between 98.4° and 101° F.; distinct fever, 101° to 104°; and marked fever 104° to 107° F. [S.M.H.]

3.—In concluding this valuable article Cone refers to the mixed histologic type suggested in this tumor, namely, **carcinoma, sarcoma, and glioma.** The carcinomatous areas are simple alveolar, and tubular; the sarcoma-like areas show a structure of simple sarcoma and of endothelioma; the areas resembling glioma show a diffuse intermingling of tumor-cells with highly refractile fibers. Moreover, transitions between the different histologic types are found, showing that all must be regarded as different modifications of the same kind of growth. Of the various forms of neoplasms known to develop from neuroglia only those tumors have been regarded as carcinomata which have taken origin in the adult endymal cell. It is probable that the tumor under discussion is not a carcinoma in the true sense of the term, but only another form of glioma, and since its apparent tendency is to present itself in alveolar form, it is designated alveolar glioma. This name has the two-fold advantage of indicating the nature and origin of the neoplasm and of distinguishing it sharply from secondary metastatic forms of cancer. The question of diagnosis is difficult, because in this case the initial stage of tumor-formation cannot be followed, as the growth had progressed too far and the peripheral transition from the atypical to normal tissue cannot be traced because of an encapsulation of the growth, and unfortunately the neighboring structures were not preserved. Secondary growths were excluded by the postmortem findings. The only data upon which a diagnosis can be based aside from the histologic are complex and confusing. An effort is made, however, taking the histologic type as the basis, with whatever other factors might be gathered for and against each growth, to make a differential diagnosis. As to histogenesis, the endyma has been regarded as the starting point for 2 dissimilar neoplasms, an ordinary glioma and a carcinoma, a difficulty which can probably be solved by the theory that while both carcinoma and glioma are derived from the same blastodermic layer in the embryo, the ectoderm, they originate from this structure at different periods of its development. The carcinoma may therefore correspond with the ectodermal cell of an earlier embryonic period, while glioma may be derived from the ectodermal cell after it has become differentiated into the spongioblast of the primitive neural canal. According to this theory, the term carcinoma may be applied only to those neoplasms whose germs have originated as ectodermal inclusions in the early embryo; while such growths as originate at a later period, from the spongioblast in the embryo or from the developed endymal cell of the ventricles or the choroid plexuses in the adult, must be regarded as gliomas. This probably accounts for the frequency of carcinoma in the brain and the relatively greater frequency of glioma. The question as to the probable nature of the tumor described is a difficult one to answer. It seems more than likely, however, that the tumor, primary in the cerebral substance, sprang from adult endymal epithelium which was included within the depth of the cerebral substance, and that the growth was entirely separated from the ventricles at the time of the autopsy. The tuberculosis, which is unquestionably present, must be regarded as secondary to the tumor-formation, both because of the diffuse infiltrating character of the tubercle-tissue and because of its limited extent. The primary focus of tuberculous infection cannot be determined. The tuberculous lesion of the brain itself was demonstrated only microscopically, so it cannot be said that the primary focus did not exist elsewhere in the body. In the absence of such evidence, however, the brain-tumor must be regarded as a locus minoris resistentiæ which favored the development of tubercle. [S.M.H.]

4.—Holmes as a sequel to his experimentations with **"antiphthisic serum T. R." in tuberculosis** reported during last year, gives the result of the use of this product during the 16 months preceding January, 1899. The cases in which it has been used are classified as follows: (1) Pretuberculous and early stage cases without bacilli; (2) early stage cases with bacilli; (3) chronic cases of long standing; (4) acute cases with mixed infection. Each patient was under personal supervision, the blood and sputum were carefully studied and a careful clinical record made from day to day. When diagnosis was questionable, the tuberculin-test was employed. The cases selected were taken from private practice which excluded the possibility of ideal surroundings. Special attention is given to the following points in the report of the cases (1) the condition of the disease at the beginning of the serum-treatment; (2) length of time spent in Colorado previous to beginning the serum-treatment; (3) the condition at the beginning of treatment; (4) the length of time under treatment; (5) the condition at the close of treatment; (6) the period of time observed since the close of treatment; and (7) the present condition of the patient. Under the first class, which includes cases with a strong tuberculous history, each patient having experienced a shorter or longer period of impaired health during which many of the incipient symptoms had developed, but in which no bacilli were found, are reported 12 cases. The majority of these had been in Colorado long enough to test the effect of climate. The serum-treatment was used unaided by other therapeusis. The results of the treatment were uniform. The condition existing before the treatment was corrected and with but one exception the patient remained in good health up to the time of the present report. Holmes believes firmly in "a pretuberculous state" which is accompanied by a deficiency in the antitoxin-generating power of the blood and tissue-cells. He believes further that the "antiphthisic serum T. R." administered at this time supplies the deficiency and enables the organism to regain its normal power. (To be continued.) [S.M.H.]

5.—Cohen calls attention to the great benefit of cleanliness among troops and describes a method determined by Field which makes bathing of large numbers of men not only easy, but an actual pleasure to those bathed. [S.M.H.]

6.—Corsiglia enters a plea for simplicity in the treatment of **chronic leg-ulcer.** His own method is first to scrub the leg and ulcer with soap and water, then to reduce it to a simple ulcer by cureting. This procedure may be rendered painless by the injection of a solution of cocain in the vicinity of the ulcer. After cureting, the ulcer is brushed with pure carbolic acid and then touched with cotton dipped in alcohol; a bandage is applied, beginning at the toes and extending as far as the knee. Careful bandaging is considered of the utmost importance. When the ulcer becomes perfectly dry, adhesive stripping is made use of. In all cases the heart, lungs and kidneys should be carefully examined to determine if congestion and edema of the lower extremities is due to disease of these organs. Corsiglia has not found a case that did not yield to this method of treatment. [M.B.T.]

7.—Grenberg discusses the diagnosis and treatment of **gonorrheal vaginitis.** [W.K.]

8.—A physician, while making an application to his throat with a brass wire wrapped with cotton, allowed it to slip down the esophagus beyond his reach. He experienced no discomfort for 3 months; then he began to have distress in the epigastrium followed by sharp pain in the region of the cardiac end of the stomach. The next day the wire was found protruding under the skin in the 9th intercostal space. An incision was made under cocain-anesthesia and the wire was removed. The patient suffered but slight annoyance from the operation. [M.B.T.]

Medical Record.

March 25, 1899. [Vol. lv, No. 12.]

1. The Etiology and Treatment of Neurasthenia. An Analysis of 333 Cases. JOSEPH COLLINS and CARLIN PHILLIPS.
2. Eruptions of the Face Due to Nasal Pressure. G. D. MURRAY.
3. Notes on Cocain. WALTER P. JENNEY.
4. The Question of Inflating the Bladder with Air Preliminary to the Bottini Operation. BRANSFORD LEWIS.

In the abstract of the article "The Other Side of the Anti-toxin Question," by J. Edward Herman, in the *Medical Record* for March 11, 1899, the term antitoxic treatment was so employed as to lead to the supposition that it included vaccination for smallpox and hydrophobia. This should, of course, have been called toxic treatment.

1.—Collins and Phillips have analyzed 333 cases of **neurasthenia,** finding 55% males, 45% females, 29% married males, and 31% married females. The oldest patient was 67 years, the youngest, 6. The commonest occupation was housekeeping, 28%, and this and other indoor occupations aggregated 79%. The majority were, of course, citizens of the United States, although a large proportion were Jews. The chief causes were apparently overwork (in 27 cases), and masturbation (in 26). Other causes were worry, fright, childbirth, sorrow, injury, etc. In about 50% of the cases, neuropathic diathesis existed. Of the symptoms, depression occurred in 22%, mental confusion in 10%, headache in 56%, general pains in 30%, insomnia in 70%, myasthenia in

37%, palpitation in 22%, and disturbance of digestion in nearly all. The initial symptom was most frequently headache. Knee-jerk was normal, but showed a slight tendency to exaggeration (22%). In 30% of the patients, there was loss of flesh. Stigmata of degeneracy were present in 14.3%. The most important part of the treatment is prophylaxis. This should be begun at birth, and carried through adolescence. It is particularly important in children born of neuropathic parents that they should have plenty of outdoor exercise, and not be pushed too hard at school. Such children should be accustomed to the cold bath early in life. The treatment of the disease demands chiefly the personal influence and supervision of the physician. The general hygiene of the patient should be improved as much as possible. Isolation, and even discipline are valuable. The sleep should be promoted, not so much by drugs as by hydropathic measures, such as the cold pack, the prolonged warm bath, the drip sheet, and wet compress. Frequently it is necessary to try several methods. The diet should be sufficient, but meat should not be given more than once a day. White vegetables are best avoided. Stimulants should be used only in mild form, if at all. If there is intestinal fermentation, drugs, such as oil of gaultheria, alternating with various purgatives, may be employed. If there is constipation, particularly that form associated with mucous enteritis, the best treatment is oil enemas. The hydriatic measures used for producing sleep may also be used through the day for their general stimulating effect. Electricity has more of a mental than actual physical effect, and that the static current is probably the best form. Mitchell's rest-treatment is, according to Collins, applicable to only a small number of neurasthenics. Rather, in some cases, is exercise in some form essential, particularly of the kind that occupies the patient's attention, and is performed in the open air. In the climatic treatment it is important that the climate should not be so warm as to be enervating, or so cold as to require too much energy. Change is the essential feature. Drugs are of little importance; in some cases, however, bromids are beneficial, and in others nux vomica and bitter tonics. If any local disorder exists, it should of course be relieved. [J.S.]

2.—Murray reports 11 cases of **eruptions on the face,** all of which were **cured by the removal of various growths or deformities in the nose.** In 2 cases the eruptions were peculiar, commencing as painful papular lesions, then becoming vesicular and discharging, leaving eroded spots that subsequently cicatrized. The majority of lesions were spurs, deflected septums, polyps, etc. He believes that the eruption may be caused by intranasal pressure, that they are characterized by muddy complexion and friable skin, that they always appear first, and are more severe on the side corresponding to the pressure, and heal rapidly after this is relieved, first on the opposite side. [J.S.]

4.—Owing to the disastrous results which sometimes occur in **Bottini's operation** from the heated platinum blade catching in a fold of the bladder, Freudenberg recommended partial distention of the viscus with boracic-acid solution. Lewis finds the pain enormously increased when the bladder is distended with the solution, due, probably, to the scalding effect of the red-hot blade, and he has substituted air as a distending medium with perfectly satisfactory results. It is difficult to bring the blade to a sufficient heat in water and this is another disadvantage in its use. Meyer suggested that there was danger of air passing up the ureter when the bladder was distended with air, but Lewis, in experimenting with a dog, has found that it is impossible to force air up the ureter. He believes the distention by air to be perfectly harmless and has obtained the testimony of a number of the most prominent surgeons as to its harmlessness, from experience in their practice. [M.B.T.]

Medical News.

March 25, 1899. [Vol. lxxiv, No. 12.]

1. Abscess of the Lung, with Clinical Data. Henry L. Elsner.
2. The Diagnosis and Management of Occipito-posterior Positions in Labor Cases. Charles H. Glidden.
3. Nasal Catarrh in Children; Its Cause and Treatment. Clarence C. Rice.
4. Report of a Case of Salpingo-oophorectomy in Acute Puerperal Sepsis. Hiram N. Vineberg.
5. Report of 3 Cases of Post-Typhoid Surgical Lesions. F. E. Bunts.

1.—The **diagnosis of abscess of the lung** is of the utmost importance because of the good prognosis when these cases are treated radically and the poor prognosis when the condition has not been recognized. When physical signs and subjective symptoms point to a suppurating focus in the lung, exploratory punctures should be resorted to in order to confirm the diagnosis and should be persisted in, if they give at first negative results. In the 3 cases reported by Elsner, pus was only found after numerous punctures, but all made good recoveries after the suppuration had been found and the abscess opened. [G B W.]

2.—Glidden advocates a more general employment of palpation in **diagnosis of the position and presentation of the fetus.** Auscultation gives valuable evidence as to the condition of the fetus, and may help one somewhat in recognizing its position. The mechanism of labor in R. O. P. positions is quite complicated, and it is necessary for the fetal head to enter the pelvic brim well flexed in order that the subsequent progress may be satisfactory. Upon the amount of extension will depend the difficulties to be encountered. In parturients having a roomy pelvis and easy adaptation of the head, careful bimanual manipulation before rupture of the membranes may succeed in pushing the forehead of the child upward and forward, freeing it from the brim, in the hope that on its reentrance it may be better situated. After rupture of membranes and after the occiput has been well forced down, 3 methods of delivery are possible—manual rotation and immediate application of the forceps; forceps without rotation, and podalic version. The safety of the child will depend upon the length of time consumed in delivery, the amount of pressure produced by forceps and the degree of adaptation between head and pelvis. [W.K.]

3.—Rice gives a somewhat general consideration of **nasal catarrh in children,** and will continue the paper. He states that purulent rhinitis is, in his experience, rare in childhood, when conditions due to foreign bodies and to inflammation of the accessory sinuses are excluded. Disease of these sinuses is, he believes, rare in children; at any rate it is rarely recognized. Deviation of the septum is also uncommon in the very early years of life, excepting when due to traumatism. Spurs are rarely large enough to require operation. He has often seen boggy swellings on the anterior ends of the turbinates, and these are likely to be considered hypertrophic rhinitis, but, he believes, are merely temporary if properly treated, and the usual accompanying obstruction removed. [D.L.E.]

4.—Vineberg reports a case of successful **salpingo-oophorectomy for acute puerperal sepsis,** and emphasizes the fact that puerperal sepsis is a surgical disease and should be treated on surgical principles. The first thing to do in a given case is to ascertain the probable point of infection, and to attack it as one would an infected wound elsewhere. If infection spreads, more radical measures must be instituted. [W.H.]

5.—Three cases of **post-typhoidal lesions** are reported by Bunts. (1) Periostitis, with suppuration, of the radius, which gave a pure culture of typhoid-bacillus and healed after being opened and cureted. (2) Orchitis with disintegration of the organ. The testicle was removed and pure cultures of the typhoid-bacillus were obtained from it. (3) Periostitis with subsequent ostitis. [G.B.W.]

Boston Medical and Surgical Journal.

March 23, 1899. [Vol. cxl, No. 12.]

1. Remarks upon Phlegmasia Dolens, or Milk Leg, in Typhoid Fever, especially as Observed among Soldiers. J. M. DaCosta.
2. Remarks on Infant Feeding, with Special Reference to the Home Modification of Milk. Charles W. Townsend.
3. The Probing of the Nasal Duct from the Nose. Arthur J. Shaw.
4. A Case of Ankylosis of the Jaw, with Remarks on the Etiology of the Disease. J. Orne Green.

1.—Da Costa states that among the 215 cases **of typhoid fever seen in the soldiers** treated in the Pennsylvania Hospital, 30 cases were **complicated with phlegmasia dolens,** and of 135 cases seen after the fever had run its course, there were 18 cases, making a total of 13⅓%. In 13 instances both legs were affected. When but one leg was affected it was the left in 18 instances, the right in but 2. The high percentage of cases thus complicated is difficult to explain, as most of the soldiers had not been subjected to long marches, and therefore not predisposed in this way; but in many instances the infection was very severe. DaCosta states that in his experience this complication has never occurred at the height of the fever; it is always a complication of convalescence. He does not believe that it is a phlebitis, but considers that it originates in thrombosis, which may subsequently be complicated with phlebitis or periphlebitis. The sluggish circulation tends to the formation of a clot, and it seems probable that the bacilli or their toxins really originate the thrombosis. He has seen but one fatal case in all his large experience, this one dying of pulmonary embolism. [D.L.E.]

2.—Townsend states that he finds that it is sometimes **more difficult to digest laboratory milk** which has been centrifugated and then mixed than milk which has been modified at home. The laboratory milk often, he says, shows large oil-globules floating on the top. He believes that if the milk can be obtained pure it should not be either sterilized or pasteurized. If we are not sure of our milk it should be pasteurized for 20 minutes at 156° F. He recommends the use of top milk, letting the milk stand for 6 to 8 hours and taking the top quarter, which from Harrington's analyses of 4 specimens he finds averages about 11.5% of fats; this contains the same amount of proteids as the milk, that is about 4%, and a tablespoonful of milk-sugar added to a 20-ounce mixture raises the percentage 2 points; therefore he gives the following rule: each ounce of a 10% cream in a 20-ounce mixture means that the resulting mixture will contain .5% of fat, .20% of proteids, and .20% of sugar, and each tablespoonful of sugar of milk added to this will raise the sugar 2%. If it is desired to increase the proteids this is done by adding milk from which the cream has been removed, thus giving no more fats but an added amount of proteids. He has found that by using the upper half of top milk one obtains a mixture which contains but a little more than 7% of fat, and this can be used to make mixtures containing relatively high percentage of proteids. [D.L.E.]

3.—Shaw describes a method of **passing a probe into the nasal duct from the nose,** and believes that this procedure is of benefit in certain cases of epiphora which are not relieved by the passing of a probe from above. Cauterization of the inferior turbinate, ought, in light of this newer method of treatment, to be discontinued as far as relief of epiphora is concerned. [G.B.W.]

4.—In cases of **ankylosis of the jaw,** when the etiology is obscure, very often chronic suppuration of the middle ear is the causative factor. Of the cases reported from the Massachusetts General Hospital, in 27% suppuration of the tympanum existed, and in another 27% it was very possible. [G.B.W.]

Journal of the American Medical Association.

March 25, 1899. [Vol. xxxii, No. 12.]

1. Early Methods of Medical Education in North America. Francis R. Packard.
2. Pelvic Disease. Frederick Peterson.
3. Epidemic Cerebrospinal Meningitis. W. J. Class.
4. Trachoma Folliculare. J. Whitefield Smith.
5. Uric Acid. Randolph Brunson.
6. La Grippe. W. W. Grube.
7. Nasal Polypus. Cundell Juler.
8. Treatment of Gonorrheal Urethritis. Victor F. Mueller.
9. Bicycle Saddles. John L. Short.
10. The Faucial Tonsil. Gilliford B. Sweeny.
11. Epistaxis. Boyd Cornick.
12. Pelvic Massage. Llewellyn P. Barbour.
13. Syphilis of the Nervous System as the General Practitioner Sees it. C. Travis Drennen.
14. Lipoma of the Labium Majus. Henry Marshall Fenno.

2.—See this Journal, Vol. I, p. 1092.

3.—The history and etiology of epidemic cerebrospinal meningitis are discussed with quotations from numerous authorities. The origin and avenues by which the disease was spread in Chicago will be considered in the article, which is continued. [M.B.T.]

6.—Spraying with hydrozone followed by the local application of glycozone is recommended in the treatment of the pharyngitis and tonsillitis of grip. [M.B.T.]

8.—Mueller considers the use of strong solutions of silver nitrate both unsatisfactory and dangerous in the abortive treatment of **acute gonorrhea.** A 5 to 10% solution of ichthyol in water may be used, however. Injections of ichthyol 4 to 6 times daily and copious irrigations with potassium permanganate 1:12,000 are recommended in acute anterior gonorrhea. [M.B.T.]

10.—See this Journal, Vol. II, p. 57.

11.—The use of a plug of sponge squeezed out with boiled water and applied along the floor of the nostril is recommended in the treatment of epistaxis. [M.B.T.]

12.—The case of a woman is reported who had suffered menstrual pain following a miscarriage and who had a retroverted, prolapsed and subinvoluted uterus glued firmly down by adhesions. The adhesions were loosened and the uterus restored to its normal size and position by a course of **pelvic massage.** A woman of 28 with an infantile uterus and scanty menstruation was treated by massage for sterility. There was increase in the menstrual flow and the size of the uterus and after 10 months she became pregnant.

13.—See this Journal, Vol. II, p. 101.

14.—The removal of a pedunculated **fibro-fatty tumor** from the **labium majus** of a mulatto woman, aged 28, is reported. The pedicle of the tumor was 1½ inches long and the tumor weighed 2 ounces. [M.B.T.]

Journal of Nervous and Mental Diseases.

March, 1899. [Vol. xxvi, No. 3.]

1. Some Points of Special Interest in the Study of the Deep Reflexes of the Lower Extremities. Charles K. Mills.
2. A Contribution to the Knowledge of the Stereognostic Sense. Joseph Sailer.

1.—Mills reports the case of a white man who had been troubled, 5 weeks before admission, with constipation and difficulty in micturition. Later there was numbness in both feet, which gradually extended upwards, and 5 days before admission he went to bed without symptoms of paralysis, but found that his legs were powerless the next morning. There was pain in the precordia and around the waist. The heart was greatly dilated, there were numerous murmurs, and the pulse was rapid and water-hammer in character. The patient was completely analgesic over the right thigh of the right leg. Tactile sense and thermal sense were both preserved. A similar condition was found on the left leg, but the distribution was not quite as extensive. Both **knee-jerks were absent,** the quadriceps-jerk prompt and marked. Ankle-clonus was present on the left side, but was sometimes quickly exhausted. It was absent on the right side. He died two days later. At the autopsy, heart-lesions and kidney-lesions were present. The spinal cord, however, showed no alteration by any method of staining. There was very faint degeneration in the posterior roots, and the crural nerves; and very marked hyalin and fatty degeneration in a piece of the sartorious muscle that had been removed. During life, a diagnosis had been made of a focal lesion in the lumbar cord, or of multiple lesions in the cord. Mills concludes that the absence of the knee-jerk was caused by muscular degeneration and the slight disease of the crural nerves. He believes that this muscular degeneration was far more universal than they had suspected, and regrets that portions of more muscles were not preserved for examination. The cause of the changes he ascribes to some form of autointoxication. The persistent ankle-clonus he attempts to explain by supposing that the muscles of the calf may not have been involved, or that a neuritis of mild degree had simply heightened the irritability of the nerve or the muscle it supplied. He locates the arc for the patellar reflex somewhere between the second and fifth lumbar segments. The location of the tendo-Achillis reflex is more doubtful, but probably in the sacral cord. Of course only a portion of the segment is involved in the action. Altogether only 11 cases have been recorded in which the knee-jerks were lost, while the ankle-clonus persisted. In regard to the importance of the ankle-clonus as a symptom of organic disease, Mills expresses himself as in accord with Gowers in believing that it is exceedingly rare in functional conditions; the pseudo-clonus that occurs being readily exhausted and in many respects atypical. In conclusion, he describes an instrument devised by himself for eliciting patellar clonus. This consists essentially of a ring large enough to enclose the patella and furnished with a suitable handle. The upper portion of the ring where it presses against the skin is guarded by leather. He examined 100 cases of various diseases for patellar clonus, and found it present in but 7. In 2 of these it was only slightly marked. Although he has had little opportunity for examining functional conditions, he would not expect patellar clonus in hysteric patients. The tendo-Achillis jerk was present in 3 of 28 cases of locomotor ataxia. In one of these it was very pronounced. This patient had ataxia in both lower and upper extremities. The paper contains allusions to many curious and interesting cases. [J.S.]

2.—Sailer has studied two cases of **hemiplegia with reference to the stereognostic sense.** The first patient had complete loss of muscular pressure, thermal and localizing sense, but tactile sense was preserved. He was unable to recognize objects placed in the hand. The second patient had complete loss of all sensation on the left side. The fourth day after the stroke, the stereognostic sense was lost on the right (non-paralyzed) side, but reappeared the following day. The author concludes, as the result of the study of some experiments performed upon normal persons and the cases already mentioned, that the muscular sense is less concerned than the localization-sense in the recognition of objects, but that tactile sense must always be present; the other forms of cutaneous sensation are relatively unimportant; finally, that the recognition of objects depends upon a complex coordination in the brain between a number of centers and that this may be disturbed without direct lesion in cases of severe injury to the brain-substance. [J.S.]

American Journal of the Medical Sciences.

March, 1899. [Vol. cxvii, No. 3.]

1. The Clinical Features of Sporadic Trichinosis. William Osler.
2. A Case of Syringomyelia with Unusual Symptoms. William Norton Bullard and John Jenks Thomas.
3. Cholecystitis Complicating Typhoid Fever; Tapping of Gallbladder, Cholecystotomy; Death. C. N. B. Camac.
4. A Clinical Study of Dupuytren's Contraction of the Palmar and Digital Fascia. J. B. Nichols.
5. Empyema of the Frontal Sinuses and Intracranial Infection. C. L. Gibson.
6. The Relation of the Trachea and the Bronchi to the Thoracic Walls, as Determined by the Röntgen Rays. Joseph A. Blake.
7. Hemiatrophy of the Brain Without Disturbance of the Intelligence or Personality. Pearce Bailey.

1.—During the last 2½ years 5 cases of trichinosis have been observed in the Johns Hopkins Hospital. They were carefully studied and enable Osler to present a clear picture of the clinical symptoms of **sporadic trichinosis.** While the symptoms in sporadic cases may be as distinctive as in cases belonging to an endemic or an epidemic, this is not always so, and on that account the disease is no doubt sometimes overlooked. Clinically the features of the disease may be grouped into those associated with the growth and development of the parasites in the intestine and those which follow the emigration of the young into the muscles. **Gastrointestinal symptoms** are frequently present—nausea, vomiting, and diarrhea; but, save in one case, were not marked at the onset in Osler's 5 cases. The **symptoms of invasion** are characterized by pains in the joints, bones, and muscles; such symptoms were present in all the 5 cases. The fever which occurs during the invasion is apt to lead to error in diagnosis, and typhoid fever may be thought of, as in Zenker's famous case. In Osler's cases the temperature-curve in the first case resembled that of a mild typhoid fever; in the second the temperature was so typically intermittent that malaria was at first suspected. In the third case, despite severe local symptoms, the fever was slight; in the fourth case the fever was insignificant, and in the fifth the curve was very suggestive of typhoid fever. The pulse-rate seemed to depend on the height of the temperature, but the respirations were sometimes increased out of proportion to the fever. In many respects the initial symptoms of trichinosis point to typhoid fever; thus, there are headache, gastrointestinal symptoms, nose-bleed (in 2 of Osler's cases), and enlargement of the spleen (in 3 cases). In addition, the diazo-reaction may be obtained (in 4 cases). But trichinosis has three features of great diagnostic value—(1) the **muscular pains** and **swellings.** While it is not uncommon in typhoid fever to have aching of the limbs and back, it is exceedingly rare for patients to complain of pain in the muscles themselves. In a severe infection the swelling and hardness of the muscles, the extreme pain on pressure, the position of flexion of the arms and legs, without any redness or swelling of the joints themselves, are almost pathognomonic. (2) **Edema.** In its most characteristic form this is seen in the eye-lids and over the eye-brows, and because of its early appearance in trichinosis is a very valuable symptom. (3) **Leukocytosis** and **eosinophilia.** The eosinophilia reaches a remarkable degree (67% of all leukocytes in one case)—it was present in every one of Osler's cases, and proved of enormous value in the diagnosis. The great increase in the proportion of eosinophiles is probably connected with the acute myositis, and it will be interesting to determine whether in other forms of acute infectious myositis an eosinophilia occurs. The leukocytes varied in number from 13,000 to 34,000 in the different cases. [D.R.]

2.—The patient, a boy, previously healthy and of fairly healthy antecedents, at the age of 3 became subject to attacks of headache, later accompanied by vomiting. After 3 years, during which the headache and vomiting gradually grew worse, the boy began to stagger, and became blind as the result of a double optic neuritis passing into atrophy. The headache, vomiting attacks, and blindness continued for two years (the remainder of the patient's life) at the same time he became very obese, and had a transient exophthalmos. There were also transitory paralyses of some of the ocular muscles. Ten months after the onset of the blindness, paraplegia suddenly developed, and the lower extremities became contractured. The paralyzed parts were anesthetic. A left-sided facial paralysis and a paresis of the upper extremities disappeared after a short time. The boy finally died of typhoid fever. At the autopsy **hydrocephalus** and **syringomyelia** were found. The cavity in the cord seemed to have originated in the gray matter, and, except at its point of greatest size (in the lower cervical region) did not communicate with the central canal. Interesting in this case is the absence of the typical symptoms of syringomyelia during life; the symptoms that did exist were for the most part due to the hydrocephalus. Paraplegia may occur in syringomyelia, but is by no means characteristic of this disease. The authors think it may be advisable in the future to distinguish a **hydrocephalic type of syringomyelia.** In cases of chronic hydrocephalus of unknown origin in young children the possible existence of syringomyelia with the hydrocephalus should not be overlooked. [D.R.]

3.—Camac reports a case of **typhoid fever, complicated with cholecystitis.** The patient, a colored girl, 24 years old, was admitted to the hospital in the third week of the fever; 4 days after admission tenderness and dulness were noted in the right upper quadrant of the abdomen. The gallbladder was tapped and 15 cc. of clear fluid, containing actively motile bacilli, were withdrawn. The patient growing worse, another tapping, this time with negative results, was done; operation (cholecystotomy) was then resorted to. The gallbladder was greatly distended; 120 cc. of fluid was removed. The patient died on the following morning. From the fluid from the gallbladder the typhoid-bacillus was obtained. Using this case as a text, Camac reviews the literature on cholecystitis in typhoid fever. There are four channels of infection of the biliary passages: (1) Through the intestinal wall; (2) directly from the duodenum through the bile-passages; (3) through the liver; (4) through the portal system. The majority of cases of biliary infection occurred between the twenty-first and the thirtieth day. The symptoms present no regularity; pain seems to be the most constant. Jaundice does not appear to be a reliable sign. Perforation of the gallbladder occurred in 21 out of 28 cases. These figures warrant the institution of active treatment, which may be (1) counter-irritation, (2) cholecystotomy, or (3) aspiration. Of these, cholecystotomy is to be preferred. At the end of his article, the author gives an instructive table of the recorded cases, 115, of cholecystitis in typhoid fever. [D.R.]

4.—Dupuytren's contraction consists essentially of an hypertrophy of limited longitudinal portions or fasciculi of the fascia of the palm and fingers, or of a development of new fibers usually, together with a contraction of the hypertrophied band in a longitudinal direction. The results of this condition are (1) flexion or contraction of the phalanges of the fingers, and (2) induration and changes in the surface-configuration of the skin. The flexor tendons which lie underneath the fascia are not in the least affected, although the flexion of the fingers strongly suggests a muscular or tendinous pull. Changes in the affected joint have in some cases been reported, as has also involvement of the tendon sheaths. Nichols made a **microscopic examination** in one case, and found the following: The fibrous band in most places was in contact with the corium, with no fatty tissue intervening; the skin and subcutaneous tissue appeared otherwise normal. In the layer of palmar fascia was the contracted band, a large, longitudinal, rounded bundle of dense fibrous tissue, containing numerous elongated connective-tissue cells. Numerous cells were also found in the adventitia of the bloodvessels. The lesion seemed to consist in a hyperplasia or an entirely new growth of fibrous tissue in the palmar fascia. The cases of Dupuytren's contraction may be divided into 3 groups: (1) The ordinary well-marked cases in which there is contraction of one or more fingers, together with the characteristic manifestations of the disease in the palm; (2) cases in which there is the characteristic hypertrophy of the palmar fascia, but in which the fingers are not contracted; (3) cases in which the shortening of the fascia and the contraction are limited entirely to a finger, the palm being unaffected. Of 50 cases observed by the author, 31 were of the first, 18 of the second, and 1 of the third variety. Minute punctate depressions of the skin, frequently pointing outward as well as inward, are common, caused by the traction of bands connected with the cutis. Fingers adjacent to one strongly contracted are frequently also slightly bent from traction of the skin or the fibers of Gerdy in the web of the fingers. Both hands are nearly equally liable to the contraction. As to frequency, of 1000 men examined 40 had indubitable fascial contraction. Of the 1000 persons 35 were colored—none of them was affected. The disease is rare under 30; the favorite age of onset is between the fiftieth and seventieth years. Subjective symptoms are rare. As to etiology, the histories of Nichols' cases did not bear out the theory that the disease is essentially due to a local traumatic cause. The contraction is idiopathic in origin; it is probably not a manifestation of, or caused by, rheumatic or rheumatoid disease. The possibility of a nervous or trophic origin must be admitted, but there is as yet, in the author's opinion, no sufficient basis for the acceptance of this theory. [We have seen bilateral Dupuytren's contraction in a case of amyotrophic lateral sclerosis.] Dupuytren's contraction is one of the scleroses, a hyperplasia of connective tissue, and might well be termed **palmar sclerosis.** The author brings it in line with visceral, vascular, and spinal scleroses, but cannot find any definite cause for it. His final conclusion is that it is perhaps a **neuropathic** or **trophic** condition. [D.R.]

5.—Gibson reports an interesting case of **empyema of the frontal sinuses** in a man 32 years old. The left sinus was opened and its cavity scraped. On applying the spoon to the septum the latter gave way, and about 2 drams of pus escaped from the right sinus. A drainage-tube was inserted, after thorough irrigation of the cavities, but 2 days later symptoms of meningitis developed. After a temporary remission the symptoms increased, and the patient died 9 days after the operation. At the autopsy pus was found at the base of the brain, and an absence of the cerebral wall of the right frontal sinus—a defect 1 inch in diameter—was discovered. The opening was circular and had a smooth margin. The hole was closed by thickened dura, the outer surface of which was inflamed and covered with granulation-tissue. The cribriform plate was carious. There was also an opening in the cerebral surface of the left frontal sinus. Regarding the defect in the cerebral wall of the right frontal sinus, the author excludes the possibility of its having been due to a destructive inflammatory process, and looks upon it as a malformation; not congenital, however, because the frontal sinuses do not make their appearance until a variable period in early childhood. He pictures the sequence of events in his case as follows: First, nasal trouble, starting up a left frontal sinusitis, followed by caries of the cerebral wall on that side. Considerably later, infection of the right frontal sinus occurred. On that side there was a structural defect, on account of which the bony partition between the sinus and the cavity of the skull was lacking, and infection of the cerebral membranes necessarily resulted. In operating on cases of empyema of the frontal sinuses, the median incision seems preferable; if the bone is eroded or perforated, it should be carefully scraped or gnawed away; if an extradural abscess is found, it should be explored and drained. The advisability of opening the dura will depend on circumstances. Irrigation, unless the absence of bony perforation is absolutely demonstrated, should never be employed. In the author's case it seemed to be the cause of the spread of the infection. It is also unwise, if a communication with the interior of the skull has been found, to establish a communication with the nose; for, on theoretic grounds, certainly, a communication between the two cavities should be avoided. [D R.]

6.—The bodies, on which Blake, with the assistance of Leaming, made his studies, were first injected with formalin, and then the bronchi were filled with a metallic alloy fusing at 155° F. forced in at a very moderate pressure. Skiagraphs were taken of one adult, of children 1 and 2 years of age, and of a newborn babe. At birth the relations do not differ from those in the older children. **The important relations are those of the trachea,** the primary or stem bronchi, and the points where they give off their first branches. The trachea, which is the median line at the lower part of the neck, lies in the right sternal line at its bifurcation. The deviation of the trachea is caused by the aorta. It bifurcates at about the level of the intervertebral disc between the fourth and fifth thoracic vertebræ, which point corresponds nearly to the tip of the fourth dorsal spine. In the adult this point is a little lower, but it varies somewhat with the respiratory movements and the position of head and neck. On the anterior wall of the chest the point in the adult is just internal to the junction of the lower border of the second costal cartilage with the sternum. In the child it is under the right border of the sternum at the level of the third costal cartilage. The stem-bronchi end or become so small as to be negligible opposite a point on the posterior thoracic wall at the eighth rib, situated in the adult on the left side 3 inches, and on the right side 2 inches, from the vertebral spine; in the child 1½ and 1 inch respectively. On the anterior surface of the chest these points are situated on the left side at the fifth rib just internal to the mammillary line, on the right side at the fifth rib in the parasternal line. The relations of the first branches of the stem-bronchi are approximately as follows, their position in regard to the chest-wall being influenced by the same factors as affect the position of the tracheal bifurcation. The eparterial bronchus (the first branch on the right side) is given off at the level of the lower part of the second interspace or the third costal cartilage anteriorly, and at the level of the fifth space or sixth rib posteriorly. The first branch of the left bronchus is given off at the level of the third space or fourth cartilage anteriorly, and at the level of the sixth interspace or seventh rib posteriorly. [D.R.]

7.—The patient at the age of 47 suffered a complete left-sided paralysis, the paralyzed arm and leg, especially the latter, eventually becoming greatly contracted. Sensory symptoms, aside from a feeling of numbness, were absent. The patient's intellect was undisturbed. Speech was unaffected. He died of pneumonia at the age of 57 years. At autopsy the **brain presented marked asymmetry**—the right hemisphere was greatly shrunken. The region anterior to the fissure of Rolando, and comprising all the frontal lobes, excepting that part lying just to the inner side of the olfactory tract and the upper half of the precentral gyrus, was occupied by a yellowish-white, semitranslucent edematous tissue. Posterior to the central fissure, there was merely slight atrophy of the brain-substance. Hemiatrophy was also found in the lower-lying segments of the cerebrospinal axis, with the exception of the cerebellum. The bloodvessels at the base of the brain were atheromatous, and on the right side the internal carotid, middle cerebral, and part of the anterior cerebral were so much diminished in caliber as to look like fibrous cords. The microscopic examination of the mass in front of the right rolandic fissure showed it to consist of connective-tissue cells and fibers of a very friable material containing blood-pigment; there were no traces of ganglion-cells. The interesting feature of the case is the absence of mental deterioration notwithstanding the destruction of the frontal region of one side. There is much evidence in favor of the hypothesis that the frontal lobes have important synthetizing functions; this function is probably bilaterally distributed. The present case seems to show that this function can, under certain circumstances, be assumed and successfully carried out by the lobes of one side only. [D.R.]

Deutsche medicinische Wochenschrift.

February 2, 1899. [25. Jahrg., No. 5.]

1. Result of the Scientific Expedition of Prof. Koch's Medical Commission to Italy for the Investigation of Malaria.
2. Primary Latent Progressive Cancer of the Pancreas with Advanced Dyspneic Conditions. W. Ebstein.
3. On the Localization of Lichen Ruber Planus on the Mucous Membrane. Stobwasser.
4. A Contribution to Esophagoscopy. Th. Rosenheim.

1.—The German expedition for the study of **malaria,** composed of Koch, Pfeiffer, and Kossel, has made a report of its results. A total of 120 malarial patients was examined. It was found that the estivo-autumnal fever, despite the variability of its clinical types, was a distinct species, having its special form of parasite. Estivo-autumnal fever is a tertian fever, and is the same as the malaria of the tropics. The commission was able to demonstrate the presence of chromatin granules in the crescents, and even in the flagella, and it looks upon the latter, not as flagella, but as spermatozoa. No advance was made in the study of the cycle of development of the plasmodium, but the commission found in birds a parasite similar to that of man, on which experimental studies are possible. This parasite is the proteosoma which Ross has studied in India. Interesting investigations were made on the temporal and topographic distribution of malaria. Rome lies in an extensive malarial district, but is itself free from the disease, at least in its interior. The cause of the absence of malaria in Rome is not to be found in the air, as this at all times blows over Rome from the Campagna; nor in the water, or the food, both of which come from the malarial districts. The only factor that comes into play is that, as the interior of the city is without vegetation, it is entirely free of mosquitos. Malaria is rare in winter, a few cases are seen in the spring, but in June the number becomes very large. Another point observed by the commission was the successful use of methylene-blue in two cases of malaria. Koch also states that he found in the cattle of the Campagna, which suffer from Texas fever, the same tick that spreads Texas-fever in Africa and which is identical with that found in Texas. [D.R.]

2.—The history of the case of **cancer of the pancreas** reported by Ebstein is as follows: A woman, 36 years old, had had 2 children, last one 7½ years ago. Since 2 or 3 years past she had suffered from dyspeptic symptoms, which got better after the application of an abdominal bandage. A year later the dyspeptic symptoms came back accompanied with obstinate constipation. After these symptoms had existed for 3 months, signs of left-sided pleurisy developed, followed in 2 weeks by dyspnea which ended in death 14 days later. Postmortem examination gave the following data: Primary carcinoma of the tail of the pancreas, with secondary deposits in the stomach, liver, lungs, lymph-glands, peritoneum and pleura. Bloody contents of the pleural cavity, particularly on the left side. The abdominal cavity contained, however, much more blood than the pleural, due to a severe hemorrhage from the spleen. There was chronic adhesive pelvo-peritonitis, hyperemia and even hemorrhage in the corpus uteri. Fatty deposits were found in the right ventricle of the heart. [G.B.W.]

3.—Stobwasser concludes from a study of 4 cases of **lichen ruber planus** as follows: (1) The localization of the disease on the mucous membrane is demonstrable in more than half of the cases, and may be of diagnostic value. (2) The affection of the mucous membrane may appear (*a*) isolated; (*b*) primary (before the skin-lesions); (*c*) synchronously with the skin-lesions or after them (the most frequent). (3) The anal mucous membrane may be affected like that of the mouth. (4) Involution of the mucous membrane lesions occurs even without special treatment, generally with the remains of leukoplakic striæ. [D.R.]

4.—(Conclusion). Rosenheim reports 5 more cases of **esophageal disease.** The first, No. 3 of the series, was a case of dysphagia, dependent entirely on atony, which was greatly benefited by local treatment. No. 4 was a case in which the difficulty in swallowing was supposed to have been caused by a mediastinal growth pressing on the esophagus. 5, 6 and 7 were examples of chronic esophagitis. In these 3 at first very little trouble was experienced, though gradually the swallowing became more difficult, until great dysphagia had developed. There was generally an accompanying pharyngitis and laryngitis, and often disease of the stomach. The difficulty in swallowing was due in part to the pain experienced when the food passed over the inflamed mucous membrane, and in part to the accompanying atrophy of the muscles of the esophageal walls. [G.B.W.]

February 9, 1899. [25. Jahrg., No. 6.]

1. The Question of Coagulation-Necrosis. H. Schmaus and E. Albrecht.
2. Unusual Location of the Diphtheria-Bacillus on Skin and Mucous Membrane. A. W. K. Muller.
3. Grutzner's Theory Concerning the Moving of the Bowels by Rectal Injections with the Addition of Table Salt. B. P. B. Plantenga.
4. Concerning the Differentiation of Sugar from Albumin. Paul Mayer.
5. The Alloxur Bodies of the Urine and their Physiologic Significance.

2.—Müller describes a case of **diphtheria of the vagina, vulva, and the skin** in a girl of 10 years. There was slight sore throat and a paronychia of the left thumb. The vulva and perineum were the seat of ulceration, and membranes were seen on the vagina. From the pus of the paronychia, from the ulcers of the vulva and the perineum, and from the vaginal deposits pure cultures of the Klebs-Löffler bacillus were obtained. Culture made from the throat showed diphtheria-bacilli, staphylococci, and streptococci. The injection of antitoxin was followed by rapid recovery. An interesting point is that there were several pustules containing typical pus, cultures from which demonstrated the sole presence of the diphtheria-bacillus, showing that the latter possesses pyogenic properties. Müller considers the infection of the vulva to have been secondary to the diphtheria of the throat. [D.R.]

3.—It has been the custom to **add salt to nutrient enemata,** and it was believed that this addition favored absorption. Grützner explained this by assuming that physiologic salt-solution provoked an antiperistalsis. The present writer, repeating Grützner's experiments, found no antiperistalsis. The sodium chlorid simply stimulates absorption, as more of the nutrient substance is absorbed when it is added, but there is no antiperistalsis. [D.R.]

4.—The existence of a **carbohydrate nucleus in albumin** has long been suspected, and several investigators have succeeded in splitting such a body off. Mayer boiled prepared yolk of egg, which was entirely free from glucose, with dilute hydrochloric acid for 2½–3 hours. After allowing to cool, the material was filtered, the filtrate neutralized with sodium bicarbonate, allowed to stand, and again filtered. The filtrate was concentrated, and decanted. The fluid thus obtained reduced Fehling's solution and formed an osazon with phenyl-hydrogen. The sugar is a **hexose,** and has the formula of $C_6H_{12}O_6$. It is insoluble in cold absolute alcohol, and in hot water, and is levorotatory. It is probably glucose, although further proof is necessary for this statement, since levulose and mannose form an identical osazone. [D.R.]

5.—The authors have studied the **alloxur-bases of urine.** They experimented with 10,000 liters of human urine, and obtained from this enormous quantity about 100 gallons of alloxur-bodies. Seven different bases were found: hypoxanthin, xanthin, adenin, heteroxanthin, paraxanthin, 1 methylxanthin, and 7 methylguanin. [The figures 1 and 7 have reference to the position of the methyl radicle in the basal nucleus, known as the purin-nucleus.] Of these seven the first three are nuclein-bases, the others are methyl-compounds (homologues) of xanthin and guanin. The homologues are probably derived from caffein and theobromin of tea, coffee, and cacao; and it is possible that these two substances are very widely distributed—vegetable and meat foods may contain small quantities of caffein and theobromin. The small elimination of the alloxur-bases is no criterion of their importance in the animal economy. Thus paraxanthin is toxic for frogs, mice, guineapigs, and dogs, acting especially on the central nervous system, and Ratchford has pointed out its presence in the urine in comparatively large quantities in persons suffering from gastric crises, migraine, and peculiar spasmodic affections. [D.R.]

February 16, 1899. [25. Jahrg., No. 7.]

1. Concerning Glycosuria During Cholelithiasis. W. Kausch.
2. Recovery in a Case of Spastic Spinal Paralysis Following Influenza. L. Michaelis.
3. A Report on the Operative Treatment of Subphrenic Abscess. Winkelmann.
4. The Question of Coagulation-Necrosis.
5. The Knowledge of the Direction of Electric Currents in Living Tissues and a Research into the Resisting Power of Human Bodies. P. Laschtschénko.

1.—Kausch has studied the question of **glycosuria in 85 cases of cholelithiasis.** In 70 of these cases, the diagnosis was confirmed by an operation. In only one was glycosuria found. This patient was a woman 56 years of age, moderately nourished, who had had attacks of biliary colic for 7 years. About 1.5% to 3% of sugar was found in the urine. Otherwise, the patient apparently was normal. Kausch admits that in some of these cases, the urine was only examined once, and then only a portion of the 24-hour urine was employed. In 9 cases, the entire quantity for 24 hours was tested, and in 6 cases the resistance of the organism to the occurrence of alimentary glycosuria. In one of the latter cases, after the operation, the urine contained some reducing element that was not sugar. Kausch criticises very severely the results obtained by Exner who found sugar in nearly all his cases. [J.S.]

2.—Michaelis reports a case diagnosed influenza, in which after recovery, there was paralysis of both legs. They were stiff, could not be separated, and shortly after the development of the condition, showed marked fibrillary twitchings. There were no disturbances of sensation, nor of the sphincters. The patient, a boy 13 years of age, was admitted to the hospital 8 weeks after the development of paralysis, and both legs were found in the adduction position. The right foot was in the position of pes equinovarus. The adductors of both thighs were hard and rigid, and the gait was typically spastic, and paretic. As soon as the patient lay down the muscular twitchings were apparent. Both patellar reflexes were greatly exaggerated, but the other reflexes were normal, and there was no clonus. Sensation was normal. There was no ataxia, no tenderness over the nerve-trunks; otherwise the patient was entirely normal. In the course of two months almost complete recovery had occurred, and the patient was able to return to his work. Michaelis believes that the case was one of **myelitis,** situated in the dorsal region of the spinal cord, involving probably chiefly the pyramidal tracts. [J.S.]

4.—Much difference of opinion prevails as to the nature of the process, called by Weigert **coagulation-necrosis,** which gives rise to anemic infarcts and cheesy areas. Weigert believed that an actual coagulation or clotting of the cells occurred, as well as a lixiviation of the chromatin. Others considered that the dead part was permeated by fibrin, while still others, among them Virchow, held that the peculiar dry, dead appearances were produced by loss of water, or by inspissation. Schmaus and Albrecht, by means of novel experiments, come to the conclusion that there is a coagulation in the cells, in the sense of Weigert. They started out with the assumption that the cell is fluid, that it consists of a complex of substances that are perfectly mixed. So long as the fluids sustain no change in their surface tension they remain unaltered. If water or normal salt-solution is added to fresh tissue, as, *e.g.*, teased kidney-structure, there occurs a precipitation of droplets (Entmischung), and eventually the cell-body becomes invisible, because it either swells or passes into solution. Simple inspissation produces no chemical change. Ligation of the renal artery—the usual experiment for the production of the anemic infarct—causes the appearance in the cells of a granular material; droplets are not formed. The granules are insoluble in saline solution, acetic acid, or caustic potash. They are not fatty in nature, and their formation can only be due to a coagulation of fluid elements of the cell. [D.R.]

5.—Laschtschenko criticises the statements of Frankenhauser who believes that electrolytic phenomena take place in the human being when an electric current is passed through it. That water is broken up into H and OH with the formation of HCl and NaOH is, according to Laschtschenko, inaccurate. By using electrodes saturated with a solution of potassium iodid, he was able to cause staining at the positive pole, while the negative pole showed no alteration. Experiments upon frogs showed that various alkaloids, as strychnin, could be made by this method to pass through the skin, providing the positive pole was saturated with the substance. Laschtschenko has also measured the electric resistance of human beings in 62 cases, finding that the mean resistance was from 1100 to 1200 ohms, and the limits of variations between 800 and 1400 ohms. [J.S.]

Neurologisches Centralblatt.

February 15, 1899. [18. Jahrg., No. 4.]

1. The So-Called Relapsing Paralyses of the Facial Nerve. N. Bernhardt.
2. Contribution to the Knowledge of Acute Disseminated Myelitis. Fürstner.
3. Hitherto Undescribed Pupillary Phenomena. A. Westphal.

1.—In the continuation of his paper, Bernhardt discusses the various theories concerning the cause of **relapsing facial paralyses,** in particular the theory first suggested by Philler, that abnormities in the sides of the stylomastoid foramen act unfavorably upon the nerve, a theory that appears to have been more or less favorably received by many authors. In conclusion, he gives the following summary of his results: (1) relapsing facial palsies occur in about 7% of all cases; (2) men are more frequently attacked than women; (3) relapses occur most frequently between 20 and 50, but also before and after these ages; (4) the first relapse may occur weeks or years after the first attack; (5) a second relapse rarely occurs in less than a year; (6) there is no particular tendency to recurrence in the same side; (7) usually one relapse only occurs; (8) a second relapse occurs more frequently in women; (9) the second relapse is usually more severe than the original attack; (10) about 10% of all cases are associated with inflammatory or suppurating processes of the middle ear; (11) about 6.6% occur in syphilitics; (12) about 5% occur in cases of diabetes; (13) 3% occur in neuropathic individuals; (14) 66.6% occur apparently without distinct cause; (15) the hypotheses of Despaign, Phillip, and others, do not explain many cases; (16) an infectious or toxic condition leading to the paralysis has not been definitely proven; (17) no immunity appears to be conferred by one attack, many cases appearing to be associated with tonsillitis; (18) at present an adequate explanation in many of the cases is lacking. [J.S.]

2.—Fürstner reports the case of a girl 16 years of age, who was suddenly attacked with pains in the back, and breast, with slight fever. This was rapidly followed by paresis in the right arm and leg, then severe vomiting, followed by paralysis of both legs and retention of urine. Upon admission to the hospital, both legs were in a state of flaccid paralysis. The patellar reflexes were diminished, and both arms were almost completely powerless. All the mucles showed normal electric reaction; there was loss of pain-sense in the legs, and loss of all sensibility in the right arm. The condition of the patient continued to grow worse. The difference in the pupils became more and more pronounced, although the pupillary reaction was still present. Finally, the patient had delirium. There was slight paresis of the facial muscles, and intense nystagmus, followed by divergent strabismus, and death from exhaustion. At the autopsy, a yellow turbid fluid was found in the spinal canal. The cord was softened in the cervical, upper dorsal, lower dorsal, and lumbar regions. In the brain the pia mater was slightly cloudy. There was broncho-pneumonia in the right lung. Pneumococci were found in the tissues of the spinal cord. Microscopically, the softened areas corresponded to foci of degeneration of the white substance, which had not led apparently to secondary degeneration. The pia mater was normal. The blood-vessels were surrounded by cellular elements that apparently had interfered with the blood-stream. The case indicates the close **relation between disseminated sclerosis and inflammatory processes.** It is also interesting on account of the very rapid development of the symptoms. [J.S.]

3.—Westphal states that when an energetic effort is made to **contract the orbicularis oculi, contraction of the pupil of the eye occurs.** This is most easily detected when the pupil is immobile to light, or shows a slow reaction. Of course, it is most easily detected when the pupil is not contracted. This reflex is usually obtained in cases of general paresis, but may also be detected in perfectly healthy persons. Westphal states that possibly this is due to the increased amount of blood forced in the iris. [J.S.]

Deutsches Archiv für klinische Medicin.

December, 1898. [Band 61, Heft 5 u. 6.]

15. A Further Communication Concerning the Diagnostic and Therapeutic Application of Glutoid Capsules. SAHLI.
16. Disease of the Nervous System in the Course of Leukemia. EICHHORST.
17. Experimental and Clinical Investigations upon the Tests of the Function of the Intestines. SCHMIDT.
18. Experimental and Clinical Investigations upon the Tests of the Function of the Intestines. STRASBURGER.
19. The Elimination of the Chlorids in Inflammation of the Kidneys, and their Relation to the Uremic State. HOFMANN.
20. The Mechanical Treatment of Edema in Heart Disease. BORGHERENI.
21. The Behavior of the Heart to Electricity in Tetany. MÜLLER.
22. Reviews.

[The numbers of the articles correspond with those in the *Archiv* and are volume numbers.]

15.—Sahli discusses the value of the **glutoid capsules** that have been made according to his direction. These consist of ordinary gelatin-capsules that have been hardened in formalin to such a degree that they resist the action of pepsin in acid solutions. The first series of 13 experiments showed that glutoid capsules could be so hardened that they resist the action of the gastric juice for at least 8 hours, at a temperature between 37° and 40°; that they resisted the action of distilled water and soda-solution for a still longer time; but that they were readily dissolved in the course of 1½ to 3 hours in a mixture of pancreatin and soda. In pancreatin, acting in a slightly acid medium, solution also occurred, but somewhat more slowly. Sahli uses 3 grades of these capsules: those dissolving in the course of 1½ hours in the pancreatin-soda solution; those dissolving in 2½ hours; and those dissolving in 3½ hours; these he characterizes as weak, medium, and strong. A long series of experiments were made upon human beings, administering the capsules containing some substance readily recognized by chemical tests, such as iodids and the salicylates. These showed that even the weak capsules were not dissolved in the stomach, although the organ was empty at the time of administering them. The glutoid material can also be used for covering pills. Against the action of putrefaction in the absence of pancreatic ferment, the capsules resisted for 20 hours. The most valuable indicator is apparently iodoform. With this the iodin-reaction in the sputum may be obtained, no matter what the condition of the stomach. Sahli now summarizes the resutls of 61 experiments upon persons suffering with various diseases, and draws some interesting and unusual conclusions. In 5 cases in which the reaction was delayed, a diagnosis of pancreatic disturbance was made and confirmed by autopsy. In 4 of these cases there was carcinoma of the head of the pancreas. In the fifth case the metastatic carcinomatous nodule had flexed the pancreatic duct and closed it. In one case of carcinoma of the pancreas without occlusion of the duct, the reaction occurred. The question of the permeability or non-permeability of the pancreatic duct is often of great importance in cases of icterus. In 3 cases of catarrhal icterus, the reaction occurred promptly; in the fourth case it was delayed for 24 hours. Sahli believes that the prompt occurrence of reaction indicates that in catarrhal jaundice the obstruction lies above the common duct. In the case in which the reaction was delayed, he concludes that both the pancreatic and the bile-ducts were occluded. In a case of cholelithiasis with jaundice, the glutoid reaction occurred after slight delay, indicating a pancreatic duct distinct from the bile-duct. In one case with greatly delayed reaction, a small carcinoma of the bile-duct compressing the pancreatic duct was found at the autopsy. In a case of suspected Weil's disease the reaction was normal. In two cases of atony of the stomach, the reaction occurred very promptly, showing vicarious functional increase of the pancreatic digestion. In a case of cardialgia with normal gastric digestion, the reaction was greatly delayed, indicating a hitherto undetected variety of disturbance of pancreatic secretion. In cases of general infectious disease, the pancreatic secretion also seemed to be more or less disturbed. In cases of carcinoma of the stomach, if there were obstruction at the pyloric end, the reaction was delayed, and if there were no obstruction, even when the cachexia was extreme, the reaction occurred promptly. In 3 cases of diabetes mellitus, the reaction occurred promptly. Sahli concludes that **glutoid capsules are of diagnostic value** only when the motility of the stomach has been carefully tested, and are particularly valuable for indicating disturbance of the pancreatic secretion. This sometimes occurs, as he was able to demonstrate, in hereditary muscular atrophy. For therapeutic purposes the capsules may be filled with pancreatin, which does not appear to cause them to dissolve. The results of the administration, however, were somewhat doubtful. Magnesia usta was also employed for the purpose of rendering the intestinal contents more alkaline. In cases of icterus, capsules filled with inspissated ox-bile were employed with excellent effect. Various antiseptics were also tried, particularly calomel, and various salts of silver, especially itrol, that is, argentic citrate. This was administered to a case of cholera nostras with apparently excellent results. Finally, quinin was employed, and, in spite of the fact that it is more soluble in acid-solutions, it appeared to act well in the intestinal tract. The glutoid capsules also can be employed for the purpose of guarding the stomach against injurious drugs, such as salicylates, and iron, or the ethereal oils, creasote, etc. In conclusion, Sahli states that his glutoid pills and capsules pass through the stomach and dissolve only in the intestinal tract. They may be hardened to any desirable degree, and are available for therapeutic purposes. [J.S.]

16.—Eichhorst reports the case of a boy 17 years of age, in whose ancestry there were indications of a tuberculous diathesis, and who, at the age of 15, noticed enlarged lymphatic glands in the axillary region. These increased rapidly in size, and gradually the glands in the neck also enlarged. They were firm in consistency, and not tender. The inguinal glands were not involved, and there were no symptoms of enlargement of the mediastinal glands. The spleen was greatly enlarged. Examination of the blood showed hemoglobin, 54%; red cells, 3,600,000; white cells, 41,650. The polynuclear leukocytes formed 79% of all; the mononuclear, 16%, and the latter were from 2 to 3 times as large as the red blood-cells. The red cells showed considerable variation in size. About 2 years after the first symptoms, the patient suddenly noticed a feeling of heaviness in both legs. There was no paresthesia, nor disturbances of sensibility, and the reflexes were not changed. The paretic symptoms rapidly increased, and in the course of a month the patellar reflexes became exaggerated, and there were symptoms of tingling in the extremities. Finally the paralysis became complete, and there was slight disturbance in micturition. The general condition of the patient was somewhat worse, and antistreptococcic serum was injected, causing apparently a slight diminution in the size of the lymph-glands, but without any certain effect. The patient also had severe continuous diarrhea. A decubitus developed over the sacrum, and over both trochanters. The condition of the blood was not altered, but almost complete anesthesia was observed in both the legs. The patient finally died of exhaustion. Careful analysis of the urine showed diminution in the quantity of urea, the chlorids, and the phosphates. The uric acid was apparently normal. At the autopsy, a glandular mass was found in the spinal canal, reaching from the fifth to the seventh dorsal vertebra. It was slightly adherent to the spinal dura, but was not attached to the bone. The spinal cord had been distinctly compressed by this growth. It was softer, but not otherwise macroscopically altered. Both above and below this region its consistence was good. The brain showed no changes. In the thorax, a tumor, of an even white color, was found in the region of the thymus. The tissues were somewhat anemic, and there were areas of consolidation at the apices of both lungs; otherwise the organs were negative. The enlarged glands were in many cases distinctly cheesy in the interior. The tumor in the spinal cord showed the structure of a lymphoma. The spinal cord had the characteristic lesions of compression-myelitis. There was ascending degeneration above the level of the tumor in the posterior and Gower's columns, and descending degeneration below it in the pyramidal tracts. The differential diagnosis from lympho-sarcoma is of course difficult, and yet more so from general tuberculous infection of the lymph-glands. However, Eichhorst is disposed to ascribe the softening to an injection of the **antistreptococcic serum**, and is further confirmed in his belief that the **condition is leukemic** by the fact that collections of round cells were found in the liver and kidneys. A case of lymphoma in the spinal meninges has not apparently been reported, but a variety of nervous disturbances, both of the central and peripheral nervous systems, have been recorded in the literature. [J.S.]

17.—Schmidt continues his **investigation of the feces,** particularly in reference to their fermentative qualities. The present paper deals with the **analysis of the flatus** expelled while the subject was on normal and various forms of modified diet. Upon an exclusive diet of albumin and fat, it was found that the late fermentation was always slight, and the gases evolved showed a predominance of CH_4. The amount of flatus was also inconsiderable, varying from 29 to 96 cmm. per day. The gas forming the greater portion was hydrogen, and CH_4 was in considerable quantity. When a small quantity of easily assimilable carbohydrates were added the result was practically the same. If a considerable quantity of carbohydrates was given, the late fermentation occurred more promptly, and was of greater intensity. CH_4 was slightly diminished, and CO_2 considerably increased. The same changes were also observed in the flatus. On ordinary mixed diet, particularly when the carbohydrates were of a non-assimilable nature, the feces fermented early and intensely, with the development of an intense acid-reaction; the CO_2 was increased, and the CH_4 diminished. The same changes in the gases were found in the flatus. Similar results were found upon an exclusive fruit-diet. Schmidt concludes that the amount of fermentation taking place in the feces corresponds more or less closely to the amount of gas developed in the intestinal tract. The diminution of CO_2 and CH_4 in the flatus is probably due to the readiness with which these gases are absorbed from the blood. In a case of disturbed digestion, due to excessive indulgence in alcohol, the flatus contained unusual quantities of CH_4 and H_2S. [J.S.]

18.—Strasburger has endeavored to discover at what point the **early fermentation of the feces becomes pathologic.** In order to do this, it was necessary to determine accurately the influence of mixed and special diet. He found that ordinary mixed diet, to which 20 grams of raw rye-flour or potato-flour had been added, caused no, or only slight, fermentation. If the quantity of the raw meal was very considerable, however, the fermentation was more distinct. He divides the carbohydrates into three groups: (1) those easily soluble, (2) starch, and (3) starch enclosed in cellulose. The latter can only be dissolved in the presence of certain forms of bacteria that act upon it. The addition of meat to the ordinary diet has no influence whatever, and fat in the form of butter causes the fermentation to remain the same, or to be slightly reduced. Strasburger then devised three varieties of diet that differed chiefly in the amount of carbohydrates that they contained, although there was also a progressive increase of albumin, an increase in the amount of fat in the second over the first, and a decrease in the amount of fat in the third. To each patient was given, at the beginning of the diet, a capsule containing carmine, and the investigations were not begun until the last trace of the stain had disappeared from the feces. Altogether, 84 patients were subjected to the investigations. The first variety of diet was given to 44, of whom 18 showed fermentation. A number of these subjects subsequently developed fermentation when given the second form of diet. Only the third form was given in 21 instances. In the 18 cases that showed early fermentation on the first form of diet, 4 suffered from gastric disease, and 9 from intestinal disease. The remaining 4 had chlorosis, tuberculosis with amyloid disease, incipient pulmonary tuberculosis, acute endocarditis, and chronic endocarditis. Of the 47 cases showing no fermentation, 5 suffered from chronic intestinal disease. He concludes, therefore, that early fermentation, when the patient is kept upon the first form, indicates some pathologic alteration of the intestinal tract. The second form of diet was given to 59 patients, and 32 of these showed fermentation; 16 suffering from gastro-intestinal disease, and the rest from other diseases. Fermentation, therefore, is probably pathologic. Those patients upon the third form of diet usually showed early fermentation, and Strasburger concludes that in this case fermentation is normal. [J.S.]

19.—Hofmann, having satisfied himself by experiments upon mice, guinea-pigs, and rabbits, that the injection of a sufficient quantity of concentrated solution of sodium chlorid was capable of producing convulsions and coma, undertook to estimate the ingestion and excretion of chlorids in various cases of nephritis, in order to determine whether the theory of Bohne—that the **uremia was due to chlorid-retention**—had any foundation in fact. He prints his results in tabulated form, and in none of the 8 cases was it possible to determine a positive diminution in chlorid-excretion. He, therefore, concludes that the relation between the retention of chlorids in the organism and the occurrence of uremic symptoms does not exist. In the lower animals only a very considerable accumulation of chlorids in the body produce uremic symptoms. In 4 cases of chronic interstitial nephritis with pronounced uremic symptoms, there was no retention of chlorids when the symptoms became exacerbated. In one case, there was an increased excretion of chlorids at the height of the attack. The contracted kidney, therefore, does not oppose the passage of the chlorids, but, in some cases of chronic nephritis, there may be a considerable retention of them without a development of uremic symptoms; even in acute nephritis, the chlorids appear to pass as freely as in normal conditions. [J.S.]

20.—Borghereni reports the case of a man 35 years of age with a severe cardiac lesion. He suddenly developed fever with chills, rapid respirations, and a weak pulse. There was an enormous **edema of the lower extremities,** involving the lower portion of the abdomen, ascites, and a gangrenous erysipelas upon both calves. As the heart did not respond to the ordinary stimulants, **incisions in both legs** were made, under the most rigid antiseptic precautions. Three days later fever had disappeared, the erysipelas was healing, and both the ascites and edema had greatly improved; in fact, both disappeared in a short time. In 3 other cases, in which the same treatment was employed, the results were equally satisfactory. Borghereni strongly recommends this treatment, as it serves to relieve the heart, and also the tissues locally, with the minimum amount of depression. The incisions are usually several centimeters long, and the quantity of fluid that is discharged from them is sometimes enormous. Curschmann reports a case in which 17½ liters were collected on the first day, and in Borghereni's case 6⅓ liters were obtained the first day, and in the course of 8 days, 18⅓ liters. There is little danger of infection on account of the peripheral flow of the fluid. [J S.]

21.—Müller has endeavored to test the **reaction of the heart in the course of tetany** to various forms of electric stimulants, but was unable to detect any deviation from the normal. [J.S.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.,

of Philadelphia.

Chronic Vomiting in Infants.—The first indications are to rest the stomach and regulate the diet. The intervals between the meals may have to be lengthened, and the details of the feeding must be carefully attended to. In young babies nothing succeeds so well as a wet-nurse. In hand-fed infants, the milk should be discontinued for a time, and raw meat-juice and barley-water, white of egg and water given in its place. Occasionally peptonized milk is helpful. Washing out the stomach is almost invariably beneficial, especially in the case of young babies. It is more difficult and less satisfactory in older children. The most generally beneficial medicine for these cases is bismuth, with or without an alkali:—

℞.—Bismuth carbonate	2 grains.
Soda bicarbonate	2 grains.
Compound tragacanth powder	1½ grains.
Spirit of chloroform	1 minim.
Caraway water up to 1 dram.	

Sig.—Every 2 or 4 hours.

Drop-doses of Fowler's solution or of ipecacuanha wine before each meal are useful in many cases. Dilute hydrochloric acid, nux vomica and creasote are all occasionally of value, in small doses.—John Thompson in *Guide to the Clinical Examination and Treatment of Sick Children.*

Picric Acid in the Treatment of Burns.—Dakhyle (*Le Progrès Médical*, January 7, 1899) states that picric acid makes the best topical application in hastening cicatrization of burns. It is harmless, both to children and adults. It is recommended in superficial burns and in those of the second and third degree. It is contraindicated in very young children, and in deep, old or suppurating burns. The technic consists in antiseptic cleansing of the burn in a 1% solution of picric acid, exercising great care in preserving the epidermis. In superficial burns excellent results were obtained by painting with a saturated solution of picric acid in ether or alcohol. In chronic suppurating burns it may be used with iodoform and ichthyol.

For Dyspepsia with Flatulence.

℞.—Tincture of gentian, Tincture of valerian, Tincture of nux vomica, } of each	1 dram.
Chloroform	20 to 40 drops.

M. Sig.—10 to 20 drops in water before meals.

Local Application for Subacute Articular Rheumatism.

℞.—Salicylic acid	20 grains.
Ichthyol	20 grains.
Belladonna ointment	4 drams.
Mercurial ointment	6 drams.

Pruritus Ani.

After thorough cleansing of the parts, and drying without friction, the following ointment should be applied not only to the external parts, but also to the interior of the bowel:

℞.—Creolin	20 grains.
Resorcin	20 grains.
Lanolin	1 ounce.

—Maguire.

Nirvanin.—Luschenburger (*Münch. med. Woch.*, No. 2 1899) describes a new local anesthetic, which is said to have many advantages over cocain. As it is only one-tenth as poisonous as cocain, large amounts can be injected. Ninety-four operations are tabulated in which nirvanin was used as a local anesthetic, and in no case were there unpleasant symptoms. The author claims that under its influence the radical cure for hernia can be performed, the amputation of fingers and toes, and the removal of necrosed bone, etc. A 2% solution with sterilized saline fluid is recommended.

The Treatment of Chronic Bright's Disease.—Whenever there is dropsy, or the urine diminishes, or the albumin is greatly increased, or any inflammatory complication comes on, or there is marked dyspnea, or any sign of uremia, it is prudent to send the patient to bed, as it is better to err by being a little over-careful. The treatment of symptoms should not be undertaken too vigorously. Minor ones that are not causing distress are often best left alone, unless they are regarded as danger-signals, when a few days' rest in bed on simple diet and treatment will afford opportunity for judging of their value and of what is needed to be done. We should recognize the incurable nature of certain symptoms and avoid treating them. Of two remedies or methods of treatment we should choose that which is the less debilitating. . . . The patient should wear woolen clothing by day and by night, summer and winter, and in all climates. . . . The use of the *hot air* or *vapor bath* in their own rooms once a week is better than taking a Turkish bath away from home. After the bath the patient should be well rubbed down and then go to bed. The duration of the bath should not exceed 20 minutes. The skin may not act well the first few times, but will gradually acquire activity. If the duration of the bath is prolonged it may cause faintness. Cold bathing or sponging should be avoided, but tepid sponging every morning may be allowed. Daily exercise should be encouraged, but violent exercise, such as running or anything approaching fatigue, is to be avoided, having in view the state of the heart and the vascular system. The proper diet for acute Bright's disease is milk, with the addition of a certain amount of farinaceous matter to supply the alkalies so necessary to the body; the quantity of milk should not exceed three pints daily. As the acute stage passes off, vegetables and fruits, eggs and light meats should be gradually introduced, and when the disease is chronic the only general restriction to be laid down is: *Eat sparingly of butcher's meat, and avoid spirits, malt liquors and strong wines.* The safest drinks are the light Moselle, Rhine or Bordeaux wines neutralized by the addition of an alkaline mineral water. . . . Beef-tea and soups of all kinds should be interdicted; the former has a chemical composition closely resembling that of urine, and all soups partake more or less of this character, unless they are made without any stock, as some German soups are made, but these are hardly understood by the English cook. By every means endeavor to keep up the patient's general health and nutrition, and set aside any of the above injunctions which interfere with these all-important considerations.

In the absence of specific remedy I generally order:

℞.—Iron sulphate	3 grains.
Magnesium sulphate	40 grains.
Dilute sulphuric acid	3 minims.
Peppermint water	1 ounce.

Sig.—To be taken three times a day.

Or.

℞.—Tincture of digitalis	10 minims.
Potassium iodid	5 grains.
Aromatic spirit of ammonia	15 minims.
Water to make	1 ounce.

Sig.—To be taken three times daily, with the occasional use at bed-time of the following pill:

℞.—Euonymin	1 grain.
Extract of aloes	2 grains.
Extract of belladonna	¼ grain.

—Saundby in *Renal and Urinary Diseases.*

Dionin.—Korte (*Therap. Monatshefte*, January, 1899) reports some results with dionin, a new morphin derivative prepared by Merck. Dionin is the hydrochlorate of ethylmorphin, and appears in the form of white crystals, of a bitter taste, and freely soluble in alcohol and water. As a narcotic, dionin is said to stand midway in activity between morphin and codein. Unlike morphin it does not disturb the stomach nor cause headache. Its chief value seems to be in the treatment of asthma and the irritable cough of bronchitis and phthisis. In the latter disease it is said to loosen the expectoration and to lessen the night-sweats. The following formula is recommended:

℞.—Dionin	8 grains.
Sirup	3½ ounces.

Sig.—A teaspoonful at bedtime.

The Treatment of Gonorrheal Rheumatism.—Loewenhardt (*Wien. med. Presse*, November 6, 1898) concludes that no drug can lay claim to act as a specific in this disease. Relief of pain is sometimes afforded by sodium salicylate, and potassium iodid is occasionally useful, though it often fails. The same may be said of oil of gaultheria. The writer finds that salol and sandal-wood oil administered in capsules give the best results. Of mercurial treatment he has had no experience. The affected joints should be fixed on splints to secure absolute rest, but this treatment should not be continued longer than is absolutely necessary. It is advisable to draw off the fluid from the joint if it is much distended, and even arthrotomy may be practised. Later on massage is useful, and heat applied by means of hot air or sandbags is appreciated by the patient.

For Chronic Constipation in Infants.

℞.—Sodium phosphate	24 grains.
Sirup of manna	2½ ounces.
Anise water to make 3 ounces.	

Sig.—One teaspoonful 3 times daily, for a child under 1 year old.

—Fruitnight.

Digitalis in the Senile Heart.—The object we have in view when using digitalis in a case of senile heart is not to remove dropsy, to slow the rate of pulsations, or to contract the cardiac cavities, but by the gradual accumulation of trifling advantages to tone up and strengthen the cardiac muscle by improving its nutrition. Gradually the heart acts with more vigor, the circulation improves in steadiness and force, any edema occupying the tissue-spaces is removed, and thus the blood-pressure is lowered and a considerable strain taken from the heart. For this purpose only moderate doses are required, doses which can be continued for many months without any risk of a dangerous accumulation, and which yet have a decided effect in strengthening the heart, mproving the tone and elasticity of its muscle, and accumuating energy in its ganglia. Naturally this process is slow, and the benefit is not for a time very obvious to the recipient. Some years ago a friend called on me and said, "Doctor, your medicine is doing me no good." "Of that you must allow me to be the best judge; I expected nothing else; you are too impatient," I replied. "Were I to give you medicine n such a dose as to produce a sensible action in a few days, before long its action would be so unpleasant that you would ither stop it yourself, or your ordinary medical attendant would order you to give it up. In a short time the seeming enefit would vanish, and you would abuse me for having iven you medicine which did not agree with you, and which ave you no permanent relief. Now, what I have given you will not speedily relieve you; but give it time, and it will make you well, and prolong your days in comfort. Two or months after this you will say to your wife some morning, Do you know, my heart is not so troublesome as it was; I egin to think I am improving'; and 6 or 8 months after his you will come to me and say, 'Doctor, I was preaching ast Sunday, and feel none the worse for it.'" And so it fell ut; my friend and his senile heart are nowadays, after the apse of 5 years, still very good company to each other, which or many a day they were not.—Balfour in *The Senile Heart.*

The Therapeutic Value of the Suprarenal Bodies.—H. C. Wood (*Merck's Archives*, February, 1899) tates that it has been definitely proved that the extract of the uprarenal glands is a direct stimulant to the heart or bloodessels or both, and that when injected into the veins of the ower animals it causes a marked increase in the respiratory ate, a priori reasoning based upon experimental evidence, herefore strongly indicating that the suprarenal extract will rove of great value in various cases in which there is a failre of the heart, and especially of the bloodvessels, and this eduction has received some clinical confirmation from uchard, who affirms that he has obtained excellent results n neurasthenia from the administration of 15 to 30 grains aily of the suprarenal gland. The employment of the drenals as a general circulatory stimulant is, however, uch limited by the fact that it seems to exercise no fect when given by the mouth, and but comparatively little hen given hypodermically. The transitoriness of its acon when given subcutaneously shows that this is the result rapid elimination or destruction. Whatever the explanation of the fugaciousness of its power the lesson is the same, that if we wish to employ it as a circulatory stimulant it must be given intravenously. It is evident that in human medicine the intravenous injection of an extract, with the accompanying danger of untoward effects from the presence of septic or other organic matters distinct from the active principle of the drug, is scarcely to be justified. Under these circumstances the search for the active principle of the drug which may be with safety used intravenously becomes of great importance.

Moreover, it must be remembered that the elaboration of this bloodpressure-elevating material is not the only function, nor indeed the chief one of the glands. It has been shown that the suprarenal bodies exert a marked influence on the nutritive processes, and that this influence cannot be attributed to the cellular activity of the glands, for both Abelous and Brown-Sequard have shown that the subcutaneous injection of a watery extract of them causes a marked amelioration of the symptoms in the decapsulated animals and a prolongation of life. Further, the experiments of Langlois would seem to show that not only must there be two active principles in the glands, but that these two active principles are even antagonistic in their action. The greatest progress toward obtaining the pure principle has been made by Abel. He finally isolated the active principle of the suprarenal gland in the form of a powder of a light-gray or brownish color. A few milligrams of the picrate of this principle dissolved in 25% of alcohol, injected into the jugular, causes a very great rise of the arterial pressure which remained for 15 minutes. It may well prove that the action of this principle is too fugacious to be of much use in practical internal medicine, but the time seems to have come when an experimental commercial manufacture of it should be entered upon, so that extended therapeutic trial by the profession may be possible. It is evident that the objections which apply to the extract as a general medicament do not equally affect its local use. The extract has been used as a local astringent in various forms of hyperemias of the eye, as, for example, conjunctivitis, iritis, and even in glaucoma, and as a hemostatic agent. Bates affirms that it surpasses either cocain or atropin; that it has no local effect aside from that on the vessels, not affecting either accommodation or the pupil; that it has no after-effects, and that the prolonged use of it does not produce an immunity against its action. The only objection to its employment is the ease with which it undergoes decomposition. Plainly, it is practically important that the solution be made fresh at the time of its use, and even when so made it is better that the solution be sterilized by boiling just before dropping into the eye.

A Local Application for Acute Articular Rheumatism.

℞.—Vaselin	25 parts.
Salicylic acid	4 parts.
Sodium salicylate	3 parts.
Extract of belladonna	1 part.

Sig.—To be applied and covered with cotton.

—Lemoine.

Neuralgia.

℞.—Menthol Guaiacol } of each	1 dram.
Absolute alcohol	10 drams.

Sig.—Apply twice a day on cotton.

—*Therap. Monat.*

The Antitoxin Treatment of Diphtheria.—It is strange and melancholy still to hear occasional expressions of doubt as to the efficacy of antitoxin. Few points are better proved theoretically or practically than the value of diphtheria-antitoxin in practice. Enlightened clinical experience has shown that if promptly recognized and immediately treated, the disease has, indeed, as Baginsky says, almost lost its terrors. As yet but a small proportion of all cases have the good fortune to come under the observation of those who recognize this fact. But it is to be hoped that this may not long be true, and that the day is not far off when the general mortality from diphtheria may fall to a point even lower than that reached in the wards of this distinguished clinician (8.6%).—William Sydney Thayer in *Progressive Medicine*, March, 1899.

Original Articles.

LIBERTY IN MEDICAL EDUCATION.

By FRANKLIN P. MALL, M.D.,

Professor of Anatomy, Johns Hopkins University, Baltimore.

A quarter of a century ago the medical schools of this country gave an annual course of lectures which was attended by all students and was repeated each year. For this privilege students paid a single fee, for which they heard much, saw little, and did nothing. There were no requirements for admission and very few for graduation. At the end of the session the trustee-members of the faculty divided the profits among themselves. Since that time, however, great strides have been made in the direction of improvement, stimulated mainly by other educational movements in the country. The quality of the professor has been improved, a graded course of instruction has been introduced, and requirements for admission have been established. These improvements have been encouraged to the greatest extent by the educated people on the one hand and by the medical profession on the other, through the introduction of State laws regulating the practice of medicine. Schools of medicine have thus grown from one course of lectures, extending over 5 months, to 4 graded courses of 9 months each. The requirements for admission have been increased from *nil* to a liberal education as expressed by a college degree. The quality of the professor has also kept pace with the increased requirements of the medical school.

There are at present in the United States 48 medical colleges having courses extending over 3 years, and 70 colleges having courses extending over 4 years. Of the latter group, 14 have sessions of 8 months each and 8 have sessions of 9 months.[1] This group of 8 schools has in general increased the requirements for admission to a high-school education, while one of them requires a college education with a college degree. Two of them have announced that in the near future the requirements for admission shall be increased beyond the present standard. On account of the lead thus taken by these institutions, as well as for their general good standing, I shall term them medical schools of the first order.

In order to raise the standard of the medical schools of 25 years ago to that of the schools of the first order as they exist at present, it has been necessary to pass through the stages of graded courses, for in so doing not only could the value of graded and progressive courses be demonstrated to all who took them, but at the same time unworthy students could be eliminated. Experience teaches that the student who has been well trained in the fundamental departments of medicine demands a more careful training in those which follow; accordingly it follows that if we wish to attain to higher standards in the practical branches the teachers in the fundamental departments especially must be first improved. An effort in this direction is what we are witnessing at present all over the country. The institutions are demanding better courses in anatomy, physiology, and pathology, while the students, *propter hoc*, are demanding better medicine and surgery. If I have calculated correctly the forces at work the outcome of the movement will be that in less than another quarter of a century the standard of the schools which remain will be as high as that of the schools of the first order is at present. Such a result, of course, absolutely depends upon the schools of the first order retaining the lead, and on their gaining in addition stronger support from improved State examinations.

The immediate effect of the introduction of the graded course of 3 years, in 1880, was a marked falling off of the total number of medical students, and this decrease continued until 1887.[2] Since then the number of students has gradually increased until at the present time there are more than twice as many students as there were 10 years ago. Graduates of recent years know only too well the difficulties in gaining a livelihood, and our present students, with greatly increased opposition from State laws, the multiplication of dispensaries, and the distribution of trained nurses, have also a very poor outlook. The improvement in the quality of the student and of his education will not necessarily guarantee a practice when there are already too many physicians.

The schools of the first order have before them a responsibility far greater than increasing the number of students and of graduates. In order to keep in the lead they must at once improve the quality of their teaching-force and also give better facilities to selected students. At the University of Michigan and at the Johns Hopkins University the authorities are in no way hampered in the selection of their professors, and nearly all the latter are chosen from distant universities. The other medical schools of the first order are rapidly adopting the same method. This is a most hopeful sign, for nothing is more detrimental to educational institutions than the "inbreeding" of professors. To increase the length of the medical course beyond 4 years does not seem to me to be advisable. The requirements for admission to the Johns Hopkins Medical School are sufficiently high,[3] and the other schools of the first order promise to approach this requirement.

In the old medical course of one session, the student at best gained some idea of medical lore, and, in case he was deficient in this, he took the course again, thus making a two years' course of it. When the three-year graded course was introduced the second year was the first year taken over again, with a special third-year course added. In this way the student heard each course of lectures twice in order to make him remember it. But from examination it was found that the student remembered but little of what he had heard, and a new force was introduced to aid him in the memorizing process. Young instructors or individuals not usually connected with the institution extracted the essence of the course of lectures and drilled this into the classes. Thus arose the quiz-method of instruction, so common in many medical schools. This helped the student to remember a sufficient amount to pass the examination, and all appeared satisfactory, for no one asked whether or not the student had actually gained knowledge and skill enough to practise medicine and surgery. Even to-day it is the recitation upon the lectures, laboratory work, or an assigned subject from a textbook that is employed as a test of a man's capacity. In all cases it is "learn the lesson we have set for you, recite well, then pass the examination, and after you have satisfied each instructor in this way, you are a Doctor of Medicine." In my opinion no method of training could be worse for a good student, while it puts a premium upon the mediocre candidate.

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[1] Report of the Commission of Education, 1896–'97, vol. 2, p. 1792.

[2] Report of the Commission of Education, 1896–'97, Vol. 2, p. 1190.

[3] A degree in arts or science from an approved college, at least a year's laboratory training in physics, chemistry, and biology, and a reading knowledge of French and German. After June, 1901, candidates for admission to Harvard Medical School must present a degree in arts, literature, philosophy, science or medicine, etc.—Announcement of the Medical School of Harvard University, 1898–'99, p. 12.

If we ask the question—how may we make it possible that the individual may assert himself, and how can we give the student a chance to test the use of the knowledge he may possess?—we need not seek far for the reply. We have only to inquire into the methods in vogue in the leading medical schools of Europe, which are in many respects identical with those of the graduate schools of our own universities. European medical schools and American graduate schools afford facilities for many kinds of work to those who may profit by them. When the student has pursued enough courses (no two students necessarily having followed exactly the same course) to enable him to apply for a degree, he is examined, and in case he passes, the degree is granted him. Adapting this more liberal method to our own medical schools a plan may be formulated as follows:

1. Entrance examination.
   Followed by at least two years' study of the fundamental branches.
2. Intermediate examination.
   Followed by at least two years' study of the practical branches.
3. Final examination.
   The subject of examinations will be referred to further on in the course of my remarks.

Throughout the course thus outlined, the greatest atitude possible should be offered the student in the rrangement of his studies selected from (1) a required list, as well as from (2) an extensive group of electives, as recently advocated by Bowditch.[4]

We all know that students are very unequal in ability, as well as in capacity for work, and why should they all pursue the same course of study? It is certainly very injurious for students to take again courses with which they are familiar, feeling at the time that they do not grow from day to day. Furthermore, it is not beneficial to the true student to study with a whip over him, and we know only too well that this weapon is more often used by a poor instructor upon a good student than by a good instructor upon a poor student. If we had a liberal elective system the student would know why he takes a course, and under this condition would profit much more by it. To profit most the student must gain a perspective of his medical course. In my association with German medical students I have witnessed frequently the value of this point, emphasized centuries ago by Quintilian. While battling to establish themselves in an elective course of study a certain number fail and quietly withdraw from medicine; the average students continue along the trodden path, while the strong students become much more powerful.

Do we, with our obligatory methods, accomplish as much? I think not. We cast out the weak and disgrace them, the mediocre continue along the trodden path, but the strong are retarded. We do wrong when we disgrace the weak and it is our duty to develop the strong. It is poor logic and begging the question to assert that the German student develops better under the banner of liberty than the American would. It is not difficult to obtain overwhelming authority in favor of liberty in higher education; it is only degrading to our profession in America to assert that our students are not worthy of it. As long as this continues, medical education in America, in spite of the advance it has made during the last 25 years, will remain at its present low level in the eyes of the educators of the world.

"Only a few years ago, all students who graduated at Harvard College passed through one uniform curriculum. Every man studied the same subjects in the same proportions, without regard to his natural bent or preference. The individual student had no choice of either subjects or teachers. This system is still the prevailing system among American colleges, and finds vigorous defenders. It has the merit of simplicity. So had the school methods of our grandfathers—one primer, one catechism, one rod for all children. On the whole, a single common course of studies, tolerably well selected to meet the average needs, seems to most Americans a very proper and natural thing, even for grown men."[5]

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[4] Bowditch, *Boston Medical and Surgical Journal*, December 29, 1898. At present there is an elective system at Harvard and at the University of Pennsylvania, representing about 2% of the entire medical course. President Harper has just introduced an elective system into Rush Medical College, representing 17% of the entire course. There are elective courses at the University of Michigan, Columbia, and Johns Hopkins, but they do not give credit to the student further than the increased knowledge he may gain in taking them. Students already overworked are not likely to take electives without prolonging their course of study, and there is so much disgrace accompanying the prolongation of the medical course under the present arrangements that this alone debars students from wilfully doing it.

What is written above has in it the spirit of iconoclasm, and it remains to be shown, and I think it can be shown, that it is possible, in fact necessary, to bring about a change in the curriculum, even in the schools of the first order, to relieve their congested, illogical, and often absurd medical programs.

The following table has been compiled from the announcements of 6 of the leading medical schools and I give it with considerable reservation. Any one trying to confirm it will appreciate the difficulty in determining what these schools really give.

Table Showing the Number of Hours' Work Given in the Various Departments of 6 of the Leading Medical Schools.

	A	B	C	D	E	F
Anatomy and histology	500	500	950	890	695	825
Physiology	250	210	300	150	120	160
Physiologic chemistry and pharmacology	275	105	300	250	465	530
Bacteriology and pathology	300	185	200	570	330	560
Other subjects	150	60	240		255	595
Medicine	625	420	460	515	480	320
Surgery	470	390	385	570	670	660
Gynecology	60	180	160	235	260	380
Obstetrics	200	180	220	280		
Dermatology	30	120	40	100	100	95
Pediatrics	15	90	40	80	90	
Nervous diseases	30	100		120		325
Genito-urinary diseases	15	30	65	120	110	480
Laryngology	15	120	40	100	120	
Ophthalmology	100	300	40	100	105	
Other subjects	90	330	75	30	90	90
Total	3125	3320	3515	3910	3970	5220

In glancing over the lines it is seen that the time devoted to any of the important subjects varies fully 100% in different schools. In some of the specialties it varies nearly 1000%. These facts in themselves are overwhelming evidence in favor of elective courses. If the correct quantity and order of the subjects are known, as is so frequently asserted, why this great fluctuation in hours? If a student of his own accord takes 325 hours of nervous diseases at school F, that is his own affair; but why should all students take 325 hours? At school A, on the other hand, if he desires to take but 30 hours, it is again his own affair, but why should all of them take so little? A similar argument can be applied to every course. Were the elective system in vogue a student might arrange the studies of school A like those of any of the other schools given in the table, or he might have any intermediate gradation. But how can this be done? We know that in all of the leading schools the year is divided either into 2 semesters, or into 3 terms. Let us consider only the institutions with 2 semesters, and what applies to them may apply equally well to the others. Several fundamental principles will have to be introduced.

1. The work in each department must be graded.
2. No course may extend over one semester.
3. The courses must be concentrated. Every course should be given at least 3 hours a week. Individual course-records must be kept, as is the case in all colleges.

For the sake of brevity I will designate a course of 3 hours a week for one semester a unit, for half that time a half unit; three half-days' laboratory course for one semester as two units, for half that time as one unit. Within this time all necessary medical courses can be given. The main clinical courses may be longer, but may be cut into blocks of a semester each, and this makes it easy to bring them into the scheme.

The courses in a department being graded, they will have to be arranged in such a manner that students knowing nothing about the work of the department may be given introductory courses in it during each semester. After the introductory courses have been taken they may take then the more advanced work of the department. The outcome of it all will be that each student will work at a speed to suit himself, conforming only to the rules and regulations of the department, and being controlled in addition by the examination system of the university as given above. He may not enter the school as a candidate for the degree of M.D. without having passed the entrance examination. He may not take any of the practical branches without having passed without condition the intermediate examination, the time between the entrance examination and the intermediate examination to be fixed at a minimum of 4 semesters or their equivalent. In case he is conditioned in any course he may be examined one semester later. The same rules may apply to the time between the intermediate and the final examinations.

I have used above the semester or its equivalent. It is noticed in the hours given in the table that the whole medical course at medical school A is 3,000 hours; at F, 5,000 hours. A total of 3,000 hours, or 750 per year is full work in the undergraduate science course of our leading colleges, and may be considered the standard for a medical course. With 3 hours a week for one semester as one unit, and 3 half-days' laboratory work one semester as two units, a student taking 6 units per semester would be doing full work as rated by college standards. Twelve units would represent a year's work, and 24 units two years' work, or the minimum requirements for persons presenting themselves for the intermediate examination. In a more detailed form the work of the best schools can be recast with the above-described unit as basis in some such manner as the following:

Table Showing the Medical Curriculum Recast With the Unit as Basis and Obligatory and Elective Courses.

Entrance Examination.

	Obligatory.	Elective.
Anatomy	6 units	15
Physiology	2 "	4

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[5] Eliot, Inaugural Address as President of Harvard College, October, 1869.

Physiologic Chemistry and Pharmacology	3 units	6
Pathology and Bacteriology	4 "	10
Hygiene and Bacteriology		10
lective	9 or more	
	24 = two years' work	

INTERMEDIATE EXAMINATION (ANATOMY, PHYSIOLOGY, PHARMACOLOGY AND PATHOLOGY).

	Obligatory.	Elective.
Medicine	6 units	15
Surgery	5 "	15
Obstetrics	3 "	5
Gynecology		5
Dermatology		4
Pediatrics		4
Nervous Diseases		5
Genito-Urinary Diseases		4
Laryngology		4
Ophthalmology		5
Medical Jurisprudence		2
Psychiatry		4
Elective	10 or more	
	24 = two years' work.	

FINAL EXAMINATION (MEDICINE, SURGERY, OBSTETRICS, AND ONE ELECTIVE).

In the above table I have arranged the units in two columns, reducing the obligatory courses to their minimum without excluding any of the seven branches. Further cutting-down might be an improvement, but I will not raise that question at present. As it stands in the table 60% of the entire 4 years is obligatory and the remaining 40% of the work is to be selected from a large group of elective courses. As they stand in the second column it would require an average student 8 or 10 years to take them all, and the two columns together represent work which our best schools can easily give at the present time. Much of our whole trouble in teaching is that we are trying to put 10 years' work into 4.

In case a school measured the time of a student by the number of units he had taken, it might be well to credit him only with 6 units per semester in order to discourage overwork. It would be his privilege to do as much additional work as he chooses, but in case he did less than 6 units per semester he would be credited for the amount he had really taken. The course-records might be controlled by practical tests at the end of a laboratory course or by a brief written examination at the end of a lecture course, it being distinctly understood, however, that these examinations are only to give credit for the course. It might happen that weak students, and often strong students, would take more than 24 units before applying for the intermediate examination.

The order in taking the work of the first half of the medical course should not be controlled any more than the rules of any department control them. It might be well for the course in pathologic histology to be preceded by histology and microscopic anatomy, but more than this is hardly necessary. If a student desired to take the pathologic histology without having had normal histology and the instructor did not object, the student would have to take the consequences. I, myself, did this as a student in Heidelberg and to this day have not regretted it.

After the intermediate examination the student would take the necessary courses preparatory to actual medical and surgical work, and for this purpose there is always an abundance of instructors on hand. The group question would soon disappear, for a student might take sufficient elective courses to save time in reaching his goal, *i. e.*, doing practical work. Each student might try a different combination while working out his own salvation and developing his individuality. The weak student would either drop out or go slower, the average would follow the trodden path, the good one would develop himself. A congested course would soon be duplicated, the arrangement of the program would be extremely simple, and courses of no value would soon die a natural death. Demand and supply would become the important questions of each institution and the "trust" method of supporting either a poor student or a poor instructor would soon disappear.

The great complaint of the good student is coercion. Reared in a free atmosphere, accustomed to great liberty during his college years, he enters the medical school with intellectual slavery staring him in the face. The faculty trust is so powerful that if the student asserts his citizenship and remains away from a stupid course or one useless to himself he may be deprived of his degree. Long after he graduates he awakens to see that it is all a sham, and this fact adds another disgrace to our medical schools. Let us boldly define the work which is absolutely necessary for each student to do, give an abundance of electives from which he must select a certain quantity and then have a rational system of examination.

The bugbear of examination is so great that in my opinion it would be well to separate it from the course of instruction entirely. Many examinations are such an utter farce, so bad and so detrimental, that both physicians and many faculties have lost faith in them entirely. No greater argument need be given than the fact that the physicians of many States will not permit the members of a teaching faculty to serve on the State examining board, while in some of the medical schools it is required that the student write his examination over a secret number in order that the reader of the paper does not know who has written it. Think of it! Then to bring this evil force into the lecture hall and the laboratory! But some compromise is here necessary, for how shall we determine whether or not the student has really taken the course? In Germany simple payment of a fee for a course and a perfunctory signature of the instructor gives the student credit for the course. In Austria the instructor must sign the student's book, to which is attached his photograph with a seal through it at the beginning and again at the end of the course. If we had some method a little more rigid than that in Austria it would suffice, for I think that we should "do away with examinations as much as possible. They produce mediocrity."[6]

The intermediate and final examinations should be true examinations to test a student's knowledge. At least 2 weeks should be given over to the examination in anatomy, during which time the student should be asked to make dissections, histologic preparations and the like. The examinations should not be primarily directed towards finding out what the student *knows;* rather toward learning what he can *do* with the knowledge he possesses. They should always be public in order to protect both the student and the examiner. The great length of time given over to the examination would remove most of the embarrassment of the student, which accompanies the briefer and crushing Ph.D. examination. In addition to the examination the credentials of the student should always be taken into consideration, for it is through them that we learn what the student has actually done, as well as much concerning the general character of the man. With a liberal system of electives no two sets of credentials would be the same.

The value of liberty in education has been pointed out again and again from the student's standpoint,[7] but the benefit it renders an institution should not be forgotten. Liberty to the student should not mean license to him, but rather liberty also to the instructor. This question stirs our medical schools to their very foundation. At present our medical institutions are properly called schools and none of them can claim true relationship to the university. A medical department of a university must consist of a group of independent departments, each a complete organization in itself, existing primarily as a conservator of the branch it represents. Teaching beginners may become its main work, but should never be its chief ideal. These departments must be related to the university as a whole, as is the department of chemistry or of history, the former being bound together, however, through the medical faculty as the latter are through the philosophic. At present this ideal is reached by a very few departments scattered throughout the country. The rest are better likened to the departments of chemistry and history of ordinary colleges rather than universities, for they have ideals of teaching in common with the former. Their organization, their desire to teach and to examine, and the graded course of instruction, make the better medical schools similar to the average colleges. Some of the colleges are more liberal and more nearly related to the university than are the best medical schools.

It must never be forgotten that departments are unable to grow and perform their duty best when their ideals are no higher than those of compulsory education. In their halls must live in the fullest degree the various sciences represented by them. There the science must also grow, and this is possible only with the banner of liberty over them. This is also most becoming in this country. We must always remember that it is with this banner over the German university that the greatest progress has been made; that embryology was there born simultaneously in the departments of anatomy, physiology, and zoology; that histology appeared at the same time in the departments of anatomy, physiology, and pathology, and that the greatest victory of modern medicine, bacteriology, is also to be credited to three departments—pathology, hygiene, and botany.

We are now on the verge of a new development in medical progress and education in which the strongest support is demanded from all sides. We need capable men to lead, liberty in medical education to strengthen them and to develop their disciples and their successors; endowments sufficiently large to raise the professors above the level of schoolmasters and to make the departments they represent, in reality departments of a university.

ACUTE PANCREATITIS—DISSEMINATED FAT-NECROSIS OF OMENTUM AND PERITONEUM—LAPAROTOMY—RECOVERY.

By MORRIS MANGES, A.M., M.D.,
of New York.
Visiting Physician, Mount Sinai Hospital, New York.

SARAH B., 21 years old, German, housewife, was admitted February 20, 1898, to Female Ward No. 3, of the Mount Sinai Hospital. Her mother had died of heart disease and asthma, and her father was living. There had been no family illnesses. Previous history was negative, except that she had had the ordinary diseases of childhood. She had been well up to 6 years ago when she had an attack of grip. Five years ago she was jaundiced for several weeks; the cause of this she does not know.

She has been married 3 years, and bore a child after normal labor 3 months ago; the lochia ceased in two weeks. Menstruation has returned normally since the birth of the child, and she usually menstruates every two weeks. She has never had malaria, and denies alcoholism.

Present history is of 6 weeks' standing, the last 5 of which have been spent in bed. One morning while still in bed, the attack began suddenly, a half-hour after drinking coffee, with very severe abdominal pain, which was especially marked in the epigastrium and was colicky in character. After a few hours the pains abated, when she arose and took another cup of coffee; this caused a return of pain of the same character. She describes this as a severe burning, griping pain which "doubled her up," but which was stationary in the epigastrium. There was no vomiting. When the pain eased somewhat, she went out to a neighboring physician and then returned to bed. The pains, after ceasing upon the taking of some medicine, returned upon drinking some hot milk and became so severe that morphin had to be injected. Thereupon she took nothing but cold milk and seltzer water. This attack of more or less constant pain lasted 10 days.

After working about the house for a few days the same pain returned in the same place. There was no vomiting. During the first few days of this attack the stools were clay-colored. The pain never left her entirely, but she was better for a few days and then worse again. This kept up until 10 days before admission to the hospital. While out visiting a friend she was once more attacked with the intense epigastric pain, which again required the injection of morphin. There was no vomiting. The pain returned the next day at 11 A.M. Two days after that, after having been on a milk-diet, she began to vomit everything, this being preceded by a pressing pain in the epigastrium. The vomit was white and at times greenish and followed the ingestion of whatever she took. Soon after she also had pain in the right hypochondrium which was less intense than the epigastric pain. After this she had pain all over the upper abdomen and in the back at the same level, the pains being so severe that she could not take a long breath. She was constipated throughout and had to take cathartics. During the past week she had a little bleeding from the rectum. Movement of the bowels did not increase the pain. Two days later she entered the hospital.

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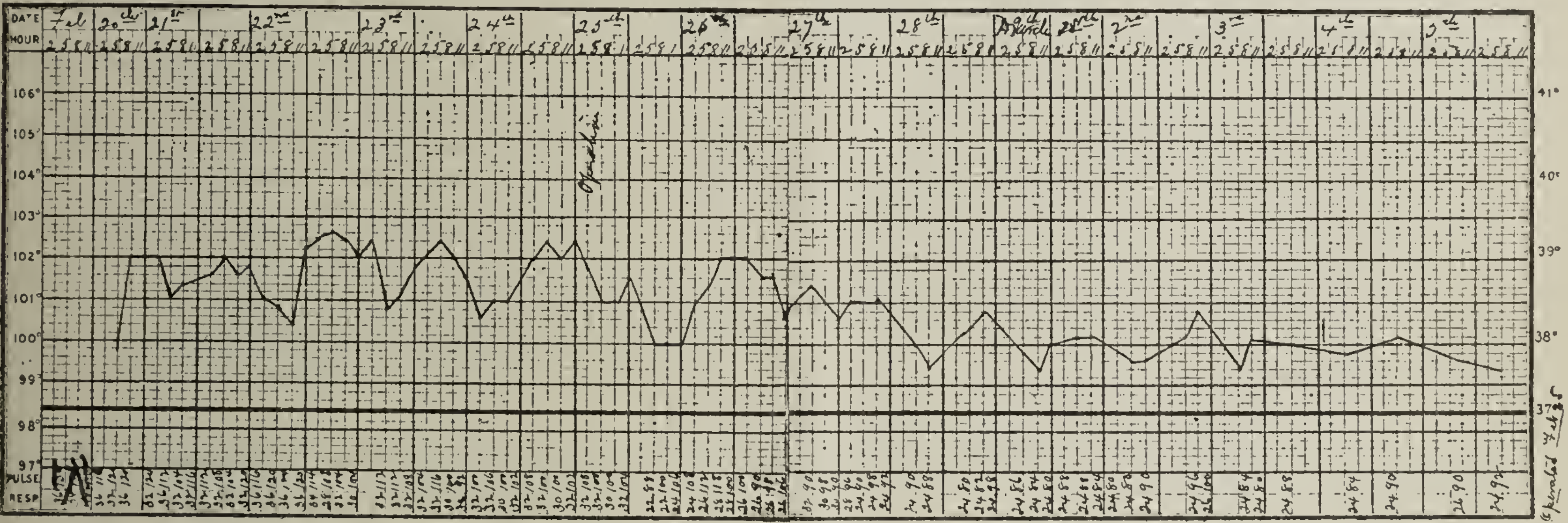
[6] Paulson: Rein's Encyklop. Handbuch d. Pädagogik.

[7] See, for instance, Helmholtz, Akademische Freiheit, Berlin, 1878.

On admission the chief complaints were: Epigastric pain, vomiting and constipation. The pain was always referred to the epigastrium, a short distance above the umbilicus. At present she vomits everything. She has vomited many times this past week. There was never any blood in the vomit. She belches a great deal and even this is painful. The bowels are very constipated and had not moved for three days, although she had taken castor-oil, injections, etc. There is some difficulty in urination. There are no other complaints.

The general condition on admission was as follows: Patient is a large, stout, flabby woman, quite anemic; well marked acne vulgaris on face; expression anxious; tongue slightly coated. Breasts well developed and contain milk. No edema. Temperature (10 A.M.) 99.8°, two hours after admission it rose to 102°; respirations 36; pulse 116. Heart and lungs negative.



Abdomen is somewhat distended and shows signs of recent pregnancy. Tenderness on palpation extended all over, but is especially marked in the epigastrium; deep palpation is impossible. The percussion-note is tympanitic all over the abdomen.

Liver is somewhat enlarged to percussion both upward and downward, extending in the mammillary line from the fourth rib to two finger-breadths below the costal border. The lower border cannot be palpated.

Spleen—lower border can be percussed at the free border of the ribs. No glandular enlargement.

Pelvic organs negative. Urine, specific gravity 1034; trace of albumin, no sugar nor indican. Microscopic examination negative.

The assumption that there was some intestinal obstruction seeming best to account for the patient's symptoms, she was treated in accordance. After much difficulty the bowels were finally moved, but not until several high enemas of oil, ox-gall, and water had been given through Kuhn's rectal tube—which, it may be said in passing, proved to be very useful for the purpose on this, as on other occasions. The stool was large, yellowish and unformed.

However, in spite of the fact that the bowels had been moved, the general condition did not improve. The stomach remained very irritable, and vomiting followed almost immediately after taking any fluid. The pain and tenderness in the epigastrium persisted, although light ice-bags were applied. The temperature varied between 100.5° and 102.5°; pulse between 104 and 120, respirations between 28 and 36.

February 23 the general condition was somewhat better; there was less vomiting, the bowels moved twice, the stools being formed and greenish. The pains and tenderness, however, remained, and now were referred more to the right of the epigastrium rather than to the lower part of this area, as had formerly been done. Urine was negative.

Intestinal obstruction having been eliminated, the diagnosis seemed to lie between some form of perforation-peritonitis or an empyema of the gallbladder, with or without impacted stones. The shifting of the pains towards the right made the latter seem the more probable. Still, any exact diagnosis was impossible on account of the difficulty of palpation of the epigastrium. It felt doughy, but beyond this nothing could be definitely determined. There was general tympanites, but the abdomen was not distended. Under these circumstances, with a view of having some surgical interference, Dr. Gerster was requested to see the patient and to operate if he saw fit. A careful examination by Dr. Gerster did not reveal anything beyond what has been stated above, and as the general condition demanded something to be done, laparotomy was agreed upon.

She was accordingly transferred to Dr. Gerster's service and was operated upon February 25. A vertical incision was made in the right hypochondrium, exposing the top of the gallbladder in its lower angle. The liver and gallbladder appeared quite normal, the gallbladder being flaccid. The greater omentum, however, was studded with numerous small whitish plaque-like spots, varying in size from a small pea to a bean. There was no inflammatory zone about these spots, which were not elevated; if anything, they were a little depressed. The incision was prolonged downwards and exploration continued. A large number of similar plaques were found on the omentum and parietal peritoneum. The common bile-duct, as well as the cystic and hepatic ducts, was normal; duodenum and stomach apparently normal. Behind the stomach, a nodular mass of very considerable size was felt; several large nodules were discovered below, and a smaller one above the mass. Operation was concluded by removing a piece of the infiltrated omentum for microscopic examination, and the wound was closed completely with silkworm-gut and button-sutures.

The general condition after the operation was good. The vomiting ceased and the patient was much more comfortable in spite of the narcosis and operation. The pains ceased. The course of the temperature, etc., is reported on appended chart. It will be noted that the patient's condition was decidedly improved by the operation as evidenced by the drop in the temperature, pulse and respiration. Although the temperature rose to 102° on the day following the operation, yet it gradually fell and remained very moderate with afternoon exacerbations.

February 26. A series of calomel and salts followed by enema was given, which was effectual. Urination was voluntary. Urine negative. Morphin for pain.

February 28. Dr. Libman, assistant pathologist, reported that the piece of excised omentum contained characteristic areas of fat-necrosis. This report, together with the presence of the large mass behind the stomach, at once determined the diagnosis of acute pancreatitis with disseminated fat-necrosis of the omentum and parietal peritoneum.

March 1. Wound was dressed. Primary union; three button-sutures removed.

March 2. Full diet allowed. Urine negative.

March 4. All sutures removed. Wound healthy; good union; dry dressing.

March 8. Mural abscess developed in the lower portion of the scar; incision evacuated a considerable amount of pus. There was nothing abnormal about this pus. Two drainage-tubes were inserted and wet dressing applied.

March 29. Only a small sinus was left, which soon healed, and patient was transferred to the medical side on April 8. General condition had been excellent throughout; no fever or any complaints; repeated examination of the urine for sugar gave negative results.

Soon after her transfer back to the medical service, she again began to complain of pain coming on immediately after eating. The pain was of a different character, being a dull aching located in the epigastrium, and lasting for several hours after meals, when it gradually disappeared, to return again after the next meal. Regulation of the diet in every possible way made no marked difference in the occurrence or character of the pain. Test-meals given at different times revealed normal gastric juice. Distention of the stomach did not show any abnormity in the size or position of the stomach. The appetite was good; the stools were regular and did not contain any fat. Repeated examinations of the urine failed to show any albumin, sugar or indican. The fact that the pains came on immediately after eating precluded the possibility of their arising in the intestines. Careful examination of the abdomen, with an empty stomach, failed to reveal anything except a vaguely-defined, deeply-seated mass, which was sausage-shaped, and which extended across the lower part of the epigastrium. This mass was undoubtedly the enlarged pancreas.

The only explanation which could be advanced to explain this pain was the presence of adhesions between the stomach and the pancreas. That these pains might be due to the areas of fat-necrosis was considered, but was dismissed because there were no localized areas of tenderness over the abdomen. That the pains were not due to a chronic pancreatitis, may be seen by comparing her symptoms with those which occur in this condition:

"The digestive disturbances, epigastric pain and tenderness, progressive loss of flesh and strength, are the symptoms which occur in fibrous pancreatitis, and may precede death for months or years. The digestive disturbances consist of loss of appetite, nausea, vomiting (rarely), belching, pyrosis, and a sense of epigastric fulness and weight. These symptoms, usually attributed to gastric catarrh, in rare instances may be absent. Diarrhea frequently exists; the dejections are sometimes fatty, and may be colorless, even when there is no jaundice. Jaundice occasionally occurs, and is persistent if the common bile-duct be compressed by the contracted head of the pancreas. The epigastric pain is deep-seated, dull, burning or boring in character, perhaps paroxysmal; and if severe, is associated with extreme anxiety, restlessness, and a sensation of faintness."[1]

With continued use of potassium iodid, in doses of 0.3 gram, after meals, occasional courses of tincture of belladonna, counter-irritation and Priessnitz compresses, these pains gradually abated, and the patient left the hospital in excellent condition on July 28, 1898. The reports I have had since then have been good as regards her general health, but at irregular intervals she has attacks of pain, of the same character as above described, which are brought on by errors in diet.

This case is of interest apart from the fact that thus far but 3 other cases have been reported in which recovery has followed operative interference in acute pancreatic disease. These cases of Osler, Koerte and Thayer will be referred to later on.

Acute pancreatitis is rare in women, as is shown by the fact that of the 41 cases collected by Koerte[2] but 4 have occurred in women. The vast majority of cases have occurred in persons over 50 years of age; this patient was only 21 years old. That it may occur at any age is shown by the case reported by McPhedran, whose patient was an infant 9 months old.

As to the etiology, traumatism, obesity, abuse of alcohol and antecedent attacks of gastrointestinal catarrh are the most important. Of these obesity and antecedent gastrointestinal catarrh were present in this patient. It is also to be observed that one of the 41 cases collected by Koerte occurred 6 weeks after labor. The details of this case are briefly as follows:

> A woman, 33 years of age, primipara, during pregnancy had frequent attacks of gastric pain and headache. From the seventh to the tenth lunar months she had frequent attacks of abdominal pain with at times mild peritonitic irritation, so that impending labor was suspected without any discoverable cause. March 24, 1883, she was delivered with forceps on account of inertia; the convalescence was slow, but normal. Afterward she had 2 mild attacks of epigastric pain.
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> April 30, 5½ weeks after labor, she was suddenly attacked with very severe pain in the pyloric region, with attacks of vomiting which were relieved by hypodermic injections of morphin. There was no fever, and the pulse was 100 to 104, and regular. There was epigastric tenderness, but no evidence of peritonitis; no icterus. Patient looked collapsed. In the evening collapse increased; pulse 110 to 120; vomiting ceased; flatus did not escape, no stools, moderate abdominal distention; pyloric region very sensitive. Uterus normal.
>
> The next day there was temporary improvement; the epigastrium was less tender; and there was free passage of flatus. Later on the tenderness in the epigastrium increased and so did the meteorism. Collapse deepened and death occurred within 96 hours after the onset of the attack.
>
> The autopsy showed absence of peritonitis; there was a little bloody serum in the dependent part of the peritoneal cavity. The only discoverable lesion was in the pancreas, which was enlarged, deeply engorged; there was also some injection of the neighboring omentum.
>
> Microscopic examination showed acute hemorrhagic pancreatitis with round-celled infiltration. No etiologic factors could be discovered [3]

It will be noted that the first symptoms from which my patient suffered also appeared 6 weeks after delivery. That the latter had anything to do with the onset of the disease can only be a matter of conjecture.

The early history of the attack is also exceptional and differs from the majority of those reported, which were nearly all quite rapid in their course. To explain these early attacks is difficult, except, judging from the subsequent course of events, to assume that they were due to small hemorrhages in the pancreas.

The relations of the fat-necrosis to the pancreatic process are of very great interest, but inasmuch as this subject has been so fully considered elsewhere it need not be discussed here. Worthy of especial attention are the researches of Flexner[4] and Williams.[5] A full discussion may also be found in Oser's recent monograph on pancreatic diseases.[6] The views which are now generally accepted are that the fat-necrosis is due to the escape of the fat-splitting ferment from the pancreas into the adjacent and distant fatty tissue. It is surprising how rapidly this lesion occurs and how extensive it may be and to what distant organs its action may extend. This is exceedingly well shown in the case which has been recently published by Warthin[7] in which fat-necrosis was found even in the pericardial and perirenal fat, although the disease had lasted less than 3 days. In the same paper an excellent description of the minute pathology of the lesions which occur in these cases may also be found.

Fat-necrosis is not found in all cases of pancreatic disease, a number of examples of which has been already published. Furthermore, fat-necrosis has been found in other conditions than pancreatic diseases. Thus, cases of ovariotomy have been reported in which disseminated fat-necrosis was present, without any gross evidence of pancreatic disease. However, in spite of these facts, the occurrence of fat-necrosis is so preponderating a symptom of acute pancreatic disease that its presence may be considered pathognomonic of the latter.

The absence of sugar from the urine, and fatty stools throughout the course of the disease, agree with the reports of nearly all the cases of acute pancreatitis. Hence although the presence of these symptoms strengthens the diagnosis, yet their absence may be disregarded. Whether the operation had anything to do with her recovery or whether she would have recovered without it, must remain an open question. I would, however, emphasize the fact that the whole clinical picture was at once changed after the operation; the vomiting and the constant severe pain ceased at once; the temperature gradually fell, and the pulse and respirations did likewise. That patients can recover without operation is proved by the fact that apparently healed pancreatic lesions and fat-necrosis are not infrequently found at autopsies, and by the celebrated case of Trafoyer, whose patient lived 17 years after the gangrenous pancreas had been passed per rectum. Chiari also reports 2 cases of the same kind. Koerte[8] reports a case in which the diagnosis of chronic pancreatitis was apparently justified, recovery following symptomatic treatment. Very recently a case of recovery after probable acute pancreatitis under symptomatic treatment has been published by Edwards, of Chicago.[9]

Recovery after operation is exceptional, the present case and the 2 cases above mentioned being the only ones thus far. Possibly another case may be included, this being another patient of Koerte[10] who for 2 months survived laparatomy for omental bursitis due to suppurative pancreatitis, but died subsequently from marasmus, the result of a pyloric cancer. At the autopsy the correctness of Koerte's diagnosis of the pancreatic disease was confirmed.

Two additional cases operated upon by Koerte died. I have been able to collect 20 cases which have been operated upon with fatal results within the past three years.

And yet, in spite of this gloomy showing, I would emphasize the importance of operation in these cases, and am in full accord with Stockton,[11] who also recommends it. The prognosis is exceedingly grave if the patient is left alone to Nature and to the only means at our disposal, rest, morphin and the ice-bag, and his chances are certainly not lessened by this interference on the part of the surgeon.

The best time to operate is not at the beginning of the attack, but a little while after the acute onset. It is scarcely necessary to make this suggestion, for the diagnosis is rarely made so early, since few of us can hope to repeat the brilliant diagnoses made by Fitz and Thayer, the former's correct diagnosis being antemortem, the latter's before operation. Besides, the majority of operations were performed for other conditions (impacted gallstones, intestinal obstruction, or perforation, etc.) the pancreatic disease being revealed after the abdomen had been opened. Unfortunately in quite a large number of these cases the onset and course of the disease are so fulminating that nothing can be done, since the patient's death follows within too short a time to allow any correct appreciation of the conditions which might exist. When the disease is less fulminating, the indications for operation may be said to exist. That these cases occur less rarely than is usually supposed is a fact which is being more clearly shown year after year by the large number of reports which are being published by surgeons and pathologists. A most striking corroboration of the frequency of pancreatic diseases has been furnished in the report of the meeting of the Clinical Society of London, December 9, 1898,[12] at which no less than 7 cases of acute hemorrhagic and suppurative pancreatitis, and 2 cases of pancreatic calculi were presented. All but one resulted fatally, the outcome of one not being stated. Two of the fatal cases were operated upon. With a clearer conception of the nature of the disease and its various clinical forms, we may trust to a larger number of successful operations in the near future.

The three cases of Osler, Koerte, and Thayer, in which operative interference in acute pancreatic disease has been successful are appended.

Osler's case is thus briefly reported by him:[13]

A man (age not stated) was admitted to the Johns Hopkins Hospital. "Symptoms of obstruction of the bowels had persisted for 3 or 4 days, the abdomen was distended, tender, and very painful. I saw the patient on admission, concurred in the diagnosis of probable obstruction, and, as the condition was serious, ordered him to be transferred at once to the operating-room. (Operation by Halsted.) The coils of intestines were distended and injected, and the peritoneal cavity contained a small amount of serum. No obstruction was found, but in the region of the pancreas and at the root of the mesentery there was a dense, thick, indurated mass and there were areas of fat-necrosis in both mesentery and omentum. The patient recovered." He was readmitted 4 years afterwards on account of a similar attack. Operation was proposed and refused and he left the hospital soon afterwards and was lost sight of.

Koerte's patient[14] was a stout married woman of 47 years, who had had 7 children and 2 abortions, in the 7 years preceding. In 1888 she had cholelithiasis for 4 months with icterus; since then had been well. June 2, 1893, she was suddenly taken ill with vomiting and severe pain in the epigastrium, and was admitted to the hospital next day. The tongue was dry, expression anxious; temperature 38.2° C.; pulse 128, breathing rapid. Abdomen distended and very tender, with dulness in the pendulous portions. Any especial resistance could not be made out on account of the tense abdominal walls. There were frequent eructations and vomiting. Inguinal and femoral rings were free. Vaginal examination negative. Heart and lungs negative. Stool followed high enema. Urine was free from albumin or sugar. Treatment consisted of ice-bag to abdomen, opium and high enemas. Vomiting was relieved by lavage of stomach.

Diagnosis was made of peritonitis, probably due to former cholelithiasis. June 7, the general abdominal pain was less; abdomen softer; no resistance on palpation. Patient complains of pain radiating from epigastrium to the back. Liver dulness from fourth rib to free costal border; behind up to eighth rib. Gallbladder region free. Multiple puncture of liver on account of suspected abscess, negative.

The patient's condition continued thus with irregular fever, great weakness, occasional paroxysms of epigastric pain up to the beginning of July without any clue as to the real site of the disease. July 4, on the left side of abdomen, a large area of resistance could be made out, extending from the free border of the ribs down to the iliac crest, and backwards to the region of the kidney; there was indistinct fluctuation. Percussion-note over the area was dull. Puncture over the iliac crest revealed pus. Free incision liberated a large quantity of pus which came from a retroperitoneal cavity which extended up to the kidney and behind colon. Here there was a narrow opening, into which a probe could be passed 15 cm. The pus was yellowish, non-offensive, and contained numerous dirty brownish particles of broken-down tissue. Later on, washing out this cavity brought down yellowish-brown, tallowy and calcareous particles, as well as large pieces of necrotic tissue, which proved to be structureless on microscopic examination. There was frequent vomiting, stools normal, urine negative.

August 18. Status idem. Acinous gland structure could now be recognized in some of the fats of tissue. September 4. Normal temperature, wound smaller. September 15. Fistula discharges alkaline secretion which contains fat-splitting ferment, but no diastasic ferment. November 10. Wound healed. Only complaint is frequent migraine. November 27. Fistula opened. Finally healed completely, and the patient was discharged in good condition, January 6, 1894. Urine was always free from albumin or sugar.

Thayer's[15] case of acute pancreatitis, parapancreatic abscess occurred in a man, 34 years of age, of alcoholic habits. For the 2 years preceding he had suffered from alcoholic gastritis, and during the past 1½ years had had 3 or 4 attacks of very severe epigastric pain, located in the median line near the umbilicus, which were so severe that large hypodermic injections of morphin were required. Vomiting was often present, but no jaundice. June 15, 1895, he had an attack of very severe pain and vomiting; a swelling was noticed just above umbilicus. Constipated. Continuous fever for a week; at times delirious. His physician diagnosed abscess of liver. He was was admitted to Johns Hopkins Hospital, June 25. The examination showed a quite corpulent man, with moist tongue, dull mental condition; some fever. It was found that the liver was enlarged, the lower border reaching to the umbilicus. The epigastrium was tympanitic. Below this tympanites, and between it and the umbilicus at the point of maximum protuberance, one could feel a deep-seated mass, over which there was marked tympany. The outlines were vague, and it was not tender on ordinary palpation; it did not move with respirations. No albumin or sugar in urine. Leukocytosis.

After careful considerations of all the various factors Thayer made a diagnosis of acute pancreatitis with disseminated fat-necrosis, with possible sequestration of the pancreas and advised an exploratory laparotomy.

Operation was by Dr. Finney, June 27, in the median line. Adjoining the liver and stomach and adherent to them a mass of adherent fatty tissue was found; this was filled with numerous discrete and confluent nodules of disseminated fat-necrosis. The transverse colon was also adherent. The general abdominal cavity was packed off with gauze and an opening left for drainage.

For the next few days, general condition was fairly good, but the temperature remained somewhat elevated. Was restless, nauseated and at times delirious later on. July 7, while examining the wound, a large cavity was opened into at the upper angle of the wound. The cavity contained thick pus with large masses of necrotic tissue; the finger could be pushed far backward into what appeared to be a cavity in the pancreas. The discharge from the cavity consisted of pus-cells, large numbers of bacteria, fatty-acid crystals and small masses of necrotic fat. The cavity was drained freely, healed slowly by granulation, and the patient left the hospital September 23 in fairly good condition.[16]

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LOCAL FLUSHING AND MORBID BLUSHING—VASOMOTOR PARESIS.[1]

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The title to this paper is similar to that of a 257-page monograph[2] by Harry Campbell, M.D., B.S., published in 1890, which, as indicated, is upon vascular phenomena, symptoms seen in various bodily conditions, reaching from the physiologic blush in zigzag gradations to and over the border-line of pathologic states. Difficulties at once arise in separating the morbid from healthy conditions of flushing of the skin, as these exist throughout the system; while the internal organs and tissues can scarcely at all be judged as to the physical change in vasomotor fluctuation. That a flush or blush is an expression of a somewhat generalized "nerve-storm" is shown by the palpitation of the heart, nausea, the feeling of "fluttering" in the head or of "sinking" even in a marked case of the physiologic blush; while, besides, the psychic and the motor phenomena (as tremor in bad cases of morbid flushing) the patient may present somatic symptoms, as suggested, of such degree as to almost incapacitate him for the time.

It is these cases that must be separated from attacks of petit mal. A point in instance is a case of a married woman, aged 39 years, under my care within the past month. A generalized flush comes over her frequently like a marked glow, passing from feet to head. As the woman has true epileptic seizures coming on while asleep every few months and apparently due to a sudden fright 3 years ago which at once stopped the menstrual periods, diagnosis in so short a time is very perplexing.

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[1] Read before the Section on General Medicine, College of Physicians, Philadelphia, November 14, 1898.

[2] "Flushing and Morbid Blushing."

Anatomic and Physiologic Considerations.—The explanation of flushing, or of vascular dilatation in any part or organ of the body, will be better understood by recalling that nerves pass separately to the epidermis, the dermis, and to the subcutaneous tissues.

Dilatation of the capillaries and smallest veins in the skin will cause, therefore, the pink or ruddy coloration so easily displaced by pressure only to immediately recur after release of the compressed vessels. In the fact that, as a rule, where flushing takes place more readily and is rapid, there is vascular resiliency,—unusual in arteriosclerosis—there is an explanation for edema not occurring; and in even the prolonged flush with the blood-component up to normal, leakage of the plasma would be little, while ecchymoses would imply either blood-disintegration, or fatty degeneration and arteriosclerosis, one or both.

That the vasomotor nerves are in three levels of skin-distribution, in accordance with the anatomic layers recited, explains in part the lack of undue sweating in some cases of flushing. In such cases it may be assumed that the nerve-twigs passing to the deeper-lying sweat-glands are not always stimulated to like degree. The cold sweat and pallor of fear or shock rather suggest a stimulation (perhaps central) of the vasomotor ibers to the sweat-glands mainly. That such a "cold sweat" in large part is due to leakage of serum from the blood may be contended, and chemic examination of the sweat would alone tell in a given case.

That there is generally also a mental influence in he flush upon the skin is shown by noting that physioogic blushing always depends upon the intellectual perception of embarrassment, shame, or modesty (as pointed out by Darwin). This is the only line of disinction, besides the usually more evanescent characer of the one, between a blush and the flush which may be excited in part by the mental state. As Campbell says, when the perhaps desired blush of modesty rubor pudicitiæ) goes on to producing morbid senitiveness and actual distress, he then feels justified in iving the name morbid blushing; the condition is harassing to the patient and is also as chronic as many more serious diseases.

It should not be assumed that demonstrable pathoogic lesions may exist in morbid blushing or flushing, even though it must be admitted that the protoplasm f the central neurons must be enfeebled in some way t present indeterminable; or that some circulating ritant lowers their resisting power directly, or by remotely acting from the peripheral neurons. The latter condition is exemplified in hay-fever where the terminal vasomotor nerve-fibers must be disabled by actual euritis in the severer cases, so sensitive becomes the asal mucous membrane.

Blushing is always emotional, but a flush, in most istances, does not seem to depend upon the mind. Yet, even here, there may be subconscious states still dominating the condition, just as exist in the enigma of all diseases—hysteria.

Physiologic Mechanism of the Flush.—Habit, no doubt, plays a role in the flush being generally localized on the face, which responds quickly to all emotions. This must be *per se* from vasomotor (constrictor) nerve-paresis of central origin, since, in the cases cited, the arterial systems are normal; but perhaps the nerve-twigs are affected in some way which pathologic histology may yet reveal.

Causation.—Any cause acting to reduce the resisting power of the central neurons, or through reflex action upon the peripheral nerves, may therefore bring on flushing. Cold may be the exciting cause. This is shown by the case to be detailed, and also by another case under the care of Dr. H. F. Slifer, of North Wales, Pa. This condition, while not a transient flush, is a redness produced by vasodilatation, passing into passive hyperemia, and in this instance a resulting dermatitis exfoliativa.

The boy is of good family-history, aged 14 years, is in perfect health. Every spring, about April or May, a peculiar transient flushing appears on his nose, ears and fingers. In mild attacks this is a mere redness, but frequently the affected parts become purple and later inflamed, this being followed by exfoliation of the epidermis and occasionally suppuration, requiring 4 or 5 weeks to heal.

There must be set up in this case a subacute vasomotor neuritis and palsy, due to the cold of winter. It shows what the further stages of flushing may lead to in susceptible cases, or with long-continued external causes.

The case of a healthy young lady, aged 18 years, came under my observation this summer, for a vasomotor paresis; being, like acute hay-fever, excited only by odor of horses, as by riding (and for even 20 minutes) in a stagecoach. During such a 10-mile ride the suffering was extreme, especially in the eye-congestion, and was but little relieved by drugs, and at the end of 48 hours was entirely well. The patient had never had true hay-fever. The case is in relation to cases of the sort brought on by odors of other animals, as of the cat or rabbit, except that my patient never had hay-fever from any other source than from equine odors.

There are so many things that may contribute to predispose or excite morbid blushing or flushing that only a few of the essentially known causes will be spoken of here. That there may be a mental condition outside of embarrassment, shyness, or shame, as the cause of blushing, is also shown in the instance of a great man who only flushes to a noticeable extent when his intent is doubted; there is produced through this flush a forceful expression of self-respect.

Menstrual flushing is not uncommon. Accepting the theory of vasodilatation of the uterine vessels as the cause of this monthly blood-loss, we can readily see why, from cold, or emotional or lowered-health causes, ataxia of vasomotor nerves occurs; hence, local flushing, or even vicarious menstruation. The menopause is therefore the time when such flushing is apt to occur; and it is then prone to be much associated with paresthesia, as better made known by Sinkler.

Pregnancy also will occasionally produce annoying flushing in a person who might be characterized as especially predisposed; but I have a patient, a primipara, half into the period of gestation, very nervous, but who never before marriage flushed, although this is extremely noticeable now. The phenomenon begins as a V-shaped scarlet flush on the forehead between the eyes, and extends in decreasing measure to the cheeks and face. It is made worse by coming into a warm room from cold, or by emotion.

AGE.—Transient flushings of annoying nature are more common in early middle life; and yet, when they do occur in an older person, say between the ages of 40 and 50 years, are extremely difficult to help. The true flush is more common at the latter age in those with sound arteries; but this is true of any time of life.

In passing, it may be said also that such cases, while appearing to be of apoplectic nature, have not high arterial tension, and seldom have any apoplexy, for the reason that the arteries *are* resilient. Even if such people become plethoric, the danger is not great, recalling the physiologic fact that the capillaries can contain about 20 times the amount of blood that the large arteries can, and thus serve as a safety-valve. The interesting question of why the negro so infrequently has apoplexy is suggested by these thoughts.

The case of Mrs. J. R., white, aged 40, under my care illustrates flushing of extreme degree, about the head and neck. The condition lasts from 1 to 4 hours, coming on generally about noon after the meal, or from being out in the cold. She has suffered much from this condition for 15 years. Her menstrual periods are perfectly normal and she is otherwise absolutely healthy; so that the relation to meals suggested possibilities of indigestion or of autointoxication alone. Lavage is being used here with apparent benefit.

The following case of morbid flushing, coming under the care of Dr. J. H. Musser, I am kindly permitted to report:

C. C. S., American, aged 38, gives a negative family-history. Except for subacute sciatic neuritis some years age, he has always been physically healthy, a subject of no excesses, and never had any serious illness or venereal infection. He has always, however, been diffident, but by constant effort he has partially overcome this. In youth his extreme bashfulness was a source of great distress to him. When younger, he would often refuse to go to a shop even to purchase articles to satisfy his boyish desires. With this there was extreme susceptibility to blushing. Just when he "outgrew" this the patient is unaware, but gradually the tendency to blushing at slightest emotional causes wore away, although shyness has ever more or less characterized his mental state. He went into business early and diligently learned the publishing business from A to Z, and then it was mainly that his self-consciousness waned by giving place to other mind-activity. It is evident he soon began to overstrain his nervous force through constant application. Of good physique, nothing told upon him until about 12 years ago, when he felt the effects of long soliciting-trips, in which also he much overused his eyes, as by reading "proof" on the train and late into the night. He kept on without complaint until about 2 years later (10 years ago), when, though not seemingly nervous, but showing nerve-tire, he began to be troubled by occasional sudden flushes of the face, worse in cool temperatures, and indeed seeming to be brought on by cold. There was not the emotional cause either for their occurrence, as in boyhood. It therefore seemed to be of the nature of a flush rather than of blush. There was no proportionate sweating in the attacks, which were of a few moments' duration at first, but as time went on the intensity and duration of this annoyance became greater. He continued at his work. The flushings would abate to a slight degree for a time under rest and in warm weather, but became particularly worse in winter as the 4 years went by. It had become a tormenting symptom in the fifth year.

During these 5 years, therefore, this symptom had become a most persisting, though intermitting phenomenon, and had pretty effectually baffled treatment. The man had by this time, evidently, become profoundly hysteroneurasthenic, and he suffered from tire on the slightest exertion. Pain and weakness in the lower spine persisted, especially when on his feet or after sexual congress; and he also suffered from hypochondriac depression as to the latter. About this time also his eyes began to become congested and to "smart and water" after use. This, however, was not necessarily simultaneous or associated with the face-flushing, or that of the hands and feet, but prevented him from using the eyes for any length of time without bringing distress in them. This man had some difficulty in getting a hearing as to the condition of flushing from his various physicians, and while too close attention is to be decried, yet the fullest appreciation of the morbidity of his state, depriving him of social pleasures, as well as his extreme discomfort, will perhaps bring about more hopefulness; and with proper measures adopted to the closest clinical study of the case may throw more light on its therapeutics.

The man was given a thorough physical examination when he came under Dr. Musser's care in the spring of the present year. His reflexes were quick. There was absolutely no organic disease present; his arteries were soft and heart-sounds rhythmic. Lung-expansion was excellent. Muscles were fairly hard for a man at indoor work. While he was of rather lithemic type, still he has not had trouble from this source. Urine showed a specific gravity of 1032, was dark, contained excess of urates, but no free uric acid, albumin or sugar. He was put on dietetic and tonic treatment for the associated mild neurasthenia. About this time he consulted Dr. G. E. de Schweinitz as to the eye-condition, who found his refraction to be a "compound hypermetropic astigmatism with exophoria and right hyperphoria. He is being treated with prism-exercises and now wears prisms and sphero-cylinders. Eye-grounds good—accommodative power subnormal; conjunctiva tends to have attacks of hyperemia; fields normal."

The flushing at present always begins by sensation of tingling and swelling of the lips, quickly extending to both cheeks, thence up over the vertex and down the sides of the neck to a little below the collar-line anteriorly and posteriorly. The "heat-sensation" may extend on down the back, but he does not know of ever having a flush of back or chest or upon the thighs, a part of the body quite apt to flush but frequently overlooked. The feet rarely participate and while the knees may burn, they are never red.

When the flush is at its height, in 3 to 5 minutes, his face is scarlet and tingles and burns inordinately, and is of a "full" feeling, and actually swollen about the lips in the worse attacks; so that he describes (perhaps too graphically) the features as being "distorted." The flush may last from 5 or 10 minutes to 1 hour or more, and during this time there is no lessening of the burning and discomfort and never sweating; nor does a cold (shivering) stage follow, although when mild blanching finally gradually occurs he feels weakness, palpitation and more pronounced dizziness. There is never the unconsciousness of petit mal. The hands, and rarely the feet, may or may not join in the nerve-storm, in which event the same sort of order and form of *dry flush* prevails; ascending to not much above the wrists, although the burning sensation may pass higher up and may be very marked in the elbows or knees. Never do any of the extremity flushings occur without the face having been first involved—it seems an overflow from this, although the face alone is commonly affected. There is no alteration of sensation during the attacks. At any time when there is cool temperature, winter or summer, this symptom is lit up and annoying in the extreme, and of course always worse in the winter. That it is less when in camp—and it is known that cool nights generally exist in the northern woods—proves too that diverting his thoughts must, subconsciously, favorably affect the trouble; though if he sits out boating for too long a time night—hunting, the symptom recurs. These facts are mentioned as corroborating the idea of a physical basis still being paramount. No sort of food is known to induce attacks. His digestion is excellent. The itching of the skin is at least somewhat similar to hives, otherwise the affection is not at all similar. While being in the cold starts the flush, coming into a warm or stuffy room at once brings on the "attack" more intensely than remaining in the cold, where the contraction of vessels is no doubt more favored by reduced temperature; while coming into heated air favors the earlier giving way of primary contraction to dilatation of the weakened muscular vessel-walls. Rubbing the parts aids in disappearance of flush and puffiness, a nice demonstration of mechanical influence restoring contractility in the vessel-walls. I forgot to mention that undue epithelial scaling of the lips occurs in winter after prolonged recurrences of flushing, but in no place else does this happen.

Tendency to sneeze has also been a very annoying symptom in this case for the past 15 years, with copious discharge from the nose, as in hay-fever, and this always worse when he has become run down in the spring. It is manifestly an associated state of flushing of the nasopharyngeal mucous membrane and apparently does not go farther into the air-passages. Palpitation is not noticeable to any extent during any of the vascular disturbances.

It was my privilege to observe this case from May 28 to July 8, 1898, during electric treatment. This consisted of galvanism to the cervical sympathetics, and of general faradism, to a very considerable betterment of the flushing. Tonics, hot and cold douches to the spine, and, later, counter-irritation, have also aided. The patient was away to the woods during August and remained improved while there. Since his return to work and with the cooler weather the symptom has become worse. Certainly his neurasthenia is much better and an ultimate cure of the case may be predicted.

Dr. S. Weir Mitchell saw the patient October 28, 1898, and after rehearsing the above history, with a careful study of his present condition, gave an opinion to Dr. Musser in affirmation of the diagnosis. Dr. Mitchell considers that the attacks of flushing are due to a primary soon-exhausted vasomotor contraction, followed by the paretic vasodilatation. He has seen several marked cases of this disorder in neurasthenic people. In this case he advised partial rest, change of scene, massage, electricity, tonics, and especially, in view of the urinanalyses, the forbidding of meat-diet.

With the onset of cool weather effort was made to observe the flushes and to get a blood-count in and out of an attack. No marked flushing occurred until November 11, a cool morning, when feeling the burning of lips, face, and neck very marked, after being out in the open air, the patient reported to Dr. de Schweinitz in an extremely scarlet flush of the face, brow, and neck, lasting a half-hour or more. The flush had disappeared before reporting to us.[3] Dr. de Schweinitz carefully notes, so far as the ocular examination is concerned in the flush, as follows:

> "Visual acuity, after the correction of a slight compound hypermetropic astigmatism, normal; amplitude of accommodation deficient 1°, according to the age of life; exophoria 5° at 6 meters; 9° to 12° at 33 c.m.; right hyperphoria 2°; abduction (prism divergence) 7°; adduction (prism convergence) 15°, which, however, can be readily trained to a higher grade. The pupil-reactions are normal to light-stimulus accommodation and convergence, and the pupils are equal in size. Close examination reveals, or, rather, revealed (for the observation was made only once during an attack of flushing) marked increase in the hippus of the pupil. Ophthalmoscopically there are no gross changes; the optic disc is not more capillary than it is common to find it in cases of long-standing eye-strain. The retinal vessels carry normally-tinted blood, the veins being, perhaps, slightly larger than they should be. There are no hemorrhages or exudations in the retina or choroid. There was no increase in the capillarity of the optic nerve, nor sign of congestion of the general fundus during an attack of flushing of the cutaneous surfaces of the face and neck. The conjunctiva, both bulbar and tarsal, is always hyperemic, and was not more hyperemic during the flushing stage than at any other time. The ordinary field of vision appears to be normal. The color-field was not taken, nor have there been any careful tests of the light-sense in the periphery of the retina. The ordinary tests for light-sense showed no abnormities."

A second examination during a flushing attack in January, 1899, confirmed the above report.

Flushing is no respecter of particular parts of the body, but, as Gowers says, is more apt to be located on the left side of the face and neck, next on the whole face, and finally the chest may be involved. Where it is particularly persistent upon the chest or other parts and does not at all disappear, the question of cortical brain-irritation is suggested—hence a stimulation of vaso-dilator centers—as has been proved in experimentation upon dogs.

Diagnosis.—Erythromelalgia resembles the condition only in the flush. Pain, tenderness, and location in the lower extremities are the cardinal points in erythromelalgia. Ecchymoses (hysterial or organic) dermography, or the flush of fever, tâche cerebrale, Graves' disease, the rarer angioneurotic edema, passive congestions, Raynaud's disease, or primary dermatitis, or urticaria, all having their own distinguishing features, need only, therefore, to be mentioned.

But the diagnosis of idiopathic abnormal blushing or flushing is yet not easy to make, these being symptoms in so many diseases. Here the flush would pass away with the cure of the primary disorder. The cases of flushing, tentatively classed as essential, are those which the physician in the near future may be able to more successfully deal with.

Prognosis.—The prognosis of morbid blushing or flushing is at the present day one of the most uncertain in medicine. There is so much in the term idiosyncrasy that has not yet been made clear. When there is undue sweating associated with the flush, bilateral or unilateral, in the reported cases, the hydrosis seems to indicate an organic basis, especially of spinal nerve-root irritation. When the flush is permanent, the recent experiments by Bechterew upon dogs tend to prove that an irritative degeneration of vaso-dilator centers in the cortex of the brain, corresponding to the flushing skin-area, has taken place.

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[3] Since this paper was read the patient was seen in one of his extreme attacks of flushing, which came on on the cold morning of November 25. The face was as red as a case of erythromelalgia, which came in an hour after exposure to cold. The lips were swollen, temperature was normal, pulse 72 per minute. This flush began on the forehead, then at the sides of the nose, then on the cheeks, then became general on face and neck, and disappeared slowly in a half-hour after the acme was reached.

February 7, 1899, Dr. de Schweinitz examined the patient in a marked flush, finding that the form-fields were normal, but that a slight contraction of the green fields existed.

When more exact knowledge is obtained of conditions attending these transient local flushings—here at a surface, there at a surface; or again in deep tissues and organs, as in the heart, lungs, thyroid, brain, and cord—by noting symptoms, or by microscopic and chemic examination of the sweat, the urine, the blood, or of serous diarrheas known to exist in the relaxation of fear, etc., combined with the study of meteorologic influences upon the associated states, cure will be made easier. The pathology of essential morbid blushing or flushing is as yet uninvestigated.

TREATMENT.—Treatment will depend chiefly upon the alleviation of any possible predisposing disease or coexisting malady which may perhaps aggravate the flushing.

Vasomotor constrictors, as ergot or digitalin, may be judiciously employed, whether the case be idiopathic or due to vaso-constrictor paresis or to stimulation of vaso-dilator centers.

Especial study should be made of the diet, particularly in those cases in which urticaria is known to follow the ingestion of certain articles. That critical urinanalyses may reveal much in the case in regard to such matters as lithemic tendency, toxins, etc., seems pretty clear. Testing the propulsive power and the contents of the stomach, and the torpidity, etc., of the intestines, may clear up the difficulty somewhat.

Lithemic cases should be treated with antilithics, and if melancholy is bettered by this routine we should look for a subsequent waning of a toxemic vaso-dilatation. Strychnin should also be given in these cases. The subject of idiosyncrasy again recurs in scientific dealing with the individual, and treatment should be individualized rather than generally restrictive. In a general way proteids and carbohydrates should be restricted. Spinach is an excellent vegetable to supply iron and could well take the place of red meats in the diet of anemic cases, together with medicinal treatment by ferruginous drugs and waters. Rest, change of scene, massage, galvanism to the cervical sympathetic nerves, and hydrotherapy are all important measures.

Careful study should be made as to effect of climate, etc., in flushing or morbid blushing. A low altitude seems to be indicated to increase surface-pressure. Congestive dysmenorrhea has recently been reported as bettered by high altitudes for the opposite reason, of lessened surface-pressure. General faradism is an important adjunct in treatment, as is massage in cases of flushing due or accompanying neurasthenic states.

Smallpox figures in Great Britain were very cheering at the end of March. During the third week of that month no fatal case of smallpox was registered in any of the 33 great towns.

ELEPHANTIASIS OF THE VULVA.[1]

By WILLIAM FINDER, JR., M.D.,
of Troy, N. Y.

ELEPHANTIASIS affecting the external genital organs, while rare, is next in frequency to that of the leg and foot. The first case of elephantiasis vulvæ, clearly described, was observed by Saucerotte in 1776. Many cases have been observed in tropic countries, and in States bordering such countries, but in our cold climate it is somewhat rare.

The disease may occupy the entire vulva, or may be limited to a particular part, as, for example, the clitoris. It may arise from both labia, or from either one, without other parts being affected. It usually begins in an early period of life. Myer's statistics (which include 37 cases) show that the disease began in 18 of them during the period between 20 and 30 years of age.

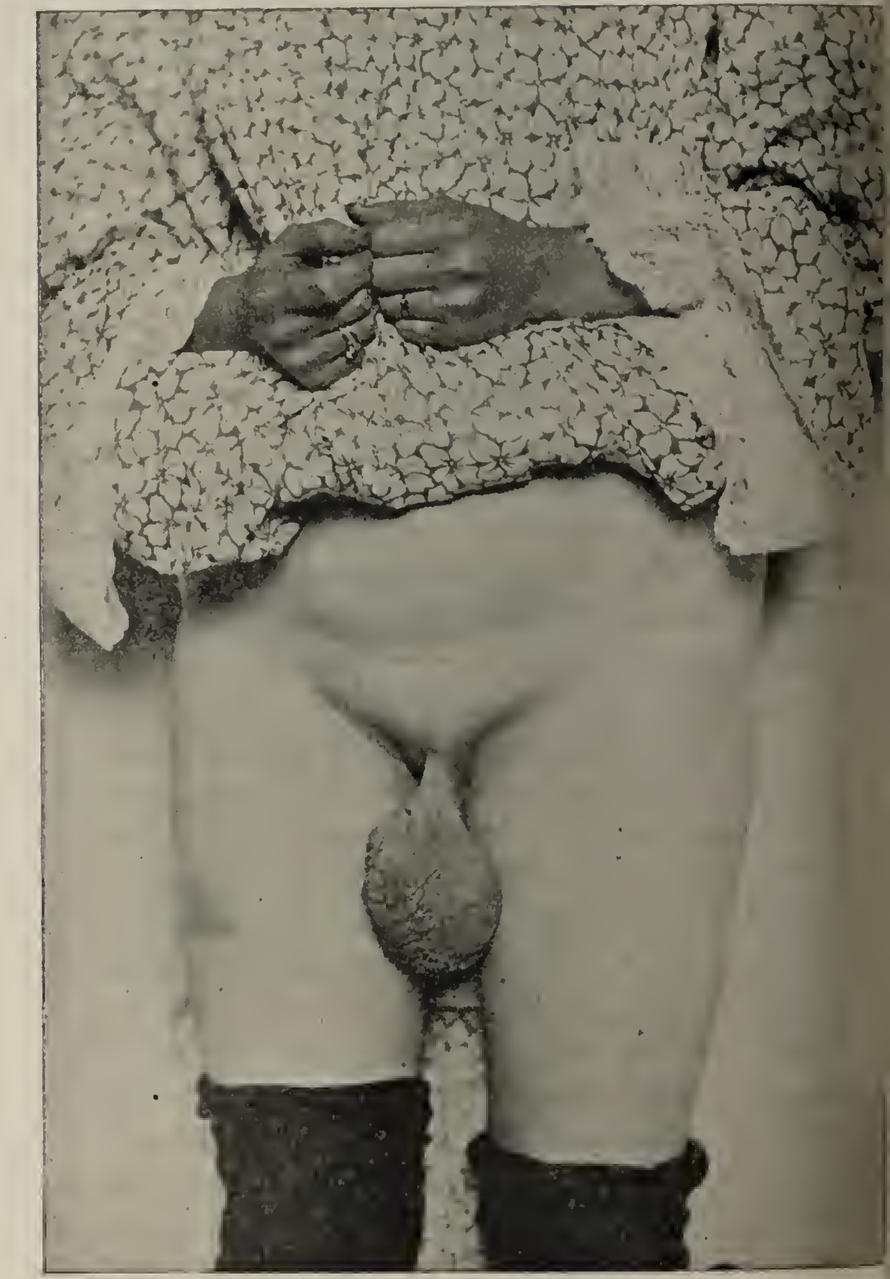
FIG. 1.—Before operation.

Elephantiasis of the vulva usually appears as a tumor with a broad base, but sometimes pedunculated. These tumors frequently grow to an enormous size, and have been found to weigh between 20 and 30 pounds. In tropic countries the growths sometimes have reached to the feet of the sufferers. There is a temorary increase in size during menstruation and preg-ancy. In some cases the origin may be traced to an njury ; in others it has been attributed to the irritation f eczema, erysipelas, or syphilis. The skin is greatly hickened. The lymph-spaces and lymph-vessels, as ell as all other vessels, are greatly enlarged and ilated.

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[1] Read by title at the meeting of the New York State Medical Association, October 14, 1897.

These growths are frequently confounded with con-ylomata, and, in their early beginning, with lupus; ut the condition is easily distinguished from the latter, ven when the ulceration has been excessive and deep, y the rapidity with which healing takes place, often-nes spontaneously, while the lesions of lupus are eep and progressive. The changes in the tissues neath the tumors readily enable one to distinguish em from condylomata. The condition is frequently nfounded with fibromata or solid tumors, since the owth may be a mixture of fibrous and muscular sub-ance.

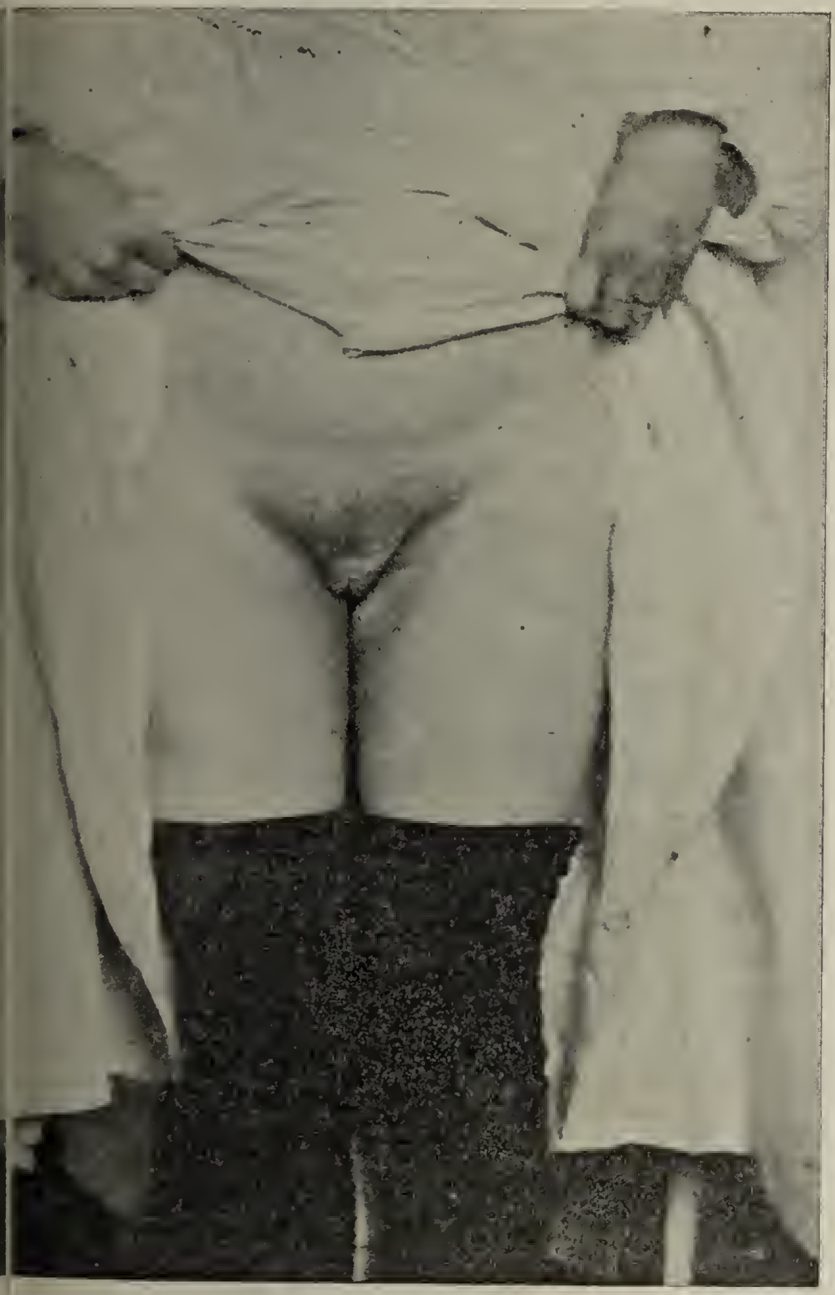


Fig. 2.—After operation.

All authorities agree that medical treatment is with-t avail, and the only remedy is extirpation of these asses, which is usually effected by using ligatures, or the aid of knife and scissors, and frequently the ermocautery or galvanocautery, the ecraseur, and the astic ligature. If the tumor be removed by the knife, bleeding vessels should be tied immediately, or forceps employed, for the hemorrhage is sometimes very great.

There is a possibility of a return of these growths, but rarely. In 40 cases analyzed by Cellard there was but one recurrence.

The following case met in my practice is of interest:

Miss G., aged 20; born at Bolton, Lake George, N. Y. Mother dead, father living, also a number of brothers. Acknowledged having had syphilis, evidences of which are markedly present. She states that she received an injury some 4 years ago, on the vulva, from which ensued the growth, illustrated by the accompanying cut.

Miss G. entered the Troy Hospital, June 8, 1897, but as she was menstruating it was necessary to wait a number of days before operation, and this did not take place until Friday, June 11, at 3.30 P.M. The usual operation for cases of this kind was done, with the result fairly well illustrated by Fig. 2.

The removal of the growth proved to be somewhat tedious, because of the greatly-enlarged vessels, and the hemorrhage was abundant; but, as she had been thoroughly infected with syphilis, I thought it would be well to permit a thorough flow. I found it finally necessary, however, to ligate a large number of vessels, and to proceed cautiously in severing the growth.

The history of her recovery was uneventful, the temperature only once rising to 101½° F., and being otherwise normal. The wound has healed very nicely, nearly through its entire length by first intention. There has been hardly any discharge. She returned to her home well satisfied with the result.

If I should do another operation of this kind, I would follow the plan of Schroeder, to begin cutting at the lower portion of the growth, and stitch as I went along. This, I think, would give a much better result, save much time, and prevent the loss of blood.

This growth involved the entire labia majora, arising, apparently, from the one, going up to the mons veneris, and down the other.

Microscopic examination shows that the growth is made up of fibrous tissue, having within its area quite a few glandular structures, and is composed, as are all such growths, of greatly thickened skin. There is abundant cell-proliferation, while the lymph-spaces and vessels are very much dilated.

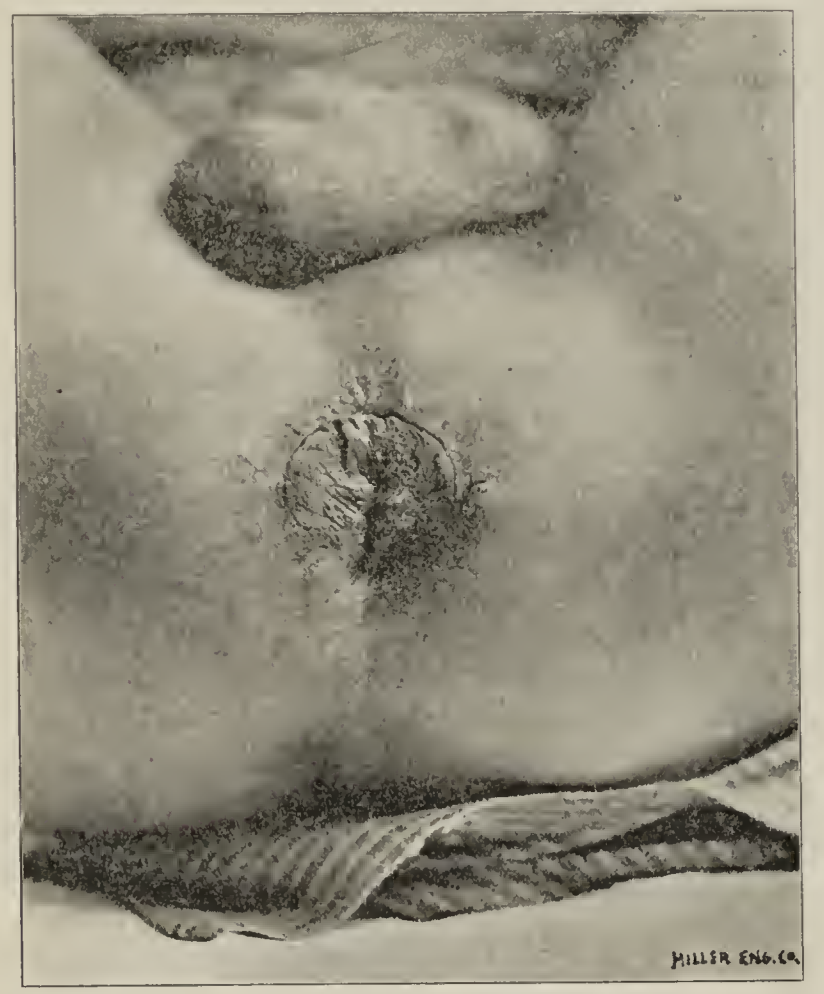
PROSTATECTOMY.

By JOHN S. PYLE, M.D., LL.B.,
of Toledo, Ohio.

April 6, 1892, I planned and executed a new method of removing the prostate gland, which, in my hands, has proved very satisfactory ; and, from the published accounts of Dr. S. Alexander, of New York, and Dr. A. T. Cabot, who have, in most part, followed my procedure, I am convinced that the method is by far the safest and most satisfactory of any yet proposed.

I aimed at total enucleation and was the first, so far as I have been able to learn, to take the initiative in this departure. Until my article on the subject, published in the New York *Medical Record*, August 6, 1892, there had been nothing written or published along this line. Since that time enucleation has been growing in favor, and the increased number who are now advocating it leads me to believe that, ultimately, it will be the favorite operation. My first operation led me to make this declaration, and the opportunities which I have had since to study and watch the results compel me to reiterate what I then said, "that its simplicity, little risk, and permanency of relief would force it to be recognized as an operation of first importance on this particular body."

Dr. Edmund Andrews, of Chicago, became very much interested in my operation and believed that the future for prostatic surgery depended upon total enucleation. In a recent contribution of his to the *American Journal of Dermatology and Genito-Urinary Diseases* he classifies the operations for senile hypertrophy of the prostates under 4 headings, viz.: (1) Double Castration. (2) Division of the Vasa Deferentia. (3) Total Enucleation. (4) Deep Cautery. To me it seems unsurgical and too much of an uncertainty to advocate any other than a total eradication of the cause of the mischief. The magnificent results in surgery are too well known to resort to semi-surgical methods; and I cannot understand why it should be tolerated in this particular instance.



The accompanying illustration shows the line of incision, and is a reproduction from a photograph of one of my cases after recovery. As is here shown, I begin my incision at a point near the middle of one tuber ischii and carry it around the anus, in front of the sphincters and behind the transversus perinei muscles, to a like point on the opposite side. The integument being divided, the borders of the transversus perinei and sphincters are brought plainly into view. The latter should, then, be detached from the median raphe, which places the entire diameter of the male pelvic outlet at the disposal of the surgeon. By a little dissection the anterior surface of the levator ani is exposed, and this should be followed to a point just behind the urethra, where, being transversely divided, the space between the membranous urethra and rectum is entered. Here, by a separation with the finger from side to side, being careful to avoid the urethra and rectum, the fascia covering the underlying prostate is brought into view. At this juncture, seize the offending lobe on its corresponding side of the urethra, with a pair of vulsella forceps, and, after dragging it to near the outside, divide the fascia and use the finger. Beginning at the upper and outer border of the lobe, carefully loosen and peel it from off the side and base of the bladder. If care is exercised, the mucous membrane of the bladder need not be injured. This makes it possible to perform the operation without incapacitating the bladder at any time. Following the above directions both sides may be attacked in like manner.

I have removed both lobes at a single operation without doing any harm to the mucous membrane of the bladder or urethra. This, I believe, can be accomplished at every operation where uncomplicated prostatic hypertrophy exists. Since performing my first operation, in April, 1892, I have repeated it 5 times with the greatest satisfaction to myself and my patients. Of course, the result in each case will depend largely on complicating diseases.

I do not look upon the operation as one attended with a high mortality. If I were to give my own experience it would be negative on this point, as my patients have all recovered. I account for the low mortality and the little shock witnessed to the small amount of blood necessarily lost and the infrequency in the use of ligatures. In fact, I have never used a ligature in the operation, and I am satisfied that if the proper field of operation is kept in mind, such a necessity will not arise. It should be remembered that all the important vessels lie in front, behind, and to the outside of the field of operation.

Owing to the low mortality and the vantage-point for perfect drainage, I follow the above method in reaching the bladder in operations for the removal of calculi and in establishing drainage in serious diseases of the interior of the bladder. When the base of the organ is brought into view all that is necessary is to open the viscus from before backward and proceed with the remainder of the work. The index-finger may be introduced and the whole organ explored. Calculi may be extracted or the ureters searched. I have been able on various occasions to introduce the index-finger into the over-distended ureters and empty the pelvis of the kidney of pus. From the opening into the bladder the pus and urine drain freely. The patient in my last case of prostatectomy suffered from calculi, and it was through a similar opening that I removed the deposits.

MULTIPLE SYPHILITIC EPIPHYSITIS MISTAKEN FOR INFANTILE SCURVY.

BY FRANCIS HUBER, M.D.,
of New York.

INFANTILE scurvy has been mistakenly diagnosed as heumatism, stomatitis, purpura, rickets, sarcoma, osteitis, and infantile paralysis. As a rule, the diagnosis does not present any great difficulty. It is readily made if we remember that the affection, in most cases, occurs in children brought up on the bottle, especially when artificial foods are employed. A faulty regimen appears to be the fundamental factor in the etiology; t is particularly apt to develop whenever there is an absence of fresh milk, meat, and fruit-juices.

A history of fretfulness, disinclination to be handled, with pain when the little one is taken up or the neces- ary changes are made, should arouse suspicion. The ower limbs are more or less rigid and partly flexed; any attempt to straighten them evokes cries of pain. Even when the infant is not disturbed, pain appears to be present. Fusiform enlargements (subperiosteal hemorrhages), more marked on one side, appear, particularly above the knees. The skin over the swelling may be normal, tense and shining, purplish, or livid. With he subsidence of the swelling, the thickened shaft can be detected. In advanced cases, fracture or separation at the epiphysis may take place. The gums, particu- arly in children who have teeth, are swollen, purplish, pongy, bleed easily, and, later on, ulcerate. Subcu- aneous extravasations may be present, the tissues about the eyes may be swollen, and in bad cases ex- phthalmos results from hemorrhages into the orbit. Purpuric spots and hemorrhages from the various mucous membranes occur now and then. The temperature may be normal or elevated at times. If the idneys are involved albuminuria is present.

Many of the patients are anemic and marasmic; thers plump and apparently well developed. The ondition is frequently associated with rickets, and ften occurs under the best possible surroundings. Though it may appear at any age, it is most common etween the sixth and sixteenth month. Recovery is rompt when a proper diet is instituted. "So marked nd so prompt, indeed, is improvement, that it may be onsidered a satisfactory confirmation of diagnosis and characteristic of the disease."

A few months ago, a case, a short recital of which may ot be without interest, was presented at the Vanderbilt Clinic, by a well-informed practitioner. The infant was 2 months old; the family-history obtained from the mother un- mportant. The breast was given a few times during the day, ut the principal article of diet was a proprietary food. The utrition became impaired. When presented the child was n a cachectic state. It appeared to have pains in the knees when touched or changed; there was inability to use the left rm, but motion in the legs was fair. No cutaneous hemor- hages were present, the gums were not swollen, nor was here any history of hemorrhages from any of the mucous membranes. A further examination revealed a swelling bout the lower epiphyses of the radius and ulna on the left side, also along the inner condyle of the left humerus (somewhat fusiform). Similar enlargements were found involving the epiphyses of both femurs (the right being somewhat larger). The parts appeared to be tender, as gentle pressure caused pain.

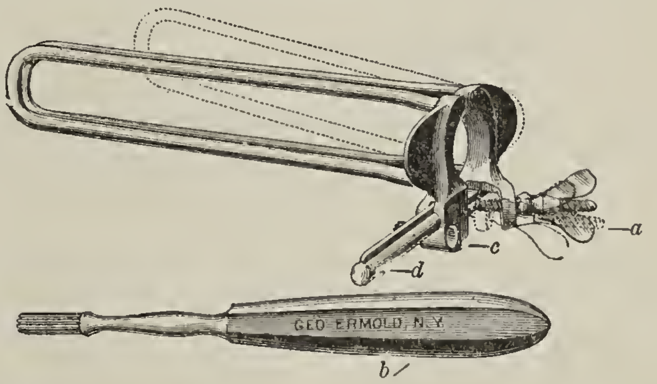
These symptoms seem to justify a suspicion of infantile scurvy. As rapid improvement did not take place when a rational diet was instituted and the usual antiscorbutic measures observed, the child was brought to the clinic for an opinion. A more careful examination revealed a nasal catarrh, nasal voice, a suspicion of a "café au lait" color in the skin and a few indistinct macular syphilides upon the hand. The nature of the case was clear. The multiple epiphysitis with the associated tenderness and swelling and the loss of power in the left arm were now attributed to the congenital dyscrasia of syphilitic origin. The treatment instituted consisted of doses of $\frac{1}{100}$ grain of corrosive sublimate and 2 grains of potassium iodid 3 times daily in water.

When presented to Dr. Jacobi, a few days later, abundant syphilides were present, having appeared since the last visit. Under the above treatment, the general condition improved rapidly, and the child soon became quiet. The swellings have steadily diminished, and the power of motion in the left arm has been restored. The further progress was satisfactory; the child has improved in every way, and as it bears the mixed treatment nicely, the same general plan is continued.

A NEW RECTAL SPECULUM.

BY W. DUFF BULLARD, M.D.,
of New York City.

MANY forms, sizes and shapes of speculums have been invented to aid the investigator in diseases of the rectum. Except in the hands of the originator, all seem to fail in some essential point.



In order to satisfactorily examine and treat rectal disease, a speculum for office use should accomplish two things:

1. Ease of introduction, causing no pain, etc.
2. It should give a clear view of all of the rectal wall at once.

The instrument shown here is the result of an attempt to fulfil these two requirements. The insertion of this instrument causes no more pain than the introduction of a suppository. As the rectum gradually increases in size from the anal orifice to the promontory of the sacrum, the examining instrument must also be dilatable within the sphincter. In the present instrument this dilating action has been accomplished by means of a pivot and thumbscrew (see illustration, *a*). The external portion of the speculum remains practically the same size, while the internal portion so acts as to distend the rectal pouch. This enables the examiner to study, by means of reflected light, all parts of the rectal pouch at once.

Dilatation of the external sphincter is frequently an essential part of the treatment of diseases occurring at the anal orifice. As usually done, it is an extremely painful procedure. With the instrument shown the pain from the sphincter, which is first tired and then gradually dilated, is almost *nil*. Gradual dilatation of the sphincter may be accomplished by laterally separating the blades of the instrument at the proximal end. For example, one blade of the speculum moves on the ratchet-bar *d* by insertion of handle *b* in hole *c*. This action can be made as slowly or as rapidly as indications demand, enlarging scarcely a $\frac{1}{16}$ of an inch at a time. The sphincter, being kept on the stretch, tires and gradually permits of complete dilatation. This process requires time in order to be painless, but, if properly done, dilatation can be accomplished without appreciable pain and without the use of an anesthetic. Care should be taken not to dilate so rapidly as to cause any spasm of the sphincter. Twenty minutes will generally suffice for complete dilatation.

When in use, this instrument is almost entirely within the rectum. There are no attached handles or springs to interfere with the rays of reflected light or with the making of the necessary applications. It is so jointed at all points as to render separation easy and facilitate asepsis.

The instrument is manufactured and for sale by George Ermold, of New York City.

AN INSTRUMENT FOR MEASURING THE KNEE-JERK.[1]

By W. H. HAYNES, M.D.,
of Brooklyn, N. Y.

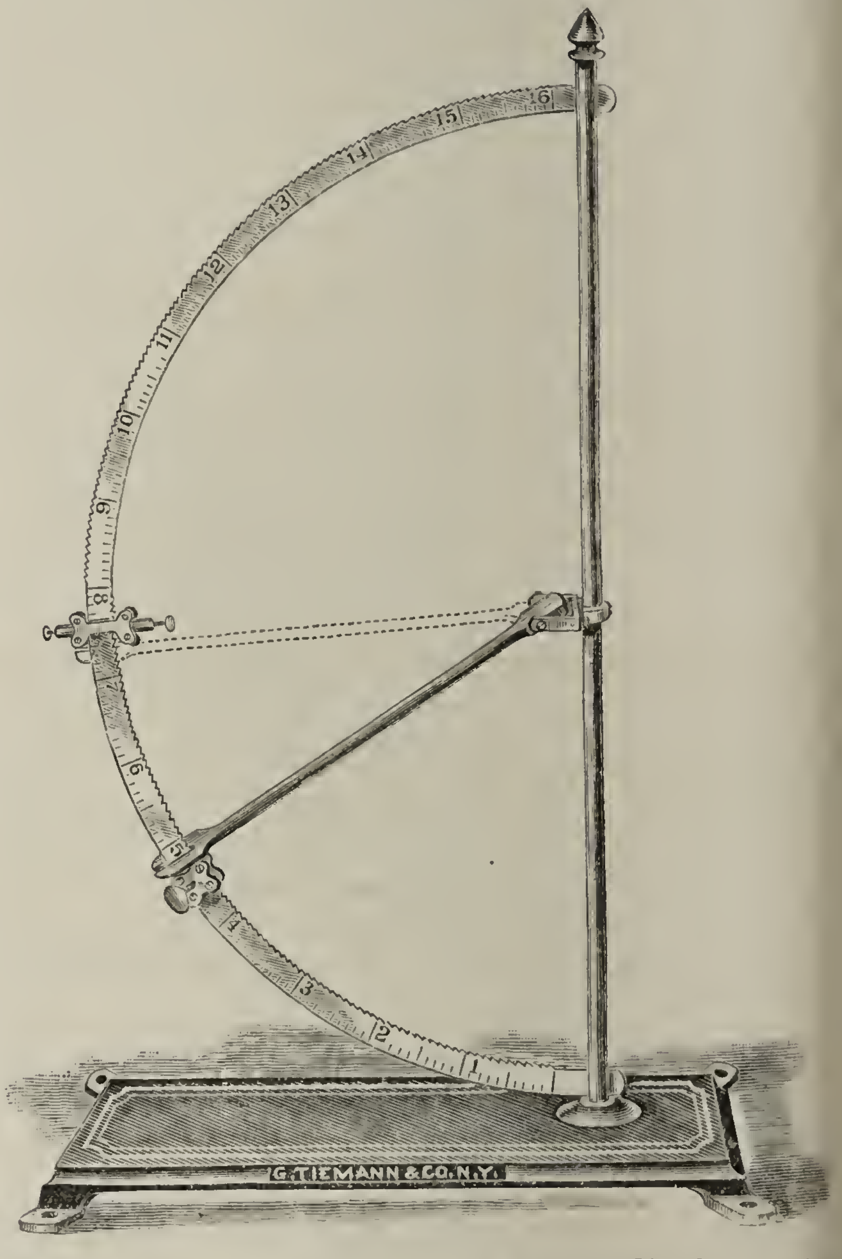
Assistant Neurologist to the Eye and Ear Hospital; Attending Neurologist to the Central Hospital and to the Bushwick Dispensary, etc.

There is a difference of opinion among good observers as to the condition of a certain knee-jerk, and an indefiniteness of the terms used in designating its condition as normal, lively, plus, minus, exaggerated, and absent, meaning one thing to one observer and another thing to another. There is also diversity of opinion as to whether there is any difference and how much between the simple or unreinforced and the reenforced knee-jerk. To give a definite rule or standard of measurement for the recording of observations in the examination of cases requiring this test was the reason of my contriving, with the help of George Tiemann & Co., the following simple apparatus:

It consists of an oblong iron stand mounted on casters, at one end of which is set up an iron rod. To each extremity of this rod is fastened a flat brass semicircle, the lower half of the inside edge and the upper half of the outside edge being notched. It is marked on one side with measurements in centimeters, and on the other side with the degrees of measurements of a circle beginning with 1° at the foot of the iron rod and continuing round the circle in the usual way to the top. At the center of the iron upright rod is fastened, by a fixed hinge-joint an aluminum arm, the other extremity of which extends to, and is notched to embrace, the brass semicircle. This end of the arm is held at its starting-point by a movable screw top brass adjuster and resting on this end of the arm is an aluminum spring-stop indicator. All of this is very clearly represented in the accompanying illustration except the mounting on casters which are to facilitate moving the instrument so as to adjust it to the different positions of the test and patient.

With the aluminum arm resting on the tip of the toes of the patient's foot, held and indexing the starting-point by the adjuster, when the blow is given the arm is kicked up lifting the indicator which is held at the point notched by the spring catch; the arm falls back into the adjuster, the indicator is released by pulling on the spring catch and lowered to the starting-point on the arm again. After reading and recording the index is ready for another test.

It seems to me that this instrument will be an accurate means of registering the strength of any knee-jerk, not alone uniformly but understandingly. After its use for a considerable time and in a large number of cases, a standard can be made through which proper terms will be correctly applied and universally understood.



It is thought that this instrument is also adapted for recording observations made during the examination of cases in which the elbow-jerk is tested after the same manner.

Professor Leopold, the distinguished gynecologist of Dresden, has been elected honorary president of the Spanish Gynecological Association of Madrid, and honorary member of the Italian Gynecological and Obstetrical Association.

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[1] Presented to the Brooklyn and New York Neurological Societies, January, 1899.

The Philadelphia Medical Journal

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Scarlet Fever in Milk.—The efficiency of a thorough supervision of the milk-supply in cities has recently had a practical demonstration in Buffalo, N. Y. Within three days an unusually large number of cases of scarlet fever appeared in a certain part of that city. Investigation showed that 21 of these cases were on the route of one milkman. This dealer's premises were subjected to a thorough inspection and found to be in good condition, with no illness in his family or in those of his employes, nor had there been for some time. After more investigations it was proved that all other sources of infection, except the milk-supply, had to be eliminated, and attention was again directed to the milk-dealer with the same results. Within a day or two 8 more cases appeared on this man's route, making a total of 29. One of the milk-nspectors was detailed to visit the farmers supplying his city dealer with milk. All the farmers but one showed a clean bill of health. This one was in a convaescent stage from some disease, the exact nature of which could not then be determined, but four other members of the family were found suffering with scarlet fever. Thus it was evident that he had been ill with the same malady, and in attending to the milking and shipping had sent the germs of disease and death to innocent amilies in the city. A quarantine was at once established against the farmer having scarlet fever, and no more milk was allowed to enter the city from his farm. mmediately the spread of the disease stopped, and its ontinuance was limited to the families already inected. Had it not been for the thorough system of nspections, so systematically pursued by the Buffalo Department of Health, it would be impossible to say ow much more infection and death would have been istributed throughout that city before the disease had un its course in the farmer's family. By the system mployed every case of infectious disease must be eported to the department by the attending physician, mmediately upon discovery. The premises are inpected and probable or definite sources are remedied. A register is kept of the milk-dealers doing business within the city, and every case of infectious disease is redited to the respective dealers. An object-lesson of his kind is invaluable to the profession throughout he country, as it shows the impossibility of giving too much attention to the milk-supply. The negligence and ndifference of communities in this matter is amazing.

The Care of Tuberculous Subjects.—The management of tuberculosis seems to be passing through the series of changes that are usually observed in the evolution of any important subject. But a few years ago almost the whole mass of the profession contended that the only treatment for tuberculosis that offered any hope of satisfactory results was the climatic. Recently there has been a strong tide toward keeping the patients either at their homes or sending them to specially constructed institutions, chosen less for their climatic situation than for their adaptability to the special treatment of tuberculosis. There has been much argument against the treatment of tuberculosis in general hospitals, in connection with other cases. We are now beginning to see reaction. Some years ago Leyden, Fuerbringer, and others contended, upon the basis of their experience, that the management of cases of pulmonary tuberculosis in general hospitals entailed no danger to the surrounding patients, and was accompanied by results quite as satisfactory as those obtained in special institutions. Others have advanced the same view, and recently Lazarus reports that his results in the Jewish Hospital in Berlin (where cases of phthisis are treated in the wards with other cases) have been wholly satisfactory, and that there has been no evidence of any infection. He also advances the argument that most poor patients who are the subjects of advanced tuberculosis object to being sent to an institution dealing solely with this affection, since they soon come to believe that they are sent there only to die. The latter argument cannot be considered a powerful one, and the evidences of cure and improvement that he presents are not equal to the statistics published by those in charge of special sanatoria. It is scarcely rational to believe that it is possible in general hospitals in cities to give the proper care to tuberculous subjects, and it is difficult to convince one that there is no danger of infection. The arguments advanced by all writers in favor of hospital treatment of phthisis, that none of the attendants acquire tuberculosis, is certainly insufficient. The attendants are usually persons in good health, and they are certainly less liable to infection than are the patients who come in much more intimate contact with the tuberculous subjects and who are themselves in depressed health, and therefore much more susceptible. And in spite of the utmost care in the disinfection of discharges from these cases there is danger of communication to others. Until the recent researches of Flügge are disproved, and it is definitely determined that the exhaled moist breath of these patients is not infectious, we must feel that it is dangerous to bring tuberculous subjects into close relations with others. The burden of proof rests upon those who would have us incur possible danger and not upon those who would perhaps make this danger seem too great.

A martyr to science was Dr. A. L. Winternitz, of Colorado City, who was shot and killed by Mike McGuire because he refused the latter permission to hold a public funeral over the remains of his child, that had died of scarlet fever. The report shows that Dr. Winternitz had quarantined the house, and had tried to explain to the father the danger to the public which must result from taking the remains to the Catholic church. The deceased had the reputation of being a conscientious physician, and we would suggest that Colorado City erect a monument to his memory for trying to guard the public health.

Cornstalk-disease is the name given to an affection occurring in cattle as a result of eating cornstalks and corn-fodder that seem to have been rendered poisonous by moldiness and fermentation. The disorder is usually confined to animals under 4 years of age and it runs a rapid course, causing death in from 4 to 36 hours. The affected animal presents evidences of abdominal pain, severe nervous symptoms and a disinclination for activity. It stands with its back arched, groans, froths at the mouth, and is often constipated. The head may be extended or drawn to one side; frequently it is pressed against a fixed object, as the manger or a fence, for many minutes at a time. The morbid lesions are not constant or distinctive. Spleen and liver may be enlarged and softened, the stomach and intestines injected or inflamed, the brain congested. The disease would seem to be a form of food-poisoning, perhaps of food-infection. An eliminative plan of treatment is indicated.

The Low Death-rate of Erie, Pa.—We know of nothing in the range of friendly human rivalries more deserving of encouragement and pride than that pertaining to the lowering of the death-rate. We alluded some time ago to the splendid record of Buffalo, N. Y., and this elicited from Dr. Joseph Forrester, ex-Health Officer of Erie, Pa., the courteous reminder that his city has a still better showing. But of course the fact that Erie is only about one-fifth the size of Buffalo renders any strict comparison between the two cities invalid, because the larger the city the greater the difficulty of reducing the rate. We have yet to hear of a city of the size of Buffalo in which such remarkable success has been attained. If to Buffalo may be given the proud prominence of being the healthiest city of her size in the world, we wonder if the same tribute may not be accorded to Erie, Pa. These are the figures: For 1896, 10.87; for 1897, 10.94; for 1898, 10.53.

Rabies in Pennsylvania.—Those who do not believe in the existence of rabies and hydrophobia may read with profit and instruction the remarks upon this subject by State Veterinarian Pearson in his annual report for 1898. During the year he received reports of deaths in Pennsylvania from this cause in 55 dogs, 10 sheep, 6 cattle, 4 pigs, 3 horses, 1 goat, and 3 men and 1 boy, not including unsubstantiated cases and animals that were killed from fear that they might develop rabies. Among the measures recommended to prevent the spread and suppress an outbreak of rabies is the immediate destruction of any animal that has with certainty been bitten by a rabid dog; in case of doubt the bitten animal should be quarantined for 90 days. For purposes of diagnosis a dog suspected to be suffering from rabies should, if possible, be secured and confined and kept under observation; in case of death a postmortem examination should be made by a skilled pathologist, and the brain especially should be studied. When during an outbreak of rabies it is not possible to locate and secure all infected animals, all of the dogs in the district should be muzzled or confined.

Marriage-Licenses.—The question as to what extent the State should supervise the ordinance of marriage is a debatable one, but that it should be carefully guarded is conceded by all. While some States or countries are lax in this respect almost to criminality, others hedge marriage with nearly insurmountable obstacles. For instance, a young lady of American parentage recently decided to be married in Paris. Although 27 years of age, it was necessary to obtain the consent of her parents. The father being dead a certified copy of his death-certificate had to be forwarded, together with an affidavit of the mother's consent. As such legal documents are not always obtainable it is questionable whether the young lady would ever have been permitted to marry had she failed in this. In the face of such experience it is not surprising to hear of lax morality and laws varying greatly as to marriage in different States. Public health is dependent upon public morals. Put too great restrictions around moral and legal cohabitation and the immoral and illegal types will naturally follow.

Civic Reputation and Falsified Statistics.—Human nature being everywhere much the same, only in some places being "a little more so," the experience of one city in reference to its struggle with pathologic politics may be of value to every other city. There is a very widespread and as yet only whispered fear in the minds of Philadelphians that the city is threatened with a serious danger by the abolition of the Board of Health and the substitution of a "Bureau of Health." It is said that certain of the city authorities think it wrong to publish our typhoid statistics and even question their accuracy; all this in the belief that the commercial welfare and reputation of the city suffers by publishing the disgraceful facts. Should this fear end in the actual suppression of the true figures the people will be left in ignorance of the consequences of using polluted water, and the corrupt and lethargic bosses will go on their way unpunished—at least so long as they do not drink the water they supply to others. We hope that our fear may not be realized, but a warning of the danger is not inopportune, as juggling with such statistics is juggling with the health and lives of the people.

Graduating Health-Officials.—The Ohio State University proposes giving a course of lectures to health-officials, beginning with the first week in April and continuing for 6 weeks. The prospectus states that it is intended for the instruction of health-officers in Ohio, and for those of mature years who may be looking forward to work of this kind in the public service. Lectures will be given on the principal subjects pertaining to public health, including air, water, sewage, garbage, milk, meat, bacteriology, disinfection, duties and powers of health-officials, and registration of vital statistics. Unquestionably there is a vast field for work of this kind. In many respects there is a difference between a regular practitioner and a health-officer, although there should not be any difference between guarding private or public health-interests. Such a course, either repeated or given with greater thoroughness, would benefit the individual and through him the public, provided there were a greater certainty of the continuance in office of good health-boards. Naturally a progressive and scientific man makes more enemies in his line of public service than the ignorant or indifferent one, and those whose private interests are attacked will not be slow in trying to secure the removal of the best officers. A physician suddenly finding himself invested with executive power will not be apt to spend much time or money to study subjects to which he has previously given little attention—regardless of the necessity he may feel of such knowledge—knowing the uncertainty of his tenure of office. However, we will be glad to learn what measure of success will follow this course.

The Place of Woman in Higher Education.—Recent events indicate that Germany is slowly but surely coming to recognize the place of woman in our latter-day higher education. Her more progressive and liberal republican neighbor, Switzerland, has already shown the way. Even austere and benighted Russia has proved herself more catholic in this connection than cultured Germany. Numerous attempts have been made on the part of women to secure University opportunities and University degrees in Germany, and while they have been thus far only partially successful, they have been none the less surely so. The most recent evidence of this success, of the breaking-down of the barriers that have withheld from women equal educational rights and privileges with men, consists in the graduation of, and the conferring of the degree of doctor of philosophy upon, a woman for the first time by the University of Berlin. The German government has further arranged to admit women to the examinations for medical qualifications, and logically the next step will be to permit them to take the final examinations, to receive the doctorate and to practise their chosen profession despite present opposition. This result may not be brought about this year or next, but come it certainly will, as it is an inevitable phase in sociologic evolution. The medical societies of Berlin still decline to admit medical women to their ranks, but this exclusion also must soon be withdrawn, as it has yielded here and elsewhere. Woman will take her place in the social order in accordance with her energies and her attributes, and no decree of man or State can check the onward force of the movement.

For the Correction of the Hospital-Abuse.—The following propositions have been suggested by a French physician for the correction of the hospital-abuse as manifested in the city of Paris: (1) The hospital shall be open to the poor and needy alone. (2) Hospital-treatment for payment shall be furnished only to domestic servants, workmen and employes whose wages do not exceed a given sum, hereafter to be determined. (3) No one whose rent exceeds 1,000 francs or who pays rates shall be entitled to the services of the hospital. Exceptions may be made in the case of those who are found, after careful inquiry, to be incapable of paying for a serious operation at the usual fees. (4) In every district one or two persons shall be designated whose duty it will be to make inquiry into every case before the patient is admitted into the hospital and to whom every person desiring admission shall make application. (5) Medical men connected with charitable organizations shall have the right to issue tickets of admission to hospitals if in their opinion the applicant is really poor and unable to be properly cared for at home. In such cases also inquiry into the merits of the case must be made. (6) No sick person shall be received into a hospital without inquiry, except in an emergency. These regulations are not greatly unlike those that have been in force for a number of years in Providence R. I., where they have operated with such admirable effect. There is no wish to deprive of medical attention any worthy person unable to provide himself therewith, but the pauperization of a large portion of the community through laxity in administration of hospital-affairs and the secondary injury done to a large number of medical men should not be permitted to continue.

The Restriction of Tuberculosis among Cattle.—The report of the Pennsylvania State Veterinarian shows what can be accomplished by watchfulness and care in preventing the spread of tuberculosis among cattle, and in this way lessening the dangers from that disease for human beings in consequence both of direct and indirect infection and of conveyance through two most important articles of food, viz., milk and meat. An important part of the work consists in regular, systematic and rigid inspection of herds, of the value and importance of which owners of herds are themselves year by year becoming more and more convinced. The disease is properly recognized as transmissible, and the principles that govern its treatment are those applicable to all infectious diseases, *i. e.*, isolation of infected animals and disinfection of the premises occupied by them. The tuberculin-test, though admitted to be not infallible, is considered the most certain and reliable diagnostic procedure.

Though it was feared that measures looking toward the suppression of tuberculosis in cattle would for obvious reasons be viewed with suspicion, if not antagonism, live-stock owners have learned to give encouragement and support to the project, no doubt appreciating that in the long run it was bound to prove economical as well as hygienic, and the results have borne out these anticipations. The statistics of inspections made by the Live-stock Sanitary Board show a constant diminution in the percentage of tuberculous animals in inspected herds. The number of inspections made during the year 1898 was 14,437—399 in herds not known to be infected and at the expense of the owners, and 10,447 at the expense of the Commonwealth. As a result of the latter 1,348 animals (12.9%) were found tuberculous and were condemned. Up to June, 1897, the proportion of tuberculous animals was 20.39%, and up to January, 1898, 13.73%. Under a new legislative enactment requiring that dairy-cows and cattle brought into Pennsylvania from elsewhere for breeding-purposes must be first proved tuberculosis-free by the tuberculin-test, 21,000 cattle were examined during the year, of which number 146 were condemned.

The Employment of Prisoners.—In their recent annual report, referred to in our latest number, the inspectors of the Eastern Penitentiary protest vigorously against the "monstrous legislation" in this State by which only 10% of the prisoners are permitted to do profitable work. We can scarcely find language ourselves to characterize this wicked and brutal law. That it is a piece of arrant demagogery, intended to placate the "labor" vote, is evident on its face; and that it is a base compromise is proved by the fact that it permits 10% of the prisoners to work for a profit. If it is right for 10% to work, why is it wrong for 90% to do likewise? What reason or justice is there in exempting this favored 10%? Who are the 10%, and how are they to be chosen, and why are they chosen at all? If it is right for one convict to labor, why is it wrong for the other 9 to labor also? Where is the principle of justice or of political economy that selects a limited proportion of men to do what the greater number must not and shall not do? Every principle of humanity and of consistency is sacrificed, and a lot of heartless legislators impose a law upon a few defenceless convicts that is a mockery of their rights and needs. The one argument always ready at hand by which such base proletariat law-making is defended, is that the paid labor of convicts interferes with outside free labor. We care not even if this be so, because the State has a perfect right to employ convicts and to sell their products in the open market; but that it is not so is strongly insisted upon by the inspectors of the penitentiary, who claim that the output from all the prisons in the State, if these were run to their utmost, could not disturb the labor-market to an appreciable extent. The absolute necessity for labor in our prisons is well recognized. Without it no prison-discipline can be perfect, no prison-hygiene can be maintained, and no reformatory work can be accomplished. The report of this very prison, as we pointed out last week, shows that 18% of its admissions for one year were of convicts who had already served one or more terms. By this stultifying legislation, the penitentiary is to lose its reformatory character and become a mere hatching-place and rookery for chronic criminals, while the tax-payers of the State are to be burdened with additional expense in supporting thousands of idle convicts year after year in order that a few free artisans may not be frightened at the bug-bear of prison-competition. To deprive men of their liberty and then to keep them immured in enforced idleness for month after month and year after year, is to jeopardize body, mind and soul; and is a thing that no civilized State has a right to do under any pretext whatever. "Labor," if it persists in this atrocious cruelty, will finally succeed in extinguishing all of the public sympathy for its sufferings and aims which it has in the past commanded. The fact seems to show that for a slight selfish advantage it is willing to be as cruel and callous as the worst savages,—not a very promising product of civilization.

Forestry Again.—Strange as it may seem, there is one man in the service of the State of Pennsylvania who holds his office by virtue of knowledge and ability of a high order; who has done such signal service to the whole community that when it was reported that he might be removed, presumably to make room for a politician, petitions and protests poured in in such number, and of such force, that the Governor is said to have announced that he would make no change—for the present at least. It is to be hoped that Governor Stone will conclude that Pennsylvania needs Dr. Rothrock as Forestry Commissioner much more than Dr. Rothrock needs the place, because he is the man to carry out and fully establish the plans for a definite, permanent policy in regard to forests that has been expected of Pennsylvania for some time past.

For twenty years Dr. Rothrock has gone up and down the length and breadth of the State preaching and teaching the unwisdom of wanton or careless destruction of the forests, and of the reckless lumbering methods that prevail. The train of evils that follow has been pointed out in such a way that thousands have come to believe that there is something in forest-protection after all. No better proof of this can be asked than the petitions that have been sent the Governor urging the retention of the present Commissioner of Forestry. Such evidence of the appreciation of one's work must be gratifying to any man, and yet we suspect that Dr. Rothrock cares most for it all because it shows that there has been created a very general desire for forest-protection. As men see that the destruction of the forests means uncertain water-supply in rivers and springs, a direct loss to many farmers through the washing away of their best soil and through reduced humidity by which their crops are developed, and the sacrifice of those healthful conditions that are known to attach to wooded countries, they conclude that a better policy than the old one of reckless waste is demanded. The advocates of reasonable forest-protection have been handicapped by enthusiasts of the "woodman-spare-that-tree" sort and by the prejudice against forestry as something "European" and therefore "un-American." Fortunately, the true intent of the forestry advocates is becoming understood, and many lumbermen are questioning whether it will not pay better in the long run to manage their woodlands systematically than to continue the old practice of taking out the immediately marketable timber and letting fire and the delinquent-tax court take the rest. "Forestry is business;" neither States nor individuals will become interested unless it can be shown that the capital invested will bring a fair return. To the individual the return must be in dollars, as many as the outlay is worth in any other venture involving similar risks; to the State other returns may be more valuable than compound interest on the money expended. The State may indeed reap a money-profit as well as the private woodowner, but in certain cases a sustained water-supply, or a summer pleasure-ground may warrant forest-management in regions too poor or too remote to encourage a privateowner.

By the action of several past administrations and legislatures, Pennsylvania recognized her obligations in this respect and gave reason for a belief that she would be one of the first States to acquire forest reservations and to adopt a wise and generous policy in the Government protection and taxation of woodlands. We are still hopeful that this promise will not fail.

The Philadelphia Monthly Medical Journal, the second number issued, bearing date January, 1899, was sent to subscribers this week. The contents are as follows:—

1. Rotators of the Femur and their other Functions. By Eb W. Thomas, M.D., of Philadelphia. With 20 illustrations.
   (The Essay winning the First Prize in the Department of Surgery.)
2. A Contribution to the Study of Bright's Disease, with Special Reference to the Etiologic Relationship of the Bacillus Coli. By Albert G. Nicholls, A.M., M.D., of Montreal, Canada. With 8 illustrations.
3. Moot Points in Obstetrics. By D. T. Smith, M.D., of Louisville, Ky. With 8 illustrations.
   (The Essay winning the First Prize in the Department of Obstetrics, Gynecology, etc.)
4. Intestinal Sutures, Some Old, Some not so Old, and a New One. By F. Gregory Connell, M.D., of Chicago, Ill. With 73 illustrations.
   (The Essay winning the Second Prize in the Department of Surgery.)

We have received many flattering letters from subscribers in reference to the first number (dated March, 1899) and our subscription-list is growing rapidly. It would be strange if it did not, because we doubt if the profession has ever been offered the opportunity of securing such an amount of the freshest medical literature of an equally high quality at the price. The January number, it will be noticed, is even more extensively illustrated (109 cuts) than the first, or March number. The February, and April numbers will be published within a few weeks. We trust every subscriber to the Journal will at once sent his order for the Monthly.

The British Food Journal and Analytical Review, the official organ of the International Commission on Adulteration, is a new journal (Vol. I, No. 1, January, 1899) whose birth is cause for rejoicing. The sophistications of food are becoming in every country, and we fear, we must add, especially in America, so extensive and difficult of detection that an official and scientific organ of this kind must prove of great public advantage. The publication is a monthly, the subscription price for the United States is $2.00, and subscriptions will be received by Messrs. P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia. We trust the international character of the journal and its contributions will become more apparent as the journal grows older, but even as it is, needed lessons for American sanitarians are easily gathered from its suggestive columns.

Appendicitis: 62 Operations in the Attack.—G. W. Crile (*Cleveland Medical Gazette*, February, 1899), reports 62 operations for acute appendicitis with only 2 deaths. Operation is recommended in case the onset is of great severity, or in case there is no improvement after 24 or 48 hours. McBurney's method of incision is preferred in case there is no extra-appendicular abscess, but in case pus is present or if there is general peritonitis, the incision must be long. The amount of injury inflicted upon the intestines in operating through a small incision is much greater than the injury of a long incision. The purse-string suture, which is tied after cutting off the appendix on a level with the intestine is recommended as a quick and cleanly method of disposing of the stump. Drainage by means of long pieces of gauze are used in case pus is present. After the patient has recovered from the operation a tenth of a grain of calomel and a teaspoonful of saturated solution of epsom salts is given until free evacuation of the bowels is produced. The cases reported were unselected and included cases of all degrees of severity. In operation between the attacks there should be rarely a death. [M.B.T.]

Special Article.

ON THE NATURE OF ASTHMA.[1]

The Lumleian Lectures, Delivered March 23, Before the Royal College of Physicians of London.

By SAMUEL GEE, M.D. Lond.,

Fellow of the College and Physician to St. Bartholomew's Hospital.

LECTURE III.

Even if we cannot predicate all that asthma is, yet the time has come, I think, when we should finally dismiss certain opinions which have for two centuries impeded the attainment of clear notions upon the pathology of the disease.

The word "asthma" was used in a simple etymologic sense until the time of our distinguished Fellow, Dr. Thomas Willis, in the middle of the seventeenth century. Asthma before his time denoted any kind of panting, gasping, pursy breathing, such as follows upon running or exertion. Hence asthma and dyspnea were synonymous for most of the older physicians. A few, such as Celsus, signified by athma the highest degree of dyspnea, but this was all; asthma was never regarded as a special sort of dyspnea. In reading the writings of the ancients we must always bear this in mind, and beware of importing into their generic use of the word the special meaning which it bears in modern times. Indeed, so far as my limited reading enables me to judge, I should say that what the ancient physicians have left us concerning asthma is of very little value. It is interesting to note that those most conservative of people, the illiterate, continue to use the word in the sense of Hippocrates and Galen.

Thomas Willis was the innovator upon the doctrine of the ancients. His opinions, in their mature form, are found in the second part of his *Rational Pharmaceutic*, published in 1675, after his death in the same year. He says, truly enough, that the ancient physicians and also most moderns up to his time had admitted only one kind of asthma, that which he calls pneumonic asthma, and which had always been deemed to be the result of the air-passages of the lungs being obstructed or not open enough. It would be a more accurate expression to say that the ancients regarded all cases of asthma as pneumonic and dependent upon bronchial obstruction. From this pneumonic asthma Willis distinguishes a second kind, which he calls convulsive asthma, the primary fault being in the motive organs of the lungs, to wit, in the moving fibers or muscular coats of the air-vessels or in the diaphragm and muscles of the chest or in the nerves of the lungs and chest, or in the origin of those nerves in the brain. There is also, he says, a mixed asthma, both pneumonic and convulsive, and inveterate asthma is usually of this kind.

You will observe that Willis's doctrine is very comprehensive, and that he vaguely anticipates all the theories of asthma which have been propounded since his day. His new notion of convulsive asthma was soon laid hold of; the term "asthma" came to be reserved for the exclusive denomination of that form of the disease which was believed to be spasmodic; and this is the sense in which the word is still used by most persons even in our own day. Willis's influence upon this question of pathology has been so great that the present lecture is to a large extent an endeavor to determine whether he were the discoverer of an important truth or the parent of a delusion. A satisfactory definition of the word "asthma" will be the end of our discussion if we succeed in attaining a clear and distinct notion of the nature of the disease. But meanwhile we may perhaps be able to agree upon a sort of provisional definition logically less exact. Thus, some diseases are defined accurately enough by means of what are called their anatomic characters, or the attendant lesions of structure, and some diseases are defined less accurately by their symptoms or the attendant lesion of function. Let us examine asthma from these two points of view.

First, what is the morbid anatomy of asthma? Here I must ask your attention to a very curious and remarkable fact. You may look through a large book upon asthma, an elaborate treatise deserving the repute it has gained, and you will find no chapter dealing with morbid anatomy. Yet surely some asthmatic patients die uncured, and some of their bodies are examined, and in all the bodies examined material lesions are found. What are they? Now many of these lesions are found in some bodies only, and therefore cannot have anything to do with the immediate cause of asthma. Some of these inconstant lesions are those which are apt to occur in the decline of life; and it is noteworthy that Rostan, the discoverer of softening of the brain, and who practised at the Salpêtrière in Paris, the great hospital for old and infirm women, after asking the question, whether the asthma of old people be a nervous affection? replies as the invariable result of his postmortem examinations—That the asthma of old people is a symptom of an organic lesion, and especially of atheroma of the aorta and of hypertrophy of the heart. Most physicians of our day would probably agree that Rostan's opinion is correct so far as its general principle is concerned—namely, that organic lesions in the chest are found—but he errs in his particulars by being far too exclusive; several morbid changes are much more frequently met with than those which he mentions. Again, such lesions as tuberculous affections of the lungs, phthisis (active or retrograde), and acute miliary tuberculosis, though often seen in persons who are not old, cannot be deemed essential to asthma. But signs of bronchitis and pulmonary emphysema are always found; and though no one would call them the anatomic characteristics of asthma, yet the fact that they are constant demands that they should not be passed over or dismissed with the remark that they are mere complications, an obvious begging of the question. That the bronchitis of asthma should be regarded as an accidental complication and by no means as an essential element of the disease is due to the fact that, since Willis's time there has always been a strong tendency to look upon asthma as something mysterious and its cause as supersensual. However, you will probably assent to the proposition that either bronchitis and emphysema constitute the morbid anatomy of asthma or it has no morbid anatomy. In either case we must reluctantly conclude that structural lesions cannot help us to a definition.

Secondly, definitions based upon symptoms or disordered functions observed in the patient during life are seldom satisfactory. In the case of asthma, any definition of this kind would involve so many explanations, reservations, and distinctions, that it would be nothing less than a full description of the disease. I will not attempt to succeed where all nosologists have failed, and I fear that we must confess that symptomatology cannot help us to a definition.

So we will proceed to our investigation in the belief that in the case of a given patient most physicians would agree whether he were suffering from asthma or not, and that we have a pretty unanimous though an indefinable notion of the disease. Yet we must admit that the notion has been inconstant, that the extent of meaning of the word has been growing narrower and narrower. Much of what Willis called pneumonic asthma has long since ceased to be called asthma at all; much of what, by way of exclusion, was formerly deemed to be convulsive asthma is now known to be dyspnea, due to disease of the heart, bloodvessels, kidneys, to poisoned blood, and other conditions which need not be enumerated. Thus there is a risk lest asthma should become a mere *caput mortuum*, a kind of dyspnea left when all known causes of dyspnea have been separated, the definition of the word being purely negative, indicative of what asthma is not. But asthma is not a mere *caput mortuum*.

Inasmuch, then, as our most trustworthy guides in all the physical sciences, our senses, seem insufficient to enable us to explore the essence of asthma either in the living body or the dead, we must try to grope our way by the help of reason. And we will recur to the rival hypotheses already mentioned and will debate the question which remains much as Willis left it, namely, whether asthma is a pure affection of the nervous system or whether it is all pneumonic, due, that is to say, to gross material changes in the lungs, or whether it is a combination of the two.

I. In the first place, let us discuss the nervous, convulsive, or spasmodic hypothesis.

1. That the air-tubes possess muscular coats or moving fibers was well known to Willis. That these fibers will con-

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[1] From advance-sheets by the courtesy of the editor of the *British Medical Journal*.

tract under appropriate stimulus so as to diminish the capacity of the bronchia has been demonstrated many times by experiment, the vagus being the motor nerve. But farther than this our knowledge does not extend. From the best and latest works upon human physiology we cannot learn what the use of these fibers is, nor under what conditions they contract, nor whether they contract quickly or slowly, nor whether their contraction is momentary or enduring, yet surely we ought to be able to answer these questions before we can deduce a pathology of asthma from perverted function of these fibers. The prevailing feeling is that they help the bronchial walls to resist any unwonted pressure from within—that they oppose distention of the air-tubes. But, even supposing this opinion to be true, we are no nearer to understanding the part which these fibers have been assumed to play in the production of asthma. We will admit that it is conceivable that their contraction may cause dyspnea, but we must make the reservation that there is no proof of this assumption. And one thing seems to be certain—namely, that if there be such a disease as bronchial spasm, pure and simple, it must be a very rare condition, because it is inadequate to explain the catarrh which manifestly attends most, if not all, asthmatic seizures. Willis himself was far too sagacious a man not to have seen the meaning of this fact. He writes thus: "Although an asthma is sometimes simple from the beginning, namely, either merely pneumonic or convulsive, notwithstanding, after either disease hath for some time increased, for the most part it gains the other to itself, hence it may be concluded every inveterate asthma to be a mixed affection." But we have already seen good reason for doubting whether this doctrine of Willis's goes far enough. The whole subject of bronchial spasm is involved in so much obscurity that we cannot admit more than that it perhaps takes a share in the production of asthma, but is seldom, if ever, the chief or only cause. And we will dismiss this topic by adopting the words of an able physician of the last century, Robert Whytt, "that a true nervous or spasmodic asthma, without any other fault in the lungs than uncommon delicacy or irritability of their nerves, is a disease which we seldom meet with."

2. Let us come to the muscles of respiration. When I began to lecture on medicine at St. Bartholomew's Hospital it seemed necessary that I should expound some theory of asthma. I had been much struck by observing in bad attacks of asthma the fixed immobility of the chest in a state of the fullest possible inspiration. About the time I came across a paper by an experimental physiologist who had found that centripetal excitement of the vagus, divided below the junction of the superior laryngeal nerve, produced tetanic contraction of the diaphragm, intercostals, and other inspiratory muscles, a state of things which is necessarily accompanied by dyspnea, and which, in this respect, resembles the asthmatic paroxysm. And so for a year or two I taught that the fit of asthma, at its beginning at least, was due to centripetal irritation of the vagus. But maturer experience soon showed me that this fixed inspiratory distention of the chest is by no means a constant attendant upon asthmatic dyspnea, that the inspiratory movements are sometimes free and ample enough, and thus I lost all faith in the doctrine of protopathic inspiratory spasm. Moreover, what is the evidence of inspiratory spasm during the attack of asthma? No doubt the chest is in a state of inspiratory distention, dilated to its utmost capacity and fixed in this position. But it is more likely that this state of things is due not to inspiratory spasm but to expiratory debility. Air is imprisoned in the lungs, and no amount of forced expiration can empty them. In the last lecture I showed what a very partial forced expiration is; over many portions of the lung it has no power. If the sufferer could empty his lungs he could fill them again; it is the deflation which is at fault, and the extreme inflation is due to incessant forced inspiratory efforts to make the most of what little room for fresh air can be provided by forced expiration. This fact is very well expressed in a tale told by Dean Swift of a farmer who, when dying of asthma, said: "Well, if I can get this breath once out I'll take care it shall never get in again." And thus to conclude this topic I submit that inspiratory spasm is not the cause of the asthmatic paroxysm.

3. Again, Willis thought that convulsive asthma might sometimes proceed from irritation of the pulmonary or thoracic nerves, or of the origin of these nerves in the brain. This is one of those recondite propositions which can be neither maintained nor refuted. Contraction of the bronchial muscular fibers or of the respiratory muscles, if it play any part in the asthmatic paroxysm, may doubtless be due to irritation of appropriate nerves; but the muscular contraction itself has not been proved to occur, and this must be done before we need discuss its causes. The influence exerted by the nervous system upon secretion, nutrition, and the blood-supply is well known as a general fact, but any particular application of this fact to explain the pathology of asthma is at present beyond our power. Thus, we have no evidence to show that asthma takes its origin from the nerves or brain.

II. But if asthma be not convulsive, we are thrown back upon the hypothesis of pneumonic asthma, for we have no third explanation before us. Let us review the argument in favor of pdeumonic asthma. This argument is wholly analogical. There are several diseases which resemble asthma in certain respects, more or less. Perchance we understand the pathology of these diseases somewhat better than that of asthma. If so, we may inquire whether the nature of asthma can be assimilated to that of the diseases which it resembles. It is obvious that such an argument as this is far enough from deserving the name of induction, but we will be comforted by the saying of a wise man, that to us probability is the very guide of life. Let us enumerate and illustrate the diseases referred to.

1. *A Peculiar Form of Acute Bronchitis.*—"Last summer I went out of town to see a little boy, 7 or 8 years of age, whose life was very precious to his family. He was thought to be dying of inflammation of the lungs. I found him raised up in bed, supported by his nurse, and breathing with all his might. His skin was hot, his face flushed, and his chest heaved, and his nostrils quivered frightfully. There was no croupy sound. Whatever the disease was it was all within the chest. I percussed the chest; it sounded well in every part. I listened; the air entered freely and reached every cell and vesicle of the lungs, but there was not the least perception of the natural respiratory murmur; a shrill sibilus had taken place of it altogether. Wherever you applied your ear to the chest you might fancy you heard the piping and screaming of a nestful of unfledged birds."

Probably many of you will have recognized the hand of Dr. Peter Mere Latham in the somewhat rhetoric character of the description I have just read. I have set before you his description of the disease because it serves as an emphatic text and not because the affection is very uncommon; it is alluded to by many of the best authors, and I myself have seen a considerable number of cases. Latham goes on to say: "I am speaking of a disease which must be distinguished from asthma according to the usual acceptation—a disease not habitual to the individual, and of which, perhaps, he has never suffered a previous attack." But of course an asthmatic must have his first attack, to which Latham's criterion of habit cannot be applied, and unless he had told us that his patient had never before suffered from a similar attack and never had one afterwards, his argument that the disease was not asthma falls to the ground.

Latham's patient certainly suffered from acute dry pulmonary catarrh, to use the phrase of Laennec; but in this form of disease the catarrh is not always dry; on the contrary, small mucous rales are sometimes heard all over the chest. I saw a girl, 4 years old, who one morning had a little cough, but was quite well in all other respects. In the afternoon she suddenly became much worse, and her state alarmed everybody. In the evening her distress, dyspnea, and lividity were great; the upper part of the chest expanded considerably on inspiration, but there was at the same time much depression of the roof of the neck, of the epigastrium, and of the base of the chest. All over the lungs small mucous rales were heard. Her voice and cry were natural, so that there was no reason for suspecting laryngeal disease. Her temperature was below the normal. I was told that she had suffered from several sharp attacks of what had been called "bronchitis" and "congestion of the lungs;" that she had been subject to eczema all over the body; and that her father's father and brother had been "asthmatics" until they reached maturity. The very same night she improved much, and next day she was comparatively well; recovery was rapid.

The chief characteristics of this form of bronchitis may be thus enumerated: The rapidity with which the dyspnea becomes extreme; the attendant fever, little or none; the whole attack seldom lasting more than two or three days; and the great tendency to recur. In the intervals most of the patients are free from pectoral symptoms, but in some cases emphysema occurs, and I have seen it well marked in a patient only 3 years old subject to this disease. Most of the children have suffered from eczema, and most of them come from families prone to asthma, bronchitis, and gout.

When we inquire into the previous history of patients who during youth have been liable to undoubted asthma, we find that in a certain number of them their disease dates from one or more attacks of this kind. And surely these attacks were asthma from the very first, although they were not deemed to be so at the time, but were called in Latham's language "acute bronchial inflammation putting on a peculiar form and affecting a peculiar course." The bronchitis does not cause the subsequent asthma, but it is asthma; the two diseases are identical in nature, and the asthma is bronchitis, although a peculiar form of bronchitis.

2. *Spasmodic Croup.*—This is an old phrase now seldom used, yet I do not know that we have a better. It is not a good phrase, because it implies a hypothesis which is probably untrue. The disease is characterized chiefly by acute dyspnea; indeed, most of the cases described by Millar in the last century under the name of "acute asthma" were cases of spasmodic croup. Spasmodic croup is not laryngismus stridulus, for the dyspnea of laryngismus is momentary, whereas that of spasmodic croup lasts for several hours and on and off for days. Spasmodic croup is not quite the same thing as laryngitis stridula—a disease which is characterized more by dysphonia than dyspnea. Dr. Benjamin Rush, of Philadelphia was the first to apply the epithet "spasmodic" to the disease—an indication probably that he as well as Millar recognized a resemblance to spasmodic asthma. I enter into these details because there still exists, as there always has existed, much confusion in the use of these names. Millar's description of the disease, published in 1769, is vitiated by the fact that he does not distinguish the different kinds of acute laryngeal disease which cause dyspnea in children. Rush's description, published in 1789, is much more precise, perhaps because more concise. He says that "the cynanche trachealis spasmodica is known (1) by coming on suddenly, and that generally in the night; (2) by frequent and perfect intermissions of the symptoms for hours, and in some instances for days, without the least sensible discharge from the trachea; and (3) by yielding to antispasmodic remedies, particularly to the warm bath." Rush had examined the body of a fatal case and had found no marks of a membrane or even of mucus in the trachea; the lungs and trachea appeared to be in a sound state.

Many persons have believed in a close analogy between spasmodic croup and spasmodic asthma. Some have even gone so far as to say that "children who have been the subjects of croup or stridulous laryngitis in their earlier years are prone to suffer from true asthma in later life," but, judging from the facts of my own experience, I am disposed to think that this sequence is not common. Unfortunately the pathology of spasmodic croup is not well understood. I do not know that the glottis has ever been seen by means of a laryngoscope during the attack of dyspnea. Could this be done, it would go a long way towards clearing up the darkness which hangs over the subject. Moreover, patients when attacked by spasmodic croup seldom die, and thus we are deprived of the information which minute postmortem examination might afford. Nobody doubts that the disease implies an element of acute laryngitis, or of croup—for these two terms are almost synonymous, croup being the acute laryngitis of children. The evidence of laryngitis depends mainly upon these two facts; first, that the attack of dyspnea is preceded for a few hours by hoarseness and croupy cough, and perhaps by other signs of catarrh of the respiratory mucous membrane; secondly, that the interval between the attacks is not free from the same symptoms. Admitting, then, that there is a fundamental ground of laryngitis, we must inquire in the next place into the cause of the dyspnea, so sudden and so temporary, and here lies the difficulty. The epithet "spasmodic" begs the question by assuming that spasm of the glottic muscles is superadded to the laryngitis. But when we compare spasmodic croup with what is universally admitted to be a glottic spasm, that is to say, with laryngismus stridulus, the difference between the two diseases appears to be so great as to make us doubt whether the dyspnea of croup can be spasmodic. In laryngismus the dyspnea sets in very suddenly and lasts only a few seconds, for if it last longer the child will die. At any rate, if the croup be spasmodic we must assume that the spasm is very incomplete and that it lasts several hours—assumptions which seem improbable. It is improbable that the spasm should be always incomplete, and should never become a thorough laryngismus and thus kill the patient, whereas deaths from spasmodic croup are so uncommon that we may almost say that they do not occur. Moreover, the catarrhal swelling of the laryngeal mucous membrane would render any spasm much more likely to prove fatal, and we must never forget the small size of the glottis in children when we speak of their laryngeal diseases.

But if we give up the notion of spasm are there any other explanations which we can fall back upon? Two have been offered. One was put forward first, so far as I know, by Felix Niemeyer. He supposes that viscid mucus accumulates in the glottis while the child is asleep; that this mucus becomes dry, and so glues up the rima glottidis—an ingenious explanation, not wanting in plausibility, but which can be neither proved nor disproved. The chief argument against this hypothesis is found in the great resemblance between spasmodic croup and the peculiar form of acute bronchitis which we discussed just now. In both diseases, the same slight premonitory catarrh, the same sudden onset of alarming dyspnea in the afternoon, the same speedy abatement of the dyspnea, the same freedom from fatal results, and the same tendency to recur. Now, there is no reason for thinking that the bronchitic dyspnea is due to accumulated mucus, still less to dried mucus; and hence we may well doubt whether spasmodic croup is due to these conditions. But yet, until we can bring our senses to bear directly upon the glottis, until we can see what actually takes places, we may admit that there is possibly some truth in Niemeyer's hypothesis. How often are we tempted to exclaim, with the surgeon in the old novel, "A fig for reason, I laugh at reason; give me ocular demonstration."

The other explanation seems more probable. It supposes a sudden and temporary swelling of the mucous membrane of the larynx, such as sometimes occurs in the pituitary membrane during acute coryza when one nostril becomes suddenly blocked, and not by mucus, so far as can be made out, or at least no mucus can be expelled from the affected nostril. In the case of the nose this sudden swelling can be easily understood, for anatomists tell us that the veins of the mucous membrane over the turbinate bones constitute a cavernous structure, and that the membrane in this situation is erectile. No structure of this kind has been detected in the mucous membrane of the larynx, and hence the argument from analogy is weakened in a corresponding degree. In short, the opinion that spasmodic croup is due to sudden swelling of the mucous membrane depends mainly upon reasoning by way of exclusion, there being fewer objections to this pathology than to the hypotheses of spasm or of mucous obstruction.

Leaving these dry catarrhs of the respiratory tract, let us turn our attention to certain catarrhs of a character exactly opposite, being attended by abundant secretion of mucus, for these catarrhs also have a close affinity with asthma.

3. *Paroxysmal Coryza.*—In the first place we will consider paroxysmal coryza or "paroxysmal sneezing," as it is sometimes called And let me set before you a vivid picture of the disease drawn by a sufferer, a married lady, aged 29 years. I copy the exact words of a letter she wrote:

> "Severe cold in the head every morning for two or three hours after waking; continual running of the nose, sneezing, watering of the eyes; pocket-handkerchiefs are of no use, I have to use towels. Frequent fits of violent sneezing, perhaps repeated a dozen or twenty times. Continual rising of phlegm into the mouth in the morning on waking; often an accumulated mass of phlegm has to be got rid of. Loss of taste and smell and impaired voice in singing. The above symptoms have been present for 5 years, though they have increased of late. In addition the following have occasioned trouble during the past 9 months: A wheezing in the chest, difficulty in breathing, or in taking a deep breath. At times this prevents me from lying down at night; at least I go to sleep in the usual way, but am disturbed 3 or 4 hours after by a feeling of suffocation, and am obliged to spend rest of night sitting in a chair. This feeling sometimes comes on without any warning. Last week, when returning from a dinner party, I suddenly became oppressed in breathing,

and had quite to struggle for breath for 10 minutes or so. Violent exercise such as running, and I think swimming, also hearty laughing, produces much the same effect, namely, a wheezing and difficulty in breathing freely. Voice in singing much fallen off. Damp weather and cold winds seem to increase the tendency."

Thus far the patient's own report, to which the following facts may be added: There was a tendency in her family to asthma, eczema, and gout; she herself never had eczema, but it had appeared in several of her relatives, and also in her only child, 15 months old.

The connection between paroxysmal coryza, asthma, and eczema is remarkable. A girl, 11 years old, had suffered from frequent attacks of asthma since the age of 2 years. Moreover, she had always been liable to fits of bad sneezing with running from the eyes. This sneezing was sometimes followed by asthma, sometimes not. When a baby she had eczema. In her father's family there was a tendency to eczema and gout, but not to asthma; in her mother's family there was probably a tendency to asthma. She had a younger brother who also was asthmatic, and who suffered from eczema in infancy. The girl, the brother, and the mother were all of a dark complexion. A second girl, sister of the patient, was of a fair complexion and had shown no tendency to asthma.

A boy, 2½ years old, became eczematous at 6 months of age. The eczema cleared off at 12 months, and then he began to suffer from asthma. And mark that his attacks of asthma began with sneezing and running from the nose, and that an evidence of the chronic nature of the coryza was afforded by the ill-developed condition of the bridge of his nose. But there was no obstruction to his breathing in the nose itself.

At the risk of wearying you let me give you a brief outline of another case which shows the connection between this recurrent coryza and spasmodic croup as well as asthma. A lady, 30 years old, was subject to spasmodic croup when a child, and had been liable to bronchitis all her life. Since the birth of her first child 3 years ago she had become asthmatic—that is to say, she was continually rather short of breath, but more especially soon after arising in the morning or upon any sudden effort; her breathing would sometimes become very bad, she would turn blue, and the whole attack would last two or three hours; it had occasionally recurred three or four times in the day. Moreover, for two years she had been subject to attacks of sneezing almost daily, with copious distillation from both nostrils, as bad in winter as in summer. There were no objective signs of disease in the chest, nasal fossæ, or pharynx.

It is no part of my plan to discuss the relation which exists in some cases between these paroxysmal disorders and permanent disease of the nasal and postnasal regions. But with regard to the actual attack of coryza let us observe that it is more than a mere defluxion of mucus. The mucous membrane of the nasal fossæ is swollen, especially the cavernous tissues over the turbinate bones, which swelling may be enough to make the opposite surfaces of the mucous membranes touch, and to the tickling sensation which ensues upon this contact much of the sneezing, and much, in all probability, of the distillation are due. The fact that in some cases very quickly follows coryza suggests the notion of a rapid spreading of the catarrhal affection downwards along the respiratory tract; what in the upper part is a paroxysmal coryza becomes in the lungs paroxysmal dyspnea, or, in other words, asthma.

4. *Paroxysmal Bronchial Flux.*—Closely allied as paroxysmal coryza and asthma undoubtedly are, there is an obvious unlikeness between them in one respect—in the amount of mucous secretion. But there is a peculiar form of what Laennec calls acute pituitous catarrh of the bronchial tubes, which more exactly resembles recurrent coryza in the abundance of the flux, its short duration, and its tendency to recur.

> "A woman, aged 32, corpulent and of fair complexion, had suffered for some months from an obstinate cough, when one evening she was attacked by a complaint which very much resembled the paroxysm of spasmodic asthma, except that it was much more violent than first attacks of that disease usually are, and that its remission was attended with a very copious discharge of frothy serum from the bronchial tubes, which was thrown up by a slight, though almost continual cough." On the next morning she was much better and she soon recovered. Some months afterwards she had another attack of the same kind, and about 18 months after the first attack she had a third, much more violent. "She was suddenly seized with dyspnea, attended with a convulsive kind of cough, which in less than five minutes from the time of attack increased so as to produce the appearance of suffocation. Her senses forsook her, her face became livid, her extremities were cold, and the action of the heart was so much diminished that no pulsation could be felt in the wrist, and but very little in the left side. She remained in this state nearly 2 hours, during which time a very large quantity of frothy serum tinged a little with blood was discharged without any visible effort by the mouth and nostrils. About the end of that time some very faint and involuntary efforts to cough came on, which gradually increased, and with every effort large quantities of the frothy serum were thrown off; perhaps the whole quantity might amount to 3 or 4 pints. About three hours after the beginning of the attack the difficulty of breathing became very sensibly diminished, and her senses were observed to return." In a few hours she had recovered so as to be much the same as she was before the seizure. After a somewhat longer time she had attained the condition of a patient in the best state of health.

This woman was a patient of Mr. Thomas Baynton, of Bristol, and her case is narrated in a book published by the well-known Dr. Thomas Beddoes, of the same city. You will have observed that the profuse expectoration is said to have been "serous," but this word is no doubt used in a loose sense, for Beddoes, who was a good chemist, expressly says that the fluid was ascertained by careful inquiry to be mucus, and not saliva, as he at first suspected. In my first lecture on bronchitis I spoke of acute pituitous catarrh, always a serious disease; and Baynton's case was an instance of this affection, but peculiar from its tendency to recur, and in this respect closely resembling paroxysmal coryza and asthma.

5. *Hay-Fever.*—In this place I might refer to the fact that hay-fever, which usually assumes the form of coryza and lacrimation, sometimes becomes an asthma. The paroxysms of hay-asthma and of what we call ordinary spasmodic asthma differ in no particular. But this topic has been so fully discussed by Sir Andrew Clark that I will only repeat that the cause, whatever it be, of hay-fever will produce ophthalmia, coryza, or asthma according to the portion of the mucous membrane which is affected.

And to sum up the argument in favor of the opinion that asthma is (in Willis's phrase) pneumonic, as distinguished from the convulsive form of the disease, the assumed bronchial obstruction being due, not to any sort of spasm, but to what he calls an afflux of humors upon the air-passages. We have seen that there are 5 or 6 affections of the respiratory tract which are closely allied to asthma, and which may be said to constitute, together with asthma, a special class of diseases, characterized as follows: They set in suddenly, they speedily reach their highest point of severity, their duration is short, they are apt to recur, and in the intervals the patient is more or less free from signs of disease until the catarrh becomes chronic. The tendency to the disorders is hereditary and runs in families; many patients manifest a tendency to two or more of these complaints. If the force of these analogies be admitted, we may carry the argument farther and observe that all these diseases are catarrhal. Now, catarrh implies two conditions—namely, increased secretion and swelling of the membrane; but, as a matter of fact, neither of these conditions is constant. The defluxion or increased secretion may be absent, or at most may be very small, and this constitutes Laennec's dry catarrh. The swelling is more constant, at least in acute catarrh; in paroxysmal coryza, which has so close an affinity with asthma, the swelling can be seen; moreover, both defluxion and swelling occur with great rapidity. The two concomitants of catarrh will explain the most important symptoms of all the disorders in question, including asthma.

If we consider the catarrhal tendency to be due to an inherent delicacy or vulnerability of the mucous membrane, a tendency usually inherited, we seem to be able to understand the reason of the fact that asthmatic persons during childhood are so often liable to eczema, which may be deemed to be indicative of a similar condition of the skin.

In the earlier part of the lecture we arrived at the conclusion that the doctrine of a spasmodic asthma is very imperfectly supported by facts, and now the argument has led us to believe that all asthma is merely a peculiar form of bronchitis, and that there is no need for any hypothesis of spasm in order to explain the phenomena of the disease. Should it be objected that bronchial spasm may possibly aggravate the effects of catarrh, we may appeal to the philosophic law of parsimony—*Entia non sunt multiplicanda præter necessitatem.* You know that this is not a new doctrine. Many years ago it was maintained very ably by Beau. Sir Andrew Clark arrived at the same conclusion by a different path—by noting how one and the same cause, hay-fever, produces sometimes coryza, sometimes asthma, and sometimes both together. Which element of the catarrh, defluxion or swelling, obstructs the tubes is a question which naturally arises. The interesting observations of Lefèvre, published more than 60 years ago, upon the expectoration of peculiar mucous cylinders, which he compared to cooked vermicelli, towards the end of an asthmatic attack render it very probable that both secretion and swelling concur to obstruct the bronchia. But there remains another and much deeper question which concerns the asthmatic tendency—in what does it consist? Why are some persons prone to asthmatic catarrh and others not? Why does the disposition run in families? What is the bond which in so many cases connects the several diatheses of asthma, eczema, and gout?

For the solution of such problems as these, and for the advancement of all medical learning, may a succession of men like Harvey and Willis never be wanting.

Selection.

THE UNGRATEFUL PUBLIC.

THE usual newspaper attacks are being made upon the proposed Medical Practice Act now before the Legislature. The profession, as usual, is being charged with attempting to gain something to its own advantage by the legislation. The usual howl about restricting the liberty of the individual is heard in the land, and the very people who, in times of serious epidemics, are the first to strike for the protection afforded by the members of our profession, are prating about the inefficiency of the healing art and the wonderful cures performed by those of their own particular cult.

Our critics entirely lose sight of the humanitarian side of our work. They do not realize that the profession they attack, through its code of ethics, forbids a member to hold a patent on any instrument or appliance used in healing the sick; that is the only profession that continually works to remove those very ills of humanity which would be, and have been in the past, its greatest sources of income.

Under a more efficient administration of our city health-department the death-rate has fallen practically to half what it was ten years ago, and the work of that health-department, as of all others, is possible only through the brains, the energy and the unfaltering support of the physicians of the city. And yet, when we wish to prevent the heartless robbery and wholesale deception of the sick, by those totally unfitted to care for them, by compelling everyone who aspires to practise medicine to show a reasonable knowledge of his craft, we are met with the foulest reproaches.

It is strangely silly and irrational to accuse of selfishness, and the desire for a monopoly, the profession that has given to the world vaccination, the antitoxin of diphtheria and other diseases, the quarantine and many other preventives of disease and death.

The daily papers of Denver could by no possibility properly estimate the true attitude of the legitimate physicians in regard to this business, or form the least conception of the contempt in which their yellow sheets are held by the true sons of Esculapius.

Their columns, given over to Christian science, osteopathy, obscene electric-belt advertisements and pictures, remedies for seminal weakness, impotency, lost manhood and syphilis, the cards of conception-preventers and abortionists, and other things too numerous and far too nasty to mention, make up a "family newspaper" that should be suppressed in a decent community, and which no physician should countenance or encourage.

A physician's monopoly, indeed! Each one of these filthy advertisements makes work for the legitimate physician, but at what terrible cost!—[*The Colorado Medical Journal.*]

Boston City Hospital.—Dr. George W. Gay has been appointed senior surgeon, after a continuous service of 27 years.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending April 15, 1899:

Monday, April 10—College of Physicians. Section on General Medicine.

Tuesday, April 11—Pediatric Society.

Wednesday, April 12—County Medical Society.

Thursday, April 13—Pathological Society.

Friday, April 14—College of Physicians. Section on General Surgery.

Bequest to the Orthopedic Hospital.—By the will of S. C. Blake, who died recently in California, the sum of $10,000 is bequeathed to the Orthopedic Hospital of Philadelphia.

St. Mary's Hospital.—According to the report for the 18 months from July 1, 1897, to December 31, 1898, recently issued, 1,560 patients were admitted to the wards. Of these, 1,249 were charity patients, and 311 pay or partial-pay patients. There were 126 deaths; 206 operations performed; and 51 soldiers treated. In the out-patient department 10,261 patients made 45,629 visits. The total income for 1898 amounted to $18,890.75, and the total expenditures to $14,638.80.

Philadelphia Polyclinic and College for Graduates in Medicine.—According to the report for 1898 recently issued, the number of patients admitted to the hospital during the year was 749 (54 soldiers), of whom 312 were free patients, and 437 pay or partial-pay patients, 44 died and 504 operations were performed. In the accident-ward, 4,074 patients were treated. In the dispensary 19,688 patients made a total of 87,966 visits. The total expenses amounted to $41,019.55 and the total income to $34,559.46. During the year 121 graduate students attended the college department.

Vital Statistics of Philadelphia for the week ending April 1, 1899:—

Total mortality		504
Children under 5 years of age		128
Diseases.	Cases.	Deaths.
Pneumonia 61, congestion of the lungs 6		67
Pulmonary tuberculosis		55
Typhoid fever	405	43
Heart-disease 31, fatty degeneration of the heart 3, inflammation of the heart 3, neuralgia of the heart 1		38
Marasmus 16, inanition 11, debility 6		33
Apoplexy 16, paralysis 10		26
Nephritis 16, uremia 8, kidney-disease 1		25
Gastroenteritis 16, cholera infantum 8, cholera morbus 1		25
Senility		22
Inflammation of the brain 17, congestion of the brain 3		20
Convulsions		17
Casualties 12, burns and scalds 3		15
Diphtheria 11, membranous croup 3	62	14
Carcinoma 10, tumor 1		11
Cerebrospinal meningitis	13	11
Bronchitis		10
Scarlet fever	33	3
Peritonitis 7, cirrhosis of the liver 4, dysentery 4, septicemia 4, influenza 3, teething 3, abscess 2, atheroma 2, aortic aneurysm 2, diabetes 2, diarrhea 2, hernia 2, laryngitis 2, pleuritis 2, mania-a-potu 2, intestinal obstruction 2, purpura 2, dropsy 2, rheumatism 2, alcoholism 1, anemia 1, drowned 1, erysipelas 1, cystitis 1, pancreatitis 1, inflammation of the spine 1, insanity 1, intussusception 1, jaundice 1, locomotor ataxia 1, lupus 1, poisoning 1, shock 1, suicide 1, pertussis 1, hemorrhage 1.		

Bequest to the Home For Aged Couples.—According to the will of the late Walter H. Tilden, the sum of $200,000 is devised to the Home for Aged Couples on condition that the title of the institution be changed to the Tilden Home for Aged Couples.

Farewell Dinner to Dr. Guiteras.—The Guiteras Medical Society of the University of Pennsylvania gave a dinner last week at the Aldine Hotel to Dr. John Guiteras, who lately resigned his professorship in general pathology and morbid anatomy in the University of Pennsylvania. Dr. Horatio C. Wood was toastmaster, and there were speeches by Dr. John H. Musser, "The Faculty;" Dr. J. M. Swan, "Memories;" Dr. A. E. Taylor, "In Memoriam—Dr. Pepper;" Dr. David Riesman, "Our Patron;" Dr. E. W. Holmes, "Our Lady Friends in the Profession;" Dr. Alfred Hand, Jr., "Bacteria Schuylkilliensis;" Dr. Frank Massey, "The Pestilent Microbe," and Mr. C. McK. Woodburn, "Our Society."

NEW YORK.

Aimed at Sweat-Shops.—The Senate has just passed the bill of Assemblyman Cottle, which requires all clothing factories to be licensed, and branding tenement-house goods as such.

Bovine Tuberculosis.—It is announced that Dr. Thomas H. Bradley, of the State Tuberculosis Commission, as a result of an inspection of a herd of 44 cattle at Laona, N. Y., has found 37 affected with tuberculosis, and has ordered them destroyed.

Another Case of Broken Neck.—A man who broke his neck by falling down stairs, was taken to St. Vincent's Hospital. Here his head was supported by an arrangement of wires, with the result that, although unconscious all the time, he lived 6 days.

The Collier Bill Defeated.—This bill, which was intended to prevent the New York City Board of Health from entering into competition with private individuals by selling its surplus antitoxin, has met with temporary defeat in the Legislature, due, it is believed, largely to the mistaken impression that the bill would do away with the gratuitous distribution of antitoxin and lymph.

Cornell University Medical College.—Announcement is made of a summer course in medicine, to begin May 15 and continue to August 1, 1899. The clinical courses will be given at the various hospitals and dispensaries by the physicians and surgeons on duty. In addition to the clinical work, practical exercises will be offered in the several laboratories of the school by the instructors in charge. These laboratory courses will embrace instruction in normal and pathologic histology, bacteriology, clinical microscopy, chemistry, and pharmacognosy and pharmacy.

Sickness and Death Among Letter-Carriers.—Seven of the letter-carriers of New York City have died from lung-diseases since the first of the year, and 40 are now drawing sick-pay from their Association. There are 1,730 carriers and substitutes. Some idea of the amount of sickness prevailing among them may be gained from the statement that 200 substitutes have been employed at one time, where ordinarily 100 to 150 are sufficient. Another fact pointing in the same direction is that the Letter-Carriers' Association disbursed last year $6,303, while in the first 3 months of this year it has paid death- and sick-claims amounting to $2,966. The great prevalence of pulmonary disorders is attributed to the insufficiency of the force of letter-carriers, and the alternate heating and chilling to which they are exposed while hurrying along through the numerous floors of our sky-scrapers, and then going into the chilly outside air. Postmaster Van Cott has already made several trips to Washington to urge the addition of 150 carriers to the present wholly inadequate force, but no relief is to be expected until Congress adopts a more liberal policy toward New York City.

Buffalo (N. Y.) Academy of Medicine—Section on Obstetrics.—At a meeting held March 28, Dr. Herman E. Hayd presented a paper upon **hemorrhages after labor,** in which he took up seriatim those due to atony, retained products, lacerations, and subinvolution, outlining causation, symptomatology, diagnosis, and treatment. The writer objected to the tendency to allow parturients to assume other than a recumbent position for a considerable period after labor; he believed allowing the upright posture for defecation and urination bad practice before several days had elapsed. He prefers packing as a last resort rather than the use of active astringents like iodin or iron. Dr. Howell, in discussion, said he kept his patients recumbent for 2 weeks at least, accepting the risk with the catheter rather than that of the production of hemorrhage by moving. Drs. Rochester and Van Peyma believe in allowing patients the upright posture at once if considerable hemorrhage is not present and the general condition warrants. Dr. Pomeroy thinks that when retraction and contraction are absent or feeble we must rely upon thrombosis, that then absolute quiet is essential so as not to disturb the thrombi. Dr. Schroeder called attention to the use of gelatin solution as a styptic and to the dangers of deep narcosis in the production of hemorrhage. Dr. Hopkins prefers hot iodin solution (straw color). Dr. Hertwig called attention to varicosity as a cause of hemorrhage which was alarming and which baffled all methods of treatment, but which was readily controlled by compressing the aorta. This can be done in nearly all parturients.

Buffalo (N. Y.) Academy of Medicine—Section on Pathology.—At the meeting held March 21, Dr. H. R. Gaylord read a paper entitled **Tuberculous infections in the walls of the bloodvessels and the production of miliary tuberculosis,** in which, from carefully reviewed statistics, he showed that miliary tuberculosis in 95% of cases is due to rupture into the bloodstream and the consequent rapid distribution throughout the system of a large quantity of tubercle-bacilli from the breaking down of a tuberculous focus or ulcer in the wall of a bloodvessel, most often those of the pulmonary system. He rapidly but accurately compared the views and the work of Weigert, Weil, Orth, and others, detailing the manual dexterity and skill required to trace out and demonstrate the truth as shown. He stated miliary tuberculosis to be an extremely acute process, 8 days being the average period of duration. He believes that the primary focus or ulcer in the vessel-wall represents the result of implantation at a point of least resistance of at least a bacillus which was in the blood-current; he reviewed the other possible methods of infection sufficiently intense to produce miliary tuberculosis. He closed his paper with a report of the postmortem findings in a case of his own in which he was able to demonstrate a tubercular ulcer in the aorta—a tubercular endarteritis of the aorta, which is the ninth case on record. Microscopic specimens were presented of this and other cases.

Dr. Dunham presented a specimen of an **hypertrophied gallbladder (cholecystitis with cholelithiasis),** the walls of which were ½-inch thick; the case was operated first for appendicitis and a pathologic appendix removed; at the necropsy the specimen presented was removed.

Buffalo (N. Y.) Academy of Medicine—Section on Medicine.—At a meeting held March 14, DR. GEORGE A. HIMMELSBACH read a paper entitled, **Primary nephritis, infantile,** in which, after carefully reviewing the literature, he added a class of causes which he called drug-irritants; he gave the clinical history and necropsy-findings of a child of 14 months, which did not present any of the ordinary symptoms and signs of nephritis; the child had not had any of the exanthems nor other zymotic diseases, but died with evidences of profound intoxication; the postmortem showed nephritis to be the only demonstrable lesion. This child had been fed an average of $\frac{3}{8}$ grain per day of saccharin for its entire life, and to this Himmelsbach ascribed the intoxication and the morbid anatomy; he presented a careful review of the meager literature on the physiologic and pathologic effects of saccharin.

DR. THOMAS B. CARPENTER read a paper entitled **Differentiation of renal diseases,** in which he reviewed the literature on the theories of causes and effects of renal lesions, and their classification; he illustrated his classification and showed by cases his diagnosis, direct and differential; he believed that only a careful and exhaustive study of the urine would permit of a diagnosis as to the nature of the predominating lesions.

DR. J. H. DOWD read a paper upon **acute Bright's disease** which amplified in one direction the generalizations of the previous paper. DR. ALBERT E. WOEHNERT read a paper upon **chronic Bright's disease,** in which he reviewed the classification, pathology, and symptomatology, quoting cases to illustrate each step, and finished by outlining a rational treatment to meet the varied conditions presenting.

New York Academy of Medicine—Section on Obstetrics and Gynecology.—At the meeting held March 23, DR. J. A. SCHMITT presented specimens from a case of **uterine fibroma** and from a case of **bilateral pyosalpinx,** and stated that, in the latter case, in spite of the extensive disease present as a result of an old gonorrhea, he had not removed the uterus, as he believed this organ could, by appropriate treatment, be restored to a nearly healthy state.

DR. H. J. BOLDT exhibited a large spleen from a case on which he had done **splenectomy for leukemia.** He did not advise splenectomy as a rule, except in cases of traumatism, as the statistics showed that the results were not good.

DR. H. N. VINEBERG reported a case of **ovarian cyst with a twisted pedicle,** which was of interest because a consultant had at first insisted that the tumor was a soft myoma, and that the acute symptoms present would speedily subside after purgation. During the next 24 hours, a mass had appeared in the left ovarian region, and, on abdominal section, it proved to be due to an infiltration of the broad ligament with blood.

DR. VINEBERG also reported a case in which he had removed **a hairpin from the bladder through Kelly's cystoscope.** According to the woman's statement, the pin had slipped into the bladder while she was attempting to remove a retroversion pessary, but the speaker was of the opinion that the accident had occurred during masturbation. Examination with the cystoscope revealed the hairpin at the fundus of the bladder. It was removed by drawing it up against the end of the cystoscope with a tenaculum, and then delivering it with the aid of an artery-forceps.

DR. RALPH WALDO presented a **large uterine fibroid** which he had removed from a negress, not because of very profuse hemorrhage, but to relieve distressing pressure-symptoms.

DR. H. C. COE exhibited **an ovarian cyst** which had been diagnosed by 3 specialists as a fibroid. One of them had treated the case for several months with ergot on the supposition that it was a fibroid.

DR. ANDREW F. CURRIER read a paper on **tuberculous peritonitis.** He said that the disease was relatively infrequent in males, and occurred in females most commonly between the ages of 20 and 40 years. It was especially fatal in feeble and poorly nourished children. In the early stages there was a more or less abundant deposit of miliary tubercles; later on, there were ulcerations and adhesions, and finally the peritoneum became so thickened as to resemble sole-leather. When the peritonitis was general, it usually terminated fatally, as in other diffused tubercular processes. The symptoms were often obscure, but a fairly constant abdominal pain was of considerable significance. In children this pain was apt to be sharp and lancinating. In the chronic form of the disease, there was but little, if any, rise of temperature, and it might, or might not, be associated with diarrhea and tympanites. A very encouraging percentage of cases had been relieved, or even cured, by laparotomy, but this surgical measure was not indicated in cases of general tuberculosis. According to most authorities, it was not appropriate also in the dry form of tuberculous peritonitis, but if the theory that laparotomy produced its beneficial effect by the germicidal action of air and light were correct, he saw no reason why this class of cases should be excluded from surgical treatment. Accumulations in the abdominal cavity of serum or pus should be treated by incision and irrigation of the cavity with hot saline solution. As the access of air was considered to be one factor in the cure, it seemed to him desirable to insert a drainage-tube for a few days. The mortality from such treatment was very slight, and the results were good. In one case of tuberculous peritonitis which he had treated by laparotomy, he had had an opportunity of inspecting the peritoneal cavity two or three years later, when operating for a ventral hernia, and he had been unable to find any trace of the former peritonitis.

DR. PAUL F. MUNDÉ opened the **adjourned discussion on** Dr. Julius Rosenberg's paper on **puerperal infection** (see PHILADELPHIA MEDICAL JOURNAL, page 526) by giving the following definition: "Puerperal infection means the introduction into the system of a parturient or puerperal woman, through her genital tract, of certain pathogenic germs, the staphylococci and streptococci, which, under favorable conditions, produce more or less dangerous, and even fatal, results." He explained that other forms of infection of puerperal women, such as with typhoid, erysipelas or tetanus, did not properly come under the head of puerperal infection. True puerperal infection might be local or general, or it might exist as a pyemia. The general form was characterized by fever, rapid pulse and constitutional depression without local manifestations. He was skeptical about true puerperal sepsis resulting from infection with the colon-bacillus, but admitted that the occurrence of autoinfection was possible. One of the ways in which he thought it might occur was by the movement of the woman in bed, and the consequent sucking up into the vagina of infective matter. DR. H. C. COE, in discussing the question of **prophylaxis,** said that prophylaxis in obstetrics simply meant surgical asepsis, but this was often difficult to secure in private practice, particularly by the general practitioner. The hands should be as carefully cleansed before each obstetric examination as they would be before undertaking a surgical operation; internal examinations should be few; the external genitals should be thoroughly cleansed, and the patient should keep on an obstetric pad the whole time. Dr. S. Marx said that as the pulse-rate was a far more important guide to the physician than the temperature, it was highly desirable that the normal rate for each patient should have been determined before confinement by examination on several occasions. Fissured nipples, mastitis, torpid and overloaded bowels were all liable to cause disturbances simulating those of septic infection, but when no definite cause for the disturbance could be found, it should be assumed that the patient was septic, even though the pelvic examination were negative. A careful investigation of the perineum was important, as there was often deep sloughing without superficial evidence of its presence. In many cases of general sepsis the diagnosis could only be made by exclusion after a thorough physical examination. He was ordinarily very skeptical regarding the diagnosis of puerperal malaria, unless it could be substantiated by a history of previous infection, marked benefit from the administration of Warburg's tincture, or by the finding of the malarial plasmodium in the blood. It was not a common complication of the puerperium, and did not usually make its appearance for a week or 10 days after delivery. Many cases of late septic infection were also misnamed, being nothing more than examples of mild puerperal infection escaping detection at first. In the rare cases of true late septic infection there was usually a mild sapremia developing between the tenth and fourteenth days in a woman who had been doing very well up to that time. The diagnosis was made by the occurrence of a gush of fetid lochia on the introduction of the finger into the uterine cavity, and the treatment was obvious. Dr. H. McM. Painter spoke of the great value of plenty of good nourishing food, together with a little alcohol, in cases of puerperal infection. The old combination of ergot, digitalis, and quinin had often served him well, and, as it kept the uterus well contracted and favored drainage, might reasonably be supposed to act, in some degree, as a prophylactic measure. He was sure that there were many cases of puerperal septicemia that were due to other microorganisms than streptococci and staphylococci, and aside from the unreliability of the antistreptococcic serum, it must be remembered that this remedy could not be supposed to act beneficially except in streptococcus infection and when administered prior to the appearance of any considerable number of streptococci in the general circulation. He would particularly warn against the use, even in moderate doses, of antipyretic drugs in puerperal septicemia, as they seemed to be particularly pernicious in this affection. The reduction of the temperature could be effected far better by the use of baths or prolonged lavage of the rectum with cool water. Dr. Boldt said that the finger was safer than the curet in the treatment of septic endometritis. It was often difficult to differentiate between a gonorrheal infection and an ordinary puerperal sepsis. The prognosis should be considered grave when the pulse was small, rapid and compressible. Dr. Philander A. Harris spoke in favor of discarding internal obstetric examinations so far as possible, and Dr. W. Evelyn Porter advocated the old treatment by frequent intrauterine irrigation. After Dr. A. Ernest Gallant had narrated a case in exemplification of the ridiculous lengths to which some enthusiasts run in their laudable efforts to secure asepsis, Dr. Rosenberg closed the discussion. He stated that there were now a number of well-observed cases on record in which puerperal infection of a severe kind had resulted from the action not only of the colon-bacilli, but of putrefaction-bacteria and of numerous microorganisms that had not yet been identified. There was a vast difference between a surgical operation and a confinement. The former rarely lasted much more than one hour, during which time the field of operation was entirely under the surgeon's control; the latter often lasted over 24 hours, and in the vast majority of cases occurring in private practice the field of operation could not be completely under control. Obstetric practice, he maintained, could be made safe by securing surgical cleanliness of the hands and instruments, and abstaining from frequent internal examinations. The rapid, small pulse in puerperal women was an important feature, both in diagnosis and prognosis. The great obstacle to success with serum-therapy lay in the fact that puerperal septicemia was quite commonly a mixed infection. A study of the published cases of hysterectomy for puerperal sepsis had impressed him with the belief that most of them would have recovered without this surgical procedure. At one time, continuous irrigation of the uterus in cases of puerperal infection had been in some favor, but the results had not been very strikingly good, and he believed the plan had been discarded by most obstetricians. Among the newer methods of treatment, that of Credé should receive further investigation.

New York County Medical Society.—At the meeting held March 27, the society formally approved the bill before the New York Legislature, the object of which is to efface the long-standing insult to the medical profession found in the statute which prohibits a physician from becoming the President of the New York Board of Health. The bill does not demand that the position *shall* be filled by a medical man, but provides that physicians, like other classes of citizens, are eligible to that office.

Dr. H. C. Coe presented in the form of a paper on **Gynecologic surgery in public or charity hospitals,** a report of his work during the year 1898 in the Third Medical Division of Bellevue Hospital. Among the special difficulties encountered were an insufficient number of nurses, the necessity for the internes and nurses attending to septic cases in addition to their gynecologic work, the examination of patients before operation by medical students at the clinics, and the large proportion of patients who were poorly nourished and were the victims of heart-disease or of alcoholism. It had been his practice to administer, for several days previous to operation, $\frac{1}{40}$ of a grain of strychnin, three times daily, and to administer an enema of saline solution before putting the patient on the operating-table. There had been 46 abdominal sections, with 2 deaths. One of these deaths had been from sepsis, the result of some defect in technic; the other had been in a case which had been in collapse at the time of operation. In one quarter of the cases the patient had collapsed either during the operation, or afterwards, necessitating the use of saline solution. In the series of 46 cases there were 12 abdominal hysterectomies and 21 celiotomies for disease of the adnexa, two-thirds of the latter being complicated pus-cases. There had also been 8 vaginal sections, and 63 minor operations, with no fatalities. In spite of the fact that more than one of the patients got out of bed on the night following a hysterectomy and had gone to the bath-room and drunk water freely, and the frequent handling of the dressings and wounds by these ignorant women, the remote results had been up to the average. In the discussion, Dr. E. H. Grandin said that although working under similar conditions he had been able to keep the death-rate at about 5% in unselected and desperate cases, whereas the mortality in his private practice had been 3.75%. Although it was true that these poor people had good resisting power, it was equally true that they usually postponed treatment until their condition was very bad. Dr. W. R. Pryor and Dr. J. Riddle Goffe thought that if a gynecologist in a general hospital could keep his work and assistants distinct from the work of the general hospital his results should be as good as in a special hospital. Dr. W. Gill Wylie said that when he had begun his work in Bellevue Hospital, 18 years ago, his mortality had been 10%, but this had steadily diminished. For the past 11 years, the death-rate in his private hospital in unselected cases had been less than 3%. Dr. Joseph Brettauer said that the habit of the indigent of postponing treatment until their disease was far advanced was offset largely by the fact that the farther removed the date of operation from the date of infection, in pus-cases, the less virulent the pus, and the better the outlook.

CHICAGO AND WESTERN STATES.

Assistant Police Surgeon, Cincinnati, Ohio.—Dr. Archibald Irwin Carson has been appointed to fill the existing vacancy.

College of Physicians and Surgeons—School of Medicine, University of Illinois, Chicago.—Dr. L. Harrison Mettler has been elected professor of physiology, to succeed the late Professor John A. Benson.

Good Samaritan Hospital, Cincinnati, Ohio.—On March 22, the first class of trained nurses was graduated. Six young ladies received diplomas. Dr. P. S. Conner delivered the oration. Archbishop Elder, now 80 years old, presided. The Good Samaritan Hospital, during its long existence, has hitherto had all its nursing done by the Sisters. The present innovation is noteworthy.

Dr. Munn, Health Commissioner of Denver.—We earnestly hope the fear expressed by our esteemed contemporary, the *Colorado Medical Journal*, may prove unfounded, that in the vicissitudes of politics the city of Denver may lose the splendid services of Dr. Munn. We cordially emphasize the *Journal's* words:

> Very unusual and rare qualifications are required to make a good health-officer for a city like Denver, and few men possess them. The physicians of this city know full well to what a remarkable degree they are combined in Dr. Munn. Ability, skill, tact, good judgment, experience, interest and energy for the work and strict integrity of purpose and method are seldom combined in one individual as in him.

The "Hygeia College" of Cincinnati, Ohio.—The difficulties in the way of medical legislation are well illustrated by the success which has attended the efforts of the Hygeia College to acquire legal standing. A year or more ago the State Board of Medical Registration refused to recognize the diplomas of this institution, on the ground that the equipment was inadequate, the teaching unscientific, and the requirements for graduation chiefly of a financial character. The college, whose founder and secretary occupies the "Chair of Hygeia-Therapy," fought the decision, and the Supreme Court of the State has just rendered its verdict, for reasons which have not yet reached the public, requiring the Board of Registration to recognize the Hygeia College.

Missouri Tries to Get a Better Medical Law.—Three bills have been introduced in the present Legislature providing for higher medical qualifications in the State. The Bohart bill, which was introduced in the House and is less radical than the other two, may pass.

Milwaukee (Wis.) Medical Society.—At a meeting held March 28, Dr. Ludvig Hektoen read a paper entitled **Some remarks on pathogenic blastomycetes.** The lecture was profusely illustrated with stereopticon views. Dr. Hektoen confined his remarks to the positive evidence of the presence of blastomycetes in certain dermal conditions that showed a close resemblance to tuberculosis and epithelioma, and reproduced beautiful slides in demonstration of the macroscopic and microscopic appearance of two cases, one being the first case on record, that of Gilchrist, the other, a case studied in Dr. Hektoen's own laboratory.

Academy of Medicine, Cincinnati, Ohio.—At the meeting March 26, Dr. A. I. Carson presented a specimen illustrating the deadly effect with which a penknife can be used. During a quarrel the man was stabbed in the suprasternal notch with a small penknife. Blood immediately gushed from the wound, but the man walked across the street and waited patiently until a physician was sent for. In 10 minutes a surgeon came and ordered the patient sent to the City Hospital. He arrived there in a delirious condition, and died 2 hours after the injury. The autopsy revealed that the penknife had passed behind the innominate artery and then cut it from behind forward, making almost a complete transverse section. It seems remarkable that the man survived such an injury so long.

Christian Science in Ohio.—A case which has aroused considerable local interest is now pending before the Supreme Court of the State. A few months ago Miss Harriet O. Evans, a Christian scientist just beginning her career, attended a printer named McDowell, who was suffering from a severe case of typhoid fever. Miss Evans prayed and McDowell died. The State Board of Medical Examination and Registration promptly caused the arrest of the scientist, and she was found guilty in the Police Court and fined $100 and costs. Judge Schwab at the same time delivered a severe rebuke to the relatives of the diseased man. The Common Pleas Court, to which the case was referred, overruled the decision of the lower court, and the case will now be given final hearing before the Supreme Court of Ohio. The decision will materially affect the legal standing of Christian scientists in the State, and is awaited with much interest.

Chicago Society of Internal Medicine.—At a meeting held March 30, Dr. Frank E. Waxham read a paper entitled, **Where shall we send our tuberculous patients? The health resorts of the West and Southwest,** treating of the characteristic climatic features of Colorado, New Mexico, Texas, and Arizona, with the advantages and disadvantages of Denver, Santa Fe, Phoenix, Arizona, San Antonio, and other resorts of this region. The annual discussion was concluded upon the subject of **Acute articular rheumatism,** Dr. Henry B. Favill reading a paper upon this subject. He stated that the treatment is certain to be modified by better knowledge of pathology, and reviewed the plans of treatment—eliminating, neutralizing antagonizing. The symptomatic treatment is reasonably uniform in its result, while the specific treatment varies. H narrated the indications for interference, and discussed th prevention of accidental disaster during the attack and the correction of predisposition.

The Physicians' Municipal League of Cleveland, Ohio, the organization of which has been referred to, has been eminently successful in attaining the objects which prompted its organization. A meeting was held March 23, at which addresses were delivered by 4 speakers who are interested in the movement to divorce municipal affairs from politics. The meeting was enthusiastic, over 200 members of the best of the Cleveland profession being in attendance. All classes of citizens have agreed that the action of the League delivered the hardest blow to machine politics that has ever been witnessed in this city, because on the face of it the movement was entirely disinterested and not to be discounted by the machine politician. The League was the means of arousing from apathy the good citizens, so that following its action the newspapers began to take a decided stand and public mass-meetings of citizens were held, and thus the public conscience having been aroused, success in throwing off the shackles of boss rule from the city was assured. At the election on April 3 the self-sacrifice of the physicians was amply rewarded. While the nominal Republican candidate for Mayor, against whom the fight was made, was defeated by nearly 3,000 votes, the rest of that party's ticket was elected by majorities ranging up to 9,361. A more direct and stinging rebuke to "machine" methods or more gratifying triumph of the good elements of society could not be asked. Further, on all sides was heard the comment that the action of the medical profession was what carried conviction of municipal corruption home to the mass of voters.

Chicago Medical Society.—At a meeting held March 29, Dr. G. Kolisher demonstrated (1) a **trephine for craniotomy,** an instrument that can be used without any danger of injuring the mother. Its crown is made after the manner of a corkscrew, and its advantages are that it is simple, not heavy, and the crown fastens itself after a few turns. (2) A **Thomas pessary,** fitted with a compressor urethræ, to be used in cases of inoperable incontinence; (3) a **Tommasoli syringe,** modified for use in females.

Dr. G. W. McCaskey reported the case of **transient paraplegia and tetany of gastric origin** in a young man aged 23. A month before he came under observation he had an attack of transient paraplegia, with complete anesthesia, loss of muscle-sense, and motor weakness lasting for 36 hours, followed by severe pain in the lower extremities lasting 36 hours, with slight return of both anesthesia and motor weakness on exertion for several days longer. Following this there were paroxysms, regarded as true tetany,—tonic spasms involving all of the extremities—hands in bird-claw position, legs flexed on thighs, and thighs abducted and flexed on body. These attacks lasted from 15 to 30 minutes, and were most severe in the evening. There was a history of mucous colitis, verified by microscopic examination; stomach digestion said to be good excepting slight sensation of fulness an hour after eating. There was persistent insomnia. Gastric juice contained erythrodextrin, but was otherwise strictly normal. The fasting stomach contained 20 cc. of opalescent fluid, which was swarming with bacteria. This fluid, and the colon secretions, were regarded as the source of the toxin-poisoning to which were attributed all the symptoms in the case. Suitable treatment was accordingly instituted and every symptom disappeared within 5 days, the patient gaining more than half a pound a day in weight. There was no recurrence 5 months after treatment. Especial attention was called to the fact that a severe stomach infection may exist in the absence of all stomach symptoms, and with a gastric juice which is strictly normal from a chemic point of view. This he has verified in a clinical way many times; and unless the fasting stomach is examined in the morning important conditions may be overlooked, and obscure nervous or other disturbances fail to be explained and relieved.

Dr. O. J. Stein reported a case of **displacement of the larynx by a goiter,** causing dyspnea and aphonia, and presented the patient, a woman, aged 43 years. The larynx had been displaced an inch or more to the right, but the goiter having been excised, the larynx assumed its normal position, the dyspnea entirely disappeared, and the aphonia lessened.

Dr. William L. Ballenger reported **a case of chronic mastoiditis** in a man aged 27 years. The patient gave a history of otorrhea of 15 years' standing. Examination showed the mastoid slightly tender to the touch, but not swollen. The drumhead was perforated in the anterior-superior quadrant, and there was a large calcareous deposit in the post-superior quadrant. It occupied almost the entire quadrant, and a portion of the post-inferior quadrant also. The forks showed hearing ranging from 26 v. to 2,048 v. in the right ear, and 256 v. to 2,048 v. in the left ear. The Galton whistle was heard to 40,000 v. in both ears. The Rinne experiment gave plus 12 in the right and minus 6 in the left. The defective hearing was clearly due to the disease of the conductive apparatus and not to nerve or labyrinthine disease. The pus-discharge was scanty and inspissated with a slight foul odor upon probing. A tympano-mastoid operation was performed, the necrotic malleus and incus together with necrotic and granulation tissue from the middle ear, attic, and antrum being removed. The mastoid cells were not occluded by granulation-tissue and were therefore not extensively opened. Subsequently the hearing improved slightly and a neuritis of the facial nerve subsided.

Dr. Junius C. Hoag read a paper entitled, **Remarks on the so-called "morbus caeruleus," or "blue disease."** He detailed the characteristics of the fetal circulation and the changes that occur at birth and after. He spoke of some of the congenital malformations of the heart, and stated that cyanosis is said to occur in over 90% of all cases of congenital heart-disease, and is so marked as to give rise to the term "blue disease." This blue appearance of the skin is generally manifested in the first week of life, and may be general or confined to such localities as the lips, nose, ears, fingers and toes. It varies in intensity from a dusky appearance of the skin to a deep purple hue. Muscular effort usually increased the depth of the lividity. The cyanosis depends not so much upon the admixture of the venous with the arterial blood, as upon incomplete oxygenation in the lungs, due to diminished lung-function and obstructive congestion of the venous circulation. The cutaneous surface is apt to be notably cool. Dyspnea and cough are common manifestations. The fingers and toes are markedly clubbed. Cardiac murmurs are usually present, but extensive malformations of the heart have been found in cases when no murmur existed. The treatment is merely hygienic and symptomatic. He reported 3 cases of congenital heart-disease. The first was that of a lady who lived to the age of 30. She was feeble throughout life, but mentally bright. She died from an intercurrent disease. The second case was that of a boy, aged 12 years, tall and slight. In this case the skin was almost purple. The patient was feeble, but not below par mentally. He suffered much from cough and dyspnea, and finally died from exhaustion. The third case was that of an infant 5 days old, apparently perfectly healthy at birth. On the fourth day it suddenly became cyanosed and the breathing became irregular. No heart-murmurs were heard. On the next day the symptoms were more marked and slight convulsions were observed. The child died about 36 hours after the first symptoms were observed. The diagnosis was patulous foramen ovale, and this was borne out by the autopsy.

Dr. W. J. Class read a paper upon the etiology of **scarlet fever,** which will be published in a future number of the Journal.

Cleveland (Ohio) Medical Society.—At a meeting, held March 24, a rare case of **complete motor and sensory paralysis of one arm with marked vasomotor disturbance** caused by pressure on the brachial plexus from the lower fragment of an improperly united fracture of the clavicle, was presented by Dr. George W. Crile. A saw was used to correct the deformity and at once the paralysis began to improve, while the vasomotor disturbance promptly disappeared.

Dr. Crile read a paper on **Observations on the surgery of the brain,** based on clinical and experimental evidence. In a series of experiments upon dogs, in which the brain was subjected to an increased pressure, the respiratory centers were affected earlier than the cardiac. The same was observed regardless as to the manner or place of application of the pressure; that is to say, whether the pressure was introduced into the ventricular system, upon the cortex, or within the cerebral tissue. The same was observed in blows upon the head producing compound fractures, and in gunshot wounds. It was further observed that when an animal's brain had been subjected to an increased pressure the administration of an anesthetic produced respiratory failure, alteration or rest, proportionate to the amount of such increased tension. In experiments in which the cortical centers were stimulated, it was found that cooling and drying very rapidly rendered the cortex nonexcitable. Investigating experimentally the different methods of opening the skull, it was found that in using the trephine, there was but little or no change in the respiration or the heart's action. The same was observed in using a sharp chisel set at a proper angle, and using the mallet in light, gentle taps. The skull could be opened with the mallet and chisel with as much safety and with as little effect upon respiration and upon the heart as with the trephine. Applying these experimental data, and all of them were data which were obtained by graphic records upon smoked drums (according to the methods in vogue in experimental physiology), the author found that in operations on cases in which there was an increased intracranial pressure, as occurs in tumors, abscesses or in hemorrhage, it is necessary to carefully guard the anesthetic, and until the stage of surgical anesthesia is reached, an assistant is detailed to keep up artificial respiration if necessary, and in cases of respiratory failure instead of abandoning the operation, the skull is opened as quickly as possible and sufficient bone is cut away to relieve the intracranial pressure, after which respirations are apt to resume their natural rhythm. Attention was called to the slow, full pulse, indicating increased intracranial tension. In treating septic leptomeningitis, it was recommended to cut away the skull as extensively as the disease demands, wholly regardless of the amount of destruction this necessitates, as it is apparent that the disease must be checked or life will be lost and after the skull has been cut away the brain will bulge and so continue until the infection is arrested. The further treatment is best done by the application of 1 : 10,000 warm, moist, bichlorid dressings, rather taking the risk of superficial irritation than the spread of an infection, which, if unchecked, must in a very short time destroy the patient. In arresting the hemorrhage in the diploe, 10% olive oil added to beeswax, and the mixture sterilized, will at once arrest the hemorrhage when pressed upon the bleeding surface. The mallet and chisel were used for opening the skull in almost every instance because of the greater adaptability of this method, and its harmlessness when sharp chisels placed at correct angles are employed. It requires less time, is more adaptable, and is susceptible of increasing possibilities with the increase of skill in its use. In the discussion, Dr. Aldrich said probably the heart did not fail as soon as the respiration in operating on cases of intracranial pressure, because the heart has an independent automatic action. According to the later writers the pathology of cerebral concussion is based on the occurrence of minute hemorrhages in the brain-tissue whose location and size determine the duration of the symptoms. Dr. Wenner asked if a lumbar puncture before operation, by relieving the pressure on the cerebrospinal fluid, would not render safe the anesthetization. Dr. Perrier asked why anesthetics added any danger in such cases, as they are supposed rather to diminish intracranial pressure. Dr. Crile, in closing, noted that in cerebral concussion the portion of the brain lacerated or the seat of punctate hemorrhages is the frontal lobe where vital functions are not affected. The water-bed of cerebrospinal fluid under the posterior lobe protects it from jar, while the frontal and temporosphenoidal lobes lying directly on the base of the skull have no such protection. In cases of head-injury in which the vagal pulse is characteristically present immediate operation is indicated. Lumbar puncture will probably fail because the intracranial pressure has already driven out the fluid before symptoms of pressure occur. In a case of tuberculous meningitis operated on 5 years ago with prompt relief of pressure-symptoms the patient was yet alive with no return of the disease. Infective material in septic meningitis must soon be forced along the meninges by the intracranial pressure. The danger of anesthetics in such cases lies not in the effect of the drug on the circulation but upon the nerve-centers themselves. When the depressant effect of the anesthetic is added to that already existing from the concussion the result may be fatal.

Dr. J. Perrier reported a case of **diabetic coma,** which occurred in a case of acute glycosuria. Although death was imminent the infusion of liberal quantities of normal saline solution brought about complete recovery and the glycosuria has remained apparently cured for some months now. Dr. Wenner raised the question of the case being one of autointoxication with glycosuria rather than true diabetes. Dr. Sawyer inquired as to the presence or absence of the indican and acetone reactions in the urine as settling the question of autointoxication or diabetes. The complete recovery under the transfusion of normal saline solution was of the greatest importance. Dr. Aldrich pointed out that the occurrence of neuritis after the coma disappeared indicated very clearly that the condition was most likely one of true diabetes.

Dr. E. L. Bourne, of Brecksville, reported a case of **rupture of the vaginal vault during labor.** The patient died and the necropsy permitted the author to make a contribution of positive value to the pathology of the accident.

The entire anterior portion of the uterus was found to be boggy and friable, indicating clearly that rupture was due to previous degenerative changes in the tissues. The ultimate cause of these changes cannot as yet be stated, however.

SOUTHERN STATES.

Louisiana State Medical Society.—The date of the next meeting (to take place in New Orleans) has been changed from April 25, 26, 27 to May 16, 17, 18.

Cerebrospinal Meningitis in Washington, D. C.—Two more deaths from this disease on April 3 make a total of 39 deaths in 5 weeks. The majority of cases have occurred in Southwest Washington, and the prevalence of the disease in this locality of the city is thought to be connected with the passage of the soldiers.

Louisiana State Board of Medical Examiners.—Governor Foster has appointed as members of the Louisiana State Board of Medical Examiners Drs. Felix A. Larne, of New Orleans, and T. G. Ford, of Shreveport. The Board, as reorganized, consists of Dr. H. S. Cocrain, president; Dr. A. Feltus Barrow, vice-president; Dr. Felix A. Larne, secretary and treasurer; Drs. T. G. Ford and J. D. Trahan. The next examination will be held May 1 and 2.

Suits Following Yellow Fever.—Recently Drs. Souchon and Kohnke, presidents of the Louisiana State and New Orleans City Boards of Health respectively, were arrested on the charge of manslaughter, under a true bill found by the Grand Jury of East Feliciana Parish. A resident of the parish was said to have died of yellow fever in 1893 as a result of the failure of the above officers to make known the presence of the disease in New Orleans and take proper steps to prevent its spread. The husband of the woman whose death, supposedly of yellow fever, was laid at the door of Drs. Kohnke and Souchon, has published a statement that his wife died of "flux," that diagnosis having been made by the attending physician.

Orleans Parish Medical Society.—At a meeting held March 25, Dr. F. W. Parham read selected portions of an exhaustive paper prepared by him on the subject of **Resection of the thoracic wall for malignant tumor.** Two cases occurring in his own practice were related in detail. The first was that of a colored female, aged 27 years, of good family and individual history; the tumor, a small, spindle-celled sarcoma of the right side of the chest, was first observed during the summer of 1896. February 22, 1897, she was subjected to operation under chloroform-anesthesia. A curvilinear transverse incision was carried through skin and muscles below the mammary gland and removal of the ovoid tumor begun; it was found to have had its origin in the fourth rib and subsequently involved the third and fifth. The pleura was accidentally torn; gauze pressure prevented the entrance of air for a time. When, however, the pleural wound had grown to 5 inches in the course of the operation, the large volume of air admitted collapsed the lung against the spinal column. A condition of severe shock followed; the pulse became very weak. Artificial respiration was carried on while strychnin and digitalis were given hypodermically. Sutures passed through the lips of the pleural wound tore through that membrane. The lung was forced through the wound by violent coughing. Finally the breathing was improved by drawing down the pectoralis major and suturing it over the gap. The cutaneous incision was then closed and drainage secured by means of a gauze pack introduced at the posterior end of the wound. Intravenous saline infusion was successfully used for the relief of shock. Convalescence was retarded by an attack of pneumonia on the affected side, which lasted several weeks. A second attack of pneumonia on the same side brought the patient back to the hospital a year later, when recurrence had not taken place; the termination of the disease was again favorable. The second case was a white man, 28 years of age, with a chondrosarcoma of the left side; pressure against the left chest in the pursuit of the tinner's trade was thought to have been the exciting cause of the new growth. The operation was performed August 6, 1898, under chloroform. A musculo-cutaneous flap was turned up, having for its boundaries the seventh interspace below, the sternum and clavicle above, and the axillary structures, drawn upward. In the course of the clearing of the ribs, a matter of no little difficulty, a rent was made in the pleura; this soon increased to such an extent that the influx of air collapsed the lung. The patient showed symptoms of extreme shock. By means of the Fell-O'Dwyer apparatus the respiration was kept up during the remainder of the operation, the ill effects of pneumothorax disappearing under its use. Segments of the third, fourth, and fifth ribs, varying from 10 to 12 cm. in length, were removed with the tumor, which weighed 771 grams and was 38, 38, 35 cm. in the horizontal, sagittal and vertical diameters respectively. To the edges of the large opening the lung was sutured, further collapse being thus prevented. In the after-treatment aspiration became necessary on several occasions; 10 ounces of blood were removed at one time. The case finally terminated in recovery. The patient was last seen in December, nearly 5 months after the operation, when he was doing well; there was a drawing-in of the skin on inspiration, a bulging-out on expiration; coughing caused the lung to protrude through this opening in the chest-wall; the heart could be felt through the opening. A shield would be made for the protection of this region against traumatism. In 52 cases of intrathoracic operation for tumor the mortality was 30.8%, while in 23 cases of extrathoracic operation it was 28%. Recurrence is found to be less frequent after the intrathoracic operation, a fact which is attributed to the more thorough removal of the diseased tissue. The more important causes of death in reported cases are sepsis, antisepsis (in the early Listerian period), hemorrhage, shock, pneumothorax. The last condition varies widely in its influence on the general condition of the patient, producing at times serious symptoms, at others none of importance. Its influence is modified by adhesions, by the character of the respiration before the pleura is opened (therefore chloroform is to be preferred to ether), the condition of the lung involved (it may be hepatized, sclerosed, edematous) and of its fellow (grown used to doing the other's work) and by reflex irritation, which varies directly as the size of the pleural rent. Various suggestions have been made for the prevention of pneumothorax, the great stumbling-block in the way of the invasion of the pleural cavity. Early operation, before the tumor has attained considerable size, is important. Experiments on the lower animals have established the fact that without causing infection preliminary adhesions cannot be formed. Witzel's plan, of substituting hydrothorax for pneumothorax by the injection of boric-acid solution, is objectionable on account of the excitation of reflex irritation. Lawson's injection of sterilized air, analogous to Murphy's injection of nitrogen, may be of value, gradually accustoming the patient to the elimination of one lung as a functioning organ while the other assumes its function. A very valuable means of combating the bad effects of pneumothorax, as shown by the second case related, is the Fell-O'Dwyer apparatus for artificial inflation of the lung through a laryngeal tube, the use of which for this purpose was suggested by Dr. Rudolph Matas. Inflated with this instrument, the lung may be readily brought up to the edge of the thoracic opening and sutured in place after the plan of Beyer. Drainage is best secured by leaving rather long intervals between the sutures, thus allowing the escape of fluids.

Dr. Rudolph Matas began his remarks by congratulating Dr. Parham on his exhaustive paper on this subject, one in which he was himself deeply interested. The successful application of the Fell-O'Dwyer instrument in the second case was an additional cause for congratulation. Referring to the plan suggested by Witzel, he mentioned a case of his own, one of stab-wound of the chest, involving the internal mammary artery, the pericardium, and the pleura, in which, after turning up an osteoplastic flap, he had filled the left pleural cavity with hot saline solution. Neither this nor complete sealing of the chest-opening, afterwards effected, controlled pneumothorax, to which, in conjunction with shock, the fatal result was attributed. The use of the Fell-O'Dwyer apparatus, with subsequent suture of the lung to the thoracic wall, would probably have permitted the patient's life to be saved; with the aid of this ideal means of keeping up the respiration, the thoracic cavity may be freely explored and treatment applied to the contained organs. A wide field is thus opened to surgeons, who may look forward to opening the pleural cavity for puposes of exploration with a freedom which will make it surgically the analog of its anatomic similar—the peritoneal cavity. Delorme's plan of freeing the lung from its adhesions in cases of chronic empyema with thoracic fistula, may be carried out with the aid of the Fell-O'Dwyer apparatus, the lung being finally sutured to the chest-wall. This method promised to be superior to the classic operations of Estlander, Schede, and others, which not only mutilate the chest, but fail to restore the lung-function. Again, mediastinal tumors and abscesses, foreign bodies in the thoracic portion of the esophagus, offer further indications for the application of this valuable surgical accessory. Dr. E. D. Martin had assisted in the operations on the 2 cases related; he expressed his appreciation of the value of the Fell-O'Dwyer instrument, the use of which instrument made a striking contrast between the 2 operations. Dr. Parham, in closing the discussion, alluding to the extension of the field of thoracic surgery, spoke of Helferich's case; in this patient the middle and inferior lobes of a lung had been removed, hemorrhage being controlled by the application of 2 large clamps at the root of the lung. The patient died of shock within 24 hours; but the case showed at least the possibility of controlling the large bloodvessels at the root, which had been denied by some writers. In the past, surgeons have hesitated to perform operations when the diaphragm and lung were the seat of disease; the conspicuous success of others is a source of encouragement to workers in this field.

In the absence of Dr. Gordon King, Dr. A. W. de Roaldes presented for him a patient with the **falsetto or so-called eunuchoid voice.** The patient, a white lad of 19 years, a laborer by occupation, enjoys good general health; he gives a good family and personal history, denying venereal disease. A dropsy at the age of 6 or 7 years is the only item of any interest before the age of 15 years; at this time his voice became irregular in tone, assuming at times a high falsetto character. That voice, attributed originally to the period of puberty, he has retained to the present time. Aphonia of 2 or 3 minutes' duration sometimes occurs, relieved by clearing the throat. The voice changes to a lower register at other times, when aphonia occurs momentarily. The genitals are fully developed. The larynx varies from the normal only in being rather large for his years and size; so is the trachea. In phonation, approximation of the cords is good; when the lower notes are uttered the cords become shortened—(questions addressed to the patient caused him to exhibit his voice). This is not the true eunuchoid voice, due to undeveloped larynx, for the larynx here is fully developed, with long cords, the larynx of the basso; it were more properly called a falsetto voice. Probably the voice was acquired when the larynx was congested by the severe attack of measles which occurred at the time of puberty, permitting him to speak with greater ease in the higher register. It is purposed to put him through a course of vocal gymnastics and then bring him before the Society a second time.

MISCELLANY.

American Medical Association.—Members of the Association who intend to read papers before the Section on Materia Medica, Pharmacology, and Therapeutics at the forthcoming meeting in Columbus, are requested to communicate immediately with the secretary of the Section, Dr. Leon L. Solomon, 323 West Walnut Street, Louisville, Ky.

Obituary.—Dr. Henry A. M. Smith, Gloucester City, N. J., March 29, aged 59 years.—Dr. William Vissimen, Morristown, N. J., March 28, aged 33 years.—Dr. David Evans, Cambridge, Mass., March 19, aged 50 years.—Dr. Rollin C. Wilcox, Ticonderoga, N. Y., March 24.—Dr William E. Lloyd, Poultney, Vt., March 25.—Dr. Wright Rines, resident physician to the Garfield Memorial Hospital, Washington, D. C., April 2.

Prevalence of Leprosy in the United States.—Dr. Prince A. Morrow, 66 West 40th Street, New York, is desirous of obtaining complete statistics of leprosy in this country, to be incorporated in a "Report on the Prevalence of Leprosy in the United States." He requests every physician who has personal knowledge of any case or cases of leprosy to communicate the facts to him within the next 30 days. Such information will be duly credited and, if desired, the name or any circumstance which might lead to the identification of the leper will be regarded as strictly confidential.

American Gastro-Enterological Association.—The following is the program of the second annual meeting which will be held in Washington, D. C., May 2: 9 a.m., meeting of the Council; 10 a.m., meeting of the Association for the transaction of business; the President's Address, Dr. D. D. Stewart, Philadelphia; Further Remarks on Erosions of the Stomach, Dr. Max Einhorn, New York; Fate of the Digestive Ferments, Dr. John C. Hemmeter, Baltimore; An Experimental Study of the Absorption of Strychnin in the Different Sections of the Alimentary Canal of Dogs, Dr. S. J. Meltzer, New York; The Abuse of Intragastric Diagnostic and Therapeutic Procedures, Dr. Morris Manges, New York; A Case of Dilatation of the Stomach Due to Latent Ulcer at the Pylorus—Operation by Halsted—Exhibition of the Patient, Dr. Julius Friedenwald, Baltimore; Experiments on Gastric Digestion, Dr. Fenton B. Turck

Chicago; The State of the Gastric Secretions in Organic Disease of the Heart, Dr. Frank H. Murdoch, Pittsburg; Gastric Ulcer Associated with Anacidity, Dr. Lewis Brinton, Philadelphia; Some Remarks on Pylorospasm, Dr. J. Kaufmann, New York; Simple Method in Administering Hydrochloric Acid, Dr. Charles D. Aaron, Detroit. The following are the officers: President, Dr. D. D. Stewart, Philadelphia; first vice-president, Dr. Max Einhorn, New York; second vice-president, Dr. John C. Hemmeter, Baltimore; secretary and treasurer, Dr. Charles D. Aaron, Detroit; Council, Dr. Frank H. Murdoch, Pittsburg; Dr. A. P. Buchman, Fort Wayne; Dr. Henry L. Elsner, Syracuse.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service during the week ended April 1, 1899:

SMALLPOX—UNITED STATES.

			CASES.	DEATHS.
CALIFORNIA:	Los Angeles	March 11-18	2	1
COLORADO:	Denver	March 4-11	1	1
"	"	March 11-18	3	1
DISTRICT OF COLUMBIA:	Washington	March 23-29	5	
FLORIDA:	Jacksonville	March 24	12 cases to date.	
LOUISIANA:	New Orleans	March 11-18	5	
MARYLAND:	Baltimore	March 25	1	
MICHIGAN:	Kalamazoo	March 11-18	2	1
NEW YORK:	Buffalo	March 15-21	1	
"	Elmira	March 18-25	1	
OHIO:	Cincinnati	March 11-18	2	
PENNSYLVANIA:	Pottstown	Feb. 4-11	1	
VIRGINIA:	Norfolk	March 30	1 case, seaman on S. S. Newport News.	
"	Petersburg	March 4-11	1	
"	Portsmouth	March 22-25	51	
WASHINGTON:	Spokane	March 11-18	2	

SMALLPOX—FOREIGN.

ARGENTINA:	Buenos Ayres	Dec. 1-30, 1898		5
BRAZIL:	Bahia	Feb. 25-March 4	3	
"	Rio de Janeiro	Feb. 10-17	5	1
EGYPT:	Cairo	Feb. 18-March 4		2
ENGLAND:	London	Feb. 25-March 11	4	
INDIA:	Bombay	Feb. 14-21		4
"	Calcutta	Feb. 4-11		1
"	Madras	Feb. 11-17		1
JAPAN:	Nagasaki	Feb. 11-24	1	
MEXICO:	Mexico	March 5-12	7	4
"	"	March 12-17	7	1
RUSSIA:	Moscow	Feb. 19-26	10	1
"	Odessa	March 4-11	1	
"	Warsaw	Feb. 25-March 11		6
"	St. Petersburg	Feb. 25-March 11	6	

YELLOW FEVER.

BRAZIL:	Rio de Janeiro	Feb. 10-17	57	37
COLUMBIA:	Barranquilla	Feb. 18-25	2	2
"	"	Feb. 25-March 4	1	1
MEXICO:	Vera Cruz	March 16-23		2

CHOLERA.

INDIA:	Bombay	Feb. 25-March 4		4
"	Calcutta	Feb. 11-4		17
"	"	Feb. 11-18		26
"	Madras	Feb. 18-24		1

PLAGUE.

INDIA:	Bombay	Feb. 25-March 4		792 deaths officially reported. Probably 1400.
"	Calcutta	Feb. 4-11		4
"	"	Feb. 11-18		3

The Chicago Department of Health, Its Antitoxin, etc.—The following letter was received just as the forms were being closed:

CHICAGO, April 3, 1899.

In the JOURNAL of April 1, 1899, just received, an editorial under the heading "What Ails the New York Board of Health?" concludes with the following:

"From the official," etc. (p. 684 to end of article).

I wish to say, *in limine*, that this is the first *authentic* information I have had that the quoted extracts are "from the official stenographer's report," and that they, therefore, demand more serious consideration than I have heretofore given them. Will you kindly give space to so much of the following as is necessary to assure the readers of the JOURNAL of the absolute falsity of the charges against the Chicago Department of Health implied in these extracts? In my mail of March 25, ult., I received two clippings from the New York *Times* of March 22 and 23—one headed "Stops Chlorine Remedy," the other, "Dr. Jenkins on Chlorine," the first named containing, among other matter, the passages from the testimony as quoted in the JOURNAL editorial. My first impulse was to throw the stuff away, under the impression that it was part and parcel of the advertising methods of the promoter of the "chlorine remedy" and that the incredible extracts from the testimony were garbled for a purpose. A second reading convinced me that this was beyond the audacity even of this promoter, and I immediately reviewed the records of the department as to all matters pertaining to our relations with the New York Department, during both my own administration and that of my predecessor. As a result I at once addressed a letter to the general manager of the Associated Press in this city, of which the enclosed is a copy, and to the categorical assertions in which I beg your especial attention.

I do not think it necessary to add anything further, except that a copy of this letter was sent in the same mail to Dr. Biggs, with a personal and confidential note acquitting him in advance of any intention of defaming this department, characterizing the statements as "alleged," and asking him, "What does it all mean?"

To this I have as yet received no reply.

Sincerely yours,
ARTHUR R. REYNOLDS, M.D.,
Commissioner of Health.

COPY.

MARCH 25, 1899.

MELVILLE E. STONE, ESQ.,
General Manager Associated Press,

DEAR SIR:—In a recent issue of the New York *Times* (March 22), just to hand, appears the following, in the course of an article headed "Stops Chlorine Remedy":

"While Dr. Cosby, one of the present Health Commissioners, was before the Assembly Committee, Chairman Mazet put to him the following questions:

"'Doctor, is the same substance [diphtheria antitoxin] of the same degree of purity, sold for a less price to Chicago than in New York?'

"'Dr. Cosby—I will explain that. Before I was Commissioner of Health (I believe Mr. Wilson was President of the Board of Health at that time) the board manufactured some antitoxin that was not of the same strength. We did not think it good enough to use. The Board of Health Commissioners of Chicago asked for it, and thought they could use it there. They did take it a less price than we sell it for to-day.'

"'The Chairman—It was not of the same strength?'

"'Dr. Cosby—No, sir. It was inferior in its potency; it was not as strong. We did not think it was fit to use among any class of people. We didn't use it.'

"Dr. Hermann M. Biggs, city bacteriologist, when before the same committee of the Assembly and speaking on the same point, made the following statement:

"'Mr. Wilson, President of the Board, said in regard to this lower cost, that the Chicago Department wanted it, and they could have it for 50 cents or a dollar a bottle, as it was thrown away.'"

Without delaying to inquire into the authenticity of these *alleged* quotations, I have to ask the Associated Press to give due publicity to this, my official statement, (1) that no single vial of antitoxin was ever bought of or received from the New York Health Department by the Chicago Health Department, at any time or under any circumstances, at less than the published schedule price of the New York Health Department; (2) that every vial of antitoxin received from the New York Department by the Chicago Department during the last 41 months—the entire period of our dealing with that establishment—has been furnished under guarantee that it was of standard strength and purity, and was so verified by repeated examinations in our own laboratory; (3) that there cannot be produced any letter or other correspondence, verbal or written, which could give the slightest color of truth to the *alleged* assertion that this Department ever bargained or trafficked for the refuse antitoxin of the New York Health Department, or of any other concern; and, finally, (4) that the unparalleled and indisputable record of more than 4,000 cases of true diphtheria treated by the Chicago Health Department, during 41 consecutive months, and, until recently, chiefly with the New York antitoxin, with a mortality of less than 6.8%—the former mortality being 35%—is in itself a sufficient refutation of these *alleged* assertions of Drs. Cosby and Biggs.

Faithfully yours,

(Signed) Arthur R. Reynolds, M.D.,
Commissioner of Health.

Changes in the Medical Corps of the U. S. Army.

Rebert, M. A., acting assistant surgeon, is relieved from duty in the district hospital, Cavite, and will report to Lieutenant-Colonel Henry Lippincott, D. S. G., chief surgeon, for temporary duty with First Division, Eighth Army Corps. Feb. 11.

Gonzales, S. M., acting assistant surgeon, is appointed health officer of the department of Pinar del Rio. He will have special charge of the Cuban labor in the city of Pinar del Rio. March 14.

MacNaughton, Major P. D., brigade-surgeon, is granted leave for one month on surgeon's certificate, with permission to go beyond the limits of the division of Cuba. March 18.

Neville, Arthur, hospital steward, now at Vancouver Barracks, is transferred to New Fort Spokane for duty. March 18.

Ten Eyck, Captain Benjamin L., assistant surgeon, leave granted is extended 7 days. March 22.

Woodson, Captain Robert S., assistant surgeon, leave granted is extended one month. March 23.

Girard, Lieutenant-Colonel Alfred C., chief surgeon, when his services are no longer required with the Second Army Corps, is relieved from further duty with that corps, and will proceed to Vancouver Barracks, via Fort Douglas, and report to the commanding general, department of the Columbia, for duty as chief surgeon of that department. March 24.

Harris, Major Henry S. T., brigade-surgeon, leave granted is extended 17 days. March 24.

De Niedeman, Major William F., brigade-surgeon; so much of an order as discharges him from the volunteer army is revoked. March 24.

Hallock, Captain Harry M., assistant surgeon, is relieved from duty at the Josiah Simpson U. S. General Hospital, Fort Monroe, and on the expiration of his present sick-leave will proceed to Fort McPherson and report at the U. S. General Hospital at that post for duty. March 24.

Howard, Captain Deane C., assistant surgeon, is detailed for temporary duty as attending surgeon, New York City, to relieve Major Nathan S. Jarvis, brigade-surgeon. March 24.

Howard, Captain D. C., assistant surgeon, will, in addition to his other duties, temporarily assume those of Major Ezra D. Woodruff, surgeon, in New York City. March 24.

Swift, Captain E. L., will proceed from Fort Slocum to New York City for temporary duty as attending surgeon and examiner of recruits, relieving Major Nathan S. Jarvis, brigade-surgeon, who has been ordered to his home. March 24.

Bratton, First Lieutenant Thomas S., assistant surgeon, will report to Colonel Dallas Bache, A. S. G., president of the examining board at the Army Medical Museum Building, Washington, D. C., for reexamination for promotion. March 24.

Chapman, First Lieutenant William A., assistant surgeon, Third U. S. Volunteer Infantry, leave granted him is extended one month on account of sickness. March 24.

Manly, First Lieutenant Clarence J., assistant surgeon, is relieved from further duty with batteries G and I, Second Artillery, in the department of Havana, and will report to Major William H. Arthur, surgeon, commanding U. S. hospital-ship "Missouri," Havana, Cuba, for duty. March 24.

Carter, Henry R., Jr., acting assistant surgeon, is relieved from duty at Jackson Barracks, and will proceed to Seattle, Wash., and report to Captain Edwin F. Glenn, Twenty-fifth Infantry, for duty with the expedition to Alaska. March 24.

Holmes, T. G., acting assistant surgeon, is relieved from duty at Fort Wayne, and will proceed to New Fort Spokane, Wash., for duty. March 24.

Jarrett, Arthur R., acting assistant surgeon, is relieved from further duty at Fort Slocum, and will proceed to Providence, R. I., for duty as examiner of recruits. March 24.

Wilcox, Lieutenant-Colonel Timothy E., chief surgeon; so much of an order as discharges from the volunteer army, to take effect April 12, is amended to take effect May 12. March 25.

Raymond, Major Henry I., brigade-surgeon, will proceed to Fort Porter and report to the commanding officer, Thirteenth Infantry, for duty, to accompany that regiment to Manila. March 25.

Dutcher, First Lieutenant Basil H., assistant surgeon, is granted leave for 2 months, to take effect upon the completion of his duties as a member of the examining boards at Fort Leavenworth, if, in the opinion of the commanding officer at that place, his services can be spared. March 25.

Mittelstaedt, Charles B., acting assistant surgeon, is relieved from duty at the Josiah Simpson U. S. General Hospital, Fort Monroe, and will proceed to Fort Porter and report to the commanding officer, Thirteenth Infantry, for duty, to accompany that regiment to Manila. March 25.

Wilson, Roy A., acting assistant surgeon, is granted leave for 10 days. March 25.

Borden, Captain William C., assistant surgeon, is detailed as a member of the examining board at the Army Medical Museum Building, Washington, D. C., vice Major William R. Hall, surgeon, relieved. March 27.

Pilcher, Captain James E., is granted leave for 4 months on surgeon's certificate. March 27.

Chamberlain, George E., acting assistant surgeon, is relieved from further duty at the second division hospital, Havana, Cuba, and will report on the U. S. hospital-ship "Missouri" for duty. March 27.

Leepere, Matthew, acting assistant surgeon, now at Louisville, Ky., will report to Captain Edmund K. Webster, Second Infantry, recruiting officer in that city, for duty. March 27.

Edie, Major Guy L., brigade-surgeon (captain and assistant surgeon, U. S. A.); so much of an order as discharges from the volunteer army is revoked. March 28.

Edie, Major Guy L., brigade-surgeon, is relieved from duty at the Presidio, and will report to the commanding general, department of California, for assignment to duty with troops sailing on the first transport from San Francisco, Cal., to Manila, P. I., and will report to the commanding general, department of the Pacific, and military governor of the Philippine Islands, for assignment to duty. March 28.

Banister, Captain Wm. B., is detailed as a member of the examining board at Augusta, Ga., vice Captain Henry I. Raymond, assistant surgeon, revoked. March 28.

Wilson, Captain William H., assistant surgeon, on the expiration of his present leave, will proceed to Fort Monroe and report at the Josiah Simpson U. S. General Hospital at that post for duty. March 28.

The following changes in the stations and duties of officers are ordered: Captain Henry D. Snyder, assistant surgeon, now on duty at Fort Ethan Allen, will proceed at once to Savannah, Ga., take charge of the medical supply depot in that city, and relieve Captain James E. Pilcher, assistant surgeon; Acting Assistant Surgeon H. M. Cohen will proceed to Willets' Point for duty. March 28.

Hyde, L. W., acting assistant surgeon, is relieved from further duty at Augusta, Ga., and will proceed to Washington, D. C., and report to the Surgeon-general of the Army. March 28.

Rash, Otway W., acting assistant surgeon, now at Henderson, Ky., will proceed to Fort Ethan Allen for duty. March 28.

Howard, Captain D. C., assistant surgeon, the order directing him to temporarily assume the duties of Major Ezra D. Woodruff, surgeon, is revoked, and Captain Howard is assigned to duty as attending surgeon and examiner of recruits in New York City. March 27.

Johnson, Walter M., hospital steward, is relieved from duty with the Sixth Infantry, and will be sent from Fort Sam Houston to Fort Clark for duty. March 27.

The commanding officer at Fort Clark will send Hospital Steward David A. Eberly to Fort Sam Houston for duty, to accompany the Sixth Infantry to the Philippine Islands. March 27.

Kernachan, Major Wm. J., brigade-surgeon; so much of the order which honorably discharges him from the volunteer army is amended to take effect April 30 instead of March 31. March 29.

Martin, Major John C., brigade-surgeon; the order which honorably discharges him from the volunteer service is amended to take effect May 4 instead of April 14. March 29.

Swift, Captain E. L., assistant surgeon, is relieved from temporary duty in New York City, and will return to his station, Fort Slocum. March 27.

Turner, S. S., acting assistant surgeon, when his services are no longer required in the Second Army Corps, will proceed from Augusta, Ga., to Chicago, Ill., and report to Captain Peter S. Bomus, First Cavalry, recruiting officer, for duty. March 29.

Hoff, Major John Van R., surgeon, chief surgeon, department of Porto Rico, will make an inspection of the vaccine station at Coamo, P. R., of the general hospital, Ponce, P. R., and of the medical department and sanitary condition of the posts in the department of Porto Rico, on completion of which duty he will return to his proper station. March 8.

Ireland, Captain M. W., assistant surgeon, will repair to Chicago, Ill., and report to Captain R. P. P. Wainwright, First Cavalry, chief mustering officer, to assist in examining the members of the Eighth Illinois Volunteer Infantry. March 25.

Howard, Captain Deane C., assistant surgeon, will temporarily perform the duties pertaining to the supervision of enlisted men in the hospitals of New York and vicinity in addition to his present duties. March 28.

Girard, Lieutenant-Colonel Alfred C., chief surgeon, now on duty as chief surgeon, Second Army Corps, Augusta, Ga., is relieved from further station at Fort Douglas. March 30.

The following changes in the stations and duties of acting assistant surgeons are ordered: Lewis T. Griffith from Fort Ontario to Fort Preble, for duty; Ernest F. Robinson from Fort Preble to Fort Hamilton, and report to the commanding officer, battery F, Fifth Artillery, for duty, to accompany that battery to Manila, P. I.; Robert Fleming Jones from Washington, D. C., to Fort Adams, and report to the commanding officer, Battery F, Fourth Artillery, for duty, to accompany that battery to Manila, P. I. March 30.

Foreign News and Notes.

GREAT BRITAIN.

Deputy Inspector-General Joseph Jee, C.B., who was recently gazetted Honorary Surgeon to Queen Victoria, died on March 17, aged 81 years. He received the coveted distinction of the Victoria Cross for conspicuous gallantry at the relief of Lucknow during the Indian Mutiny, and both on this occasion and in subsequent engagements showed himself to be an absolutely fearless man. All his reckless exposure of his own life, it should be added, was undertaken in behalf of wounded soldiers.

Influenza in Manchester.—The city of Manchester was suffering at the end of March very severely from influenza. Manchester is in some respects the greatest commercial city in England next to London, and the inconvenience that has been caused by the absence from work of so many of the Manchester employes in factories and workshops has been very serious. Adults have been chiefly affected while children have escaped, and at the board-schools it has been the teachers and not the scholars who have been attacked.

Dr. T. Grigor Brodie, lecturer on physiology at St. Thomas' Hospital Medical School, has been nominated by a committee of the conjoint educational board of the Royal College of Physicians of London and the Royal College of Surgeons of England to be director of the research laboratories of the colleges. Dr. Brodie received his medical education at King's College Hospital and is the author of a work on experimental physiology. He follows Dr. Sims Woodhead, who is now professor of pathology in Cambridge University, as Director of the Research Laboratories.

Cremation and Death-Registration.—At a recent meeting of the English Cremation Society Sir Henry Thompson delivered an address to the members upon cremation in particular relation to the legal registration of the causes of death. It is of course alleged against cremation that the body being destroyed no proofs of the administration of poison can be obtained supposing that a suspicion of murder should afterward arise. Sir Henry Thompson urged that instead of wasting time inveighing against cremation British legislation should set to work to amend "the very defective system existing in England for ascertaining the fact that death has taken place, as well as its cause in every case."

The Chair of Physiology in Edinburgh University.—This very important chair, left vacant recently by the death of Professor Rutherford, will shortly be filled up. Among the likely candidates are Professor Schäfer, F.R.S., of University College, London; Professor Waymouth Reid, F.R.S., of Dundee College, Scotland; Professor G. N. Stewart, of Cleveland University, Ohio; Professor William Stirling, F.R.S. Edin., of Owens College, Manchester; and Dr. Noel Paton, a lecturer on Physiology in the Edinburgh Extramural School, who for many years acted as assistant to Professor Rutherford. The competition is sure to be keen, for the position of Professor of Physiology in Edinburgh University is a lucrative one as well as an honorable one.

The Presidency of the Royal College of Physicians of London.—"This important post," writes a frequent correspondent, "will be vacant next Monday (March 27), as Sir Samuel Wilks has definitely refused to reconsider his determination not to stand for reelection. The choice of the Fellows as to their new president has so often resulted in somewhat of a surprise that it is risky to attempt to prophesy as to the successor of Sir Samuel Wilks in the chair of Linacre and Jenner, but if Sir William Broadbent is generally believed to be willing to accept the presidency—a point upon which there is apparently some doubt—it is almost certain to be offered to him. Other Fellows who will receive some support are Dr. Pavy, Sir Dyce Duckworth, and Sir Richard Douglas Powell."

A Legal Muddle.—A man named Wark was convicted of the murder of his mistress some little time ago at Liverpool, and the anomalous circumstances under which he was condemned to death were commented upon in the Journal. Wark was reprieved. Now the will of the dead woman has been proved and she is found to have left Wark a large sum of money. The payment of this money to him is resisted by her relations on the excellent and primitive legal ground, that a man must not benefit by a crime. But Wark's conviction in a criminal court does not prevent him pleading as an innocent man in a civil court—this to the lay mind being the legal muddle; the case will possibly be retried, or at least the evidence against Wark reheard in a civil court. What will happen if the civil court find him innocent of the crime for which the criminal court is punishing him no one can guess. And the contingency is by no means an improbable one, for the medical evidence against Wark was not the least convincing, and much sentiment has recently been expressed in his favor.

Quack Advertisements and the Procuring of Abortion.—A ghastly crime has apparently been committed in London as the outcome of the disgusting advertisements that still disfigure the lower section of the English press. A man and the woman with whom he cohabited, Germans, advertised in a German paper published in London that they gave advice and help secretly to pregnant women. One day they disappeared, and a dead woman was afterwards found in their apartments who had apparently died in consequence of an attempt that had been made to procure abortion upon her. The suspected murderers have since been arrested in Germany. The case will possibly lead to legislation that has long been demanded by English medical men and reputable owners of papers against indecent advertisements. Since an outspoken series of articles began to appear in *The Lancet*, in which the fact that all the advertisers of wares "to remove obstructions in females," were either abortionists or cheats, no first-class paper in England is found inserting their advertisements, but struggling papers and wretched rags in the possession of thoroughly unscrupulous men are still seduced by the high prices of the indecent advertiser, and will continue to be so until the law forces them into proper consideration for the morals of the public in whose behalf they are supposed to work.

The Royal Commission on the Water-Supply of London, which has been sitting for one year and four months with but little intermission, terminated its sessions on March 23. The rest of the report—for an interim report has already been issued and noticed in our columns—will appear probably with but little delay, for the Government are anxious to get a line upon which to frame their promised legislation. The scheme of the London County Council for bringing water from Wales has been rejected by the House of Commons subject to the report of the Royal Commission, and it is very unlikely that the commissioners will speak warm words of approval in its behalf, for truth to say the scheme is a grand one rather than a practical one as far as it has been revealed to the public. The same sitting of the House of Commons which saw the throwing-out of the London County Councils' scheme saw the second reading of two bills to enable certain water-companies to draw more water from the Thames. These new concessions will tend to increase the value of the concerns in question so that a correspondingly higher price will have to be paid for them when they are bought out. But medical men in London, recking little of enormous rates in the future, are relieved to know that practical measures have been taken to guard against a recurrence of the water-famines that have been so common of late years in the east end of the metropolis.

The Late Lord Herschell and the Jenner Society.—At a recent meeting of the Jenner Society, held at Gloucester, it was unanimously resolved to send to Lady Herschell the following expression of appreciation of the great service rendered to his country by the late Lord Herschell as President of the Royal Commission on Vaccination:—

> "The President and members of the Jenner Society, while uniting in the general expression of deep regret for the death of the late Lord Herschell, and of warm appreciation of the great services he in so many ways rendered to his country, desire especially to record their high sense of the singular ability, the perfect impartiality, and the untiring patience with which, as President of the Royal Commission on Vaccination, he for 7 years conducted an important and difficult inquiry, with the firm determination, as he himself subsequently said, 'to follow boldly the facts which experience disclosed, whithersoever these might lead,' and with the earnest desire, when the truth had been established, to so apply it as might be most beneficial to the public health."

The resolution is signed by the President (the Earl of Ducie, Lord-Lieutenant of Gloucestershire), the Chairman of the Executive Committee (Dean Spence, D.D.), G. E. Lloyd Baker (High Sheriff of Gloucestershire), and Dr. Bond (the honorary secretary).—[*Lancet.*]

CONTINENTAL EUROPE.

The Air of Paris.—Recent analyses of the air of Paris show that it contains $\frac{1}{80}$ of a milligram of iodin in 10,000 liters.

Dr. Tscherning, director of the "Sorbonne Laboratory of Ophthalmology," has been recently nominated a member of the Legion of Honor.

Inspection of the Parisian Schools.—Drs. Carpentier, Méricourt, Blayac, Mangenot, Toledano, and Variot, have been appointed a permanent commission to inspect the schools of Paris.

The French Union of Antialcoholics has been organized. Drs. Poiton, Duplessy, and Barbery will deliver hour-and-a-half lectures twice a week at the office of the different mayors of the city of Paris.

Bacillus Coli Communis and Bacillus Typhosus.—Recent experiments made in Paris have demonstrated that the bacillus coli communis will produce a **green color** when grown upon slices of artichoke. The bacillus of Eberth (typhoid) gives no color.

Partial Resection of the Stomach.—Dr. Laudorezy, recently at the Académie de Médecine, presented a woman who had submitted to the operation of resection of the stomach, $\frac{3}{4}$ of the organ being removed. The operation was performed 4 months ago, and up to this time the patient has suffered no inconvenience.

Obituary.—DR. ALESSANDRO CANTIERI, professor of clinical medicine in the University of Siena, by suicide, March 14, aged 78 years.—Baroness Hirsch, widow of Baron Hirsch, the Hebrew philanthropist, April 1. She leaves several million pounds sterling, chiefly bequeathed to charities.

Prizes at the "École de Médecine de Paris."—The following committees have been appointed by the "École de Médecine," to determine and distribute the prizes for 1899: *Academy* prize, Profs. Sée, Malassez, and F. Frank; *Barron Larrey* prize, Profs. Huchard, Le Roy de Mericourt, and Lavern; *Ricord* prize, Profs. Lancereaux, Hallopeau, and Fournier.

Coincident Carcinoma and Tuberculosis of the Stomach.—Dr. H. Claude has reported a very rare and curious pathologic phenomenon, the simultaneous growth of cancer and tubercle upon the same region of the stomach. The observer attributes this double infection to the swallowing of tuberculous sputum, this being the means of inoculation, and the cancer the medium of culture.

Pasteur Institute in Paris.—Owing to the protracted illness of Dr. Roux, the course at the "Pasteur Institute" has been divided between the following lecturers: Metchnikoff, Morphology and Phagocytosis; Borel, Technic and Manipulations; Lavern, Malaria; Martin, Diphtheria; Sabrorau, Bacillus of the Skin and Hair; Sannane, Gonococcus; Nocard, Glanders and Rabies; Duclaux, Disinfection and Sterilization.

Dispensary Service in Paris on Sundays and Holidays.—M. Napias, the head of the executive department of the Assistance Publique in Paris, has made it known to the public that the out-patient departments of the hospital will in future be available on Sundays and holidays. As on ordinary days, the doors of the out-patient department will be open from 8 o'clock in the morning until 9. The doors will then be shut.

Gonorrheal Infection.—An unusual case of gonorrhea has recently been observed in Paris. The patient was a man aged 25. Two months after contracting gonorrhea the lymphatics of the left groin began to suppurate; this was quickly followed by suppuration of the left testicle and left parotid gland. A bacteriologic examination of the pus found in these abscesses revealed the presence of the gonococcus. Experimental inoculations served to confirm the identity and establish the virulence of the gonococcus.

Operative Treatment of Pulmonary Gangrene.—According to the *Lancet*, Professor Körte, surgeon to the Urban Hospital, recently exhibited before the Berlin Surgical Society a patient on whom he had operated for gangrene of the right pulmonary apex. The man was 32 years of age and became ill 5 weeks before with pyrexia, cough and fetid expectoration. As the disease progressed, considerable fragments of the lung were coughed up and a large cavity in the right apex was recognized by percussion. The patient was accordingly admitted into the surgical department of the hospital and an operation was performed. A large circular incision was made under the clavicle extending to the axilla and a piece of the second rib was resected. The pleural cavity was found to be obliterated. There was a stratum of normal tissue one centimeter (0.4 inch) in thickness and then the thermocautery penetrated into an extensive cavity filled with putrid material. A large pulmonary "sequestrum" was situated at the entrance of the principal bronchus. The patient made a comparatively quick recovery and his lung now contains a large cavity with a healthy granulating surface.

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

March 18, 1899. [No. 1994.]

1. On Bronchitis, Pulmonary Emphysema, and Asthma. Samuel Gee.
2. Pathology of the Thyroid Gland. George R. Murray.
3. The Anatomy and Surgery of the Peritoneal Fossæ. B. G. A. Moynihan.
4. The Therapeutics of Heat and Light and Electric Heat and Light Baths. H. Lewis Jones.
5. The Joints of Mammals Contrasted with those of Man. F. G. Parsons.
6. Cinnamon in Influenza. Joseph Carne Ross.
7. Obstinate Hiccough. Stamford G. Felce.
8. Displaced Left Middle Turbinate which Obstructed the Nasal Passage for 10 Years. Robert Fullerton.
9. Threatened Death Under Chloroform. Thomas Stevenson.
10. An Open Safety-pin Removed from a Child's Esophagus. Reuell Atkinson.
11. Traumatic Aneurysm of the Sciatic Artery. A. Q. Silcock.

1.—See Philadelphia Medical Journal, March 25, April 1, April 8.

3.—The **intersigmoid fossa** was present in rather over 70% of bodies examined and because of its obliteration by the formation of adhesions, its frequency was found to decrease with increasing years. The fossa lies behind the sigmoid mesocolon and in front of the parietal peritoneum. There have only been reported 2 cases of hernia into this fossa. **Hernia** into the **foramen of Winslow** is also very uncommon, 8 cases only being recorded, and in order for its formation to take place some extreme congenital abnormity must exist. [G.B.W.]

4.—Jones reports several apparatuses constructed for the administration of electric heat and light baths. [S.M.H.]

5.—The following abstracts of Parsons' 3 lectures are taken from this number of the *British Medical Journal:*

I. In this lecture the temporomaxillary joint, the clavicular articulations and the shoulder-joint were dealt with. In the temporomaxillary, attention was drawn to the importance of the external lateral ligament, and it was shown that the interarticular fibrocartilage was absent in certain of the lower mammals. The varieties of the joint in the different orders of the mammalia were explained. In the sternoclavicular joint, the presence and meaning of the meniscus were discussed, as well as the various modifications by which the clavicle is attached to the coracoid and acromial processes. In the shoulder-joint, reasons were brought forward for believing that the middle glenohumeral ligament is more or less well represented throughout the mammalia, while the superior and inferior are peculiar to man. The coracohumeral ligament is peculiar to the Primates.

II. The elbow, wrist, and hip joints were dealt with in the second lecture. In the elbow, attention was drawn to the contrast between the arrangement of bones and ligaments in animals which use their forelimbs for support and those which use them for other purposes. The utility of the orbicular and the oblique humeroradial ligament in various orders was described. In the wrist-joint the arrangements were seen to be very varied. Sometimes a septum dividing the joint into radial and ulnar compartments was found; sometimes a triangular fibrocartilage was present, though more often it was absent or merged in the lower part of the interosseous membrane; its uses and significance were discussed in some detail. In the hip the various thickenings of the capsule were shown to be characteristic of the Primates. The ligamentum teres was followed throughout the mammalian class, and its various modifications studied with a view to deciding its meaning. Several extracapsular connections of it were especially interesting.

III. This lecture was devoted to the consideration of the knee and ankle-joints. In the former, the low attachment of the internal lateral ligament was shown to favor rotation, and in the bat's knee, which is a perfect hinge, this ligament is attached just below the joint surface. The semilunar cartilages were traced through the mammalian class, and in a generalized knee it was seen that the external one is attached posteriorly to the femur. In the lower Primates the external semilunar cartilage was shown to be circular, while in the bat both of them are suppressed. The variations of the ligamentum mucosum were detailed, and its power of dividing the knee into two or three separate cavities pointed out. In the ankle the anterior fasciculus of the external lateral ligament was noticed to be practically a human characteristic, while the serial homology between the middle fasciculus and the dorsal ligament of the carpus was traced. The modifications of the ligaments in the ruminant ankle to ensure stability were demonstrated, and it was shown that the marsupials possess a semilunar fibrocartilage between the fibula and the astragalus, and that this is probably derived from the external lateral ligament. [S.M H.]

6.—Ross has been using **cinnamon** either in strong decoction or in tabloid form in all types of cases of **influenza** with beneficial results. The treatment, when commenced within 24 hours of the onset of the attack, shortens the duration of the attack and may lead to a rapid convalescence. [S.M.H.]

7.—Felce, in a case of **severe hiccough,** which had failed to respond to any of the ordinary therapeutic measures, found the condition to suddenly cease after the administration of a half dram of pure ether in a little water, which was given as a cardiac stimulant. [S.M.H.]

8.—The **middle turbinal,** which had become **displaced** probably through injudicious use of forceps, when first seen, was observed as a gray mass deep in the fossa extending from the floor upward and backward, and was partly imbedded in the inferior turbinal. The nose was completely stopped up by the middle turbinal, which, however, was finally removed by dividing it into two portions and then using the snare. [G.B.W.]

9.—Stevenson, while operating upon a child under the influence of chloroform, observed the breathing suddenly become irregular and the heart-action grow very weak. There was marked pallor. The head was thrown over the end of the table, the tongue pulled forward, artificial respiration commenced, and inhalations of amyl nitrite were given. After some little time the child began to react and recovery was eventually complete. [S.M.H.]

11.—The symptoms of this case of **aneurysm of the sciatic artery** were, pain extending down the back of the leg, swelling of the buttock with pulsation, some enlargement of the veins covering the swelling, decrease in size of the tumor on pressure with increase to usual dimensions when pressure is withdrawn, tenderness on palpation, systolic and diastolic bruit, numbness of the toes and a tendency to foot-drop. At the operation the sac was found to be fusiform in shape and was estimated to contain about 14 ounces of blood. The great sciatic nerve was so adherent to the sac that in ligating the feeding artery the nerve had to be included, and edema of the dorsum of the foot and of the leg extending up as far as the knee. [G.B.W.]

Lancet.

March 18, 1899. [No. 3942.]

1. On Bronchitis, Pulmonary Emphysema, and Asthma. Samuel Gee.
2. On the Pathology of the Thyroid Gland. George R. Murray.
3. On the Joints of Mammals Contrasted with those of Man. F. G. Parsons.
4. On Some of the Clinical Aspects of Granular Kidney. Samuel West.
5. Paraldehyd as a Respiratory Sedative. William Mackie.
6. Further Statements as to Results Obtained by Operation for Cancer of the Breast. Watson Cheyne.
7. Note on the Production of Symptoms of Thyroidism in a Child at the Breast by the Administration of Thyroid Extract to the Mother—*i. e.*, through the Milk. Byrom Bramwell.
8. A Case of Blackwater Fever Complicated by Dysentery. A. T. Wooldridge.

9. Notes on a Case of Diverticulum of the Bladder. G. A. Wright and William Coates.
10. A Case of Displaced Ovarian Cyst, with Torsion and Hematoma of the Pedicle. J. Smedley Boden.
11. A Case of Swallowing Stones. Cane.

1.—See Philadelphia Medical Journal, Vol. III, Nos. 12, 13, 14.

2.—Murray, in his concluding lecture on the **pathology of the thyroid gland,** first takes up the question of compensatory hypertrophy. The glandular organs of the body have remarkable powers of development under the influence of proper stimuli. Both secretory and excretory glands can undergo compensatory hypertrophy when a portion of the gland has been disabled by disease or design in such a manner as to throw an increased amount of work upon the remainder. It is important always to ascertain the minute structure of organs which have developed compensatory hypertrophy, as it is not necessarily a simple hyperplasia or exact reproduction of the normal structure. Owing to the special anatomic position and physiologic properties of the thyroid gland, it affords unusual facilities for observing some of the phenomena of compensatory hypertrophy. It has been shown that when a portion of this gland is removed the remainder undergoes compensatory changes which enable it to supply enough secretion to prevent the symptoms of thyroidism. Although these changes are accompanied by an increase in size, the hypertrophied remainder does not attain the size of the original gland, so that, weight for weight, it has to do more work than the original glandular tissue. When sufficient hypertrophy has developed to supply as much secretion as is necessary there is found in simple hyperplasia of the original glandular tissue a considerable change in structure throughout. The alveoli, instead of being nearly circular, become irregular in outline, due to the folding of the wall which projects at different points into the lumen of the alveolus. The epithelial cells increase in size, the ordinary low cubical cells being converted into tall columnar cells. The result of these changes is that in equal areas the secreting cells are greatly increased in numbers and size when hypertrophied as compared with the normal gland. The colloid lying in the gland is less in amount and more watery in consistence than normal. Interesting experiments have shown that if the proper amount of secretion be artificially supplied after the removal of one lobe of the thyroid gland, compensating changes do not take place in the other, which fact strongly supports the statements made that hypertrophy is due to an increased amount of work thrown upon the portions of gland remaining after operation. The effect of prolonged administration of thyroid upon the healthy gland is to cause a condition of pallor, some diminution in weight, slight diminution in size of the gland, but without any microscopic evidences of atrophic changes. The effect of treatment with thyroid gland in parenchymatous goiters is to decrease them in size. It is possible that this decrease occurs as the result of a partial atrophy from disuse of the gland when the full amount of secretion is supplied from an external source. While this decrease takes place in goiter, adenomata, cystic adenomata, and other new growths of the thyroid are not influenced by the treatment, though the parenchymatous enlargement which often accompanies them may be diminished. The initial dose in the treatment of goiter should be 10 minims of the liquor thyroidei at night, gradually increasing this quantity 10 minims 3 times a day. The treatment should be tried for 3 or 4 weeks, and longer if there is any evidence of decrease in size of the goiter. The solution of the problem of the pathology of exophthalmic goiter is of great importance. While it has been supposed to be closely related to the circulatory and nervous systems, the lesions found in the thyroid gland are far more constant in character than any yet described in these systems, and it is the most obviously diseased organ to be found in the body. In nearly all cases there is a palpable enlargement of the thyroid gland, and this is, as a rule, uniform. The veins on the surface are large and their walls thin. In well-developed cases the goiter is very vascular, the arteries are dilated and tortuous, indicating a liberal blood-supply. On section the cut surface is lighter in color than normal and exudes less colloid. Microscopically there is evidence of great secretory activity. The number of alveoli is not only increased by the total increase in size of the gland, but in equal areas more secreting tissue is seen than in the normal gland. In many places the lumen of the alveolus is irregular in outline, due to folds of the alveolar wall covered with epithelium projecting into it and creating a marked increase in the amount of secretory epithelium. The lumen of the alveolus is thereby diminished in size. The actively secreting part of the gland is increased at the expense of the storage-room so ample in the normal gland. The epithelium lining the alveoli and covering the vessels, instead of having flat or cubical cells, are possessed of tall columnar cells. There is less secretion lying in the alveoli than in health, suggesting a more rapid removal of the secretion from the gland than in health. The colloid is more watery in consistence and stains less deeply than normal. It is readily seen from this description that there exists a marked similarity in structure between exophthalmic goiter and compensatory hypertrophy. Since the changes in compensatory hypertrophy are known to indicate increased activity, it is but fair to infer that the changes in exophthalmic goiter show the existence of hypersecretion. The most rational explanation of the complex symptoms of this disease appears to be that they are due to the excessive formation and absorption of the thyroid secretion, which may or may not be altered in composition, and to the constant presence of this excess in the blood and its action upon the metabolism of the tissues generally, but more especially of the nerve-centers in the medulla. This view, of course, suggests that exophthalmic goiter is the opposite condition to myxedema. This is further supported by the strong contrast which is presented by the symptoms of the two diseases. Another interesting point in their relationship is the repeatedly observed fact that recovery from exophthalmic goiter may be followed by a myxedema. On the other hand, exophthalmic goiter has never been observed to develop in a patient already suffering from myxedema. The physiologic effects of thyroid secretion in large doses are of especial interest in this connection. Elevation of temperature, tachycardia, tremors, conjunctivitis, emaciation, and in one instance, exophthalmos, have been produced by feeding the gland to dogs. In man a condition of thyroidism has been induced, which seems to be more easily produced in those who have recovered from myxedema than in those who have normal thyroid glands. The earliest and most common symptom is the increased frequency of the pulse. Other symptoms are violent palpitation, fine tremor of the hands, flushing and moisture of the skin, and, in case of large doses, emaciation. There sometimes occurs elevation of temperature, restlessness, loss of sleep, polyuria, albuminuria, glycosuria, partial paraplegia, sensation of heat, and diarrhea. In one case reported, exophthalmos and rapid respiration were observed. Some remarkable toxic symptoms have been observed to follow partial removal of the enlarged thyroid gland, such as fever, great frequency of pulse, rapid respiration, and restlessness, and occasionally the termination has been fatal. Such cases are not observed after total thyroidectomy, which shows that they are not the result of the operation itself. They occur usually in cases of exophthalmic or soft parenchymatous goiter after the removal of one lobe of the enlarged thyroid gland, especially when it has been much handled or squeezed during the operation. The symptoms are similar to those which occur in acute cases of exophthalmic goiter, but in thyroidism artificially produced, they are evidently due to absorption from the wound of the thyroid secretion poured out from the cut surface of the gland, or to a large quantity being squeezed into the lymphatics and blood-stream during the operation. Thyroid extract has a bad effect upon cases of exophthalmic goiter, and should never be given in this condition. The ideal treatment consists in the removal of some portion of the gland. Unfortunately the operation is not free from risk. Other ductless glands are influenced along with the enlargement of the thyroid, especially the thymus and pituitary gland. This suggests that some common factor may be the cause of the enlargement. That some association exists between the thyroid and pituitary glands, is further shown by the enlargement of the latter when the former is removed or disabled by disease. These facts indicate that in the treatment of exophthalmic goiter, attention should be directed to the thyroid gland. Of the medical treatment, inunction of red iodid of mercury ointment over the goiter, and belladonna given in large doses internally so as to check the hypersecretion of the gland, are of most service. Convallaria is useful in palpitation, and the bromids when nervousness exists. [S.M.H.]

4.—See abstract in Philadelphia Medical Journal, of April 1, 1899.

5.—Mackay has used **paraldehyd** in purely functional troubles and dyspneic conditions arising from various causes, and in many cases complicated with grave organic lesions. In all sorts of cases his results have been satisfactory. He considers it perfectly safe to be freely given under almost all circumstances. It is best prescribed mixed with equal parts of sirup of orange peel and sirup of hemeidesmus, and should always be given freely diluted with water. [S.M.H.]

7.—Bramwell observed symptoms of **thyroidism** occur in a nursing child, aged 6 months, whose mother was receiving two 5-grain thyroid extract tabloids daily. The symptoms produced in the child were profuse sweating, sleeplessness, and occasional vomiting. Withdrawal of the thyroid from the mother's treatment resulted in the immediate disappearance of the babe's symptoms. Renewal of the treatment was accompanied by a recurrence of the symptoms in the babe; when the drug was again withdrawn the child quickly recovered. There was no question that these were symptoms of thyroidism and were due to the extract being conveyed to the child through the milk. [S.M.H.]

8.—See British correspondence in the Philadelphia Medical Journal, April 1, 1899.

9.—A man, aged 38, who had suffered from painful micturition and had had several attacks of hemorrhagic cystitis for 11 years, was found to have a tumor, irregular in outline and hard, in the region of the bladder. Withdrawal of urine made no appreciable difference in the swelling. After 6 days' treatment, washing out the bladder with antiseptics, the man's condition did not improve but gradually became worse and an operation was decided upon. On incision the bladder was found so hard and thick that it was cut open with difficulty. A **diverticulum** was found on the right side, 4 times the size of the bladder. A rubber drainage-tube was inserted. The man sank and died a few days later and at the necropsy no obstruction to the escape of urine was discoverable. The condition is believed to have been due to the use of a dirty catheter for 10 years. [M.B.T.]

11.—A man, 32 years old, who had followed the business of **swallowing stones and glass** in sideshows for 14 years, and who had swallowed stones to the weight of 9½ pounds at one performance on certain occasions without pain or discomfort following, was taken, after one of his performances, with attacks of colicky pain; his condition became gradually worse and he was removed to the hospital. After 66 stones were removed from the rectum by the finger and a scoop, a good recovery followed. [M.B.T.]

New York Medical Journal.

April 1, 1899. [Vol. lxix, No. 13.]

1. Treatment of Eczema in Infants and Children. Charles Warrenne Allen.
2. The Prevention of Deformity after Excision of the Knee in Children. Wisner R. Townsend.
3. A Further Report on the Use of "Antiphthisic Serum, TR." (Fisch), in Tuberculosis. A. Mansfield Holmes. (*Continued.*)
4. A Powder Blower for the Stomach. Max Einhorn.
5. Hydrotherapy in Chronic Diseases. Simon Baruch.

1.—See **Department of Practical Therapeutics** in this number of the Journal.

2.—Several authorities are quoted showing the growing tendency to abandon **excision of the knee** before puberty. Because removal of the epiphysis prevents further growth, erasion, arthrectomy or other conservative operations are to be preferred. The leg should always be put up in a straight position, and protection should be given the knee for a long time after the operation to prevent knock-knee, genu recurvatum, bowlegs and particularly flexion. In severe septic cases amputation is the preferable operation. Shortening will usually follow and depends upon the amount of bone removed and the age when the operation is performed. Short histories are given of 8 operations. [M.B.T.]

3.—In this continuation of Holmes' article he recites 7 cases of the second class, the early stage cases with bacilli. All of the cases were benefited, some of them apparently cured. Under class 3, chronic cases of long standing, he reports 4 cases. In the first case, with a cavity in the upper lobe of the right lung and numerous bacilli, the patient was apparently cured under the treatment. The second and third cases were greatly benefited and the fourth case was improving markedly in every respect, even to the physical signs, but notwithstanding this the number of tubercle-bacilli was augmented greatly. The case was still under treatment when reported. Under the fourth class, acute cases with mixed infection, were included cases which developed rapidly and tended toward an early termination with no tendency to become chronic. This rapid tendency was explained on the ground of feeble resisting power or high degree of virulence of the bacilli. Eight such cases are reported. In the majority of these the treatment had no effect. In three of the cases the process was seemingly checked and in one the condition had been in abeyance for a period of 8 months. [S.M.H.]

4.—Einhorn describes a **powder-blower for the stomach** in the following words: "It consists of an ordinary, not too flexible, rubber tube, 28½ inches long, the distal end of which connects by means of a hard rubber piece with an air-suction bulb, the proximate end of which is attached to a hard rubber piece. The latter is hollow and pierced with several small openings at the side for the passage of air and provided with a screw-thread for the capsule. The capsule has numerous holes and is made in three different sizes. It is filled with the necessary quantity of powder by means of a very small spoon and then attached to the screw-thread." The stomach insufflation should be practised when the patient is fasting or, if the stomach at no time empties itself, after gastric lavage. The capsule is filled with the powder desired and screwed on to the apparatus. The tube is moistened with warm water and inserted into the stomach. The bulb is then compressed 3 or 4 times in quick succession. If there is much mucus in the pharynx and esophagus, to prevent its entrance into the holes of the capsule, a thin cover of vaselin may be required. That the powder thus introduced covers the entire interior of the stomach has been demonstrated by the use of the x-ray. Bismuth powder thus introduced, not transmitting the rays of light, will give rise to a shadow on the screen. The indications for powdering the stomach are manifest. In gastric ulcer bismuth is useful, in gastric hemorrhage, antipyrin. In gastralgia, orthoform and in erosion, protargol can be insufflated. Insufflation of the stomach with bismuth-powder is also useful in x-ray examinations of this organ. [S.M.H.]

5.—Baruch recommends the use of **hydrotherapy in chronic cases,** especially in cases of chloroanemia, in which cases it should be applied in the following manner: The patient should stand in a tub of water at 100° F. and receive rapid ablutions with water at 80° F., a small quantity being used in the beginning to avoid chilling. Friction with a washrag or bath-glove during the ablution aids reaction. The temperature of the water should be lowered each day and larger quantities applied. The duration should be gradually prolonged, but decided chilling always avoided. Where the reactive capacity is not great, instead of elevating the temperature of the water, the extent of surface treated should be diminished. When the patient is able to bear ablutions of 60° F. over the entire body, affusions may be substituted with advantage. A basin of water at 80° F. should be thrown upon the back for 2 successive days. The number of basinfuls may be increased to 6, always avoiding chilling. These effects of increased oxygenation may be gradually enhanced by following the treatment by exercise in the open air. Another type of cases greatly benefited by hydrotherapy are the neurasthenics. If such patients be subjected to a methodic course of hydrotherapy the result will prove a revelation, provided there is no organic basis for the malady. If the mild procedures indicated are not effective, douches adapted with regard to temperature, duration, and pleasure, to each individual case, play an important role. They arouse the dormant neurons, enhancing vascular activity and improving the general local nutrition. The cortical centers feel the impulse of a better circulation and nutrition. Hydrotherapy is also of great use in rheumatic, gouty, and lithemic conditions, and also in adiposity. The measures adopted at the various hot springs where good results are obtained, may be imitated at home amongst the class of patients who are not able to afford this luxury. The patient should receive a full bath of 100 to 106° F. for 5 or 10 minutes, during which gentle massage is applied to the crippled joints. He should then be laid on a warm cot, covered with several blankets, and made to perspire for a specified time. He is then well dried and rested. This treatment is much enhanced by alternating or succeeding it by douches over the entire body except the chest or abdomen, the temperature of the douche-water being 104 to 108° F. These douches should be followed by rest under warm blankets for half an hour or longer. This treatment stimulates the emunctories, especially when combined with the abundant and methodic drinking of water. [S.M.H.]

Medical Record.

April 1, 1899. [Vol. lv, No. 13.]

1. Some Points in the Treatment of Appendicitis when Pus is Present. George Woolsey.
2. Nephritis Complicating Acute or Sub-Acute Gastroenteritis of Infants and Children. Its Symptomatology, Prognosis, and Treatment. Henry Koplik.
3. Prolonged Chloral Sleep in the Treatment of Chorea. Louis Lichtschein.
4. The Use of the Urine Segregator in the Diagnosis of Diseases of the Urinary Tract. M. L. Harris.
5. Texas Climate in the Trans-Pecos Region. R. W. Knox.

1.—In operations for **appendicitis** when pus is present the first consideration should be the life of the patient. The factor of next greatest importance is the avoidance of disagreeable sequelæ, of which ventral hernia is the most common. For the prevention of ventral hernia, McBurney's muscle-splitting incision is recommended even though pus be present; most of the wound is sutured and provisional sutures are placed which can be tied later. The early removal of drainage is a matter of great importance, the gauze-drain is replaced by a shorter drain or by a drain of rubber tissue folded on itself like a fan. The removal of the appendix is advised when possible. The patients are kept in bed 3 weeks, and at the end of this time firm union is usually obtained. Brief notes are given of 9 cases operated upon by this method. [M.B.T.]

2.—Koplik describes 25 cases of **gastroenteritis** in children, that were complicated by certain symptoms and alterations in the urine, which he considers the result of nephritis. The symptoms vary of course with the severity of the condition. If the kidney is only slightly involved, there is only a slight albuminuria. In the severer forms, the patient is usually constantly restless; perhaps the result of the uremia, with intervals of a condition of stupor. In very severe cases there is vomiting that is not relieved by any of the ordinary remedies. Of course other conditions, such as intussusception in the intestinal tract, must be excluded before this is ascribed wholly to the uremic state. Finally, there is a curious edema of the skin, particularly in the lower extremities, that is associated with emaciation, and does not pit, excepting upon strong pressure. The urine is greatly diminished in quantity, contains a large amount of ammonium-urate crystals, numerous casts, white and red bloodcells, and gives the reaction for albumin. The amount of albumin, however, is not very great. The period at which this complication may occur varies, appearing sometimes early, sometimes late, and it does not bear any distinct relation to the severity of the gastroenteritis. Koplik believes that the nephritis is of a peculiar nature, and is caused by the intense concentration of the toxic elements in the blood of the body. The prognosis is very good, providing the proper treatment is employed. It consists in stopping all drugs and administering a large quantity of water, washing out the stomach and intestinal tract, frequently giving enteroclysis, and if necessary, hypodermoclysis. The diet should be restricted to albumin-water, with perhaps barley-water or acorn-cocoa. [J.S.]

3.—Lichtschein reports 3 cases of **severe chorea** which he **treated by massive doses of chloral.** The first, a German girl of 12 years, had had chorea for nearly 2 years. She was pale, thin, and slept very badly. At first she was given 15 grains of chloral guarded by $\frac{1}{200}$ grain of strychnia every 2 hours, but as it was not effectual, the dose was increased to 30 grains, and subsequently reduced to 20 grains every 2 or 3 hours. She slept almost continually, but had an improvement in appetite, and gained rapidly in strength and weight. After 25 days, when the chloral was finally discontinued, she had increased 13 pounds in weight, and the choreic movements had ceased entirely, and have been absent for 2 years. The second, a boy of 9, had the twitchings for about 2 years. He was unruly, anemic, and weak. He was put upon 20 grains of chloral every 2 hours, which was subsequently reduced to 10 grains. On the eighteenth day the treatment was discontinued, and he was found to have gained 8 pounds, and was apparently cured. The third, a girl of 11, had been sick for 5 years. She was given 30 grains of chloral and kept asleep for 23 days, when she had gained 10½ pounds, and was apparently cured. [J.S.]

4.—A number of practical points are given with regard to the use of the **Harris' urine segregator.** After an experience in nearly 100 cases in the diagnosis of diseases of the kidney and ureter by its use, Harris is confident of the value of the instrument. It is not suitable for use in cases of fungus or other bleeding growths of the bladder, in contracted or distorted bladder, vesical calculi or excessively enlarged prostates. [M.B.T.]

5.—Knox describes the climate of Fort Davis in the trans-Pecos region of Texas. This is 5,200 feet above the level of the sea, and is situated in a very dry region. The mean temperature for summer is 74.3°, for winter 45.5°. The relative and absolute humidity is extremely low. The average number of cloudy days per year for several years was 37. It seems to be a health-resort very well adapted for asthma, incipient phthisis, catarrh, bronchitis and general debility. It is not suitable for cases of organic heart disease, or of advanced pulmonary consumption. [J.S.]

Medical News.

April 1, 1899. [Vol. lxxiv, No. 13.]

1. A Further Study into the Frequency and Nature of Cancer. Roswell Park.
2. Nasal Catarrh in Children; Its Cause and Treatment Clarence C. Rice.
3. A Case of Arteriosclerosis : Necropsy. Herbert Maxon King.

1.—Park makes the startling statement that a study o Health-Board reports shows that **by 1909 more deaths will occur in New York State from cancer than from consumption, smallpox, and typhoid fever combined,** if the present rate of increase in cancer continues. He advances arguments toward proving his belie that cancer is due to parasites. The cachexia that occurs in the later stages is such as is found only in infectious diseases; cancer seems to have an undoubted tendency to occur in certain families and in certain localities; the method in which the cells arrange themselves is similar to that seen in the infectious granulomata, and there have been objects seen in cancers which resemble parasites very greatly. Park states that it is possible to observe the reproduction of these bodies, particularly in the outer portions of the growth, and there seems to his mind to be a relation between the age of the parasite and the age of the cell, both undergoing evolution at the same rate. He then quotes the work of Bosc and numerous other workers in the question of inoculation o cancer. The fact that there may be conjugal inoculation o cancer seems fairly well proven by the repeated reports o such an occurrence, and there are apparently undoubted instances on record in which melanotic sarcoma, especially has been inoculated into the lower animals. There are als questionable instances of inoculation of cancer into on human being from another, besides certain suggestive instances in which cancer seemed to be inoculated along the course of wounds made in operations for removal of cancer A brief description of the ideas projected in the laboratory at Buffalo for the study of cancer is given and the result there. The paper closes with the vague statement that cu ture and inoculation experiments in that laboratory hav been successful so many times as to leave no doubt in th minds of those who have been doing the work that cance is an infectious disease. [D.L.E.]

2.—Rice states that **atrophic rhinitis** is a very common affection in children, and he has often seen it in th very early years of childhood. He believes that it is commonly atrophic from the beginning, and not the result of a primarily hypertrophic rhinitis. It is most common amongst the poor, largely because of neglect of the nasal passages. The catarrh occurring in the eruptive fevers undoubtedly causes many instances, and other irritative causes are of course active. He believes that ozena at any age should not be considered a special disease; it is merely the fetid odor which accompanies many disorders of the nasal passages. It is especially insisted that enlargement of the pharyngeal tonsil is most common because of chronic nasal catarrh in children; he believes that this is the origin of the trouble in 90% of the cases. As to the diagnosis, he says that if it is impossible to examine the postnasal space with a mirror, he is in the habit of making the diagnosis with the curet. [Surely an extreme measure in diagnosis.] In treating he curets until the surface feels smooth, and insists upon the necessity for thoroughness both in order to have good results and to prevent following infection. As to less active treatment he states that in nasal conditions spraying with atomizers and inhalations are better than swabbing, and irritation should always be avoided. A spray of Seiler's or Dobell's solution, adding some peroxid of hydrogen or similar substance, if desired, should be used. Cocain in $\frac{1}{2}$% strength is recommended. This should be followed by a solution of oil or a powder consisting of a compound stearate combined with menthol, boric acid, or something similar. The oily solutions should be used in atrophic disease; the powders when there is a necessity for a drying effect. [D.L.E.]

3.—The case occurred in a man, 71 years of age, who had no history of alcohol or specific disease, but had led a life of great exposure. The interesting points in the case were that there was a large amount of albumin and many casts in the urine, which led to a suspicion of primary nephritis, but there was a peculiar, very loud, musical murmur at the aortic region. It is interesting to note that during the latter part of his life the pulse fell to so low as 22 to the minute. Toward the end he had convulsions resembling uremic eclampsia and became delirious. At the postmortem examination there was found a general arteriosclerosis with thickening and stiffening of the aortic valves, hypertrophy of the left heart and hyalin degeneration of the kidneys. The disease of the kidneys was comparatively slight, and unquestionably the greater part of the large amount of albumin was due to congestion resulting from the sclerosis of the heart and vessels. [D.L.E.]

Boston Medical and Surgical Journal.

March 30, 1899. [Vol. cxl, No. 13.]

1. The Murder of John Dean—A Medico-legal Review. E. G. Hoitt.
2. Medical Expert Testimony. John C. Irish.
3. A Case of Double Homicide; Its Mystery. O. J. Brown.
4. A Simple Method of Locating Some Foreign Bodies by Means of the Fluorescent Screen. Francis H. Williams.
5. Two Cases of Eclampsia Successfully Treated by Venesection and Intravenous Infusion of Salt-Solution. Charles N. Cutler.

2.—Irish writes in favor of the **continuance of the present method of expert testimony,** and expresses his firm belief that it is only very rarely that such testimony is based upon anything but the absolute belief of the physician giving it. It has been suggested that to get rid of the evils of expert testimony the court should appoint some one expert. This Irish believes would be worse than the present system, since while it might be in the cause of justice there is great danger that an expert so appointed would seem clothed in such absolute authority through being appointed by the court that his testimony would carry absolute conviction, and after all, any one expert is but a man and his impressions may be entirely wrong, and might pervert justice. [D.L.E.]

4.—Williams' scheme for **locating** the exact position of **foreign bodies** with the **fluorescent** screen is briefly as follows: Two separate views are taken of the foreign body so that the direction of the respective shadows fall at about right angles to each other. As the views are taken the apparent position of the foreign body is marked on the skin and the markings connected by imaginary lines. The point of intersection of the two lines thus formed must of necessity be the position of the foreign body. [G.B.W.]

5.—Cutler reports 2 cases of **eclampsia** successfully treated by venesection and intravenous infusion of salt-solution. Assuming that eclampsia is caused by irritation of the nerve-centers from retained elements in the blood, it becomes evident that any effort of nature or art which will lessen this irritation will in some degree bring about the desired results. The rapid abstraction of a quantity of this surcharged blood partly accomplishes this end, the introduction of a normal salt-solution dilutes the remaining portion and at the same time, by overloading the vessels, becomes an active and prompt diuretic. This diuresis has been very often observed after intravenous injection given for the relief of surgical shock. [W.K.]

Journal of the American Medical Association.

April 1, 1899. [Vol. xxxii, No. 13.]

1. Some of the Minor Immoralities of the Tobacco Habit. Matthew Woods.
2. Surgical Treatment of Perforating and Bleeding Wounds of the Chest. Rudolph Matas.
3. Epidemic Cerebrospinal Meningitis. W. J. Class. (*Continued.*)
4. Submucous Fibroid; Fibroid Uterus; Curetment and Anterior Fixation. E. E. Montgomery.
5. Dermatologic Difficulties. L. Duncan Bulkley.
6. Mucocele of the Ethmoidal Cells Simulating an Orbital Tumor. F. C. Hotz.
7. Lumbar Nephropexy Without Suturing, with Report of a Case. Emanuel J. Senn.
8. Contribution to Our Knowledge of Tuberculosis Antitoxin. C. Fisch.

2.—In a consideration of the **surgical treatment of perforating and bleeding wounds of the chest,** injuries of the heart, the aorta, and great arterial and venous trunks may generally be left out of account, as the patients are rarely seen before they are in a moribund condition. The resistance of the larger bronchi prevent the retraction of arteries in close connection with them, hence there is a tendency to severe hemorrhage from the bronchial vessels, but the hemorrhagic area is small as compared with the entire lung. The importance of careful examination in all wounds of the chest for injuries to the internal mammary or intercostal vessels is insisted upon. Two cases of stab-wounds of the internal mammary artery and one of the intercostal are reported, in which it is believed that a fatal result might have been averted by more careful examination. Bleeding wounds of the lung which give rise to hemothorax offer some hope, although it has not been definitely decided what course should be followed when the bleeding is profuse and does not come from the chest-wall. All the older text-books still advise expectant treatment, although the tendency to aggressive action is developing rapidly. Matas believes that in case hemorrhage persists in spite of rest, immobilization of the chest-wall and occlusion of the wound, if the patient's life is in danger, a free opening should be made into the chest. This will usually enable the surgeon to stop bleeding by tying the vessel or the piece of wounded lung or by packing with iodoform gauze. When the patient is bleeding to death prompt action is called for. Before operation the patient's capacity of resisting shock or further traumatism should be carefully considered. The intravenous infusion of hot saline solution is of great value as a prophylactic against shock during the operation. It may be repeated, in conjunction, if necessary, with artificial respiration by the Fell-O'Dwyer apparatus. Wounds of the inner surface of the lung can be brought to view by lifting the anterior edge of the lung out of the wound. Hemorrhage is sometimes controlled by the thermocautery, but suture, followed by anchoring the lung to the chest-wall, is usually the simplest and most valuable method. As ordinary free drainage favors a return of partial pneumothorax, drainage by progressive aspiration by Pontain's apparatus is advised. Little can be said as to the precise method of operating. The opening into the chest should be very free or the bleeding vessels will never be found, and the danger of losing valuable time by an insufficient opening is greater than that of inflicting shock. A certain percentage of penetrating chest-wounds will invariably end in death, but it is believed that skillful intervention with the new methods mentioned will save many lives. [M.B.T.]

5.—Symptoms, diagnosis, prognosis, and treatment of cerebrospinal meningitis are discussed, and histories are given of 26 cases which occurred during the recent Chicago epidemic. [M.B T.]

6.—Few cases of **ethmoidal mucocele** are on record. The case of a girl, 13 years of age, is reported, who 4 years previously fractured her nasal bones and had had nasal catarrh since. The left eyeball was protruding and pressed to the temporal side of the orbit, and a smooth, round, firm tumor was palpable. An incision was made from the root of the nose to the middle of the brow, the tissues were dissected up and retracted and it was found that the ethmoidal walls had been converted into one large cavity, containing at least 4 ounces of creamy material. This fluid was withdrawn and daily irrigation with boric acid was practised, which was followed by rapid disappearance of the discharge and healing of the wound. [M.B.T.]

7.—A case of **lumbar nephropexy** by Senn's method without suturing is reported. Points suggested in favor of this operation are, that fibrous union which follows it, does not interfere with the kidney itself. The gauze sling draws the lower pole of the kidney upward, favoring correction of flexure of the ureter. [M.B.T.]

8.—The results of a series of experiments to determine the toxicity of various forms of tuberculin are reported. [M.B.T.]

The American Journal of Obstetrics.

January, 1899. [Vol. xxxix, No. 253.]

1. What is the Proper Field of Salpingo-oöphorectomy? Chauncey D. Palmer.
2. The Use and Abuse of Normal Salt-solution. J. Wesley Bovée.
3. Suture of the Wound after Abdominal Section. John B. Deaver.
4. Puerperal Eclampsia. Report of a Case, with the Treatment of Same Patient During a Subsequent Pregnancy. R. W. Stewart.
5. A Case of Mixed Puerperal and Typhoid Infection in which the Streptococcus and the Typhoid Bacillus were Isolated both from the Blood and the Uterine Cavity. George Blumer.
6. Two Cases of Sacro-iliac Disease in Parturient Women. Edward P. Davis.
7. The Frequency of Pelvic Disorders in Insane Women. W. P. Manton.
8. Extrauterine Gestation. J. L. Wiggins.
9. Serum-treatment of Streptococcic Infection. A Report of 5 Cases. E. W. Saunders.

1.—Palmer believes there are 3 **indications for salpingo-oophorectomy**: (*a*) To abrogate the process of ovulation; (*b*) to check or modify the menstrual discharge; (*c*) to remove organs incurably diseased. Again and again have cases of hysteria, chorea, hystero-epilepsy, neurasthenia, nymphomania, pelvic neuralgia, mania and melancholia been treated in this way. These functional disturbances of the nervous system may appear dependent on, or be aggravated by, the functional activities of the ovaries. Physicians are too often disposed to ascribe the mental condition of insane women to pelvic disease, when, in reality, these organs are in a comparatively healthy condition. If diseased or injured, is the mental aberration causative or concomitant? When there is no organic structural lesion in the ovaries, in cases of these functional nerve-diseases, the operation of oophorectomy is clearly contraindicated. The old method of removing both appendages when one is diseased is, at the present day, so unreasonable as not to be countenanced. Finally, (1) after all abdominal sections for supposed diseases of the uterine appendages we should carefully lift up these parts, after enucleation, if needed, and thoroughly inspect them for macroscopic evidences of disease; (2) remove only such parts of these appendages, the ovaries in particular, as may be hopelessly diseased; (3) do not disturb the healthy side unless for good and sufficient reasons; (4) consider slight cystic degeneration or cirrhosis of the ovaries as insufficient grounds for extirpation; (5) bear in mind that ovulation and menstruation, local only in certain manifestations, are systemic always in physiologic changes. [W.K.]

2.—The introduction of **normal salt-solution** into the body for changing the character and composition of the blood and other purposes has been by 5 different avenues, intravenous, subcutaneous, intraperitoneal, rectal enema, and intra-arterial. Each of these is said to have its special indications. Normal saline solution increases the volume of the blood and lessens its specific gravity, and has a stimulating effect upon the cardiac ganglia and arteries. It also augments the number of red blood-corpuscles. In surgery, shock, hemorrhage, and sepsis are the principal indications for its use. In obstetrics, it has been used successfully in postpartum hemorrhage, eclampsia, and puerperal sepsis. Bovée details the contraindications and abuses in its use and the precautions to be observed. [W.K.]

3.—The method employed by Deaver for **suture of the wound after abdominal section,** in the greater number of clean cases, excepting those for hernia, is the through-and-through method, using silkwormgut and taking in little skin, much fasciæ and muscle, and little peritoneum. In cases of hernia he uses simple interrupted buried silver-wire sutures and not the mattress suture advocated by some surgeons. The most unsatisfactory closures in his experience have been for purulent appendicitis. The resulting union of the abdominal wound does not entirely depend upon the suture employed, but upon careful apposition of the structures of the abdominal walls, putting just sufficient tension on the sutures to hold them in position without crowding them or causing the abdominal wound to pucker. [W.K.]

4.—Stewart reports a case of **puerperal eclampsia** with the treatment of the patient during a subsequent pregnancy, and describes his experiment to determine the toxicity of the urine during pregnancy, and his efforts to ascertain the causing factor in this condition. The whole case is summed up as follows: (1) poison is constantly circulating in the blood and being thrown out by the kidneys; (2) disposition on the part of the kidneys of albuminuria and nephritis when pregnancy exists; (3) when poison is in excess there is a disposition to disease of liver and other organs; (4) hence diminished elimination and consequent disposition to retention of poisonous materials in the blood; (5) consequent tendency toward eclampsia. [W.K.]

5.—Blumer reports a case of **mixed puerperal and typhoid infection** in which the streptococcus and typhoid bacillus were isolated both from the blood and from the uterine cavity. [W.K.]

6.—Davis reports two cases of **sacro-iliac disease** occurring in parturient women. In the first case increased mobility could not be detected, but the location of the pain was positive and pressure upon the surrounding tissues which brought a strain upon the joint was invariably followed by greater pain. As no evidence of abscess existed, the case was treated by immobilization, the patient put at complete rest in an iron frame, supporting the entire body. The second case was that of a woman 7½ months in her fourth pregnancy, who was afterward delivered at the Jefferson Maternity. The etiology in this case is obscure, but a reasonable explanation seems that obstinate constipation and resulting congestion and inflammation of the tissues about the impacted bowel caused the thickening and finally the joint-implication. [W.K.]

7.—Manton makes it a routine practice to **examine every newly-admitted patient** to the Eastern Michigan Asylum with the twofold purpose of determining the presence of physical defects, injuries and ailments, in order that the institution may be protected against unjust criticism and accusation, in the event of immediate or future accident in the individual case; and of obtaining all possible information regarding the patient's somatic condition with reference to the most suitable treatment to be inaugurated for the restoration of mental health and physical improvement. He gives a statistic table detailing the frequency of pelvic disorders in 100 consecutive cases. [W.K.]

8.—Wiggins discusses **extrauterine gestation** and reports 4 cases. No dependence can be placed upon any mode of treatment except a complete removal of the cause of offense. Even in the broad-ligament rupture, where there is arrest of hemorrhage and probable cessation of pregnancy the dangers of the operation are slight in comparison with the inconvenience and dangers of conservatism. According to Schauta, 68.8% of all cases die which are not interfered with; those in the early period from hemorrhage, and those later from septic peritonitis or rupture of sac into the bowels. [w.k.]

9.—Saunders reports 5 cases of **streptococcic infection** treated with injection of antistreptococcic serum, a study of which shows a definite effect in every case. In cases number 1, 4, and 5, typical and uncomplicated streptococcic infection, the cure was rapid and, compared with the usual results in such cases, certainly remarkable. Case 2 had a large number of complications, but nevertheless the streptococcic invasion was utterly stamped out, as shown both by temperature and by lochial examination. In case 3 the streptococcic infection was eradicated probably after the sixth injection, but the staphylococcus finally caused the death of the patient. [w.k.]

British Gynecological Journal.

February, 1899. [Part lvi.]

1. On Vaginal Hysterectomy for Malignant Disease of the Uterus. Frederic Bowreman Jessett.
2. Saline Irrigation in Abdominal Operations. George A. Hawkins-Ambler.
3. Gynecology Among the Insane in Private Practice. Ernest Hall.

1.—Jessett gives the result of 7 years' operations of **vaginal hysterectomy for cancer of the uterus,** 107 cases. He urges the great importance of early diagnosis, as there is no disease from which women suffer that is to be compared in its disastrous consequences with carcinoma uteri, and yet it is rarely recognized in its early stage. The difficulties of certain diagnosis of malignant disease are very great. All women suffering from vaginal discharge, hemorrhage, or pain near the menopause should have a thorough vaginal examination. The danger of vaginal hysterectomy is comparatively slight; in the series given the mortality is less than 8%, and if only favorable cases are selected the mortality may be reduced to almost nil. If the uterus is freely movable, no matter if the vaginal walls are somewhat encroached upon, he advises operation. But if the uterus is fixed or the broad ligaments much invaded, operative procedure should be negatived. In this series of 107 hysterectomies for cancer, 9 died from the operation, 3 from shock, 2 from intestinal obstruction, and 4 from peritonitis. [w.k.]

2.—Hawkins-Ambler discusses **saline irrigation in abdominal operations** and advises the following precautions in its use: (1) use rather normal saline solution than plain hot water; (2) the temperature of the fluid should be little above bloodheat, unless in cases of severe hemorrhage, when irrigation should be confined to the affected area and the stream shut off so far as possible from viscera not implicated; (3) avoid irrigation in septic cases; (4) it should not be too prolonged, since a sodden peritoneum is likely to suffer damage as an absorbing agent, if it be not irritated into such a suspension of this function that blood and plasma might be left unabsorbed for a dangerously long period; (5) when not required for cleansing purposes or as a hemostatic, equally good or better results will be obtained by pouring into the abdomen a quantity of normal sterilized saline solution, or by injecting it into the rectum. [w.k.]

3.—Hall, in speaking of **gynecology among the insane,** urges upon every physician the necessity of making a thorough pelvic examination under anesthesia of every case before signing papers of commitment. Such careful examination by one who has special training in this department would send at least one patient to the hospital for every two that were sent to the asylum. Is it not time that the blessings of modern surgery should be extended to our mothers, sisters, and daughters, many of whom are in living death, hopelessly incarcerated? And then, the next step, let us apply these principles of treatment to the opposite sex. [w.k.]

Deutsche medicinische Wochenschrift.

February 23, 1899. [25. Jahrg., No. 8.]

1. Studies of Endocarditis. F. Harbitz.
2. Hospital Treatment of Advanced Tuberculosis. J. Lazarus.
3. Suppurative Inflammation of the Fossa Glosso-Epiglottica. (Angina Præepiglottica Phlegmonosa.) W. Lublinski.
4. Botulismus after Eating Putrefied Fish. R. David.

1.—Harbitz contributes a further **study of endocarditis** which is of extreme interest. He endeavors to make an etiologic division of the cases into those which are infectious, meaning by this those in which the infective agent is discovered, and into the noninfectious form, in which variety are included those cases the origin of which is not wholly known; even these may be of infectious origin, and probably are in many instances. He records 43 cases of infectious endocarditis, of which 17 were due to streptococci, 5 to pneumococci, 8 to staphylococci, and 3 to other specific microorganisms. He found in 10 further cases, the remnants of a healed infectious endocarditis. There were two varieties of the infectious endocarditis markedly different as regards the clinical course. In the first form the endocarditis was one of numerous symptoms of a general fulminating pyemia, originating in some point of suppuration, and usually accompanied by suppuration in various other tissues. The second form included those cases in which the endocarditis was itself the predominant process and was probably the central point of the origin of the general systemic infection. These cases were usually caused by the streptococcus or the pneumococcus, and it is extremely interesting to note that the cases caused by the streptococcus or pneumococcus followed an extremely long course, running often from 4 to 10 months before death occurred. They began with fever and rheumatic pains, followed by symptoms of loss of compensation and sometimes with rapid anemia and emaciation. Nephritic symptoms were often very marked and very severe. The lesions found postmortem were usually verrucose formations on the valves, ulceration being commonly entirely absent. The most striking thing was the discovery, upon bacteriologic examination by both cover-glass and culture-methods, of enormous numbers of microorganisms in the vegetations even at this late date. The spleen was usually enlarged and hard, but commonly sterile. The kidneys showed subacute parenchymatous or hemorrhagic nephritis; they also were sterile. There were 16 cases belonging to this group, and of these 9 were due to the streptococcus, 4 to the pneumococcus, and 3 to other microorganisms. In 2 cases there were small cocci which did not stain by Gram's method, and had other points of similarity to the gonococcus. Not all the cases which were due to the streptococcus and pneumococcus followed this extremely slow course; there were instances of rapidly fatal cases due to these microorganisms, but in almost all instances early death indicated that the disease was due to staphylococci. In 2 cases in which microorganisms could not be found after death, staphylococci were obtained from cultures of the blood made during life. Of the **non-infectious form of endocarditis** he records a number of cases, among which the most interesting were 11 which occurred with tuberculosis, and in which tubercle-bacilli seemed to be entirely absent excepting in one case, in which a few of the bacilli were found upon cover-glass preparation, and in 2 instances in which scrapings from the valves caused tuberculosis in guineapigs. He considers it very doubtful, however, whether these were forms of tuberculous endocarditis, since he believes it quite possible that with disease of the valves in advanced tuberculosis, tubercle-bacilli might be readily deposited there when they had not caused the disease. [d.l.e.]

2.—See editorial.

3.—Three cases of **suppurative inflammation of the fossa glosso-epiglottica** are reported, and, owing to the rarity of the condition, the symptoms are analyzed. There was no general disturbance at first, but all had some discomfort upon swallowing and some dryness of the throat. This was followed by weakness and loss of appetite, some fever; pain in the throat came on and grew very severe, shooting toward the ear, and there was marked increase in the secretion of saliva. The speech became thick. The diagnosis in one case was at first hysteria, because nothing could be discovered by either ocular or digital examination, but upon examination with the laryngoscope there was discovered a reddish-gray swelling which subsequently showed suppuration. The only treatment of consequence was opening the abscess. [D.L E.]

4.—A family, including 5 members, ate red herring which had become somewhat putrefied. This was March 19. Within 5 days afterward all the members of the family became ill. The father, mother, and son showed mildest symptoms, which consisted chiefly of **nausea, constipation, and evidences of involvement of the nervous system,** double vision being the most marked symptom. These symptoms disappeared after about 6 weeks in the case of the mother and father, but lasted for over 2 months in the son. The 2 daughters showed very curious and prolonged symptoms. In one these began with disturbance of the digestive organs, and double vision followed by paresis of the external eye-muscles and loss of accommodation. Upon this ensued emaciation, nasal voice, uncertain gait, and weakness of the heart. Sensation was nearly lost in the pharynx, and subsequently there was paralysis of the pharyngeal muscles, and swallowing was impossible. Then paralysis of the bladder appeared. These symptoms varied from time to time, but were quite persistent until the middle of May, when there was improvement for a week or two, followed by further difficulty. By June 10 the girl was able to leave her bed, and with the exception of another increase in the difficulty in swallowing and a return of double vision in August, she constantly progressed until entire recovery was reached in October. Similar conditions were noticed in the other girl, and her symptoms also lasted until the late fall. In this case further interesting notes were the appearance in the middle of May of a scarlatina-like eruption over the whole body, most marked on the extensor surfaces. A day or two afterward there was severe pain in the left hypochondrium, and tenderness over the region of the kidney. This pain continued for several days and was accompanied by giddiness, severe weakness, and some epistaxis. The urine contained a small amount of albumin. At the beginning of the illness this patient had a normal heart and lungs, but on June 2 a systolic murmur was heard over the mitral valve, and this persisted even to the time of her disappearance from observation and was accompanied by enlargement of the heart and all evidences of organic change. [D.L.E.]

March 2, 1899. [25. Jahrg., No. 9.]

1. The Diagnostic Value of Koch's Tuberculin. M. BECK.
2. Pneumococcus Immunization. M. WASSERMANN.
3. Multiple Sclerosis Following Injury. B. LEICK.
4. Hospital Treatment of Advanced Tuberculosis. (Conclusion.) J. LAZARUS.

1.—Beck advocates strongly the use of **Koch's tuberculin for diagnosing incipient forms of tuberculosis.** He does not believe that it can have any injurious action. Those cases in which acute miliary tuberculosis has appeared to follow the use of tuberculin, were so advanced that it was not unlikely to occur if there had been no interference. In Berlin, systematic diagnostic injections have been made since 1891 in the Institute for Infectious Diseases. The method pursued is as follows: For one or two days before the injection, the temperature is taken at intervals of 2 or 3 hours until the normal is known. Then 1 mg. of tuberculin is injected; 1 to 2 days later, 5 mg., and after another pause of 1 to 2 days, 10 mg. If an elevation of temperature occurs after the second injection, this dose is repeated. In the case of a child, smaller doses may be employed. After all injections, the temperature should be taken at least every 3 hours. A reaction is not recognized unless the elevation of at least ½° C. occurs. If a doubtful reaction is observed, the dose must be repeated. No injection should be made in patients with fever or irregular temperature. The solution of tuberculin is preserved in 0.5% carbolic acid, and must be kept not longer than 3 days before it is used. Of 4,254 patients, 2,508 received the injections. Of these, 295 had tubercle-bacilli in the sputum, 65 suffered from lupus, and 12 from bone-tuberculosis or joint-tuberculosis. Of the remaining 2,137 cases, 338 had suspicious physical signs and 298 reacted positively. In 25 cases of suspicious laryngeal ulcers, 17 gave a positive reaction, and of 106 cases diagnosed influenza, positive reaction occurred in 67. In 68 cases of pleurisy, 50 positive reactions were obtained. Among other interesting results was the fact that 12 of 13 cases with adenoid growths in the nose gave a positive reaction. In a great variety of other acute infectious diseases, positive reactions occurred in from 30% to 50% of the cases. Altogether, therefore, of the 2,500 tested, 1,525 gave positive reactions, and in 1,154 of these the diagnosis could not have otherwise been made. Beck therefore concludes that tuberculin is the most valuable diagnostic means for recognizing tuberculosis. [J.S.]

2.—Wassermann, after **immunizing rabbits against the pneumococcus,** tested extracts of the various organs in order to determine the amount of antitoxin that had been produced. The most efficient was bone-marrow, which appeared to be 2½ times as strong as the blood. Next best in efficiency appeared to be the organs of the lymphatic system, but the difference between this and the bone-marrow was so considerable, particularly in the first 2 days, that Wassermann concludes that the marrow is the place where the toxin is formed, and the lymphatic tissues are merely reservoirs in which it is retained. In bone-marrow obtained from a human being, who had died before the crisis, marked antipneumococcic properties were found, showing that in human beings a similar condition exists. The production of the antipneumococcic substance occurs at the same time and proportionately to the multiplication of leukocytes. It does not follow, however, that they are dependent in any way upon each other; but in an animal that had been immunized for some time, the white cells possessed pronounced protective qualities. [J.S.]

3.—Leick reports the case of a man, 34 years of age, who was struck upon the head with such force that he remained unconscious for 4 hours, and had severe hemorrhage from the mouth and nose. Upon recovery of consciousness, the patient noticed that the right leg and arm could be moved slightly, the left side not at all. On the left side sensibility was also considerably diminished. This condition rapidly improved, so that with the aid of a cane the patient was able to walk, although the left foot still dragged. There was horizontal nystagmus, bilateral fixation, and his speech had a slightly nasal tone, but was not scanning. Occasionally there was slight tremor of the arms, and fibrillary twitchings occurred in the entire body. There was some rigidity of the arms. All the tendon reflexes were greatly increased, and there was distinct clonus. There was no intention-tremor, but moderate ataxia upon movement, especially with closed eyes. The gait was spastic and ataxic. Romberg's symptom was present. There was no disturbance of sensation. The organs were normal. Leick considers the case to be one of **multiple sclerosis.** He excludes spastic spinal paralysis on account of the presence of nystagmus. [J.S.]

4.—See editorial.

Centralblatt für Chirurgie.

March 4, 1899. [26. Jahrg., No. 9.]

1. The Technic of Craniotomy: a New Conductor for the Wire Saw. A. PODREZ.
2. The Filling of Bony Defects by Means of Burned Bone. GROSSE.
3. A Contribution to the Technic of Resection of the Second Branch of the Trigeminus at the Base of the Skull. ALEXANDER FRAENKEL.

1.—On account of its accuracy and simplicity of technic Podrez believes that **trephining by means of Gigli's saw** is destined to become the most generally used method. Passing the saw between the two trephine openings is difficult because of the flexibility of the saw. Gigli himself has described an arrangement for introducing the saw consisting of a curved director and a whalebone blade, but this is complicated and expensive. Podrez suggests the use of a strong, well-hardened watch-spring of 3 or 4 mm. breadth and 13 to 15 mm. in length, to one end is attached a ring or handle and at the other end is an olive-shaped tip provided with an opening for silk thread. [M.B.T.]

2.—Landerer suggested the replacing of smaller bones and filling defects in the skull by means of burned bone. Grosse carried out experiments on animals to determine the value of this method and finds that the results are excellent and remain permanent from 2 to 3½ years after the operation. [M.B.T.]

3.—The possibility of reaching the second branch of the trigeminus through openings in the anterior and posterior walls of the antrum of Highmore was suggested by Tandler, and Fraenkel was satisfied of the feasibility of operation by this route after experiments on the cadaver. He reports the case of a patient who had recurrence of pain 1½ years after resection of the nerve at the infraorbital foramen upon whom he operated by this method. The steps of the operation are as follows: The upper lip is retracted and the mucous membrane dissected away from the region of the canine fossa of the upper jaw; the antrum of Highmore is opened through the canine fossa and by artificial illumination the nerves can be seen at the lateral and posterior wall of the cavity. The posterior wall is carefully chiseled away and the nerve is seized with blunt hooks, one end at the orbital fissure and the other end the foramen rotundum, and the portion between them is resected. The great advantage of this method lies in the possibility of avoiding an external wound. [M.B.T.]

March 11, 1899. [26. Jahrg., No. 10.]

1. The Operative Treatment of Intussusception. Hippolite Oderfeld.

1.—The resection of the entire portion of intestine involved in **intussusception** has been followed by so high a mortality as to make some simpler method desirable. In case the invagination is located deep in the pelvis Oderfeld recommends the following precedure: (2) Intestinal clamps are applied, one just above and the other a few centimeters below the point of invagination. The mesentery of the part to be resected is tied off with a strong ligature and divided; the portion of intestine between the two clamps is then resected, the lower clamp is carefully opened and the invaginated portion than usually disappears in the intestine below the field of operation. In case it does not do so, careful massage should be practised. All that is necessary for the completion of the operation is then to unite the 2 ends of the intestines with circular suture. [M.B.T.]

March 18, 1899. [26. Jahrg., No. 11.]

1. The Beard as a Means of Infection in Aseptic Operations. W. Hubener.
2. A New Method of Preventing Infiltration of Urine when Draining the Bladder after Suprapubic Cystotomy. Karl Kaczkowski.

1.—Hubener has carried out a series of experiments to determine the **influence of the beard in producing infection** in aseptic operations. Seven agar-plates were placed within a glass case which had been previously sterilized by formol-vapor. Several persons wearing a full beard and protected by an operating gown moved the head back and forth over the plates for 10 to 15 minutes with and without an ordinary mask. The number of bacteria in each case was approximately the same, ranging from 55 to 124. The same experiments were carried out, except that the beard was stroked with a sterile instrument and pyogenic bacteria were found in 42.3% of the cases. When the beard was protected by the mask devised by Mikulicz the plates either remained sterile or no important number of colonies were found. The protective action of this mask is considered approximately perfect. [M.B.T.]

2.—An apparatus is described consisting of a rubber balloon of dumb-bell form. One of the expanded portions is placed within the bladder, the constricted portion occupies the wound, and the second expanded portion the surface of the abdomen. A stiff-walled tube of large caliber penetrates the whole, reaching into the bladder. When put in place and distended the balloon lifts the bladder-wall forward and presses it against the abdominal wall, closing completely the prevesical space and tending to bring about adhesions between the bladder and abdominal wall. A case of ulcerative cystitis is reported in which the balloon was used with success. [M.B.T.]

Neurologisches Centralblatt.

March 15, 1899. [18. Jahrg., No. 6.]

1. Critical Review of the Article by Bethe, "The Anatomical Elements of the Nervous System and their Physiological Significance." V. Lenhossék.
2. Heteropia, Double and Triple Central Canal in the Spinal Cord. Senator.
3. A New Pupillary Phenomenon. Piltz.
4. Contribution to the Discussion of Tumors of the Hypophysis. (Sarcoma Angiomatodes Hypophysis Cerebri.) Pechkranz.

1.—V. Lenhossék agrees with Bethe in his representation of the nervous system of the carcinus mænas, stating that it consists of a ganglion for each segment divided in half by a median fibrillar commissure. In the ganglia are found the motor cells sending their axis-cylinders to the periphery, and to the ganglia come the central processes of cells that lie just beneath the sensory hairs of the periphery. This, however, he does not regard as an original discovery. Next he discusses the **significance of the neuro-fibrils** that Bethe claims to have found in confirmation of the previous communications of Apáthy. Apáthy had claimed to be able to demonstrate that in snails these fibrils pass from one neuron unit to another, forming thus a mode of direct communication between different neuron's; and as subsequent critics have contended, overthrowing the neuron doctrine. Bethe, however, has not personally been able to demonstrate this important fact. Indeed, all of his investigations have appeared to prove the reverse, although he states that certain reasons, not yet ready for publication, lead him to believe that an unbroken continuity between the neurons by means of primitive fibrils actually exists. Until these reasons are published, v. Lenhossék argues that we must admit the importance of the neuron doctrine. The absence of actual communication, however, seems to be established by the concordant results of the Nissl and Golgi stains, particularly the latter, which, as is well known, v. Lenhossék employs with singular skill, seems to prove conclusively, unless we accept the existence of artefacts for which there is no reason, that such communications do not exist. Finally, Bethe apparently has shown that the portions of the nerve-cell of the carcinus, corresponding to the protoplasmic processes, arise, not from the body of the cell itself, but from the commencement of the axis-cylinder, and then ramify, forming a thick network which he terms, in agreement with His, neuropil. [J.S.]

2.—Senator describes a **spinal cord in which** the following **anomalies were found:** In the middle of the lumbar swelling there was found in the right posterior column, near the posterior horn, a mass of gray substance elliptic in shape, containing ganglion cells, neuroglia, and a few nerve-fibers. It extended a very short distance above and below. In the same cord, the central canal was single in the cervical region, and double from the fourth or the fifth dorsal segment downward, one canal being much larger than the other; lower in the dorsal region both canals became larger and a third was added to them, lying rather posteriorly to them and between them. Finally, in the lumbar region, there were 3 central canals lined by epithelium; 2 symmetrically situated, and the third just back of the right. [J.S.]

3.—Piltz describes a **pupillary reflex,** which is essentially the same as that described by Westphal in an earlier number of the Journal. He first observed it October 16, 1898, in a case of paretic dementia with typical Argyll-Robertson pupil. It consists of a contraction of the pupil when the eyes are closed, or when an effort is made to close them against resistance. It disappears when the pupil is artificially dilated with homatropin. This reaction was described by Wundt as a physiologic manifestation. Contraction of the pupil, as a result of closure of the eyes, occurred in 3 of 7 cases of blindness, in 10 of 22 cases of paresis, in 7 of 25 cases of catatonia, in 2 of 8 cases of epilepsy, in 2 of 9 cases of locomotor ataxia, and in 1 of 23 healthy persons. The pupils of 5 of the paretics did not react to light. The rarity of the reaction in healthy persons is not in accordance with Wundt's teaching. Contraction of the pupil, when an attempt was made to close the eyes against resistance, occurred in 14 of 22 cases of paralysis, in 3 of 7 cases of blindness, in 12 of 25 cases of precocious dementia, in 3 of 8 cases of epilepsy, in 2 of 9 cases of locomotor ataxia, and in 8 of 23 healthy persons. The chief difference appears to be the greater frequency of this form in healthy persons. In a case of locomotor ataxia, with optic atrophy, this reaction was the only one left. In a case of epilepsy, with loss of light-reflex, it was also present. In a case of oculomotor paralysis, distinct narrowing was present. Piltz calls attention to a similar observation made by Gifford, in 1895. [J.S.]

4.—Pechkranz continues his article upon **tumors of the hypophysis.** The tumor appeared to arise from the connective tissue of the gland. It had no connection with the brain, but produced, by pressure, a moderate amount of softening. He believes that it arose from the skull itself, and gradually involving the hypophysis distended the surrounding dura. It became softened, as a result of hyalin degeneration of the bloodvessels. Sarcomata usually develop in the posterior portions of this gland, and as well as other tumors produce more or less destruction of the bones forming the sella turcica. The most important symptoms of tumors in this region are the destruction of the optic chiasm, either completely or partially, giving rise to bitemporal hemianopsia. The association of these tumors with akromegaly has been frequently observed, and in the present case the extremities were considerably enlarged, and did not pit upon pressure. Pechkranz suspects that this may represent a form of pachyacria mollis, that is, an enlargement of the soft parts alone in contradistinction from the enlargement as well as of the bones that occurs in typical akromegaly. The curious feature of these tumors is the frequent absence of choked disc, frequently the oculomotor is involved, as occurred in the present instance late in the course of the disease, and exophthalmos occasionally occurs. Complicating symptoms that often render the diagnosis difficult are the albuminuria and glycosuria, as well as diabetes insipidus; the chief source of error being the fact that renal disease sometimes gives rise to symptoms not dissimilar to those of brain tumor. [J.S.]

Centralblatt für innere Medicin.

March 11 and 18, 1899. [21. Jahrg., Nos. 10 and 11.]

A Contribution Concerning the Physical Phenomena of the Heart in Adolescence, and the Effect of Body Position Upon Them. H. Zeehuisen.

Zeehuisen has previously noted that the cardiac impulse in youthful individuals is usually found, when standing, in the fifth intercostal space, and often when in horizontal position it is found in the fourth intercostal space. This is due to the fact that in the latter position the diaphragm is in the position of expiration. Also many normal young persons show a certain degree of dulness under the sternum when horizontal, and this vanishes upon assuming the vertical position. This is also due to the fact that in the vertical position the chest assumes the position of inspiration, while when horizontal it is in the position of expiration. It is often noticed that the aortic second sound is weaker than the pulmonary, and this is most striking when the individual is lying down, and is most marked in those who have a delicate construction of the thorax. Further, murmurs, particularly those arising at the mitral orifice, are often much louder when the patient is in a horizontal position than when he is standing. These murmurs also frequently vanish or grow very weak when the individual takes a deep inspiration. All these conditions are due to the same cause; when the patient sits up his chest takes the position of inspiration, therefore, sounds become weaker, because the lungs cover the heart more completely and prevent proper transmission. This is true also of the reduplication of sounds, such reduplication being heard better when the patient is horizontal, because then such sounds are carried to the ear more perfectly. Zeehuisen has also noted that the area of dulness found upon percussing a patient varies when he is placed in different positions; and this is due to the fact that the movement of the ribs in assuming the positions of inspiration and expiration which are associated with vertical and horizontal positions, causes a disturbance of the relative position of the overlying skin. The dulness in the vertical position, therefore, seems larger, particularly on the upper and outer border.

Auscultation can be carried out much more satisfactorily when the patient is in a horizontal position with the exception of the auscultation of the aortic region. It is especially insisted that in examining the heart of patients they should be placed in various positions, and particularly they should be more frequently examined in the horizontal position; this is especially likely to be neglected when seeing patient's in one's office. [D.L.E.]

Münchener medicinische Wochenschrift.

January 31, 1899. [46. Jahrg., No. 5.]

1. Upon the Indications for and the Results of Surgical Interference in Diseases of the Kidneys. Sendler.
2. The Clinical Significance of Chorio-epithelial Neoplasms. Anders.
3. On the Spontaneous Rupture of the Vaginal Vault in Parturition. Sieburg.
4. Tuberculous Meningitis, of a Traumatic Nature or Not? Waibel.
5. Primary Carcinoma of the Pancreas. Schilling.
6. A Case of Poisoning with Bromoform. Schmitt.
7. A Report of the University Polyclinic for Children's Diseases. Seitz.
8. A Consideration of Sick-Benefit Societies and the Obligations of the Attending Physicians to the Members. Gerhardt.

3.—Sieburg reports a case of **spontaneous rupture of the vaginal vault during labor,** the fetus being forced into the abdominal cavity through the opening thus made. He was called to the case by a midwife who was attending the patient in her ninth pregnancy. She was a weak, poorly-nourished woman at full term. The midwife finding her in a state of collapse and being helpless, sent for the physician, who upon arrival found an irregular mass in the left hypochondrium, and on the right a round hard tumor extending to the umbilicus. The small parts of the fetus could be discovered in the mass on the left, and the tumor on the right he found by palpation to be the uterus. The patient had symptoms of internal hemorrhage. After some difficulty in placing the forceps, he removed rapidly and with little trouble a large dead child. There was an immediate and extensive flow of dark blood. The placenta was removed by the hand through the laceration in the vagina. Measures to counteract the shock were taken but without success and the patient died shortly afterward. [W.K.]

February 7, 1899. [46. Jahrg., No. 6.]

1. The Present Status of the Blastoderm-theory (of Cancer). H. Klaatsch.
2. Concerning the Value of the Albumoses and Peptones in Nutrition. F. Voit.
3. The Primary Requisites of Typhoid Dietetics. Heinrich Benedict and Nikolaus Schwarz.
4. On the Experience with Welander's Method in the Application of Unguent. Hydrarg. cin. in Syphilis. Carl Stern.
5. Two Cases of Traumatic Chylo-thorax. Handmann.
6. On the Indications and Results of Surgical Intervention in Diseases of the Kidneys. Paul Sendler.
7. Concerning the Plague. Wetzel.

1.—Klaatsch deals with the present state of the **blastoderm**-question in its relation to **pathology,** and notes the wide chasm that seems to separate pathology from the biologic branches, a chasm that is nowhere better exemplified than in the classification of tumors. The embryologist, he says, experiences a sensation akin to terror when he sees Ziegler place the glioma and neuroma with the myxoma and the lipoma. He also denounces the classification of tumors into parablastomata and archiblastomata as being founded on an erroneous conception, for which the great His is responsible. After detailing the newer advances of comparative embryology, Klaatsch states that it has been quite conclusively shown that the ectoderm plays an important role in the formation of the mesoderm; the ectoderm is the matrix for everything—first for the entoderm, then for the mesoderm. The formation of the chorda dorsalis, the bloodvessel system, etc., is connected with the entoderm. The blastodermic layers have, indeed, only a limited specificity; it is true, the new formation of tissue is not arbitrary,—it is connected with certain conditions, but the governing principle is, as Huxley emphasized, **physiologic** and not simply morphologic in nature. The character of many tissues, as, *e. g.*, of many supporting tissues, is entirely determined by the physiologic factor, and it makes no difference from which blastodermic layer the tissue comes. Nonstriped muscle can arise as well from ectoderm as from entoderm. The concept **mesoderm** is gradually disappearing—the more accurate our knowledge of the fate of mesodermic tissues becomes, the more we shall be able to dispense with the idea of a mesoderm altogether. With the abandonment of the mesoderm, the pathologic notions concerning mesodermic tumors will fall. Why shall the mesodermic tissues arising from the ectoderm be treated differently from the parent layer? Klaatsch sees no reason why the concept of carcinoma should not be extended to the tumors springing from the walls of serous cavities and from the walls of the vessels. In such problems, he thinks, the clinical point of view should govern, as in normal histology, the physiologic standpoint. In conclusion he states that for a classification of tumors, the blastoderm-theory offers but little support, nor is much gained by an attempt at such classification. [D R.]

2.—The **albumoses and peptones** being the first products of digestion have repeatedly been suggested as substitutes for albumin. Voit takes up the questions (1) are they equivalent to albumins? (2) under what circumstances is their use indicated? As both can be reconverted into ordinary albumin, they must be looked upon as equivalent to the latter; as the true peptones have a repulsive bitter taste, the albumoses are to be preferred. But other questions beside mere equivalence in caloric value are to be considered, as, *e. g.*, the utilization of a food in the intestine. In this respect albumoses and peptones are far inferior to the unaltered albumins, as these are consumed in meat, eggs, and milk. They are, furthermore, not borne so well, and may even cause intestinal irritation. They are also very much more expensive than an equivalent amount of albumin in the form of eggs, meat, or milk. So the first question must be answered in the negative—they are *not* equivalent to albumin. In disease their use seems indicated in cases of defective pancreatic digestion, but such cases are rare, and even then it is better to add to the albumin fresh pancreas than to administer the finished product of digestion. They have also been recommended in cases in which it is necessary to protect the gastrointestinal tract from irritation, but they do not seem to exert much protective action. Albumoses and peptones have also been suggested as additions to a food poor in albumin, but in these conditions Voit prefers soluble and tasteless unaltered albumins, like casein-sodium or nutrose and casein-ammonium or eucasin. The indication for the albumoses and peptones is not the desire to shield the gastrointestinal tract, but the desire to stimulate it, as when mild constipation exists. They also seem in small doses to increase the appetite. Their chief use then is not as foods but as remedies—as **stomachics** and **laxatives.** [D.R.]

4.—Welander, in August, 1897, recommended a method of using mercurial ointment in syphilis, which has many advantages over inunction. It consists in the wearing of a **sort of apron** covered with the ointment. A piece of gauze or flannel, 50 cm. long and 40 cm. wide, which is fastened with tapes about the neck and waist, is spread daily or every few days with from 5 to 8 grams of gray ointment. The cloth can be worn on the chest or back. The patient remains from 10 to 14 hours in bed, but wears the cloth also during the day. The ointment is spread by the patient himself. In principle the method rests on the old theory of Gerhardt, now revived, that the "inunction cure" is nothing else than an "inhalation-cure." Stern has employed Welander's method in 102 cases of recent and old lues. The time required to obtain results was about that needed in other methods, but the new procedure has the advantage of simplicity and cleanliness over the inunction-treatment, and of the absence of pain, and of convenience over injections. Stern directs his patients to spread daily for three weeks 5 grams of ointment on flannel or gauze, and during the spreading to bend as low as possible over the cloth, and to consume at least 10 minutes in the spreading of the ointment. In the next three weeks the cloth is spread every two days. [D.R]

5.—The first case of **chylothorax** was caused by compression of the chest by sufficient force to fracture the clavicle on left side and 5 ribs on the right. On the twelfth day exploratory puncture in the seventh intercostal space on the left side showed the existence of fluid in the pleural cavity and by examination this fluid was proven to be chyle. The other case was that of a man, 22 years old, struck forcibly at the front of the chest. Two to 3 liters of pure chyle were withdrawn at the first tapping, and smaller quantities at the second and third. Both cases finally made perfect recoveries. [G B.W.]

6.—(Conclusion.) Sendler closes his article on the **surgical diseases of the kidney** by discussing the relative value of the transperitoneal and extraperitoneal methods for removing the kidney. The transperitoneal method is of easier execution, but is only to be chosen where the lumbar approach is impossible, as it would be in cases of large tumors of the kidney. The reason for preferring the extraperitoneal method is almost solely because of the danger of infecting the peritoneum being excluded, thus rendering the lumbar operation much safer, though it requires more skill and patience on the part of the surgeon. [G.B W.]

7.—The author gives a very thorough resume of our knowledge of the plague. [The article is to be continued. D.R.]

February 14, 1899. [46. Jahrg., No. 7.]

1. On the Knowledge of Renal Typhoid. Rostoski.
2. Concerning the Therapeutic Application of Jodipins in Bronchial Asthma and Emphysema. Frese.
3. A Case of Myositis Ossificans Progressiva. Morian.
4. A Contribution on Debatable Points in Melancholia. Tecklenburg.
5. Report of the Medical Polyclinic in Munich in 1898. Moritz.
6. The Requisites for Dietetics in Typhoid. Benedict and Schwarz.
7. Concerning the Plague. Wetzel.

1.—Albuminuria is common in typhoid fever, a fact already noted by Griesinger and Murchison. Rostoski found it recorded in 205 (59.2%) of 346 cases of typhoid fever observed during 12 years in the Würzburg clinic. The albuminuria sets in more frequently at the beginning than at the height of the disease. In 37 of the 205 cases the renal irritation reached a high degree, hyalin and epithelial casts appearing in the urine. Blood was found in but a single case. The mortality in the cases complicated with nephritis was much higher than in the others—of the 37 patients, 17 died, as against 20 of the remaining 309. Most writers do not place the frequency of nephritis so high as the figures just given (10.7%)—Curschmann gives it as 1%, Weil as less than 3%. Much rarer than cases of nephritis in typhoid fever, are those in which the latter disease begins with the features of nephritis, the characteristic symptoms of typhoid fever appearing later. This **nephrotyphus** was first described by the French. Two cases have been observed by the author—they are not included in the 346 mentioned above. The first case was that of a woman who had been ill with headache for a week. The urine, 600 c.c. per 24 hours, contained blood and albumin, and had a specific gravity of 1028; in the sediment were red corpuscles and epithelial casts. Three days after admission rose-spots and splenic tumor appeared; the diazo-reaction and Widal's reaction were obtained. Typhoid-bacilli were not found in the urine. The albuminuria persisted even after convalescence was established. It is probable that the patient had a chronic nephritis before the attack of typhoid fever. In the second patient, a woman of 26 years, the disease set in with a chill and high fever. The urine contained so much blood that, as casts were absent, a hemorrhage was suspected. The temperature was slight and not characteristic of anything. Six days after admission it rose suddenly, epithelial casts appeared in the urine, and the quantity of the latter diminished. There was evidently an acute nephritis, although edema, high-tension pulse, and uremia symptoms were absent. A bronchitis was also noted. Largely on account of the high temperature, an infectious disease was suspected, the more so as the liver and spleen began to enlarge. The pulse was relatively slow. Eventually Widal's reaction was obtained, and the finding of the typhoid-bacillus in the urine, which still contained albumin, blood, and casts, dispelled all doubts. And yet the subsequent course of the case was not like that of typhoid fever. On the fiftieth day the patient, who was convalescing, received an enema to overcome constipation, and immediately developed peritonitis, with a return of the hemorrhagic nephritis. She recovered, but some time afterward presented signs suggestive of peritoneal adhesions. In the end she get entirely well. This case appears to offer strong arguments in favor of the occurrence of "renal typhoid" or "nephrotyphus." In concluding the author advises that in every case of so-called idiopathic nephritis with high temperature the Widal test be made. [Wilson recently (*American Journal of the Medical Sciences*, December, 1898, see Philadelphia Medical Journal, Vol. III, No. 1) called attention to the occurrence of nephrotyphus. The typhoid-bacillus, it seems, can expend its energy primarily on the kidneys, the lungs, the meninges, the blood, the lymph-glands, as well as on the intestines. D R.]

2.—**Jodipin** is a chemic compound of iodin and fat in which the iodin is concealed, and the substance, both in color and odor, is like the fat from which it was made. Frese has employed a preparation containing 10% iodin, giving daily 2 or 3 teaspoonfuls. It was used in 6 cases of bronchial asthma and 7 of asthma with chronic emphysema and bronchitis. A beneficial result was noted in all. Moreover, it does not disturb the stomach, intoxication-symptoms are rare, and in some cases it is more active than the alkaline iodids. [D.R.]

3.—A boy, 4½ years of age, of good antecedents, presented no abnormity at birth, except a disproportionate smallness of both great toes. At the age of 18 months he had pneumonia, then dropsy, and later measles. He sustained several falls, in one of which he struck his neck on a stone. The neck began to swell, and gradually the swelling extended to the back, the loins, the chest, the shoulders, and the face. After a time the swelling subsided, but left indurated patches in the muscles, which gradually became ossified. Through these changes motion was greatly restricted. The urine was markedly deficient in calcium, but contained an excess of phosphoric acid. Whether the bony masses are inflammatory products or true osteomata, cannot be decided by the present case. Virchow classes **myositis ossificans** among the new growths. The microscopic picture gives no clue; in Morian's case, normal muscle-fibers lay in contact with newly-forming osseous tissue. It is curious that in 64% of all cases of myositis ossificans examined for the condition, microdactyly has been found. [D R.]

6.—The authors have made the laudable attempt to place the **dietetics of typhoid fever** on a scientific basis, directing their attention particularly to the speedy restoration of the body-weight during convalescence. Certain principles are of fundamental importance in this connection: first, the fact that a febrile patient decomposes more proteids than a healthy individual, and, secondly, that it is impossible to secure proteid-equilibrium in acute fever, no matter how much albumin is introduced—the febrile patient even with the most abundant proteid diet uses up tissue-albumin, and invariably suffers a proteid loss. This loss is probably dependent on an augmentation of the physiologic katabolic processes, an increase of the proteid-metabolism, and is connected with a functional modification of the cell-life. As to the object of this increase of albumin decomposition, the authors, viewing it from the teleologic standpoint, incline to the view that the decomposition is probably connected with the production of antitoxins. The increase in weight during the convalescence in typhoid fever depends on a retention of albumin. Normally it is difficult to produce an increase in weight by proteid-feeding because the cells have the ability to decompose proteids and soon accustom themselves to dealing with the larger quantity. If we succeed in lessening this ability of the cell, then we can secure a permanent increase in the albumin-deposit. The greater the degree to which this ability is depressed, the greater is the retention of the albumin administered in the food. This is the principle that guided the authors in their studies on typhoid-fever convalescents. Our efforts should be directed (1) to influence proteid-metabolism so that at the end of the febrile period it is at its lowest limit; and (2) to increase then the proteid-ingestion as much as possible. If the first point is disregarded and too much albumin is given during the febrile period, albumin-retention during convalescence, as they show by an example from the clinic, is much delayed. Proteid-metabolism during convalescence is characterized by the fact that it has not the adaptability found in the normal individual, *i. e.*, the system is only able to decompose a certain amount of albumin — that which is ingested beyond this is retained and adds to the body-weight. But this inability of the cells extends only to the proteids; the sum total of oxidative processes is not diminished, indeed, it may be increased; for while the decomposition of albumin is lessened, that of fats and carbohydrates is more energetic, and a typhoid fever convalescent becomes richer in albumin and poorer in fats, the food being the same, than an individual emaciated from another cause. Regarding the actual **diet in typhoid fever,** the authors think that during the first half of the disease, until the middle or the end of the second week, the loss of albumin is unavoidable, and that forced feeding is worse than useless. Milk, to the amount of 1½ liters, is the best of food. Active dietetic treatment begins in the second half of the course, when repeated morning remissions, increased strength of pulse, clearing of the sensorium, and more marked agglutination indicate that the organism is triumphing over the infection. During this period the effort must be made to reduce the proteid-metabolism to its lowest level—hence, but little proteid food should be administered. Milk, 1½ liters of which contain from 50–55 grams of albumin, may be given, and nonnitrogenous foods may be added, the best being milk-sugar (about 100 grams) and cream (½ liter). During convalescence, proteid retention will be the greater, the lower the limit of proteid-metabolism during the febrile period. The diet should now be increased by the articles commonly employed in convalescence, or by the use of the artificial albumins (somatose, eucasin, tropon, puro, etc.). The addition of nonnitrogenous foods also tends to favor proteid-retention. [D.R.]

Deutsche Zeitschrift für Chirurgie.

December, 1898. [Band 50, Heft 1 u. 2.]

1. Congenital Anomalies of Position and Shape of the Intestines. William Koch.
2. Observations Upon the Mobility of Abdominal Tumors. Pagenstoecher.
3. Contributions to the Statistics of Epithelioma. A. Friche.
4. The Anatomy and Diseases of the Bursæ in the Neighborhood of the Hips. Zuelzer.
5. Contribution to the Conservative Treatment of Complicated Injuries of the Extremities. Plücker.
6. The Treatment of Old Empyemas. Thiel.

3.—This **statistical study of epithelioma of the lip** is interesting because of the great number of cases upon which the statistics are based. In all, 1338 cases of epithelioma of both the upper and lower lip are included in this observation. The lower lip is involved 9 times more frequently than the upper lip, and as regards sex, we find the lesion in men 12 times oftener than in women. The greatest number of patients so affected were between the ages of 55 and 65. The chances for an individual to acquire an epithelioma increase gradually from the 25th to the 65th year, and from that time on the chances gradually diminish. As to the etiology, occupation seemed to play some part, inasmuch as 75% of the cases occurred in farmers or breeders of animals. Heredity, however, and the use of tobacco and alcohol, seemed to be of no etiologic importance. The prognosis is seriously affected by extension of the malignant disease to the inferior maxilla, for when this occurs, a radical operation is extremely dangerous, and permanent cure can almost be excluded as a possibility. Involvement of the lymphatics of course renders the prognosis more grave, as does also the extent of the lesion. Every warty growth upon the lip of a patient advanced in years, which resists rational treatment, should be considered suspicious and should be extirpated. The incision should be made at least 1 cm. from the border or edge of the tumor; if the submental or submaxillary glands are enlarged, they should of course be excised, and that too before the growth of the lip is attacked, in order to avoid infection. Operations involving an attack upon the jaw are always most dangerous, and it is questionable whether they should not be considered unjustifiable. Erysipelas has been found to have no favorable influence upon the epithelioma, as it has been known to have upon other malignant growths. The operative mortality is from 6% to 7%, and recurrence takes place in about 32%. [C.H.F.]

4.—Before discussing the diseases that effect **the bursæ in the neighborhood of the hip-joint,** it is well to review the anatomy of the parts concerned. Of all the bursæ in this region the bursa subiliaca is the largest. It lies in close relation with the ilio-psoas muscle as the latter makes its exit from the pelvis. The proximity of the bursa to the crural nerve and to the capsule of the hip-joint should be borne in mind. There is another bursa in this region, which lies between the tendon of the iliac muscle and the bone, at its point of insertion. In addition, there is a bursa occasionally found situated beneath the tendon of the rectus muscle at the upper border of the acetabular ring. In close relation with the trochanter major, is found another group. The largest of these is the so-called bursa trochanterica profunda, situated on the posterior and outer aspects of the trochanter major, between the origin of the vastus externus and the gluteus maximus muscles. A small bursa is sometimes (not constantly) found between the fascia lata and the trochanter major, lying more on the outer and anterior aspect of the same. The so-called bursa trochanterica subcutanea is quite constant, and lies over the trochanter major in the subcutaneous tissue, which in this region contains less subcutaneous fat than is found in regions surrounding it. Apart from these, a number of smaller and more or less important ones are found in relation with the trochanter major. Of these may be mentioned the bursa of the gluteus medius, situated at the attachment of this muscle on the tip and outer surface of the trochanter major; the bursa of the gluteus minimus, situated at the insertion of this muscle on the inner surface of the tip of the trochanter; a bursa at the insertion of the tendon of the pyriformis; a bursa associated with the obturator internus, at its exit from the pelvis; a bursa which lies between the tendon of the obturator externus and the gemelli. There remains to be referred to a subcutaneous bursa over the anterior superior iliac spine; one between the posterior iliac spine and deep fascia; another between the iliac portion of the fascia lata, and the gluteus medius; and finally one between the gluteus maximus and the tuberosity of the ischium. As regards the etiology of enlargements of these bursæ, 57% are attributed to traumatism, 15% to rheumatism, 2% each to icterus, cold, and peurperal fever, and in 22% there is no discoverable cause. The symptoms manifested by disease of the bursa subiliaca depend both upon the size of the tumor and the degree of inflammation. There is the swelling which, though originally corresponding to the position of the bursa, may later extend halfway down the thigh. The surface of the swelling may be unbroken, or it may be divided by the muscles overlying the bursæ. The consistency is quite variable; in some cases fluctuation is quite apparent, while in others the consistency may be such as to simulate a solid growth. In fact, in many cases, owing either to great tension, or to the thickness of the bursal walls, the condition has been mistaken for callous formation following fracture. On account of its close proximity to the anterior crural nerve, the bursal enlargement may exert sufficient pressure to cause pain along the course of this nerve; in some cases thrombosis of the femoral vein has resulted from pressure upon the vessels. The relation of this bursa to the muscles accounts for the attitude often assumed by the limb, that of abduction, outward rotation, and flexion. Movements of the limb, either active or passive, in a contrary direction, will naturally elicit some pain, but not so much as would be observed in a case of coxalgia. If the bursal inflammation has gone on to suppuration, or the formation of fistulas, the differential diagnosis from coxitis may be attended with some difficulty. If there is shortening, if the great trochanter remains in Nelaton's line, we can, considering the etiology and slow development of bursitis, exclude without much difficulty fractures or dislocations of the hip, and coxa vara. When the bursa trochanter major is involved, the physical signs are quite similar to those mentioned, with such modifications as would be accounted for by the difference in location of the bursa concerned. In making a differential diagnosis, especially from coxalgia, one should determine whether or not pain is elicited by pressure of the head of the bone into the acetabulum, and whether or not there is pain on pressure over the anterior and posterior aspects of the joint. Both of these conditions would be present in coxitis to a greater or less degree, but are not found in cases of bursitis. Locomotion is of course more painful in coxalgia. The most difficult diagnosis lies between ostitis of the trochanter major and bursitis, especially if the latter is of the suppurative variety, when a fistula may have formed; but an examination with a probe will determine whether or not there is exposed bone, and thereby facilitate the diagnosis. A bursal enlargement, extending posteriorly, may cause sufficient pressure upon the sciatic nerve to cause more or less pain along this trunk. The exposed position of those bursæ in the neighborhood of the great trochanter render them especially liable to traumatism, and this we find plays an important part in their etiology. Tuberculous inflammation is not to be lost sight of as a possible etiologic factor, and it should be remembered that in a small number of cases tubercular bursitis may by the forerunner of tubercular joint-disease, and should, therefore, receive prompt attention. The treatment of all affections of the bursæ in this region should differ in no respect from that applied to those situated elsewhere. [C.H.F.]

6.—In the **treatment of fistulæ following operations for empyema,** the following procedure, as carried out by Bardenhauer, has yielded excellent results: A sound or a long pair of forceps are introduced into the fistulas in order to determine its direction and extent. Over the middle of the fistulous tract, a long incision is made from one end of the fistula to the other, including the soft parts and ribs. Portions of the rib are exercised up to the point where the pulmonary pleura is adherent to the costal pleura, and the intercostal muscles, the periosteum, and the thickened costal pleura are removed to the same extent. Should there be any adhesions, these should be carefully divided. [C.H.F.]

Centralblatt für allgemeine Pathologie und pathologische Anatomie.

January 2, 1899. [Band 10, Heft 1.]

1. The Epithelioid Metamorphosis of the Thymus Gland. Lochte.
2. Investigations Concerning the Mechanism of Secretion and Excretion of the Renal Cells During Normal and Pathologic States. Trambusti.
3. A Contribution to the Question of the Susceptibility of Birds to Anthrax. Kutschuk.
4. Investigations Concerning the Ammonia-content of the Blood in Experimental Acid Intoxication. Gregor.

1.—Sultan showed recently that the **involution of the thymus gland** is characterized by definite changes, and that the organ is replaced by irregular groups of lymphoid and spindle cells. The transformation is brought about by epithelioid cells, in part of endothelial origin. Lochte was able to confirm these observations. He found that in advanced age the acinous structure disappears, and that the organ consisted chiefly of fatty tissue. In these cases he noted a glandular grouping of the epithelioid cells; in the thymus of younger persons these epithelioid groups were much rarer. At times there was instead of a circumscribed a **diffuse proliferation** of the epithelioid cells that might readily have been mistaken for a neoplasm. The epithelioid cells are large and lie in part free in a delicate alveolar reticulum, in part they are grouped in close masses. Some of the cells have 2, 3, or more nuclei. Among the epithelioid cells, lymphoid groups are found, containing degenerated (colloid) Hassal's bodies. There is no relation between the spindle-cells and these bodies. In the thymus from a man of 24, who had died of acute leukemia, the diffuse epithelioid-cell formation was found. A similar thymus was obtained from a young woman of 18 years, who had died of a blood-dyscrasia, apparently also acute leukemia. As a similar condition was not seen in any other thymus examined, it seems reasonable, the author thinks, to bring the thymic changes (the epithelioid metamorphosis) in line with the acute blood-disorder, but what the relation between the two is cannot as yet be stated. In chronic leukemia and in pernicious anemia the thymus did not present the same changes as in the cases of acute leukemia. The origin of the new cells is from the connective tissues—from the cells of the reticulum, and from the endothelial cells. The epithelioid hyperplasia, although microscopically resembling sarcoma, cannot be so considered. Macroscopically, the organ in the two cases resembled a medium-sized persistent thymus, but the microscopic examination showed that the condition was not one of *thymus persistens*. It is then necessary to distinguish, in the adult, two kinds of thymic hyperplasia; the more usual, small-celled, lymphoid hyperplasia, *i. e. thymus persistens*, and the epithelioid, large-celled hyperplasia, as found in the two cases of acute leukemia described. [D.R.]

2.—Trambusti has made some interesting observations on the **mechanism of the renal secretion** in normal and pathologic states. Various methods of fixation were employed; for staining purposes the author chose, generally, Beondi-Heidenhain's method and double-staining with thionin and eosin; various cytologic methods were also practised. The cells of the postglomerular segment are prismatic, and have a large nucleus poor in chromatin. The protoplasm consists of filaments, many of which are arranged parallel to the vertical axis of the cell, and give to the basal portion of the latter a striated appearance. The cells containing but little secretory material (granules and vacuoles) the filaments can be seen to terminate at the free border. At times the secretory granules are arranged in linear fashion and give to the cell a striated appearance. The free border of the renal cells is seen, especially with certain methods of fixation and staining, to be **finally striated.** This striated border has nothing to do with the striated, brush-like edge described in these cells by many authors. The brush-like edge is *not* an integral part of the cell, but represents a secretory product, and is only temporarily present, depending on conditions of secretion. The striated border which Trambusti describes is a constant feature of the cell, and is of great importance for the removal of the products of secretion. The first evidence of secretion in a renal cell appears about the nucleus in the form of fine granules, which called chiefly on the side of the nucleus facing the free border of the cell. These granules are found by staining to occupy only the middle third of the cell—beyond this, transparent vesicles are alone visible. **The part which the nucleus takes in secretion** is still unknown—aside from an increase in volume at the height of greatest cell-activity, nothing indicating a participation in secretion was found by Trambusti. The excretion of the secretory products is accomplished through an increase in the intracellular pressure, by means of which these products are forced through the striated border, the tiny rods of which probably found capillary channels. Excretion is, therefore, not brought about by diffusion, but is a filtration-process. The fluid vesicles that are extruded become elongated and form that striated edge which hitherto has been considered an integral part of the cell. Secretion and excretion proceed, except in advanced stages of atrophy, along the same lines in pathologic as in normal states. The secretory granules are, however, in the former somewhat less numerous and are scattered irregularly through the entire cytoplasm. The vesicles are often extended very rapidly and in a larger state, and the author assumes that they may, alone or in conjunction with red corpuscles, form hyalin tube-casts. [D.R.]

3.—Kutschuk has investigated the influence of various conditions on the **susceptibility of birds to anthrax.** Normally, sparrows and crows, the animals used in his experiments, are quite resistant; of the first 35%, and of the second 13%, represents the proportion of captive birds succumbing to anthrax inoculation. The effects of hunger, removal of the feathers, and deprivation of light were tested, and all were found to lessen the resistance of the animals. [D R.]

4.—Walther, in 1877, observed that in dogs that had received by the mouth dilute mineral acids, the urine showed a noticeable increase in the **ammonia-elimination.** Limbeck, in recent times, demonstrated that under similar circumstances in man, there was both an increase of ammonia and of fixed alkalies in the urine. The combining of the acid with the fixed alkalies probably occurs in the intestines, but where the ammonia and the acid meet is not known. Gregor has studied the ammonia-content of the arterial blood during **acid intoxication,** and finds that there is no increase of ammonia in the arterial blood during such intoxication. [D.R.]

Archiv für pathologische Anatomie und Physiologie und für klinische Medicin.

(*Virchow's Archiv*)

[Band 155, Heft 1]

1. Orthography and Punctuation in the Archiv. The Editor.
2. Concerning the Elimination of the Urinary Constituents during Fever. W. von Moraczewski.
3. Concerning Iodin and Iodin-compounds. R. Heinz.
4. How is the Influence of the Nervous System on the Course of Infections to be Interpreted? J. Salvioli and Spangaro.
5. The Doctrine of the Passing Out of the Nucleus from the Red Cells in its Advocacy by C. S. Engel. (In defence.) A. Pappenheim.
6. The Influence of Different Substances on the Red Blood-Corpuscles and the Importance of the Latter in Coagulation. Feldbausch.
7. The Morphology of Intravascular Clotting and Thrombus-Formation. J. Arnold.

2.—Von Moraczewski has undertaken a careful investigation of the **elimination of the urinary constituents during fever.** Two cases of typhoid fever, 1 of pneumonia, 1 of malaria, and 1 of hectic fever, were studied. In addition to the urea, the total nitrogen, the uric acid, the xanthin-bases, and the ammonia were estimated; likewise the chlorids, the phosphates, the potassium, the sodium, and the calcium. In the first case of typhoid fever the salts were especially studied—it was found that at the height of the fever there was a retention of chlorin and sodium, and a loss of phosphorus; at the end of the fever the conditions were reversed—a loss of chlorin and sodium and a retention of phosphorus. During the fever all the nitrogenous constituents of the urine were increased. In the second case, also one of typhoid fever, the excretion was studied with respect to changes in the temperature. The increase of temperature in the beginning was accompanied by an increased elimination of nitrogen; the sinking of the temperature caused a fall in the nitrogen, but when the temperature had once reached the normal, a renewed elevation was, not constantly, accompanied by a diminution in nitrogen-elimination. The calcium-excretion was antagonistic to the temperature—increase in the latter caused decrease in the calcium, and *vice versa.* The potassium-salts were increased during the fever, diminished greatly after the fever, and only gradually regained the normal. The ammonia-elimination was increased. The chlorids were diminished during the fever, but if an elevation of temperature occurred after the fever had ceased, the chlorid-elimination was increased. In the case of **pneumonia** there was a marked increase in the elimination of nitrogen, potassium, chlorin, calcium, ammonium, and phosphorus after the crisis compared with what it was before the crisis. In the case of the **quotidian intermittent** the nitrogen rose and fell with the temperature; the chlorid-elimination increased during the fever, fell directly after the fall in temperature, and rose again during the period of apyrexia; the phosphorus-elimination fell during the fever; that of the potassium-salts was analogous to the chlorid-elimination. In **hectic fever** the rise of temperature was attended by an increase in the chlorin and ammonia-elimination, and a decrease in all the other constituents. From the studies in the various types of fever the conclusion is drawn that the system reacts differently at the beginning and at the end, than it does during the course of a fever. During the course the **characteristic elimination** is seen **(retention of chlorin, increased elimination of phosphorus and nitrogen ;)** but if during the course of fever the temperature rises, the urinary picture changes to that characterizing convalescence, and if the temperature falls, leaving the course, the urine presents the characters of febrile urine in an intensified degree. A general scheme of fever would present the following character: the first rise in temperature produces an increase in the chlorin, a decrease (or an increase) in the nitrogen, a decrease in the phosphorus. In the second period, the continuity of the fever, there is a gradual sinking of the chlorin-elimination, an increase in the nitrogen (or a persistence at the former level), and a sinking of the phosphorus. The third period, the temperature still being the same, shows a diminution in chlorin, an increase in phosphorus and nitrogen. This is the typical febrile urine. After the temperature falls the fourth period begins—still more chlorin is retained, and nitrogen and phosphorus eliminated in increased amounts. The fifth period is characterized by a return to the normal. In explanation of these changes the author advances the following theory: during the first period the stream from the tissues to the blood is interrupted—the blood gives to the tissues little ester and little sodium chlorid—and takes up little phosphorus and nitrogen. This condition corresponds to a circulation that hinders diffusion either through narrowing of the vessels or through slowing of the current. This is soon followed by a dilatation of the vessels and more rapid circulation, corresponding to periods two and three. As the fever declines, and the circulation improves, the organs give up water to the blood. The elimination of water is increased, but not that of sodium chlorid; nitrogen and phosphorus are increased—finally everything returns to normal. [D.R.]

3.—Iodin and its salts are extensively used in practice, but no clear knowledge of their mode of action exists. The author has set himself the task to study (1) the local inflammatory action of iodin; (2) the question, whether the iodin atom possesses characteristic properties, which might distinguish it from the other halogens, (3) the action of nascent iodin, and (4) the absorptive action of sodium iodid.

I. The effects of **turpentine and iodin** on the pleura and peritoneum (omentum) were compared. Turpentine produces localized areas of purulent inflammation, with circumscribed tissue-neurosis—there is no transudation, hemorrhage, fibrin-formation, or adhesions. Iodin in the pleura produces (1) adhesive pleurisy with abundant fibrin-deposits; (2) infarction of the superficial pulmonary tissues; (3) acute inflammation of the lung tissue, without tendency to suppuration or necrosis. Iodin acts very quickly—within 48 hours thick deposits and inseparable adhesions form. These observations explain the practical use of iodin for the purpose of securing obliteration of cavities, etc.

II. **The action of iodin in sodium iodid and sodium iodate.** When equimolecular solutions of the halogen-salts are used, it is seen that their action is a "salt-action," and has nothing specific. The three salts—sodium iodid, sodium bromid, and sodium chlorid, differ, however—the first being the most harmful. Isotonic solutions are without influence on the centers in the oblongata. In strong solutions the salts are excitants of the vagus, vasomotor, respiratory, and convulsive centers. Sodium iodid tends to produce a pulmonary edema; this probably is dependent on an increased permeability of the vessel-walls. **Sodium iodate** has a deleterious action on nerves and muscles; sodium bromate is less harmful, and sodium chlorate has the best action. On the blood, the action of the three is peculiar—sodium chlorate more quickly than either of the others converts hemoglobin into methemoglobin, yet it is less poisonous to animals than the other two. All three have oxidizing properties.

III. **The action of iodin-solution and of nascent iodin.** Binz has observed the narcotic action of iodin-vapor on frogs. The author explains this by an action of iodin-vapor on the sensory nerves; it paralyzes the nerve-endings. But this is not a specific action, it is also seen in the case of chlorin-water. Yet the sensory nerve-paralysis does not explain all the phenomena seen after iodin-inhalation. The iodin in addition has a specific action on the brain. Injection of iodin into the carotid produces marked irritation of the centers in the fourth ventricle, as well as disturbances in the equilibrium. Nascent iodin was formed in the body of the experiment animal by introducing iodosobenzoic acid and sodium iodid; even when injected at a distance, the former will come in contact with the latter and will liberate free iodin. The experiments were, however, unsatisfactory, as the iodosobenzoic acid is so irritant that a study of the action of the free iodin was rendered very difficult.

IV. **The resorptive power of the alkaline iodids.** Clinical experience has demonstrated the power of the iodids to cause the absorption of exudates, gummata, disintegrating glands, etc., but no satisfactory explanation of this action has been offered. Henrijean and Corin have shown that large doses of potassium iodid increase the nitrogen and phosphorus in the urine. While a step towards a solution, this observation does not completely solve the problem. The author takes up the hypothesis that the iodids possibly increase the swiftness of the blood-stream, in which case the blood would be rapidly renewed at the place of absorption, a condition that might favor the melting down of exudates. Experiments, however, showed clearly that sodium iodid does not increase the rapidity of the blood-stream. Another possible explanation of the resorptive action might be found in an increased permeability of the vessels. There is a good deal in this hypothesis, and there are reasons for believing that such an increased permeability occurs during the use of sodium iodid, but no direct experiments have been made. Another hypothesis is that the iodid stimulates the activity of the leukocytes, which are markedly concerned in the removal of dead tissues. The iodids increase the number of white cells in the blood, but as sodium chlorid does the same, the leukocytosis is a "salt-effect," and not specific for the iodid. The experiment was then made to see whether sodium iodid was chemotactic; it was, however, found that it had no chemotactic action. Sodium iodid is a powerful lymphagog—which might help to explain its resorptive power, but as sodium chlorid has the same action, it must also be looked upon as a "salt-effect," and not as a specific property.

Finally, a study was made of the direct activity of the leukocytes under the influence of various substances, including sodium iodid. Cinnabar was injected into the abdominal cavity of animals, and its distribution studied. It was found that the deposit in the interstitial tissues of the liver, spleen, and kidney was greater in the animals treated with sodium iodid than in the others.

None of these experiments gives a satisfactory explanation, but nothing in them actually controverts the theory that the resorptive action is dependent on a relation between the iodid and the white blood-corpuscles, and that this relation consists in a stimulating action on the activity of the leukocytes. There is a constant liberation of iodin from the iodid in the body, and this liberation is probably most active in those cells in which the metabolic processes are most active, namely, in the leukocytes. The generation of minimal quantities of free iodin exerts a stimulus on the leukocytes and incites them to increased activity. [D.R.]

4.—The old dispute as to whether the nervous system exerts a direct trophic influence on the tissues or not still goes on. Formerly the effects of section of a nerve or resection of a ganglion were investigated; at present the modification of infectious processes in parts of the body deprived of their nerve-supply is generally studied. Salvioli and Spangaro admit that the **nervous system regulates nutrition, but not by trophism,** but indirectly in that it stimulates the organs to action and regulates the blood-supply going to them. Their present experiments were made on pigeons. Normal pigeons have a high degree of resistance against anthrax-infection. Of 38 inoculated 12 died, a mortality of 31.58%, which corresponds pretty closely with that found by Oemler. They then, in another series of birds, resected the sciatic and crural nerves, and then inoculated one group immediately, the other group in 40 days, with anthrax into the paralyzed limb. Of the first 23%, of the second 14.3% died. In the first series the local inflammatory signs were much better marked than in the second. The mortality figures show that an injury to the peripheral nerves does not in any way reduce the natural resistance of pigeons to anthrax. The local inflammatory reaction, so marked in the group injected at once, is explained on the ground of the vasomotor paralysis, through which a greater amount of blood is enabled to reach the affected part. The nutrition of the tissues is more efficient and the inflammatory process more energetic in such parts than in anemic, poorly nourished tissues. In the second experiment pigeons were deprived of one cerebral hemisphere and then inoculated, after a variable time, with anthrax. The mortality was 75% in those immediately injected, and 71.4% in those inoculated after a time. This evident great reduction in resistance the authors ascribe not to the loss of any trophic influence, but to **inanition** which a grave lesion like removal of one hemisphere is bound to produce. On feeding the operated animals carefully so that they maintained their weight, the mortality after anthrax-inoculation was only 25%, which proves that the animals deprived of one hemisphere conduct themselves toward anthrax-inoculation like normal pigeons.

Another series of birds was then deprived of both cerebral hemispheres—if the animals were fed and their nutrition maintained as well as possible, the mortality after anthrax inoculation was 35.5%. If the animals were left to themselves, *i.e.*, were not artificially nourished, and then inoculated, the mortality reached practically 100%. It is apparent from those experiments that a **trophic influence is not exerted by the cerebral hemispheres,** and that the natural resistance of pigeons is not reduced by their extirpation. The central nervous-system regulates the functions of organs, and of tissues, but it does so indirectly, by stimulating them to activity and controlling the blood-supply. When this stimulating action ceases, the organs suffer in their metabolism; but this can be counteracted by abundant supply of food. If, on the contrary, the nervous system regulated the nutrition of organs directly, the administration of food would be powerless to prevent atrophy after cutting off the nerve-supply, for the food could no longer be taken up and transformed by the tissue.

The abundant feeding of pigeons deprived of one or both hemispheres would then be useless in combating anthrax-infection. The fact, however, that such pigeons can be kept alive by proper feeding proves that it is not the nerve-injury or the suspension of the trophic influence which reduces the resistance to anthrax-infection, but that it is the inanition to which the animals fall victim immediately after the extirpation of one or both hemispheres. [D.R.]

6.—Feldbausch has studied **the influence of various solutions on the red corpuscles and the importance of the latter in coagulation.** When solutions of potassium iodid are used, it is found that the less concentrated solutions produce clotting more promptly than strong solutions, and that changes in the red corpuscles go *pari passu* with the rapidity and extent of the coagulation. According to concentration the corpuscles show more or less marked crenation; they are filled with actively motile granules; others show constrictions; and free granules are also seen. When the clotting is very rapid, the changes occur so promptly that they cannot be followed. In such cases the corpuscles are round, pale, homogeneous, with a process or a granule here and there. When sodium-chlorid solutions are employed coagulation is also influenced by variations in concentration; and changes in the character of the clotting are always accompanied by definite modifications in the red corpuscles. This suggests a connection between these changes and the clotting. The effects of leech-infusions and peptone-solutions, both of which retard or prevent coagulation, were then investigated. It was found that the active substance of leech-infusion prevented the red corpuscles from undergoing the changes necessary for coagulation. Peptone-solutions produced changes in the red corpuscles similar to those caused by leech-infusion, but they were more rapid, and occurred *pari passu* with the appearance of fibrin fibrillæ. Coagulation ensues, but it does so much earlier than in the case of leech-infusion. Experiments were also made with 1% solutions of methyl-violet and of methylene-blue. The first has no anticoagulative action—the red corpuscles do not take up any coloring-matter. Methylene-blue retards coagulation—and the changes in the corpuscles correspond. The cells do not take up the coloring-matter at first, but at the end of 24 hours, colored granules appear in them. Both the corpuscles and the granules show a lively motion. From his studies the author draws the conclusion that in the coagulation of the blood the red corpuscles, in consequence of definite changes, play the most important role, although he does not deny totally any participation of the leukocytes. [D.R.]

7.—According to Arnold three kinds of morphologic changes are recognizable in the red corpuscles: (1) **Plasmolysis,** or **erythrocytolysis**—which is the escape of soluble substances and is followed by reduction in volume of the corpuscles. It is best demonstrated on dry preparations stained with methyl-violet. (2) **Plasmorrhexis**—in this there is an escape from the red cells of round, shining granules as well as a constricting off of smaller and larger particles. (3) **Plasmoschisis,** or **erythrocytoschisis**—in this the red-cells disintegrate into disc-form bodies which in every respect coincide with blood-platelets. Studies in extravascular clotting showed that the elimination and constriction-phenomena are especially active, and that many of the particles constricted off are identical with blood-plaques. These facts lead to the inference that there is some relation between erythrocytorrhexis and erythrocytoschisis on the one hand and the formation of blood-plaques on the other. Whether between these phenomena and clotting there is a mere synchronicity or a true genetic relation, cannot be definitely answered. It is probable, however, that the disintegration of the erythrocytes plays a role in extravascular clotting, which role has hitherto been ascribed to the leukocytes. Intravascular changes in the red cells were studied in the mesentery and the great omentum of young mice and guineapigs. Blood-plaques at first are absent, but appear after a time, even without a reestablishment of the circulation. Indeed, after death, an increase of the plaques can be noticed. These observations prove that erythrocytorrhexis and erythrocytoschisis occur also intravascularly, and lead to the formation of blood-plaques. The latter appear even when there is stagnation of the flow of blood and when any participation of the leukocytes can be excluded. The causes of the formation of plaques are mechanical interferences, likewise loss of water, and chemic influences. Arnold has also studied intravascular thrombus-formation. In the mesentery and omentum, as ordinarily studied, true obturating thrombi are rarely formed—the vessels may become occluded by masses of blood-plaques and a few leukocytes, but these are again removed if the circulation becomes reestablished. Studies were made on the thrombi following the injection of wheat-grits—the same degenerative changes were noted in the red corpuscles as in the extravascular clotting. In the intravascular clot two kinds of fibrils are found: (*a*) smooth, shining fibers and (*b*) those in which granules are seen or which seem composed of granules. Their reaction to the fibrin-stain varies. Coagulation-centers are rare in the clots—it is chiefly blood-plaques and red corpuscles that constitute such centers. In human intravascular thrombi the same disintegrating changes in the red corpuscles are found as in animals. The coral-like structure of thrombi described by Aschoff is frequent, though variations are not rare. In agonic and postmortem clots, the same modifications of the red cells were found as in other thrombi. An important constituent of all intravascular thrombi is the blood-plaques and the granules arising from them; these plaques, according to Arnold, are derivatives of the erythrocytes, not of the leukocytes. But the composition of thrombi varies, and it is possible to distinguish **plaque, leukocyte, erythrocyte,** and **fibrin-thrombi,** according as one or the other element predominates. Thrombosis and coagulation are in Arnold's opinion not identical. A differentiation between the "conglutination" of the blood-plaques and coagulation may be feasible, although it is possible that the disintegration of the plaques may give rise to fibrin or fibrinoid substances. The difference may be that in coagulation-fibrin is formed from soluble substances that have escaped from the red cells, while in conglutination it is the particles constricted off by erythrocytorrhexis and erythrocytoschisis that disintegrating into a granular mass supply the material for fibrin-formation. [D R.]

Sundry French Journals.

1. The Action of Tannin on the Bacillus of Koch and on the Course of Experimental Tuberculosis. J. Sabrazès. (*Jour. de Méd. de Bordeaux*, November 13, 1898. 28me Année, No. 46.)
2. Influenza and its Relation to the Puerperal State. Marte Schirsky. (*Gaz. Heb. de Méd. et de Chirur.*, December 11, 1898. 45me Année, No. 99.) *Paris Thesis*, No 436, 1897–98)
3. The Method of Action of the Principal Physical and Medicinal Agents Used in the Treatment of Diabetes. R. Lépine. (*Sem. Méd.*, December 14, 1898. 18me Année, No. 62.)

1.—Sabrazès has shown that the inoculation into the guinea-pig of an emulsion of **tubercle-bacilli in tannic acid** produces a malignant form of tuberculosis. In such a condition tannic acid has no bactericidal power. The resistance of the tubercle-bacillus to gallic acid is also very great On the other hand, the tubercle-bacillus will not grow on media that have been impregnated with tannic acid. Consequently it is necessary, in experimenting with materials that have the reputation of being antituberculous, to perform inoculation-experiments and not to depend entirely upon the results of cultures. Although a trace of tannic acid prevents the growth of the tubercle-bacillus in the test-tube, its administration in high doses to susceptible animals does not prevent them from becoming infected with tuberculosis. From the inefficiency of tannic acid when administered to the lower animals, however, one should not conclude that the same substance when administered to man will be useless therapeutically. [J.M.S.]

2.—Influenza may attack pregnant women in the different months of **gestation,** but the age of the fetus has no influence upon the course of the disease. Schirsky has found that pregnant women pass through the ordinary forms of influenza: nervous, respiratory, and gastrointestinal. The respiratory form is the one most frequently met with under these circumstances. In these patients the influenza-poison seems to have no particular influence upon the kidneys; although, on the other hand, the heart is involved in a special manner in patients in the puerperal state. Metrorrhagias are not common in cases of pregnancy complicated by influenza. During the first months of gestation influenza does not appear to advance the date of delivery; but in the last months of the pregnant state, if the woman is attacked by the disease, it seems to advance the date of labor by several days. The prognosis of influenza in this class of patients should be guarded on account of the severe complications that may occur. Labor has not been influenced in its course by the appearance of influenza, nor does the disease in the mother seem to have troublesome influences on the child, which appears to have a slight predisposition for influenza. Postpartum hemorrhage is not common, but puerperal infection is especially liable to occur, and at this period the secondary infections of influenza may assume an increased gravity, these phenomena even serving to start septic processes in the uterus itself. Influenza in a puerperal woman may produce femoral phlebitis without other infection. [During the past 2 months I have seen 2 cases of miscarriage as the result of attacks of influenza. One case occurred between the third and fourth months of gestation, and the other case occurred during the sixth month of pregnancy. J.M.S.]

3.—Deficient utilization of sugar is the essential element of diabetes, but, on the other hand, in a certain number of cases of diabetes there is an exaggerated production of sugar. We have at our disposal a large number of medicinal substances that retard glycogenesis, while there are but few that increase glycolysis. Glycolysis is not simply a process of oxidation but the presence of a glycolytic ferment is necessary for its accomplishment. However, it must not be forgotten that oxidizing agents are, in a certain degree, the agents of glycolysis, and Lépine in discussing **the method of action of the principal physical and medicinal agents used in the treatment of diabetes,** speaks first of the excitants of glycolysis. In this class he places: (1) oxidizing agents; (2) alkalies; (3) ferments, and (4) other substances. (1) Simple inhalations of oxygen have, as a rule, scarcely any influence upon diabetes. Compressed air has also been used, but it is more simple and more efficacious to use the medicinal agents that are known as carriers of oxygen. In a recent lecture Roux referred to the fact that manganous oxid, having an affinity for oxygen, absorbs it in order to transform itself into a dioxid, which, in turn, easily gives up a part of its oxygen and becomes converted again into the protoxid. Potassium permanganate has already been used in 5% solution in the treatment of diabetes. Since this substance is transformed into an oxid of manganese before it exerts its influence on the economy, it will be simpler to employ the dioxid that may be given in large doses with impunity. (2) The alkalies have been used as excitants of glycolysis, since clinical experience has confirmed their chemic action as promoting oxidation. The natural alkaline waters only act in diabetes by virtue of the bicarbonate of the contained alkaline substance. They should be given in small or moderate doses, for, in certain cases, the exhibition of these substances has increased the glycosuria, probably by increasing nutrition. (3) The special ferment of yeast has been used in the treatment of diabetes as one of the substances that increase glycolysis. It has been given in daily doses of 50 gm. with some benefit. It acts by destroying the molecule of glucose. The glycolytic ferment of the pancreas has also been used in this connection. (4) Muscular exercise holds a place in the front rank of the measures that stimulate glycolysis. It has been highly recommended by Trousseau and by Bouchardet. Muscular exercise is not applicable to patients in the last stages of the disease; but in those that are becoming weakened by the progress of the malady moderate muscular exercise may be of great benefit. The stage of fatigue should never be reached by the patient in following this line of treatment, because it is dangerous and because it may produce hyperglycemia. Electricity has been used in the form of the continuous current, as static electricity, and in the form of currents of high frequency. Some good and some unfavorable results have been obtained. Thyroid feeding has been productive of unfavorable results, except in one case, reported by Branthomme. The moderators of glycogenesis are: (1) the antipyretics, (2) opium, (3) the bromids, and (4) jambul. (1) Antipyrin has been recommended by Lemoine in fatty diabetes, while many others claim that it should only be used in nervous diabetes. The indications for its use, however, are not precise. The author has used it only in the nervous form. Brouardel and Hoye discovered that antipyrin mixed with blood in a test-tube retarded the destruction of the sugar in it. The author, starting from this fact, has shown that in diabetes antipyrin acts by stopping the formation of sugar. The investigations of Nebelthau have confirmed this finding. It has also been found, by a series of artificial circulation experiments, that quinin causes the liver to retain its glycogen by its direct action on the hepatic cells. The same is true of sodium salicylate and of salol. (2) Opium does not act upon the hepatic cell directly, but requires the intervention of the nervous system. The antiglycogenic action of opium, however, is undoubted—as the recent experiments of Richter have demonstrated. According to von Mering and Minkowski, opium is particularly adapted to stop the production of sugar that is made at the expense of proteid substances. Therefore, while substances like antipyrin are limited in their action to preventing the formation of sugar at the expense of glycogen already existing, opium, in a subject living on a meat-diet, decreases either the production of glycogen itself or the direct formation of sugar. If this explanation is correct, it will account for the fact that, in the therapeutics of diabetes, opium is really superior to antipyrin. (3) The bromids are usually not to be relied upon in the treatment of this disease. (4) Jambul is probably antiglycogenic in its action. The following substances are classed by Lépine as having a mixed or little understood action in the treatment of diabetes: (1) alkalies, (2) piperazin, (3) arsenic, (4) uranium, (5) other medicinal agencies, (6) pancreatic feeding, and (7) hepatic feeding. (1) As has already been said, small doses of the alkalies act as excitors of glycolysis, while in larger doses they appear to inhibit glycogenesis. He mentions some interesting experiments by Dufourt. (3) In large doses arsenic acts as an alterative; in small doses, on the other hand, it frequently influences nutrition favorably; but it can hardly be called a pure antidiabetic. (4) Uranium nitrate was first used by Samuel West. Duncan, in 3 patients, has confirmed the good results obtained by West. The daily dose has been from 0.03 gm. to 1.02 gm. ($\frac{1}{2}$ to $15\frac{3}{10}$ grains about). He has not observed bad effects, but a noteworthy diminution of the urine and of the glycosuria, an amelioration of the general condition, and an increase in weight are noted. Duncan believes that the remedy stimulates the cells of the organism and recommends it in nervous diabetes. The action of uranium is, up to the present time, unknown. (5) Phosphorus, strychnin, iron, calcium, pilocarpin, iodin, iodoform, potassium iodid, mercury, ergot, and myrtle-berries have been used in the treatment of this disease. (6) The author then refers to several cases in which pancreatic feeding was employed, with more or less success, in the treatment of diabetes. The majority of the observations, however, do not carry conviction. The relative failure of pancreatic organotherapy is apparently due to several factors: one of which is that the pancreas contains only a small portion of the substance that favors glycolysis, because this substance, being constantly thrown into the blood, does not accumulate in the organ. (7) Gilbert and Carnot have made important clinical and experimental studies on the value of hepatic feeding in diabetes. In several of the cases the results were insignificant; while other cases have shown benefit. In animals that have received hepatic extract the quantity of sugar eliminated was much less than that eliminated by the control animals when both had been given the same amount of sugar. [J.M.S.]

Hemorrhagic Septicemia of Bacillary Origin.—Weaver (*Bulletin of Johns Hopkins Hospital*, November, 1898) has isolated, from a guineapig dead of hemorrhagic septicemia, a bacillus belonging to the group classified by Hueppe as the cause of true hemorrhagic septicemia. [D.R.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.,

of Philadelphia.

The Treatment of Eczema in Infants and Children.—Allen (*New York Medical Journal*, April 1, 1899) remarks that the special predilection of infantile eczema for certain regions, such as the scalp, forehead, cheeks, the region behind the ears, flexures of the extremities, the neck, and groin, is to be accounted for by the fact of the seborrheal element predominating. He believes it to be of the utmost importance that, in order to secure good results in the eczema situated upon parts lower down, the scalp should be brought back to a healthy state of secretion and kept free from crusts and dirt. The treatment is almost exclusively local. The health of these children is usually about the average of those of equal age and social station. For the scalp affection, and for dry, scaly patches, elsewhere, resorcin is useful, as in the following prescription:

℞.—Resorcin (Merck's)	8–15 grains.
Washed sulphur	½–1 dram.
Lanolin	1½–2½ drams.
Lard, to make	3¼ ounces.

M.

As an ointment base nothing seems very much superior to the long-tried zinc-oxid ointment.

In eczemas about the anogenital region he recommends a 3% watery solution of methylene-blue as giving most satisfactory results. The drug is somewhat analgesic, soothing, antiseptic and protective. The child should be placed regularly every two hours on a small vessel with the object of teaching it thus early in life not to urinate in the diaper. Methylene-blue, while a valuable addition to means of cure, is, on account of the color, somewhat objectionable on exposed parts. In point of fact, however, the parents are so well satisfied with the results that serious objection has never been raised. The form of seborrheal eczema is more rarely pityriasis with dry desquamation and slight infiltration of the integument. Here mild salicylic and ichthyol applications are of use, as for example:

℞.—Salicylic acid	3–8 grains.
Powdered zinc oxid	2¼ drams.
Powdered starch	4 drams.
Compound tincture of benzoin	2½ drams.
Lard to make	3¼ ounces.

M.

If there is anemia, and especially if the secretions are inactive, or there is at the same time intestinal fermentation, the following tablet can be given with decided advantage:

℞.—Calomel	$\frac{1}{10}$ grain.
Saccharated iron carbonate	½ grain.
Powdered white sugar	2 grains.

Sig. One crushed in milk twice daily.

In older children:

℞.—Iron peptonate	40 grains.
Elixir of calisaya	2 ounces.

An occasional larger dose of calomel, a sixth to a fourth of a grain, once a week, is often of benefit.

In the more chronic forms of older children he recommends a stiff, paste-like ointment:

℞.—Resorcin	15 grains.
Tar	30 grains.
Prepared zinc carbonate Powdered zinc oxid	of each... 2½ drams.
Lanolin	1½ ounces.
Lard to make	3¼ ounces.

The neurotic, nervous, or reflex eczemas, usually of symmetrical distribution, occurring in young children who are florid, fat, and in whom no error of diet may be discoverable, is an excessively pruriginous affection, requiring primarily applications which will allay itching and prevent the scratching which is so pronounced an element in the dissemination and aggravation of the condition. In the majority of cases reliance must be placed almost wholly upon external measures, and in order to secure retention of applications, which is a most difficult problem, the author has devised a cap with a mask attached.

Severe Burns.

℞.—Iodoform	15 grains.
Antipyrin	75 grains.
Boric acid	75 grains.
Vaselin	2 ounces.

—Hare.

Treatment of Dysmenorrhea During the Attack.—During the attack all forms need some immediate relief. Since these conditions often last so long and a baneful habit might be acquired, we should be careful not to abuse narcotics, but in bad cases they are unavoidable. I often use an antidysmenorrheic pill of the following composition:

℞.—Alcoholic extract of conium	20 grains.
Alcoholic extract of stramonium Extract of opium	of each......... 5 grains.

Make into 10 pills.

Sig.—One pill at most three times a day.

In the milder cases hot dry or wet fomentations of the abdomen, and hot drinks may suffice—antipyrin (gr. 10), antifebrin (gr. 5), and phenacetin (gr. 7½) should be tried before narcotics are used; and they have often splendid effect. If necessary, a second dose is given after an hour, and a third after three hours. Viburnum prunifolium is also a uterine sedative. Since the taste and odor of the fluid extract are most offensive to many patients, it is well to give it inspissated in capsules (dose one dram of the fluid extract thrice daily).—Garrigues in *Diseases of Women*.

Acute Cystitis.

℞.—Potassium citrate	1½ ounces.
Spirits of nitrous ether	2 drams.
Fluid extract of buchu	1 ounce.
Simple sirup, enough to make	4 ounces.

Sig.—Two teaspoonfuls every 3 hours.

—*Medical News.*

The Value of Antistreptococcus Serum.—Baum (*Medicine*, January, 1899) from his own experience and a study of the literature bearing on the subject concludes that in cases of pure streptococcus infection the serum undoubtedly exercises a favorable influence on the course of the disease. In cases of mixed infection the influence of the serum has been demonstrated, but further trial of the remedy as an adjunct to other treatment is desirable. Considering the grave character of complications of nonstreptococcic origin, all indicated therapeutic measures should be employed in addition to the serum. It may be assumed that the serum exerts a direct bactericidal action upon the streptoccoci, and not merely a stimulating influence on phagocytosis. The initial dose should be 20 cc., to be followed by 10 or 15 cc. every 24 hours, according to the indications.

C. P. Thomas (*Journal of the American Medical Association*, vol. xxxii, p. 35) states that he has treated successfully 15 cases of acute sepsis with Marmorek's antistreptococcic serum, and refers to 8 cases previously published by him in December, 1898. He thinks the commencing dose should be 20 cc.

McNabb (*New York Medical Journal*, vol. 69, p. 262, 1899) refers to 2 cases of epidemic cerebrospinal fever in which he employed antistreptococcic serum. One, a severe case with complete unconsciousness, shallow, irregular breathing, and involuntary discharges from the bowels and bladder, made a slow but satisfactory recovery. The other, a fulminating case, seemed to improve, but terminated in death on the third day after treatment was instituted. He says that if the results were merely coincidental, it was entirely unlike anything he had ever before experienced in cases of that kind. [A critical review of the literature relating to the use of antistreptococcic serum in puerperal sepsis will be found in issue of this Journal, February 18, 1899, p. 376.]

Spasmodic Cough in Adults.

℞.—Bromoform	50–60 minims.
Tincture of gelsemium	2 fluidrams.
Sirup of lactucarium	2 fluidounces.
Powdered acacia to make an emulsion.	

Sig.—One teaspoonful 3 or 4 times daily.

—*Medical News.*

Treatment of Uterine Fibroids.—Landau (*Die Therapie der Gegenwart*, January 1899) criticises the reasons generally advanced in favor of treating fibroid tumors symptomatically. (1) Though a myoma is usually a benign tumor, it does not necessarily remain so. Apart from the possibility of its breaking down and sloughing, metaplastic processes—sarcomatous or carcinomatous degeneration—are not uncommon, and death from metastasis has been known to occur, though the tumor was histologically a simple myoma. Not uncommonly ascites appears without apparent reason, and is then permanently cured by removing the myoma; (2) myomata do not necessarily shrink, nor their symptoms disappear at the climacteric period. This occasionally happens, though it is much more common for growth and hemorrhage to continue long after the menopause; (3) apart from degenerative processes, myomata may shorten life, but it is very rare for any one to die directly of hemorrhage from this cause. Many complications are produced by a myoma either by pressure or by secondary inflammation. Even quite small tumors may cause serious trouble when situated within the true pelvis. Retrocervical fibroids especially are an extremely dangerous complication of pregnancy. Other possible consequences, as pains in the legs from pressure on the nerves, strangury, dysuria, retention and incontinence of urine, compression of the ureters, and consequent renal colic, hydronephrosis, pyonephrosis, and pyelitis, may occur and completely obscure the symptoms of the myoma which originates them.

The question arises whether every myoma should be treated like an ovarian cyst, and removed by operation, especially since the mortality from myomectomy and hysteromyomectomy has been reduced to its present low figure. Landau considers that if the myoma is causing no trouble it should be left alone, since it does not become dangerous or even troublesome in every case. He gives the following general rules: (1) the younger the woman is the sooner it should be decided to operate; (2) there are fewer objections to operating on a single fibroid than on multiple tumors, since there is a fairly good chance of preserving the uterus; (3) antecervical or retrocervical myomata should always be removed to prevent trouble in subsequent labors; (4) if a woman must work for her living an operation is often advisable, though it might not be necessary if she were able to lead an easy life.—*Medical and Surgical Review of Reviews.*

Sodium Glycerinophosphate in Nervous Affections.—Kahane has found sodium glycerinophosphate of great service in hysteria, neurasthenia, and in nervous affections of anemic origin. He prescribes it as follows:

℞.—Sodium glycerinophosphate		5 drams.
Distilled water Orange-flavor water	of each	10 drams.
Sirup of orange peel		4 drams.

Sig.— A teaspoonful thrice daily.

Large Dose of Strychnin in Trigeminal Neuralgia.—If medicinal treatment to cure neuralgia of the fifth nerve fails, the patient becomes insistent for aid and some operation must be performed, because in most of these cases life with the pain becomes unendurable. Before concluding, however, that medical treatment is futile, we should be sure that massive doses of strychnin have been given after the method of Dana. In a recent case of violent tic, in which we had determined to perform resection of the Gasserian ganglion, the strychnin treatment was employed by my friend, Dr. Charles S. Potts, with the result that the pain ceased completely. It is impossible to affirm that cure will be permanent, but the effect has been so positive in this case that in future I will always give the plan a trial before operating, and we should not feel sure that medical treatment was useless until strychnin has been used as Dana directs. In every case have the teeth examined by a dentist and the eye by an ophthalmologist.—J. Chalmers DaCosta in *Progressive Medicine.*

[The method of using strychnin in massive doses referred to by Dr. DaCosta was advocated by Dana at the meeting of the Association of American Physicians in 1896. It consists in the hypodermic injection, once daily, of strychnin in doses gradually increased from $\frac{1}{30}$ to $_5$ or $\frac{1}{4}$ of a grain, 10 to 20 days being required to reach the maximum. These large doses, according to Dana, often have an immediate anodyne effect like that produced by morphin. Six cases were reported and all were relieved but one. As adjuvants the author recommends, potassium iodid, and iron, rest in bed, light diet, and diluents. At the time of writing the period of relief in the 5 cases had lasted from $1\frac{1}{2}$ to 2 years.]

Atrophic Rhinitis.—Richards, after removing the crusts from the nares with a weak alkaline solution, applies a spray of cocain, and then washes out the nares with the following douche:

℞.—Formalin	5–10 drops.
Water	8 ounces.

He claims that the crusts diminish, and that the odor ceases under its use. —*Laryngoscope.*

The Newer Substitutes for Morphin.—H. C. Wood (*Merck's Archives*, March, 1899) states that within the last two or three years, among the many compounds introduced as calmatives, 3 have been placed on the market which seem possessed of sufficient power to promise them a role of more or less importance in future therapeutics. These 3 drugs, which are all synthetic substitution-products of morphin, are known as peronin, heroin, and dionin. Peronin, the oldest and most thoroughly studied of the 3, is the hydrochlorate of benzylmorphin. The feebleness of the narcotic properties of this drug in comparison to its asserted power to allay cough led Mayer to make especial study of its action on the bronchial reflexes. He found that peronin almost completely offset the tending of the vapor of ammonia to excite cough, and concluded that the drug bears special relations towards the respiratory tract. From the studies of Dreser and Strube the action of heroin, which is the diacetic ester of morphin, seems to be also chiefly on the respiratory function. Pharmacologic studies of dionin, the hydrochlorate of ethyl-morphin, have been made by von Mering, who states that it is of somewhat stronger and prolonged action than codein. The therapeutic properties of these 3 remedies are in many respects similar. The chief use clinically for which they have been employed is to quiet irritative cough, especially such as often occurs in phthisical cases. For this purpose the reports are unanimously favorable; rarely do they fail, and they are nearly free from unpleasant after-effects. The forms of cough they have been used in are as many as are the different causes of cough; in acute bronchitis, in chronic bronchitis, in various reflex coughs they have proved of benefit. It is claimed for all of them that they do not choke up the secretion nor affect disagreeably the general system. Heroin has been especially recommended in cases of dyspnea, either cardiac or pulmonary in origin, by Strube; but the very fact of its benumbing the respiratory center would suggest that it must be used cautiously for this purpose lest there result a failure in the elimination of the carbonic acid. As for other therapeutic virtues, observers agree that heroin possesses neither analgesic nor hypnotic powers. Dionin, however, has been used by Korte to relieve pain, with asserted good results. In pains of inoperable cancer, of rheumatic arthritis, etc., he found it of great service, although not so powerful nor certain as morphin. From the results obtained by Meltzer peronin seems to offer prospect of proving a useful somnifacient; he found it especially useful in obstinate cases where the ordinary hypnotics have lost their power. Concerning the drawbacks of these remedies, the only disagreeable symptom noted, save in one or two cases, is a tendency to an increase in the night-sweats of consumptive patients following the use of peronin. Dionin seems rather to lessen the amount of sweating. Of course it is hardly possible to say as yet whether these remedies are likely to cause drug-habits. It is worthy of note in this connection that both heroin and peronin must be given in ascending doses to maintain their effect. The dose of peronin (soluble in 133 parts of water) is $\frac{1}{6}$ to $\frac{2}{3}$ grain; of dionin (soluble in 7 parts of water) $\frac{1}{6}$ to $\frac{1}{2}$ grain; of heroin (very slightly soluble) $\frac{1}{12}$ to $\frac{1}{3}$ grain.

Gastric Ulcer.

℞.—Codein phosphate Extract of belladonna	of each	5 grains.
Bismuth subcarbonate		50 grains.
Lactose		1 dram.

Make into 15 powders.

Sig.—Take 2 or 3 powders daily. —Leube.

Original Articles.

CLINICAL AND SCIENTIFIC CONTRIBUTIONS UPON THE VALUE OF THE WIDAL REACTION, BASED UPON THE STUDY OF TWO HUNDRED AND THIRTY CASES.*

By JAMES M. ANDERS, M.D.,
AND
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of Philadelphia.

IN 1896 Widal and Grünbaum, working independently, discovered that when blood-serum from typhoid-fever patients is added to cultures of the typhoid bacillus, the microorganisms are acted upon in so strikingly characteristic a manner that a definite reactive phenomenon occurs. This phenomenon is now familiarly known as the "Widal reaction," consists in complete loss of the motion so characteristic of the typhoid bacillus, and the collection of the microorganisms into clusters or groups—agglutination. There seems, also, to be a change in the bacillary substance, so that the bacteria appear shrunken and distorted.

The observation was not made by accident, but was simply another step upward on that ladder upon whose rounds our knowledge of immunity and the relation the blood bears to it, have been attained.

The first observations showing an action of blood-serum upon bacteria were those of Buchner, Wyssokowitsch, Nuttall, Bitter, and others, who found, so early as 1889, that freshly-drawn serum possessed a marked bactericidal power, and showed the remarkable paradox of anthrax bacilli, which would readily grow in the rabbit's body being destroyed by the rabbit's blood out of its body. These studies paved the way for the great controversies upon the subject of immunity, and directed the attention of experimenters toward the blood and the body-juices of animals, in their relation to the microorganisms. In 1889, Charrin and Roger observed that when bacillus pyocyaneus grew in normal blood-serum, it diffused itself throughout the medium, while in the serum of immunized animals it grew in little clumps. In 1891, Metchnikoff observed the same phenomenon with the vibrio Metchnikovi, with the additional feature that the microorganism had its motility destroyed. He also saw clumping of pneumococci in serum.

That the serum of immunized animals behaved differently from that of normal animals, was shown by Lazarus, who found that, when simultaneously introduced, the blood of cholera-convalescents would check the development of cholera-spirilla introduced into the peritoneal cavity of the guineapig. Bordet, in 1895, observed that if a small quantity of serum from an animal immunized to cholera is diluted with bouillon or salt-solution, the spirilla introduced into it lose their motility and become agglomerated.

It remained, however, for R. Pfeiffer to show that this power resided in a direct action upon the cholera-organisms, and to carefully work out an immunity phenomenon of extreme interest. In brief, this reaction is as follows: When virulent cholera-organisms are introduced into the peritoneal cavity of guineapigs, the animals develop cholera-peritonitis, and die in a couple of days. If a few drops of serum from an immunized guineapig or a human convalescent be simultaneously introduced, no disease follows, because the organisms are destroyed in the peritoneum of the guineapig. The immunizing serum is itself without action *in vitro*, but extremely potent *in corpora*. In what does this difference consist? Pfeiffer found that if, shortly after the injection of serum and culture, a few drops of peritoneal fluid were removed from the abdomen, by a small glass tube introduced through a minute opening in the parietes, the disappearance of the spirilla could be traced from stage to stage. First of all the bacteria became immobile, next they gathered together in clusters, and lastly they were transformed into granular masses, no longer vital. The change was purely an "immunity reaction," and seemed to depend upon the presence of some newly-developed substance in the blood, its production probably stimulated by the immunizing serum.

The formation of agglutins in cultures of the typhoid bacillus acted upon by diluted typhoid blood naturally suggested that an analogy existed between Pfeiffer's phenomenon and the Widal reaction, and in the beginning of its popularity, the latter was looked upon as depending upon a product of immunity generated in the blood during the progress of the disease.

So early as 1892, Gruber also described an agglomeration of the bacilli as occurring in guineapigs that had died after cholera-infection, and he has based a new theory of immunity on the agglutinative reaction; but according to Welch this theory is opposed by many facts and cannot be accepted.

Gruber and Durham made the first thorough and systematic studies of the agglutinating and immobilizing property of serum, beginning their publications in January, 1896. The value of the test for differentiating different similar species of bacteria is amply discussed.

The work of Gruber and his associates is of great importance, and merits careful reading and study. It lacked the one thing, however, which was its most important application, that is, practical use as a means of diagnosing disease. So long as the matter was in Gruber's hands it was an interesting scientific observation. In Widal's hands it developed into a reliable means of diagnosing typhoid fever and other diseases.

Such, in brief, is an outline of the historic development of what is now a most important adjunct to the means of clinical diagnosis. Notwithstanding the number of men whose brains and hands have been occupied with it, the phenomenon now known as Widal's reaction bears the name of him who wisely used it for practical purposes.

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* This article was submitted to the JOURNAL last November and owing to previous engagement of space has been held until now.

For convenience of discussion, the subject will be considered under separate divisions.

I. *The Time at which the Reaction Develops.*—The development of the reaction occurs at a somewhat variable time. It usually comes on about the seventh day. Sometimes it is seen earlier, and Johnston and McTaggart[1] usually found it quite well marked by the fifth day. They also observed it in three cases at the end of 48 hours from the beginning of the fever. Widal and Sicard[2] state that the reaction usually occurs on the first day of infection. Not infrequently the reaction fails to develop until later. Most cases, however, react well in the second week, and nearly all show reaction in the third week. Rarely the reaction is delayed still later. (*Vide infra.*)

The Widal test was properly and continuously applied to 230 cases of typhoid fever among soldiers who had enlisted in the Spanish-American war and who were treated in the Medico-Chirurgical Hospital. Of these, 219 reacted positively, or 95.64% of the total number examined. One of the fatal cases, which was otherwise typical typhoid fever, failed to show a reaction so late as the seventeenth day of the illness; this was excluded, for the obvious reason that had the patient survived for a longer period, a positive reaction might have been obtained. Thus in 10 of the cases no Widal reaction was present; these were tested from time to time so late as the end of the first week of convalescence, or return of normal temperature. The percentage of cases, therefore, showing absence of the reaction was 4.36%, as against 4.5% indicated by the table of Drs. Stengel and Kneass. (*Vide supra.*) Among the latter, also, were hree instances in which a faint doubt as to the correctness of the diagnosis from the symptoms and clinical course remained. Thus, in one the spleen was not perceptibly enlarged (otherwise typical), in another a single crop of eruption appeared, while in the third the temperature-curve was not altogether typical.

Of the 219 cases giving a positive result, 128 showed he reaction prior to the appearance of the rose-spots, or before the 8th day; 36 showed the reaction during the econd week; 45 between the 17th and 21st day of the disease; 8 not until the 25th day, and 2 as late as the 28th day of the illness.

In addition to the 230 cases considered above, in which the clinical symptoms and course were so typical as to warrant, soon or late, the diagnosis of typhoid fever, we noted the presence of the Widal reaction in 10 cases that were atypical, and apart from the presence of the sero-reaction were so lacking in the characteristic typhoid features as to be placed in the category of non-typhoid diseases.

These results show that in the majority of cases the development of the reaction decides the diagnosis prior to the appearance of the characteristic eruption. On the other hand, they also indicate clearly that in a considerable percentage of the cases the sero-reaction is delayed until long after the diagnosis is assured by the symptoms and course of the disease, and in such the appearance of a positive result is of mere confirmatory value.

I may state, however, that in one instance there was a history of typhoid fever 6 years previously, hence this may be excluded, and all were of an extremely mild character. Moreover, in none of the 9 remaining cases could an assured diagnosis of any disease other than typhoid fever be made. In 3 instances, however, the clinical features bore a superficial resemblance to malarial fever. In 2 of the latter, a probable diagnosis of malaria was made from the history of "chills and fever," and general indisposition, starting 2 weeks previous to date of admission. The temperature after entering the hospital continued normal. In view of the presence of the Widal reaction, it is not justifiable to exclude typhoid fever, more especially since a fair percentage of the cases that were typical gave the history of a similar mode of onset. The third case belonging to this group presented an additional symptom, moderate splenic enlargement—a fact that caused the resemblance to typhoid to be even closer.

A fourth case had been diagnosed as malarial fever by the camp physician, but a careful microscopic examination of the blood during the patient's sojourn in the hospital did not reveal the presence of the organism of Laveran. The spleen was decidely enlarged, and two brief febrile paroxysms (with maximum temperatures of 103° respectively), preceded by rigor and succeeded by profuse sweating, occurred, and the interval between the paroxysms was but 48 hours. The second febrile attack was followed by normal temperature until the time of the patient's discharge—about one week after date of admission.

Of the remaining 5 cases, 4 manifested no fever during their brief stay in the hospital, being considerably advanced in convalescence. In 2 of the latter, the spleen was slightly enlarged, and there was a history of most of the usual prodromal symptoms of typhoid, beginning about 1 week before date of admission.

The third case belonging to this group, L. B., aged 19, had been ailing four weeks, beginning with pain in the back, headache, neuralgia, and constipation. The principal complaint after admission to hospital was of sleeplessness and of pain in the back. The spleen was not enlarged. This may have been a case of walking typhoid, with almost complete recovery before entering the hospital.

The fourth case was W. G. A., aged 24, a Canadian, who had been taken sick at Thorp's Gap, August 21, with a severe headache, general muscular weakness, and pain in the back. Next day (August 22), he had a chill followed by marked fever, but kept on duty until August 31, and then was sent to the hospital, after which he improved. His condition on admission:—No symptoms; patient feels well, has a good appetite, bowels regular, tongue cleaning, and spleen not enlarged. Obviously this may have been a case of typhoid fever with recovery prior to date of admission. The last, or tenth case of the present series of non-typical cases, G. M. C., single, male, white, aged 26, from Camp Alger, was admitted August 25, with a temperature of 102⅗°, pulse 80, respiration 32. The patient had fallen ill August 10, and from the symptoms manifested (principally "chills and fever") the physician at camp diagnosed mild intermittent fever. His temperature during the first 6 days of his stay in the hospital fell by lysis, precisely as in the declining period of typhoid fever. Subsequently it was subnormal for a couple of days, when a slight recrudescence occurred, most probably in consequence of constipation, and while the notes are silent as to the condition of the spleen and skin, typhoid fever cannot, to a certainty, be excluded.

It may be, as some contend, that the presence of the Widal reaction is met with in non-typhoid affections, and while the results of the present researches do not furnish conclusive evidence, they indicate that possibly malaria may be among the latter. On the other hand, further investigations into the subject may prove beyond peradventure that the presence of the Widal reaction sets the diagnosis of typhoid fever at rest in cases in which the characteristic manifestations at the bedside are lacking, since, as stated above, the diagnosis in the present series of 10 cases was decidedly obscure, if the diagnostic importance of the Widal reaction be disregarded.

Again, it was found that the blood of 34 of the cases in which the sero-reaction was absent at the first examination, first reacted to the test after various and rather lengthy intervals of time. Briefly, the longest interim between the beginning of the invasion period (first day of the fever) and the time of the Widal reaction in this series was 24 days—the shortest period, 8 days.

In a series of 300 cases taken from the records of the Episcopal, Presbyterian, and St. Agnes' Hospitals, Dr. W. H. Bell[3] found that the Widal reaction was unobtainable until the disease was well advanced, the average in this series being the ninth day, and the earliest the fifth day of the disease.

Delepine[4] points out that during the first week the reaction is often slow and not quite clear, and that to establish an assured diagnosis a reexamination is often necessary. In his opinion, during the five weeks following the first, the agglomeration phenomenon can generally be obtained clearly and rapidly.

The results obtained in Osler's wards by Block and Gwyn up to November, 1898, show that in 151 cases the reaction was present in 144. "In four of the negative cases the clinical course was not certain. In only 46 of the last 108 cases was the reaction obtained; in only 26 cases was the reaction present before the seventh day of the disease;" in 4 cases it developed on the 22d, 26th, 35th, and 42d days respectively.

In a very few cases it is absent altogether. In this connection it may be noted that there are cases in which the reaction is missed during the primary attack, or until the period of convalescence (Achard, Blumenthal), and, in still others, it first makes its appearance in the relapse (Biggs, Park, Stahl, and Bell, *et al*). Doubtless one cause for the absence of the Widal reaction is the fact that the test is neither repeated enough nor made at sufficiently short intervals; when convenient, the test should be made daily until a positive result is obtained, although an examination every second day probably suffices in the average case.

In the *Year Book of Medicine* for 1898, Drs. Stengel and Kneass have collected and tabulated, from the previous statistics of different writers, 2,392 cases of typhoid, in which the reaction was positive in 2,283 and negative in 109. Also 1,387 non-typhoid cases, of which 22 reacted positively and 1,365 negatively. The results in these cases show—

Reactions in typhoid cases	95.5%
No reactions in non-typhoid cases	98.4%
Correct results in	96.5%
Incorrect results in	3.5%

Surely, this table indicates a small proportion of negative responses.

II. *The Duration of the Reaction* is by no means constant. In the greater number of cases the agglutinating property of the blood begins to diminish in the first weeks, and marked reduction in its activity is noticed in a few months. Few cases continue longer than one year. Widal and Sicard[5] found that it sometimes disappears so early as the 18th day after convalescence. Brenner saw it disappear on the 17th day in one case and the 25th day in another case. E. Fraenkel found it absent after the 28th day in one case. In all the cases observed by Widal and Sicard the reaction disappeared within a year. Sometimes, however, the reaction has been observed to persist much longer, and in a series of cases which had had typhoid fever a varying number of years before the examination, Widal and Sicard found it still present in one case 3 years after recovery, in one case 7 years after recovery, and in another 9 years after convalescence. Widal tested 80 cases of typical or suspected typhoid fever at periods ranging from 1½ to 9 years after convalescence, obtaining 6 positive and 16 negative results. Musser and Swan[6] found that in their series of cases the reaction disappeared in one case on the 38th day, while in one other case it persisted for 10 years.

In 24 cases of the present series the blood was examined early in the course of the disease and the reaction found to be present. At a later period—not less than 18 days for each case—the blood was reexamined, and in every case a similar result was shown to be present. Such facts as these emphasize the diagnostic importance of applying the test late in the course of dubious cases in which no opportunity for an earlier examination is afforded.

Studies of the Blood of 30 Cases Convalescent from Typhoid Fever for Varying Lengths of Time, Illustrating the Duration of the Widal Reaction:

Time Since Convalescence.		Reaction.
1 month	G.	+
6 months	D.	+
18 "	Dr. R.	0
1 year	F. S. C.	+
2 years	H.	+
2 "	S.	0
3 "	C.	+
3 "	G.	0
4 "	L. C. S.	+
4 "	Miss P.	0
5 "	S.	+
5 "	B.	+
6 "	R. W.	0
6 "	R.	+
8 "	Mrs. McB.	0
8 "	J. R.	+
8 "	M.	0
8 "	A. D.	+ ?
9 "	Miss W.	0
9 "	I.	0
9 "	W. J. R.	+ ?
13 "	Stern	0
14 "	Miss F.	0
15 "	Miss J.	0
15 "	D.	0
16 "	O. B. R.	0
16 "	B.	0
17 "	M.	0
18 "	P.	0
20 "	S. P. H	0

One person, not included in the table, suffered from 2 attacks of typhoid fever, one 8 the other 13 years ago. At present the blood does not possess any reacive power.

When once established, the reaction is usually constant, but occasionally cases are observed in which it is absent for short intervals, usually during the period of its establishment or disappearance.

The occasional persistence of the reaction for some years can lead to errors of diagnosis, but is not apt so to do if the previous history of the case can be properly studied.

III. *The Distribution of the Agglutinating Substance.*—Being a substance dissolved in the blood, one is prepared to find that the agglutinating substance is present n the various secretions extracted from it.

It has been found in pleuritic effusions by Menetrier[7] and by Widal and Sicard,[8] in pericardial fluid by Achard.[9] Widal and Sicard[10] found that it was present in the tears, except when artificial lacrimation was stimulated with ammonia. Thiercelin[11] reports a case in which the agglutinating power was discovered n the blood and milk. It was not present in the spontaneous sweat. Achard and Bensaud[12] observed it in the milk of typhoid patients.

In urines, of which very few were examined for the reaction, we have failed to detect any agglutinating property. The chief case studied was a soldier who suffered from the disease and two relapses. The blood reacted strongly but the urine failed to do so. It has been found by Catrin[13] in the pus of a phlegmonous nflammation occurring in the course of typhoid fever, but caused by the staphylococcus pyogenes aureus. Block asserts that there is agglutinating substance present in the typhoid stool. According to Welch's studies, the reaction occurs in a weak and inconstant manner n the bile, urine, and aqueous humors of the eye.

In Widal's paper reviewing the whole subject,[15] he says the agglutinating substance has been found in the blood, urine, the serous fluid from blisters, the pleural, pericardial, and peritoneal fluids, milk, bile, seminal fluid, aqueous humor, tears, pleural exudates, and to a less extent in the spleen, liver, and mesenteric glands.

Salimbeni found that agglutination does not take place within the animal body, although it has been demonstrated that the living blood-plasma possesses the agglutinative property.

IV. *The Relation which the Reaction bears to the Germicidal Activity of the Blood* has been pretty carefully studied. No definite relation between the two has been established. In general it is found that the fresher the blood, the more readily bacteriolysis is observed. It is an unusual phenomenon in blood that has long been dried upon paper, and the greater number of specimens that are received at the laboratory for examination, while reacting strongly, show no bacteriologic power. Johnston and McTaggart[14] state that "with blood-solutions this phenomenon is frequently witnessed. The clumped bacteria, if watched for an hour or so, may be seen to break up in granules which gradually become indistinct and vanish while under observation, until practically no trace remains of the clumps which shortly before studded the entire field of the microscope." "The change is more liable to occur in cultures some days old than in young cultures, and more perhaps with attenuated than virulent cultures." "It does not occur with all the samples of typhoid blood, and is not well marked in very dilute blood-solutions."

Stewart exhibited before the Pathological Society of Philadelphia (September, 1898) the blood of a soldier which had a marked bacteriolytic action, and the blood of one of the cases which we examined was characterized by a pronounced destructive and solvent action upon the bacteria.

The agglutinative substance is different from the bactericidal substance, and the agglutination of the bacteria is not to be looked upon as their beginning destruction. It was found by Widal and Sicard that many of the typhoid serums with a high degree of agglutinating power were entirely devoid of bactericidal powers. "The bactericidal, attenuating, immunizing, and agglutinative properties of the sera, although generally present, at the same time, because they are derived from the same case, are, however, mutually independent."

Jemmal[16] found that the phenomenon of agglutination was most marked during the period of most intense infection and when the bactericidal activity was greatest. Widal and Sicard also trace a relationship between the two. Widal and Sicard[17] were able to keep typhoid cultures alive for two months in strongly agglutinative serums without destroying their vitality; and, indeed, one of the original methods that Widal suggested for studying the reaction, required that the typhoid bacillus should *grow* in diluted, but of course agglutinative, serum.

V. *Transmission of the Agglutinating Power from Parent* *to Child.*—Mosse and Dannie[18] report a case of a woman who had typhoid in the 8th month of pregnancy. At the time of delivery the blood and mammary secretion of the mother gave a positive reaction, and the blood of the child reacted positively for 33 days after birth. J. P. C. Griffith[18] had seen a similar case.[19] Barber[20] reports a case of a woman who on the second day of typhoid fever gave birth to a child whose blood, 2 days later, gave the serum-reaction; subsequently the infant had a slight fever and an attack of diarrhea. Pepper and Stengel[21] mention a case in which the blood of an infant gave positive agglutinative reactions. Charrier and Apert[22] examined the tissues of an embryo from a mother in the third week of typhoid fever. There was a total absence of any agglutinating property in the fetal organism, though it existed in the blood of the placenta.

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[To be concluded.]

TWO UNUSUAL CASES OF MYXEDEMA.

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Case I.—P. N., 51 years of age, a merchant; examined June 19, 1894. The patient stated that about 3 years before he had fallen ill quite suddenly. A cousin was mentally unbalanced; it is said that 2 children died young of cerebral trouble; 3 others live and are physically and mentally sound.

Except for an attack of unconsciousness at the age of 2¾ years, of which no particulars can be gleaned, the patient himself has experienced no sort of illness that could have any bearing on the present trouble. He overtaxed body and mind; in his work he was frequently exposed to dampness, cold, and excessive heat; he used alcohol quite freely and smoked a great deal. In his youth he masturbated, but apparently not to excess.

On account of the patient's mental state it is impossible to obtain a more accurate anamnesis. He speaks everlastingly about his numerous physical ailments; has many delusions of a hypochondriac nature, with pronounced indications of mental weakness. He declares that his head is constantly decreasing in size, that here and there it is completely softened; absolutely nothing of his brain remains, it has entirely flowed away. The blood has ceased to circulate in his body, nourishment can no longer pass through the body, because the bowels are dried up; all the feces accumulate in the abdomen, etc., etc. The patient declares that he can sleep not more than 1 or 2 hours during the night, but according to his wife's statement he sleeps very well. He claims that he cannot take a sufficient amount of food, but he really eats an abnormal amount. Later he remarks that it is a great misfortune that it should be necessary for him to eat so much, that just so much more waste accumulates in his bowels, which will certainly hasten the end. Under these conditions his statements regarding his trouble are, of course, not very reliable.

He complained continually of very severe pressure and burning pains in the head. He was irritable, naturally very much depressed mentally; his memory was said to be greatly impaired. It was stated that vertigo was present continually. He complained of general weakness, paresthesiæ of different sorts, and burning pains in all the limbs, difficulty in urinating, constipation, attacks of palpitation, etc., etc. Very often he would spit upon his hand and call the physician's attention to the various pathologic constituents of the sputum, although in reality there was nothing abnormal to be seen. Impotence.

Status præsens:—Patient is well built, broad-shouldered, and rather large. Panniculus adiposus is poorly developed. The face is pale, and the skin on the entire body is dry, scaly, and cold. By palpation no traces of the thyroid gland are to be found. Temperature is somewhat subnormal, the pulse weak, frequent (patient very excitable) There is great physical unrest; the patient cannot sit still an instant, he walks about, wrings his hands and laments. His teeth are very defective; it is said that they have become so since the beginning of his present trouble. There is almost complete baldness; this, it is said, is also of recent date. There is no swelling of the face, the expression is very rigid, masklike in spite of the marked psychic excitation. The ears of the patient are deformed; in the gluteal regions is found an abnormal growth of hair. The vertebræ are sensitive to pressure. In the cervical region is found a circular infiltration of the skin, about as large as the palm of the hand, in the center of which is a linear sagittal scar caused by an incision for a furunculus. With this exception there is no swelling of the skin anywhere on the body. Sensibility, reflexes, pupils, internal organs, etc., are normal.

The swelling of the skin mentioned was raised over the surface and was very hard, much harder than those in the cases of myxedema which I was able to examine previously, so that I first thought it might be a fibromatous keloid. But the tumor was not sensitive to pressure, the localization was unusual for a keloid, and the patient never complained of its itching. The patient could give no information in regard to the time of development of the tumor. Previous to the examination he was not cognizant of its existence.

Thyroid tablets were prescribed for the patient; at first 2 daily, later on up to 9 daily. The first effect of this therapy was the rapid reduction in the size of the tumor.

The following seemed particularly important for the diagnosis: The patient had so completely lost all hope of recovery from his illness, that he repeatedly interrupted the course of his treatment. After each pause of that kind I found that the infiltration was again considerably enlarged, and even after it had completely disappeared under treatment, it rapidly reached its former proportions after such an intermission of several weeks' duration.

Nevertheless, the mental state of the patient gradually improved, and after some 9 months all symptoms of his disease subsided. He has now for the past 3½ years been back at his business, and the last time I saw him he told me that he never felt better. It is a matter of course that I urged him to continue taking the thyroid in small doses and, so far as I know, he follows these instructions conscientiously.

Case II.—W. C., 52 years old, a lawyer, came on the 15th of January, 1898, for the first time for examination. There is a history of pronounced neuropathic disposition. It seems that his mother suffered with an acute mental disease, which terminated in secondary dementia. The father also appears not to have been normal mentally, although nothing can be learned of any pronounced psychosis. Of the five brothers and sisters of the patient there is one who is chronically mentally afflicted, and one brother, whom I myself had the opportunity to examine, led an adventurous life and suffers from periodic states of excitement. All the other brothers and sisters are very excitable, and, according to the statements of both members of the family, who could give me any information in the matter, are each and all psychically abnormal. The patient himself was gifted to an uncommon degree, had worked himself up from most unfavorable conditions to a very prominent position in life, but was at all times very irritable and moody. About 2 years ago, without known cause, he suddenly fell ill with an acute mental disease, and it was necessary to confine him in an asylum.

A more detailed account of the symptoms of that mental derangement cannot be obtained. The patient can only tell that he had many hallucinations of a disagreeable character, was very much excited, and that after a year he was discharged "cured" from the asylum.

Since that time the symptom remains which causes the patient to seek medical assistance,—complete loss of energy. He states that during the past year it was absolutely impossible for him to pursue his professional duties, as he was unable to apply himself to any kind of mental activity.

In addition to the hereditary disposition mentioned, overexertion is to be offered as a possible etiologic factor.

The patient is a total abstainer, neither smokes nor chews, has indulged in no other kind of excess.

Upon interrogation he stated that in the course of the past year he had frequently suffered from moderately intense frontal headaches, that he is impotent, never perspires any more, has become more sensitive to low temperatures and suffers frequently with constipation. He is not depressed, but rather indifferent to everything. The memory was not impaired (verified by the examination), the sleep is disturbed and insufficient, the appetite is poor.

The result of the examination was as follows: Patient is small, well nourished, the skin pale, dry and scaly. The thyroid gland cannot be found. Pulse is weak, of normal frequency. The temperature is subnormal. All movements are slow, hesitating; speech was very slow (after his recovery it was found that he is a very fluent talker). No trophic disturbances on nails or teeth, but the hair is thin—said to have fallen out a great deal lately. The eyelids were slightly edematous; otherwise no swelling of the skin was manifest at the time of the first examination.

The expression of the face is dull, shows a lack of interest, and is masklike. The sensorium is free, the intellectual faculty good. With the exception of the duration of the acute mental disease the memory is excellent. Otherwise the examination of the central nervous system yielded only a negative result. It is particularly noteworthy that no disturbance of sensibility was found.

During the time of treatment the urine was frequently examined and it never contained either albumin or sugar.

An interesting point in this case is that a few days after, the patient himself called attention to a swelling n the cervical region. He had observed that I examined this region with special care, and on that account he himself gave it unusual attention. Here was found an infiltration, the nature of which could not be questioned, as it had all the characteristics of the myxedematous infiltrations.

This case is rendered uncommon by the fact that in the course of the next 2 or 3 weeks this infiltration appeared repeatedly, remained for 1, 2, or 3 days and then disappeared again.

The patient was treated with iodothyrin in doses ranging from 0.25 to 0.75 grams. Except an occasional slight gastrointestinal disturbance, no unfavorable effect of the medicine was noticed at all; especially sugar never could be found in the urine.

The condition of the patient improved rapidly; after about 3 weeks no swelling of the cervical region could be discovered. Two weeks after the beginning of his treatment he was able to discharge a legal case successfully, although he applied himself only with difficulty to the necessary duties. Along in June all the other symptoms disappeared also, but the iodothyrin is being continued at the present time in smaller doses.

While in the first case the thyroid tablets in large doses (9 per diem) induced pronounced gastrointestinal disturbances, it seemed doubtful to me in the second case whether the occasional appearance of a slight gastric disturbance was due to the iodothyrin or to an indiscretion in diet. At any rate it seemed that their appearances were altogether independent of the size of the prescribed doses.

Mellituria was never observed in either of the cases in spite of frequently repeated examinations of the urine.

In both of the cases whose history I have just related there is a series of the classic symptoms of myxedema. The thyroid glands seemed to be atrophic in both patients, the pulse weak and low, its greater frequency in the first case probably due to the psychical excitation, in the second normal, the body-temperature subnormal, both patients had become more sensitive to cold, in both the skin was cold, dry and scaly, sexual desire had disappeared, both suffered with constipation and headache. The rigid, masklike expression of the countenance was present also. Then, too, we found atrophic disturbance in the first case (loss of hair and teeth), in the second slowness of speech and insomnia. That the existing impotence was not occasioned by the age of the patients is shown by the fact that later on the sexual desire reappeared. I could discover no diminution of sensibility. In the first case, however, the mental condition of the patient was such that a slight disturbance of sensibility might easily have escaped detection.

The first point of interest in the two histories is the behavior of the myxedematous infiltrations. In both of my cases it was most pronounced in the cervical region; in fact, in the first it was to be found here only.

In the well-known report on myxedema by the Clinical Society of London it has been urged that in about 25% of all cases these infiltrations do not appear on the face. If it is permissible to draw any conclusion from my small experience with myxedema—I have up to the present time, so far as I recollect, examined 6 cases of this disease—a beginning of the swelling appears relatively very frequently in the cervical region.

Furthermore, the infiltration in the first patient distinguished itself by uncommon firmness. Through the presence of the scar this anomaly may become a cause for error in the diagnosis. It seems probable that the abnormal consistency of the tumor was occasioned through the existence of the scar.

Still more interesting was the behavior of the infiltration in the second case. Here it repeatedly vanished completely after a short existence, and then in spite of continual treatment reappeared for a few days. Ewald mentions cases in which the swellings would change, so that the shoes were sometimes too small, sometimes too large; although of a pronounced rapid change, such as are seen in these cases, I could find no mention in the literature.

It would be well, therefore, to consider whether many cases of mental diseases, which are cured with thyroid preparations, are not accompanied with such an "intermittent" myxedema, that could escape the notice of the physician if he make but one examination.

These cases also differed from the usual cases of myxedema in the mental conditions of the patient. In the literature to which I had access I found no case recorded in which the attendant mental disturbance resembled that present in our first case. To-day the opinion is quite generally concurred in, that hypochondria does not constitute a disease sui generis, but rather is a symptom-complex that is found in different nervous diseases. We then see its appearance here in myxedema. In the case of W. C. we had first to deal with an acute mental disturbance accompanied by many hallucinations, a phase of the disease which Kraepelin maintains is seldom encountered. In the later stage another unusual condition was observed, an abulia without any other psychic disturbance. Indeed, there was no perceptible trace of mental weakness in the patient. A condition more closely resembling this one than any I have yet found is described by Sir William Gull. He says: "The mind which has previously been active and inquisitive assumed a gentle, placid indifference, corresponding to the muscular languor, yet the intellect was unimpaired.

In conclusion, I wish briefly to call attention to the difference in the effects of both the thyroid preparations which were employed. With the iodothyrin the disagreeable secondary effects were decidedly less marked than in the case in which the compressed thyroids were used, a peculiarity which was observed by others as well as by myself in several other cases.

A CLINICAL STUDY OF 287 CASES OF HYPERPHORIA.[1]

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Having been struck with the frequency with which I encountered hyperphoria in my routine work, and of the necessity and importance of its consideration and adjustment, whenever present, I was led to institute a careful search through my private case-books, to ascertain in what proportion of cases this anomaly existed, and to tabulate the results so obtained, in the hope that such a research might prove of interest and value in the study of the important but intricate subject of muscle-balance. I was aided in this by my friend, Dr Ollye S. Hodges, of Georgetown, Tex., to whom I wish to express my sincere thanks for valuable and intelligent assistance in the irksome task of compilation.

Before proceeding further, I desire to define my position in regard to the subject of muscle-balance generally, and to explain the manner in which the statistics that are to follow were compiled.

It was my lot to receive my preliminary education in ophthalmology on the other side of the Atlantic from some of the most illustrious and eminent specialists in that branch of medicine of the present decade Although for the greater part these were fair-minded men, and ready to accept everything that might advance their art and mitigate the sufferings of humanity, nearly all of them not only positively declined to look with favor upon the study of what is now known as muscle-balance, but rather derided their colleagues on this side of the ocean who persisted in the importance of the detection and treatment of latent deviations in the extraocular muscles.

There was no predisposition, consequently, upon my part to become an enthusiast in muscle-work, nor have my professional associations during the past 5 years been such that any extreme tendency in this direction should be fostered; so that any convictions that I may now have on the subject have been gained entirely from my own experience, and have been, I might say forced upon me as the result of careful and conscientious efforts to ascertain all of the defects that may be present in any given case of refraction, and to find their perfect and rational correction. I do not desire to convey by this that I am ignorant of the writings of Stevens and others, but I simply wish to embody in this paper the findings and conclusions that as an unbiased observer (which I believe myself to have been) I have arrived at in regard to one phase of the interesting but obscure subject of muscle-balance.

For the purpose of testing and measuring anomalies in the extraocular musculature, the Risley frame and phorometer were employed, with modifications that were added from time to time to meet certain conditions. As my method of procedure differs in several particulars from that of others, a brief description of it will be given. In order to measure vertical deviations, a double rotary prism of 20° strength is placed before the right eye, with the bases horizontal, while the lateral imbalance is determined by means of a similar prism of 30° strength placed before the left eye, with the bases vertical. The deviations are studied by means of a Maddox rod, which is mounted in a cell before the right eye in such a manner that it may be made to rotate into positions from 90° to 180° by turning a small lever. The newer model of a series of rods is made use of, and the glass is colored red for contrast. The status of the muscles at the reading-distance is obtained after the manner of Maddox, by means of a prism of 10°, base up, which may be swung into position before the right eye by means of a revolving arm, producing the double image of an arrow on a card graded in prism-degrees.

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[1] Read before the Section on Ophthalmology of the College of Physicians of Philadelphia, November 15, 1898.

In obtaining the distance, as well as the near muscle-balance, it is essential that as much of any existing deviation be made manifest as is possible. It suggested itself to me that it would be well to endeavor to measure the deviation that the eye undergoes when it is screened off in the ordinary refraction-test, whilst the other eye fixes the test-card sharply in the endeavor to obtain the best visual acuity. To accomplish this, the vision of the right eye is first obtained, the left eye being obscured by an opaque metallic disc. This done, the right eye is obscured by the disc and the left eye made to regard the chart. So soon as the vision of this eye has been obtained, instead of removing the shield from before the right eye and permitting the patient to bring the eyes into a state of parallelism by the unconscious desire for fusion necessary for binocular vision, the patient is told to regard a bright electric light placed on a level with the line of test-letters that he has just read, and but a few inches from it, the right eye still being covered. The Maddox rod is then lowered before the left eye, the patient's attention called to the streak, the disc quickly removed from before the right eye, and the patient requested to give the relative positions of the light and the streak. Any deviation, lateral or vertical, is at once measured by means of the rotary prisms that are in position before the eyes. The method is a rapid and satisfactory one, and has frequently revealed the existence of insufficiencies that were not rendered manifest by the usual method of employing the rod-test. The same method has been utilized as a part of every refraction-test. After the refraction of one eye has been determined, the correcting lenses are allowed to remain in position back of the metallic disc that is placed before the eye, while the other eye is examined. So soon as this is accomplished the patient is requested to transfer his gaze to the light, a red Maddox rod is dropped before the eye, the shield is removed from its fellow, and the slightest deviation will be made manifest and can be accurately determined by the prisms. This last procedure has been of great value in many an intricate case, and has often directed the attention to the true muscle-error. It is absolutely essential for this test that the point of light at which the patient is requested to transfer his gaze from the letters on the test-chart, should be bright and close to the row of letters that he has just read, else the excursions of the eye will be too great, and so great a movement required that impulses will be generated in the deviating eye that will defeat the purposes of the test. This I have accomplished by means of a simple apparatus devised for me by Messrs. Wall and Ochs, of Philadelphia. This consists of an electric light shaded by a Thorington chimney, which is attached to a metal rod placed a few inches in advance of and to the side of an ordinary test-card. The light may be adjusted to correspond to any row of letters on the chart, so that in any event the eye will not have to make a greater movement than the few inches from the letters to the light. The light that illuminates the chart is also electric, and, in common with the light for the muscle-test, is so arranged that it may be operated by the surgeon at the patient's side by means of switches. The moment the refraction is ascertained the light in the chimney is turned on and that for the chart off, so that a perfect contrast is obtained and the double images invited to appear and persist.

As a result of the muscle-tests made in this manner, I observed that hyperphoria existed in many cases, when it did not reveal itself to the ordinary tests with the Maddox rod, or to the disassociation of images gained by the use of prisms.

Of 2,300 private cases of refraction, 287 cases exhibited hyperphoria of at least 1° in more than one examination. Hyperphoria of less than 1° was not considered, nor those cases of 1° in which subsequent examinations did not reveal its existence, as it was then judged to be accidental and not suitable for the purposes of classification.

In preparing the tables, the cases of hyperphoria were, for convenience in the compilation of the statistics, grouped into 3 classes, and, as it is interesting and instructive to compare the results so obtained, this division will be adhered to throughout the paper.

(1) Cases associated with exophoria, of which there were 122. (2) Cases associated with esophoria, of which there were 111. (3) Cases associated with lateral orthophoria,[2] of which there were 54.

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[2] As my idea of lateral orthophoria, or perhaps better expressed, the normal balance of the lateral muscles, differs from that which is usually held, it is necessary at this point to define what I mean thereby. I think that if the streak produced by the Maddox rod goes directly through the flame when situated at 5 meters, a condition of imbalance is present, and instead of there being orthophoria, there is in reality exophoria. Again, if the image of an object held 14 inches off when reflected by a prism should fall directly under the true image, I

Of the 287 cases of hyperphoria, 1° of vertical deviation occurred in 79 cases; 2° in 107; 3° in 42; 4° in 22; and 5° or more, in 37 cases.

Hyperphoria with Exophoria.—Among the 122 cases of the first group, hyperphoria of 1° existed in 33 cases; of 2° in 41, of 3° in 19, of 4° in 12, and of 5° or more in 17 cases; exophoria of 1° existed in 52 cases, of 2° in 18, of 3° in 13, of 4° in 10, and of 5° and over in 29 cases.

(1) When there was exophoria of 1°, hyperphoria of 1° was present in 17 cases, of 2° in 20, of 3° in 7. of 4° in 5, and of 5° or more in 3 cases.

(2) When there was exophoria of 2° hyperphoria of 1° was present in 5 cases, of 2° in 9, of 3° in 3, of 4° in 1, and of 5° or more in none.

(3) When there was exophoria of 3°, hyperphoria of 1° was present in 2 cases, of 2° in 5, of 3° in 4, of 4° in one, and of 5° in 1 case.

(4) When there was exophoria of 4°, hyperphoria of 1° was present in 3 cases, of 2° in 1, of 3° in 2, of 4° in 1, and of 5° in 1 case.

(5) When there was exophoria of 5° or more, hyperphoria of 1° was present in 6 cases, of 2° in 4, of 3° in 3, of 4° in 4, and of 5° or more in 12 cases.

Hyperphoria with Esophoria.—Among the 111 cases of the second group, hyperphoria of 1° existed in 24 cases, of 2° in 42, of 3° in 17, of 4° in 9, and of 5° in 19 cases; esophoria of 1° existed in 12 cases, of 2° in 15, of 3° in 9, of 4° in 11, and of 5° in 64 cases.

(1) When there was esophoria of 1°, hyperphoria of 1° was present in 6 cases, of 2° in 2, of 3° in 1. of 4° in 1, and of 5° in 2 cases.

(2) When there was esophoria of 2°, hyperphoria of 1° was present in 4 cases; of 2° in 6, of 3° in 2, of 4° in 1, and of 5° in 2 cases.

(3) When there was esophoria of 3°, hyperphoria of 1° was present in 1 case. of 2° in 6, of 3° in 1, of 4° in 1, and of 5° in none.

(4) When there was esophoria of 4°, hyperphoria of 1° was present in 2 cases, of 2° in 4, of 3° in 3, and of 4° or more in none.

(5) When there was esophoria of 5°, hyperphoria of 1° was present in 11 cases, of 2° in 24, of 3° in 10, of 4° in 6, and of 5° in 13 cases.

Hyperphoria with Lateral Orthophoria.—Among the 54 cases of the third group hyperphoria of 1° existed in 22 cases, of 2° in 22, of 3° in 6, of 4° in 1, and of 5° in 3 cases.

(1) When there was esophoria of 1° at 5 meters, hyperphoria of 1° was present in 8 cases, of 2° in 5, of 3° in 3, of 4° in 1, and of 5° in 1.

(2) When there was esophoria of 2° at 5 meters, hyperphoria of 1° was present in 8 cases, of 2° in 8, of 3° in 2, of 4° in none, and of 5° in 1 case.

(3) When there was esophoria of 3° at 5 meters, hyperphoria of 1° was present in 3 cases, of 2° in 7, of 3° in none, of 4° in none, and of 5° in 1 case.

(4) When there was esophoria of 4° at 5 meters, hyperphoria of 1° was present in 1 case, of 2° in 1, and of 3° or more in none.

(5) When there was esophoria of 5° at 5 meters, hyperphoria of 1° was present in 2 cases, of 2° in 1, of 3° in 1, and of 4° or more in none.

A study made to note the frequency with which high degrees of esophoria and exophoria were associated with hyperphoria, revealed the following:

(1) When exophoria was present to the extent of 5°, hyperphoria of 1° existed in 1 case, of 2° in 2, of 3° in 1, and of 5° in 2 cases.

(2) When exophoria was present to the extent of 6°, hyperphoria of 10° or more existed in 1 case.

(3) When exophoria was present to the extent of 7°, hyperphoria of 2° existed in 1 case.

(4) When exophoria was present to the extent of 8°, hyperphoria of 4° existed in 1 case, and of 7° in 1 case.

(5) When exophoria was present to the extent of 10°, + hyperphoria of 1° existed in 2 cases, of 2° in 3, of 3° in 2, of 4° in 1, of 6° in 2, and of 10° in 3 cases.

(6) When exophoria was present to the extent of 20° or more, hyperphoria of 3° existed in 2 cases, of 4° in 2, of 6° in 1, and of 10° in 3 cases.

Esophoria.—(1) When esophoria was present to the extent of 8°, hyperphoria of 1° existed in 1 case, of 2° in 2, of 3° in 4, of 4° in 1, and of 6° in 1 case.

(2) When esophoria was present to the extent of 9°, hyperphoria of 3° existed in 1 case.

(3) When esophoria was present to the extent of 10°, hyperphoria of 1° existed in 1 case, of 2° in 9, of 3° in 1, of 4° in 2; of 6° in 3, of 7° in 1, and of 10° in 1 case.

(4) When esophoria was present to the extent of 20°, hyperphoria of 1° existed in 1 case, of 2° in 2, and of 3° in 1 case.

(5) When esophoria was present to the extent of 30°, hyperphoria of 2° existed in 2 cases, of 3° in 1, of 4° in 1, of 5° in 1, and of 6° in 2 cases.

Finding hyperphoria present in so many instances in which there was a lateral muscle deviation of high degree (exophoria or esophoria of more than 5°), I instituted a search through my case-books in order to ascertain if this rule always obtained, and whether hyperphoria was a constant accompaniment of this class of cases. I found that although hyperphoria did occur in the majority of instances, *i. e.*, in 93 cases out of 157 recorded on my books (29 of which were associated with exophoria, and 64 with esophoria), it was not always the rule, for it was ascertained that in the remaining 64 cases (25 of which were associated with exophoria, and 39 with esophoria), hyperphoria of appreciable degree was absent.

A study made to show the frequency with which high degrees of ametropia in both eyes were accompanied by hyperphoria revealed the following:—

High Myopia. (1)—When there was myopia of 6 D. present, hyperphoria of 2° existed in 2 cases, of 3° in 1, of 4° in 2, and of 6° in 1 case.

(2) When there was myopia of 7 D. present, hyperphoria of 2° existed in 1 case, of 3° in 4; and of 4° in 1 case.

(3) When there was myopia of 8 D. present, hyperphoria of 3° existed in 1 case, of 4° in 1, and of 6° in 1 case.

(4) When there was myopia of 9 D. present, hyperphoria of 10° existed in 1 case.

(5) When there was myopia of 10 D. present, hyperphoria of 4° existed in 1 case, of 6° in 1, of 7° in 1, and of 10° in 4 cases.

High Hypermetropia.—(1) When there was hypermetropia of 4 D. present, hyperphoria of 1° existed in 3 cases, of 2° in 3, of 3° in 5, of 4° in 1, of 5° in 1, of 6° in 1, and of 8° in 1 case.

(2) When there was hypermetropia of 5 D. present, hyperphoria of 1° existed in 2 cases, of 2° in 5, of 3° in 2, and of 6° in 1 case.

(3) When there was hypermetropia of 6 D. present, hyperphoria of 1° existed in 1 case, of 2° in 2, and of 5° in 1 case.

(4) When there was hypermetropia of 7 D. present, hyperphoria of 2° existed in 1 case, and of 6° in 1 case.

(5) When there was hypermetropia of 8 D. present, hyperphoria of 4° existed in 1 case.

As it was found that hyperphoria occurred so often associated with high degrees of ametropia (myopia of 5 D. or more, and hypermetropia of 3 D. or more), it was deemed interesting to pursue this subject at greater length, and a further search was instituted, with the result of finding that, although hyperphoria existed in

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am of the opinion that imbalance exists also, and that instead of there being orthophoria, there is really esophoria. According to my observations, the natural state of muscle-balance is present when the phorometer shows at 5 meters, 2° or 3° of homonymous diplopia, and from 2° to 4° of crossed diplopia at the reading-distance. Under such conditions abduction will be found to equal 8° or 9°, and adduction from 18° to 25°, the ratio that exists in the majority of well-balanced eyes.

2 cases of high myopia, there was an equal number of ases of myopia of a similar degree in which there was o hyperphoria; and while there were 31 cases of high ypermetropia with hyperphoria, there were 43 cases f hypermetropia of similar degree without hyperphoria.

It is significant, however, to note that among all the ases of high myopia (22), or of high hypermetropia 47) without hyperphoria, there were only 2 cases in hich the departure from the normal in the lateral nuscle-balance was of appreciable degree. (Both of hese were instances of hypermetropia associated with sophoria of over 8°.)

Anisometropia.—In the presence of anisometropia one vould naturally look for hyperphoria, for here conditions obtain that would naturally give rise to it. The ength of the eyes is different, the insertion of the extraocular muscles into the globe is frequently dissimilar n the two eyes, and the orbits are often of different onfiguration.

Of 2,300 cases of refraction tabulated, there were 117 ases of anisometropia, but of this number 81 did not xhibit hyperphoria. With the exception of 11 of hese 81 cases, however, the lateral muscles were well alanced, and further reference to the tables shows that he difference in refraction between the eyes in these 1 instances was not a great one, but one meridian aving gone over into myopic refraction in the great roportion of the cases, thus rendering the eye one of nixed astigmatism, while the other eye remained n a state of compound hypermetropic astigmatism. n none was either eye highly hypermetropic or nyopic. Practically the same conditions existed in he 11 exceptions also, for the lateral muscle-balance n these cases might have been considered to be in a tate of orthophoria, for they were all cases of exohoria of under 2° at the far point.

In not one of these cases was there high esophoria over 8°), or exophoria (over 5°).

Anisometropia with Hyperphoria.—In all there were 36 ases, of which 12 were associated with esophoria, 14 with xophoria, and 10 with lateral orthophoria.

When there was esophoria of less than 6°, hyperphoria xisted in 1 case only, and then only of 1°. When, however, there was esophoria of 6° or more, there existed 2 cases f hyperphoria of 1°, 3 of 2°, 2 of 3°, 1 of 4°, none of 5° and 1 f 6 or more.

When there was exophoria of 1°, there existed 1 case of yperphoria of 1°, 1 of 2°, 1 of 3° and 1 of 6°.

When there was exophoria of 2°, hyperphoria of 3° existed n 1 case, and of 4° in 1.

When there was exophoria of 3°, hyperphoria of 3° existed n 2 cases, and of 1° in 1.

When there was exophoria of 4°, hyperphoria of 1° existed n 1 case.

When there was exophoria of 5°, there was no hyperphoria n any case.

When there was exophoria of 6°, hyperphoria of 2° existed n 1 case, of 3° in 1, and of 4° in 2.

When there was lateral balance, hyperphoria of 1° existed n 4 cases of 2° in 4, of 3° in 1, and of 6° in 1.

(1) When compound hypermetropic astigmatism existed n combination with mixed astigmatism, the difference in he refraction between the eyes averaging 0.75 D., there ere 6 cases of hyperphoria, 4 cases of 1°, 1 of 2° and 1 of 6°

(2) When compound hypermetropic astigmatism existed in combination with compound myopic astigmatism, the difference in the refraction between the eyes averaging 4.3 D., there were 5 cases of hyperphoria, 3 cases of 3° and 2 of 4°.

(3) When compound myopic astigmatism existed in combination with mixed astigmatism, the difference in the refraction between the eyes averaging 2.16 D., there were 6 cases of hyperphoria, 2 cases of 1°, and 4 of 2°.

(4) When compound myopic astigmatism existed in combination with hypermetropic astigmatism, the difference in the refraction between the eyes averaging 3.5 D., there were 3 cases of hyperphoria, 1 case of 2°, 1 of 3°, and 1 of 4°.

(5) When compound myopic astigmatism existed in combination with hypermetropia, the difference in the refraction between the eyes averaging 5 D., there was 1 case of hyperphoria of 4°.

(6) When compound myopic astigmatism existed in combination with myopic astigmatism, the difference in the refraction between the eyes averaging 3 D., there was 1 case of hyperphoria of 6°.

(7) When mixed astigmatism existed in combination with myopic astigmatism, the difference in the refraction between the eyes averaging minus 0.5 D., there were 3 cases of hyperphoria, 2 of 2° and 1 of 4°.

(8) When mixed astigmatism existed in combination with hypermetropic astigmatism, the difference in refraction between the eyes averaging 0.5 D., there were 7 cases of hyperphoria, 4 of 1°, 2 of 2°, and 1 of 4°.

(9) When myopia existed in combination with compound hypermetropic astigmatism, the difference in refraction between the eyes averaging 6 D., there were 2 cases of hyperphoria, 1 of 1°, and 1 of 2°.

(10) When myopia existed in combination with hypermetropia, the difference in the refraction between the eyes averaging 1 D., there was 1 case of hyperphoria of 4°.

(11) When myopia existed in combination with hypermetropic astigmatism, the difference in the refraction between the eyes averaging 0.5 D., there was 1 case of hyperphoria of 3°.

Strabismus.—Among 19 cases of divergent strabismus of such a nature that their degree could be ascertained in prism-strength, manifest hyperphoria of 4.8° existed on an average in each case, while in addition there was latent hyperphoria of 1.8° in each.

Among 20 cases of convergent strabismus of such a nature that their degree could be accurately determined by the phorometer, there was an average degree of manifest hyperphoria of 4.8°, and a latent one of 1.6° in each case.

Latent Hyperphoria.—As already mentioned, I claimed for my methods of examination the ready detection of latent hyperphoria, and substantiate this in the following:—

(1) Latent hyperphoria occurred in association with esophoria in 49 cases. Among these, myopia occurred in 4 cases, hypermetropia in 35, mixed astigmatism in 2, and antimetropia in 8.

(2) Latent hyperphoria occurred in association with exophoria in 67 cases. Among these, myopia occurred in 19 cases, hypermetropia in 33, antimetropia in 12, and mixed astigmatism in 3 cases.

(3) Latent hyperphoria occurred in association with lateral orthophoria in 32 cases. Among these myopia occurred in 5, hypermetropia in 22, antimetropia in 4, and mixed astigmatism in 1.

Resume.—Percentage of latent hyperphoria; exophoria—in all 122 cases; latent hyperphoria existed in 67 cases (54.9%). Esophoria in all 111 cases; latent hyperphoria existed in 49 cases (44.1%). Lateral orthophoria—in all 54 cases; latent hyperphoria existed in 32 cases (59.2%).

Average amount of latent hyperphoria elicited by tests: In exophoria 2°; in esophoria 1.67°; in lateral orthophoria 1.12°.

The Effect of Age Upon Latent Hyperphoria.—In latent hyperphoria associated with exophoria before the 30th year, latent hyperphoria of 1° was brought out in 19 cases, of 2° in 10, of 3° in 5, and of 4° in 5.

In the 3d decade, hyperphoria of 1° existed in 3 cases, of 2° in 4, and of 4° in 2.

In the 4th decade, hyperphoria of 1° existed in 5 cases, of 2° in 3, and of 4° in 1.

In the 5th decade, hyperphoria of 1° existed in 5 cases, and of 2° in 2. In the 6th decade, hyperphoria of 2° existed in 1 case.

In latent hyperphoria associated with exophoria, latent hyperphoria of 1° existed in 32 cases, of 2° in 20, of 3° in 5, and of 4° in 8.

In latent hyperphoria associated with orthophoria before the 30th year, latent hyperphoria of 1° was present in 5 cases, and of 2° in 2.

In the 3d decade, latent hyperphoria of 1° was present in 4 cases, and of 2° in 4 cases.

In the 4th decade, latent hyperphoria of 1° was present in 4 cases.

In the 5th decade, latent hyperphoria of 1° was present in 8 cases, of 2° in 2, and of 3° in 1.

Age—In latent hyperphoria associated with esophoria before the 30th year, hyperphoria of 1° was brought out in 13 cases, of 2° in 2; and of 3° in 5.

In the 3d decade, hyperphoria of 1° existed in 9 cases, of 2° in 1, of 3° in 1, and of 4° in 1.

In the 4th decade, hyperphoria of 1° existed in 4 cases, of 2° in 1, of 3° in 2, and of 4° in 2.

In the 5th decade, hyperphoria of 1° existed in 3 cases, and of 4° in 1.

In the 6th decade, hyperphoria of 1° existed in 3 cases.

In the 7th decade, hyperphoria of 2° existed in 1 case.

The Effect of Wearing Glasses on Hyperphoria.—Notwithstanding what many say to the contrary, it has not been my experience that hyperphoria of appreciable degree disappears under the adjustment of glasses that correct errors of refraction, but I have found, on the other hand, that more hyperphoria begins to make itself manifest the longer glasses are worn; and this increase in the hyperphoria seems to occur quite independently of whether vertical prisms had been incorporated into the prescription or not.

(1) When the error of refraction was carefully corrected, vertical prisms being incorporated to neutralize the muscle-deviation in exophoria, hyperphoria increased in 20 cases, on an average of 1.3°, while there was a decrease of 2° in 1 case, and of 4° in another.

(2) In esophoria, when glasses containing vertical prisms were prescribed, hyperphoria increased in 19 cases, on an average of 1.5°, while there was a decrease of 1° in 1 case, and a decrease of 2° in another.

(3) It was found similarly that when glasses were worn constantly which corrected the refractive error, but not the muscle-imbalance, *i. e.*, without the incorporation of prisms, in exophoria, hyperphoria increased in 11 cases, an average of 1.8°, while a decrease of 2° was noted in 1 case.

(4) In lateral orthophoria it was found that when prisms were incorporated with the correcting lenses, hyperphoria increased in 4 cases, an average of 2.5°; whereas, when prisms were not worn, the hyperphoria increased in 8 cases, an average of 1.8°.

Symptoms.—The most common symptom noted in all of the cases was headache. This occurred in 173 instances. In 125 it was of the supraorbital variety, in 18 of the temporal, and in 30 it was referred to the occipital region. In the majority of instances there was no peculiarity in regard to this pain that could enable one to differentiate between it and that caused by other forms of ocular disorder; but in 31 of the cases it was one-sided, and in nearly all of these (24), on the side of poorest vision.

Unequal vision in both eyes was noted as occurring in 225 cases.

Diplopia, other than at the near point, occurred in 31 instances. As seeing double at the reading-distance is so commonly present in all forms of ametropia and muscle-error, no record was made of its occurrence under such circumstances.

Vertigo was complained of in 28 instances, and nausea accompanied by vomiting was seen in 6 cases.

Twelve patients suffered from typical attacks migraine. A frequent symptom, and one that I thin is due directly to the hyperphoria, and is consequentl of great value in directing attention to the existence this defect, is associated reflexes in the supply of th facial nerve. This took the form of twitching of th eyelids in but one eye, and that the one of poores vision in 17 of the cases; in 6 there was monocula nictitation, and in 3 marked blepharospasm. In cases there were choreiform movements in the muscle of the face, and in 5 reflexes in the neck and spin Two patients, particularly, complained of "a beatin and jumping" in the eye, and in 2 others there wa "a crackling sensation" in the eye during the act winking.

Photophobia to a marked and distressing degree, un accompanied by external inflammation, existed in 1 of the cases. In 25 cases there were signs of externa inflammation of the eye, chiefly in the form of blepha ritis or conjunctivitis, and in only two of these wa headache associated with these inflammatory con ditions.

Conclusions.—(1) When properly searched for, hyper phoria of 1° or more will be found to exist in abou 13% of all cases of refraction; and as regards it frequency, it occurs quite independently of, whether i is associated with exophoria, esophoria, or latera orthophoria. Hyperphoria occurs most frequently t the extent of 2°.

(2) Although in general the degree of hyperphoria seems to bear a close relationship to the degree o esophoria and exophoria existing in any case, increasin or diminishing in proportion as the lateral muscula deviation increases or diminishes, the existence of high degree of esophoria or of exophoria does no necessarily imply the presence of hyperphoria.

(3) In like manner, high degrees of ametropia need not be accompanied by hyperphoria, for I found a equal number of cases of both myopia and hypermetropia of high degree in which hyperphoria was absent In these latter cases, however, it was noted that ther was but slight deviation in the lateral muscles, while on the other hand, it was found that high degrees o ametropia associated with high degrees of lateral insufficiencies were almost always attended with hyperphoria.

(4) In anisometropia, on the other hand, hyperphoria is present in all cases in which the difference in refraction between the eyes is at all marked, even whe associated with a moderate degree of esophoria o exophoria. When there is orthophoria in the lateral meridian, or but little difference in refraction between the eyes, hyperphoria is rarely present.

(5) Strabismus, both convergent and divergent, i invariably accompanied by hyperphoria, of which a least one-quarter of its total amount is latent.

(6) Latent hyperphoria is of frequent occurrence

d occurs quite independently of the state of the teral muscles, although it shows a greater disposition occur when associated with exophoria (2%), than ith esophoria (1.67%), or with lateral orthophoria .12%).

(7) Unlike latent hypermetropia, latent hyperphoria evelops quite independently of age, occurring with as eat relative frequency before the third decade of life thereafter. It is equally liable to develop in myopia in hypermetropia, but shows a greater tendency to associated with exophoria (2%) than with esophoria .67%), or with lateral orthophoria (1.12%).

(8) The correction of errors of refraction is not ufficient in the majority of cases to bring about a disppearance of any existing hyperphoria, as I have und that hyperphoria makes itself manifest the longer asses are worn; the increase in the hyperphoria occurng whether vertical prisms have been incorporated to the formula or not.

(9) Headache is the most frequent symptom, that of e supraorbital variety predominating. In a small roportion of cases it will be unilateral, usually on the me side as the eye with poorest vision. Typical tacks of migraine may be expected in about 5% of l cases of hyperphoria.

A symptom of frequent occurrence and of great value directing attention to the existence of hyperphoria nsists in an associated reflex in the supply of the cial nerve. This may manifest itself either in a uniteral twitching of the lids, as in nictitation, or, more rely, by a pronounced blepharospasm.

The Treatment of Hyperphoria.—Hyperphoria being etermined to be present, what should be its treatment? it necessary for the comfort of the patient that both isual axes should be absolutely upon the same horintal plane, and should every degree or fraction of a egree of hyperphoria be corrected? It has been my xperience that there are patients with several degrees hyperphoria who use their eyes without restriction, nd without discomfort, while on the other hand I have en reflexes of a most troublesome nature originated y a single degree of vertical muscle-error. There are o fixed rules, therefore, in the treatment of hyperhoria, but, as in the other phases of refraction-work, ch case must be a law unto itself. Generally, I correct ll cases that present symptoms that have just been deiled as significant of hyperphoria, and that have their ision improved and their eyes rendered more comrtable by the addition of vertical prisms to the lenses at have been adjusted for the correction of the existg ametropia. The final adjustment of the hyperhoria is accomplished either by tenotomy or by rescribing vertical prisms.

As it seems essential that any existing errors of fraction should be properly corrected by spherical or lindrical lenses, or by combinations of both, I fail to e any disadvantage in incorporating a vertical prism into the lens or combination of lenses which corrects the ametropia, provided, of course, the hyperphoria is not so great that the employment of prisms is contraindicated by the mechanical or cosmetic inconveniences that those of high degree occasion. I believe that the employment of the vertical prism affords a more accurate and surer means of obtaining relief from the symptoms of hyperphoria than tenotomies, even when these are performed by the most skilful disciples of the graduated tenotomy-school, and I reserve operative procedure for cases of high degree of vertical insufficiency and for those rare ones of low degree when there is emmetropia in both eyes.

TYPHOID FEVER AND WATER-BORNE DIARRHEA.

Two Studies in Aquarelle.

By JOHN S. FULTON, M.D.,

AND

WILLIAM R. STOKES, M.D.

of Baltimore, Md.

I.

> "I come from haunts of coot and hern,
> I make a sudden sally;
> I sparkle out among the fern,
> To bicker down the valley."

OCTOBER 31, 1898, Dr. C. Brotemarkle, of Lonaconing, reported to the State Board of Health of Maryland 9 cases of typhoid fever at Lord, a mining village of

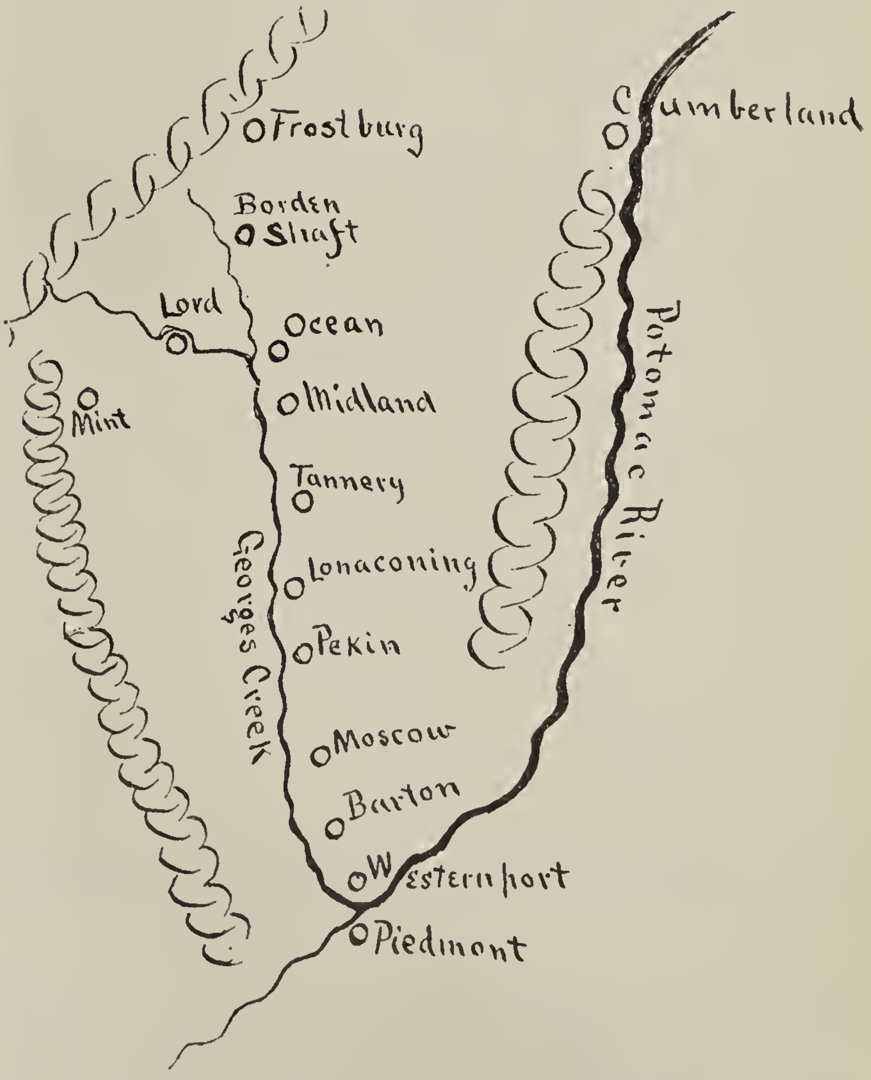

FIG. 1.—The valley of George's Creek and the Potomac Valley from the George's Creek junction to Cumberland. The small stream rising in the mountains, flowing past Lord, and emptying into George's Creek near Ocean, is Run Flondyke. (The points of the compass are reversed. Read "north" at the bottom.)

300 inhabitants, situated at the head of the valley of George's Creek. The public water-supply is piped from a cemented and covered spring on the mountain side above the village. There are in the village 4 private springs, all furnishing drinking-water. Biologic examination of the public supply discovered but 7 colonies of bacteria in 1 cc. of water, and no colon-bacilli in 1 nor in 50 cc. This water was therefore pronounced safe for drinking.

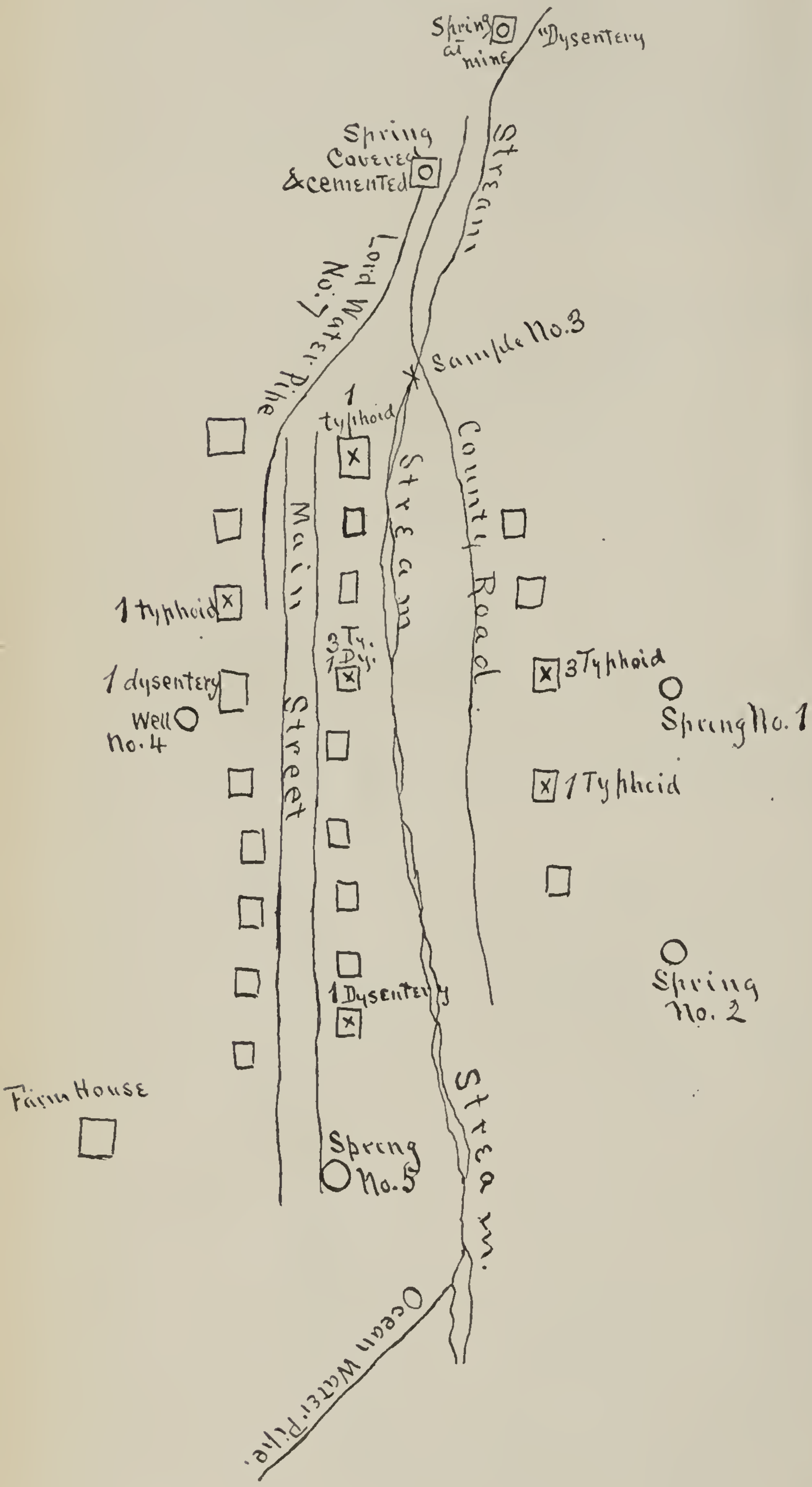

FIG. 2.—The village of Lord, showing Run Flondyke as far as the intake of Ocean water-pipe. No colon-bacilli at Sample No. 3. Colon-bacilli present just above water-pipe.

Samples from each of the 4 springs showed 504, 437, 936, and 1,188 bacteria per cubic centimeter. One of these, Lehr's spring (No. 1), contained the colon-bacillus, demonstrated in 50 cc. of water. Of the 9 typhoid patients 4 obtained their water from this spring. In the other 3 springs the colon-bacillus was not found in samples of water from 1 to 50 cc. In the absence of colon-bacillus we would not ordinarily condemn waters containing but a few hundred bacteria. But a far better and well-protected supply being available, we felt justified in advising that the use of all the 4 private springs should be discontinued. Dr. Brotemarkle was able, with the aid of the Mining Company, to stop the use of all the sources of drinking-water, save the public supply, and no new cases of typhoid fever occurred.

Run Flondyke is a little mountain-stream flowing through the village of Lord and receiving its surface-washings. After passing through the village this stream is tapped by a pipe-line which conveys drinking-water to Ocean, another small village, 2½ miles further down the valley. Samples were taken from this stream at two points. The water from the stream above the village contained but 127 bacteria in a cubic centimeter, and no colon-bacilli demonstrable in quantities up to 50 cc.

At a point in Run Flondyke below the village and just above the intake of Ocean pipe-line, the water contained 1,866 bacteria per cubic centimeter, and the colon-bacillus was demonstrable in 50 cc. This information was conveyed by Dr. Brotemarkle to the inhabitants of Ocean, but the use of the pipe-line water was not abandoned.

November 20, 4 cases of typhoid fever at Ocean were reported to the State Board of Health. The outbreak at Ocean did not grow serious, though two or three cases happened later.

These investigations, while they did not fix the source of infection in all of the 9 cases at Lord, did point out a safe drinking-water, and put an end to the typhoid-fever outbreak. It seems pretty clear also that Run Flondyke became infected by some of the typhoid patients at Lord, and that the germs, after traversing the 2½ miles of water-pipe to Ocean, were able to produce their specific effect. It is reasonable to believe further that control of the outbreak at Lord restricted the outbreak at Ocean,

We are indebted to Dr. C. Brotemarkle for two excellent diagrams, which are here reproduced. The first one (Fig. 1), shows the valley of George's Creek from its source to its confluence with Potomac River, with the relative position of the towns. Run Flondyke is also shown from its source to termination in George's Creek.

The second diagram (Fig. 2), shows the village of Lord with its water-supplies; and the infected houses. It also shows the point in the stream from which the Ocean water-supply is taken.

II.

A Water-works Accident on the Fourth of July.

A small suburban community, which happened to be under the observation of the State Board of Health during last summer (1898), obtains its water by pumping from a deep well into a tank, from whence it is distributed to the cottages. The well is about one-third f a mile from the nearest source of possible pollution. The tank holds only one summer day's supply for bout 400 people. Each cottage in this community has its own subsurface irrigation for the disposal of house-waste.

June 30 a bacteriologic examination of this water howed that there were 80 bacteria present in one cubic entimeter of water. No colon-bacilli were found.

On the Fourth of July, an accident having disabled he pump, the manager had recourse to another well, which had not been used for more than a year. A maller pump was connected with this well and the ank was filled with the stagnant water. The entire population of the community, about 300, remained at home to celebrate the holiday, and the tank was emptied during the day and night. On the 5th of July he regular supply was again connected and used from hat time forward.

About July 10, 5 or 6 days after the stagnant water had been taken, 25 persons were sick with gastrointestinal disorders, of varying degrees of severity. One had ever, bloody stools, and loss of weight; 2 had delirium, hills, fever, and diarrhea. Several others had fever, while all had diarrhea. All recovered in from 3 to 7 lays.

An examination of the water from the well which had been used on July 4 showed 4,100 bacteria in one cubic centimeter, and the colon-bacillus was present in he same quantity of water. The source of the colon-bacillus was not discovered, but the top of the well, about 8 feet in diameter, was covered with loose plank, and this suggested that the water might easily be polluted in a direct manner from the surface.

A reasonable explanation of this outbreak of diarrhea would seem to be that persons accustomed to drink water containing 80 bacteria in each cubic centimeter, were poisoned when suddenly obliged to drink a water containing 4,100 bacteria in each cubic centimeter. Most of the population were able to withstand this unusual bacterial invasion, but the intestinal tracts of 25 out of 300 persons reacted more or less violently.

July 27, two young ladies were taken sick, and on August 1 a third began to be ill. All 3 of these cases proved to be typical attacks of typhoid fever. Two of them gave the Widal reaction. The third would not submit to a blood-examination. Careful inquiries were made of the movements of these 3 persons during the previous 3 weeks. One of them never drank milk, though she ate ice-cream. The two who did drink milk obtained it from different sources. One had returned from Norfolk about 4 weeks before her illness. One remembered having taken a glass of soda-water at Pikesville some time within 3 weeks. Another had taken a glass of milk at the Women's Exchange, Baltimore. Thus by close questioning we were able to determine that the only probable source of infection to which they were all exposed was the drinking-water furnished on the Fourth of July.

A study of this water-works accident, occurring on the day devoted by the nation to fireworks accidents, seems to show that intestinal disorders of indefinite pathology may be produced by drinking-water.

The period of incubation in two of the three cases of typhoid fever seemed to have been 22 days, and in the third case possibly 2 days longer. The period of incubation of typhoid fever can of course only be determined within rather wide limits, since its initial symptoms are very apt to escape observation, and the cases are very rare in which the exact date of invasion can be fixed. In these 3 cases we believe that the date of infection was pretty clearly proved.

A SIMPLE AND CONVENIENT APPARATUS FOR THE HOME MODIFICATION OF MILK.[1]

By J. P. CROZER GRIFFITH, M.D.,
of Philadelphia, Pa.
Clinical Professor of the Diseases of Children in the University of Pennsylvania.

The medical profession is reaching the position in which a physician who wishes to determine as accurately as possible just what strength of milk-mixture shall be given to a certain infant makes his calculations not at once in quantities of milk, cream, water and so on, but by estimating these only after he has decided for each individual child just what percentages of fat, proteids, sugar, etc., he wishes to employ.

At first this method seems puzzling and complicated but it is in reality not at all so; and those who have once accustomed themselves to it never wish to go back to the old way of remembering certain mixtures containing ounces of milk, cream, sugar, and water. When the procedure was first devised the calculation, it is true, was rather too elaborate for the average medical —and often unmathematical—mind to follow out. Soon the method of calculation was simplified greatly by writers who devised very easy working-formulæ by which any physician could readily estimate the amount of the ingredients for almost any milk-mixture of almost any desired percentages. It was, however, necessary either to memorize the two or three working-equations required for this, or to carry with one, as I constantly do, a little slip of paper with the equations written on it. Now we have a still further and a greater simplification: the apparatus which I have here illustrated, which enables anyone, without any calculation whatever, to prepare different mixtures with a range of percentages which fill ordinary requirements. This apparatus, called the "Materna," was devised by Dr. S. V. Haas of New York City, and is made and sold by the New York Chemical and Surgical Supply Company, of 147 Center Street, New York, at a cost of but $1.50. It consists of a glass vessel holding 16 ounces (or, if desired, 20 or 24 ounces). The surface is divided by vertical lines into seven panels, and each of these is marked with horizontal lines and lettering to show just how much milk-sugar, milk, cream, lime-water and water shall be poured into the vessel in order to prepare food of a certain desired percentage strength. Within the panels are also written the percentages of fat, proteid and sugar to which the measured amounts of the ingredients correspond. Thus the first is marked "fat 2%, proteid 0.6%, sugar 6%," making a formula which can advantageously be used at the beginning of an early weaning. The second panel is marked "fat 2½%, proteid 0.8%, sugar 6%." The other panels show progressingly increasing strengths. By combining 16 ounces of one panel with 16 ounces of another panel intermediate percentages can readily be made; and a little ingenuity will show still other variations possible. One difficulty with the Materna is the preparing of a number of ounces for the daily amount which is greater or less than the amount held by the vessel, or than a multiple of it. Thus if 36 ounces is desired one would be required to fill the vessel 3 times, making 48 ounces, and then to throw away the superfluous 12 ounces. By having two different vessels of different sizes this difficulty can be largely avoided.

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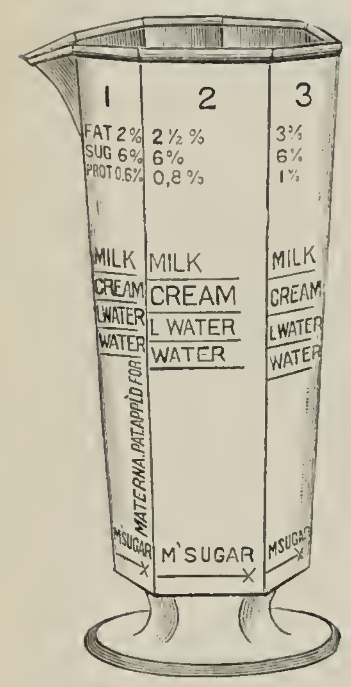
[1] Read before the Philadelphia Pediatric Society.



As originally made the panels were headed by such lettering as "2d to 6th week," "6th to 11th week," etc. This seems to me a radical mistake. It is, I think, wrong to teach physicians, as this marking seems to do, that an infant's food is to be changed in strength just because the child has reached a certain week of life, regardless of how well or ill it may be thriving, and what its weight may be. If infant-feeding were as simple a matter as this, the time and study which are given to it would be supererogatory. Rather we should disassociate our minds from much connection of definite food with definite age. Then, too, it is very rarely that a mother can be found who can be safely subjected to such a temptation as this offers; this invitation to modify her baby's food herself at a certain prescribed age, without asking advice from the baby's doctor. The glass says to change the food at this age, so why must she ask further about it! Believing that many physicians share my feeling in the matter I have induced the makers to put on the market, in addition to the original vessel, one in which the panels are merely headed by the numbers 1, 2, 3, etc.; the mention of ages being omitted but everything else remaining unchanged. This leaves the time for altering the strength of food entirely in the physician's hands, and he himself is guided not by age but by weight and condition.

The milk to be used in preparing the food by means of the materna should be good, mixed-herd milk. The cream should be a 20% cream; *i. e.*, the thinner centrifugal cream furnished by the larger dairies. This is rather richer than the average skimmed cream. The procuring of a satisfactory cream is always the most difficult problem in the home-making of milk-mixtures, but with the use of the Materna it is of course no greater than with any other method.

NOTE ON THE FREQUENCY OF ENLARGEMENT OF THE EPITROCHLEAR GLANDS IN DISEASES OTHER THAN SYPHILIS.

By RICHARD C. CABOT, M.D.,
of Boston, Mass.
Physician to Out-Patients at the Massachusetts General Hospital.

Certain clinicians regard enlargement of the epitrochlear glands as of some significance in connection with the diagnosis of syphilis. I recently examined, in a routine way, the epitrochlear regions in 82 patients taken at random from the out-patient clinic of the Massachusetts General Hospital.

Of these, 46 showed enlargement of the epitrochlear glands and 36 did not.

Out of the 46 positive cases, 9 patients, or 19%, admitted having had syphilis. Of the 36 negative cases 6, or 16%, admitted having had syphilis.

Out of the 46 positive cases 10 patients showed glands only on the right, 9 only on the left, and 27 showed them on both sides. Children showed glands much less frequently than adults. Cases of malaria and of phthisis appeared to be accompanied by epitrochlear adenitis with especial frequency among the cases in our series. Bronchitis, valvular heart-disease, gastrointestinal diseases, debility, pleurisy, rheumatism, nephritis and various other diseases also showed an enlargement of the epitrochlear glands.

From these observations it would appear that the epitrochlear glands are frequently enlarged in cases showing no signs or history of syphilis, and are absent in a considerable proportion of syphilitic cases, and, hence, that:

Epitrochlear adenitis is of no importance in the differential diagnosis of syphilis.

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Scientific Opinion the Servant of Envy.—One of the amusing features of much of our lay journalism has long been the narrow partisanship due to rivalry. What one newspaper first advocates or asserts is quickly pounced upon by a whipper-snapper rival, and opposed with a furious denunciation and maliciousness, the reason for which is manifest to everybody except to the poor little conscienceless editor. It seems that this farcical style is possibly to be adopted in medical journalism. It is for a time amusing, but it soon tires even the friendliest of readers, and we would suggest that some of our contemporaries by their lively opposition to whatever the PHILADELPHIA MEDICAL JOURNAL advocates, do but advertise their jealousy of our success. The plan, dear brethren, is far from clever, and our kindly interest in your welfare makes us whisper that although very flattering and helpful to us, it is hardly helpful or flattering to you.

The Inventor of Matches.—From the *British Medical Journal* we learn the interesting fact that the inventor of matches was a medical man, Charles Marc Sauria, "a country doctor content to spend his life in obscure well-doing in an out-of-the-way village." His memory was honored recently by the erection of a monument in the village of Saint Lothaire in the Jura. When as a student Sauria was shown that a mixture of potassium chlorate and sulphur could be exploded in a mortar with the blow of a pestle, he at once conceived the idea that if an inflammable substance, such as phosphorus, could be combined with a detonating mixture light might be produced. After many experiments, some of them attended with personal injury, success was attained and the match was invented, but the inventor was too poor to patent his invention, and he was compelled to spend the rest of his days in the practice of medicine, ministering to the sufferings of the poor country-folk of Saint Lothaire for sixty years and dying n 1895. "He was a true philosopher, who . . . exemplified . . . the principle of plain living and high hinking and . . . noble practice."

Biblical Medicine.—The value of the trained mind, not only in the special field to which it is devoted, but o any cause with which it may be allied, is curiously brought out by Dr. J. Howe Adams in a recent article on The Medical Knowledge of Luke" in the *Sunday School Times.* Dr. Adams speaks of the "beloved physician's" accuracy of observation and precision of language which aid so effectively in establishing the credibility of his writings, and deplores the fact that translations were not made by men sufficiently trained in medicine to emphasize this fact. It is noteworthy that, in the original, Luke generally uses Greek terms distinctly medical, which, if accurately translated would in many cases add to the clearness of the biblical narrative. A particular instance is his use of the medical term for epilepsy when the other evangelists speak of "being possessed with a devil," and also his use of the medical term for convulsion in writing of the cure which others describe by the phrase "the devil came out of him." Matthew and Mark may be said to present the life of Jesus from the point of view of the people, John the psychical and sentimental side of his nature, and Luke the scientific aspect of his work. The medicine of the Bible possesses much historical interest, but only a physician can deal competently with the subject.

Civic Liability to Damages for Water-Pollution.—Modern sanitary science having clearly demonstrated that typhoid fever is a preventable disease, and that its dissemination is effected entirely through human agencies, largely if not wholly controllable, it has been well even if vigorously put that infection with the disease is a crime, and death therefrom murder. Of the validity of this doctrine even the law seems to have taken cognizance, for a victim has been granted $1,500 damages in a suit against the city of Philadelphia for an attack of typhoid fever incurred through a defective sewage-system. An appeal has been taken by the city from the decision of the lower court and a final opinion has not yet been rendered. If the original decree should be sustained it would seem that the many other victims of the city's criminal carelessness and violation of all sanitary principles would have a basis for at least material redress. It is assuredly no greater offence to contaminate with sewage the water-supply for one domicile than it is to permit such contamination of the water-supply for the entire community. We can only conceive that a number of Philadelphia's City Fathers are so apathetic with regard to the purification of that city's water-supply because they have escaped the inroads of typhoid fever, and we wonder whether their immunity is due to the use of other beverages or to their individual protection by the very measures that they will not vouchsafe their helpless and dependent constituency.

Further Delay in the Repression of Typhoid Fever in Philadelphia.—It is to be profoundly regretted that the new Mayor of Philadelphia seems not to realize the gravity of the situation in his city with regard to typhoid fever and its relation to a polluted water-supply. With nearly as many cases of that disease in the first 15 weeks of the present year as occurred throughout all of the previous year, and with a corresponding number of deaths, it is incomprehensible that an intelligent and sincere critic should speak of the conditions as exaggerated for sensational purposes. To question the accuracy of the diagnosis is for a tyro to take issue with experts. Besides, the diagnosis is being made by the same individuals who have made the diagnosis in previous years when the number of cases and of deaths was not so large. Further, the evidence of the correctness of the diagnosis should be accessible in the records of the Mayor's own Health-Bureau, some of it of incontrovertible character, *e. g.*, the results of the agglutination-test.

The Mayor courts dangerous and fatal and unnecessary delay in asking for the appointment of a commission to examine and make a preliminary report in sixty days upon the best means of improving the city's water-supply. Who can say that a final report will ever be made, and that we shall thereby be advanced a single step beyond our present position? The information has already been collected at an expense of $75,000 and is now and has been for a number of years in the possession of the Mayor's own Water-Department, beyond which, together with the advice of the Chief Engineer of his Water-Department and of the bacteriologist of the Board of Health, the Mayor needs and should need no further expert assistance. Without going out of the State, additional recent evidence can be secured from the adjacent borough of Media and the near-by town of York, which both have instituted filtration-plants. In view of all the facts, we cannot help but feel that the Mayor of Philadelphia is treating too lightly a subject that is of greater and more vital importance than he seems to realize. To speak of "unjust and exaggerated rumors as to the condition of our drinking-water" is to tamper with the truth. The fact is that typhoid fever is criminally prevalent in Philadelphia, that its prevalence depends upon a polluted water-supply, and that those who stand in the way of immediate purification of that supply are morally, and should be made legally, responsible for the resultant disease and death.

Syphilis and Vaccination.—One of the contentions upon which antivaccination-agitators lay great stress is the transmission of syphilis by vaccination. Some of them go so far in their fancies as to contend that vaccinia and syphilis are the same disease. Syphilis is bad enough without bearing the added burden of imaginary sins, but the popular ignorance of it is great, the popular terror of it greater, and made worse by the newspapers, which with a queer irrelevant mock-modesty expunge its name, even from their reports of the antivaccination discussions and substitute "vile disease" or "loathsome disease." It is as well for the physician who may have to argue against terrified ignorance to remember that beyond bare assertion and the assumption, which every qualified practitioner can contradict from his own experience, that the eruption of primary syphilis and that of vaccinia look alike, there is absolutely no evidence worth an instant's consideration in favor of the transmission of syphilis by animal vaccine. Not one but hundreds of times, and by the most careful and experienced observers, like Koch in Germany; Nocard in France, and more recently by Leonard Pearson here, has the attempt been made at direct inoculation of the lower animals with syphilis. It has uniformly failed. If the beasts cannot have syphilis, it follows that they cannot transmit it. The opinion of Dr. Creighton is usually quoted in favor of the identity of the two diseases—but his opinion is an opinion, no more; nor have any facts been produced in evidence, beyond his purely speculative suggestions. As for his opinion, anyone who is familiar with medical history will scarcely consider it superior to Mr. Hutchinson's, which is given in the Royal Commission's report.

As to the possibility of transmission of syphilis by humanized virus, it must be said that this can occur and has occurred, though the authentic cases are of extraordinary rarity. Five cases in which death was alleged to be due to syphilis introduced by vaccination were brought to the Royal Commission's attention, and this is their verdict upon them: "In none of the five cases is there sufficient evidence to show that the death resulted from syphilis caused by vaccination." A number of cases have been cited in which pustular eruptions and other disorders, sometimes really syphilitic, sometimes more or less resembling syphilitic diseases, are reported as *following* vaccination. Some of these are no doubt due to the lighting-up by the slight fever accompanying vaccination of the smouldering fires of inherited syphilis; some cases are due to dirt, carelessness, or neglect, for which uninstructed or uneducated parents would make vaccination responsible.

Vivisection that Arouses no Protest.—It has often been noted that the antivivisectionists are not troubled by the frightful sufferings and deaths of animals caused by hunters, pigeon-shooters, fishermen, dealers, etc., by poor stables, by cold and exposure, and by filth, in shipment and slaughtering, and in many similar ways. We wish to add another great class of vivisection-practices which seems to have escaped mention and against which, so far as we know, no protest has been raised by the self-appointed friends of animals. In the following table the numbers given of animals of each kind in the United States are taken from the last census-report of 1890. In the annexed column are given the numbers of castrations, roughly estimated, which are performed annually in each class:

Animal.	Total number.	Estimated No. of castrations.
Horses	14,969,467	300,000
Cattle	51,363,572	4,000,000
Swine *	57,409,583	50,000,000
Sheep	35,935,364	3,000,000

Since 1890, of course, the number of animals has greatly increased, and there is no estimate of the number of castrations of such other animals as dogs, cats, etc. We would not be far wrong therefore if we should in round numbers place the number of castrations of domestic animals in the entire country at present at little less than 100,000,000 a year. When one considers that no anesthetic is ever used in these 100,000,000 cases; that the operator is usually without any knowledge of anatomy or antisepsis; that the operation, a "major" one when carried out upon man, is here brutally done and with much unnecessary attendant and consequent suffering; and, lastly, when one compares the tremendous sum total of this suffering with the infinitesimal amount in laboratories—then indeed must one recognize that, as we have before said, it is not suffering but antiscience that stimulates the antivivisectionist. If the "societies for the prevention of cruelty to animals" were genuinely working for the cause implied in their title, every physician in America would be a member and a helper. Curiously enough, while the S. P. C. A. has done nothing to prevent or alleviate the annual 100,000,000 vivisections to which we refer, the medical profession by establishing veterinary colleges (hated by the antis) and by educating veterinary surgeons in scientific methods, is vastly lessening the evil callously ignored by the official sentimentalist.

Scarlet Fever in a Hospital for the Insane.—The officials of the State Hospital for the Insane at Morris Plains, N. J., are to be congratulated on the success with which they met and eradicated the outbreak of scarlet fever in that asylum last year. From the annual report, just received, we learn that the first person attacked was a male attendant. The source of the infection could not be determined. The patient was promptly removed and his room and the entire ward disinfected. In spite of this precaution one of the patients fell ill with the disease 14 days later. A building on the grounds, one mile from the hospital, was at once turned into an isolation cottage. It was connected by telephone with the main building, a suitable water-supply secured by tapping the main leading from the new reservoir, and a corps of experienced nurses detailed to look after the patients. The total number of cases was thus limited to 11, of whom 8 were insane patients, 2 were nurses, and 1 was a child in the family of the florist. Of the insane patients 1 was a woman and 7 were men. There were six wards invaded in the male department and one in the female, which is interesting considering the small number of patients attacked. Each patient, as he was attacked, was promptly removed, his clothing and bedding burned, and the entire ward disinfected. This was done by a disinfecting corps of male attendants. The ceilings, walls, woodwork, and furniture were washed with a strong solution of mercuric chlorid. The rooms were then sealed and filled with formaldehyd gas and kept closed for 10 hours. The patients were given a bichlorid bath and supplied with sterile clothing, while the clothing taken off was disinfected. The invaded wards were quarantined for 6 weeks.

It was evidently due to this thorough disinfection that the disease was stamped out, and that in a large hospital with a population of about 1200 patients an astonishingly small number were attacked. We think this is worthy of comment, and reflects great credit on the administration of the asylum. Epidemics of infectious disease are fortunately not frequent in hospitals for the insane, but the experience at Morris Plains will furnish an example of thorough management for any institution that may be thus afflicted in the future.

Unfriendly Friends.—The Collier bill has been defeated, but we trust that its sole object may still be attained. It is noteworthy that of the three chief weekly medical journals of New York, the most ably edited has most unconditionally and squarely advocated the principle that "the Board of Health should stick to its legitimate work and get out of the drug-business." Another tosses off a characteristic word of condemnation for those who oppose the commercialization of the New York Board, but still it advocates the reform for which we have contended—the stopping of the sale of the superfluous product. A third journal, with delightful logic, says that the long letter it publishes of Drs. Biggs and Park, contending for the right and wisdom of the sale of the superfluous antitoxin, "answers to the satisfaction of any unprejudiced mind the charges that have been made," and yet it also (but with a very wry face) is compelled to advise the Board to "discontinue the sale of all serum." Thus the Board does not find a single friend among the local journals, and its one ally, who for years has defended its sale of products, at last, although with much sad groaning, gives up the cause and advises its friend to quit the mercantile and political part of the business. In the *New York Medical Journal* of April 2, 1898, Dr. A. M. Phelps, than whom none is more competent, most admirably answered every argument adduced by the

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* The estimates in the case of swine are necessarily very indefinite. The larger number of operations are upon females, and the seemingly high figures given, on account of this fact, together with the shortness of their life, and their prolificity, are probably too low rather than too high.

Board and its friends. We regret that we cannot reproduce the entire article and must excerpt only the following:

> "Dissenting from the almost unanimous opinion of the medical press of America, the New York *Medical News*, in an editorial which was palpably inspired or written by a member of the Health Board, energetically opposes the bill introduced by Senator Brush into the New York Legislature for the purpose of preventing the sale of diphtheria-antitoxin all over the United States in competition with private enterprise. The *News* has a full right to the expression of its convictions, but in reading its utterly unsupported statements one cannot repress a feeling that it has rendered a sorry service to its friends. Another such advocate, one more defense in the same vein—and the New York Board of Health will be forever undone. Let the Board of Health of New York City act as experts, not as manufacturers. They will then command the respect of the profession and the pharmacists, and their usefulness to the community will be doubly enhanced and the medical profession will give them their undivided support."

We are still awaiting an explanation of the strange contradiction between the statements of Drs. Biggs and Cosby that the New York Board sold inferior and condemned antitoxin to the Chicago Board at less than the regular price, and the absolute denial of Dr. Reynolds that this was done. The mysteries do not seem to be cleared up either by silence or by any number of explanations, letters and editorials. There seems to be much darkening of counsel by words without knowledge.

Antivivisection Propagandism by Lying.—In the *Practitioner* of March, Mr. Malcolm Morris thus wrote:

> The Charity that Thinketh No Evil.—I take the following from a religious newspaper which has been sent to me: "We have from time to time read strange accounts of how doctors test medical theories. But never have we read such dreadful particulars as are published in the *New York Freeman's Journal* of February 11, being taken from the *Sunday Journal*. In extracts which are quoted at some length, Dr. Ianson, of the Charity Hospital, Stockholm, is represented as making experiments with black smallpox poison upon the children of the Foundlings' Home. With the permission of Professor Medin, head physician, he injected tuberculin into the bodies of 40 newborn babes. A late number of the *Berliner Thierboerse* prints this statement: 'Professor Doederlin, in Leipzig, and Professor Bumm, in Basel, recently declared in their public lectures that in order to obtain a sufficient amount of ulcer-bacilli they planted ulcers in the healthy organs of poor women treated in the public hospitals.' The *German Medical Weekly* gives Dr. Schreiber's account of how he injected the germs of consumption into a healthy boy. It is a horrible story."
>
> This is the sort of thing that one is not surprised to find in these "rags" which seek to catch a dirty halfpenny by making their readers' flesh creep. But it is the reverse of edifying to find a paper professing to represent a religion which teaches that the greatest of virtues is charity, so ready to retail malicious scandals which, on the face of them, are not merely false but grotesquely foolish. The paragraph is headed "Can it Be True?" It might have been expected that any respectable paper would have taken the trouble to inquire whether the statements were true before repeating them. Charity, we are told, thinketh no evil. It would appear, therefore, that charity would be out of place in the editorial chair of a religious journal.

On March 28, we happened to notice a column of antivivisection rubbish in *The Evening Telegraph* of Philadelphia. It had no one to vouch for it except the remark that careful translations had recently been made in this city from German scientific journals, showing the awful uses hospital-patients were put to in Europe by the brutal doctors. To a scientific man the recital of the experiments was funny, and evidence was plain of its concoction in the feverish brain of some poor anti or aunty with as little regard for truth as for animal suffering. A glance at the *Telegraph's* gathering showed a redishing of the stale old nonsense Morris had gibbeted in London a month or more ago. We mildly expostulated with the *Telegraph* editor for being so easily duped, and through his paper asked that "she" would supply exact references with titles, pages, dates, etc., to the original German scientific and medical papers so "carefully translated." She duly appeared, and supplied the *Telegraph* editor with the original "German text." But how she could do it without dying of laughter—or shame—one does not understand. The "original German text" was a half-page of some German evening penny-newspaper of the yellowest of the yellow variety, published in the United States, written by some poor devil of a reporter, and not even pretending to have been more than distantly instigated by Germany through the suggestion of the "Cable." The title, date, etc., of the yellow rag had been most carefully cut off! Even after this expose of fetid old falsehoods, there are letters in the *Telegraph* about the conscientiousness of the translation, etc. It is an amazing psychologic phenomenon!

Carcinoma is an unsolved problem of medicine, though not an unsolvable one, we hope. Despite the investigation to which it has been subjected, its etiology is yet obscure, its histology not inflexible, its intimate pathology unknown, its clinical variations not inconsiderable, and its therapeusis largely mechanical. The future is not without hope, however, for the active study going on all over the world promises to disclose the cause of the disease, and with this knowledge we may expect a rational and successful mode or modes of treatment to follow. With most commendable enterprise the editor of the *Practitioner* devotes the April number of his journal to the subject of "cancer" exclusively, several aspects of which he discusses editorially, and the formal consideration of which is covered by eight original communications by as many distinguished English and American authorities. We cannot suppress a sense of regret that some more exact word than "cancer" was not used. Science must be precise if nothing more, and those who are accustomed to thinking clearly are left in doubt as to whether by "cancer" is meant malignant new growths of all constitution, arrangement and clinical course, or merely all atypical varieties of epithelial origin.

Mr. Morris points out editorially that he does not pretend to engage in any movement for the suppression of carcinoma, as he thinks this would, in the present state of knowledge, be a hopeless undertaking. What is most wanted immediately is precise knowledge as to the cause of the disease and the conditions under which it seems best to thrive, as well as those that seem least favorable for its development.

Dr. Arthur Newsholme presents data that seem to justify the conclusion that only an apparent increase in the mortality from carcinoma has taken place in Great Britain in recent years, in consequence of improved diagnosis and careful certification. Probably more than 6% of the total deaths among males, and more than 7% of those among females, at ages over 45, are attributable to carcinoma.

Dr. Roswell Park emphasizes the increasing mortality-rate from carcinoma in New York State and makes the following startling prophecy: If for the next 10 years the relative death-rates are maintained, carcinoma will be more fatal than tuberculosis, smallpox and typhoid fever combined. He considers malignant tumors of parasitic origin and transmissible, and in many other respects analogous to the infectious granulomata.

Mr. Alfred Haviland discusses the medical geography of carcinoma in England and Wales, and offers the following propositions: Districts having the highest death-rates from carcinoma among females are invariably associated with seasonally flooded areas traversed by or in close propinquity to fully-formed rivers. Geologically, these high-mortality districts are characterized by alluvium and subsoils of clays of every variety of age and formation. The districts having the lowest death-rates from carcinoma are situated on elevated land, where the drainage is good and the physical features of the country are such as to preclude the possibility of floods, where rivers derive their sources, and where in fact they are not fully formed. Geologically, these low-mortality districts are characterized by the oldest paleozoic rocks, especially those of the carboniferous limestone period, the liassic, oolitic and cretaceous limestones.

Mr. D'Arcy Power expresses the opinion that existing evidence raises a strong presumption in favor of carcinoma being an infective disease, to which some are more susceptible than others. Locality seems to be a predominant factor, and the nature of the locality associated with carcinoma appears to be so characteristic that it is possible to say whether or not it is advisable for a patient with a well-marked family-history of malignant disease to reside at a given spot. The cause is not likely to be found in any given room or house or water-supply, but it will almost certainly prove that there is some intermediate host, whose chance of detection will increase or diminish with the care that is taken to examine the fauna and flora of the districts where carcinoma is most prevalent.

Mr. H. G. Plimmer discusses the etiology and histology of carcinoma and describes and illustrates certain intracellular bodies that he has been able to isolate, to cultivate, and to inoculate successfully into lower animals.

Mr. J. M. Fadyean points out that among domesticated animals carcinoma appears to be rare in pigs. In dogs the anus is a favorite seat of the disease, in the horse the penis. The tongue, the uterus, the mammary gland are attacked with remarkable rarity. The disease is most common, as in human beings, in middle and advanced age.

Mr. Wm. Watson Cheyne discusses in a most admirable manner what surgery can do to relieve sufferers from carcinoma in various parts of the body. He emphasizes the truth that attempts at cure by other means than operation are almost invariably futile, while early radical excision is likely to be attended with a successful result in a large proportion of cases.

Dr. Wm. B. Coley discusses the treatment of inoperable carcinoma, referring to oophorectomy in conjunction with the administration of thyroid extract, the administration of chelidonium majus, the employment of electricity, parenchymatous injections of alcohol, applications of calcium carbid, the administration of an extract of lymphatic glands, and more particularly the injection of the mixed toxins of erysipelas and bacillus prodigiosus. He concludes as follows: (1) The mixed toxins of erysipelas and bacillus prodigiosus have an inhibitory action upon the growth of malignant tumors of whatever variety. (2) This influence is far more marked upon sarcoma than upon carcinoma, and differs markedly in the different varieties of sarcoma, being most pronounced in the spindle-celled variety, and least in the melanotic. (3) A considerable number of inoperable sarcomata, the correctness of the diagnosis of which is beyond question, have entirely disappeared under this method of treatment. (4) A large proportion of these cases have remained free from recurrence after more than 3 years. (5) The action of the toxins upon sarcoma must be regarded as a rapidly progressing necrobiosis, with fatty degeneration, and it seems to be rather specific in character. (6) This method of treatment is attended with some risk—as from collapse from the use of too large a dose, and from pyemia from septic infection—unless certain precautions are taken. (7) The use of small doses of the toxins for a short time after primary operation has much to recommend it theoretically as a prophylactic measure. (8) The action of the toxins upon sarcoma is in strict accord with the known action of the living streptococcus of erysipelas. (9) The toxins, to be of value, must be prepared from highly virulent cultures of the streptococcus.

Editor and Reader, No. 20. The matter of reprints is a bothersome one to everybody concerned. Many contributors think that reprints will be made and sent to all authors whether specifically ordered or not. Many authors do not wish reprints; we, therefore, cannot make this the rule. If you wish reprints you must send us an order in each case. Secondly, do not expect the reprints immediately after the publication of the article in the JOURNAL. The printer requires a little time. If you are sure you have sent us the order, wait awhile patiently, and the expressman will soon bring the package. Thirdly, we think covers upon the ordinary reprints are bad in every way,—they are in bad taste; they are expensive to make and to ship; they are worse than useless. The more flourishes to the handwriting the less the value behind the words. Thousand-dollar checks are not written—at least not banked—by Spencerian writing masters. Lastly, we think that reprints of correspondence should not be asked for, and we beg that you will not ask for a greater number of reprints of any article than you really need. *This is your Journal;* every least expense you can prevent will allow us in future to give you just that much better quality and larger amount of medical literature. Don't you think it a good plan to put our earnings and dividends into the best professional literature at one-half or one-third the usual cost, rather than into surpluses divided among private lay-capitalists?

Correspondence.

FUNNEL-CHEST vs. FUNNEL-BREAST.

By GEORGE E. ABBOTT, M.D.,
of Pasadena, California.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

I HAVE just enjoyed the article in the March 11th number of the JOURNAL on "A Report of Six Cases of Funnel-Breast," by Dr. James R. Arneill, of Ann Arbor, Mich., to whom we are all indebted for much hard bibliographic work in his interesting report. Will it not, however, be a wise "suggestion to writers" that we translate Trichterbrust by *Funnel-chest* and not *Funnel-breast.* The disease is one of the osseous system—not of the mammary gland—and in all literature will be looked for by surgical and orthopedic students under bone-diseases, but not by obstetricians seeking for cases of depressed nipples. This is not a criticism, but merely a suggestion, that at the outset we properly classify this interesting abnormal condition and so save the time and research of future students. I hope Dr. Arneill will bend the twig in the way it should grow, as he has such a good vantage-ground for doing.

THE RELATION OF PELVIC DISEASE TO HYSTERIA, ETC.

By H. G. WETHERILL, M.D.,
of Denver, Col.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN your JOURNAL of April 1, Dr. F. X. Dercum writes to say regarding my quotation from his paper as published in the *American Gynecological and Obstetrical Journal* for August, 1898, that "it is inaccurate and especially in one essential particular." A very careful comparison of the articles shows that the quotations I have made are word for word like Dr. Dercum's paper, with the single exception noted below and that change was made solely for the purpose of brevity. Two of his sentences, one closely following the other, are "That there is no *necessary* relation between neurasthenia and pelvic disease when the two affections happen to coexist in the same case," and "That there is no relation between pelvic disease and hysteria even when the two affections coexist in the same case." I rendered this as follows: "There is no relation between pelvic disease and hysteria (and neurasthenia) even when the two affections coexist in the same case." The second sentence was quoted verbatim and the substance of the first placed in parentheses. Dr. Dercum is unjust in leaving the reader to infer that I have broadly misquoted him; he lays great stress upon a wholly immaterial detail, in regard to which he does not appear to be clear in his own mind, and which seems quite ridiculous after an examination of the matter as shown above. I had no desire to misquote Dr. Dercum, nor have I done so.

Denver, Col., April 4, 1899.

THE ABUSE OF THE TINCTURE OF IODIN.

By CASPER STOCK, M.D.,
of New York.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN the editorial comment in your issue of March 25, entitled "The Abuse of the Tincture of Iodin," you strike a tender chord. This has been an ingrained hobby of mine for 8 years, and I am impelled to take issue with you in some of your statements.

I would apply tincture of iodin as a general rule to a boil at *any* stage from incipiency to full maturity. In hundreds of cases by its use boils in their formative stage have been aborted beyond peradventure. Boils that have advanced to the stage of infiltration without necrosis of tissue and have thereafter remained inactive, are at once incited to resolution, and the round hard lumps melt away without the appearance of pus externally. It is true that a small percentage of the last-mentioned variety does go on to suppuration, but from the history of the case it will be noted that usually sooner or later the lumps would have broken down anyhow and the iodin merely hastened the inevitable.

In large, well-developed boils, and in acute, intense phlegmonous cellulitis, with great serous infiltration of the surrounding tissue, accompanied by lymphangitis, lymphadenitis, and constitutional symptoms, I have tested the great value of the topical use of iodin. I have had in the same patient two large boils similar in every respect. After incision and drainage of both, I have painted one with iodin and left the other without it; otherwise they were treated exactly alike. In 24 hours, the demonstration would be prettily shown, even the patient remarking it. The non-iodized boil would exhibit a moderate degree of resolution of the infiltrated surrounding tissue, while the iodized one would have almost entire reduction of the infiltrated area and would show neither pain nor tenderness on pressure.

I do not deny the good results obtained by the use of hot poultices, etc., at certain stages in the development of boils but I see no reason why iodin and poultice cannot be used conjointly at times. The iodin is counterirritant, antiseptic and alterative. We do inflame the superficial layer of the skin, but this relieves the congestion of the deeper layers where inflammation is most active. A small amoun of the iodin is absorbed, acting as an antiseptic and alterative.

Taken all in all, as a result of my clinical experience, I find that even the "indiscriminate" use of iodin externally produces far more beneficial than injurious results. I make this statement from a long and careful use of this invaluable remedy. Some years ago when house-surgeon in St. Mark's Hospital I demonstrated its value to my colleagues so convincingly in the above class of cases, that they have been won over to its use, and continue to have the same faith in it as I.

202 E. 114th St.

NEUROLOGIC AND SOCIOLOGIC DIFFERENCES AMONG MEN.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN your issue of February 14, Dr. L. F. Barker in his admirable *Progress in Neurology* declares, basing his declaration on the probable or admitted differences in development in brain-morphology and brain-capacity, that, "'All men are born free and equal,' is one of the greatest fallacies that has ever moved large bodies of men into action."

I presume he thinks he quotes from the Declaration of Independence—but it is a misquotation. The Declaration does state: "We hold these truths to be self-evident—that all men are created equal [not born free, etc.]; that they are endowed by their Creator with certain inalienable rights; that among these are life, liberty, and the pursuit of happiness," etc.

That all men are born free is too absurd to consider very seriously; countless millions have been born in chattel slavery, and even now in the Orient slavery is known, and England in recent years has been charged with selling to Cape Colony the poor ignorant natives of Bechuana-land, who dared to rise up in the defence of their homes against England's "manifest destiny" to steal their country. When the Declaration was written we had slavery in this land, and to put that statement in would be a contradiction. We have in this country perhaps 50,000,000 wage-slaves at the present time. The Declaration of Independence does not speak from the narrow ground of neurology or even medicine. It does not state that men are any more mentally equal than they are equal in stature, color, creed, or disposition, but it does clearly state that men are created equal so far as political and economic rights and equal opportunities are concerned, and among the rights are life, liberty, and happiness! If a man is mentally inferior to another in one direction (as he very frequently is), or in all directions, environment is very largely responsible. What can one expect of children brought up with insufficient clothing, food, shelter, and no education perhaps; born of parents ignorant of the simplest laws of health necessary to bring children into the world with sound mental and physicial organizations, all caused by an economic chaos which denies one man the right to work and gives to another the opportunity to amass the stupendous fortunes of some of our American millionaires? What can one expect of children bred in poverty and who never receive, at least properly, the divine touch of education to expand and quicken intelligence? That an organ not used will atrophy, or not develop, I think is still sound science; and if we have several generations of these people under these adverse conditions how is evolution going to develop these people along with others under more favorable circumstances? It is a matter of wonder that any from this class develop into men of great intelligence or genius. Life under present conditions is largely a survival of the fightiest, not of the fittest, if we thereby mean the just and best!

I gather from Dr. Barker's statements and misquotation that because of a few miserable neurons or brains he has had the privilege of studying and found underdone, for possibly good and sufficient reasons, he thinks he has found reasons for keeping a system of injustice which this nation at the expense of much blood and great treasure has once and for all time spoken against! We are led to suspect that there are at least a few underdone brains still living. He attacks with misquotations the document which all freedom-loving Americans with a true feeling for the suffering of mankind hold in the highest respect. I protest with all my might to the last moment of my life against this sacrilege and the prostituting of medicine to such base uses.

J.A.K., M.D.

THE NEW YORK BOARD OF HEALTH, THE COLLIER BILL, ETC.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

SIR:—In its comment on the defeat of the Collier Antitoxin Bill the *Medical News* of this city follows two lines of argument, concerning which I feel it proper to write you in view of the careful attention which you have given to the subject. The more important conclusion reached by your contemporary is that the sales of antitoxin in competition with legitimate trade should now cease. As that was the sole aim of the Collier Bill, and as it accords with the position which you have so ably defended, there remains nothing to say.

The other argument has to do with the presentation of facts concerning the operation of the commercial aspect of the bacteriological laboratory which was developed in the investigation. To this there are made two branches, based on a letter signed by Drs. Park and Biggs. This letter in no important particular differs from a letter from Dr. Biggs published by you and refuted simultaneously. The first of these branches is lightly touched upon in the following words: "While properly ignoring the insinuations as to personal financial interests, which are unworthy of the source from which they emanated."

Taking up this point, for I do not consider that a matter of such public record can be lightly dismissed, I observe that in your articles you are in the attitude of one who can scarcely believe that what you have seen in the official record of the city is true. The *City Record* of New York, of December 21, 1898, Supplement, page 59, contains the following item in the estimates for the Bacteriological Laboratory for 1899:

> 2.—Care and maintenance of horses, including pasturage for same..............$2,500.00

In the same publication, on page 52, it is distinctly set forth that Dr. Herman M. Biggs is Director of the Bacteriological Laboratory, a fact that will not be disputed. In his testimony before the Assembly Committee at Albany, Dr. Biggs stated that this sum was to be paid to the New York Veterinary College for the care of the horses, always including the pasturage, and furthermore he testified that he was the president of the New York Veterinary College, which is to receive that amount of city money, as it has done in the past. In this there is no charge, there is but a collocation of facts which may not be lightly ignored in the case of a public official. If this collocation be unworthy of the source from which it emanated, that can have no reference to the PHILADELPHIA MEDICAL JOURNAL. It emanated in the *City Record*, in the report of the Department of Health, and primarily in the estimate of Dr. Biggs himself.

The next point in the *Medical News* is that the figures which you have presented are "founded on a false interpretation of the official records," and that they are founded on a "wilful misunderstanding." I can scarcely believe that the writer of these words knew what he was about when he thus commented on your efforts in behalf of a municipal reform to which he himself gives his whole approval. Dr. Biggs and Dr. Park write to him that they, interested parties, are right, therefore you are wrong. I would acquit Dr. Park of all responsibility for more than his signature. He believes he is right, of course, but he is placed in the attitude of expressing his belief that Dr. Biggs is right, and that is another matter. The editor of the *Medical News* certifies that the letter of the two bacteriologists answers the charges to the satisfaction of any unprejudiced mind. I doubt it. This letter is in nothing but the wording different from the letter which you published on February 25. In your reply you stated: "With the Record (*City Record*) before us we have again gone over the figures, and, except in two very subordinate aspects not referred to by Dr. Biggs, we have nothing to modify or retract." There is one unprejudiced mind not yet satisfied. There are others. Dr. Biggs, or his representative, Dr. Cosby, presented a brief to the Assembly Committee on these figures. The committee was so little convinced that Dr. Biggs had established the untruth which he charges so freely that it reported the bill favorably. Then a clever trick in political manipulation was played and the bill was recommitted for a further hearing. Then the best efforts of Dr. Biggs were put forth. He made his speech, and Dr. Cosby made another. Then was the opportunity to expose the falsity of the adverse figures. But the copies of the *City Record* were in plain sight before the committee; for that or some other reason there was little attempt made to explain away the record. Again the committee failed to be convinced, the bill was once more reported favorably. That should be sufficient to dispose of the question of the figures. If Dr. Biggs had been so sure that he was right and the official record was wrongly discussed he had his chances to prove his point with a better prospect of its amounting to something than by a belated publication after the bill has been settled for the present.

This matter of commercialism on the part of the Department of Health of the City of New York has been thrashed over until it is now almost threadbare. While I have no animus toward any member of the Board or any man connected with it I claim the right to raise my voice against the outrages which have been perpetrated against individual members of my profession. It is only necessary for me to mention the case of Dr. Gibier, an eminently scientific man, who built in this city a large institution to care for patients requiring treatment by the antitoxins. At one time he had 54 horses immunized and was the first to introduce to the profession in America the antitoxin-treatment of tetanus, hydrophobia, and other diseases requiring such treatment. Immediately the Board of Health, on account of the subsidies paid by the taxpayers of this city, established an opposition which has ruined his institution. I have seen in the lay press articles inspired by members of the Board of Health bidding for cases of hydrophobia and other diseases. This would be well enough if such cases were within our city limits and among the worthy poor, but the entire United States and the world were called upon to send these cases to the Board of Health for treatment because they made the best antitoxin. If the Board of Health of New York City does not immediately pass a resolution prohibiting the sale of antitoxin by the Board of Health the profession of this city should immediately petition the Mayor to remove the Board.

I fear that I have trespassed on your space, but my apology must be found in my interest in the issue, and also my desire to prove to you that you have carried with you the best sense of the medical profession in your campaign for the retirement of the Department of Health from commerce, as is acknowledged by the same *Medical News* which criticises your exhaustive methods.

Very truly yours,

A. M. Phelps, M.D.

New York, April 11, 1899.

To the Editor of The Philadelphia Medical Journal:—

Sir:—Recognizing your interest in the Collier Bill lately before the New York Legislature, and your earnest efforts to secure the repeal of the section of the New York Charter under which our Department of Health has been conducting a commerce in antitoxin and lymph, I must confess that I have been greatly surprised by the editorial comment in the current issue of the *Medical News* of this city. So far as concerns the letter sent to the *News* by Dr. Herman M. Biggs, in my judgment nothing now need be said. Dr. Biggs wrote to you in about the same terms in criticism of the statistics which you presented as to the work done by the bacteriological laboratory of our Health Department. Having Dr. Biggs' letter and the official publication of the Department of Health in the *City Record*, you announced that you had nothing to modify or retract. I presume that you remain in the same attitude.

The editorial in the *News* agrees with you in support of the principle that municipalities should not engage in commerce. Having registered that agreement I fail to see why the editor of the *News* has any valid cause for disagreement with the figures or other means by which you have arrived at that conclusion. To my mind he places himself in a somewhat absurd position. He takes the letter in which Dr. Biggs labors to prove that his laboratory should continue as a commercial factor; he declares that those figures are correct, and that those such as you who fail to find them convincing are guilty of wilful misrepresentation, and then from the same figures he argues that the Department of Health should cease its commercial pursuits.

Personally I agree with you and also with the editor of the *News* on the point that the entrance or continued existence of the Department of Health in commerce is inequitable and indefensible. If the agitation of the subject will accomplish that result, nothing more need be said. It is within my own knowledge that the Collier Bill seeking to attain that end has received the support of all the medical journals of the city and State, with the partial exception of the *Medical News*, of almost all the medical societies of the city and of the State, of 1,500 practising physicians and boards of health throughout the State, 500 in the Greater City of New York, of all the pharmaceutical associations, and of the drug-trade section of the Board of Trade.

I write you this letter now solely for the reason that I wish to express my regret that the editor of the *News* should have seen fit to impugn your motives in arguing a principle which he himself accepts as valid. Believe me, sir, I feel that an injustice has been done you. That Dr. Biggs should not accept your conclusions may be accounted for on the proposition that he feels that his professional reputation is at stake; but that the editor of the *News* should accept Dr. Biggs as an authority in criticism of the principle which he, himself, accepts, passes my comprehension. I am willing to associate myself with the somewhat considerable list of professional authority heretofore cited, and despite the fact that the legislation in remedy of the great evil has received a temporary set-back, I wish to thank you as a citizen and professional man of New York for your effort in our behalf.

Very respectfully yours,

Louis Fischer, M.D.

New York.

To the Editor of The Philadelphia Medical Journal :—

Dear Sir :—In commenting editorially upon the defeat of the Collier Bill in the New York Legislature, the *Medical News* of April 8 alleges that the series of editorial articles appearing in the Philadelphia Medical Journal "are founded upon such a false interpretation of the official records that the attitude assumed can only emanate from a wilful misunderstanding." It seems to me that there can be no doubt at the present time in regard to the impropriety of municipal interference in the preparation and disposal of antitoxins or lymphs. It would be just as correct a position for he city's laboratories in New York to attempt the manuacture and sale of any other medicinal preparation. The emarkable thing in the editorial is that while the *Medical News* upholds the defeat of this bill, it condemns the posiion of the New York Health Board in entering the field s manufacturer and retailer in competition with private nterprises. The editor contradicts himself and sustains he position of a large number of the medical profession vho have held that this action was opposed to the interests of he people at large, when he says "except under extraordiary circumstances it is pretty well agreed that this is wrong," nd "we suggest the propriety of the Health Board now acepting this economic principle, and by official action disconinuing the sale of all serum." Would it not be better for all oncerned if the money now expended in the manufacture f this antitoxin were used to produce only that necessary or the immediate use of the New York Health Board, thus ermitting whatever surplus energy may exist to be used in stablishing any supervision that may be necessary over the uality of antitoxins and other remedies offered in the maret? It would be just as much within the legitimate field of ork if the New York Health Board, instead of confining hemselves to its inspection should give up inspection of the ilk-supply of New York and become the distributors and etailers of that commodity, as it is for them to deal in antioxins or lymphs. We cannot agree with the *News* that the ealth Department should produce enough antitoxin-serum supply both rich and poor, free of charge. Let them prouce enough to take care of the needy, and the rich will aturally select that preparation which proves itself most fficacious in its practical application.

Samuel Lloyd, M.D.

24 W. 50th Street, New York City.

Epithelioma in the Scar of a Burn.—W. More, *ntercolonial Medical Journal of Australasia*, December 20, 98) reports the case of a man, 56 years old, who was rned severely when a child 3 years of age. Three years reviously he injured the scar and the wound had never ealed. A triangular carcinomatous ulcer was to be seen in e popliteal region, the sides of the triangle measuring 4 ches. The growth was freely removed and skin-grafting Wolfe's method was practised. The patient made a good covery, but returned 8 months later with an ulcer in the ar at the upper and back part of the thigh. This was cised, the surface skin-grafted and recovery followed. The tient has remained free from disease for 3 years. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending April 22, 1899 :

Tuesday, April 18—College of Physicians, Section on Ophthalmology.

Wednesday, April 19—County Medical Society. Business meeting.—College of Physicians, Section on Otology and Laryngology.

Thursday, April 20—College of Physicians, Section on Gynecology.

Norristown (Pa.) Hospital for the Insane.—Dr. Joseph Thomas, of Quakertown, has been elected president of the Board of Trustees, to succeed the late Charles H. Stinson, who served in that capacity 16 years prior to his death.

Camden County (N. J.) Insane Asylum.—Extensive improvements are contemplated to the asylum, the principal being the erection of a new wing consisting of 47 sleeping-rooms, a dining-room, pantry, and washroom. A cold-storage plant and the installation of steam-heating are other contemplated improvements. It is expected that the necessary expenditures will be about $40,000.

The Jeffersonian is the name of a very creditable journal, edited and published monthly during the collegiate year (at $1.00 a year) by the undergraduates of Jefferson Medical College. It is of course devoted to the interests of the college and especially of the individual students. The "New Jefferson" with its new buildings, laboratories, etc., is the result of the new spirit animating the institution. The editors of *The Jeffersonian* request all alumni to subscribe and to help forward interest in the periodical and in the progress of their alma mater.

Vital Statistics of Philadelphia for the week ending April 8, 1899 :—

Total mortality		584
Children under 5 years of age		142
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis		73
Pneumonia 56, congestion of the lungs 3		59
Nephritis 43, uremia 10		53
Typhoid fever	296	48
Heart-disease 36, inflammation of the heart 4, fatty degeneration of the heart 3		43
Apoplexy 23, paralysis 7, softening of the brain 3		33
Senility		30
Marasmus 14, inanition 9, debility 5		28
Intestinal obstruction		25
Inflammation of the brain 20, congestion of the brain 3		23
Convulsions		23
Gastroenteritis 16, cholera infantum 5		21
Carcinoma 13, tumor 1		14
Cerebrospinal meningitis	13	10
Diphtheria	39	4
Scarlet fever	31	3
Bronchitis 9, peritonitis 6, teething 6, casualties 5, cyanosis 5, diabetes 4, erysipelas 4, pertussis 4, burns and scalds 3, parturition 3, cirrhosis of the liver 3, diarrhea 3, appendicitis 3, abscess 2, asthma 2, anemia 2, dropsy 2, pleuritis 2, shock 2, suicide 2, alcoholism 1, colic 1, drowned 1, gastric fever 1, puerperal fever 1, hernia 1, influenza 1.		

College of Physicians of Philadelphia.—At a meeting held April 5, Dr. Alfred Stengel and Dr. Henry D. Beyea read a paper entitled, **Gastroptosis; report of a case in which a new operation was undertaken,**

and the patient greatly improved. The patient was an unmarried woman, aged 25 years, who suffered with downward displacement of the stomach, intestines, and right kidney. In the absence of any history pointing to a condition adequate to account for the displacement, the latter was thought dependent upon relaxation of the ligaments produced by tight clothes. A nephrorrhaphy was undertaken with the idea that possibly all the symptoms were dependent upon the movability of the kidney, but the gastric symptoms were unrelieved by the operation. Gastroplication was then considered, but abandoned in favor of the operation of **shortening the gastrohepatic omentum.** This was accordingly done and the stomach returned to almost its normal situation. The patient was materially improved, and remained so some months later. Reference was made to other cases in which surgical procedures were employed to relieve similar conditions. In the discussion, Dr. James Tyson spoke of having seen the patient and noted the improvement in her condition. Dr. Frederick P. Henry asked for the results of the examination of the blood in view of the asserted causative relationship between gastroptosis and chlorosis. Dr. Stengel stated that the blood had been normal.

Dr. John B. Deaver read a paper entitled **Two years' work in appendicitis, including 460 operative cases at the German Hospital, Philadelphia.** Dr. A. O. J. Kelly read a paper entitled **The pathogenesis of appendicitis.** The pathogenetic influences of the following were considered seriatim: The shape of the meso-appendix, the excessive length as compared with the width of the appendix, Gerlach's valve, the histologic structure of the appendix, the blood-supply, the nerve-supply, the evidences of involution of the organ, bacteria, fecal concretions, etc.

Philadelphia Pediatric Society.—At a meeting held April 11, Dr. J. H. Jopson read a paper on **Stricture of the esophagus in children.** He stated that the most common cause of this is the ingestion of lye. The symptoms and diagnosis were reviewed, and the treatment was discussed in detail; among the different measures are gradual dilatation by bougies or silver balls graduated in size, internal or external esophagotomy, esophagostomy and gastrostomy; with an earlier resort to the last measure and with strict antisepsis, the statistics have become very favorable. A patient was exhibited, a girl of 4 years, upon whom the operation was done in 2 stages, the stenosis of the esophagus causing the regurgitation even of fluids. Since the operation there has been a marked gain in weight, and as soon as the condition of the child will warrant it, attempts to dilate the stricture will be made. In the discussion, Dr. L. J. Hammond said that in one case he had done an esophagostomy below the stricture, and then, with the finger as a guide, had introduced a blunt bistoury, severing the stricture in several places. Dr. Griffith, who had seen Dr. Jopson's patient, replied that this procedure would have been impracticable in the presented patient, owing to the low seat of the stricture. Dr. Edsall inquired if any cases had been observed in which pulmonary tuberculosis had developed, and also if the gastric juice had been studied, it having been claimed that a cancerous stricture, even without involvement of the stomach, caused alterations in the constitution of the gastric juice, because of the disuse of the stomach.

Dr. J. P. C. Griffith presented an infant with a **double harelip and persistence of the intermaxillary bone.** Dr. Jopson described possible operative procedures, and Dr. L. M. Allen reported that he had seen a patient with a similar condition, several of the parental relatives being likewise affected.

Dr. Emory Marvel presented a boy, 4½ years old, in whom nephrectomy had been done for **hydronephrosis following traumatism.** A gun loaded with bird-shot had been discharged behind the boy and 318 punctures were counted. Bloody urine was passed for some time afterwards, and after this had ceased, a fluctuating swelling developed in the right flank, which was aspirated, but refilling, was then drained, nephrectomy being done later.

Dr. T. G. Westcott reported a case of **acetanilid poisoning in a girl infant, 4 months old,** following the use of powdered acetanilid on eczematous patches. In the discussion, similar cases were mentioned by Drs. Hand, J. A. Gillespie, and Branson.

Dr. Alfred Hand presented the **heart and kidneys** from a patient dying at the age of 12 years **in uremia.** There was marked hypertrophy of the left ventricle with atheroma of the aorta and mitral valves, the kidneys being fatty and contracted.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held March 27, Dr. Adolph Koenig read a paper on **The narcotic alkaloids of the nightshade family.** In this family were included atropa belladonna, hyoscyamus niger, datura stramonium, dulcamara solanum, capsicum fastigiatum, and nicotina tabacum. Only the botani and chemic nature of the alkaloids were considered. Drs Anderson, Kirk, Willets, Small, Moyer, and Simpson participated in the discussion. In closing, Dr. Koenig spoke o the special susceptibility that blondes have to the action o atropin, and mentioned the fact that if potatoes are stored in a cellar and allowed to sprout, atropin is to be found in them. Dr. W. H. Kirk read a paper on **Gonorrhea conjunctivitis,** in which treatment was especially taken up. Prompt treatment was insisted upon as of the utmos importance. Thorough cleanliness of the conjunctival sac is essential, but means of securing it is not well understoo nor is it readily accomplished. The lids should first be wiped clean with a pledget of cotton wet with hydrogen peroxid, after which this solution is to be instilled into the eye. The sac is then thoroughly flushed with a saturate solution of boracic acid. This should be done by the physician himself, twice daily, but the eye should be flushe every hour by the nurse with the boracic-acid solution. Ice compresses are to be used constantly and the sound eye must be protected. If the cornea is involved atropin o eserin are to be used. Local applications of solutions o silver nitrate are of value and are to be followed by casto or olive oil. Only the milder solutions of the silver salt ar to be used, and if corneal ulcer exists, they are not to b used at all. In discussion, Dr. I. J. Moyer said that it wa important to distinguish between conjunctivitis of the newborn due to gonococci and that due to other agencies. Dr J. M. Douthett thought that solutions of silver nitrat should not be used in the eye so indiscriminately as the have been. Dr. J. E. Willets did not believe in unnecessary manipulation of the lids in these cases. As a rule little traction at the outer canthus separates the lids fro the eyeball, when a pipet filled with a 1 to 5,000 bichlori solution is placed at the margin of the lid, and the whole conjunctival sac is thoroughly flushed. Ice-compresses and protargol, 5 grains to the ounce of glycerin, and water droppe in the eye 3 times daily, constitutes the further treatmen The president, Dr. E. B. Heckel, said that the word ophtha mia should be discarded as it meant nothing. In any conjunctival disease cleanliness is one of the first essentials to successful treatment. There is a mechanical as well as a chemical cleanliness, the former possibly being the more important in the treatment of gonorrheal conjunctivitis. He could see no reason for using boracic-acid solutions, as they possess no germicidal properties and hence are no better than distilled water. A normal salt-solution answers every purpose for procuring mechanical cleanliness and is not irritating. As a germicide, potassium permanganate, 1 to 500 to 1 to 5,000, is most efficient. He everts the lids, but does it gently. Silver nitrate is of distinct value; it coagulates the superficial epithelium and forms a protective covering of silver albuminate. Weak solutions used frequently are better than the 40 to 60-grain solutions advocated by some. Cold compresses are more valuable than any other procedure commonly used, as gonococci cannot thrive at a low temperature. Slight corneal haziness is rapidly cleared up with a solution of sulphate of eserin. Potassium permanganate, 1 to 500, is better than Credé's method, the routine use of which has done much harm. The same strength of this potassium-salt has been of great value in his hands in the treatment of corneal ulcer. Dr. E. H. Small stated that he never used Credé's method unless there is considerable vaginal discharge. When it is used a marked inflammatory reaction occurs which passes away in a short time. Dr. Singley spoke of the importance of making bacteriologic examinations of the eye-discharges in these cases to determine the nature of the infective agent. An early diagnosis can be made in no other way. He stated that in one of the New York hospitals, as soon as gonococci are found in the discharge from an eye, a canthotomy is done and a strong solution of silver nitrate applied. The results were good. Closing the discussion, Dr. Kirk said that most authorities advise strong silver solutions, but he had obtained better results from frequent cleansing with boracic-acid solutions and distilled water with the constant use of cold compresses.

NEW YORK.

Dying of Starvation.—A few days ago a man, 30 years old, was found unconscious on the roadside in the borough of Brooklyn, near Coney Island. He revived somewhat after reaching the Long Island Hospital, and then it was learned that he had walked all the way from Cohoes to New York City in search of work, and had eaten nothing for three days. The hospital physicians reported that he would not live many hours.

German Medical Society of the City of New York.—At a meeting held April 3, Dr. A. Rose read a paper on **The term appendicitis and other unscientific names in our nomenclature.** He said that in Greece they have the words perityphlitis, paratyphlitis and scoliooiditis; the latter term, although corresponding exactly with our appendicitis, is seldom used. In presenting the letter of a Greek surgeon on this subject, he says that neither in this letter nor in any scientific medical work published in Greece at the present time, can be found a single word of new Greek, as people generally but erroneously understand and misrepresent Greek to be. He asserts that the Greek nomenclature in use in Greece at present is perfection, and that its adoption would at once do away with barbarizing, especially hybridations. He cannot understand why none of the medical lexicographers ever mentions the existence of this ideal, this perfect lexicology of our Greek contemporaneous colleagues. The paper was discussed by Drs. Willy Meyer, A. Jacobi, A. Gerster, V. Dauber, E. Grüning, and A. Ripperger.

An Ambulance Wrecked.—For the third time within a year an ambulance belonging to the Flower Hospital has been smashed by collision with a trolley-car. The last accident of this kind occurred the other evening as a patient was being transferred to Bellevue Hospital. The driver of the ambulance was attempting to cross the avenue in order to get to a better strip of pavement, when a north-bound trolley-car going at full speed struck the ambulance squarely in the side, hurling it against an elevated railroad pillar, and grinding it to pieces. The ambulance-driver sustained a fracture of the nose, probably a fracture of the skull besides being severely cut about the face. The ambulance-surgeon, Dr. Davies, who had been in one of the previous wrecks, was also thrown out, but escaped with a few slight contusions. To the great surprise of the bystanders the patient was pulled out of the debris unhurt.

The Pure Beer Bill.—This bill rather unexpectedly came up for final passage in the Assembly on April 6, and was passed by a vote of 80 to 54. Mr. Jean L. Burnett, who spoke in favor of the bill, stated that the 269 breweries in New York State contributed more than 10,000,000 barrels to the enormous quantity of beer annually consumed in the United States. His investigations had convinced him that it was a very common practice to introduce various deleterious ingredients into the beer, and he, therefore, advocated the passage of this measure, not only because he believed it would tend to protect the public health, but because it would directly benefit the farmers—the growers of hops and grain. The opponents of the bill contended that it had been brought forward in the interest of the foreign brewers, and that while it would in no way interfere with their product, it threatened to paralyze the brewing industries of the State.

An Awkward Difference of Opinion.—We often hear about the disastrous results "when doctors disagree," but here is a case where a difference of opinion between a layman and a physician led to an awkward predicament. Dr. Henry Ettinger, of New York, was summoned one morning to the house of a blacksmith in the expectation that there would soon be an addition to the family of the latter. The doctor went to the house and examined the patient, but when he announced it to be his opinion that his services would not probably be required for two or three days, Etsel, the blacksmith, differed with him, and to make his dissent more emphatic, locked the door. After some delay, the physician escaped. When he called again at the house, about 36 hours later, there was still no sign of the woman being in labor, but on essaying to leave the house, Etsel again interfered, and it was not until the doctor had knocked him down and several of the women in the house had come to the rescue that he succeeded in getting away. Early the following morning the blacksmith appeared at the doctor's residence, and when told that the doctor was out, declared that he would hang around until the doctor showed up, and would then kill him on sight. When this crisis had been reached, word was sent to the police station, and a detective accompanied the doctor on his rounds until that afternoon, when Etsel was seen and arrested. When brought before Magistrate Wentworth he meekly explained that he had been greatly worried about his wife, and, on his promise to behave himself, he was discharged. It is said that this man during the late war with Spain served with the cavalry in Cuba and had been recommended for promotion.

A Memorial to Dr. Joseph O'Dwyer.—A committee of over 40 physicians, representing 16 different medical societies of the City of New York, has been formed for the purpose of doing honor to the memory of Dr. Joseph O'Dwyer. The first meeting was held at the New York Academy of Medicine, November 22, 1898, under the chairmanship of Dr. J. D. Bryant, and was mainly devoted to organization. Dr. George F. Shrady was elected permanent chairman, and Dr. Alfred Meyer, permanent secretary, and the following Committee on Scope and Plan was appointed: Dr. Dillon Brown, chairman, and Drs. Robert Abbe, R. G. Freeman, L. Emmet Holt, and Louis Fischer. At the second meeting, held at the Academy of Medicine, March 13, 1899, the report of the Committee on Scope and Plan was adopted and now only awaits final action of a meeting of the full committee. The memorial to Dr. O'Dwyer will probably take an educational form, for by the plan now outlined it is proposed to raise a fund of $30,000, the interest of which shall support two O'Dwyer Fellowships in pediatrics, open to competition by physicians who graduate in the United States and to be held by the successful competitors for a period of 2 years. During this period they must furnish satisfactory proof of their engagement in original research work to a committee of five, one of whom shall be appointed by the president of Harvard University, one by the dean of the Johns Hopkins Medical School, one by the provost of the University of Pennsylvania, one by the president of the University of Chicago, and one by the president of the New York Academy of Medicine.—[*Boston Medical and Surgical Journal.*]

New York Academy of Medicine.—At the meeting held April 6, DR. FRANCKE H. BOSWORTH read a paper on **Syphilis of the respiratory passages.** He said that about the only syphilitic manifestation in the nose was the gumma. Leaving out of consideration malignant disease, it was very rare to find necrosis of bone in the nose except as a result of syphilis. When mucous patches are present, they should be cauterized daily with the solid stick of silver nitrate. If they developed in the first 2 or 3 years, the resulting ulcer was usually superficial, but if they did not appear until the sixth or tenth year, the ulcer would be deep. Syphilitic ulcers of the air-passages should be distinguished from those of tuberculosis and of malignant disease. A marked feature of syphilis of the pharynx was the tendency to cicatricial contraction, and the consequent interference with the functions of deglutition and respiration. Laryngeal syphilis was ordinarily a mild affection. The indication for treatment was to promptly arrest the local process by the internal use of potassium iodid, and then give a prolonged course of mercurials.

PROFESSOR THEOBALD SMITH, of Harvard University, opened a discussion on malaria by reading a communication entitled **Researches on the etiology of the Texas cattle-fever, and its bearing upon malaria.** After briefly sketching the steps by which our present knowledge of the blood-parasites of this fever had been secured, he spoke of the symptomatology of the disease. He said that in the acute type, the disease was ushered in by high fever and rapid disintegration of the blood-corpuscles, though at this stage comparatively few blood-corpuscles contained the parasite. When death occurred in the first week, the spleen was found to be greatly engorged and its pulp disintegrated, and the kidneys were large and congested. In the latter organs the parasites would often be found free. In this acute form the parasites were, for the most part, confined to the capillaries of the internal organs, and he had obtained his best specimens from the heart-muscle. The bladder was frequently found at autopsy filled with wine-colored or very dark urine. It had been abundantly proved by carefully conducted experiments that the ticks were an essential factor in the spread of this disease, and that these ectoparasites were very widely disseminated. It is important to note that the cattle-tick is exclusively parasitic in its habits, and that its life-history is completed in one animal. The blood-parasites of the Texas cattle-fever have been proved to remain in active existence in the blood as long as five years. When the cattle become infected in the summer, the disease assumes the acute form, and if the animal survives, there is often a relapse, or a second and milder attack, from 3 to 5 weeks afterward. It is characterized by a moderate evening rise of temperature, and by the presence of a small coccus-like parasite on the periphery of the corpuscles.

DR. WALTER B. JAMES followed with a paper on **The present status of the inoculation-theory of malaria.** He said that by this expression was meant the theory of the inoculation with the disease through the agency of mosquitos. There were many well-known facts lending color to this view, such as the large numbers of mosquitos existing in the season when malaria is most prevalent, and the similar physical conditions favoring the development of malaria and the growth of mosquitos. It was not known yet whether the mosquito was more than an intermediary host, and it was quite possible that other insects might act in the same capacity. Such men as Koch, Laveran, and Nuttall had recently exhibited a leaning toward this theory propounded and so ably upheld by Ross. This theory would certainly help to explain the phenomenon that certain localities which have never before been malarial become so after the emigration into them of persons coming from malarial districts. If the theory were correct, the outlook for an effective prophylactic treatment would be exceedingly encouraging, because large numbers of mosquitos could be exterminated by draining pools of standing water, or when this was not practicable, by floating kerosene on the water from time to time in order to destroy the larvæ of the mosquitos.

DR. F. P. LYNCH, late of the Congo Free State, presented some of the results of his clinical observations on the **African blackwater fever.** He said that this fever was confined to the white population, that it prevailed in the hot, dry season, and seemed to attack by preference those who had been in the country two or three years. Women were rarely affected. The first symptom was usually the claret-color of the urine. This was quickly followed by a rapid and considerable rise of temperature, by sallowness of the skin and by bilious vomiting and constipation. The patient was mentally depressed, and often delirious. If no improvement were observed in three days, the case was hopeless. The treatment advocated was an emetic of mustard water, a calomel and jalap purge, injections of hot water, and the induction of profuse diaphoresis. After this had been done, quinin should be administered until convalescence had been fully established. In a series of 18 cases so treated, there had been only one death.

New York Neurological Society.—At the meeting held April 4, DR. GEORGE W. JACOBY presented a case of **alcoholic neuritis in a little child.** The little fellow, who was only 4½ years old, had been accustomed to receive daily since the age of 6 months, one-half to one tumblerful of beer. There was an extensor paralysis in the hands and legs, with the reaction of degeneration in all the muscles. The speaker said that a statistical inquiry made by the municipal authorities of a certain German city had brought to light the fact that about 25% of the school-children had habitually taken beer or wine, and that about 8% received their daily portion of brandy. He was of the opinion that about the same conditions prevailed here among the German and Irish population. In the discussion, Dr. W. M. Leszynsky took the same view, and stated that some years ago he had reported a typical case of alcoholic multiple neuritis occurring in a child of 6 years. Dr. Joseph Collins said that he had seen two such cases, one of them, a child of 7 years, being now in its second attack. In these cases he had been impressed with the remarkable pallor of the cutaneous surface as compared with the color of the mucous membranes.

Dr. J. Arthur Booth presented a case which raised the question of **the cure of epilepsy.** The patient was a woman of 51 years who had been systematically treated with the bromids for many years, and had not now had an epileptic seizure for a period of four years. In the discussion, Dr. Frederick Peterson said that he thought ordinarily when a case had remained free from seizures for four years it should be considered as cured. Dr. Edward D. Fisher said that it was not uncommon for children to have epileptic attacks for a time, and then to be free from them for a variable number of years, irrespective of treatment. In the treatment of this disease he had not yet found anything to take the place of the bromids, and had not observed from their use any baneful influence on the mind. Dr. George W. Jacoby thought that where the attacks returned after an interval of a number of years, the case should be looked upon as one in which there had been a fresh attack of epilepsy, so to speak, quite possibly induced by the same causes as had originally been operative.

Dr. George W. Jacoby presented **two cases of localized scleroderma,** involving the upper extremities and face. One patient was a girl of 17, who had been severely scalded about the shoulders and body in infancy. Stiffness of the hands had been noticed at the age of 5 years. The other patient was a woman of 35 years, in whom the disease had first presented itself in the form of open sores occurring successively on the tips of the different fingers. The speaker said that these cases might not be trophoneuroses, as many believed, but rather examples of parasitic infection. Localized scleroderma he considered to be a distinct entity, and totally different from the other forms of scleroderma. In one of these patients dessicated thyroid had been used without any benefit. In the discussion, Dr. B. Sachs narrated a case, which was interesting not alone because of its development as an immediate sequel of a severe trauma, but because treatment with the thyroid gland had been distinctly beneficial. Dr. L. Stieglitz said that, according to his own experience, the thyroid treatment was only of value in the hypertrophic stage.

Drs. B. Sachs and A. Wiener gave a **demonstration of specimens from a case of erythromelalgia,** occurring in a man, 36 years of age, who had presented in addition to the typical appearance of erythromelalgia, a late-appearing gangrene. The latter had necessitated eventually an amputation through the thigh. Marked arterial changes were found in this case, particularly in the larger branches of the popliteal artery. The changes in the nerves were so slight as to be looked upon as secondary. A very prominent feature in all the specimens was the enormous quantity of connective tissue. In the discussion, Dr. C. L. Dana, drawing upon his own experience, suggested that it was probable that there was a diabetic or gouty condition underlying many cases of erythromelalgia.

Dr. Joseph Collins presented specimens from **two cases of brain-tumor.** One of these occurred in a child of 6½ years, and consisted of a lobulated mass, the size of an English walnut, projecting from between the hemispheres of the cerebellum. The gross appearance of the tumor was that of a sarcoma. The other tumor had occurred in a woman of 20 years, in whom the initial symptom had been an intense pain all through the head, appearing very abruptly, and associated with dimness of vision and progressive dementia. At the autopsy a sarcoma the size of a hen's egg was found in the anterior third of the right lateral ventricle.

Dr. L. Pierce Clark, of the Craig Epileptic Colony, presented a very brief abstract of a paper that he had prepared on **temporary (exhaustive) paralysis in epilepsy.** He believed that it had been conclusively proved by physiological experimentation, that the theory of exhaustion-paralysis was correct, and that exhaustion-paralysis, generally localized to the parts participating in the spasm, was confined to those parts most convulsed in the general seizures. The transient paralyses might eventually become permanent hemiplegias. A careful study of exhaustion-phenomena suggested that epilepsy was clearly allied to paralytic states.

NEW ENGLAND.

Thurber Medical Association, Milford, Mass.—At a meeting held April 6, Dr. J. A. Tenney, professor of ophthalmology in Tufts Medical College, addressed the members on **The normal and abnormal actions of the ocular muscles.** The meeting was memorable on account of the presence of its oldest member, Dr. William B. Nolan, of Franklin, who, though blind and infirm, celebrated by his attendance his 83d birthday, and his 45th year of membership in the association.

Framingham, Mass., Medical Society.—At a meeting held April 4, Dr. H. C. B. Haviland, of Halliston, read a paper on **The induction of labor in the vomiting of pregnancy,** strongly advocating the measure in cases of pernicious vomiting not relieved by other measures.

Dr. E. A. Hobbs, of South Framingham, read a report of some interesting cases occurring in 30 years' practice of obstetrics. He had had no maternal fatalities, and had never used modern antiseptic precautions.

CHICAGO AND WESTERN STATES.

Cincinnati (Ohio) City Hospital.—Dr. Charles E. Caldwell has been elected orthopedic surgeon to fill the position made vacant by the resignation of Dr. Charles H. Castle.

Dr. W. W. Seely, for a number of years dean of the Medical College of Ohio, and who recently removed to Boston, has been elected an honorary member of the Cincinnati Academy of Medicine.

Colorado State Board of Health.—Gov. Thomas recently appointed Drs. L. E. Lemen and Leonard Freeman, of Denver, members of the Colorado State Board of Health, to succeed Drs. Arnold Stedman and E. J. Rogers, of Denver. The Board organized April 6 by electing the following officers: President, Dr. Hubert Work, Pueblo; vice-president, Dr. H. R. Bull, Grand Junction; secretary, Dr. G. E. Tyler, Denver; treasurer, Dr. J. N. Hall, Denver.

The Medico-Legal Society of Chicago.—At a regular meeting held April 8, DR. RICHARD DEWEY read a paper on **Application of law to limitation of mental and nervous diseases and degeneracy.**

Chicago Medical Examiners' Association.—At a meeting held March 28, the following officers were elected: President, James H. Stowell, M.D.; vice-president, Denslow Lewis, M.D.; secretary, A. H. Brumback, M.D.; treasurer, W. K. Harrison, M.D.

Alumni Association of the Medical Department of the University of California.—At the regular quarterly meeting held April 4, Dr. Kugeler reported that the General Council of the Alumni had devised a plan for establishing an **annual prize for original research** on the part of any one connected with any department of the University. The Council is at present considering ways and means for the establishment of the annual prize. Prof. Ritter, of the faculty at Berkeley, said the best way to become a great university was to encourage original research.

Central Hospital for the Insane, Indianapolis, Ind.—A new hospital for the sick insane is to be erected upon the grounds of the Central Hospital for the Insane, located at Indianapolis, Ind., the legislature of Indiana having made an appropriation of $110,000 for that purpose. The plans provide an administration building, separate medical and surgical wards for men and women, and general and special operating-rooms. The structure will be upon the pavilion plan, one story high, and will accommodate 100 patients.

A sanitarium for the treatment of tuberculous patients is about to be established at Fort Stanton, New Mexico, by the U. S. Government. The reservation in which Fort Stanton is situated consists of about 10,000 acres, and has recently been transferred from the jurisdiction of the War Department to that of the U. S. Marine-Hospital Service. It is the purpose of Surgeon-General Wyman to have soldiers, sailors, and marines given the benefit of the treatment at first. Later, government clerks, when invalided, instead of being granted an indefinite holiday and permitted to do as best they can, will be ordered to the sanitarium. Ultimately, if the institution proves a success, private citizens will be afforded an opportunity of being treated there.

New Pension Examiners for Kansas City, Mo.—It was at first supposed that President Cleveland's extension of the civil service placed the Pension Board of Kansas City, Mo., where it could not be readily removed by a change of administration. Commissioner Evans, however, appointed another board for Kansas City and sent the work to the new board. As there is a ruling in the Pension Bureau that any board having received no work for 6 months shall be considered discharged, the old board, consisting of Drs. J. R. Snell, M. A. Bogie, H. A. Longan, is virtually discharged and the new board, Drs. S. D. Bowker, Chet McDonald, and Thos. C. Baird, is now in occupancy. Dr. F. G. Murphy, who has recently removed from Mason City, Ia., where he has been oculist to the Pension Bureau, has been made a special medical examiner at Kansas City.

Cincinnati Society for Medical Research.—At the March meeting DR. JOS. EICHBERG made a preliminary **demonstration of a series of sections of arteries.** The specimens shown formed merely one group of a large series. In each case sections were made of the aorta, the internal carotid and the brachial. Twenty-five cases were reported, all taken from the postmortem-room of the City Hospital. The arteries were fixed in formalin, hardened in alcohol and stained by Giessen's method. In 7 cases the arteries were normal. Briefly summarized, the conditions found in the other cases were as follows:

1. Mercurial poisoning; aged 34. Enormous thickening of the intima of the aorta, with round-celled infiltration at the membrana limitans. In places the connective tissue of the intima was much rarefied. In other parts caseation had occurred.
2. Heat-stroke; aged 40. Evidences of arteriosclerosis in various organs. Intima of brachial and carotid much thickened.
3. Aneurysm of the aorta (fusiform); aged 27. Intima of the aorta enormously thickened, containing atheromatous abscesses. In intima, slit-like spaces (lymph-spaces), containing spindle-shaped cells.
4. Lobar pneumonia; aged 51. Heart fatty. Intima of aorta thickened.
5. Phthisis pulmonalis; aged 40. Intima of carotid much thickened. Brachial showed fibrous bands running through the media, with fan-shaped expansions in places.
6. Phthisis pulmonalis; aged 23. Same condition as No. 5.
7. Advanced interstitial nephritis; aged 59. Aorta normal; intima of carotid thickened.
8. Interstitial nephritis; aged 52. Aorta much thinned at one place. Thinning most marked in media. Intima slightly thickened. Probably a beginning aneurysm.
9. Interstitial nephritis; aged 55. Aorta enormously thickened, collections of small round cells (abscesses) in intima. Endarteritis of vasa vasorum in adventitia. Between the elastic fibers of the media were bands of newly-formed connective tissue.
10. Interstitial nephritis; aged 75. Moderate thickening of internal carotid. Otherwise normal.
11. Interstitial nephritis, leptomeningitis. Aorta normal. Beginning aneurysm of the brachial; disappearance of the media, thinning of adventitia, enormous thickening of intima. Newly-formed connective tissue in intima.
12. Leptomeningitis; aged 74. Thickening of media of brachial. Irregular bands of fibrous tissue running across the vessel-wall.
13. Aortic insufficiency; aged 43. Aorta much thickened. Division between the coats hard to trace. Endarteritis obliterans of the vasa vasorum of the adventitia. Fibrous bands running across the vessel-wall.
14. Aortic insufficiency; aged 45. Abscesses in adventitia of aorta. Endarteritis of vasa vasorum. Intima of brachial thickened.
15. Typhoid; aged 22. Fibroid changes in brachial and carotid.
16. Typhoid; aged 25. Irregular thickening of intima of carotid; bands of fibrous tissue in media; membrana limitans broken through in places,
17. Delirium tremens, edema of brain. Fibrous bands running across the media of the brachial; round-celled infiltration of the intima of the brachial.

Cincinnati Academy of Medicine.—At a meeting held April 3, DR. CHARLES H. CASTLE, surgeon of the 1st Ohio Volunteer cavalry during the late war, gave a detailed medical history of that regiment. The enlisted men, taken as a whole, were an exceptionally fine body, 5 universities and all the professions being represented. The physical examination to which the soldiers were subjected at Columbus by a combined State and National Board was farcical in the extreme. Not one man in 50 was questioned, not one in 50 was examined, not one in 500 was stripped. Even when physical infirmities were pointed out to the Board, the subjects were admitted to the service. As a result, the subsequent work of the surgeons was made more burdensome and many soldiers were later invalided home who should have been rejected. Of all the soldiers who passed a critical physical examination in Cleveland and Cincinnati only one died of disease during the camp-life. The regiment reached Chickamauga Park, May 15, being the first volunteer organization to arrive. Considerable difficulty was experienced the first few weeks in procuring tents and suitable food. After June 1 (by which time nearly 30,000 troops had been collected in the camp), it was almost impossible to get the most needed medical and surgical supplies. On one occasion Lieut.-Colonel Huidekoper, Chief Surgeon of the First Army-Corps, tore up the last sheet from his bed in order to supply bandages for a broken leg. Had it not been for generous gifts from personal friends in Cincinnati, Columbus, and Cleveland, the soldiers would have suffered much unnecessary discomfort, or worse, from lack of surgical dressings. The Government supplied 17 bandages, 1 roll of one-inch adhesive plaster, and 1 row torn from a paper of pins to be used to dress the arms of the men vaccinated in a brigade of 3,000. The women of Chattanooga made heroic efforts to secure proper food-supply for the hospitals. Requisitions "through the regular military channels" bore little or no fruit. Requests made directly to the Surgeon-General were almost immediately attended to, and the needed articles were supplied. The health of the regiment during its stay at Camp Thomas was excellent. July 5 the regiment started for Florida and pitched its camp at Lakeland, 30 miles from Tampa. The nature of the soil (sand overlying clay) made the water-question a very serious one, and all attempts to get well-water that would remain free from contamination were in vain. A well 28 feet deep and only 200 feet from the lake was the source from which the camp secured its water-supply. Daily showers scoured the neighboring country into the lake and the lake-water fed the well through the clay soil. A strict order was issued that all drinking water should be boiled, and the troop-kitchens kept cauldrons and tubs of boiled water standing in convenient places. But the soldiers drank wherever they would and the inevitable result followed. July 22d there were 12 typhoid cases in camp; on the 27th there were 30; August 15th, there were 39; on the 18th, 60; on the 21st, 70. It was impossible to get enough hospital tents, and typhoid patients "in quarters" suffered accordingly—one poor fellow got up from bed, walked 200 yards to the camp-sink, walked back, lay down and died. The typhoid cases began with a rather stormy onset, often accompanied by bloody vomit suggesting yellow fever, but a yellow-fever expert summoned to the camp declared the cases to be typhoid. Scorpions troubled the soldiers a great deal and their bites were very painful and slow to heal. No septic symptoms followed, however, and strong ammonia relieved the burning and itching remarkably. The large epidemic of typhoid was due in part to improper food. The "salt side" tested the digestive organs of the soldiers to the utmost. The refrigerated beef was hard to keep, decomposition with the formation of organic poisons taking place in an hour or so. Several tons of this refrigerated beef were condemned at Lakeland. Armour's agent came from Tampa to investigate and declared that the greenish discoloration was due not to decomposition, but to a secret chemical preservative. The regiment was ordered to leave Lakeland August 20. Dr. Castle remained behind with his 70 cases of typhoid. Great difficulty was experienced in getting proper food or any much-needed comforts. The Government fulfilled its obligations in a wretched manner. Flies were a great pest, stampeding the horses and mules and greatly disturbing the patients. Only 3 of the 70 cases resulted fatally.

Chicago Medical Society.—At a meeting held April 5, Dr. Edward H. Ochsner exhibited a **leiomyofibroma,** that he removed from a patient who had noticed a fulness under the right costal arch so long as he could remember. On examination a large, nodular tumor, filling the right hypochondrium, was discovered. It was removed by laparotomy, the vessels ligated double, the ureter seared by actual cautery and dropped back into the wound. The peritoneum which had covered the tumor was carefully stitched to the peritoneum of the abdominal wall, thus making the surface from which the tumor had been removed extraperitoneal. The wound was carefully packed and the patient made a rapid and uneventful recovery. On examining the tumor, which weighed 10 pounds and 2 ounces, it was found to consist of fibrous tissue, unstriped muscles and a few bloodvessels, making it a leiomyofibroma which had developed from the inner surface of the kidney-capsule. The kidney itself was somewhat flattened out, but fairly well-preserved. The case was thought unique in that no similar one could be found in the literature.

Dr. Kolischer read a paper on **pericystitis in the late puerperium.** He said that this disease, as yet very little or not at all recognized, takes place after protracted labor. As a result probably of traumatic hemorrhage into the anterior perivesical cellular tissue there is established inflammatory infarction. The entire bladder appears disc-shaped, and like a hard tumor, which protrudes like a board into the abdominal cavity, overshadowing the uterus. The differential diagnosis between parametritis puerperalis and pericystitis is to be established by the following points: By rectal palpation the uterus can be differentiated from the tumor; the ureters can be palpated, which cannot be done in cases of parametritis; the cystoscopic examination shows the signs of pericystitis at the anterior bladder-wall. The therapy, which up to this time has been conservative, might, through surgical interference, become more successful than was previously the case.

Dr. Charles J. Whalen read a paper on the **diagnosis and prognosis of appendicitis.** He stated that the diagnosis of this disease in many cases is easy, and becomes more so, as experience increases. A certain number of cases have to be carefully considered, and in a few the diagnosis is very difficult. Appendicitis is by far the most common inflammatory condition within the abdomen, in persons under 35 years of age. Good guides in searching for the appendix are the right common and external iliac arteries, the pulsations of which can be easily felt. The author finds from experience that, in the healthy individual, he is able to find the appendix in about 25% of cases. The appendix is found in its normal position in 90% of all cases. If pain at McBurney's point is absent, in the presence of other symptoms he would not hesitate to diagnose appendicitis. In one obscure case which came under his observation, in which he had absolutely no history to aid him in the diagnosis, under an anesthetic he very easily found the exudate, deep in the abdomen. Appendicitis must be differentiated from renal and hepatic colic, acute indigestion, cholera morbus, strangulated inguinal hernia, torsion, and volvulus. Inflammation of the right fallopian tube and ovary may simulate appendicitis very closely, but the history of previous pelvic trouble, especially the extension of gonorrheal infection, is important. It is rare for inflammation of the tube to occur without previous disease of the uterus. The differential points were dwelt upon at considerable length. The author cited a case that came under his personal observation a few years ago, presenting very erratic symptoms, and resembling those usually encountered in appendicitis. There was some tenderness on the right side, but it was not confined to any particular point. Careful examination satisfied him that he was not dealing with a case of appendicitis or of typhoid fever. Consultation with a noted diagnostician of the city resulted in his venturing a diagnosis of typhoid ulcer in the appendix, which subsequently proved to be wrong also. One year later a laparotomy was performed and showed a badly diseased right ovary, and the essayist is satisfied that her previous trouble was located in that organ, yet there had never been any previous infection or trouble with the pelvic organs, nor was he able to detect any trouble with the ovary by bimanual examination. Hysteria may simulate appendicitis very closely. He has had 4 cases of hysteria which so counterfeited the symptoms of appendicitis that without the use of the clinical thermometer a positive diagnosis would have been impossible. Operations should not be undertaken unless fever exists. He has been able to collect 6,500 cases, which he has classified as catarrhal, suppurative, and recurrent appendicitis. Of this number 1,400 were treated medically; 252 of these died, making a mortality of 18%. Of the remaining 5,100 cases, 987 were operated upon during the catarrhal stage; 50 died, leaving a mortality of about 5%. Of 2,630 cases operated upon during the suppurative stage, 526 died, a mortality of 20%. There were 1,483 cases of recurrent appendicitis, with 35 deaths, a mortality of 2½%. This low mortality-rate in recurrent appendicitis is due to the immunity to infection acquired by repeated irritation. It is at once apparent that of 5,100 cases subjected to operation, 1,483, or 29%, were of the recurrent form of the disease. Add to this 18%, mortality obtained by medical treatment, and we have 47% of cases either dying or not recovering fully from the disease. In contrast with this, under the most favorable and unfavorable surgical conditions, there is a death-rate of only 9½% in the hands of all surgeons, many cases being *in extremis* when operated upon. The essayist is of the opinion that if we could give 100 equally severe cases of appendicitis each to equally informed surgeons, and if we could follow the subsequent history of those treated medically, the one who always operates early will cure at least 5 times as many cases as the other. He had summarized 85 articles on appendicitis by the most eminent men of the world in medicine and surgery and briefly stated their opinions, enumerating those favoring conservative treatment, and those arguing in favor of surgical procedures.

SOUTHERN STATES.

Dr. J. B. Bonney has been appointed to represent the Louisiana State Board of Health at the Rigolet's Quarantine Station.

The Orleans Parish Medical Society has offered a gold medal to be competed for by displayers of surgical instruments and apparatus in the State Fair to be held in New Orleans during May.

Dr. Cameron Piggott, professor of chemistry in the Medical Department of the University of the South (Sewanee, Tenn.), was seriously and probably fatally injured April 2 by a fall from Clara's Point, one of the many "views" in the neighborhood of Sewanee.

Board of Experts on Yellow Fever.—Drs. J. S. Kennedy, E. S. Lewis, F. Loeber, R. Matas, F. W. Parham, and L. F. Salomon have been appointed by the Louisiana State Board of Health to act as a board of experts on yellow fever, establishing the diagnosis in suspicious cases should any occur during the approaching warm season.

Repeal of the Medical Practice Act in Tennessee.—To the great discredit of medicine in Tennessee the legislature of that State has just passed by a very large majority a bill repealing the Medical Practice Act. It is no longer necessary for a candidate for the practice of medicine to stand an examination in the State, his diploma being all that is necessary. It is not known just what influences secured this action, but, judging from the majority in favor of it, those who favor its passage were very powerful; the protestations of the regular profession were without avail.

Inspection of Seaboard Quarantine Stations.—Recently the Louisiana State Board of Health sent State Quarantine Officer Dr. C. P. Wilkinson on a tour of inspection of the seaboard quarantines, with a view to obtaining uniform quarantine regulations and thus minimizing the danger of importation of yellow fever from Cuba. Dr. Wilkinson reports satisfaction with the result of his tour, and especially his conviction that the Marine Hospital officials, as well as the quarantine officers of New York, would cooperate efficiently with the Board in preventing another visitation of "febris flava."

Clinical Society of Maryland.—At a meeting held April 7, Dr. Welch read a paper on **Recent contributions to the theories of immunity.** The early history of the work carried out on the question of immunity was first briefly reviewed. Immunity is of two kinds, active and passive. Active immunity is produced by the injecting into susceptible animals repeated small doses of the virulent living germ or larger doses of the attenuated organism, and also by the injection of their chemical products. A reaction follows each injection and the immunity thus produced lasts for months or years. The cells and juices of the tissue form the so-called protective bodies or agglutins. Passive immunity is produced by the injection of the serum of animals actively immunized. The immunity in this instance comes on at once, whereas it is slow in developing in the active form. There is usually no reaction. The immunity is transitory and generally lasts only 2 or 3 weeks. There are two kinds of immunizing substances. First, those which neutralize the toxins of the germ, the antitoxins, of which the diphtheria-antitoxin is a type; and second, those which kill the organisms themselves, and which are consequently bactericidal in their action. There is as yet no satisfactory and generally accepted explanation as to how immunity is produced. In order that an antitoxin may be developed it is necessary that the germ be one which produces a strong toxin. By introducing repeated doses of the toxin more of the antitoxin is gradually produced, and eventually a high degree of immunity is produced. The serum of the animal then possesses antidotal properties. The antitoxin is believed to be of an albuminous nature. Behring thinks that the proteid molecule assumes the antitoxic property. Opinions differ as to the source of the antitoxin. Büchner thinks that the antitoxin is derived from the toxin and thus from the bacillus. Behring, on the other hand, holds that the antitoxin is derived from the nerve-cells of the body, these cells being stimulated to produce it by the action of the toxin. About one year ago, Ehrlich advanced a new hypothesis. He believes that the susceptibility of an animal to a disease depends on the affinity that certain of its cells have for the toxin produced by the organism causing the disease. Ehrlich believes that the antitoxin normally is present in the body. He holds that in the molecules making up the nerve-cells of the body certain side-chains of atoms are present. One of these groups of atoms he calls the toxiphoric group. When a toxin forms in the body it is supposed to unite with this toxiphoric group in the molecules of the nerve-cells. After the union a defect occurs in the cell and the cell is stimulated to produce that substance which is lost. The loss of substance is replaced and more than replaced, and eventually the cell can no longer contain this substance and it is set free in the blood in soluble form. Wassermann clearly demonstrated that the antitoxins are found to preexist in the body. To an emulsion of the brain and medulla several times the fatal dose of the toxin of the germ was added. In a few minutes the toxins were completely neutralized. Bactericidal immunity was first discovered by Pfeiffer in connection with the cholera-vibrio. It is entirely different from the antitoxin-immunity. He inoculated a guineapig with cholera-bacilli. If cholera-germs are then injected into the peritoneal cavity so soon as 20 minutes later, it is found that the latter become granular, disintegrate, and practically become dissolved. This is known as bacteriolysis, or the Pfeiffer phenomenon. A substance called lysin is supposed to cause it. This does not occur in healthy animals nor is it a test-tube reaction. Ehrlich also applies this theory to explain the bactericidal immunity. He believes that the lysin is produced by the cells of the body. Practical application is made of the experimental work that has been done. Active immunity is taken advantage of in treating smallpox and rabies. The incubation-period of the latter is so long that the animal can be immunized before symptoms appear. Some success has been attained in producing active immunity against cholera, typhoid, and the plague. Passive immunity against infection, so far, has met with success in only one disease, namely, diphtheria. The results with tetanus-immunity are still doubtful. Antivenin is used with some success in India in immunizing against snake-bites. The bacteriolytic substances have no protective properties. The value of antistreptococcus-serum has been exaggerated. There are innumerable varieties of streptococci, and to have any beneficial effect the serum must be produced from the special organism causing the infection.

Dr. Osler read a paper on **Cerebrospinal meningitis.** There has been a gradual increase in the number of deaths from meningitis in Baltimore during the past few years. In 1893 there were 253 deaths, in 1897 there were 273, and in 1898 the number reached 335. During the latter year there were 67 deaths recorded as being due to cerebrospinal meningitis. The majority of the mortuary bills simply state that death was the result of meningitis without specifying the cause. Physicians were urged to state more specifically the form of meningitis causing death. During the first 10 years since the opening of the Johns Hopkins Hospital there was only one case of cerebrospinal meningitis. Since April, 1898, 16 cases have been admitted to the Hospital. Reference was made to the more general prevalence of the disease during the past 2 years. The mode of onset is much more abrupt than in tuberculous meningitis. There are no prodromes. The disease is usually ushered in with a chill, vomiting and a sudden pain in the head. Cutaneous hyperesthesia, and rigidity with stiffness of the neck are more marked than in other forms of meningitis. The severity of the spinal symptoms is more marked than in tuberculous and pneumocccous meningitis, but no more than that seen in cases due to the streptococcus. Arthritis may be an early and severe symptom. Cutaneous lesions such as purpura, erythematous mottling, urticaria and herpes are commoner than in other forms of the disease. An important diagnostic point is that cases of cerebrospinal meningitis are much more likely to retain consciousness. Most important of all, the prognosis is much better. Of the 16 cases only 6 died. Nearly all cases due to the tubercle-bacillus, pneumococcus and streptococcus are fatal. Quincke's lumbar puncture is of great value in arriving at a diagnosis. The puncture is made between the second and third or third and fourth lumbar vertebræ. The point of the needle is inserted opposite the interval between the spinous processes about 1 cm. from the median line and directed upwards and inwards between the laminæ. In adults the subarachnoid space is reached at a depth of 7 to 8 cm. A turbid fluid means meningitis. If the meningitis is of the epidemic cerebrospinal form, the diplococcus meningitidis intracellularis will be found in the coverslips or cultures. The lumbar puncture may be negative owing to the exudate in the subarachnoid space being thick and of the consistence of butter. In addition to the 16 cases of epidemic cerebrospinal meningitis there had been 4 other cases not due to the meningococcus. Two were due to the pneumococcus. In the third, which was due to staphylococcus, the joint-symptoms were so marked at first as to simulate rheumatism.

Dr. John Ruhrah read a communication on **actinomycosis in America.** Four cases came under his own personal observation. In all, 58 cases have been reported in America. Of these, 38 were in males, 15 in females, and in the remainder the sex was not stated. The disease is commonest in the third decade, and the cases develop most frequently during the winter. Persons working on the farm, and especially those brought into contact with cattle, are most likely to develop the disease. The incubation-period varies between 8 days and 2 years. The upper and lower jaws are most frequently involved; they were affected in 27 instances. When the lungs are involved the disease manifests itself in various ways. It may be bronchial, bronchopneumonic or pleuropneumonic in form, or it may produce a condition analogous to miliary tuberculosis. When the intestines are involved the disease usually starts first at the appendix vermiformis. The breast was the seat of the disease in one of the American cases. As to treatment, 4 were cured by the administration of potassium iodid, 13 surgical procedures, 27 died, and in the remainder the termination was not stated.

MISCELLANY.

Obituary.—Dr. David P. Romayne, of Boston, Mass., at Colorado Springs, April 1, aged 34 years.—Dr. Wallace McMillan, Dorchester, Mass., March 31, aged 31 years.—Dr. Edwin H. Ashwin, Brooklyn, N. Y., March 28, aged 55 years.—Dr. Frederick H. Shaake, Lawrence, Mass., March 27, aged 34 years.—Dr. George F. Entler, Oneonta, N. Y., April 3, aged 49 years.—Dr. Pleasant H. Pendleton, Pine Bluff, Ark., March 26, aged 45 years.—Dr. M. J. Rhus, Mt. Holly, N. J., March 28.—Dr. A. S. Stone, Monogah, W. Va., March 28, aged 39 years.—Dr. J. H. Fitzgerald, Chicago, Ill., March 29.—Dr. Gray Taggart, Galesburg, Ill., April 2, aged 33 years.—Dr. James B. Gibson, formerly sugeon to the Manhattan Eye and Ear Infirmary, New York, at Colorado Springs, Colo.—Dr. James McAlpin Somerville, well known as a physician, artist, scientist, and scholar, Philadelphia, April 2, aged 74 years.—Dr. Walter B. Lafferty, Richmond, Va., April 10, the result of an accident on a railroad.—Dr. William Blackwood, Lancaster, Pa., April 12, aged 73, President of the City and County Medical Societies.

Laboratory Committee of the American Public-Health Association.—At the meeting of the American Public-Health Association in September, 1898, it was decided to organize a standing committee of the association composed of those actively engaged in laboratory work in connection with health-boards. This was determined upon in view of the fact that during the past few years the chief development in sanitary science has been in connection with laboratory work, especially bacteriologic, so that every health-board of importance now requires a special laboratory staff.

The intention of the Laboratory Committee is not to overlap or interfere with the work of other committees but as far as possible to help them in their work, and it is desirable that members of other committees engaged in laboratory work should be regarded as ex-officio members of the Laboratory Committee. It has been found at the meetings of the Association that there is a practical difficulty in introducing papers and discussions of a technical nature into the general proceedings; while, on the other hand, those matters which most interest laboratory men must be essentially of a technical nature. It has therefore been decided to hold sessions of the Committee during the day or two preceding the general meeting or in spare time between the regular sessions. A temporary organization has been effected and the first general session of the committee will be held on October 30, the day previous to the opening session of the general meeting in Minneapolis. Prof. Welch, of Baltimore, will be honorary chairman. The work of arranging the program has been undertaken by Dr. F. F. Wesbrook, of Minneapolis, who in cooperation with Dr. Probst, general secretary, will decide which papers are of a technical nature, more suited to Laboratory Committee sessions than for general meetings. Dr. A. Gehrman, of Chicago, has undertaken the editing of the proceedings and publication of the minutes of the meeting. The line of work purposed is as follows:

1. Original short papers upon laboratory work and research. Summary reports of work accomplished during the year in the various laboratories.
2. Cooperative investigations: as on disinfection, water-analysis, etc.
3. Short summaries of progress during the year in special lines of work.

Those engaged in laboratory work bearing upon hygiene are eligible as members and those wishing to become members should address the chairman, Dr. Wyatt Johnston, 74 Shuter Street, Montreal.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service for the week ended April 8, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
Alabama:	Mobile	March 24-26	3	
District of Columbia:	Washington	March 31-April 5	6	
Florida:	Jacksonville	March 25-April 1	1	
"	Key West	March 24-29	3	
Illinois:	Chicago	March 24-31	3	
Louisiana:	Alexandria	March 29	9	
"	New Orleans	March 25-April 1	65	2
Maryland:	Baltimore	Jan. 18-April 1	12	1
Pennsylvania:	Beaver Co.	March 12-30	1	
"	Bedford Co.	" "	1	
"	Fayette Co.		15	
"	Somerset Co.		1	
Virginia:	Alexandria	March 31-April 2	1	
"	Newport News,	March 27-April 1	20	
"	Norfolk	March 25-31	33	
"	Portsmouth	March 25-31	27	1
Washington:	Spokane	From first appearance to March 28, 4 deaths. Infection from Los Angeles, Cal.		

SMALLPOX—FOREIGN.

Brazil:	Bahia	March 4-11	2	
"	Rio de Janeiro	Feb. 17-24	1	1
China:	Hong Kong	Feb. 4-11	2	1
"	"	Feb. 11-18	3	1
Korea:	Seoul	Feb. 25. Endemic, many cases and many deaths.		
Egypt:	Cairo	Feb. 18-March 11		3
England:	Liverpool	March 11-18	1	
"	London	March 11-18	1	
France:	Paris	March 11-18		1
Greece:	Athens	March 11-18	7	3
India:	Calcutta	Feb. 18-25		1
"	Madras	Feb. 24-March 3		2
Mexico:	Mexico	March 19-26	8	3
Japan:	Nagasaki	Feb. 27-March 6	1	
Russia:	Moscow	March 4-11	18	2
"	Odessa	March 11-18	3	
"	St. Petersburg	March 11-18	5	1
Turkey:	Constantinople,	Feb. 27-March 6		11
"	"	March 6-13		18
"	Smyrna	Feb. 26-March 5		1
"	Yambo	March 20	Smallpox raging.	

YELLOW FEVER.

Brazil:	Bahia	March 4-11	4	2
"	Rio de Janeiro.	Feb. 17-24	65	41
Mexico:	Vera Cruz	March 23-30		2

CHOLERA.

India:	Calcutta	Feb. 18-25	25

PLAGUE.

India:	Calcutta	Feb. 18-25	12

American Orthopedic Association.—The following is the preliminary program of the meeting in New York City, May 31, June 1 and 2:

Rotation of the Spine, in the So-called Lateral Curvature, Its Causes and Treatment, by Mr. W. Adams. Clinical Notes Relating to the Operation of Arthrodesis, by Dr. B. Bartow. Le Redressement Mecanique et la Fixation dans le Platre, dans le Cas de Scoliose, by Dr. M. Bilhaut. The Forcible Correction of Lateral Curvature, by Dr. E. H. Bradford and Dr. E. G. Brackett. Cases of Osteomyelitis; Exostoses of the Foot; School Chairs; by Dr. E. H. Bradford. On the Treatment of Lateral Curvature of the Spine; On Dislocation of the Hip; by Mr. Bernard E. Brodhurst. Further Observations of Adenoids in Orthopedic Deformities; Some Experiments in the Use of Tenotomy; by Dr. F. S. Coolidge. Operative Treatment of Congenital Luxation of the Hip; The Technic of Osteotomy; New Instruments—Osteoclast; New Instruments for Flatfoot and Paralysis; New Apparatus for Stiffness of Elbow; by Dr. G. G. Davis. Brisement Force, with Immediate Massage in the Ankylosis, following Tuberculous Ostitis of the Knee, by Dr. V. P. Gibney. A Study of Pott's Paraplegia as Effected by Correction of the Spinal Deformity; Osteoarthritis of the Spine, with Report of Cases; by Dr. Joel E. Goldthwait. A Treatment for Acute Serous Synovitis, Permitting Joint-Functions, by Dr. Phil. Hoffmann. Pigeon-Toe, by Dr. W. Burton Hopkins. Prothesis, a Branch of Orthopedic Practice; Tenotomy—Historical Notes; Additional Views of the Treatment of Hip-Disease; by Dr. A. B. Judson. The Cause of Failure after Phelps' Operation for Clubfoot, by Dr. Daniel LaFerté. On Palsy of the Interrossei in Talipes Arcuatus, with a Note on a Congenital Abnormity of the Muscles of the Ham, by Mr. E. Muirhead Little. Joint-Changes in Hemophilia, with a Report of Two Cases; Non-Tuberculous Affections of the Spine; by Dr. Robert W. Lovett. Heat as a Therapeutic Measure; Presentation of Plaster-Knife and Plaster-Saw; by Dr. S. L. McCurdy. Surgical Intervention in Spastic Paralysis; Some Salient Points in the Treatment of Hip-Disease; by Dr. B. E. McKenzie. Congenital Dislocation of the Hip; Fracture of the Femur in Young Children; by Dr. T. Halsted Myers. A Preliminary Report of the Study of Lateral Curvature of the Spine; A Report of Cases of Tuberculous and Purulent Abscesses of Joints Treated with Carbolic Acid; by Dr. A. M. Phelps. Degeneracy as a Causative Factor in the Production of Scoliosis, by Dr. John Ridlon. A Study of the Musculoneural Elements in Chronic Joint Disease; What Constitutes a Shortened Gastrocnemius Muscle; by Dr. N. M. Shaffer. Position-Symptoms in Joint-Disease, by Dr. H. M. Sherman. The Recording of Lateral Curvature of the Spine, by Mr. E. Noble Smith. The Conservative Surgical Treatment of Tuberculous Diseases of Joints; A Case of Separation of the Upper Epiphysis of the Femur; by Dr. Clarence L. Starr. Pointers on the Leather Splint, by Dr. A. J. Steele. The Report of a Case of Dorsal Dislocation of the Hip, Occurring Spontaneously During the Course of an Acute Osteomyelitis of the Neck and Shaft of the Femur, by Dr. Wm. J. Taylor. Sentences Selected from the Orthopedic Writings of C. Fayette Taylor, M.D., by Dr. Henry Ling Taylor. The Kyphotone, a Machine for the Forcible Correction of the Deformity of Pott's Disease; The Liver in Rickets from a Clinical Standpoint; Some New Traction Apparatus; by Dr. R. T. Taylor. Some Clinical Features of Rheumatoid Arthritis; A Summer Plaster-of-Paris Jacket; by Dr. R. T. Taylor and Dr. S. H. McKim. Some Postparalytic Deformities and their Treatment, by Dr. Jacob Teschner. Congenital Deformities of the Spine; Celluloid Jackets for Spinal Caries; A Study of the Atrophy and Shortening in Infantile Paralysis; by Dr. Augustus Thorndike. Some Remarks on the Class Method of Gymnastic Treatment in Lateral Curvature, by Dr. Walter Truslow. The Diagnostic Value of Radiography in Orthopedic and General Surgery, by Dr. L. A. Weigel. Further Observations on the Treatment of Congenital Dislocation of the Hip, by Dr. Royal Whitman.

Forcible Correction of Spinal Deformities under Anesthesia; Reduction of Congenital Hip-Dislocation by Lorenz Method; Exhibition of Kneebrace for Correction of Deformity; by Dr. W. E. Wirt. Joint-Infection in Typhoid Fever, by Dr. Charles W. Wilson.

Changes in the Medical Corps of the U. S. Army.

Reed, William L., acting hospital steward, will report to the board of officers at San Juan, P. R., for examination for a commission in the U. S. Army, on the completion of which duty he will rejoin his proper station.

Dolz, Major William, is granted leave for one month.

Chamberlaine, George E., acting assistant surgeon, is relieved from duty in hospital, Second division, Seventh army corps, and will report on the hospital ship "Missouri" for duty.

Manley, Clarence J., assistant surgeon, is relieved from duty in the department of Havana, and will report on the hospital ship "Missouri" for duty.

Taylor, Hugh M., acting assistant surgeon, will report to the commanding general, department of Havana, for assignment to duty.

Tilton, Lieutenant Colonel Henry R., deputy surgeon general, is granted leave for one month on surgeon's certificate, to take effect April 1, with permission to leave the department of Dakota.

Murtagh, John A., acting assistant surgeon, Fort Douglas, will report to the commanding officer, 24th Infantry, to accompany the battalion of that regiment to San Francisco, Cal. Upon completion of this duty Dr. Murtagh will report to the commanding general, department of California, for further instructions.

Ireland, Captain M. W., assistant surgeon, will proceed to Washington, D. C., to appear as witness before the court of inquiry at the Lemon Building, in that city, March 31. When no longer required by the court he will return to his proper station, Fort Wayne.

Greenleaf, Colonel Charles R., acting surgeon general, will proceed to Fort Monroe and Newport News, Va., Savannah and Atlanta, Ga., and Greenville, S. C., for the purpose of inspecting the medical department at those stations.

Plummer, George R., acting assistant surgeon, the telegraphic instructions to the commanding officer Fort Barrancas ordering him to proceed to Jackson Barracks for duty are confirmed.

Dolz, Major William, brigade-surgeon, is honorably discharged to take effect April 5.

Alden, Wm., acting assistant surgeon, is granted leave to include April 12.

Drake, C. M., acting assistant surgeon, will proceed from Macon, Ga., to Jefferson Barracks and report to the commanding officer, Battery E, 1st Artillery, for duty, to accompany the battery to Manila, P. I.

Fitzpatrick, Charles, acting assistant surgeon, is relieved from duty with Major Frederick Fuger, 4th Artillery, recruiting officer, Philadelphia, Pa., and will report to Major William J. Wakeman, brigade-surgeon, attending surgeon and examiner of recruits in that city, for duty as his assistant in the medical examination of recruits.

Hicks, John R., acting assistant surgeon, is granted leave for one month. March 31.

Stephenson, Major William, brigade-surgeon, is granted leave for 30 days. April 1.

Howard, Captain Dean C., assistant surgeon, is relieved from temporary duty in New York City and will proceed to Savannah, Ga., for duty pertaining to the muster-out of volunteer troops.

Banta, William P., acting assistant surgeon, will proceed to New Orleans, La., and report to the commanding officer, Battery A, 6th Artillery, for duty, to accompany that battery to Honolulu, H. I., and will then proceed from that place by first government transport to Manila, P. I., for assignment to duty.

The following changes in the stations and duties of acting assistant surgeons are ordered: Charles Norton Barney will proceed from Greenville, S. C., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty; H. Eugene Stafford will proceed from New York City to Governor's Island, and report to the commanding officer, battalion, 13th Infantry, for duty, to accompany that regiment to Manila, P. I.; Frederick Pearl will proceed from Boston, Mass., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Herbst, William, hospital steward, Fort Meyer, will be sent to Fort Monroe, for duty with the battalion, 6th Artillery, which is to take station in the Hawaiian Islands.

Harvey, Major Philip F., surgeon, is detailed as a member of the examining board at St. Paul, Minn., vice Lieutenant Colonel Henry R. Tilton, deputy surgeon-general, relieved.

Hyde, L. W., acting assistant surgeon, will proceed to Hartford, Conn., and report to Captain Walter Howe, 4th Artillery, recruiting officer, for duty.

Meyers, Sidney I., acting assistant surgeon, is relieved from further duty at Camp Columbia, Havana, Cuba, and will proceed to Louisville, Ky., and report by letter to the Surgeon-general of Army.

Persons, Elbert E., acting assistant surgeon, will proceed to Governor's Island for assignment to duty with batteries L and M, 6th Artillery, and to accompany those batteries to Manila, P. I.

Taylor, Ralph L., acting assistant surgeon, having surrendered the unexpired portion of his leave, is releaved from further duty in the department of Pinar del Rio, and will proceed to New York City for assignment to duty on a government transport.

Girard, Lieutenant Colonel Alfred C., chief surgeon, when his services are no longer needed with the Second army corps, will proceed to the Presidio for duty as commanding officer of the new U. S. general hospital at that place.

Appel, Major Aaron H., surgeon, now on duty at Jackson Barracks, will proceed to Galveston, Tex., for duty pertaining to the muster-out of the 1st Texas Volunteer Infantry, and on completion of this duty will return to his proper station.

Bratton, First Lieutenant Thomas S., assistant surgeon, now at Camp Graham, Tybee Island, Ga., will proceed to Savannah, Ga., for duty pertaining to the muster-out of volunteers, and when his services are no longer needed will return to his proper station.

Clendenin, Major Paul, chief surgeon, the order which honorably discharges him from the volunteer army is revoked.

Clendenin, Major Paul, chief surgeon, is relived from further duty as chief surgeon, Second Division, Seventh Army Corps, and will proceed to Santiago, Cuba, for assignment to duty as commanding officer, U. S. general hospital at Santiago, Cuba.

Coffin, Harold L., acting assistant surgeon, will proceed from Washington, D. C., to Jefferson Barracks, and report to the commanding officer, light battery E, 1st Artillery, to accompany that battery to Manilla, P. I.

O'Malley, W. H. I., acting assistant surgeon, is relieved from duty at Honolulu, H. I., and will proceed to Manila, P. I., on the transport "Zealandia."

Durham, Fred. H., hospital steward, Fort Assiniboin, will be sent to the Presidio for transportation to Manila, P. I., for assignment to duty.

Hartford, George A., hospital steward, Washington Barracks, will be sent to Fort Porter. He will report to the commanding officer, 13th Infantry, for duty with the hospital corps detachment of that regiment.

Ploetz, George, hospital steward, Fort Grant, will be sent to the Presidio for transportation to Manila, P. I., for assignment to duty.

Webb, Eugene C., hospital steward, Greenville, S. C., will be sent to the Presidio, for transportation to Manila, P. I., for duty.

Changes in the U. S. Marine-Hospital Service,

for the fourteen days ended April 6, 1899:

Godfrey, John, surgeon, bureau order of March 21, 1899, directing him to proceed to Port Huron, Mich., for special duty, revoked. April 3.

Banks, C. E., surgeon, detailed as inspector of unserviceable property in the Hygienic Laboratory, Washington, D. C.. March 27.

Peckham, C. E., surgeon, to proceed to New Orleans, La., for special temporary duty. April 2.

White, J. H., surgeon, relieved from duty at the Immigration Bureau, New York, N.Y., and directed to report at Washington, D. C., for duty. April 1.

McIntosh, W. P., passed assistant surgeon, relieved from duty in Hygienic Laboratory, Washington, D. C., and upon completion of duties as recorder of the Board of Examiners at New York, N. Y., to rejoin station at Louisville, Ky. March 25.

Magruder, G. M., passed assistant surgeon, to proceed without delay to Port Tampa, Fla., and await orders. April 2.

Wertenbaker, C. P., passed assistant surgeon, to report at Bureau for special duty. April 4.

Nydegger, J. A., passed assistant surgeon, to proceed to Wilmington, N. C., for special temporary duty. April 5.

Thomas, A. R., assistant surgeon, upon completion of examination to determine fitness for promotion, to proceed to the Tortugas Quarantine Station, and assume command of service. March 30.

Cumming, H. S., assistant surgeon, upon completion of examination to determine fitness for promotion, to proceed to the Cape Charles Quarantine and report to the medical officer in command for duty. March 30.

von Ezdorf, R. H., assistant surgeon, to inspect unserviceable property at the South Atlantic Quarantine Station. April 3.

Anderson, J. F., assistant surgeon, granted leave of absence for 30 days on account of sickness. March 31.

Corput, G. M., assistant surgeon, to proceed to Mullet Key, Fla., for special temporary duty. March 27.

Dudley, D. E., sanitary inspector, to report to medical officer in temporary charge of the Tortugas Quarantine Station for special temporary duty. March 31.

Scott, E. B., hospital steward, to proceed to Savannah, Ga., for special temporary duty. March 24.

PROMOTION.

Williams, L. L., passed assistant surgeon, commissioned as Surgeon. March 30.

APPOINTMENT.

de Krafft, S. C., reappointed Acting Assistant Surgeon, M. H. S., for duty at the port of Cambridge, Md. April 1.

APPOINTMENT REVOKED.

Stewart, Oliver, appointed acting assistant surgeon at Port Huron, Mich., Department Letter of March 11, 1899, revoked.

RESIGNATION.

MYRON, NORTHRUP, acting assistant surgeon, resigned to take effect March 31, 1899. April 4.

Changes in the Medical Corps of the U. S. Navy

for the week ending April 8, 1899.

WAGGENER, J. R., surgeon, ordered to the "Glacier" for duty in connection with marine battalion, and on arrival at Manila ordered to duty in charge of the naval hospital Cavite, P. I.

GATEWOOD, J. D., surgeon, detached from the Havana Naval Station and ordered here to await orders.

BALDWIN, L. B., surgeon, ordered to the Key West Naval Station.

MARCOUR, R. O., assistant surgeon, detached from the Key West Naval Station and ordered to the Havana Naval Station.

BRIGHT, G. A., medical director, detached from the naval hospital Washington, D.C., April 8, and ordered home to wait orders.

DICKINSON, D., medical inspector, ordered to the Washington Navy Yard, April 8, for duty at naval hospital, temporarily.

PERSONS, R. C., medical inspector, detached from the naval hospital Cavite, P. I., and ordered to the "Olympia."

PRICE, A. F., medical inspector, detached from the "Olympia" and ordered home to wait orders.

AVERILL, H. D., assistant surgeon, discharged April 5.

Foreign News and Notes.

CONTINENTAL EUROPE.

Medical School of Algiers.—Dr. Egrot has been appointed chief of the obstetric clinic.

Professor Wernicke, of Marburg, has been called to Posen as director of the new Hygienic Institute.

Faculty of Medicine of Lille.—Professor Lapersonne has been nominated dean of the faculty for a period of 3 years.

Sir William Stokes, surgeon-in-ordinary to the Queen, has been elected an honorary member of the Imperial Academy of St. Petersburg.

Dr. Moritz Kaposi, professor of diseases in the University of Vienna, has been given the honorary title of Hofrath by Emperor Francis Joseph.

University of Göttingen.—Professor von Esmarch, of Königsberg, has been offered the professorship in hygiene in succession to the late Professor Wolffhügel.

In memory of the late Professor Ludwig Mauthner, professor of ophthalmology in the University of Vienna, a monument was unveiled in the University Court, March 19.

The hospitals of Bologna, Italy, have been benefited by the death recently of Countess Gozzadini, the last lineal descendant of Dante. Being childless, the Countess left her large fortune to the hospitals of Bologna.

The Hamidieh Hospital, a new hospital for children, was recently inaugurated in Constantinople. The hospital is situated within spacious grounds and there are 9 buildings to be used for diphtheria, scarlet fever, measles, smallpox, indeterminate cases, etc. A laboratory has also been fitted up.

Professor Edward Albert, the distinguished professor of surgery and successor of Billroth in the University of Vienna, celebrated the twenty-fifth anniversary of his academic activity, March 20. The exercises included the presentation by Dr. Ewald, the chief surgical assistant, of a portrait of Albert, painted by Horowitz, and in addition several addresses. All of Professor Albert's present and many of his former assistants attended the ceremonies.

Professor Victor Carus, of Leipzig, well known as a zoologist and as the translator of Darwin's works into the the German, celebrates, on April 21, the fiftieth anniversary of his reception of his medical degree. Professor Carus has also received the honorary degrees of doctor of laws and doctor of philosophy.

Obituary.—DR. ALBERT CRICKX, professor agrégé in the Medical Faculty of Brussels, aged 34 years.—DR. GILBERT, of Havre, first president-general of the Medical Syndicates of France.—DR. MAX DURAND-FARDEL, president of the French Society of Hydrology.—DR. HEINRICH PORT, physician to the German Hospital, London.

Professional Secrecy.—At a recent meeting the Conference of Advocates of the Paris Court of Appeal discussed the following question: Does the publication in a book by a medical man of observations made upon a person treated in a hospital constitute the offence of violation of professional secrecy defined by Article 378 of the Penal Code? The conference decided this question in the affirmative.

International Congress of Dermatology and Syphilis.—The following are the subjects proposed for discussion at the congress to be held in Paris, August 2 to 9, 1899: I. Dermatology—(1) The parasitic origin of eczema; (2) The tuberculides; (3) The etiology and clinical forms of alopecia areata; (4) Leukoplakia. II. Syphilis—(1) The association of syphilis with other infectious diseases and their reciprocal relationships; (2) The progeny of hereditary syphilitics; (3) The causes of the generalization of gonorrheal infection.

Police Control of Prostitution.—(*Berliner klinische Wochenschrift*, No. 40.) After a series of elaborate investigations as to the prevalence of venereal diseases in Kiel, it was concluded, that, so far as the number of syphilitic cases was concerned, better conditions prevailed where prostitution was controlled, than in the concealed prostitution, which was not under police surveillance. So, too, the intensity of the disease was less among the controlled prostitutes, while the danger of spreading infection was greater among the uncontrolled than the controlled classes. These so-called unprofessional prostitutes include in their list, domestics, nurses, waitresses, mill-hands, women, who by virtue of their occupation, could disseminate the disease freely among the innocent. It is well known, too, that the military is responsible for many a case of venereal disease. [C.H.F.]

The Surgical Treatment of Cholelithiasis.—A. Wölfler (*Prager med. Woch.*, February 9, 1899) does not recommend operation in all cases in which stones are found in the gallbladder. In many cases the calculi produce no symptoms, and no treatment is called for; in other cases of acute cholelithiasis, the active symptoms subside rapidly, and a latent period may follow, lasting for many years. In these cases expectant treatment is advised. The surgical treatment should be considered in all chronic cases of cholelithiasis with distention of the gallbladder, and the more severe the local symptoms the more frequent the attacks of colic, the more imperative the indication for operation. It is impossible at present to judge of the permanent results which will follow operative treatment, and, strange to say, no statistics are at hand with regard to the success of medical treatment, but assuming that certain unpractised operators have had worse results than are shown by the statistics of skilled operators, and that in certain cases the medical treatment can show better temporary results; the number of more or less permanent cures following operative treatment is still great enough to recommend its trial. In case further experience shows that the cures remain permanent for years after thorough operations, the field of intervention will be much extended. [M.B.T.]

The Latest Literature.

[Owing to the great pressure upon our available space, abstracts will occasionally be omitted of articles not admitting epitomization; when of value only to the specialist; when containing nothing strikingly new; when the important point is expressed in the title; when of a didactic or historical nature, etc. The general aim is to indicate the progress of medical science.]

British Medical Journal.

March 25, 1899. [No. 1995.]

1. Observations on Cremation and on Death-Registration. Henry Thompson.
2. On Bronchitis, Pulmonary Emphysema, and Asthma. Samuel Gee.
3. Is Petroleum Emulsion of any Nutritive Value? Robert Hutchison.
4. Carcinoma of the Tonsil. James Galbraith Connal.
5. A Note on Fibro-Adenoma of the Male Breast. R. Glasgow Patteson.
6. Typhoid Poisoning and Sewer-Gas. F. Wyatt Smith.
7. Venesection in Cerebral Hemorrhage. R. Fortescue Fox.
8. Vaginal Fixation of the Uterus. Edwin Temple Smith.
9. Scarlet Fever and Intracranial Suppuration of Rhinitic Origin. A. J. Tonkin.

1.—Thompson gives a brief history of the **cremation** society of which he is president, reports the number of cases cremated since 1885, amounting to 1,283, and directs attention to the defects in the present system of death-registration in England. In the cases in which the evidence offered respecting the cause of death is insufficient, a careful study of the cases is made by a person appointed for this purpose. To investigate cases in which autopsies are desired a skilled pathologist has been appointed by the society. Cases have sometimes been referred to the coroner's court. The future work of the society shall consist in the reform of the death-registration system, the construction of a new and completely equipped crematorium in the neighborhood of London, and the consideration of the question whether cremation must not sooner or later become imperative in all cases of death caused by the most serious varieties of contagious diseases. In such an event it may possibly be necessary to provide special crematoria. [s.m.h.]

2.—See Philadelphia Medical Journal, March 25, April 1, and April 8.

3.—Hutchison, in order to study the **nutritive value of petroleum emulsion,** administered a fixed dose containing a known quantity of petroleum to a healthy man. At first 21 grams were given and 21 6 grams were recovered from the feces. The apparent excess was attributed to the presence of traces of soaps. In the second experiment, in which 7 grams were given, 7.1 grams were recovered from the feces, the experiment confirming the first one. He concludes from these facts that petroleum is not absorbed in the human intestine, and is therefore in no wise to be regarded as a substitute for codliver-oil. He does not believe that petroleum has any remote action upon the lungs. As to its usefulness as a local application in intestinal diseases, there is as yet no evidence. In one sense it may be regarded as an artificial intestinal mucus, and it might in this way have some value in certain forms of constipation. It is worth considering also as a useful vehicle for the administration of intestinal antiseptics. Carbolic acid dissolves in it, and if the petroleum can prevent the absorption of the acid, it will bring the latter into intimate mixture with the intestinal contents and act as a sort of internal carbolic vaselin. [s.m.h.]

4.—Connal reports a case of **primary carcinoma** of the **tonsil.** Externally there was a lump the size of a pigeon's egg at the angle of the jaw on the right side, and internally the right tonsil was enlarged and ulcerated. Microscopic examination showed the growth to be carcinomatous. [g.b.w.]

6.—Wyatt-Smith reports 3 cases of **typhoid fever** occurring among the domestics of the same family. An investigation revealed the fact that a leak existed in the U-tube of the waste-pipe in the ground outside the scullery wall. This waste-pipe emptied into a hermetically sealed cess pit, which also received the outflow from a well-trapped servants' water-closet. Some time before these cases developed a friend of the servants suffering from diarrhea had used this water-closet. Investigation showed that this friend was in one of the hospitals convalescing from a severe attack of typhoid fever. A new trap was supplied to protect the scullery sink, the cesspool was disinfected and no new cases developed. [s.m.h.]

7.—Fox recommends **venesection in cerebral hemorrhage,** especially in energetic, full-blooded persons. The direct effect of considerable bloodletting in lowering the arterial tension counts for much, but its indirect tranquilizing effect on the circulation is of more importance. [s.m.h.]

8.—Smith reports a case of vaginal fixation of the uterus by Duhrssen's method of anterior colpotomy in which the symptoms were entirely relieved. [w.k.]

9.—June 16, a patient, aged 5 years, suffering with scarlet fever was admitted to the hospital, doing well until July 8, when severe rhinitis developed, followed on the twelfth by double otitis, both conditions continuing until death. At the postmortem, an abscess was found in the left inferior frontal convolution limited by and involving the pia mater. In a second case of scarlet fever with otitis and rhinitis complicating the disease, a leptomeningitis was present. In both of these cases the **infection of the cerebral cavity** was supposed to have taken place through the nose. [g.b.w.]

Lancet.

March 25, 1899. [No. 3943]

1. On Bronchitis, Pulmonary Emphysema, and Asthma. Samuel Gee.
2. Blackwater Fever. W. H. Crosse.
3. A Contribution to the Study of Aphasia. A Case in which Complete Destruction of Broca's Convolution by a Neoplasm in a Right-handed Person Produced no Aphasia. James S. Collier.
4. A Preliminary Note upon Certain Organisms Isolated from Cancer and their Pathogenic Effects upon Animals. H. G. Plimmer.
5. A Case of Tubal Gestation with Rupture and Fatal Hemorrhage at a Very Early Period of Pregnancy. F. Lucas Benham.
6. A Case of Cheyne-Stokes Respiration with Other Rhythmic-Phenomena. Walter K. Hunter.
7. The Diastolic Murmur of Mitral Stenosis. G. Bertram Hunt.
8. The Action of the Water of Llangammarch Wells on Uric Acid. W. Black Jones and Edward Russell.
9. A Note on Diaphragmatic Pleurisy. George A. Clarkson.
10. Sarcoma of the Femur. Frank A. Arnold.
11. Case of Perforation of Gastric Ulcer; Operation; Recovery. Sidney Phillips and A. Quarry Silcock.

1.—See Philadelphia Medical Journal, March 25, April 1 and 8.

2.—See Foreign News column of the Journal of April 1.

3.—Collier had under his care a young woman, aged 23 years, whose previous history was good. About a year before coming under his observation she suddenly fell unconscious to the ground. There was no warning of the attack. Her face was pale and she was not convulsed. She did not bite her tongue nor pass urine during the fit. Two similar attacks, but accompanied with some convulsive movements and foaming at the mouth, occurred during the next two weeks. She had no recurrence of these attacks after this time, but frequently suffered from sudden attacks of giddiness, pallor, and faintness. There were no speech-defects noticed at this time, nor were there any evidences of organic disease. A little more than a year after first coming under his care she became rather dull mentally, suffered from slight headache, and on one occasion for a period of half an hour **mumbled in her speech and used wrong words.** The somnolence augmented, she rapidly grew worse, and died about two weeks later without any recurrence of the speech-defect. The autopsy showed the dura mater to be adherent to the anterior part of the left temporosphenoidal lobe over a small area. There was some old thickening of the leptomeninges at the base of the brain and a slight recent meningitis over the posterior extremities of the second and third left frontal convolutions from the anterior part of the left temporosphenoidal lobe. The cortex of the posterior end of the third frontal convolution, including that part between the ascending and posterior limbs of the Sylvian fissure and the contiguous part of the left temporosphenoidal lobe, presented a gray jelly-like aspect, suggesting the presence of a glioma in that region. This part of the cortex was elastic and yielding to the touch, suggesting cystic formation. The inferior aspect of the brain showed a growth filling up the left Sylvian fissure growing from the posterior part of the orbital lobe. The growth was found, after hardening the brain, to involve the inferior margin of the left second frontal convolution at about its middle, the whole posterior part of the left third frontal convolution, the posterior part of the orbital lobule, and, to a small extent, the anterior gyrus of the island of Reil. It crossed the posterior limb of the Sylvian fissure about a centimeter from its commencement and involved the anterior part of the first left temporosphenoidal convolution. On section the growth appeared gelatinous and showed several small cysts with clear jelly-like contents. There were several hard white nodules. For some distance around the growth the white matter of the centrum ovale was much softer than elsewhere. Microscopically the growth showed small round-celled tissue, the cells being densely aggregated around the bloodvessels, which were greatly thickened. Throughout the tissue were numerous large cells which stained very faintly. There were several large patches of substance presenting a caseous appearance which did not stain and corresponded with the hard nodules seen with the naked eye. The appearance suggested long standing and slowly-growing neoplasm. This case proves the possibility of the fortuitous major activity of the glosso-kinesthetic center in the right third frontal convolution in a right-handed person, and further shows that right-handedness does not necessarily involve the major activity of the third left frontal convolution for the production of articulate speech. [S.M.H.]

4.—Plimmer made a **study of the cell inclusions found in cancer** and their relation both to the origin and course of the disease; 1,278 cases of cancer of all possible varieties, and taken from various organs, were examined. The following conclusions were reached: (1) There are certain cancers, which occur very rarely, in which there are in enormous numbers intracellular bodies of the kind described by Ruffer, himself, and others. [From the rarity of this class and their apparently acute course he is tempted to think that they are not due to the same cause as ordinary cancers, but there is really no more difference between them and ordinary cancers than between acute and chronic tubercle.] (2) By the use of appropriate means these intracellular bodies can be isolated and cultivated outside the body; (3) these cultures, when introduced into certain animals, can cause death with the production of tumors, so far, with one exception, of endothelial origin, and that pure cultures can be made from these growths which, when inoculated into suitable animals, will produce similar tumors. [S.M.H.]

5.—Benham reports death from a **ruptured ectopic gestation-sac** in a nulliparous woman. At the autopsy an ovum of only three weeks' age was found. Benham believes the case to be unusual because of the early rupture of the tube. [W.K.]

6.—Hunter observed a child, aged 4 years, who 6 months previously had had an attack of measles, since which time she had been complaining more or less constantly. A physical examination made shortly after the attack of measles showed evidences of pulmonary tuberculosis. Later the child developed an obstinate diarrhea and still later symptoms of meningitis. In the course of the meningitis she developed twitching movements in the right arm and leg. The respirations at this time were sighing in character, but later assumed the Cheyne-Stokes type. The pupils likewise showed rhythmic movements. During the pause they became contracted, while with the respiratory movements they began to dilate until at the acme of respiration they were widely dilated. While thus dilated the pupils reacted slightly to light. Rhythmic movements corresponding in time to the above were also observed in the arms, especially in the right arm. The arms were at this time more or less rigid and presented a slight tremor. They were extended with the thumbs adducted to the fingers and flexed at the interphalangeal joints. During the advent of the Cheyne-Stokes respiration this tremor exhibited rhythmic activity of such a nature that during the pause the tremors were scarcely perceptible, increasing, however, with the breathing, until at the height of the respiratory cycle the tremor presented movements of considerable amplitude. As the respiratory movements lessened, so did the extent of the tremor-movement. These various **rhythmic phenomena** were observed at frequent intervals for about 30 hours preceding death. The autopsy showed in addition to a widely disseminated miliary tuberculosis, considerable flattening of the convolutions of the brain and the soft membranes with a large quantity of clear serous fluid in the ventricles. Numerous tubercles were found scattered throughout the soft membranes. The brain-substance generally was very soft, but otherwise presented no abnormal appearances. The medulla and pons were fixed with formol and stained with thionin according to Nissl's method. Numerous sections were examined at different levels, especial attention being paid to sections passing through the alæ cinereæ. In none of the sections could any distinctive change be found in the ganglion cells of the tenth, twelfth, or any of the other nerve nuclei. Many were quite normal, some showed polar, or apical chromatolysis and some were very faintly stained like the so-called "ghost-cells." These changes were seen throughout the whole medulla and pons, not confined to any special level or nucleus, and were probably due to the meningitis or the high temperature, and were not to be specially associated with the Cheyne-Stokes respiration. The features of special interest in this case were first the absence of distinctive changes in the sections taken from the medulla through the alæ cinereæ, the supposed rhythmic center, and second, the presence of rhythmic movements in the arms. [S.M.H.]

7.—From a clinical examination of a large number of cases, Hunt concludes (1) the **diastolic murmur** in an early compensating case **of mitral stenosis** is always presystolic. Early diastolic murmurs are practically never heard while compensation remains good. (2) On the other hand, when cardiac failure supervenes the murmur is frequently heard in the first half of the diastole. (3) A presystolic murmur may or may not be accompanied by a systolic bruit, but an early diastolic murmur is almost always preceded by a systolic murmur. A single early diastolic murmur at the apex is very rare in mitral stenosis. Such a murmur suggests aortic regurgitation, even in the absence of the basal murmur. (4) A presystolic murmur frequently changes into diastolic murmur or vice versa in a short time, and the period of diastole occupied by the murmur may even vary in the erect and recumbent postures. The difference in the cause of these murmurs is therefore not likely to be found in any structural condition of the affected valves, but rather in the way the heart is working at different times. If it is true, as suggested, that this early diastolic murmur is always associated with free mitral regurgitation, its explanation is simple. The ventricular systole drives a certain quantity of blood back through the constricted orifice into the already over-distended left auricle and pulmonary veins and at the beginning of diastole these cavities by their elastic recoil drive some of the blood back through the narrowed mitral valve, thus producing the murmur. [S.M.H.]

8.—Jones and Russel, in a study of the **action of the water of Llangammarch wells on uric acid,** reach the conclusion that there is an increase in the quantity of urine, as well as in the elimination of uric acid, as the result of drinking this water, notwithstanding the fact that chemically tap-water is a better solvent of uric acid than the Llangammarch wells water. The influence affecting this increased elimination are not known. [S.M.H.]

9.—A boy, aged 11 years, complaining of acute pain in the abdomen of rather sudden onset, came under Clarkson's notice. The abdomen was somewhat distended, motionless and very rigid, with general tenderness on pressure. The breathing was moderately rapid and confined to the upper part of the chest. When first observed there was nothing abnormal in the chest. His temperature was 102° F., his pulse 125. He was apparently suffering great pain. The following day the abdominal symptoms were not so marked; there was less rigidity of the abdominal muscles. The knees, which had been flexed, were at times extended. The temperature was 103°, the respirations more rapid, and late in the day crepitations were heard at the base of the right lung. From this point the case ran the usual course of lobar pneumonia. The early abdominal pain was attributed to preliminary **diaphragmatic pleurisy.** [s.m.h.]

10.—A **sarcoma** of the lower third **of the left femur** is reported. Arnold considers the chief point of interest in the case to be that a malignant growth in a native black may be identical in its origin, progress, and structure with a similar growth in Europeans. [m.b.t.]

11.—A girl aged 20 was taken with severe pain in the upper part of the abdomen, and with vomiting, which kept her in bed for a week. About every 3 months following this attack were short attacks of the same character, but of less severity. She was free from pain between the attacks, had never had hematemesis and had not restricted her diet. One hour after breakfast she was taken with severe pain in the upper part of the abdomen, was somewhat collapsed, and there was slight dulness and resistance on pressure. Thirty-three hours after the attack of pain a median incision was made below the ensiform cartilage. Upon opening the abdomen recent adhesions were found in all directions. The wound was lengthened by a horizontal cut toward the left and a small **perforated ulcer** was found at the lower part of the anterior wall **of the stomach.** The perforation was closed with Lembert's suture, the abdomen was flushed with sterilized water and a gauze drain was inserted. The operation lasted 1½ hours. On the third day there was swelling of the left parotid gland and the temperature rose to 102°. The temperature continued high, and there was offensive discharge from the wound, necessitating a second operation. The perforation had broken open and was again sutured. The patient made a good recovery. [m.b.t.]

New York Medical Journal.

April 8, 1899. [Vol. lxix, No. 14.]

1. Errors that I have made in 228 Consecutive Cases Diagnosed as Appendicitis. Robert T. Morris.
2. The Signs of Inherited Syphilis. Robert H. M. Dawbarn.
3. The Differential Diagnosis of Syphilitic Eruptions and Signs in the Skin of Former Syphilis. George Henry Fox.
4. The Treatment of Secondary Syphilis. R. W. Taylor.
5. The Treatment of Syphilis. L. Bolton Bangs.
6. A Further Report on the Use of "Antiphthisic Serum, TR." (Fisch) in Tuberculosis. A. Mansfield Holmes.
7. Thoracoplasty for Sarcoma of the Chest-Wall. Frank Hartley.
8. A Study of Presentations and Positions of the Fetus. Eliza H. Root.

1.—Morris reports only 7 cases from his extensive experience, in which other conditions presenting more or less typical symptoms of **appendicitis** were mistaken for that disease. In one case, the symptoms occurred during convalescence from typhoid fever, and were due to intestinal adhesions, the appendix being normal; in a case of tuberculous peritonitis, the appendix was found normal, except that its peritoneal coat was studded with miliary tubercles; a third case was due to carcinoma of the appendix and cecum; adhesions between the right oviduct and appendix were the cause of the fourth and sixth cases; the fifth case was due purely to hysteria, and in the seventh case there was considerable peritoneal inflammation following measles. Errors of diagnosis are believed to be less frequent in appendicitis than in almost any other disease. In 4 of the cases reported, the patients were benefited by the operation, and in the others no harm was done. [m.b.t.]

2.—Dawbarn gives a list of 27 clinical signs which he considers of real value and importance in the **recognition of inherited syphilis.** They are as follows: (1) a sallow color of the skin in the newborn; (2) a thick, often long, umbilical cord, which is slow to detach from the navel; (3) the presence of pemphigus syphiliticus; (4) the common erythematous eruption; (5) the presence of condylomata, most commonly about the anus; (6) snuffles; (7) hoarseness of the crying and the speaking voice; (8) mucous patches; (9) general stomatitis and pharyngitis; (10) the characteristic absence of the general lymph nodular enlargement of the usual subacute and chronic varieties; (11) hemorrhages from ulcerated or sound mucous membranes, or ecchymotic spots; (12) the "white pneumonia" of Virchow—mainly of postmortem diagnostic value; (13) enlargement of the liver due to diffuse interstitial hepatitis or to gummata; (14) enlargement of the spleen; (15) eye-troubles, the chief of which is an interstitial punctate keratitis; (16) inflammation of the middle-ear, especially when associated with certain other symptoms; (17) a rapidly occurring alopecia; (18) painless orchitis (rare, but of great value); (19) neuroses, such as chorea, epilepsy and hemiplegia; (20) the various osseous signs, the commonest and earliest of all important signs being osteochondritis involving the shafts and epiphyseal junctions of the long bones; (21) syphilitic periostitis, giving rise to the nodes of Parrot; (22) dactylitis syphilitica; (23) a form of onychia giving rise to the claw-deformity of the nails; (24) the early cutting, bad color and tendency to decay of the temporary teeth; (25) Hutchinson's teeth; (26) irregularities, hypertrophies and asymmetries of bony development; (27) the stigmata of syphilis which was active in early childhood, but has become quiescent or cured, which include the tibial and other bony changes just mentioned, chronic fissures about the lips, leaving diagnostic linear cicatrices, small scars upon the skin and mucous membranes, which are apt to be curvilinear or crescentic in outline, occurring in groups and not rarely symmetric upon the two sides. They are especially diagnostic when found upon the upper part of the legs. [s.m.h.]

3.—Fox, in a study of **the differential diagnosis of syphilitic eruptions,** suggests that the chief characteristic features of the syphilodermata are their color, absence of itching, and peculiarities of configuration. The question of color is not reliable; itching is almost constantly absent. The peculiar configuration of most of the syphilodermata is the most characteristic clinical sign. In the early eruptions the lesions are disseminated over the greater portion of the body and are perfectly symmetric. In certain relapsing eruptions there exists a tendency to a corymbiform grouping of the lesions. In the later eruptions, those occurring after the first year, this symmetric arrangement of the lesions is lost. The later lesions are characterized by a tendency to grouping, to arrangement of the lesions in a circle, to the peripheral extension of patches, and to gummatous ulceration. It is sometimes a matter of great difficulty to determine that a patient has previously suffered from syphilis. The signs in the skin of former syphilis are either pigmentary or cicatricial. The former are of little diagnostic value. Cicatrices, however, are reliable evidences. A group of small, rounded, smooth, white, and depressed cicatrices arranged in a semicircle justifies the inference that syphilis has existed at some previous time. This is especially true when such cicatrices are seen upon the upper third of the leg and especially upon the inner aspect of the calf. [s.m.h.]

4.—Taylor does not believe in the exclusive internal administration of mercury in the **treatment of secondary syphilis.** After a time it ceases to be absorbed in the intestinal tract, the system falls from under its influence, and the poisonous products of syphilis become active. The treatment of syphilis should be begun when the disease culminates in the general infection of the economy, namely, in the beginning of the secondary period. At this time there are certain conditions favorable to an active treatment, such as a system virgin to mercurials, and a greater susceptibility of the lesions to the action of mercury. In patients with lowered vitality syphilis runs a more or less severe course, and in them the response to mercurials is slow. Syphilis in healthy persons, male and female, usually runs a mild course and its poison is eliminated from the system if active treatment is instituted at the proper time. Much depends upon the intelligence and docility of the patient. If his health is good and he will follow up energetic but very carefully directed treatment, a cure can be confidently predicted. The inunction-treatment should not be introduced early in the treatment for fear of disgusting the patient. Since mercury by the mouth is generally well borne and effective in the early stages and is not distasteful to the patient, he may at once be put upon pills of the protoiodid, the tannate, or the thymoloacetate of mercury, half-grain doses of any one of them being given 3 times a day. It is rarely necessary to increase the dose beyond 2 or 3 grains. The throat and mouth should be frequently inspected and any red patches or ulcerative lesions actively treated. As the rash is declining, the pills should be discontinued and 1 or 2 courses of mercurial inunction given. In this way any infectious cell which may be left over from the local or general rash may be acted upon and destroyed. Even while the patient is taking pills, mercurial ointment may be used locally upon the lymphatic ganglia, and papular and pustular lesions in hairy parts, due care being taken to avoid an overdose. All syphilitic lesions are to be feared, as relapses are due to the recurrence of cell-proliferations from old morbid foci. When a full inunction-treatment is obtained the pills may be discontinued. Mercurial ointment may be thoroughly administered over the whole body in regional parts, using about 60 grains of the mercurial ointment. In some cases the inunctions may be administered on consecutive days and in others there may be intervals of 1 or 2 days. Usually after 15 or 20 inunctions a rest of a week or two may be taken. The patient's nutrition must be carefully watched. Change of air and scene at the seaside or mountains, and as much recreation as possible are valuable adjuncts. During the mercurial treatment the patient should have 1 or 2 warm baths each week at bedtime, or, when practicable, Turkish baths without the plunge. Cold salt-water baths alternating with occasional hot sea-water baths are useful. The administration of potassium iodid should not be too long deferred. It can be given either with or in the intervals of rest from the mercurial frictions, in doses of 10, 20 or 30 grains daily. If for any reason the inunction-treatment must be suspended for any length of time, the following prescription can be given :

℞.—Hyd. biniod	2 to 4 grains.
Potass. iodid	½ to 1 ounce.
Tinct. cinch. co	3 ounces.
Aquæ	1 ounce.

M. et S.—Teaspoonful three times a day in an ounce of water.

This line of treatment can be continued for six months. Usually at this time there will be no evidence of the disease and the patient's general condition will be most satisfactory. Following this a rest of 2 or 3 weeks may be taken. The treatment should then be renewed for 3 months longer, and should consist of alternations of the inunction with a mild or strong mixed treatment. As the cure progresses the intervals between the inunctions may be longer and the mixed treatment dosage less strong. During the second year the periods of dosage may on an average be stated at 2 to 3 months with intervals of rest of a month or 6 weeks. In most cases at the end of this time the patients may be pronounced cured provided they have not for many months shown evidences of the disease. [S.M.H.]

5.—Bangs believes that a hygienic mode of life is the first essential step in the **treatment of syphilis.** He approves of excision of the initial lesion when so located as to make this measure possible. When it is not removed its involution process may be hastened by local applications of mercury preparations, and by the internal administration of the same remedy. This early treatment is recommended in order to prevent the disease from becoming severe, to interfere with the multiplication of the microbic bodies upon which it depends, to relieve the tissues of their cell-accumulations, and to maintain the organism in as healthy and resisting a condition as possible. It is possible by a too vigorous administration of mercury to render the healthy tissues less resistant to the inroads of syphilis by adding the toxic effects of the drug to the toxic effects of the disease. The object in administering mercury is to assist the economy, to counteract the effects of the infectious principle, and the toxines which it develops. As to the mode of administration, when well borne by the mouth, this is the best method. Only so much should be administered daily as can be easily and freely digested without interfering with the stomach and intestinal digestion, but up to the point of the drug's physiologic action. As the system is apt to become habituated to the drug, intermissions in the treatment are made from time to time. When the internal administration of mercury is not well borne, the method of inunction should be resorted to. In all cases the best plan is to intermit the internal administration of the drug and substitute inunctions. In certain malignant forms of the disease, hypodermic injections of the bichlorid may be given with very prompt effect. The condition of the glands throughout the body, particularly the epitrochlear and those which are not usually found enlarged in the more common dyscrasiæ, are a good indication as to the length of time to which the treatment should be extended. So long as they remain enlarged the treatment should not be discontinued, provided one is well satisfied that the glandular enlargement is dependent upon the syphilitic infection. Long-continued and gentle treatment for at least 3 years, affords the patient protection from the disease later in life. [S.M.H.]

6.—Holmes, in concluding his article on **"antiphthisic serum TR." in tuberculosis,** makes the following observations : (1) the serum-treatment gives the best results in incipient cases or those with small areas of infection; (2) patients with well-established tuberculous lesions require a longer time to bring about a cure than has heretofore been thought necessary; (3) a serious mistake is made in dispensing with the use of the serum too soon in any case that improves under its use; (4) all patients who do well under the serum-treatment continue to improve after it has been stopped; (5) the number of bacilli in the sputum when other signs of the disease are diminishing is not a true criterion of the condition of the patient; (6) the treatment can be continued in daily doses for a period of 9 months in individual cases with no bad effects; (7) the cases for this treatment should be carefully selected, as indicated under observation 1; (8) climate alone as a therapeutic agent in tuberculosis is not reliable. In a large percentage of cases improvement occurring under these conditions proves only temporary or incomplete. Proper nutrition and aids to cell-metabolism are essential points which can not be neglected in the successful treatment of tuberculosis. [S.M.H.]

7.—The case of a patient, 10 years old, is reported, who had been operated upon for fibroid **sarcoma of the chest-wall** without resection of the ribs to which it was probably attached. Recurrence of the growth took place within 6 weeks. Three months after the first operation the growth extended from just below the axilla of the left side over the ribs and intercostal spaces from the fourth to the seventh ribs. The tumor was immovably attached to the ribs; the skin was not involved and there was no history of pulmonary complications. A tongue-shaped incision was made, beginning at the lower border of the second rib and extending downward to the lower border of the seventh rib. This flap was dissected up and a circular portion of the chest-wall was removed, including the ribs and costal pleura, which was adherent. The lung collapsed, but no cyanosis or shock was observed. After hemorrhage had been arrested the flap consisting of muscle, subcutaneous tissue and skin was replaced and sutured, leaving an opening for a sterile gauze packing. A good recovery followed and the patient was discharged 5 weeks later. Hartley believes that the mortality which has followed thoracoplasty has been largely due to the fact that the diagnosis of the interpulmonary conditions has not been accurately made. [M.B.T.]

8.—Root discusses the **presentations and positions of the fetus,** and the best nomenclature to be employed. In her own teaching she has found the method or scheme employed in the German schools useful. "There are but two lies: Left or first, right or second. Left and right refer to the sides of the mother, and the lie of the fetus is determined by the side of the mother toward which the fetal back looks, or in which it lies, for vertical or longitudinal lies (presentations); and the fetal head fixes the cross-lie (transverse presentation)." [W.K.]

Medical Record.

April 8; 1899. [Vol. lv, No. 14.]

1. The Importance of Ureteral Catheterization in Gynecology. Theodore Landau.
2. The Term "Conservative Surgery" as it has been proposed to apply it to the Uterus and its Appendages. Lawson Tait.
3. Constipation—Its Treatment by the Mechanical Measures. H. Illoway.
4. Infection of Gunshot wound of the Leg with the Bacillus Aerogenes Capsulatus—Amputation—Recovery. W. J. Love. With Bacteriologic Report. C. A. Cary.

1.—Landau recommends Casper's method of **ureteral catheterization** as by far the most reliable and best. He has demonstrated, by introducing the cystoscope, that by

Pawlik's method, numerous bruises had been produced around the ureteral orifice, in the form of small extravasations furnishing an unmistakable objective proof of the superiority of the method with the use of sight over that in which only the sense of touch was employed. Ureteral catheterization is particularly useful to the gynecologist in determining constriction of the ureter, in cases of wounds or tears of the ureter, to satisfy him of the presence and healthy condition of the unaffected kidney. It is of value in hysteromymectomy to determine the course of the ureters. Intraligamentous myomata produce great abnormities in the course of the ureters, sometimes by pushing them out of their places, and sometimes by inclusion in the growth itself. By the introduction of the catheter the ureter is transformed from a soft, collapsible tube to a hard, well-defined one, and thus is avoided with comparative ease in cases of either benign or malignant growths. There is no more sure and reliable method of diagnosing ureteral occlusion, whether from external or internal causes, than ureteral catheterization. [W.K.]

2.—Lawson Tait believes that **true conservatism** consists in earnest and conscientious consideration for the patient's welfare, and that the extirpation of the uterus and its appendages has little or no effect on the sexual appetite. He severely condemns any so-called conservatism which will render subsequent operations necessary. He is opposed to all operations for malignant disease undoubtedly pronounced. [W.K.]

3.—Illoway reports a number of cases of **constipation** treated by careful regulation of diet, abdominal massage, and in certain instances electricity and hydrotherapic measures. In all of them the previously intractable condition was overcome. He especially insists that diet is an important element in the treatment of this condition. [D.L.E.]

4.—A negro, aged 32, was shot in the leg about ¾ of an inch below the knee on the outer side. When seen, 40 hours later, the leg was enormously swollen. It was emphysematous and on pressure crepitated and a frothy-looking fluid bubbled forth with a distinct sound; there was severe pain and extreme prostration; the pulse was 135, weak and irregular, the temperature was 102.5° F. A free incision was made and instead of pus a brownish, frothy fluid of horrible odor escaped with a bubbling noise. A considerable amount of necrotic material was scraped out and the wound was disinfected and packed with iodoform gauze. In spite of this treatment the patient's condition on the following morning demanded immediate amputation, which was performed just at the apex of Scarpa's triangle. The man's condition was bad, but after free stimulation he rallied and made a good recovery. Smear-cultures were made from the scrapings and on microscopic examination a bacillus was found identical in its morphologic peculiarities with the **bacillus aerogenes capsulatus.** Cary finds cultural peculiarities not observed except by Lenier; that the bacillus grows best in the presence of oxygen and at the same time loses its pathogenic power. The abdomen of a rabbit into which watery solution from the culture had been injected became greatly distended and after death the bacilli were found in various organs. [M.B.T.]

Medical News.

April 8, 1899. [Vol. lxxiv, No. 14.]

1. Stypticin (Cotarnin Hydrochlorate) in Uterine Hemorrhage. H. J. Boldt.
2. The Present Status of Pharmacy and its Possible Improvement. Eli H. Long.
3. Some Observations Upon Erysipelas and its Treatment. Based Upon a New Series of 100 Cases. Charles W. Allen.
4. An Obstinate Case of Purpura Hemorrhagica. J. H. Burch.

1.—**Stypticin** or cotarnin hydrochlorate is derived from cotarnin, a fractionation-product by oxidation of narcotin, an alkaloid obtained from opium. It possesses valuable hemostatic properties. Boldt, in reviewing the action of this drug, concludes that in certain forms of uterine hemorrhage it is almost a specific; he has found no unpleasant results produced even if it was given in larger doses than usual. He has employed it successfully in menorrhagia and metrorrhagia due to various causes. If a quick result is to be achieved, an injection into the glutei of 20 minims of a 10% solution in sterile water with the customary antiseptic precautions may be given. [W.K.]

3.—Allen reports his results from the **treatment of 100 cases of erysipelas,** first directing attention to the fact that in 50% of all cases some skin-defect was found to be the point of entrance for the infection, while in 9 instances the infection found entrance through the throat, in 3 by means of a nasal catarrh, and in 2 through a lacrimal fistula. He states that the frequency of nasal affections in cases of facial erysipelas was very striking, and has led to his conviction that if a skin-lesion, or throat-lesion is absent the nose is probably the situation through which infection entered the system. Therefore he uses an application of a 50% watery solution of ichthyol to the anterior nares and so far back as possible over the posterior nares; to the skin he applies a 25% solution in collodion. He states that the result has been always a drop of temperature and improvement in the signs within 24 hours. He uses practically no internal medication. He advises attention to the nose and throat as a prophylactic measure. [D.L.E.]

4.—In this case of **purpura hemorrhagica,** the patient was a girl of 14 whose health seemed good previous to the attack described, except that when 7 years old she had had severe epistaxis, which began with a chill and was accompanied by a purpuric skin-eruption. In September, 1896, she had another attack, accompanied by chill and fever; this was repeated and accompanied by loss of blood from the gums, through vomiting, and in the urine. She had purpuric spots on the skin and became jaundiced, the hemorrhage from her nose being so severe that repeatedly she appeared almost exsanguinated, plugging of the nostrils being required in numerous instances. The hemorrhages continued until September, 1897, when she became apparently well, and remained so until February, 1898, when another attack with chill, fever, and sweats came on and was accompanied by epistaxis, which was so severe as nearly to kill the patient. He also notes that at this time he observed that the blood lost showed absolutely no tendency to clot. Puncture of the ear for the purpose of making a blood-examination caused hemorrhage which was difficult to control. The blood contained no plasmodia. The fever continued, sometimes reaching 105°; the tongue became coated; the splenic dulness increased in size, but the Widal reaction was negative; the urine contained a small amount of albumin; the diazo-reaction was positive. The urine contained peculiar bacilli of about the length of a colon-bacillus, but thicker and without motility. The blood-count showed the number of red cells was reduced to 3,300,000, while the white cells were 13,000 per cm.; the latter showed fragmentation of the cell wall and karyorrhexis, while the red cells contained peculiar bodies which were stained deep blue by Romonoviski's method. They were ¼ the size of a red blood-cell and, contrary to the appearance of plasmodia, were deeply and regularly stained. They are believed to be similar to the bodies previously described by Deney in a case of gastric disease accompanied by purpura. It is also stated that groups of bacilli were found in the blood which were similar to those discovered in the urine. Culture of the bacilli upon bouillon, showed that they were nonmotile, upon agar there was a thin layer of growth of bacilli growing in pairs. A thin hyalin growth was seen upon gelatin, and a "thin strip" upon potato. An injection into a rabbit caused death at the end of 78 hours, and at autopsy there was hemorrhagic extravasation into the subcutaneous tissues and into the peritoneum and pleura, while the blood showed no tendency to coagulate and contained the same bacillus. The latter is believed to be entirely similar to that described by Kolb as the bacillus of purpura hemorrhagica. The hemorrhage in the case continued, as did the fever. The face swelled, and an abscess in the neighborhood of the nose was evacuated and carious bone was found beneath. The following day her temperature was nearly normal, the urine contained no albumin, and the diazo-reaction was absent, as was indican. The blood-count on February 20 is given as 1,000,000 red, 13,000 white. Her condition at this time improved, and two days later the astonishing change of a blood-count of 3,800,000 red cells is recorded. Entire recovery occurred. [D.L.E.]

Boston Medical and Surgical Journal.

April 6, 1899. [Vol. cxl, No. 14.]

1. The Classification of Epileptics. W. N. Bullard.
2. Justus's Test for the Diagnosis of Syphilis. Richard C. Cabot and P. S. Mertins.
3. Starch-Digestion in the Stomach. A. E. Austin.
4. A Case of Carcinoma in the Right Hypochondriac Region. George H. Monks.

1.—Bullard divides the **classification of epileptics** into two groups: (1) according to etiology; (2) according to symptoms. Etiologically, there are two classes; (1) idiopathis; (2) those forms for which definite causes do exist. The latter is subdivided into I. Traumatic, (*a*) direct injury to the brain in intracranial hemorrhage; (*b*) continued pressure upon the brain; (*c*) epilepsy following injury to the head without demonstrable or organic lesion; II. Toxic, usually alcoholic; although Bullard has never seen such a case. Lead is also an ascribed cause. Finally there is a group of what must be called organic epilepsies, such as occur in brain-tumors, infantile sclerosis, and tuberculous meningitis. Syphilis must also be looked upon as the most important known cause of epilepsy. Symptomatically, 3 groups are recognized—grand mal, petit mal, and a third in which automatic actions are predominant. In institutions for epilepsy, neither of these classifications is of practical value. Here it is important to group the cases according to their proclivities into (1) criminal; (2) habitually violent; (3) occasionally violent; (4) mild cases. The fourth group must then be subdivided into the demented and helpless, the moderately demented, and those who are usually sane between the attacks. Further classifications of less importance are according to the frequency of the attacks; those patients who are constantly subject to the disease not being capable of working, for example, in machinery. [J.S.]

2.—Cabot and Mertins have tested 43 cases for **Justus's syphilitic reaction.** This consists in a sharp transient reduction of the hemoglobin after the administration by inunction or hypodermic injections of mercury. Seven cases were actively syphilitic, and showed a reduction of hemoglobin after inunction of from 10 to 35%; 3 cases giving the history of syphilis without any lesions failed to react; 33 cases of various other diseases failed to give the reaction, with the exception of one case of chlorosis, which showed a reduction of 13% of hemoglobin, but there was no evidence of syphilis and no history that could be assumed to indicate its presence. The authors, therefore, regard the test as of considerable value and cite a case of ulceration of the larynx in which it was possible by its means to make a differential diagnosis between tuberculosis and syphilis. The diagnosis was subsequently confirmed by autopsy. [J.S.]

3.—Austin has tested the **capacity for digesting starch** of taka-diastase in various neutral and acid media. A 3% starch-jelly was made and various quantities of the digested mass were added to it. It was found that digestion was proportionate to the amount of taka-diastase present. Further tests showed the presence of a small quantity of free HCl. not only did not retard the reaction, but actually favored it, although if 1% of HCl, or more, were present, no conversion of starch into sugar occurred. Organic acids, particularly vinegar, seemed to have no effect at all. An artificial gastric juice containing 2.5% HCl and 2% pepsin, in which white of egg had been digested, only inhibited digestion when free HCl was present in excess of 0.5%, showing that the presence of albumin combined with HCl diminished the inhibitory action of the acid. Combined HCl had no inhibitory action whatever. Finally, experiments were made in dogs and human stomachs with the result that in both cases the starchy foods were completely digested at the end of an hour. [J.S.]

4.—In this case of **carcinoma** it was found at the operation that the process involved several organs, so that the excision of the tumor necessitated also the removal of a large portion of the stomach, a part of the anterior border of the liver and the entire gallbladder In the gallbladder 81 stones were found, and it was thought that possibly they had some etiologic influence on the cancer. The patient recovered from the operation but had to be fed by enemas for some time, as vomiting was persistent. [G.B.W.]

Journal of the American Medical Association.

April 8, 1899. [Vol. xxxii, No. 14.]

1. Value of a Healthy Body to a Healthy Mind. Joseph Eastman.
2. Epidemic Cerebrospinal Meningitis. W. J. Class. (*Concluded.*)
3. Contribution to Our Knowledge of Tuberculosis-Antitoxin. C. Fisch. (*Concluded.*)
4. The Brain and Its Functions. J. Sanderson Christison.
5. Cerebellar Abscess of Otitic Origin—Autopsy. A. D. McConachie, and C. W. Hartwig.
6. The Doctor as a Politician. Charles J. Whalen.
7. Scarlet Fever. E. M. Landis.
8. Blastodermic Dermatitis. Robert Heisler.

2.—Class gives brief abstracts of 11 more cases of **cerebrospinal meningitis** out of the total of 38 occurring during the recent Chicago epidemic. The various peculiarities in the symptoms of the disease are considered. In conclusion he expresses his belief that cerebrospinal meningitis should be classed among contagious diseases, in the same category as pulmonary tuberculosis; that unsanitary conditions exercise a great influence by affording a nidus for the growth of the germs and that health-authorities should be notified in order to remedy sanitary defects; persons afflicted should be isolated and all evacuations sterilized. [M.B.T.]

3.—Fisch tabulates 21 cases, in which he has used **tuberculin-injections.** Decided improvement occurred in about 62% of the cases, but he is unwilling to state that it was always due to the use of the serum. No attempt is made to classify the cases according to the stages of the disease. [M.B.T.]

4.—The histology, vascular supply, chemic composition, the growth, decline, and functioning of the brain are discussed without anything particularly new being added. [M.B.T.]

5.—The case of a boy 12 years old is reported who had had a **discharge from the right ear** for 3 years following recovery from typhoid fever. Before the fever the boy was robust, but after the disease his health was at no time good. One year previously he had recurrence of discharge from the ear with cerebral symptoms, vomiting, nausea and vertigo, followed by cessation of the discharge and coma. He was given up to die, but improvement followed the escape of a large amount of pus from the ear and he continued well until a week before first seen. He complained of pain indefinitely located over the right side of the head, and a small perforation was found which was discharging slightly. A mastoid operation was undertaken and free communication was established between the internal meatus and antrum. There was cessation of pain the following day, and all went well until the tenth day, when the boy became semicomatose. He had retraction of the head and dilated pupils. Operation was advised, but was made impossible by the occurrence of the blizzard, and the boy died on the eleventh day after. At the necropsy, near the outer border of the cerebellar lobe, the meninges were necrosed and communication was found with a large pus-cavity in the right lobe. A culture from the pus was not secured. [M.B.T.]

6.—Whalen urges that medical men who are qualified and can afford it, should enter public life and should aid the passage of laws to suppress the sale of patent medicines, limit drug-store doctors, keep out quacks, secure rigid enforcement of midwifery laws, and other measures for the public good. [M.B T.]

7.—Landis reports a grave case of **scarlet fever** occurring in a two-years-old child. After the injection of 10 cc. of antistreptococcic serum the temperature fell within 6 hours from 106.5° to 100° and with improvement in the general condition. The temperature again rose and similar results followed the use of the serum on two occasions. [M.B.T.]

8.—A healthy man who had been slightly cut by a barber developed a small nodule which remained stationary for 3 months and then suppurated. Yeast-cells but no bacteria were found in the pus. [M.B.T.]

Archives of Pediatrics.

March, 1899. [Vol. xvi, No. 3.]

Hemorrhagic Disease of the Newborn. A Report of 10 Cases. Eleanor B Kilham and Elizabeth Mercelis.
Diphtheria-antitoxin by the Mouth. John Zahorsky.
Inanition Fever. Floyd M. Crandall.
Common Cause for Crying in the Newly-born. T. S. Southworth.
Acute Cerebral Paralysis in the Course of Infectious Diseases. David Bovaird.
Address to Philadelphia Pediatric Society. Frederick A. Packard.

1.—Kilham and Mercelis report 10 cases of **hemorrhagic disease of the newborn.** During the period in which these cases were collected there were 54 births in the maternity wards of the New York Infirmary, making the percentage of hemorrhagic cases a little more than 18. In none of the cases could a history of antecedent syphilis, hemophilia, or tuberculosis be elicited, and in each case the liver was normal. The wards had been entirely free from sepsis, and there was no discoverable cause for the first hemorrhage. The cases followed each other in quick succession and ceased when proper measures were taken for isolation. Of the 10 cases 7 were in males, 3 in females; 2 were premature, 1 born at 8 months, 1 at 7 months. Three were feeble children and apparently healthy. The time of the first hemorrhage was in the majority of cases during the first week; in no case later than the tenth day. The mortality was 50%, which is low and apparently dependent upon the fact that several very slight cases were included and could readily have been overlooked had they occurred independently. Two of the cases showed at the autopsy atelectasis, which was probably as important a factor in causing death as the presumable infection and hemorrhage. The hemorrhages occurred from the nose, spinal cord, stomach, intestines, and in 1 case there were extensive cutaneous and subcutaneous hemorrhages of the neck. In this case the tissues were so undermined that there was free communication between the chin from ear to ear when the clots were removed postmortem. Complete bacteriologic studies were made in all of the cases and the pathogenicity of the organisms tested by animal inoculations. The conclusions reached from these examinations only tend to add to the confusion in regard to the possible specific microorganism of this disease. The organism discovered suggested the diplococcus of pneumonia, and probably belongs to the pneumococcus group. It was pathogenic to guineapigs and rabbits. There were faint cultures from inoculations made from the blood taken from various parts of the animals injected, but the autopsy showed minute hemorrhages in one case only. [S.M.H.]

2.—Zahorsky believes that **diphtheria-antitoxin,** when **taken by the mouth,** is absorbed, but not so readily as when given subcutaneously; soon enough, however, to be of value as a prophylactic. He recommends, as the results of extensive use, the immunizing of infants who have been exposed to diphtheria by this method of administration. Absorption occurs in about 36 hours. [S.M.H.]

3.—The chief exciting cause of **inanition fever** seems to be a lack of proper nourishment during the first few days of life. The radical changes in the bodily economy incident to the first days of life predispose to febrile conditions which will not occur after the functions of life have been fully established. Some urinary condition may also act as an exciting factor in these cases. The symptoms are characteristic, and develop alike in robust and weakly infants. On the second or third day the child, who has perhaps been quiet and restful, becomes irritable and restless, worries and cries, sucks its fingers or anything it gets into its mouth. The mouth may be dry and the surface of the body flushed, but unless a thermometer is used, the fever may pass unrecognized. The fever is usually at its height on the third or fourth day of life. It rises somewhat gradually for the first 24 or 36 hours. It is then liable to rise suddenly to its maximum point. The fall is sometimes very rapid if food is given immediately. In some cases, however, it is gradual, a day or two being required to reach the normal. Infants suffering from inanition fever lose weight more rapidly during the first week than do normal children. A diagnosis must be reached by exclusion. Thorough examination of every part of the child's body should be made to exclude the possibility of erysipelas, septic infection, and disease of the various internal organs. Septic infection rarely produces symptoms before the fifth day, while organic diseases with fever are exceedingly rare. In treating these cases the breast should be examined at once to determine the amount of milk-supply. If insufficient in quantity artificial food must be prescribed. If there is doubt as to the amount of nourishment, the child may first be put to the breast for about 15 minutes, and then be allowed to take what artificial food it seems to require. The physician should always make it a point to determine personally on the third day whether or not the breast-milk is adequate for the support of the infant. Every newly born infant should receive water every 2 hours, 2 ounces at a time being allowed if the child seems to require it. When the milk-supply is established, water should be given to the baby several times a day. Inanition fever requires neither drugs nor antipyretics. A proper supply of nourishment or even of water is all that is required. Two cases are reported in the way of illustration, in the second of which the temperature reached 105$\frac{3}{5}$° on the third day of life. [S.M.H.]

4.—Southworth observed a newly-born infant on the third day of life begin to cry and continue to do so for a period of 18 hours, sleeping but little and voiding a very small quantity of urine. Examination showed marked priapism. On placing a somewhat cool hand over the region of the bladder there occurred a discharge of from 4 to 6 drams of urine which was turbid, brown in color and left a yellowish brown discoloration upon the napkin. The priapism immediately ceased, and the child, which had before been crying steadily, fell into a sound sleep. The temperature at the time was 102.6°. A weak modification of milk alternating with boiled water was given every 4 hours. Pain, supposed to be due to deposit of uric acid in the straight tubules and papillæ of the kidneys, is not an uncommon **cause of crying and fever in newborn children.** Probably much of the supposed pain of colic is due to this source of irritation in the kidneys, ureter, bladder and urethra. Boiled water should be given to every infant at regular intervals for many reasons pending the establishment of lactation. It will dilute the urine and prevent or alleviate discomfort from such a source. [S.M.H.]

5.—Bovaird reports 2 cases of **acute cerebral paralysis occurring in the course of infectious diseases.** The first child aged 2½ years, had a characteristic attack of measles. On the fourth day she developed a bronchopneumonia. On the sixth day she had a convulsive seizure marked by the sudden turning of the head to the left, and rigidity of the arm and leg. The convulsion was followed by loss of power in these parts. A half-hour later there was a slight return of power, but in the afternoon the paralysis of the arm and leg was complete. There was a slight rigidity of the parts. The patellar and plantar reflexes were absent. The face was not involved. The child failed rapidly and died. The autopsy showed in the outer half of the left optic thalamus, just external to the internal capsule, an area triangular in section, each side measuring about $\frac{3}{8}$ of an inch, much redder and softer than the surrounding tissue. Microscopically this area showed marked engorgement of all the smaller vessels within the area together with numerous minute hemorrhages from them. Apart from the damage due to these microscopic hemorrhages the brain substance appeared normal. The second patient, a boy aged 10 months, developed pneumonia in the course of an attack of measles. During convalescence from the pneumonia he developed diphtheria. On the seventh day of the diphtheria following a restless night he had a general convulsion. The temperature rose to 105°. He became comatose; his head was retracted, his left arm and leg were rigid, he had twitching of the fingers and toes, and later, a twitching of the left side of the face. Two days later there was paralysis of the left arm and leg. He was semicomatose and died a few days later. The autopsy showed caseous bronchial glands with a simple bronchopneumonia of both lower lobes, the left being the more involved. The brain showed an intense congestion of all the superficial vessels, especially over the vertex, with a transudation of blood into the meshes of the pia mater over the anterior half of the right hemisphere and the posterior half of the left. There were no hemorrhages or other gross lesions of the brain substance. [S.M.H.]

6.—Packard points out the importance of a special study of pediatrics and reviews the work and progress of the Philadelphia Pediatric Society during the past year. The popularity of this Society is shown by its large membership and attendance and by the number and character of its communications, and emphasizes the need and usefulness of such institutions. [S.M.H.]

Annals of Surgery.

March, 1899. [Vol. xxix, No. 3.]

1. A New Forceps for Intestinal Anastomosis. ERNEST LAPLACE.
2. The Treatment of Hemorrhoids by the Plastic Method. HENRY T. BYFORD.
3. The Technic of Suturing the Patella After Fracture. CHARLES GREENE CUMSTON.
4. Prostatectomy. PARKER SYMS.
5. Contribution to the Surgery of the Kidney. A Report of Cases Treated in the Roosevelt Hospital of New York in the Period from January 1, 1890, to October 1, 1898. ALEXANDER B. JOHNSON.

1.—See this JOURNAL, Vol. I, page 1120.

2.—Byford operates for **hemorrhoids** by cutting off the hemorrhoidal and cutaneous projections without sacrificing more mucous membrane or skin than is necessary and sews the edges of the wound together. He believes that in no other plastic method thus far described are ligatures avoided except in Whitehead's operation, which is too grave an operation for ordinary cases. [M.B.T.]

3.—In operating for the **suture of fractured patellæ,** Cumston recommends a curved incision extending from one condyle to the other and passing well above the fragments of the bone. The transverse incision over the space formed between the fragments is unfavorable because the resulting cicatrix is likely to be opened by flexion of the knee and it becomes adherent with the bone. The longitudinal median incision requires lateral incisions for drainage. Special care should be taken to rid the parts of all clots, which are apt to be mixed with bits of periosteum and shreds of aponeurosis preventing union; silver wire is considered the only satisfactory material for sutures. [M.B.T.]

4.—Syms considers **perineal prostatectomy** combined with suprapubic cystotomy and perineal drainage the most satisfactory operation for the relief of enlarged prostate. The bladder is first thoroughly cleansed and distended with 8 to 10 ounces of borax solution. A rectal bag is not employed. The bladder is exposed by a vertical incision between the recti muscles, and 2 retraction-sutures are introduced. The patient is then placed in the lithotomy position, a curved staff is passed into the bladder and held by an assistant, and the membranous urethra is opened from the bulb of urethra to the apex of the prostate. Two fingers are passed through the suprapubic opening and the prostate is forced well down into the perineum, it is then enucleated from its fibrous sheath; the mucous membrane of the bladder and prostatic urethra is stripped up but not opened. The lateral lobes are first removed, after which the middle enlargement can be enucleated if necessary. The wound is irrigated and a perineal tube inserted into the bladder. The suprapubic wound is closed with the exception of a small opening for a drainage-tube. The bladder is drained from below, and after the second week a full-sized sound is passed every 5 days until the perineal wound closes. The mortality has been thus far rather high, chiefly due to the fact that the operation is new, and that the treatment has not been adopted early, before the bladder was badly inflamed and the kidneys and ureters had been involved. [M.B.T.]

Wiener klinische Wochenschrift.

February 16, 1899. [12. Jahrg., No. 7.]

1. A Contribution to the Anatomy of the Larynx in Childhood.
2. Development-History of the Palatal Cleft.
3. A Case of Pneumopericardium.

1.—The most striking difference between the **child's larynx** and that of the adult is the position of the hyoid bone, which in the first years of life lies on the upper edge of the thyroid cartilage, completely covering the apex in front. Not until the sixth year do the lateral and median thyrohyoid ligaments become visible. The plate of the cricoid cartilage, especially in the newborn, inclines backward; this position gradually alters, and during the fourth year the inclination disappears. The entrance into the ventricle of Morgagni is very small in comparison with the distance between the cricoid cartilage and the thyroid cartilage. In consequence the vocal bands and the rima glottidis are, in childhood, both relatively and absolutely considerably shorter than in the adult. The narrowed portion of the laryngotracheal tube is the plane of the cricoid cartilage. [D.R.]

2.—Tandler takes issue with Fein, who maintained that **cleft palate** was due to a premature and excessive development of the pharyngeal tonsil. He shows that this tonsil does not form until after the fifth month, while the palate is already closed in the third month of fetal life. In a case of **uranoschism** with micrognathia, studied by Tandler, the cause of the nonclosure of the palate seemed to lie in a failure of the tongue to retract in time from the septum narium and thereby the closure of the palatal arches was prevented. He thinks that such failure of the tongue to retract at the critical moment, may be the cause of cleft palate in many cases, though probably not in all. [D.R.]

3.—A healthy man of 20 had a sore throat, which in 2 days was followed by facial erysipelas. There was also a furuncle on the neck, which, however, had no relation to the erysipelas. Although the heart had been normal on entrance, there now appeared a peculiar sound, a sort of crackling, audible at a distance from the heart. On percussion, tympany was found in the precordia from the fourth to the fifth rib. In the knee-elbow position the tympany gave place to dulness. In addition to the crackling sound, a pericardial friction-rub with a slight amphoric quality was detected on auscultation. The crackling was synchronous with the heart's action. Gradually the sounds and the tympany disappeared, and the patient recovered. The diagnosis was **pneumopericardium,** or rather hydropneumopericardium, and the author carefully points out the arguments in favor of this view, which certainly seems the only possible one. There are **three causes of pneumopericardium**: (1) Trauma, which was the factor in nearly 50% of all published cases; (2) the entrance of air through extension of ulcerative processes from neighboring air-containing organs to the pericardium; and (3) spontaneous gas formation dependent on the presence of gas-producing bacteria. In this group the author classes his own case. [D.R.]

February 23, 1899. (12. Jahrg., No. 8.)

1. On Methodical Hearing-practice and its Importance in Deafness. V. URBANTSCHITZ.
2. On the Importance of the X-rays in Diagnosing Renal Calculi. M. W. HERMAN.
3. Notes of Obstetric Practice. EMIL LOWRY.

1.—Urbantschitz has developed a method of **exercises for teaching deaf and deaf-mute persons to hear.** These exercises consist in observing sound-impressions and in a methodic instruction by means of spoken language. Their object is to rouse the lowered auditory activity and to secure better differential hearing. Persons with impaired hearing are apt to withdraw from social intercourse and to become indifferent to sound-impressions—this invariably increases the torpidity of the auditory apparatus. It is the chief aim of the methodic exercises to rouse the hearing from this lethargy and to direct the attention to the sound impressions. (*a*) *General auditory exercises.* The patient is urged to give heed to all kinds of sound-impressions, for the attention plays a most important part in sensory perceptions. Psychic activity can augment very greatly the acuity of hearing, as in the case of mothers whose hearing is often especially acute for the voices of their children. On account of the stimulating influence on the attention and on the hearing, deaf persons ought to go to theaters, and to concerts, and participate in active social life. Persons whose hearing is different in the two ears have a tendency to use the better ear to listen—they should be instructed to do the opposite—to use the worse ear. (*b*) *Methodic exercises with spoken language.* The chief complaint of deaf persons is their inability to understand speech—the methodic exercises are intended to remove, so far as possible, that difficulty. The author's practice is to have the sounds first spoken into or toward the ear to be educated, later from various directions, care being taken to avoid the possibility of lip-reading. If the hearing in the other ear is much better, then that ear must be closed with the finger. The distance at which the speaker stands is governed by the auditory power of the hearer, but should be so chosen as to force the attention into action. Apparatuses should be avoided, but if the patient wishes to practise on himself, he can use a funnel with a rubber-tube, the free end of the latter being inserted into the auditory canal. The conversational tone of speaking should be employed by the instructor, loud shouting is harmful to the ear of the patient. Enunciation should be distinct, and in the beginning deliberate and slow. The words and sentences should always be repeated, and if the patient makes a mistake, the proper word and the one named by him should both be spoken by the instructor in order to impress the difference better on the patient. As the acuteness of hearing differs for the different consonants, it is important to teach the latter by practising them separately. Since the deaf often construct an imperfectly-heard sentence from the meaning of the words understood, it is well to change the sequence of the words in the sentences given. If the patient once knows that he cannot depend on his combining-power he will give all his attention to perceiving the exact syllables and words. Curiously, sometimes a patient hears every word of a sentence, but does not comprehend the meaning. At times there is an improper association of syllables to form words, or the power of association may be entirely wanting. This is also true of music—patients may hear the individual tones of a familiar melody, but cannot associate them together. The distance between the instructor and the patient should be gradually increased—the sentences should first be spoken at close range and then from a more remote position. Persons whose near hearing is the same may differ very widely in distant hearing-power. In some deaf persons there is a sluggish, delayed auditory reaction, which renders the understanding of speech difficult or impossible, though the power to hear the individual words or sentences may be good. The treatment consists in reading slowly to the patient connected sentences that are previously pronounced separately, repeating the reading in more rapid manner. During the repetition it is well to transpose the words and to interpolate new sentences. Reading aloud to the patient is also useful in combating rapid exhaustion of hearing-power and rapid decline of the attention. In order that the patient may not become accustomed to one voice, a condition that may reach such a degree that he cannot understand other voices, it is well to have as many persons (men, women, and children) participate in the exercises as possible. Many persons who hear well in dialogue do not do so at gatherings at which there is a general conversation. In such persons the exercises should be practised within the hearing of adventitious sounds—as street noises, piano-playing, etc.—so that the ear may be taught to disregard these sounds. The author has a third person read aloud while the patient is listening to the instructor's word or sentence. As the effort to hear is accompanied by a strain on the attention, the deaf individual is apt to become tired during the exercises, hence the importance of periods of rest. The exercises may be practised repeatedly during the day for from 5 to 10 minutes, and only when they are well borne is this time to be lengthened. It is also to be remembered that occasional variations in the hearing-power occur—the patient is to be informed of this in order that in case a sudden deterioration manifests itself he will not lose hope. The methodic exercises were indicated in chronic deafness and in all cases in which treatment of the auditory apparatus has failed to cure the cause of the deafness. The degree of success cannot be determined in advance, but in the majority of cases the hearing is decidedly bettered. In some, in which the direct acuity of hearing is not increased, the exercises bring about an improvement in differential hearing, which may enable the patient to pursue his vocation. Even psychologically, the exercises are of value, inasmuch as they give a new interest to the deaf individual, who is apt, by reason of his disability, to become a morose recluse. The exercises are difficult in the beginning in persons whose deafness is very great; with every improvement the incentive to further practise is given. Another advantage of the author's method is that its employment is within the reach of all. [D.R.]

2.—Herman considers the Röntgen rays by no means an infallible means of **diagnosis in renal calculus.** The kidney is so deeply situated that it is difficult if not impossible to get good skiagraphs of small stones, particularly if surrounded by inflammatory tissues. Calcium-oxalate concretions give a distinct shadow; calculi formed from urates allow the rays to pass through more readily; and those formed of phosphates give very diffuse, poorly-outlined pictures. Inasmuch as the oxalate calculi are rarest a picture with distinct outlines is rare. Before using the x-rays it is best to administer a purgative so as to clear away any material in the intestine which might produce an indistinct shadow. All the ordinary methods of clinical investigation should be first used and then the x-rays may prove of decided aid in confirming the diagnosis.

3.—A woman, 20 years of age, who had passed term about 4 or 5 weeks according to her reckoning, had been in labor 24 hours without making any progress, when forceps were carefully applied, but were also unavailing. Craniotomy was then performed and a male child delivered which weighed 7,000 grams and measured 64 cm. in length. The case is reported because of the very extraordinary size of the child, and because it seems to confirm the views of those who maintain that labor may be delayed a considerable time. In the woman's next pregnancy, at the end of 36 weeks, labor was induced by the introduction of bougies, and she was delivered of a living child weighing 2,036 grams. [W.K.]

March 2, 1899. [12. Jahrg., No. 9.]

1. On the Relation of Dermatoses to the Entire Organism. Siegfried Grosz.
2. A Case of Intestinal Polyposis. Ernst Ritter v. Karajan.
3. The Treatment of Hypopyon-Keratitis. Eduard Zirm.

1.—Chiefly a literary study of the views of dermatologists on **the relation between dermatoses and general diseases of the body.** The author adds the results of some studies made on the urinary secretion in **prurigo and other generalized skin-affections.** He finds that there is an excessive excretion of chlorids as compared with the excretion in persons not suffering from skin-disease, the amount of chlorids ingested in both being the same. The analyses were made in 10 cases of prurigo, 4 of psoriasis, 2 of chronic pemphigus, 1 of generalized chronic eczema, and on 4 persons with healthy skins. The chlorin-output in the cases with skin-affections was not alone high, but also very variable. It would seem that during the formation of the pathologic products in the skin there is a retention of water and sodium chlorid in the skin, and a consequent reduction in chlorin-elimination; with the resorption of the pathologic products the succulence of the skin diminishes and the chlorin-elimination increases. These facts throw some light on the "salt hunger" often seen in the skin-diseases investigated by Grosz. [D.R.]

2.—A man 23 years old was seized with attacks of abdominal pain accompanied by distention and the formation of nodulated tumors in the abdomen. There was loss of appetite, vomiting of gall and irregularity of the bowels. One year later the attacks had become more severe and frequent, the intervals between them being only a few days. The patient lost 10 kgm. in weight and his general condition became gradually worse. Celiotomy was undertaken 1½ years after the first attack. On opening the abdomen the loops of small intestine were found distended and hypertrophic. In the lower part of the ilium was found an invagination 5 cm. in length. The invagination was drawn apart and at the tip of it was felt a movable tumor the size of a nut, and 10 cm. further up was found a second tumor; still others were discovered higher up in the ilium and jejunum and the duodenum, but the stomach was free. The intestinal wall was opened by longitudinal incision; a pedunculated polyp of the mucous membrane was found, ligated and excised, and the intestinal wall was closed. In the same manner the intestine was opened in 5 places and 8 polyps of various sizes were removed. The abdominal wound was closed in the usual way, union by first intention took place, and the patient made an uninterrupted recovery, and was completely relieved of his former symptoms. At last report, about a year from the operation, the patient is still in good health. The diagnosis of mucous polyps was confirmed by microscopic examination. Karajan has been able to find, in literature, the report of but one similar case of extensive **polypoid invasion of the small intestine.** Single polyps are somewhat more frequent and he has collected 12 cases of this kind. [M.B.T.]

Centralblatt für Chirurgie.

March 25, 1899. [26. Jahrg., No. 12]

1. A New Method of Inserting Sutures in the Rádical Operation for Hernia. Ignaz Link.
2. A New Hemostatic Forceps. W. M. Sykow.

1.—In order to understand the rather complicated method of inserting sutures described, it will be necessary to consult the cut accompanying the original article [M B T.]

2.—A complicated form of hemostatic forceps is described which by means of heavy pressure is said to close arteries of ordinary size securely without the application of a ligature. Sykow has found it possible, by the use of this forceps, to perform nephrectomy with ligatures for only the renal artery and the ureter. [M.B.T.]

Beiträge zur klinischen Chirurgie.

February, 1899. [Bd. 23, Heft 1.]

1. Report of Operations on the Stomach Done at Czerny's Clinic, and the Final Result of Earlier Operations. Steudel.
2. The Pathology and Treatment of Branchial Fistula in the Neck. C. Nieny.
3. The Influence of Section of the Motor Nerves on Cicatrization in Extra Median Laparotomy. P. Assmy.
4. Subserous Lipoma of the Elbow-Joint. Adolf Bischitsky.
5. Congenital Absence of the Femur. Georg Lotheissen.
6. The Pathogenesis of Keloids. M. Wilms.
7. Inguinal Hernia of the Bladder. Wilhelm Becker.
8. Metastatic Meningitis Following Traumatism. Ernest Levy.
9. Habitual Luxation of the Shoulder-Joint as a Consequence of Syringomyelia. Schroder.
10. Enchondroma of the Deltoid. B. Housell.
11. Gunshot Injury of the Spinal Column. Otto Wendel.
12. The Action of the New Hollow-Pointed Bullet of the English Army. v. Burnss.

1.—During the last 34 months at Czerny's clinic 94 operations on the stomach have been performed, consisting of 8 pylorectomies, 4 pyloroplastic operations, 65 gastroenterostomies, 4 gastrotomies, 1 suture of the stomach and 12 exploratory laparotomies. Of the 8 pylorectomies 7 were done because of carcinoma and 1 because of sarcoma. Three died soon after the operation, 2 from pneumonia on the fourth and fifth day respectively and one from peritonitis; 3 more died from a return of the disease, 11, 4, and 6 months after the operation. The two others live, though a return is to be expected in one because of sarcomatous glands which had to be left in the abdominal cavity. The easiest method for removing the pylorus is to do a gastroenterostomy with Murphy's buttons and then resect the pylorus. Kocher's method is somewhat more difficult in the technic but it gives neater results. Operating at two different periods is not recommended. Four cases, which up to the present time are well and free from return of disease, are as follows: (1) a constricting ulcer of the stomach, operated on in 1882: (2) myxosarcoma of the ligament gastrocolicum, operated on in 1891; (3) carcinoma of the pylorus, operated on in 1891; and (4) carcinoma of the pylorus operated on in 1894. These are all that are living out of 24 cases operated upon. The mortality-percent of cases of malignant disease of the pylorus dying within 22 months after the operation, is about 37%. This percent might be bettered if the cases were brought to the surgeon sooner, but the difficulty in early diagnosis makes this impossible. Plastic operations on the pylorus have been done 4 times in Czerny's clinic during the past year, giving temporary relief in all, but not preventing a tendency towards a return of the trouble. The poor results attending this operation makes the choice of operation to fall on gastroenterostomy in the great majority of cases. (Continued.) [G B.W.]

2.—Nieny reports a case of **branchial fistula** occurring in a girl 2 years old. The fistula had existed since birth and secreted a purulent fluid. The external opening was on the right side of the neck 3 cm. from the median line and 2 cm. above the sterno-clavicular joint. During the operation for its removal it was discovered that the duct opened internally at the lower edge of the pharyngeal tonsil. The fistulous tract was dissected free up to the internal opening and removed. Microscopic examination: The duct was lined with many layers of cylindrical epithelium which were surrounded by a stratum of lymphoid tissue. Outside of this a layer of connective tissue with a few striated muscle fibers running through it, was found, and surrounding the connective tissue were numbers of blood vessels and large longitudinal bundles of striated muscle-fibers. Deeper in the neck the character of the duct changed, the epithelium remaining cylindric, occasionally becoming ciliated, but the wall was thrown in numerous folds, making fine papillæ on its surface. The subepithelial follicles become larger and more numerous though still further in, beyond the first ampulla it almost disappeared. In the ampulla the epithelium becomes stratified squamous, but as soon as the duct begins to get narrower the epithelium again becomes cylindric. Of the various methods of treating these cases, total extirpation offers the best chance for cure, though most favorable results have been obtained by iodin injections and electrolysis. [G B.M.]

3.—Assmy reports a case in which atrophy of the rectus abdominales followed an incision along its outer border for removal of gall-stones, **the atrophy being due to section of the motor nerves** derived from the intercostals. This condition was proved by microscopic examination and this study led to experimentation on rabbits. The experiments gave the same result as observed in the above case, namely, that the muscle medianwards from a longitudinal incision became atrophied, and this atrophy was due to the division of the motor-nerves. In the case reported a ventral hernia had formed, not directly through the scar, but a little to the inside through the atrophied muscle. Sometimes a slight extent of atrophy was present laterally from the incision, and this is explained on the ground that the muscle was nourished by a recurrent nerve which had been cut at the operation. [G B.W.]

4.—Lipoma of the **elbow,** reported by Bischitsky, occurred in a married woman 45 years of age. The growth appeared on the anterior surface of the joint on both sides of the bicipital tendon, the external swelling being somewhat larger than the internal. There was little functional disturbance, only a slight mechanic hindrance to extreme flexion of the joint. The operation of extirpation showed that the two swellings, one on each side of the biceps were of the same growth, and also a small lipoma connected with the main tumor was growing into the joint from the anterior portion of the capsular ligament. This part of the tumor which was fast to the capsule of the joint was evidently the starting-place of the growth. [G.B.W.]

5.—Lotheissen reports a case of **congenital absence of both femurs,** occurring in a girl, 7 months old when examined. Outside of the legs, the child is well nourished and perfectly normal. The right leg is 15 and the left 13 cm. long, and both show comparatively little passive and no active motion. The Rontgen rays revealed the total absence of any bone which could answer for femur and show other deformities of the tarsal bones. The tibia was present. Only 4 other cases of total absence of the femur have been reported. In treating such a case supporting apparatus must be applied, and the growth of the limb encouraged in every possible way. [G.B.W]

6.—Two facts which are characteristic of **keloid** are, its limited growth and its tendency to recurrence after removal. The last of these properties would seem to class it with the malignant growths, while the first raises a doubt as to whether it is a tumor at all. The work on the subject up to date still leaves questions regarding its form, construction, growth and especially its relation and place with regard to hypertrophied scars, fibroma, and in fact all tumors still unanswered. In the two cases reported it is seen that at first the edges of the keloid are made up chiefly of cells while the center of the growth is composed of homogeneous connective tissue bundles. As the keloid develops the cells disappear and the homogeneous mass spreads to the periphery. The growth is limited to that portion of the cutis where normally homogeneous connective tissue bundles are found. It does not extend to the subcutaneous fat except when developing in scars of deep wounds. So it appears that keloid is an outgrowth of connective tissue and is therefore a true fibroma. That clinical feature, the limitation of growth, is probably due to enormous development of collagenous material which prevents further development of cells by shutting off nutrition. Why keloid should return after removal, is a question the answering of which is purely speculative. One idea is that it is a constitutional disease analogous to scleroderma or acromegaly. [G.B.W.]

7.—The frequency of **inguinal hernia of the bladder** is given by Brunner as 1%, by Lotheissen as 3.2%, while Becker gives for the year 1897, a frequency of 26% of all inguinal hernias operated on at the Tübinger clinic. The larger the inguinal hernia the more likely is it to contain a cystocele. The extruded bladder as it has or has not a covering or peritoneum is called intraperitoneal paraperitoneal and extraperitoneal. Inguinal cystocele is almost always an acquired hernia and is most common in the middle aged. The hernial portion of the bladder is almost always surrounded by a layer of fat and is probably a result of inflammatory thickening of the subserous fatty tissue. Preperitoneal cystoceles lie external to the epigastric artery, while the extraperitoneal lie internal. In the majority of cases the diagnosis of the existence of the bladder in an inguinal hernia is only made at the time of operation. The treatment should be operative as it is generally impossible to reduce the cystocele. The bladder when possible should be returned to the abdomen uninjured and if, because of adhesions with the sac, a portion must be excised, the wound is to be packed with iodoform gauze instead of sutured. [G B.W.]

8.—As the results of his work on **metastatic meningitis following injury,** Levy gives the following conclusions: 1. Meningitis may develop after injury to other portions of the body than the skull, as the only manifestation of a septic metastatic infection. 2. Macroscopically the exudate does not always appear purulent. 3. In those cases which have been examined bacteriologically, the streptococcus has been found as the exciting cause. 4. It is suggested that all cases which die from meningitis following injury be examined bacteriologically, if the streptococcus is found, a traumatic origin (metastasis) is suggested, whereas the presence of the diplococcus of Fränkel indicates a non-traumatic origin. [G.B.W.]

9.—**Syringomyelia may cause habitual luxation of the shoulder-joint,** the luxation occurring as the result of an injury or from no apparent cause whatever. Generally there are present with the luxation other pathologic conditions which stand forth so prominently as to make the diagnosis easy, but occasionally these conditions are absent. Because of the latency of the general symptoms of syringomyelia which sometimes exist, it should be the policy of the surgeon to keep in mind the possibility of the existence of this disease in all cases of habitual shoulder-luxation. [G.B.W.]

10.—Housell reports a case of **enchondroma imbedded in the deltoid.** The tumor was the size of a doubled fist, but had not interfered with the usefulness of the arm. Histologically the growth was a typical enchondroma, consisting of cartilage with a connective-tissue capsule. The origin of this enchondroma appears to have been in the connective tissue but an also important etiologic possibility which must be considered is a misplaced group of embryonal cartilage cells. [G.B.W.]

11.—A student, 27 years old, shot himself in the chest and temple with a 9 mm. caliber revolver, and died 24 hours after the injury. The **shot in the chest struck in the spinal column,** without causing any outward lesion of the cord, but on section there were found punctiform hemorrhages in the substance of that organ. Paraplegia had developed immediately after the injury, and it is noteworthy that had the patient lived, it would have been possible for him to have regained the entire use of his lower extremities. [G.B.W.]

12.—The adoption of the **hollow-pointed bullet** by the English Army was because of the lack of penetration of the soft-nosed dum-dum bullet and of the lack of stopping power of the full-jacketed bullet; and because it was thought that the hollow-pointed missile would possess both penetration and destructiveness. It was found that the hollow-pointed bullet was more easily deformed than the full-jacketed missile, and therefore caused more extensive wounds. Especially severe are the injuries to organs containing fluid in a closed cavity such as the heart. In comparison with the dum-dum bullet in bony structures, the hollow-pointed possesses about the same destructiveness, but in soft tissue the dum-dum is quite distinctively more severe in its action. The greatest destructive power of the hollow-pointed bullet is maintained, for soft tissues, up to 400 meters, for bones, up to 600 meters. The penetration of the three forms of bullets is shown by the following: Shooting at 25 meters into pine wood; the complete mantled bullet, penetrated from 100 to 110 cm. undeformed, the hollow-pointed bullet 84 cm. slightly deformed, and the soft lead pointed bullet 20 cm. greatly deformed; shooting at 25 meters into beechwood, the complete mantled bullet penetrated 54 cm. undeformed, the hollow-pointed bullet 14 cm. greatly deformed, and the soft lead-pointed bullet 12 cm. greatly deformed. [G.B.W.)

Zeitschrift für klinische Medicin.

[Band 36, Hefte 5–6.]

1. Concerning Gout. Adolf Magnus-Levy.
2. On the Effects of Tetanus-Toxin when Mixed with Normal and with Decomposed Organic Extracts. Albert Schuetze.
3. A Case of So Called Hypertrophic Cirrhosis of the Liver, with Unusual Course, and General Infection of the Organism. N. Kirikow.
4. A Study of Adenoid Tumors of the Liver. R. Witwicky.
5. On Malaria Following Experimental Inoculation. Arthur W. Elting.
6. Has Bile Power to Inhibit Decomposition and Bacterial Growth? Max Mosse.

1.—Magnus-Levy contributes an exceedingly important paper. He especially insists that **gout is much more frequent in Germany than is usually recognized.** In the past 15 months he has observed 36 cases, 29 of them in his own pavilion; all of these showed characteristic diagnostic signs. In studying the etiology, a neuropathic tendency was not especially noticeable. Practically all of the patients were of the lower classes, and had not been excessive eaters. Alcohol and lead-poisoning were present in a considerable number of cases. In the diagnosis he especially insists upon the importance of the peculiar pain, and an excessive tenderness of the skin, and upon the fact that the skin shows such typical involvement, the appearance over the affected joints often resembling that over a phlegmon; the skin is sometimes affected without any joint-involvements. The peculiar friction in the joints, when of characteristic quality, is almost pathognomonic in his view. In such cases it is a very fine rubbing that is analogous to the crepitant rale of pulmonia. Magnus-Levy insists with the utmost emphasis that **many cases of gout are diagnosed as rheumatism,** and that when an individual beyond 40 years of age is attacked with an acute arthritis, even though polyarticular, it is almost invariably gout, if this is the first attack, since rheumatism very rarely appears for the first time at this period of life. In the treatment, salicylates and colchicum were used with most effect. The former gave some relief, but relapses were frequent, even during its use, and its effect was not striking. Colchicum was very valuable, the best preparation being liqueur de Laville, but this is expensive. There was no evidence that the use of colchicum tended to increase the number of attacks or to cause their return. Calomel and venesection seemed to be without striking effect. There follows a record of extensive investigations of the blood and of the metabolism. The amount of uric acid in the blood was investigated in 17 cases by the Garrod test and the Ludwig-Salkowski method. The results were directly contradictory of the old Garrod teaching. There was no evidence of increase of uric acid in the blood during the attacks, even when it was compared with the amount present in the same individual in periods between the attacks. Numerous investigations were conducted upon other diseases, and there was found an unquestionable increase in uric acid in nephritis, in lead-poisoning, and in several cases of leukemia. The increase in nephritis the author attributes to imperfect excretion by the kidneys, which requires greater saturation of the blood with uric acid in order to cause its excretion; therefore the blood always contains an excessive amount, but after this amount has been reached the actual excretion is about normal. The alkalinity of the blood was investigated in 16 cases, and it is especially noted that comparisons were made between the estimations during attacks, and those made during the intervals; such comparisons having never been made before and being the most important point in the determination of the alkalinity of the blood in this disease. Varying conditions were found, most of the cases showing very little difference; in some cases, however, there was a slight decrease during the attacks, but this was not marked. Investigations of the amount of nitrogenous substances in the blood and of the specific gravity, resulted in finding that these were about normal. There are then presented the records of metabolism experiments in 6 cases, conducted over a considerable period of time in each case. It was found that during the attacks, in a number of cases, there were noteworthy nitrogen-losses. These were attributable in part to the lack of appetite, and consequent insufficient nourishment; this, however, was not a sufficient explanation, and it was evident that some of the nitrogen-loss was due to excessive tissue-destruction, and the loss is probably due to intoxication. After the attacks were over, most of the patients began at once to retain nitrogen in large amounts, just as convalescents from such diseases as typhoid fever show marked retention. The losses were found only in severe cases affecting many joints, and occurring in robust individuals; when there was marked cachexia the nitrogen-losses were less marked. There was a noteworthy disproportion between the nitrogen-retention in convalescents and the increase in weight; one of the cases, for instance, retained over 80 gms. of nitrogen, and gained but 0.5 kg. in weight. This seems probably to be due to the fact that the tissue contain more water during the early part of the attack, this being lost later and the weight therefore increasing relatively little. The absorption of nitrogen and fat was in most cases distinctly poor, both during the attacks and following them, hence the gastrointestinal tract seemed to have suffered in almost all cases. As to the uric-acid excretion, there was no doubt that it was distinctly increased during most of the attacks, though this was not marked in all the cases. The increase occurred with patients who were taking sufficient nourishment, and were losing no excess of nitrogen; in those who had a negative nitrogen-balance, and even with those who were taking insufficient nourishment. This increase in the excretion of uric acid usually appeared during the first day of the attack and in a few instances there was slight retention before the attack; but this was by no means sufficient to explain the symptoms, or to balance the subsequent increase in the excretion. Sodium salicylate caused a marked increase in the excretion of uric acid; while, on the contrary, colchicum caused a decrease in the amount excreted in practically every instance, although it caused greater improvement of the symptoms than did any of the other drugs. During the use of large doses of colchicum the absorption of xanthin-bodies from the bowel-contents was investigated, and it was found that these were absorbed in about the usual amount. Imperfect absorption has been said by some to be the cause of their decrease upon administration of colchicum. But this seems not to be true. Alkalies had no definite effect upon the excretion of uric acid. The striking part of these investigations was in the fact that with the two drugs having the greatest effect in controling the symptoms, the salicylates and colchicum, the effect exercised upon the excretion of uric acid was directly contrary. Respiratory investigations were undertaken in 7 of the cases to see whether there was a general decrease in metabolism; the figures found for O_2 and CO_2 were about normal.

As the result of all this work Magnus-Levy states that neither his work nor that of others has distinctly advanced our knowledge of the ultimate cause of gout; the greatest importance of all recent work being that it has shown the fallacies in the old theories concerning this disease. [D.L.E.]

2.—Schuetze first investigated the effect of normal organs from a rabbit which were chopped fine and extracted with salt-solution to which soda had been added; these extracts of the various organs, preserved with chloroform, were subsequently injected into other animals. It was found that they were non-toxic. Afterwards 1 gm. of tetanus toxin was mixed with 100 c.c. of the extracts made from the organs and this mixture was injected into previously normal animals; as a result there was an unusually early outbreak of the tetanus, and it ran a more rapid course. Therefore it seemed apparent that there are other substances in the organs as well as the preformed antitoxin discovered by Wassermann, which lead to greater rapidity and violence of the disease; the substances extracted according to Blumenthal's method had no effect in preventing an outbreak of tetanus. The various organs were then allowed to undergo a certain amount of decomposition, and extracts were injected into animals. The brain-extract and that of the pancreas were not lethal in doses of .5 c.c. The lung-extract was slightly more poisonous, and that of the liver and spleen still more so; the latter being borne only in doses of .4 c.c. He then investigated the possibility of symptoms being caused by decomposition in culture-media, bouillon being allowed to undergo decomposition throughout 3 days. Injection of this caused practically no symptoms at all. When, however, **tetanus toxin was mixed with the extract of decomposed organs,** he found that there was a more rapid outbreak of the disease, the course was more rapid, and the symptoms were more marked, clonic convulsions being especially pronounced. Also a tetanus toxin, which was so attenuated that it caused no symptoms in a control mouse, became again so toxic when mixed with the decomposed organs that animals injected died rapidly with the most outspoken symptoms of tetanus. The practical result from these investigations is that bearing upon the fact that tetanus, in certain instances, runs an exceedingly rapid course and gives rise to the suspicion that the specific tetanus infection is not the sole cause of the rapid course. It is probable that in these cases there are present the microorganisms of decomposition and that these are responsible for the very rapid course of the disease. [D.L.E.]

3.—The patient was a man of 37, whose dwelling was very damp, and who was exposed to dampness in his work. His labor also required a great deal of walking, his food was eaten very rapidly, and it was often exceedingly poor and sometimes partly decomposed. There was no personal history of alcoholism or syphilis, but there was a marked family history of alcoholism. His first symptoms appeared in 1890, when he began to lose weight, having previously been excessively corpulent; later, after taking a cold drink he had suddenly extremely violent pains in the abdomen, particularly over the liver; shortly afterwards he had a severe quotidian malaria. Disturbance of the gastrointestinal tract appeared and increased in severity until there was frequent vomiting with distressing pain; there was upon one occasion a good deal of blood in the bowel-movement. He was admitted in November, 1891, with the previously mentioned symptoms, and showing marked icterus. Beside evidences of bronchitis and enlargement of the heart, there was found **marked enlargement of the liver and of the spleen.** The stomach-contents were found to contain no HCl. His condition grew constantly worse, the moderate anemia increased to a marked degree, the leukocytes became excessive in number and ascites came on, and grew very marked. Shortly before his death a severe diarrhea developed and the liver began to decrease rapidly in size, until from extending to near the level of the navel, it became so small as to be impalpable; the psychic condition grew bad, there followed sleeplessness, delirium, and finally coma. The temperature had fallen sometime before death, but in the few days preceding death there had been a slight rise from subnormal up to slightly above normal. At the postmortem the liver was found somewhat excessive in weight, was granular in appearance; the spleen was much enlarged and very hard; the kidneys were enlarged and somewhat hard from cyanotic induration the heart was hypertrophic. Microscopic examination showed that there was increase of the connective tissue of the liver, and proliferation of the bile-canals in parts; the parenchyma was very fatty and there were notable collections of pigments; the connective-tissue increase was both around the acini and within them. In certain areas there was an island-like necrosis of the liver-tissue. There was no evidence of a periangiocholitis. The course of the case with its peculiar ending indicates a general infection, and there were microorganisms found in the blood in the last few ys of life which had the characteristics of a form of proteus. ese microorganisms were also found in sections of the liver. e conclusions to which the author comes are that first th so-called **hypertrophic cirrhosis of the liver** there ould not be too much stress laid upon the hypertrophy; in is case a large part of the hypertrophy seemed to be due to peremia; second, there are cases in which there is no idence of a diffuse angiocholitis; therefore Hanot's cir- osis cannot be considered identical with the so-called liary cirrhosis; third, the enlargement of the spleen which always present with Hanot's cirrhosis cannot be caused by e mechanical conditions and must be due to a chronic dif- se splenitis; fourth, so-called hypertrophic, icteric cirrhosis the liver seems to be a general disease, which is probably fectious; fifth, the frequent terminal symptoms of this form cirrhosis are very likely due to general infection of the ganism; sixth, it is especially notable that the clinical cture of hypertrophy cirrhosis in its latter stages may bear striking resemblance to the acute febrile infectious icterus lled Weil's disease; seventh, Hayem is in error in stating at hyperacidity and hyperpepsia are always present in is affection, as frequently both acid and pepsin are absent, d this depends largely upon the condition of the patient. the latter stages the gastric secretion is almost or quite sent; eighth, leukocytosis is not a constant accompani- ent of Hanot's cirrhosis; the white corpuscles may be de- eased in number. [D.L.E.]

4.—A case is reported in which a man 49 years of age ac- ired severe pains in the epigastrium. These were followed jaundice. The stools were occasionally blood-tinged, d sometimes there was a great deal of blood before or after e bowel-movement. The stools were usually hard and tty-colored; the liver was enlarged, was readily felt, was ry tender, and over its surface one felt small smooth prom- ences. The condition of the patient grew constantly worse; cites came on and grew greater up to his death, and treat- ent was without result. The diagnosis was **primary can- r of the liver.** At the postmortem examination there re **numerous small tumors** surrounded by a capsule, th a smooth surface and of yellowish-white color, scattered er the whole surface of the organ. Microscopic examina- n of these showed that they were glandular tumors **of n-malignant character.** The changes in the liver ucture itself were of various kinds. There was general rhosis of the organ; in occasional areas there were small unds of hyperplasia; in other regions these hyperplasias med actual nodules without any capsules. These nodules d the appearance of columns of cells which resembled ular glands; they were in other words the early stages of the nor-formation. Finally there were nodules which presented final condition, *i. e.*, tumor-formation. They were sur- unded by fibrous capsules and contained cells which had characters of liver-cells, and were arranged in radiating umns. The vessels in these tumors were few, capillaries re illformed, and bile canals were not developed. It seemed dent that there was a gradual transformation beginning h simple insular hyperplasia, then forming nodules, and en resulting in the distinct tumors with a capsule. Wit- ky believes that the capsule was developed by the irrita- n of the tissues surrounding these hyperplasias, and was ply proliferation of the connective tissue around these ts to compensate for the liver-tissue that had undergone struction. He believes that adenomas of the liver may be veloped from cirrhosis, and divides the adenomata into ee classes: (1) Those which are due to simple prolifera- n of liver cells; these give no metastasis and cannot velop into cancer; they are encapsulated hyperplastic dules which are of the type of the liver structure. (2) ose which develop from the epithelial cells of the biliary nals (cylindrical-cell adenomata); these may be multiple single; they readily cause metastasis to other organs and likely to develop into cancer. The third group is formed a mixture of these two varieties. All of these forms of enoma are to be carefully separated from accessory livers l so-called congenital adenomata. [D L E]

5.—Elting describes his experiments in **inoculating althy individuals with blood from those suffer- g with different varieties of malaria.** Four per- s were injected with blood that contained tertian parasites. two of these cases a typical tertian infection resulted, while two other cases the result was negative. Six persons were infected with the estivo-autumnal parasite, and all developed entirely typical estivo-autumnal malarial infection. Two persons were infected with the combined tertian and estivo-autumnal parasites, and 3 were infected with the half-moon and egg-shaped parasites; in the latter 3 cases there were no symptoms of malaria, and the parasites were not found in their blood. In 3 cases infected with tertian malaria, the incubation-period varied from $1\frac{1}{3}$ to 7 days; the parasites were found in these cases in from 4 to 11 days after infection. The incubation-period of $1\frac{1}{3}$ days is the shortest so far observed. In the estivo-autumnal infections the incubation period was definitely determined, and varied from $1\frac{1}{2}$ to 7 days, averaging $4\frac{1}{2}$ days; the parasites were discovered in the blood in from 3 to 6 days, the time averaging 4 days. The conclusions which are drawn from these experiments are: 1. Malaria is a disease caused by the growth and development of a definite malaria parasite. 2. There are specific malarial parasites, the tertian remaining always a tertian, the estivo-autumnal being always an estivo-autumnal parasite. 3. Malaria may be caused by injecting parasites subcutaneously or into the blood stream. 4. Individuals receiving blood infected with the tertian parasite only, will show in their blood only the tertian form. 5. Individuals injected with estivo-autumnal forms will show only this form in their blood. 6. In a number of cases of experimental infection the parasites may be found in the blood before the first rise of temperature. 7. Infection with blood that contains only tertian parasites may, according to the number of the embryonal forms, produce a quotidian or a tertian type of fever. 8. The injection of estivo-autumnal parasites may produce quotidian or tertian or an irregular type of fever. 9. Whatever the type of fever produced by the injection of either form of parasite, all cases injected with this parasite will show the same form of parasite in their blood. 10. The type of fever produced by injection with estivo-autumnal parasites does not necessarily correspond to that which existed in the individual from whom the blood was taken. 11. The subcutaneous injection of from 2 to 3 drops of blood that contains the estivo-autumnal parasite, will suffice to produce an estivo-autumnal infection. 12. An individual who is resistant to tertian infection may be readily infected with the estivo-autumnal parasite. (This was seen in one of the cases.) 13. The combined infection with tertian and estivo-autumnal parasites may produce both types, and both parasites may be found in the blood. 14. Intravenous injection with the half-moon and egg-shaped estivo-autumnal parasite develops no malarial infection. [D.L.E.]

6.—Mosse has investigated the **inhibiting power of bile** by using the ordinary ox-gall, which is to be found in apothecary shops, because of its cheapness and convenience, if bile be shown to have therapeutic properties. To learn whether it had any influence upon the decomposition of proteids in the living organism he gave dogs ox-gall, and then investigated the amount of ethereal sulphates in the urine. In the first 4 days the ethereal sulphates showed no decrease; subsequently they did decrease, but during this time there was diarrhea, and probably this prevented any marked decomposition of albumin in the intestine, and the decrease in ethereal sulphates was due, not to the direct effect of the ox-gall, but to its secondary effect in causing increase of peristalsis. Artificial decomposition was then instituted by inoculating solutions of peptone with cultures of the coli communis bacillus, and ox-gall was added to this. It was learned that the addition of the bile caused an increase in the products of proteid decomposition produced by bacteria. The result of investigation of its effects upon the fermentation of sugar was to show that there was a distinct increase in the volatile acids when the ox-gall was added. Finally, the effect upon bacteria was certainly to decrease their growth. Therefore, it seems that bile tends to increase the products of decomposition, but to decrease the freedom of growth of bacteria. The use of ox-gall might, therefore, be valuable in intoxication, if together with it cathartics are given in order to empty the bowel freely. [D.L.E.]

Sundry French Journals.

1. Bacteriology of Chronic Osteomyelitis. R. BOSQUIER. (*Jour. des Sci. Méd. de Lille*, November 12, 1898. 21me Année, No. 46.)

2. A Case of Intermittent Hydronephrosis. Bourcy. (*Sem. Méd.*, December 28, 1898. 18me Année, No. 64.)
3. The Clinical Diagnosis of Certain Forms of Albuminuric Bronchitis from Pulmonary Tuberculosis. E. Hirtz and Prosper Merklen. (*Presse Méd.*, December 28, 1898. No. 106.)
4. Abdominal Traumatism and Appendicitis. Nimier. (*Gaz. Heb. de Méd. et de Chirur.*, January 1, 1899. 46me Année, No. 1.)
5. Cardiac Murmurs, Without Organic Lesion, in the Eruptive Fevers and Particularly in Scarlet Fever. Leon d'Anfreville de La Salle. (*Thèse de Paris*, No. 9, 1898–1899.) (*Gaz. Heb. de Méd. et de Chirur.*, January 8, 1899. 46me Année, No. 3.)
6. Sialorrhea in Tabes. L. Mazataud. (*Thèse de Paris*, No. 8, 1898–1899.) (*Gaz. Heb. de Méd. et de Chirur.*, January 8, 1899. 46me Année, No. 3.)
7. Displacements of the Heart and of the Abdominal Organs in Pleural Effusions. G. Carrière. (*Presse Méd.*, December 17, 1898. No. 103.)

1.—Chronic osteomyelitis may be divided into 2 classes: (1) cases that are chronic from the beginning and (2) cases that become chronic after an acute course. In cases chronic from the beginning the bacillus of Eberth is the microorganism found most frequently in the pus, although streptococci and staphylococci have been found. On the other hand, the staphylococcus is the most important pathogenic agent in the production of the chronic form of osteomyelitis that follows the acute form of the disease. Bosquier has studied the **bacteriology** of a case **of chronic osteomyelitis** of 39 years' duration. The case was that of a woman, aged 46 years, by occupation a housewife. At the age of 7 years the patient suffered from an attack of acute osteomyelitis following traumatism that affected the right tibia. The disease kept the patient in bed for 6 or 7 weeks and terminated by producing a tibiotarsal ankylosis. Since that time until about 4 years ago the patient did her ordinary work, complaining, occasionally, of sharp pains in the diseased region and of the formation, from time to time, of small abscesses. When 42 years old, the patient had a series of larger abscesses in the lower third of the right leg that discharged a greenish pus. On examination, the antero-internal portion of the lower two-thirds of the right leg was found to be riddled with depressed scars that were adherent to the bone; other cicatrices were seen in the neighborhood of the tendon of Achilles. The diseased limb was much swollen; there was marked muscular atrophy in the right leg; and flexion and extension of the foot were impossible. At the operation, which consisted of cureting the lower half of the right tibia, the lesions of condensing ostitis were found, with small purulent foci, isolated from each other and surrounded by a capsule of dense bone. The bacteriologic study of the pus showed the presence of the staphylococcus albus in pure culture. This organism had preserved its vitality for 39 years, and, although it failed to take stains readily at first, it regained that power, after the first inoculation into nutrient media. The microorganism had lost its virulence and was not able to produce pus when inoculated into the healthy guineapig. [J.M.S.]

2.—Bourcy reports the case of a woman, aged 62 years, who complained of **symptoms of nephrolithiasis.** The patient was small, rather emaciated, and presented a miserable appearance; she was a doorkeeper by occupation. When the patient was 10 years of age she began to feel abdominal and lumbar pains that were more pronounced on the left side. Ever since that time she has experienced crises of a similar nature. The attacks begin with alternating sensations of heat and cold; this is followed by acute pain in the region of the left kidney radiating into the abdomen and to the left groin; there is some vomiting, and a sudden and almost complete suspension of the excretion of urine. Then, for a day or two, the pains persist with variable intensity, and disappear suddenly, to be followed, in a short time, by the reestablishment of the flow of urine, amounting, at first, to polyuria. At various times small masses of gravel, usually not larger in size than the head of a pin, have been found in the urine. These crises, since adolescence, have occurred at intervals of about 3 or 5 years. In 1893 and in 1895, the symptoms failed to disappear at the end of 1 or 2 days. The pains persisted, the urine remained very scant, the left side of the abdomen became the seat of an insupportable tension and of weight, vomiting continued, cephalalgia appeared, and the general condition became alarming. At the end of 7 or 8 days of such menacing accidents, capillary puncture was done in the left lumbar region and about one liter of a fluid that closely resembled urine was withdrawn. Following this operation immediate relief was noted, the flow of urine was reestablished on the same day and the cure was soon complete. On admission to the hospital during the attack under consideration the patient had been ill for about 4 days, presenting symptoms that were similar to those observed in the other attacks. There was a sensation of tightness in the left flank and palpation and inspection revealed the existence of a tumor in the iliocostal space. The tumor was fluctuating, was not adherent to the surrounding tissues, and was evidently an enlarged kidney. A diagnosis of **intermittent hydronephrosis** was made. After coming to this definite conclusion as to the diagnosis of the case, two possibilities presented themselves: either the obstruction to the flow of urine would prove to be temporary and the condition would right itself, or the obstruction would be found to be permanent and there would then be grave danger of urinary autointoxication. At the time of the first examination there were no indications that serious accident would ensue; but, after a restless night, the condition of the patient became much more alarming, aspiration was decided upon, and 1500 cc. of a yellowish fluid that looked like urine and that resembled urine on chemic examination, were removed. Relief was prompt and the flow of urine began on the same day. Ten days later cure seemed complete and the patient left the hospital, although the left kidney was somewhat enlarged and slightly movable. This patient presented the two most common causes of hydronephrosis; nephrolithiasis and movable kidney. The author considers this attack to be due to the movability of the organ rather than to the nephrolithiasis. [J.M.S.]

3.—The complications classed under the too general term **albuminuric bronchitis** may assume the characters of chronic pulmonary tuberculosis. Hirtz and Merklen consider that when the pulmonary disease presents the form of localized edema the diagnosis between pulmonary tuberculosis complicated by nephritis and nephritis with bronchial complications is difficult. (1) If there is a localized area of fine crepitant rales at one apex, the absence of modification in the quality of the vesicular murmur, the absence of change in the timbre of the vocal resonance, and the normal percussion-note together with absence of exaggerated tactile fremitus would serve to exclude tuberculous deposit. (2) The analysis of the functional symptoms may enable one to exclude tuberculous infection. The nephritic patient coughs little; he does not expectorate, as a rule, but if he does expectorate the material is ropy and viscous, and he suffers from a special form of paroxymal dyspnea. This dyspnea has no relation to exertion and is more frequent at night. (3) The evolution of the pulmonary complications of nephritis is quite different from the development of the symptoms of tuberculosis. The physical signs of the latter are fixed in their location, while those of the former are movable and are found now in one part and again in another part of the lung. Of course the examination of the expectorated matter is the crucial test. [J.M.S.]

4.—Nimier quotes several cases from the literature that seem to show a relation of cause and effect between **abdominal traumatism and appendicitis.** He then summarizes 4 cases that he has himself observed, in which the same apparent relation existed. The first case was in a boy, aged 15 years, who was struck in the right iliac fossa while in the gymnasium. The accident had occurred in 1896 and in following the traumatism the patient had had an attack of typhlitis with peritonitis that had lasted for 5 months. In January, March, and May, 1898, the patient had had 3 new attacks of the same trouble that were very sharp. At operation, the indurated appendix was found to be adherent to the cecum, to have thick walls, and to contain hardened fecal matters. The second case was in the person of an army-officer who had fallen with his horse so that in falling the animal had compressed his abdomen. For a month following the accident the patient experienced pains in the right iliac fossa, and on resuming his duties he could not mount his horse without experiencing pain. Two years after the accident the patient had a sharp attack of appendicitis that t him in torture for 4 days. A year after regaining his al health he had another attack of appendicitis that ilted in death from general peritonitis. At autopsy, the endix was recognized with great difficulty and its ex- nity was perforated. On raising the cecum a cavity was nd that contained 400 gm. of a cloudy fluid. This cavity bounded by loops of small intestine and by one side of wall of the cecum. The third patient, a soldier, had, at age of 15 years, been kicked by a horse in the right iliac a. After this accident, he began to have attacks of colic he right side of the abdomen that were very violent and ed for 2 or 3 days. These crises ended by an attack of l diarrhea accompanied by the discharge of a large unt of gas. The attacks recurred about once a month. appendix was finally removed; it was swollen, red, and erent, The fourth was that of a soldier who in Septem- 1893, fell upon the end of a beam, and sustained a con- on of the right iliac region. Following this traumatism patient was ill for a month, apparently with appendicitis. 896, 1897, and 1898 the patient had attacks of pain in the t iliac fossa that resulsed in the removal of the appendix. peritoneum was thickened and was adherent to the endix that contained about a teaspoonful of pus. The endix was bound down by false membrane. [J.M.S]

.—Frequently, in the course of the **eruptive fevers,** icularly during convalescence from scarlet fever, **heart- rmurs without lesion of the valves** are found. se murmurs have been studied by d'Anfreville. They been found more frequently in women than in men, in h sex they occur in 66% of cases of scarlet fever. They most frequent between the ages of 15 and 25 years. se patients that have been much enfeebled by the course ie disease and those that have previously had some car- affection seem to be particularly liable to the develop- t of these murmurs. These functional murmurs have nportance from the point of view of the duration, of the se, or of the termination of the disease. The author ts the rules formulated by Potain for the diagnosis of murmurs; but discards the cardiopulmonary theory ieir origin. They appear to him to be of myocardial ation. They are due to a lack of tone of the cardiac cle or to disordered innervation of the muscle. These ders may be set up by the microorganismal toxins or by verfeeding of the heart-muscle. The density of the blood atients presenting functional heart-murmurs does not to be below the mean. The experience of the author digitalis and caffein in these murmurs has been favor- causing them to disappear. The vasodilators, such as ssium bromid, sodium iodid, and trinitrin, tend to in- se these murmurs; while the vasoconstrictors seem to no influence upon them. [J.M.S]

—**Sialorrhea** is a symptom common to a certain ber of diseases (neuroses, organic affections of the ner- system, visceral affections, infections, and intoxica-). Cases of essential sialorrhea should, in part, be outed to hysteria; those cases that one is not able to ain by an organic lesion appear to be due to a functional der of the nervous system, a disease of which sialorrhea predominant symptom and that has been called by pel salivary neurosis. Mazataud has studied the **sial- tea** that accompanies **tabes** and concludes that it is uced by a lesion of the medulla that directly involves salivary center or that acts upon it by proximity. In the clinic facts show that **sialorrhea is a late symp- of tabes,** and that it accompanies other bulbar phe- ena (neuritis of the trifacial nerve, optic neuritis, disor- of taste, of smell, and of hearing). In tabes, sialorrhea certain prognostic value, for, in the absence of other ir phenomena, it would indicate that the medulla had attacked by the lesion. [J.M.S.]

—Carrière discusses the **displacements of the heart of the abdominal organs in cases of pleural sion.** In left-sided pleural effusions the heart is as a displaced. When the effusion is less than one liter but than 700 gm., the apex of the heart occupies nearly its al position. In the vertical position or in the right l decubitus the apex of the heart is pushed down from cm. and lies nearer the median line than normal. When ffusion is between 1 and 3 liters the long axilla of the has a tendency to become vertical, the apex is pushed ward and toward the median line; it is in the immediate vicinity of the xiphoid cartilage if the fluid in the pleura measures from 2½ to 3 liters. In left-sided pleural effusion of more than 3 liters the heart with the mediastinum is pushed *en masse* toward the right; but its long axis is vertical and the apex is in close relation to the xiphoid cartilage. Torsion of the heart has never been noted, and in large left-sided effusions the pulsation beneath the right nipple is caused by the contraction of the right auricles, or of the distended aorta. The anatomic arrangement of the diaphragm would tend to prevent torsion of the heart. In right-sided pleural effusions of less than 1 liter there is no displacement of the heart, although in the left lateral decubitus the apex of the heart may be pushed from 2 to 4 cm. to the left. When the effusion is between 1 and 3 liters the apex of the heart is pushed toward the left from 3 to 8 cm. If the effusion measures more than 3 liters, the apex of the heart is pushed not more than 10 cm. to the left. In bilateral pleural effusions the heart is pushed downward as a whole and has a tendency to retain is normal axis. In right-sided pleural effusions there is, as a rule, no change in the cardiac cycle. In left-sided pleural effusions the pulse is not slowed and the ventricular systole is not prolonged; but in a few cases, in which the effusion is large, arrhythmia that disappears after thoracentesis may be noted. Standing, sitting, or in the right lateral decubitus, systole is painful, weak, and the ascending limb of a tracing is markedly oblique. Pleural effusions do not modify the frequency of the heart-beat, and there is no relation between the frequency of the pulse and the amount of the effusion. In large effusions irregular pulse and exaggerated dicrotism have been noted, and sometimes polycrotism has been observed when the patient changed his position. Variations in the amplitude of the systolic wave have also been noted when the position of the patient has been changed and with the respiratory movements. There is usually an increase of arterial tension with pleural effusions, but the increase is not dependent upon the size of the effusion. Death is not due to compression of the heart in these cases, for small effusions have resulted fatally. Edema of the lower extremities and thrombosis of the heart are rare complications of the condition. In left-sided pleural effusions of more than 2 liters the left lobe of the liver is pushed downward and to the right, in a line passing from the left nipple to the right anterior superior spine of the ilium. In right-sided effusions of more than 1 liter the entire organ is pushed downward in a line passing between the right nipple and the left anterior superior spine of the ilium. In double effusions of more than 1500 gm., the liver is displaced downward, but its transverse axis remains horizontal. These displacements do not result in hepatoptosis, and they have no influence upon the function of the organ. Pleural effusions collect first in the posterior culdesac of the diaphragm, then in the lateral culdesac, and finally in the anterior diaphragmatic pouch. The distention of these pockets depends upon the amount of the fluid. The dome of the diaphragm disappears if the effusion is large enough and may even produce a more or less marked bulging into the abdominal cavity. This displacement does not seem to influence dyspnea, but abundant effusions sometimes render the corresponding diaphragmatic dome immovable. Effusions of less than 1500 gm. in amount on the left side, pass behind the fundus of the stomach; but when the effusion reaches 2500 gm. that organ is tilted slightly, and its long axis has a tendency to become horizontal. Right-sided effusions of more than 2 liters push the entire stomach to the left. It does not appear that these displacements of the stomach are able to produce gastroptosis finally. In left-sided effusions pyloric obstruction and gastric stasis have been shown to exist. Neither enteroptosis nor chronic constipation can be said to result from the pressure of such effusions. The spleen follows the displacement of that portion of the diaphragm to which it is attached, and its axis has a tendency to become horizontal. The left kidney may be tilted slightly forward when a left-sided effusion is larger than 2500 gm. in amount. The right kidney is never displaced, nor is there any relation between displacement of the left kidney and future nephroptosis. The pancreas follows the movements of the pylorus of the stomach. The head of the organ is pushed downward and to the left in large right-sided effusions. In left-sided effusions the tail of the pancreas is pushed downward and toward the median line. [J.M.S.]

Practical Therapeutics.

Under the charge of

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of Philadelphia.

The Rational Treatment of Goiter.—Victor Horsley (*The Clinical Journal*, March 8, 1899) recently discussed the subject before the Northwest London Clinical Society. He remarked that if the gland were enlarged in response to some physiologic call upon it, as in anemia and pregnancy, when the hematopoietic function was maintained under unusual circumstances, it was obvious that such cases were improved by iron in a very simple way. Further, also, it was obvious that some of these cases might be improved by the administration of thyroid substance, because of such procedure the gland, which was having too great a call made upon it, could be supplemented. Recent researches of Baumann, showing that the thyroid gland contained a form of iodin, suggested that the old treatment of iodin or its preparations was a real treatment, however empiric it might be, and that it acted by supplementation. In speaking of iodin he at once dismissed the question of treatment of goiters by injection of iodin. In his hand it had not been in the least successful. It was well known that in the past it had been a dangerous treatment. Concerning adenoma of the thyroid gland, he remarked that it resembled, of course, normal thyroid tissue in every particular; there were more or less globular acini lined with characteristic epithelium and filled with colloidal substance, and their appearance was constant no matter what the size might be. Unfortunately there was no way of distinguishing microscopically the true adenoma from one form of malignant goiter known as general thyroidal malignancy. The treatment of adenoma of the thyroid was the simplest in surgery, and consisted in the operation of "shelling out." In reference to cystic goiter he said, in the first place parenchymatous goiter might be cystic. Under these circumstances we had multiple cysts, and the treatment was excision of the whole mass; this might lead to the necessity of removing the whole gland, which would be regrettable. The constitutional effects of total excision could be readily guarded against by the continual administration of thyroid for the rest of the patient's life. Fortunately, generalized cystic degeneration was not so common as the simple cystic degeneration. In such cases drainage was a dangerous method of treatment, because of the liability to septic infection of the tube and the subsequent development of adhesions of the cyst wall to surrounding parts. Shelling out of such a cyst, on the contrary, was advocated as an easy and simple operation. In the treatment of malignant goiter he emphasized the necessity of removing the whole gland, even when the disease appeared to be quite localized. As to exophthalmic goiter, he supposed at the present time all were agreed that an early case could be perfectly cured by electric treatment and by internal medication. In the severe cases, which tend to terminate fatally, he advocated removal of a portion of the gland. This operation produced a striking and remarkable effect; in fact, in many cases it produced a cure, although the risk was considerable, the fatality being due to interference with the function of the remaining portion of the gland, with the result that the patient died of acute thyroidism, or to absorption of the toxic secretion of the gland. His experience with ligaturing the vessels, was that it produced very little or no effect. No matter how large an adenoma or single cyst was, the patient could be told that the tumor could be removed, and that he would be perfectly well in a week. As anesthetic chloroform was preferred; this should be given until the patient was made unconscious, and then given in small quantities at short intervals, to keep the patient unconscious of pain. The neck should not be thrown back too far, for in so doing awkward compression or reflex disturbance of the vagus might be brought about. With a large number of Wells' forceps, there should be no loss of blood. In clamping various thyroid arteries, care should be exercised not to include the recurrent laryngeal nerve. Clamping of the veins should be carried out as they were met with. With a large goiter the hyoidean muscles would often have to be cut. If this was done they should not be sewn together, since they would become adherent to the scar, producing puckering, which was unsightly. They should be left alone; the gap between the cut edges was filled up by flat scar-tissue. The larynx would rise and fall just as well after as before the operation, however much you might have had to divide these muscles. The wound ought to be healed by a week, and the connective-tissue planes should be firmly adhered in 3 days. This result could be attained easily by the employment of drainage (for 24 hours only), by sewing up the external wound (the skin only) by passing a temporary stitch through the drainage-tube aperture, and then the application of a moist antiseptic dressing, so as to produce a gentle compression of the field of operation. The next day the drainage-tube should be removed and the temporary suture tied. At the end of a week the stitches could be taken out.

Fetid Diarrhea in Children.

℞.—Calomel	1½ grains.
Zinc sulphocarbolate	2½ grains.
Bismuth subnitrate	2 drams.
Pepsin	30 grains.

Make into 12 powders.

Sig.—One powder 3 times a day to child of 1 year.

—*La Semaine Médicale.*

The Treatment of Phlegmasia Dolens, or Milk Leg, in Typhoid Fever.—J. M. Da Costa (*Boston Medica and Surgical Journal*), in a recent clinical lecture at the Pennsylvania Hospital, described the treatment of milk leg in typhoid fever as follows: "The first thing to do is to elevat the leg, endeavoring thus to restore the freedom of the venous circulation, and to relieve the pain and tension by th use of hot applications and of bandaging. The limb may b fomented with compresses, wet with equal parts of hot lead water and laudanum, or witch-hazel distillate. Generally the lead-water and laudanum gives the most relief, and though cold will answer, I prefer it hot. The bowels, if constipated, must be kept open by laxatives, although this i rarely necessary. If there be persistent pain, belladonn plaster in strips along the vein, or belladonna ointment applied in the same way, is often useful. The patient must b kept in bed—the rest must be absolute; indeed, the grea aim in treatment is not to allow him to get out of his be too soon. When he is finally permitted to leave it, and, indeed, prior, as soon as the fomentations are discontinued, th limb should be well bandaged, so as to give mechanical support to the veins. For a long time afterwards this mechanical support must be kept up, either by bandages or elasti stockings, in order to prevent swelling of the limb; in truth it must be continued until the veins recover their tone an all symptoms of obstruction have disappeared. In cases i which the limb is painful and pale, and the circulation evidently impeded, and there is reason to think that a clot stil exists, I have tried nitroglycerin, and I think it was of use In some instances in which the veins remained tortuous bu there was no evidence of a thrombus remaining, I believ that I have seen benefit from ergot. Massage would bette be avoided so long as there are any signs of venous disturbance."

For Frosted Feet.—A correspondent in the *Britis Medical Journal* states that the following application afford more or less immediate relief in unbroken chilblains:

℞.—Aconitin Atropin	of each	½ grain.
Alcohol		1 dram.
Morphin hydrochlorate		2 grains.
Liniment of potassium iodid with soap		2 ounces.
Oil of sweet almonds		3 minims.

Tannalbin in Diarrheas.—Moncorvo, of Rio de Janeir writes that he has studied the action of tannalbin in 2 cases of infantile diarrheas and dysenteries, some of whic were very grave, and of long standing in spite of the rem dies that had been previously applied. The remedy was al tried in the treatment of nephritis, both subacute an chronic, in children, instead of tannin. In all the cases i which it was tried, tannalbin gave very satisfactory result In a previous communication, the writer had pointed out t value of tannin in intestinal derangement of children, an hence, tannalbin afforded considerable interest, its compos

predicating its value as an astringent and antiseptic,
le lacking the inconvenience of being readily decompos-
. In cases of follicular enteritis and serious colitis with
al prolapsus, the author was convinced that the tannin,
he form of tannalbin, reached the inferior extremity of
intestinal canal, thus rendering it of remarkable utility
he treatment of the affections so generally resistant to
tment in young subjects. In most cases, the remedy was
n suspended in a julep, which was well tolerated by the
ng invalids. For the older children, the tannalbin was
osed in cachets. The doses ranged from 8 grains to 60
5 grains per day. In many cases they may be repeated
long periods without the slightest inconvenience. In
clusion, the author states his belief that tannalbin is,
iout question, an excellent acquisition for the treatment
ufantile complaints. The same judgment may also be
ed upon its use among adults.—*Merck's Archives*, Febru-
1899.

aedemon (*Annal de la Soc. de Med. de Gand*, lxxvii) has
loyed tannalbin in 200 cases of diarrhea with excellent
lts. He found it especially useful in very young infants.
best results were obtained by repeated large doses. To
dren 45 grains were given daily, in a mucilaginous
cle; adults were given 2¼ drams daily. The author
cludes that it is far superior to ordinary remedies in
mmatory affections of the bowel, both in diarrhea and
ntery.

zzolino (*Gazetta degli ospedali e delle cliniche*, No. 36, 1898)
used tannalbin in 40 cases of diarrhea in children rang-
from 2 months to 14 years. In 2 cases only was it in-
tual, one a child with phthisis, and another with ad-
ed atrophy. The dose was 3 to 7 grains 5 or 6 times
y, alone or combined with a hundredth part of calomel.
ellent results have also been obtained by giving an
al dose of castor-oil, and following this by two injec-
s each day of 7 grains of tannalbin in 2 ounces of a 10%
ction of starch, to which 3 drops of laudanum may be
d.

annalbin is a compound of tannin and albumin, con-
ng 50% of tannin. It is a light brown, odorless and
less powder. It passes through the stomach unchanged,
s decomposed in the intestines where it exerts a mild
ngent effect.]

cute Rheumatism.—Hare recommends the following
bination in rheumatism which resists the action of sali-
tes:

—Acetanilid	40 grains.
Caffein	20 grains.
Camphor monobromat	20 grains.

ake into 20 capsules or pills.—One every three hours or
times a day.

uinin in Malarial Hemoglobinuria.—It is incon-
ble that intelligent physicians should give such diamet-
ly opposite reports as to the efficacy of quinin, and its
ble deleterious effects, as are constantly received from
rent parts of the world, if they are dealing with exactly
ame condition. Scientific observation of cases and the
f the microscope in diagnosis have shown that malaria
ently plays only a predisposing part toward this condi-
that when present it is absolutely necessary that steps
ld be taken to remove the infection, and when not pres-
here is no early reason for giving quinin, while the fact
in certain regions quinin may act as an exciting cause
moglobinuria should be enough to make us cautious in
se of the drug where it is not necessary. In a word:
f the hemoglobinuric attack has come on without
in; and there are active parasites in the blood, quinin
certainly be administered. (2) If under the same cir-
tances parasites are absent, quinin is uncalled for.
there is reason to believe that the attack has been pre-
ted by quinin, the drug should certainly be stopped,
s evidence of a very severe infection continue. The
n already given, together with the destructive action of
ttack, will probably be enough in most cases to over-
the infection. To properly treat "malarial hemoglo-
ia" the microscope is indispensable. Koch puts it as
vs: "For this reason alone, but especially in order to
lish an early and sure diagnosis, the microscope is abso-
indispensable to the physician in the tropics, if he has much to do with malaria, and that is probably always the case. A physician who faces malaria without a microscope and without thorough practice in the detection of malarial parasites will always fight in the dark."—WILLIAM SYDNEY THAYER *in Progressive Medicine, March, 1899.*

Arsenic in Chlorosis.—Benedict (*Therapeutic Gazette*, January, 1899) says that "when iron is needed arsenic is indicated, and often iron is contraindicated. Yet arsenic is distinctly a poison and not capable of taking the place of any normal constituent of the body. This apparent paradox he explains by saying that the cases in which it is of especial value are those of chlorosis, in which there is a failure of general innervation or supply of nerve-power, with a deficiency of hydrochloric-acid secretion and an increase of germ-fermentation. Often the circulation of the bile-passages, intestines, and of the mesenteric and portal veins carries from the bowel ptomains and other poisons. Arsenic in some unknown manner acts as a tonic to the central nervous system and as an antiseptic to the contents of the intestines, enabling the body to avail itself of the iron present in the food. Such other antiseptics as salol, salacetol, peppermint, wintergreen, bismuth, salicylate, bismuth subgallate, or eudoxin will act in a similar manner, but lack the nervine effect. The writer thinks that the value of arsenic in skin-diseases is to a great extent dependent upon its action as a gastroenteric antiseptic. This is particularly so with acne, urticaria, and some erythemata due to autointoxication.

The Treatment of Recurrent Epistaxis.

℞.—Antipyrin	7½ grains.
Tannic acid	15 grains.
Powdered sugar	150 grains.

—*Riforma Medica.*

Corpulence and the Fatty Heart.—Thomas E. Satterthwaite (*The Post-Graduate*, March, 1899) reviews the various methods of treatment which have been suggested for the relief of obesity, from the earliest times down to the present. He points out that the object to be sought in reducing corpulent people is to take off the weight so that they are relieved from disturbances attendant on the malady, and to accomplish it by the means that are least calculated to disturb the equilibrium. There should be nothing disagreeable about such a course; on the contrary, the patient should enjoy it and feel as each week or month passes by that he is gradually returning to his normal state; and that his faculties are getting keener for the rational enjoyments of life. It is best at first to let the patient know that the course is often a long one. It may take several months, exceptionally, even a year or more. Banting's course took over a year. The patient should be mainly restricted as to food that contains sugar, starches, and fats, for there can be no question that fat to some extent produces fat. Oxidation should be increased by resistant exercises daily for an hour, and by baths that stimulate the skin, and so cause an improvement in the circulation. Enough water should be taken to bring the urea up to the normal amount excreted, but no more is necessary. Tea and coffee should be taken in moderation, because they appear to retard oxidation. Acid fruits and drinks should also be taken sparingly, because in excess they produce indigestion. Sometimes all fruit has to be forbidden. In general the small fruits may be taken with discretion in their season. Sometimes the amount of both liquids and solids has to be much reduced. Laxatives should be taken, if necessary, to produce full daily fecal movements, and stomachics if indigestion is acute. But the vitality of the patient should never be reduced. It should constantly increase. A patient under this treatment can be made to lose from 4 to 10 pounds per month. Four illustrative cases are cited in which the weights were respectively 357 pounds, 181 pounds, 163 pounds, and 237 pounds. Under a modified Nauheim resistant exercise treatment with baths, the loss of weight per month was 3½ pounds, 5 pounds, 4 pounds, and 10 pounds.

Nitroglycerin in Hemoptysis.—The *Clinica Moderna* is authority for the statement that half a drop of the 1% solution of nitroglycerin, in a little water, given every half hour, is very efficient in severe hemoptysis.

Original Articles.

CYSTS OF THE URACHUS.[1]

BY E. D. FERGUSON, M.D.,
of Troy, N. Y.

IN building the body, Nature is liable to faults of omission and commission, the former class being the larger, *i. e.*, deficient activity being more common than excessive function. Some of these failures to do that which was proper and needful are quite common, as in the nonunion of the blastic planes resulting in harelip, spina bifida, etc. Other errors in structure are less frequent, but nevertheless important to recognize and bear in memory, for the common necessarily will be in mind, while the unusual, by being unexpected, is more liable to become embarrassing or even serious. It is not my purpose to minimize the importance of common things in medicine, but it is fair to assume that all physicians will have a reasonable mastery of them.

The devices present in the embryonic period of mammalian life which contribute to the developmental, constructive, and eliminative processes are interesting, instructive, and practically important. The fact that man during some stage of his existence is the analogy of all living organisms, from the lump of protoplasm through all grades and varieties of animal life to the finished product represented in himself, is more than a scientific pleasantry; it is a conception full of significance in directing thought and work.

When, in the process of embryonic development, it becomes necessary to provide for the urinary apparatus of the complete mammal, the temporary structure known as the allantois, which had been serving a purpose connected with urinary elimination, undergoes a process of change to make provision for progressively changing conditions. The proximal portion, *i. e.*, the part near the anal gut, is developed into the urinary bladder, while the distal portion atrophies and the cavity is there obliterated, so that from the bladder to and through the umbilicus it becomes a mere cord of connective tissue supporting some vessels, and known as the urachus.

It is rare for the atrophic changes in the portion of the allantois destined to become the urachus to fail to occur. When no atrophy occurs the result is practically a monster, incapable of extrauterine life; but the atrophy may occur to some degree short of complete blending and coalescence of the opposing surfaces of the sac. For instance, the allantois, from the portion constituting the urinary bladder, may contract to the dimensions of a small tube without coalescence of opposing surfaces at any point from the bladder to the umbilicus, and thus we have constituted a route for the passage of urine from the bladder to the surface of the body—a supernumerary urethra. In other instances the umbilical portion may become occluded, leaving a diverticulum from the bladder of varying capacity, according to the length of the unclosed portion and the resisting capacity of the walls of the duct to the effects of intravesical pressure. The occurrence of calculi in such pockets i not unknown. Again, the tissues may close for a greater or less extent from the urinary bladder towards the umbilicus, but fail to close at the cutaneous o mural portion, thus constituting a blind fistula at, or pocket in, the umbilicus. Without being able to giv data relative to the frequency with which these varieties occur, my own experience would incline me to the conclusion that this form, *i. e.*, where there is failure t close the umbilical portion of the allantois, is th most frequent. Finally, there remain those cases i which closure is complete for a greater or less extent a both the umbilical and vesical portions of the urachus while a consequently varying extent between these tw portions continues as a tube closed at both extremities

This closed cavity is lined with epithelium, and to al intents and pathologic purposes is histologically simila to the tunica vaginalis testis, in having a serous linin and a probable mesoblastic origin, and, as in that close sac, the exudation and absorption may be so evenl balanced that no distention occurs, and no symptomatic evidence exists of the failure to obliterate all th cavity of the allantois connected with the formation the urachus. It is only when there is failure of equivalence in the processes of exudation and absorption tha accumulation of exudate is liable to occur, and distention of the tube with more or less symptomatology result Usually, as a proper and natural result, the exudate wi be a serous fluid of low specific gravity not unlike th fluid formed in parovarian cysts, but more or less of th glandular elements found in mucous tissue *may* exist i the tube, and thus modify the character of the contained fluid, though this must be rare. As the quantit of exudate increases, the tube will be distended mo and more, and thereby approximate in a greater or le degree to the spherical form of an ordinary cyst.

The location of this cystic enlargement will vary wit the location and extent of the portion of the urach involved, and the degree of distention or enlargemen In some instances, it is only a vesicle of small or moderate size in the mural tissues at the umbilicus, agai it may be found at any portion between the umbilic and the urinary bladder, or it may involve the maj portion of the urachus and attain considerable dimensions, extending from the pelvis to and above t umbilicus.

From embryologic considerations the location of t cyst will in practically all the cases be extraperitone and hence in cases of properitoneal cysts of the anteri abdominal wall we are to keep in view the probabili of the cyst taking its origin in the urachus. I do n el, however, as has been stated by Tait, that extra- eritoneal tumors in that region are all derived from the rachus. Tait's dictum was based on two cases submitted operation, both of which resulted in death, in neither which was a postmortem examination made, and in th of which the reported character of the cystic con- nts would justify the hypothesis entertained by some at cysts originating in the pelvic region may develop pward and forward in such a manner and way as to parate the peritoneum from the anterior abdominal all, and thus become extraperitoneal. It is my con- ction that I have seen at least one case of that charac- r, one which grew to great dimensions and was cured er 25 years ago by excision of some of the anterior rtions of the sac, and "suture puckering" of the ening thus made, with drainage of the remainder, ucleation of the entire sac seeming too large an dertaking.

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[1] Read, by invitation, at the meeting of the Philadelphia County Medical Society, March 22, 1899.

It is not improbable that a failure of the allantois to alesce and blend into a cord throughout the entire tent of the portion which should become the urachus not a rare event, quite possibly being as frequent or en more frequent than harelip; but from failure of cretion to be in excess of absorption, or from the all size of the distention, no physical evidence of the fect attracts attention. In very rare instances, how- er, we are called upon clinically to deal with the fect, but so far I know of no case of considerable cyst the urachus diagnosed previous to operation. Of urse, I refer to those cases so situated as not to project a mammillated form at the umbilicus, for a failure have the trouble in mind in that class of cases would hardly pardonable. In those cases, however, in ich the tumor is in the hypogastrium, and extends greater or less distance upward into the abdominal vity, the diagnosis in the case of a woman would rdly be practicable, and though the grounds for con- ding as to its nature are better in men, still that its ture may be readily, and possibly pardonably, over- ked in a man, is shown by the following case:

n June, 1898, the patient, a man aged about 47 years, was ught to my office by Dr. M. B. Hutton, of Valley Falls, Y. He had lost notably in flesh and strength, though he s not anemic. He was inconvenienced by frequent urina- n, and complained of considerable pain in the lower por- n of the abdomen. Dr. Hutton had satisfied himself that able abdominal enlargement had been developing lately, ich he ascribed to a tumor in the hypogastric region. The t recognition of the tumor was about a month earlier, the first sense of discomfort was felt in July, 1897, nearly ear before the discovery of the tumor.

n examination a *flat* tumor was found extending from pubes to about 2 inches above the umbilicus, and from r each anterior superior spine of the ilium to its opposite ow. The upper border was slightly irregular near the bilical region, but elsewhere the contour was quite regu- The sense of resistance was that of a very firm, solid nor, and at no point could fluctuation or diminished hard- s be found. There was, however, a sense of *nearness* of mass to the surface, which led me to state that it seemed ne to be in the abdominal wall, but its flattened shape and dness together with some irregularity of the upper border me to conclude that it was probably a malignant disease of the omentum. Though such a growth, as a primary trouble, must be exceedingly rare, the shape and hardness led me to that working hypothesis, while the freedom from evidences of bowel-involvement and the yet moderate constitutional effects, led me to advise an exploratory operation, the final decision as to what could and should be done with the mass being left to a consideration of the conditions found on section.

I heard nothing further of the patient until in July, when his increasing size and discomfort led him to accept my somewhat gloomy, or at least to him unsatisfactory, view of his case, and he decided to submit to an operation. Of course, the absence of renal or other contraindication had been established. The operation was undertaken July 26, 1898, and the first surprise occurred when, on removing the antiseptic dressing after he was under the anesthetic, I found the mass to be then of a globular form. To this was added a great diminution in the sense of resistance and a manifest fluctuation showing the cystic character of the tumor. This change in the tumor was undoubtedly due to the relaxation produced by the anesthetic in recti muscles of unusual development. My first impression now was that I was dealing with a distended bladder, for the sac evidently extended into the pelvis and seemed more remote than formerly. Having satisfied myself that it was not a distended bladder, I proceeded with the operation, until I came to the wall of the cyst just under the deep fascia of the abdominal wall. At this juncture the nature of the case flashed upon me and I was able to state to those present that we were dealing with a cyst of the urachus. This conclusion was strengthened by the water-like appearance of the fluid which was removed by an exploring syringe. It being apparent that the lower portion of the cyst extended deeply into the pelvis and was probably intimately associated with the bladder-wall, a condition that would explain the frequent urination, I exposed the wall of cyst before opening it, from as near the umbilicus as the mergence of structures would allow to near the pubes. This I did in order to further a plan which I had quickly formed for the management of the case. In the first place I had determined not to try to enucleate the entire cyst, but to remove the posterior portion with the underlying peritoneum so far as I could and allow a reclosure of the peritoneum, dealing with the remainder according to circumstances. Such a procedure would require free access to the deep portions of the cyst, hence my long incision. The cyst was then opened the entire extent of the overlying incision, and an unknown quantity of water-like fluid escaped. The quantity, from absence of convenience for collection (the operation occurring in a private house) could only be estimated, but it was evidently more than 2 quarts, and probably less than 4 quarts.

It was now practicable to investigate the relation of the walls of the cyst to contiguous parts, and it was found to be intimately related to the bladder over a considerable extent of the surface of that organ, for it extended deeply into the pelvis. The posterior wall of the cyst was free from evidence of adhesion or other connection with the abdominal organs, and I was about to excise that portion of the sac when it occurred to me to ascertain whether the inner and secreting layer could be removed, thereby securing a surface which would unite. Beginning at the inner edge of my incision in the wall of the sac, and near the lower end of the opening of the belly, I was surprised and gratified to find that a layer of tissue, so thin as to be diaphanous in moderate light, and so strong as to allow of considerable traction without tearing, could be removed without much trouble, and with practically no hemorrhage. In that manner the entire lining of the cyst was removed except at the umbilical region where quite a surface existed in which digitations penetrated the abdominal wall, and a blending of the tissues prevented the removal of the lining. This surface seemed rather large for complete excision with subsequent easy closure of the belly at that point, hence it was allowed to remain while attention was given to the denuded portion of the cyst.

In the first place that portion of the posterior part of the cyst which could be placed in a fold and allow easy approximation of the peritoneum was stitched together and excised. There remained a strip of the denuded sac-wall between this line of suturing and the aponeurotic layer of the abdominal wall, making a sulcus not only on each side of the incision, but also above the umbilicus and down into the pelvis.

These sulci were closed by running stitches up to the edge of the incision in the aponeurosis and so far up as the portion around the umbilicus, which could not be denuded, also in a portion above that area which was denuded, using kangaroo-tendon in all the suture work. The remainder of the incision was then closed in layers, the skin being closed subcutaneously up to a point which would allow packing some gauze into the umbilical area. A single deep skin-suture was placed to divide the unclosed umbilical area from the subcutaneous suturing below that point. Some iodoform-gauze was then placed in the pocket left at the umbilicus, where the lining layer could not be removed, and the whole was sealed with a collodion seal, except over the gauze-packing, with the request that it be left for several days unless indications arose showing inflammatory processes. After about a week the seal was aseptically removed, the wound was found united where closed by sutures, and the packing uninfected. Of course, provision had been made for drainage of secretion from the area packed with gauze by overlying pads of sterile gauze, which were changed before they showed transmitted moisture. New packing was placed and the area carefully protected for another week, when the sinus was allowed to become infected in order thereby to destroy the secreting surface. The packing was continued several weeks, with the addition of rubber drainage, until the sinus had so narrowed as not to allow packing or drainage, after which it promptly healed. It had closed in September, and the area showed in December a perfectly normal state of affairs aside from the scar at the umbilicus.

The occasional reference in surgical writings to cysts of the urachus and the commonly fatal result on operation has impressed me with the seriousness of attempts to remove the entire cyst, though this feature of the subject has come to me more fully since operating on this case. The particular condition in this case which determined my course was the intimate and extended relationship of the cyst with the bladder. It was apparent that an attempt to remove that portion of the cyst lying in the pelvis would have been attended with severe mutilation of the bladder, a complication manifestly desirable to avoid.

I wish to dwell briefly on one feature of the management of the case, *i. e.*, the packing and drainage, with later allowance of infection of a portion of the cyst. It seems to me evident that our ability to protect cavities from infection for a considerable time, and then turn infection on by tap as it were, after contiguous and important areas have been protected by healing, widens the field and lessens the danger of treating certain cysts by drainage and inflammatory destruction of the secreting surface, when complete removal would involve important parts.

It is not my intention to stand as an advocate of incomplete operation, but it occasionally falls to the lot of every surgeon to encounter a cyst the position and relations of which render it exceedingly hazardous to proceed to a complete removal. In many of these cases the cyst may be reduced by partial excision, and after aseptic healing of contiguous areas, the remainder is allowed to become infected. In case of cysts of considerable size in which a free secretion continues, it will be necessary to give unremitting attention to the bridge or door of entrance for germs furnished by wet dressings, but care, if of a conscientious and intelligent character, will usually succeed in protecting against infection, until it will be relatively safe to allow it to occur.

I regret that the lining of the sac, so notably thin and strong, was not preserved in a mixture of water, glycerin, and alcohol, for on its structure, which permitted its being readily stripped from the remainder of the cyst-wall, depended the conditions which allowed of a simple and safe treatment of a serious condition.

When a complete extirpation of a large cyst of the urachus has been undertaken, a fatal result has been the rule. This may be due to two conditions usually present in such cases: (1) The intimate blending with the bladder; and (2) a tendency on the part of large cysts of the urachus to penetrate the peritoneal coat and form adhesions to the abdominal organs. From these facts I am led to advance as the special points justifying the writing of this paper, (1) the possibility that the entire lining of the cyst may be stripped off, thereby securing a surface which may be coaptated and direct union result; and (2) failing so to denude the wall of the sac and finding that the sac cannot be readily separated from important parts, drainage is the better course.

The infrequency of the trouble is shown by the note in Tillman's Surgery, Vol. III, p. 8 (1898), where reference is made to 14 cases "tabulated by Stadfeldt, 12 of which were in men." In the case of this disease we may feel that our sex has been honored, but whether it is due to the influence of a longer urethra and possibly phimosis, as factors causing increase of intravesical pressure during intrauterine life, is a problem I feel incompetent to solve.

CLINICAL AND SCIENTIFIC CONTRIBUTIONS UPON THE VALUE OF THE WIDAL REACTION, BASED UPON THE STUDY OF TWO HUNDRED AND THIRTY CASES.*

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(Conclusion.)

VI. *The Chemical Nature of the Agglutin* has been subjected to some investigation, but without much fruition. Widal and Sicard found that filtration through porcelain lessens the quantity of agglutinative substance found in the body fluids. The addition of 15% of sodium chlorid precipitates fibrinogen, which carries down much of the agglutinating substance with it. Further precipitation with magnesium sulphate throws down the globulins and more of the agglutinating substance. Dieulafoy[24] states that in milk the casein is the active principle. From this they conclude that it is ıot in the serum-albumin, but in the globulins and ibrinogen that most of the agglutin resides. In dialyzed iquids the agglutinating substance is absent. Achard nd Bensaud, on the other hand, found it dialyzable.

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*This article was submitted to the Journal last November, and owing to previous engagement of space has been held until now.

The agglutin has a marked resisting power, as is hown by the fact that it can be dried without change, nd is active after being sealed in tubes for months. t resists decomposition for a time. Temperatures of 0° C. diminish its power, but it is only destroyed at 0° C. Sunlight has no effect upon it.

In his paper before the American Medical Associa-on in 1897, Welch called attention, in this connection, the view of Behring upon the antitoxins and similar odies, that they are not substances, but forces, and ear the same relationship to the fluids containing ıem that magnetism does to the magnet.

VII. *The Relation of the Agglutinating Substance to the eukocytes* is a matter of interest. Achard and Bensaud[25] ave decided that there is no relation between the two. 'hey experimentally secured plasma devoid of leuko-ytes by using leeches and centrifugation and found it ctive, and also secured leukocytes by filtering off the uid through cotton. The living active leukocytes did ot cause any phenomenon on the part of the bacilli hen brought into contact with them.

VIII. *The Relation of Agglutinating Power to Immunity.* -There are numerous reasons for regarding the reac-on as one of immunity, and many able men, among hom are Maragliano and Pfeiffer, champion this view. is well known that the reaction usually develops me days after the inception of the disease, is most arked during the third week, and remains as a post-phoid condition for about the length of time that nmunity to the disease is supposed to exist. This oks significant, and is at least interesting, if of no pecial value.

The reaction is also observed to be less intense in ild than in severe cases, though there are numerous ceptions to this. Achard[26] noticed that after relapses e agglutinative power of the serum was increased. some of their writings, Widal and Sicard look upon e reaction as one of defense on the part of the organ-m, especially during the period of infection. Charrin so shares this opinion.

In the so-called vaccination against typhoid fever actised by Haffkine and by Wright and Semple, the ophylactic injections of sterilized cultures of virulent phoid bacilli beneath the skin impart to the blood the individual a more or less marked immunity, the currence of which it is supposed can be gauged by serving when the agglutinative power of the blood curs.

Welch points out that in experimental immunity to phoid, in which there is an increase of immunity to eat heights, there may be a corresponding rise of the glutinative power, whereby degrees of this power may obtained which are entirely unknown during natural infection. There is, however, no necessary correspondence between the height of immunity and that of agglutination; especially may the latter lessen or disappear when the former is present.

On the other hand, it may be shown that the power of agglutination often occurs almost simultaneously with the onset of the disease, when no immunity can have been established; that many cases with a high degree of agglutinating power are without immunity and suffer relapses; and that the phenomenon is most marked during the acme of the disease, and that it subsequently declines. The fact that the phenomenon is more marked in bad cases than in mild ones, and that the blood possesses a higher degree of agglutinating power after relapses, is given little weight in the argument, for, supposing the most recent view of Widal to be correct, and the reaction to be simply a *phenomenon of infection*, it is only to be expected that the results of severe infection should be greater than those of mild infection, and of prolonged infection than of brief illnesses.

Relapses have also occurred in cases in which the blood showed an agglutinating strength operative in dilution of 1 : 2000. Foerster found it impossible to prove any relationship between the severity of the attack and the degree of the agglutinating power of the blood.

Unable to prove that a definite relationship between immunity and the agglutinative power of the blood exists, most thinkers have now adopted Widal's view, and look upon the reaction simply as a "phenomenon of infection."

It was long ago taught by Chaveau, that, after their growth in an infected animal had ceased, the bacteria were liable to leave behind them some metabolic substance which would interfere with their future development. It may be that we have here to do with a product of microorganismal metabolism not seen in artificial cultures, and probably not immunizing in its effect, yet able to exert a pronounced interference upon the specific organisms when brought in contact with them. "At present we have no satisfactory evidence that the agglutinative reaction is concerned in any of the defensive mechanisms of the body."

IX. *The Specific Nature of the Reaction* is now universally accepted. There are, however, certain cases of irregular phenomena which diminish the absolute reliability of the test. These may or may not be dependent upon conditions which it is within the power of experience to explain.

Normal human serum, when concentrated, occasionally exerts a slight agglutinating effect upon the typhoid bacillus. This seldom occurs except with concentrations exceeding those employed for diagnostic purposes.

The blood of certain animals normally possesses an agglutinating property for the typhoid and other bacilli. Some individuals are peculiar in that their blood acts more strongly in its agglutinating and bacteriolytic action than others.

A few diseases, which may or may not be related to typhoid, occasionally produce in the blood of their victims a reactive effect upon the typhoid bacillus. The number of cases in which such errors can create much difficulty is shown, by reference to the statistics of Pepper, Stengel and Kneass (given above), to be very small, and the validity of the test is very slightly influenced by them. It is also to be shown elsewhere that for a final opinion upon the specificity of any reaction attempted for purposes of scientific diagnosis, certain definite criteria are given which allow of little or no deviation, and to which non-conformity by those reporting irregularities must be submitted before their weight is established.

Villiez and Battle[27] found that, in 3 cases of malaria from Madagascar, a positive reactive phenomenon occurred in *one*.

The reactive phenomena are very slightly interchangeable for species of bacteria closely allied to the typhoid bacillus, so that a serum with strong agglutinative properties may slightly affect the colon-bacillus, and a serum from an animal immunized to the colon-bacillus may be able to slightly affect the typhoid bacillus. Far from lessening the value of the test, this, as Welch points out, only argues for the close relationship of the species acted upon.

The typical reaction does not occur with the other closely allied members of the typhoid group of bacilli. The attempts to make the colon-bacillus agglutinate by application of typhoid serum to their culture usually fails. In cases of suspected typhoid, in which the reaction upon the colon-bacillus takes place, it is impossible to eliminate the possibility of combined typhoid and colon-bacillus infection, as suggested by Johnston and McTaggart.

So delicate is the power of the serum of reacting upon the specific bacteria, that bacteriologists are now making use of the phenomenon to differentiate between closely-allied species, such as the typhoid and the colon-bacilli. It is, however, very probable that the validity of the test is much greater when applied to the diagnosis of the disease than when applied to the differentiation of the bacilli.

In a number of cases we studied, serum which reacted strongly upon the typhoid bacillus failed to produce any alteration in cultures of bacillus coli communis, bacillus suispestifer, and bacillus icteroides. It is upon the specific reaction of a serum upon that particular bacterium which has changed it that the theory of the test depends. It is not a phenomenon at all peculiar to typhoid fever, but one which the serum from cholera-immunes produces when in contact with cholera-spirilla, and which serums from pneumonia, tetanus, yellow-fever, hog-cholera, Malta fever, colon-bacillus infection, proteus infection, psittacosis, glanders and other diseases produce when applied to their specific bacteria.

X. *The technic* is of the utmost importance. Widal[28] suggested that a small quantity of blood be withdrawn with a sterile syringe from the median cephalic vein, and a few drops of it added to a fresh bouillon-culture of the typhoid bacillus in the proportion of 1 : 10 or 1 : 15. Twenty-four hours afterwards, the cloudiness characteristic of the growth of the typhoid bacillus in bouillon had entirely disappeared, because the bacilli, massed together in agglutins, had all sedimented, and were found as a flocculent mass at the bottom of the tube. This he called the "rapid method," in contradistinction to a more rarely employed "slow or culture method," in which the serum in the given proportion was added to the sterile bouillon, which was then stood in an incubating oven for about 15 hours, or until the growth could be observed in a flocculent mass at the bottom of the tube. Pugliesi[29] used serum obtained from blisters.

Both of these methods were so discomforting to the patient, that, had no improvement in the technic been devised, it is probable that the reaction would have attained little importance as a method of diagnosis. Widal, himself, made the first improvement, and recommended that instead of a syringeful of blood, a few drops secured from the finger-tip would answer. He also recommended first observing the reaction through the microscope instead of awaiting the results of the slow sedimentation that succeeds the addition of the blood to a culture. Widal also found that it was not necessary to use fresh serum, but that serum kept for some time produced all the phenomena in quite as typical a manner. He further found that when the blood was dried and subsequently redissolved, it was capable of causing the reaction.

Wyatt Johnston, entirely independent of Widal's work, found that successful reactions could be secured from blood dried upon paper, and immediately proceeded to make practical use of his observation by requesting that specimens of blood dried upon some absorbent paper be sent to the laboratory at Montreal, where they would be studied and reported upon. A ready means of diagnosis in typhoid fever being something desired for a long time, this offer met with recognition, and it was not long before a large number of cases had been studied, and the success of the measure shown to be complete. Indeed, the outcome of Johnson's work was the establishment, at the laboratory of the Board of Health of the Province of Quebec, and later, at most public laboratories in this country, of a system of free public examinations, by which the physicians of the larger cities and towns can have their diagnosis confirmed.

The paper upon which the blood is dried is moistened with germ-free water, and a drop of the solution placed upon a cover-glass which has just been passed through flame. With it a drop of a typhoid bouillon, or of watery suspension, an agar-agar culture is mixed, the ver placed upon a concave slide prepared with vaselin as to make a hanging drop, and is then examined under lry lens of moderate power ($\frac{1}{4}$ or $\frac{1}{5}$ inch lenses are good). is was Johnston's technic. Wesbrook, of Minne-olis, endeavored to improve it by having the blood-ops dried upon carefully-weighed pieces of tin-foil, epared for the purpose in the laboratory. The vantage of this is that the exact weight of the blood cured can be determined, and accurate dilution made the occasional cases requiring them.

Not very long after the simple method of Johnston came popular it was found that there were occasion-y cases which certainly were not typhoid fever, but ich gave more or less typical reactions and, there-e, vitiated the results of the work. Widal observed same thing, and Stern[30] worked it out carefully. ch research by numerous authors has shown that ors are apt to occur when concentrated dilutions of typhoid blood or serum are used, and that it is ly in cases in which high dilutions of the serum are tent to produce agglutination, that a positive diag-sis of typhoid can be made.

Stern concluded that the dilution should be 1 : 100, even 1 : 200. Widal, however, found 1 : 60 suffi-nt. Dilutions of 1 : 10 are satisfactory for routine rk, and it is only necessary to use the high dilutions doubtful cases.

Welch says: "From the observations thus far re-rted, although they are insufficient in number for inite conclusions, there would seem to be only a all liability of failure to recognize genuine typhoid es by resorting to dilutions of 1 : 40 or 1 : 50, but questionably a few would escape recognition, and this reason lower dilutions should also be used, and hose between 1 : 10 and 1 : 50 give decided reaction re should be at least suspicion of typhoid." It is , therefore, to be recommended that one should ke the test with only high dilutions, such as 1 : 50. e negative result of the preliminary test with equal ts of serum and culture suffices to exclude typhoid ction. The examination, if positive, may then be de with a low dilution of the serum, and for this dal's recommendation of 1 : 10 or 1 : 15 may well adopted. If with this dilution the microscopic re-ion is complete and almost immediate, as is often case, there is practically no risk in making a posi- diagnosis. But for absolute certainty, and above in cases in which the result of the reaction is not mpt, complete and unmistakable, higher dilutions uld be employed; if the amount of serum permits y one such, it may be 1 : 50, but preferably inter-diate dilutions should also be made, and it is desir-e, if not absolutely necessary, to try dilutions higher n 1 : 50.

time-limit is also to be fixed, and when, with the ordinary dilution of 1 : 10, a reaction does not come on within 15 minutes to an hour, any subsequent agglutinative phenomena should be looked upon with suspicion. We have, however, seen reaction delayed an hour and longer in 1 : 10 dilutions in cases known to be typhoid. Of the weak dilutions, 1 : 50, etc., the time limit must be extended to at least an hour. Usually the reaction occurs so promptly that no difficulty is experienced.

XI. *The Condition of the Culture* is also to be carefully considered from several standpoints, else the vitality of the test may be called into question.

1. Age. Young cultures of the typhoid bacillus are actively motile, and are apt to contain rather elongate individuals. Both these features are rather essential to success. The more actively motile the bacilli, the greater the contrast when this motility ceases; the longer the bacilli are, the more typical are the agglutinations. Cultures less than 24 hours old are best. At a pinch, however, they can be employed so long as they remain motile.

2. Activity. Johnston first pointed out that virulent bacilli frequently transplanted from culture medium, soon arrived at an abnormal condition in which reactions were apt to occur with normal blood. The best method of avoiding this error seems to be to keep a stock-culture in the laboratory, and transplant it from agar to agar only so often as is necessary to keep it in good condition—say once in 3 or 4 weeks. As often as one has tests to make he makes a transplantation from this to whatever culture-medium he prefers, and uses it about 24 hours subsequently.

3. Virulence. Johnston is emphatic upon the use of attenuated rather than virulent, freshly-isolated cultures, stating[31] that "with virulent cultures the presence of agglutinative substances in non-typhoid bloods may lead to pseudo-reactions." These reactions are characterized by a rapid clumping without the characteristic loss of motion of the true reaction. Kuhnan[32] seems to differ with Johnston, however, and finds that the reaction with non-virulent cultures is nearly double that obtained with virulent ones. Foerster[33] did not see that the difference between the reaction obtained with virulent and attenuated bacilli was great. He experimented with 9 different bacilli, and expresses the difference observed as 5 : 8.

4. Reaction of the culture-medium. Johnston also investigated this subject, and found that when the bacilli are cultivated upon acid media, they may entirely lose their ability to agglutinate. Care should be taken to insure that the culture-medium employed always has the same degree of alkalinity, and is always alkaline and never acid. On the other hand, the media must not be too alkaline, as this condition will also cause erroneous results.

5. Vitality of the culture. Except for the fact that the dead bacilli are not motile, and hence cannot show

a loss of motility as a part of the reactive phenomenon, they are useful for making the test. In fact the entire absence of danger of infection, and the convenience with which the sterilized cultures can be sent from place to place to be used by the physicians who are unacquainted with bacteriologic technic, has made Wright and Semple[34] recommend their use. The reaction is probably physical rather than vital, as it occurs in dead as well as in living organisms. Gruber's theory of the reaction was that the serum acted upon the capsules of the bacteria, causing them to swell up and become adhesive so that they stuck together when in contact.

* *

To summarize briefly the facts thus collected, we find that the Grünbaum-Widal reaction, which when properly studied is accurate in nearly 97% of the cases, consists in a loss of motility and a peculiar clustering of the bacilli in groups, depending upon the fact that a moderately virulent, actively motile, 24-hours-old culture, grown upon a slightly alkaline culture-medium, is acted upon by a solution of blood or serum equaling about 1 part of the blood or serum to 10 of water, for a period not exceeding one-fourth to one hour, or, in a dilution of 1:50, 1 to 2 hours.

The chief difficulty which confronts bacteriologists at the present time is fortunately one that it is necessary to overcome in but few cases. It is the dilution. With blood dried upon paper, as Johnston recommends, or upon sponge, as Widal prefers, it is impossible to make even an approximate dilution. To collect considerable blood, as Widal first suggested, is offensive to the patient, and not without some danger.

Cabot has suggested the use of the medicine dropper, and secures some blood from the finger and drops a drop of it into a receptacle and afterwards drops in a given number of drops of bouillon-culture from the same medicine dropper. In our work we have not found it easy to do this, and it is disadvantageous in that it must be performed at the bedside.

Some men have successfully employed the pipet used for counting leukocytes. This seems excellent for bedside work.

Delepine has a very good method that can be employed both at the laboratory and bedside. A drop of blood or serum picked up with the bacteriologist's platinum-loop is placed upon a glass slide, and alongside it are placed 9 drops of the culture to be used. When these drops are mixed the mixture forms a dilution of 1:10.

McFarland has recommended[35] the employment of capillary glass tubes of an average size, which, when allowed to draw in blood from a prick on the finger-tip, will contain a known quantity of blood if the column drawn in has a certain length. Knowing the weight of the contained blood, it is easy to estimate how much fluid-culture one must add to make a definite dilution. The tube is crushed and stirred in the diluting culture so that none of the blood is lost.

While theoretically a method which has much to recommend it, when it was necessary to make large numbers of tests, it was found to be cumbersome.

Any or all of these methods are applicable and useful for the study of special cases.

In the 1,100 tests made the basis of this paper, it was necessary to work so rapidly that the most simple method possible was the only one that could be used. The dried-blood method of Johnston was that selected, the method of employing it being as follows:

The blood, taken by resident physicians in the hospital, was sent to the laboratory dried upon filter-paper cut in small oblong pieces, each bearing the name of the patient, etc., and each containing 4 or 5 good-sized drops of blood from the finger. When ready to make the test, one of these drops was carefully cut out and macerated for a few minutes in a watch-glass containing 4 drops of clean water, the size of the drops being made as nearly as possible about that of the drop of blood. In this way an approximate dilution of 1: 5 was attained.

The culture used was that which Dr. Wyatt Johnston has so kindly distributed among the public and private laboratories. It originally came from the Institute for Infectious Diseases in Berlin. The culture to be employed was grown for from 12 to 36 (rarely 48) hours on slightly alkaline agar-agar. Before each lot of tests was made the bacillus was carefully studied in the hanging-drop to observe its characteristics, particularly its grouping and motility. The culture was used suspended in water, it being our opinion that this is better than a bouillon-culture, because, irrespective of the age of the culture, one always has it in his power to distribute many or few bacilli in the liquid. A few drops of distilled water are dropped into a watch-glass, a small quantity of the culture is taken up with a platinum wire and stirred in the water. By holding the watch-glass over a dark object, it becomes possible to see the distribution of the bacteria, and when the desired concentration is reached the wire is withdrawn and sterilized. We prefer to have no more bacilli in the water than are present when the faintest change of its transparency is noticed.

With a platinum-loop a drop of the culture is picked up and placed upon a cover-glass, and with the sam loop a similar drop of the 1 : 5 dilution of the blood i taken up and thoroughly mixed.

The mixture consists of bacteria suspended in 1 : 10 dilution of the blood. A hanging-drop preparation is made and observed under a Zeiss DD oc. 4, or Leitz No. 6, oc. 4. As a rule, when reactions were t be positive, the change occurred quickly, and at th first observation one could conclude what the outcom of the experiment would be. Occasionally no chang was observed for 15 or even 30 minutes. Rarely, it took an hour for the reaction to be perfect.

Following the footsteps of Johnston, we refused to consider any reaction positive in which there was not a combined agglutination and loss of motion.

Many cases showed agglutination without loss of motion, and some—perhaps many—showed loss of motion without agglutination. These cases were reported to the clinician as doubtful, and a further examination was required. The analyzed reports seem to indicate that such thoroughness was somewhat in excess, for nearly every specimen originally marked doubtful subsequently gave a perfectly satisfactory reaction.

The time-limit set for the reaction was *one hour*, and in no case was it observed that the changes which took place in the bacteria in 2 hours were more characteristic than those seen at the end of 1 hour. The reactions were very rarely delayed beyond a few minutes.

The method adopted was crude, but was as complicated as could be prosecuted when such large numbers of tests had to be made, and we feel satisfied that Johnston's method, of which ours is scarcely a modification, is the very best means to be employed in health-laboratories or large hospitals where there is much work to be done.

Johnston used smooth paper for collecting the blood. This has the disadvantage that the drop dries upon the surface and clings to it like a wafer, but, being brittle, is apt to crumble and drop off. In this way sometimes a specimen may be spoiled. In filter-paper the blood spreads out into a round drop as large as a cent or quarter-dollar, and dries. It cannot be destroyed, and dissolves out quite readily when desired, except when it is old. We do not feel, therefore, that the use of filter-paper is to be recommended when it is desired to retain the blood for a long time. Probably the best means for meeting such emergency is to seal it up in small glass bulbs, or in capillary glass tubes.

Nearly all of our work was done with the dilution of 1: 10. It is only in important cases in which the blood reacts and in which it is questioned whether the case is typhoid, that it is necessary to work with the standard dilution of 1 : 50 or the higher dilutions of 1 : 100 or 1 : 200. Among our cases there were none of this kind. The soldiers either had or had had typhoid fever.

It was interesting to note the different forms of reaction, which might be classified as follows:

1. Cessation of motion (not regarded as typical).
2. Formation of small agglutins without loss of motion of the free bacilli (not regarded as typical).
3. Complete cessation of motion and formation of a reticulated agglutinated mass of bacilli covering the whole field.
4. Complete cessation of motion with the formation of small, fairly uniform agglutins. This usually occurs quickly and is accompanied by distortion of the bacilli.
5. Complete cessation of motion and large-sized agglutins, some of which are enormous. The bacilli are shrunken and twisted. (This form of reaction was usually almost instantaneous in its occurrence, and probably indicated that the highest degree of the blood-alteration had taken place. We saw it most marked in a case with two relapses. It is also accompanied by bacteriolysis.)
6. Rapid agglutination and loss of motion followed by prompt and complete solution of the bacteria. The bacteriolysis is probably entirely independent of the other phenomena. It may occur in normal blood, but few of these were examined, and the one case in which we encountered it was one of typical typhoid.

XII. *The Clinical Value of the Serum Diagnosis.*—Granting the precision of method of serum diagnosis, it is doubtless of great diagnostic importance. As shown by the statistics given, a positive reaction is almost invariably obtainable, it having been found missing in 4.5% only out of a total of 2,393 cases. Again it is highly probable that this small percentage of failures would be farther reduced if the test were repeated every day or two (when negative at the first examination) until convalescence is fully established. This was scarcely appreciated by the profession during the period of the earlier observations of this test. It explains the failure of certain fatal cases to respond positively during life, and it greatly lessens the value of the test for clinical purposes. It would be manifestly unwise to depend solely upon the sero-reaction as a deciding factor, seeing that it is often delayed, since an appropriate method of treatment must be instituted early if good results are to be expected.

Gruber[36] also states that the sero-reaction is a valuable aid in the diagnosis of typhoid fever, but it is not to be relied upon absolutely, since it may first appear during the second, or even so late as the fourth or fifth week of the disease.

It should be recollected that the serum of even healthy persons may cause agglutination and immobilization of the bacilli (though more slowly and less perfectly) when too large a portion of blood is employed. The same thing may, though rarely, occur in certain non-typhoid diseases. To avoid this source of error, Grünbaum advises a dilution of blood-serum greater than that recommended by Widal. Delepine,[37] however, states that in his experience an imperfect agglomeration has been very seldom a source of difficulty. He continues: "A careful observer, controlling his observations at every point, should be able to avoid any fallacy from this source." Oppositely, it is an established fact that there are very exceptional cases in which the Widal reaction is absent throughout the entire course, so that failure to obtain a positive result does not warrant the exclusion of typhoid fever.

Finally, the sero-reaction is the most reliable and important single diagnostic factor when (as it does in the majority of instances) responding positively prior to the appearance of the second crop of typhoid eruption. It is a matter of common observation that, however typical, the first crop of roseola, which is often limited to a few spots, may be duplicated by non-typhoidal rashes. In our experience with the present series of cases, it has happened that the Widal reaction (agglomeration and immobilization) has decided the true nature in the majority of instances, and that before a clear diagnosis was rendered possible by the eruption and other cardinal symptoms. These cases comprised principally typical instances, but also a goodly number that were aberrant as to clinical form, and a small number that would have defied recognition but for this test. It might be questioned whether all the cases that had been variously diagnosed as lumbago, debility and rheumatism before the specific test responded positively, should be referred to the list of typhoid-fever cases. The observations at the bedside in the present series of cases showed that the instances in which the clinical course resembled most nearly typhoid, gave the earlier and perhaps more perfect reactions. Again, in the milder cases that came under observation at a comparatively early period, the sero-reaction was generally delayed. This was also true of cases in which a reaction occurred, but the symptoms and course pointed strongly to some mild, non-typhoid affection, as lumbago, marked debility, rheumatism, and simple gastro-intestinal disturbance, coupled with a mild typhoid state. It may, therefore, be reasonably supposed that some of the latter cases, in which the symptoms were for the most part indefinite, yet responded affirmatively to the Widal test, may have been typhoid in nature. In the minority of cases (probably one-third), owing to the long-delayed Widal reaction, the diagnosis was practically settled by the clinical symptoms and general course, before the specific test came to our aid.

In conclusion, certain precautions and axioms bearing upon the clinical value of the sero-reaction in diagnosis of typhoid fever, may be summarized in tabular form :—

1. The disease is not to be excluded on account of the absence of a positive Widal reaction, since genuine cases have been met in which a negative result had been obtained throughout.

2. All cases that react positively are to be regarded as typhoid fever, until a thorough bacteriologic examination fails to reveal typhoid bacilli anywhere in the body, as cases occur in which the usual enteric lesions are entirely wanting.

3. Taken singly, the sero-reaction is the most trustworthy indication of typhoid fever.

4. Although not an early diagnostic symptom, it nevertheless serves to *complete* the diagnosis in the great majority of cases at the earliest date possible.

5. Since the sero-reaction may be long delayed, and very exceptionally absent throughout, it cannot be solely relied upon for therapeutic purposes.

6. Previous attacks of typhoid fever, within 1 or to 3 years, render the test valueless.

7. In order to secure accurate results, the technic to be carried forward by a trained bacteriologist.

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MODERN METHODS IN PRODUCTION OF VACCIN VIRUS.*

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EARLY in the spring of 1898 Dr. Benjamin Lee, Se retary of the State Board of Health, prophesied a outbreak of smallpox in this and adjoining State tracing up the advancing wave from its foci in th southeastern States, where it has been lingering sinc February, 1897.

Events are showing the clearness of his judgmen and foresight. Reports are flocking in from all ove the country, telling not of isolated cases, but of larg areas where the disease is epidemic. January 18, D Probst, Secretary of the Ohio State Board of Healt reported there had been 668 in that State. The Unite States Marine-Hospital Service reported 1,925 case with 36 deaths, between December 1, 1898, and February 10, 1899, and I believe we may safely accept th estimate made in the editorial columns of the Phil delphia *Press*, February 18, of 3,000 cases betwee January 1 and February 10, 1899.

The disease is spreading with alarming rapidity, an the remarks of Sir R. Thorne, in his report to the Loca Government Board of London: "That the year of 189 may see an epidemic of smallpox such as has bee unknown to the present generation," while applied t the English condition, may be properly used to expre the situation on this side of the ocean.

What is the cause for the recrudescence of this drea disease? To one who has followed its course it i apparent that several factors are at work.

After traceable importation from Cuba the diseas made its appearance in epidemic form in the mountains of Virginia, Tennessee, Georgia, Alabama, and neighboring States, among the great unwashed and unvaccinated class of miners and mountaineers, mostly of negro origin. Its exportation from thence is easily traced; for example, the outbreak among the waiters at Put-in-Bay, or more recently its appearance among the unvaccinated recruits at Forts Niagara, N. Y., McHenry, Md., and elsewhere. The recruits in question had been lodged in the Imperial Hotel at Rochester, N. Y., while awaiting transportation to their various camps, and while so detained were exposed to infection by a concealed case of the disease in one of the waiters. Returning soldiers have also spread the germs broadcast as expected, and the brunt now falls with special severity upon those sections where neglect to enforce vaccination has prepared an appropriate field.

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* Read at sixth annual meeting of Associated Health Authorities of Pennsy vania, at Harrisburg, Feb. 24, 1899.

Smallpox is also rife in certain districts where antivaccinationists are in force, and where they are now reaping the well-seeded and carefully nurtured harvest. With the condition now existing in the larger well-vaccinated cities, such as Philadelphia, New York, and Chicago, with their tremendous, crowded, often ill-housed and ill-fed population, exposed in every 24 hours to more direct contagion due to the vast flowing and ebbing tide of visitors than would be an ordinary country town in a lifetime, places where one would expect an epidemic, it does not exist, but it does among the scattered country population to an alarming extent. As an example of what can be accomplished by thorough vaccination, the report of Captain and Surgeon R. S. Woodson, February 8, 1899, shows that in 3 months the disease, which has been epidemic for over 12 years in the district of Holguin, Cuba, has been completely exterminated by the vaccination of over 10,000 people and the successful treatment of over 1,200 cases of smallpox. Not a single soldier contracted smallpox, though soldiers did guard-duty at the lazarettos; all had been thoroughly vaccinated before reaching Cuba.

Aside from neglect to enforce vaccination, there exists in many minds a marked timidity in voluntarily submitting to protective inoculation with the virus of cowpox. This fear, as a rule, is based upon exaggerated reports in regard to unfavorable or unpleasant results either accompanying or following vaccination. Without doubt a few persons have suffered from mixed infection following vaccination. While this cannot be laid entirely at the door of protective inoculation with cowpox, save in rare instances, still the fact that such events may follow or accompany vaccination has led many competent workers in this country and abroad to endeavor to obtain a vaccine free from all extraneous organisms, which will produce cowpox pure and simple, without any inflammatory or septic accompaniments. I want to emphasize in the strongest possible manner the fact that the investigations which have led to the present standing and methods of producing vaccine virus (I refer to the so-called glycerinated pulp-vaccine) are directly the result of a number of independent workers, many of them of the highest possible standing in scientific work in no wise connected with any vaccine-producing establishment or with any mercantile interest in such establishments. Papers on the subject have been published in this country by Sternberg, Reid, Weaver and Huddleston; in England by Copeman, Kent, Warlmount, Crookshank, Blaxall, Klein and others; in India by King, Simpson and Harvey, the last in 1868; in France by Fouque, Chambon, Menard and others; in Germany by Leonhard Voight, Strause, Badstubner and Fleischman; in Japan by Kitasato (that gifted and brilliant Japanese to whom the world owes, in a very great measure, the discovery of diphtheria-antitoxin), Mumeno and Ogata; in addition I have notes of over 150 papers on the subject from all over the globe.

While the calf, or, in fact, any animal, constitutes the soil upon which to grow successive crops of vaccine virus, it is an utter impossibility to exclude or prevent contamination with many organisms. The reason for this is easily explained. Many organisms are more or less persistent inhabitants of all animal surfaces; they are found not only on the surface of the skin, but deep down beneath the superficial layers, and in the base of the hair-follicles. This is the reason so much care is necessary in the preparation of a patient for an abdominal operation, and why even with 24 hours' careful preparation and the use of strong antiseptic agents there is sometimes failure to sterilize the field of operation, and as a result infection of the wound follows. Halsted, Keen, and many other prominent surgeons in this country and abroad, appreciating this difficulty, wear thin sterilized gloves while operating.

In the animal there is such original infection many times multiplied, owing to the greater number of hair-follicles, and also to habits which we cannot control. Should we succeed in saturating the surface of the skin with the stronger antiseptics and rendering it in a measure sterile, a successful vaccination could not be produced, as the vaccine-organism is so readily destroyed by even the mild antiseptics.

With the most careful preparation of the calf the production of vaccine is begun with an infected skin, using the word infected to imply that the skin is not sterile. If a scratch is made sufficient to cause a little serum to flow, and at once a drop of this serum is transferred to a tube of culture-medium, and incubated for a few days, almost without exception there will result a luxuriant growth of many organisms similar to those shown by Fig. 1, which was made under the conditions just described. The majority of the organisms shown growing here are harmless, but there are several present which bear a close resemblance to the pus-producing varieties; the only way to decide this is to test them on some susceptible animal. To every ordinary appearance they are pus-producing organisms. A culture taken from your own arm, however, would probably show a similar condition.

Starting with an infected skin, it of necessity follows that the cowpox vesicle will be infected. Should success attend the effort to destroy the majority of organisms in the beginning, those undestroyed would reinfect the wound within a few hours, and if they did not, exposure to the air of the stable would cause the vesicle to swarm with many varieties of microorganisms in a short time.

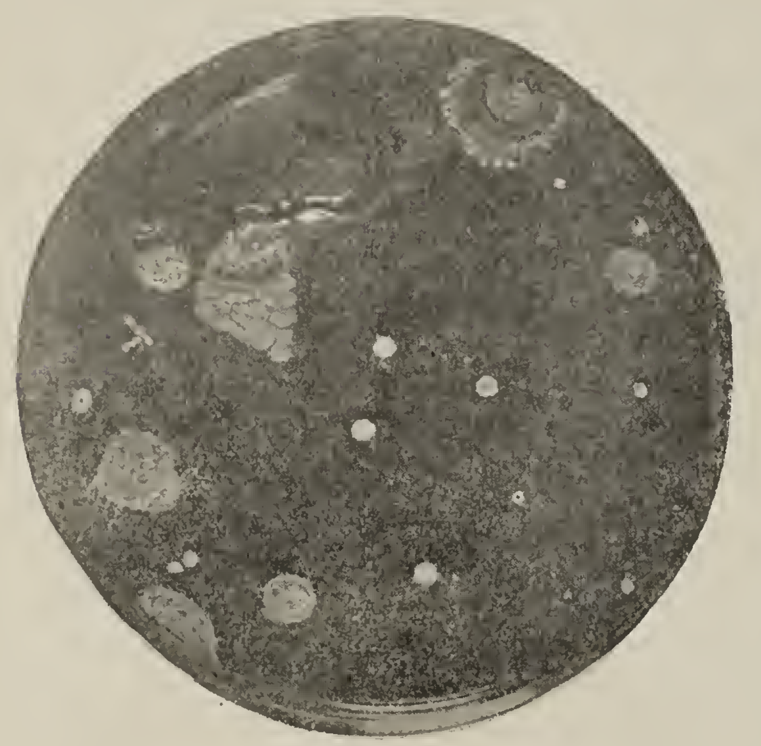

Fig. 1.

It being impossible to produce a vaccine free from contamination, those germs present must be destroyed or rendered harmless. The one agent which has given the most satisfactory results in all hands is chemically pure glycerin. Vaccine virus stored in glycerin for 3 or 4 weeks is rendered practically sterile as far as extraneous organisms go. Glycerin is a very mild antiseptic agent, still its power of destroying germs may be proven by adding to some pure glycerin virulent cultures of any pathogenic organism and making cultures from week to week of this mixture. The cultures rapidly die out and the few organisms that may continue to grow do so under such unfavorable conditions that they rapidly lose their pathogenic attributes and are without significance. Dr. George H. Weaver, in his article "Glycerin as a Bactericide," in the *Journal of the American Medical Association*, December 26, 1896, published the following tables of results, which I have verified many times. He found that pure cultures of the following organisms added to glycerin were destroyed as follows:

Streptococcus aureus. Dead in 5 to 20 days.

Staphylococcus pyogenes. Dead in 5 days, even in large quantities.

Bacillus mallei. Dead in 2 days.

Bacillus subtilis. Dead in 4 weeks.

It will thus be seen that the pus-producing organisms are very rapidly destroyed by the action of glycerin. The use of glycerin as a medium for vaccine virus is not by any means a recent thing. It was brought prominently before the medical world in 1891 by Copeman, in a paper read before the International Congress of Physiology and Hygiene in London. So far back as 1850 an article was published in the London *Medical Times* by R. Cheyne, on the preservation of vaccine-lymph by the use of glycerin, and in 1853 he exhibited to the Presidents of the Royal College of Physicians and Surgeons a child that had been successfully vaccinated by lymph stored in glycerin for six months. In 1869, Muller of Berlin followed up these experiments, and Dr. Stephen Mackenzie used glycerinated lymph in the London epidemic of 1870–71 with marked success. In 1882, Dr. Warlmont patented this process in England.

In this connection I will read a recent letter from Dr. Joseph H. Raymond, Professor of Physiology and Hygiene in the Long Island College Hospital of Brooklyn, as it refers to what I believe was the first introduction of fluid lymph into this country. He writes:

> "In March, 1869, I reached Paris, where I found that smallpox was quite prevalent; not having been vaccinated in some time, I went to Lanoix's office, where I found him and a calf with the vaccine vesicles well developed. He took the lymph from the vesicle and vaccinated me, making three scarifications on each arm. I asked him to put some of the lymph up for me in capillary tubes, which he did in my presence, and wrapped them for me in cotton and packed them in a box. This I sent to my old family physician, Dr. George Marvin of Brooklyn. When he received it he vaccinated a number of carefully selected primaries, and the lymph which he obtained from these children was much sought after by the Brooklyn doctors; many of them came to his office for it. The lymph was of Beaurgency stock.
>
> Sincerely, J. H. Raymond.

It was not until about 1890, however, that the bactericidal action of glycerin was prominently brought before the medical world. It received great impetus from a paper, by Chambon and St. Yves Menard, appearing in 1892; and again from a paper read by Leoni before the Medical Congress at Rome, in April, 1894.

The following plates have various growths perceptible. Fig. 2 was made from the serum or so-called lymph generally used in making points or quill-slips; and Fig. 3 was taken from the pulp which is now so universally used in preparing glycerinated vaccine. In these tests an equal portion of each material from the same calf was used, and it makes a picture which illustrates what is claimed,—that the serum collected for vaccine and also the pulp contain about an equal percentage of organisms, of exactly the same variety. As both pulp and serum are equally infected for all practical purposes it is well to use that portion of the vaccine-vesicle which possesses the greatest vaccinating power.

The exhaustive investigations of Chambers, Copeman, Straus and others have conclusively shown that the greatest percentage of vaccinating material is contained in the cheesy, underlying mass called the pulp, which seems to be the natural culture-bed for the cowpox organism.

I cannot better describe the modern method of preparing glycerinated pulp-vaccine, than to quote from Dr. S. Monckton Copeman's article, entitled "The Natural History of Vaccinia," read before the Royal College of Physicians of London, in May, 1898. He describes the process as follows:

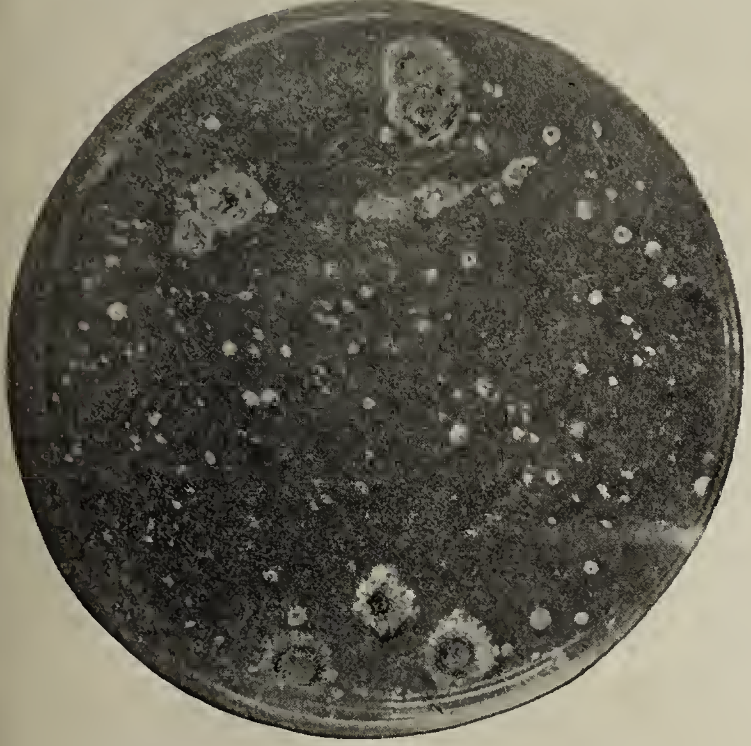

Fig. 2.

> The preparation of the calf.—A calf of suitable age, about 3 to 6 months old, should be kept in quarantine for a week, after which, if found to be quite healthy, it may be removed to the vaccinating station. It is there placed on a tilting-table and the lower part of the abdomen, reaching as far forward as the umbilicus, having been shaved, is thoroughly washed with a solution of carbolic acid and then rinsed with sterile water and dried with soft sterilized towels.
>
> Inoculation of the calf.—With a sterilized sharp scalpel, incisions parallel to the long axis of the body are made on this clean-shaven area. The depth of the incision should be such as to pass through the epidermis and to open the rete Malpighii, if possible without drawing blood. As these incisions are made, glycerinated calf-lymph, which by examination has been proved to be free from extraneous organisms, is run into them by means of a sterilized blunt instrument and the point of the scalpel is also from time to time dipped into the vaccine emulsions.
>
> Collection from the calf.—After 5 days, or 120 hours, the vaccinated surface of the calf is first thoroughly washed with warm water and soap, rubbed over it by the clean hand of the operator, and finally the whole area is cleansed with sterile water. The remaining moisture is then removed by sterilized sheets of blotting-paper. The vaccinated incisions will now appear as lines of continuous vesicles raised above the surface, each line separated from its neighbor by about ¼ inch of clear skin. Any crusts which appear in the vesicular lines are picked off with a blunt sterilized instrument. The vesicles and their contents are then removed by means of a sterilized Volkmann's spoon and transferred to a sterilized bottle of known weight. By going over the lines only once with the spoon it is quite easy to remove the whole of the pulp without any admixture of blood. The abraded surface is carefully washed and may be dusted with fine oatmeal or starch and boracic powder. Subsequently the calf is transferred to the slaughter-house and the carcase is examined by the veterinary surgeon, who forwards a certificate of its condition. Should this not be satisfactory the vaccine pulp from the animal is destroyed.
>
> Preparation and glycerination of the lymph-pulp.—The bottle containing the vaccine-pulp is taken to the laboratory and the exact weight of the material ascertained. A calf vaccinated in this way will yield from 18 to 24 grams, or even more, of lymph-pulp. This material is then thoroughly rubbed up in a sterilized mortar or in a mechanic triturating machine. When it has been brought to a fine state of division it is mixed with 6 times its weight of a sterilized solution of 50%, chemically-pure glycerin in distilled water. The resulting emulsion is then transferred to small test-tubes, which are then aseptically sealed and should be stored in a cool place protected from light. When required for distribution it is drawn up into sterilized capillary tubes which are subsequently sealed in the flame of a spirit-lamp.
>
> Bacteriologic examination of the lymph emulsion.—As soon as the vesicular pulp is thoroughly emulsified with the glycerin-solution agar-agar plates are established from it and after suitable incubation for 7 days the colonies that have developed on the plates are counted and examined. Week by week this process is repeated and invariably the number of colonies diminishes with the age of the emulsion, until at the end of the fourth week after the collection and glycerination of the lymph-material the agar-agar plates inoculated at that time show no development of colonies. The lymph is then subjected to further culture-experiments, and if these results of freedom from extraneous organisms are confirmed the emulsion is ready for distribution. The elimination of the extraneous organisms in our experiments has occurred with marked regularity at the end of the fourth week. The only exception to this rule arises when the lymph originally contained a considerable number of spores or bacilli of the hay-bacillus or bacillus mesoentericus. These organisms are very resistant to the action of glycerin, but if the precautions detailed are carried out in the treatment of the calf their presence may generally be excluded.
>
> Duration of activity of glycerinated calf-lymph.—This varies in all probability with atmospheric conditions, with the fineness of division of the vesicle-pulp, and, above all, with the condition of the calf itself. Some calves yield excellent lymph, others a poor lymph, and the problem is to determine the value of the lymph yielded by the given calf. A lymph which was collected and glycerinated July 13, 1897, has since been used at intervals of from 24 weeks to 32 weeks after glycerination for the vaccination of children. During this period 61 children have been vaccinated with this lymph in 5 places each, with a mean insertion-success of 98%. Thus by the methods described glycerinated calf-lymph can be prepared which becomes freed from extraneous organisms, and retains full activity for 10 months, and will under favorable circumstances continue to do so in all probability for still longer periods if necessary. In practice, however, there will, of course, be no reason for keeping lymph for such a period.

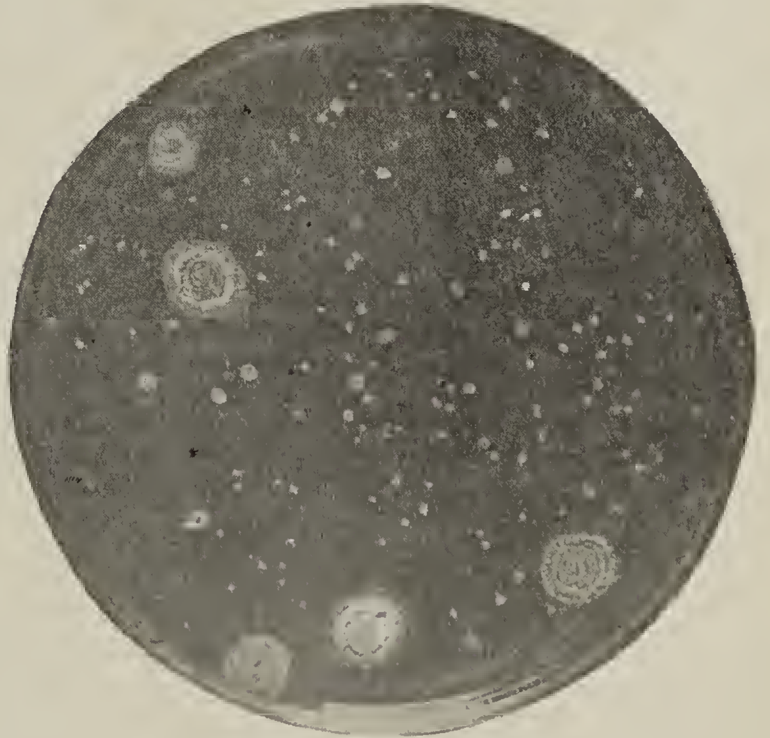

Fig. 3.

From the description which I have given, it will, I think, be obvious that the preparation and testing of glycerinated calf-lymph, properly so-called, is a matter requiring considerable skill and care. Sir Richard Thorne insists strongly on this fact in his introduction to our joint report, recently presented to Government on the administration of certain of the chief continental vaccine establishments. "In every instance," he says, "we found that the work of collecting, preparing, and storing glycerinated lymph was carried out with the greatest care; a condition of scientific cleanliness was especially aimed at, and a laboratory fitted with bacteriologic and other scientific apparatus" always formed an essential part of the vaccine institution. The extent to which the desired end of freedom from extraneous impurity was attained depended largely on whether a first attempt to adapt an existing calf-station or similar establishment to its new purpose had been maintained, or whether it had been abandoned in favor of an institution constructed especially for the purpose of that which is in the main scientific laboratory-work. Several of the stations which we visited are already under condemnation because of the difficulty of insuring that freedom from microorganisms which should be aimed at during the preparation of the lymph-supply; the Cologne station is one of the newest and may well serve in its main feature as a type of that which should be aimed at. The condition of scientific cleanliness to which I have referred extended to such matters as the following: (*a*) the construction and administration of the stabling for the calves; (*b*) the means of washing or bathing calves before their vaccinations; (*c*) the construction, cleansing, etc., of the operating rooms; (*d*) the cleansing of the vaccinated surface of the calf with germicidal preparations and sterilized cloths before collection of the lymph; (*e*) the use of clean sterilized outer garments by all officials concerned in the processes carried out; (*f*) the sterilization of all instruments, etc., employed; and (*g*) the admixture of the lymph-material or pulp with glycerin, its preparation and storage under conditions of laboratory freedom from extraneous organisms.

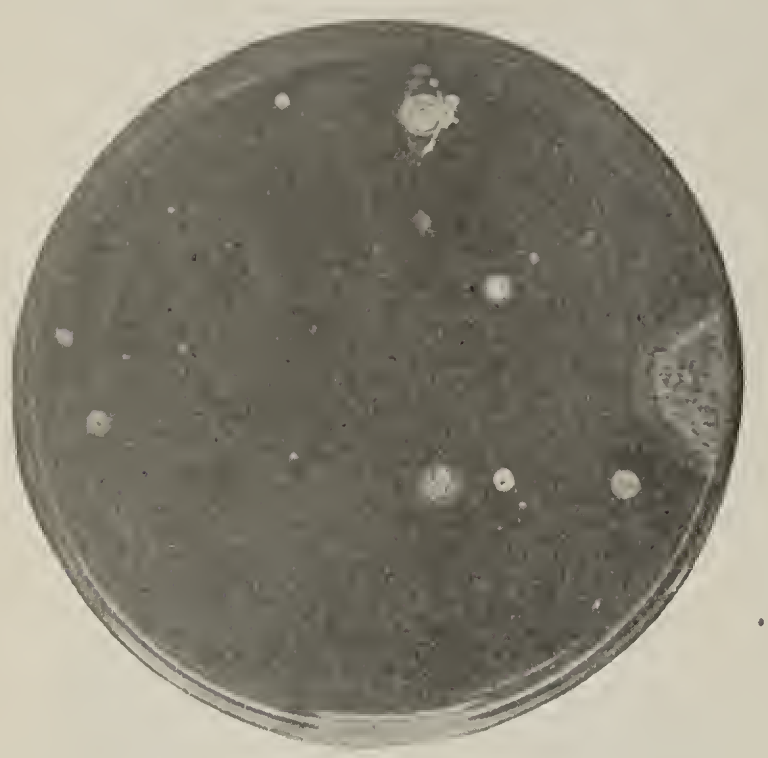

Fig. 4.—Culture from sample of glycerinated pulp vaccine, stored for 8 days, showing great diminution in number of colonies.

Until within a year or two the virus in greatest demand in America has been in the form of serum dried upon points or quills. There seems to be a peculiar association in many minds between the ivory point and clear, colorless serum. The fact is that the serum which exudes is the weakest portion of the vesicle in regard to its protective power. The serum is nothing more or less than a vehicle, and if drawn one-sixteenth of an inch outside of the vesicle is absolutely inert, it does not possess any power of its own, as can be proved by simply filtering it through a Pasteur filter, which renders it inert. As the serum oozes up through th base of the uncovered vesicle it gathers the organism of vaccinia, in the same manner as it gathers up th other organisms present and holds them in suspensio till dried.

The use of this serum with its low percentage o active vaccine principle has undoubtedly given man people a wrong sense of security. Its failure to "take is accepted as evidence of immunity and no doub gives rise to reported cases of vaccinated people con tracting smallpox. The physician himself is partly t blame owing to his demand for colorless virus. Th absence of color, which is produced by washing the bas of the uncovered vesicles and, of necessity, removin the major portion of active vaccine, allows a clea straw-colored serum to ooze up; this, when transferre to points, is so notoriously unreliable that many pro ducers advertise their points as doubly or trebl charged with the serum from one, two, or three animals which is in itself a confession of the inherent weaknes of the clear serum. A pure cowpox will give practicall 100% of success in primary cases. It is not necessar to mix the product of several heifers to obtain thi percentage.

To the unaided eye the clear straw-colored seru certainly appeals, but when it is under the microscop what do we find? Red blood-cells, leukocytes or sc called pus-cells, epithelial debris, and many microorganisms; exactly the same findings as those obtaine in specimens of pulp, perhaps not so great in quantit but there nevertheless. Of the many objects presen however, the microorganisms alone are of clinical si nificance, and the rapidity with which a single organis will produce its kind—literally untold millions—in

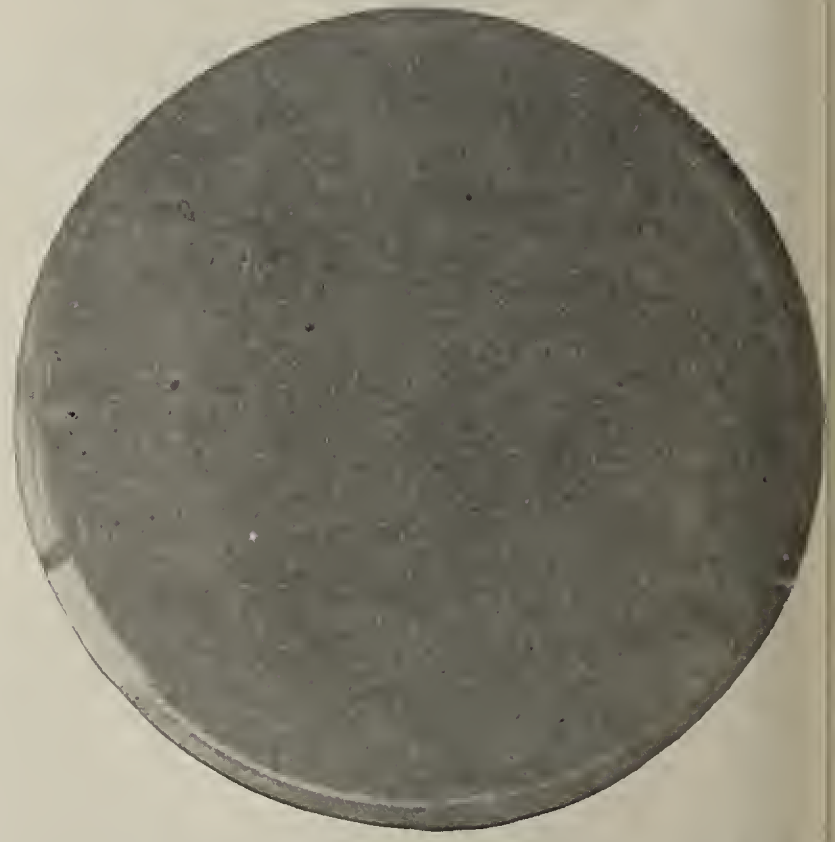

Fig. 5.—Agar plate inoculated with glycerinated pulp vaccine, 18 days o showing total destruction by action of glycerin of all organisms which we present in crude pulp, as shown in Fig. 3.

space of 24 hours, is well known. It is needless under these conditions to call attention to the absurdity of making comparative cultures of various products, as the organisms may increase or diminish in the several specimens under examination even during the time it takes to plate them. (I refer to dried lymph or unprotected fluid lymph.) In the glycerinated lymph they rapidly decrease in numbers. In conclusion I compare the two forms of vaccine now in use, pointing out the advantages and disadvantages of each.

As Regards Life of the Virus.

Glycerinated pulp-virus retains its activity for many months, increasing in power up to a certain variable point, being at its height at the end of 2 months or 10 weeks from date of production.	Dried virus is most active when freshly collected and gradually loses its power, becoming inert as a rule in from 4 to 6 weeks from date of collection. Undoubtedly this is due largely to atmospheric influences.

Safety.

Owing to destruction or inhibition of any pathogenic bacteria which may be present, glycerinated virus offers the greatest measure of safety.	In dry form it is questionable if great danger exists; still if infection chance to be present there is no provision for its removal or destruction.

Vaccinating Power.

The grinding and trituration of the pulp insures every portion of the liquid being of the same power. The principle shown in making tablet triturates enters into the manufacture and accomplishes this; therefore if active it will give practically 100% of success in primary cases.	In drying virus on points or quills each point depends wholly on chance for its activity. It may or may not gather up enough active material to produce a successful vaccination, and as a result, 70% of success would, I think, be a fair average.

I desire to call attention to the unpleasant accompaniments or results of vaccination and their cause. These unpleasant symptoms are as a rule local, and vary from a marked edema and erythema to actual ulceration and at times abscesses at site of vaccination or elsewhere. The reason for this may be readily understood by the following example: If we touch the skin with a red-hot pinhead the burn is of little account and heals promptly. Increase the size of instrument to say a quarter or a half an inch in diameter (which size scarifications are often made), and the destruction of tissue is considerable, and unless care is taken there results an inflamed wound, and perhaps an infected one, though the instrument used is *absolutely sterile and also sterilizes the skin.*

The same general rule applies to a cowpox vesicle. The greater its superficial area the greater danger there is of the crust or scab becoming detached or disturbed and as a result its base becoming infected. It must not be forgotten that pus-producing organisms normally inhabit the vast majority of human skins. All they require is a proper soil to become active, and this is furnished in the base of *every normal cowpox vesicle.*

In all therapeutic agents except vaccine there is a system of dosage. In other words, with few exceptions we do not think of giving as large a dose of medicine to a child as we would to an adult, yet some place as large a vaccine vesicle on the arm of an infant as they would on a man. Glycerinated vaccine-virus as now prepared is very concentrated. It bears the same relation to the old-fashioned ivory point or quill that morphia bears to the older forms of opium.

The same general rule regarding dosage applies to both, that the dose for a child should be smaller than that for an adult. We regulate our "dose" of vaccine by the size of the scarification, and it may be generalized as follows: From birth to about 5 years, a single scratch about one-eighth to one-quarter inch long is sufficient; 5 to 10 or 12 years, 4 lines crossing, making a spot about one-eighth of an inch square, and for an adult, 3 or 4 lines involving about a quarter-inch square of surface.

One typical cowpox-vesicle the size of a small split-pea affords as thorough protection as will a dozen.

Whatever form of virus you use, it is well to remember that the production of vaccine virus is not an exact science. We are not dealing with a fixed drug, but with a biologic product, in regard to which there are many unsolved problems. An active vaccine virus presupposes the presence of a living organism, whose length of life cannot be predetermined any more than can human life. The rule adopted by life-insurance companies of averaging is therefore the only one that can be employed here. It is one of the few medicinal preparations in which the results are visible, and it therefore impresses itself upon the observer as either good or bad, in a vivid manner.

BENZINE IN ANESTHETIC MIXTURES.

By HORATIO C. WOOD, Jr., M.D.,

of Philadelphia.

(From the Laboratory of Pharmacodynamics of the University of Pennsylvania.)

Recently there have been reported the results of trials, in this country, of an anesthetic mixture composed of ether, chloroform, and benzine. The use of this mixture originated with Schleich,[1] who formulated a theory that an anesthetic is dangerous in proportion to the wideness of the difference of its boiling-point from the temperature of the body. In order to have an anesthetic the boiling-point of which should approximate to the bodily temperature, he employed mixtures of ether, chloroform, and benzine in proportions varying according to the special indications of the case. The hydrocarbon, he asserted, serves as a "nearly inert" diluent. Since no evidence, either experimental or literary, was deduced to support this statement, a few experiments, I thought, might be of value to determine the correctness or falsity of it, and indirectly the advisability of further clinical trials of the mentioned mixtures.

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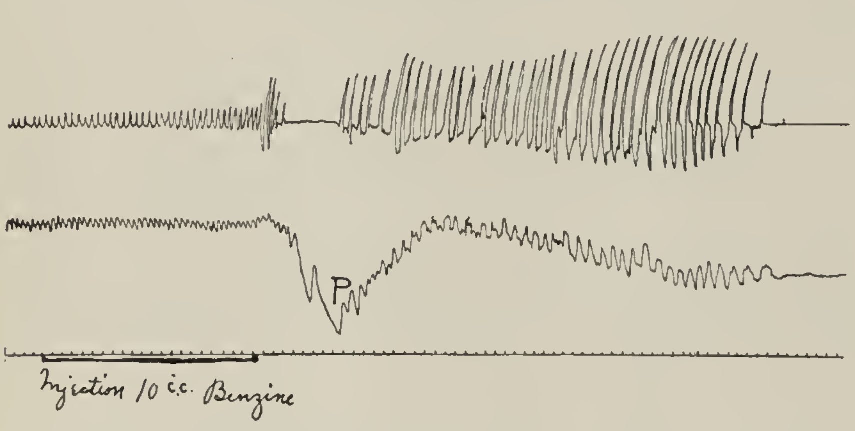
[1] *Verhandl. d. deutsch. Gesellsch. f. Chirurg.*, 1895, xxiv, i, 144.

It is well known that benzine, or petroleum-ether, is not a definite chemical compound, but a mechanical mixture of several hydrocarbons of the marsh-gas series; its specific gravity and boiling-point differing within certain limits according to the predominance of pentane or hexane. The benzine I used was (as was apparently that of Schleich) the commercial article, purchased of different apothecaries.

The first experiments were made by injecting the substance into the jugular vein of dogs, the blood-pressure being recorded either with the ordinary mercury manometer or with the spring manometer designed by Hürthl. I have found that benzine is a poison of considerable power, one cubic centimeter per kilo of body-weight appearing, in my experience (when administered intravenously) the certainly lethal dose for dogs. I also administered the benzine by inhalation in a manner precisely similar to that in which we are accustomed to give ether in the laboratory; the toxic properties of the substance were equally evident in these cases, death occurring after from 10 to 20 minutes' exhibition of the poison.



Experiment of January 24, 1899. Dog, 7.6 kilos, 1—1. Intravenous injection, 10 c.c. benzine. *P.*=pneumogastric divided.
Upper line represents respiration; middle line, blood-pressure; lower line, abscissa and second-marks.

When a dose of benzine corresponding to 1 cc. per kilo is injected intravenously the first effect is a marked slowing of the pulse with a sudden fall of blood-pressure. As this does not occur when the vagi have been divided, it is probably due to a stimulation of the cardiac inhibitory center in the medulla. Simultaneously with this fall of pressure there is a temporary cessation of respiration, followed by a marked increase in both the rate and depth of the breathing. In one-half to three-quarters of a minute, the respiration again ceases abruptly, remaining paralyzed until death. In those experiments in which the heart is freed from inhibitory influence by section of the pneumogastric nerves, the pressure falls rapidly and steadily from the time of injection. That the vasomotor system is at least partially responsible for this fall is shown by the fact that asphyxia is powerless to elevate the pressure, the curve of the blood-pressure following the same direct line toward the abscissa, absolutely unaltered by the stoppage of respiration.

At the same time that the vasomotor system is being paralyzed by the drug, the heart is evidently depressed; for, even with the mercury manometer, the individual pulse-waves can be seen to be distinctly smaller than normal. The heart, however, retains some power until much later in the poisoning; for, if artificial respiration is maintained, four times the ordinary lethal dose is required to produce death. If, when the pulse-waves cease to be recorded by the column of mercury, the chest be immediately opened, the heart will be found to be dilated and full of blood, the left ventricle making feeble and ineffectual efforts at beating, the rest of the heart quiescent, and not responding to mechanical stimuli.

In order to obtain a clearer idea of the action of benzine on the heart-muscle, a couple of experiments were made on the isolated ventricle of a frog, with the apparatus of Kronecker, a solution of 1 part steer's blood with 9 parts of physiologic (0.6%) salt-solution being used as the nutrient fluid for perfusion. On account of the comparative insolubility of the poison, it is impossible to say exactly in what proportion it was present in the blood, as, of necessity, a large part of it was merely in suspension. The actual concentration is, therefore, somewhat less than the figures given. I found that 4% of benzine caused a slight decrease in the force of the cardiac contraction; 7% produced a marked lessening of the heart's power, and, finally, if perfusion with the poisoned blood was persisted in, a total paralysis, the organ ceasing to respond to stimulation. It was also noted that the drug acted as an irritant to the muscle, so that the heart, which, when supplied with unpoisoned blood, contracted only in response to stimulation, began to beat spontaneously, after having received the blood containing benzine.

Some experiments were made on frogs to determine the action of benzine on the nervous system. Although the series is somewhat incomplete, enough experiments were made to show that the poison profoundly affects the nervous system of the batrachian, the part first attacked being the sensory system. Thus a frog, whose corneal reflexes were gone, and which endured without movement nitric acid strong enough to cauterize its foot, was still able to jump voluntarily. Such striking results, however, were not common, and the motor system was always finally depressed, the frog becoming perfectly limp. As the motor nerves and the muscles were found to retain their irritability after the last vestige of voluntary or reflex activity had disappeared, the paralysis must be spinal. Whether the paralysis of sensation is central or peripheral was not clearly made out, although the fact that, after ligation of the artery of one leg, no difference in reflex susceptibility of the two sides could be distinguished, would point toward a central origin.

From these few experiments, it is apparent that benzine is by no means devoid of toxic properties. As its anesthetic action is a very feeble one, in comparison with its effect on the respiratory center, it is to be expected that the use of it as "diluent" in anesthetic mixtures must increase their action on the vital functions more than on the sensory system, and, therefore, render them more dangerous. This experimental conclusion is not, I think, contradicted by the evidence derived from the clinical results thus far reported.

Clinical reports are, however, in such matters, notoriously deceptive, because each anesthetizer sees a number so comparatively small that chance may give one man always favorable results, while another will find in the new anesthetic nothing to encourage.

The clinical reports I have met with in American literature may be conveniently tabulated.

Reporter.	Cases.	Time to Anesthetize.	Cyanosis.	Vomiting.	Author's Conclusions.	Remarks.
Garrigues[2]	100	6 min.	6%	30%	Favorable.	3 cases of arrest of respiration.
Rodman[3]	700	15-20 min.	Frequent.	Same as ether.	Unfavorable.	3 cases of subsequent albuminuria; several of bronchitis and pneumonia; frequent arrest of respiration.
Engzelius[4]	53	....	13%	28%	....	
Maduro[5]	100	....	14%	52%	....	19 cases vomited *during* operation.
Mayer[6]	23	4½ min.	....	26%	Favorable.	Nose and throat cases.
St. Luke's Hospital[7]	80	14 min.	5% (?)	Slightly less than ether.	Favorable.	

The advantages claimed by those who were pleased vith the new anesthetic mixtures, are: less excitement, nore pleasant to take, greater rapidity of action, and heapness; in other words, much the same advantages hat chloroform has over ether. When, however, we tudy those symptoms giving us an indication of the elative danger of the mixtures, we see, first, that the ercentage of cases of cyanosis is rather high; indeed, Rodman, who presents the longest series of cases, says yanosis is the rule. Again, several observers have noted hat the respiration often stopped suddenly without preious warning, and one or two have had cases of sudden ollapse. Although several of the advocates of the mixure say that it does not irritate the mucous membrane of he respiratory tract, Rodman had several cases of bronho-pneumonia (one proving fatal), and Westbrook[8] also ad one case in his series.[9] As regards its action on the kidney, most observers failed to find any signs of subsequent nephritis; but albuminuria does occasionally occur. The vomiting, on an average, seems to be about the same as after ether. Of course, in only about 1,000 cases it is hardly probable there will occur any deaths, but a careful perusal of the reports of the clinical use of Schleich's new anesthetic mixture leads me, in the light of its action on the lower animals, to the conclusion that benzine is a dangerous component of such mixtures.

THE VALUE OF THIOL IN NOSE AND THROAT PRACTICE.

By WALTER A. WELLS, M.D.,
of Washington, D. C.
Physician in charge of Throat and Ear Department, Garfield Hospital; Assistant Attending Physician Episcopal Eye, Ear, and Throat Hospital; Demonstrator of Laryngology, University of Georgetown.

Through the ruthless changes of fashion, which unfortunately affects therapeutics as all other things in life, one of the most highly prized remedies in the armentarium of the older generations of practitioners has fallen into a "desuetude," negatively speaking not "innocuous"—rather, an unmerited oblivion.

Sulphur had a very wide range of application and very exalted place in the scale of usefulness. Not only in rheumatism, but in many affections of the throat, the skin, and digestive tract, it had an incontestable value thoroughly recognized. It is therefore nothing more than what might be expected that when a new remedy, ichthyol, was introduced into practice, containing a large proportion of sulphur, to which it is in a great measure indebted for its therapeutic properties, that it should be welcomed by the profession and pronounced one of the most useful and remarkable remedies of recent years. Ichthyol quickly gained a reputation in precisely the same class of cases in which years before sulphur had been commonly used with benefit. Sulphur was long considered an excellent remedy in throat and bronchial inflammation and is even yet highly valued among the laity in such disorders.

The adaptation of ichthyol for affections of the nose, throat, and bronchial tubes is not so well known as some other of its uses, but it has been employed with great success in such cases. Lorenz (*Berliner klin. Wochenschrift*, 1890, No. 15) reports that he has obtained excellent results from ichthyol in cases of la grippe. Herz (*Wiener med. Wochenschrift*, 1893, No. 2) used it with good effect in cases of acute tonsillitis, and Sonnenberg (*Therap. Blätter*, 1894, p. 106) in case of ordinary sore-throat. Berens (Manhattan Eye, Ear, and Throat Hospital Reports, 1893, vol. 2, p. 94) reports good results from its use in a large number of cases of chronic catarrh of the nose and throat.

However valuable ichthyol might be, its disagreeable odor formed an objection to its use, which obviously applied with greater force to nose and throat practice than elsewhere.

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[2] *Medical News*, 1898, lxxiii, p. 613.
[3] *Medical Record*, 1898, liv, p. 479.
[4] *Ibid.*, 1898, liii, p. 843.
[5] *Annals of Surgery*, 1898, xxviii, p. 266.
[6] *New York Medical Journal*, 1898, lxviii, p. 547.
[7] *Lehigh Valley Medical Magazine*, 1898, p. 171.
[8] *Brooklyn Medical Journal*, 1898, xii, p. 681.
[9] Westbrook's report was not given in the table, because it was simply in general terms, no figures being quoted.

Thiol is an artificially produced ichthyol, free from the objectionable smell. It is prepared by heating brown paraffin or gas oils with sulphur and extracting the sulphureted unsaturated hydrocarbons with alcohol. It has the same physiologic and therapeutic properties as ichthyol and has come to be used by the German physicians, more particularly to largely supplant ichthyol in gynecologic and therapeutic practice. Muren (*N. Y. Med. Jour.*, No. 26, 1896), Fuerst (Notes on New Remedies, June, 1898), and McLaughlin (*Virginia Med. Monthly*, 1893) are among those in this country who have reported results from thiol and prefer it to ichthyol.

It is claimed that besides being free of the ichthyol odor, thiol has the advantage in that it causes no irritation nor bleeding from eroded surfaces, has no toxic effect, and that its stain is readily removable. Thiol occurs commercially in two forms: the powder (thiol siccum) and liquid (thiol liquidum).

In nose and throat applications I have employed the following formulas:

℞.—Thiol liquid	2 grams.
Aquæ	100 grams.

M. Sig.—To be used as a spray or gargle.

℞.—Thiol liq.	10 grams.
Glycerinæ	50 grams.

M. Sig.—For swabbing the throat.

℞.—Thiol sic.	5 grams.
Vaselini	10 grams.
Lanolin	20 grams.

M. Sig.—To be used as ointment.

℞.—Thiol sic.	5 grams.
Amyl	20 grams.

M. Sig.—To be used as a dusting powder.

On theoretic grounds I might have been assured of the success of thiol in a large class of cases of inflammation of the nose and throat; but in order to make my researches as unexceptionable as possible, it was decided that all *priori* knowledge should be discarded and its value judged from practical tests alone. Accordingly, all cases, without discrimination, were put on the thiol treatment, and continued so long as it was certain that no change for the worse occurred. Then, to be sure that results, whatever they were, could be attributed to the thiol only, all other treatment, general as well as local, was excluded. It was found that this plan of clinical experiment could be carried out satisfactorily in a large number of dispensary cases.

The indications and the effects were studied from two standpoints, that is to say, with respect both to subjective and objective symptoms. In some few cases the applications seemed to do harm rather than good and were promptly discontinued. In cases of atrophy of the mucous membranes, with dryness and inspissation of the secretions, if any improvement followed at all, it was less than what might be obtained from other agents, which then should preferably be used in this form of catarrhal disease. This I know is at variance with the experience of Berens and some others who use ichthyol and recommend it in atrophic forms of rhinitis. Outside of these cases of cirrhotic inflammation, thiol was found of decided usefulness in all forms of catarrhal affections of the upper air-passage, the amelioration being partial or only in certain respects in some cases pronounced, and affecting the whole course of the disease to a most marked degree in others.

The effect of the local applications was most apparent and most beneficial in cases of acute throat-inflammations occurring in persons of a gouty habit. In acute pharyngitis and tonsillitis in this class of patients, a daily application of thiol-glycerin, 10%, to which could be added the 2% thiol-spray used every hour, the inflammation promptly subsided, together with all subjective symptoms, in 24 to 48 hours.

I recall the case of a child of about 15, in whom both tonsils were swollen, touching in the middle line, extremely hyperemic, and causing considerable pain especially in deglutition. The attack had been ushered in by a chill, and there was fever, headache, and pain throughout the body. With no other treatment than the local applications of thiol, the constitutional symptoms as well as the local pain had disappeared on the following day. In a couple of days the swelling and congestion had greatly subsided.

Good results were observable in attacks of acute laryngitis and acute rhinitis. For the former I used only the spray, for the latter the ointment or insufflation.

I have notes also of my experiments with thiol in a large number of cases of chronic inflammations of the nose and throat. Its use seemed to be chiefly indicated in those patients in whom the mucous membrane appeared boggy and edematous, the vessels being dilated and relaxed, the secretions abundant, and the parts deeply congested. It was found especially valuable in persons of a gouty disposition who were subject to frequent exacerbation of the throat trouble. The pillars of the fauces often show a peculiar circumscribed hyperemia in such cases, and the subjective sensations are prominent. Such patients give a history of frequent sore throats, with perhaps pain in swallowing. Upon more particular questioning, it is found that there is burning or smarting in the throat, or feeling of needles or other foreign bodies, or a sensation of fulness.

The most pleasing effect of the thiol treatment was in the prompt disappearance of the subjective symptoms. Sometimes by one thorough application, a long standing pain would be dissipated, and the pain, smarting, and sensations of fulness, etc., were generally relieved before the congestion had passed away.

These clinical experiments with thiol bear out the expectations that might have been formed on theoretic reasoning.

Besides that, it should have the properties of sulphur, which it consists in large proportion; physiologi-lly it was known to be astringent, antiseptic, and ıodyne, and that it contracts the arterioles, promotes ›sorption, and diminishes secretion. Experience has oved that it was valuable in cases in which such a medy was indicated.

Further, the success of thiol is in thorough accord ith views advocated by me (*New York Medical Journal*, ctober 15, 1898) as to the existence of a strong physi-ogic and pathologic sympathy between the respiratory ucous membrane and the skin. It is certainly true at both are simultaneously affected in a number of seases (measles, scarlatina, and typhoid), and show inclination to be susceptible to the same kinds of thologic processes, such as lupus, syphilis, rhino-leroma, etc. A number of skin-eruptions, such as ticaria, pemphigus, and erysipelas, present the charac-ristics of the nasal neuroses, and can probably arise, st as asthma or migraine, from disease situated within e nasal cavity. The presence of the so-called gouty uric-acid diathesis, the influence of psychic-states, d disturbances of the genital system are points in mmon in certain skin-affections and well-known nasal flex neuroses. (Philadelphia Medical Journal, ugust 20, 1898.)

This kinship in the pathology of the skin and the ucous membranes of the nose and throat justified the pectation that remedies of service for one might be also r the other. If this be true, dermatology offers an viting field for experimentation in the therapeutics the nose and throat. The integument being more lerant, can naturally best serve for experimentation th applications, the use of which upon the sensitive ucous membrane might cause hesitancy.

So far as thiol is concerned, I have found it exempt m all irritating or injurious properties, even though ed in the full strength. It is most valuable in gouty rheumatic sore throat, a fact to be expected on count of its large proportion of sulphur. On the ıer hand, this is suggestive in connection with theory the relationship of the skin and nose—since affec-ns of both are generally associated with the gouty thesis.

STORY OF A CASE OF INCIPIENT PHTHISIS TREATED BY HYPODERMIC INJECTIONS OF SILVER-NITRATE OVER THE VAGI.

By G. H. FRANKLIN, M.D.,
of Hightstown, New Jersey.

. E. A., aged 50, occupation real estate agent and under-ter. No family history of phthisis.

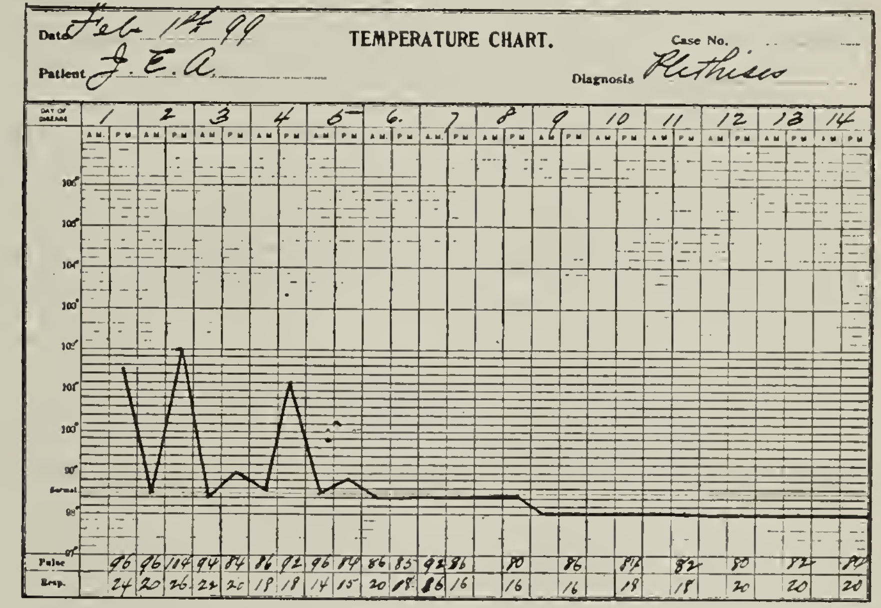
There was no indication of the disease in the patient until bruary 24, 1897, when he had a hemorrhage from the right g. Two days before he had fallen, striking his chest upon asket. This accident, it was thought, was a factor in pro-cing the hemorrhage. He was confined to the bed 4 s, to the house one week, when recovery seemed com-te.

He remained in good health until the spring of '98, when he complained of general malaise. His pulse was 110, respirations 22, but there was no fever. Physical examination showed a slight lesion of upper part of right lung.

I occasionally saw him during the summer as an office patient, and while he seemed in fair health, his pulse was always over 100 when I examined him. In October he began to lose flesh, and complained of more general weakness. The symptoms and physical signs remained about the same. The first week in December he began having a slight hectic, morning chill, and afternoon fever, and evening or night sweats.

January 1, 1899, he was attacked with grip, and was in bed 4 days; he recovered in a weak condition; the hectic symptoms continued. He remained at business until January 15, when he was obliged to give up and stay at home. January 16 he had an attack of dry pleurisy on the left side, from which he recovered in about one week. With the attack of pleurisy, the hectic became more marked, the evening temperature ranging from 101° to 103°, the pulse from 100 to 110, and the respirations being about 24. Night-sweats, cough, expectoration and anorexia continued, and he lost flesh rapidly.

Treatment: Alcohol-baths, codliver oil, hypophosphites, strychnia, creasote, forced feeding, and codein to control cough. There was but little, if any, improvement up to February 1, when Dr. Thomas J. Mays, of Philadelphia, was called and agreed with the diagnosis of phthisis of the right lung. He suggested the hypodermic injection of silver nitrate over the right vagus, and at once gave it.



The subsequent history is best shown by the accompanying chart. His expectoration gradually lessened, and his cough ceased on the fourth day after the injection, so that the codein was discontinued. He had no night-sweat after the fifth day, appetite improved and he began gaining flesh. The whole aspect of the case was changed, and he rapidly improved. A second injection of silver nitrate was given on the left side on the eighth day, and another a week later on the right side, although they did not seem necessary.

The patient's usual weight is 140 pounds; December 12, about two weeks before he had the grip, he weighed 130 pounds. We estimate that from that date to February 1, the time of the first injection of silver nitrate, he lost at least 10 pounds. If this is correct his weight then was 120 pounds. February 25, 25 days after the first injection, he weighed 148 pounds—having gained approximately 28 pounds. March 6, his weight reached 152 pounds, and he now weighs 10 pounds heavier than he weighed for 10 years.

The physical signs have almost disappeared, and he is now apparently entirely well. His health is better than it has been since his hemorrhage 2 years ago. I am using the injections on other patients with indications of good results.

For the information of those who may not be familiar with the "modus operandi" of the silver-nitrate treatment, I append Dr. May's directions.

"Five minims of a 2½% solution of pure silver nitrate (Merck's) is the usual dose. The point which has been selected for its administration is immediately over or slightly behind the pulsating carotid artery in the region of the neck, midway between the angle of the lower jaw and the clavicle. In order to avoid puncturing the carotid artery, or its neighboring jugular vein, it is important to lift the skin between the thumb and the forefinger of the left hand and introduce the needle just under the elevated skin. The silver solution alone produces considerable local pain immediately after its injection, and in order to avoid this, it is very necessary to precede it with an injection of 5 minims of a 2½% solution of cocain hydrochlorate.

"The following plan has thus far been found most practical for the introduction of these agents: Inject the cocain solution, detach the syringe from the needle and let the latter remain in the puncture. Wash out the syringe with water, draw the silver solution into the syringe, attach the latter to the needle, and throw in the required amount."

REPORT OF A CASE OF GASTROINTESTINAL HEMORRHAGE IN A NEWBORN CHILD.

By JOHN A. BROPHY, M.D.,
of Philadelphia.
Visiting Physician to Northern Dispensary.

The comparative rarity of gastrointestinal hemorrhage in the newborn impels me to report the following case:

January 27, Millie R., age 32, multipara, gave birth at full term, to a well-formed, small, but healthy, female child. The labor was normal, lasting 4 hours, the presentation L. O. A., the cord was of uniform length and was not coiled about the neck or body.

The child cried lustily, and respiration was thoroughly established without recourse to artificial measures. Its color was good, there being no evidence of cyanosis. The condition of the mother during labor was satisfactory despite the fact that she had been working very hard during the last 3 months of pregnancy.

Thirty-six hours after birth, the child had a hemorrhage, the blood being vomited. It was bright red in color, quantity estimated at about 1 ounce. This was followed by 2 others at intervals of about 1 hour, the quantity being about the same in each. During the first 24 hours there were 2 normal bowel movements. These were followed by 1 shortly after the third hemorrhage, which contained 2 small clots of blood which were darker than that which had been vomited. The child was pale, with feeble pulse, and seemed to have occasional paroxysms of pain, crying almost incessantly.

Up to this time the nurse had given about 3 teaspoonfuls of hot water, a teaspoonful being given at a time; the last 2 were followed almost immediately by hemorrhage.

I ordered at this time an ice-bag to be placed on the epigastrium and hot bottles to the lower extremities; these were left on for an hour and replaced in an hour's interval. A teaspoonful of hot cinnamon water with 5 drops of brandy was given every hour, to which was added the following:

R.—Gallic acid..	2 grains.
Cinnamon water..............................	1 dram.

This was given every 2 hours. There occurred 2 hemorrhages after this from the stomach at intervals of 4 and 5 hours respectively, though the quantity in each was much less, and no more blood was seen in the stools.

At the end of 16 hours the use of the ice-bag was discontinued, the child rallied rapidly and the fourth day was given the breast cautiously. It has since continued to do well, and at the present time, 6 weeks after birth, is well and strong, showing no evidence of having passed through suc
a crisis.

I have assumed these hemorrhages to be due to som
congenital weakness in the bloodvessel walls, as ther
is no history of hemophilia in the family, the othe
children of which are 2 boys and 1 girl, all of whor
are healthy.

My reasons for determining the diagnosis to be on
of gastrointestinal hemorrhage are:

1. That there was no undue pressure during it
passage through the birth-canal, which was amply larg
as evidenced by the short period of labor.

2. That the blood was vomited, and it also appeare
in stool.

3. That the hemorrhages were excited, or immed
ately followed the taking of hot water which had bee
given by the nurse.

4. That there was no discoverable lesion in th
mouth, pharynx or nares.

Two Unusual Cases of Dermoid Cyst, removed b
Dr. Reboul (*Le Progrès Medical*, November 12, 1898), are r
ported. The first patient, aged 22 years, five days after
normal delivery by a midwife, developed puerperal infectio
which the physician ascribed to a voluminous, fluctuatin
tumor occupying the lower abdomen and left iliac foss.
Surgical intervention being refused, the patient grew co
tinually worse until finally Dr. Reboul performed subperit
neal laparotomy on the left side and found a reddened, thic
cystic wall. The tumor, when incised, discharged about
liters of white creamy pus, then a liter of oily liquid holdi
in suspension sebaceous matter and a tuft of brown hai
Marsupialization and drainage were followed by rapid in
provement of the patient; but three months afterwards the
occurred a hernia in the cyst-wall across the orifice of ma
supialization, under the form of a dermoid mushroo
bristling with hair, the size of a large nut, having a pedicl
The pedicle was sectioned and cauterized and the cure w
rapid. In this case the puerperal infection developed in t
latent cyst and caused it to suppurate.

The second case was a dermoid cyst of the left ovar
occurring in a woman aged 28 years. This cyst underwe
three spontaneous intraperitoneal ruptures at intervals
four months, at each of which the woman suffered abdom
nal pain, nausea, and profuse diarrhea. Ten days after t
third rupture, as the cyst reappeared, Dr. Reboul perform
ovariotomy with satisfactory recovery save a small abscess
a deep stitch. The cavity of the cyst contained a pale yello
liquid, with sebaceous matter and tufts of hair. The wa
was dermoid and presented in places papilliform vegetatio
and scattered osseous plates. In the midst of this vegetati
the thin cystic wall was reduced to a translucid membran
probably the point of rupture. The intraperitoneal ruptu
of ovarian cysts is generally far from being as benign as
this instance. Although, as in this case, a rupture can occ
3 times without grave accident, yet ovariotomy is indicate
and one should not wait for the possibly infected cyst
liquid to rupture into the intraperitoneal cavity.

M. Martin, of Rouen (*Le Progrès Medical*, November 1
1898), reports a case of adherent posterior vaginal enterocel
This hernia was probably of congenital origin. In all cas
of this kind there has been a perimetritis causing adhesio
between Douglas' culdesac and the intestine. In such ci
cumstances every operation upon the posterior wall becom
very delicate. The risks are greater than in vaginal hy
terectomy or posterior colpotomy. The surgeon ought
consider well before performing this operation on a fema
affected with marked vaginal prolapse.

M. Mangin, of Marseilles (*Le Progrès Medical*, Novemb
12, 1898), relates an analogous case operated on some yea
before by a confrère, in which there was double suppurati
adnexa; intestinal perforation and fistula followed. [W.K

The Philadelphia Medical Journal

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The Splendid Death-rate of Toledo, Ohio.—We vish that some multimillionaire would offer a series of rizes, say, from $100,000 to $25,000, according to the izes of cities, to be awarded to the health-officers of Imerican cities, at the end of five years, for the lowest leath-rates. What better use could be made of money, nd who in the world would better deserve it? So far s one could now judge, Toledo would probably secure ne of the prizes. With a population of about 150,000, ccording to the Report of the Department of Health—)r. Joseph T. Woods, Health-officer—the death-rate durng 1898 was 10.332+. This is civilization!

American Medical Journals and Journalism.—In he New York letter by Dr. Seibert, of New York, to the *)eutsche medicinische Wochenschrift* (March 23) there are ome interesting statistics of the American medical peridicals placed on file by the Committee of the New York cademy of Medicine. The number is 202, of which 8 are published in the five principal cities of the Eastrn States. Of these, 39 are published in New York, 7 in Philadelphia, 8 in Boston, 8 in Baltimore, and 6 n Washington. In the Middle States there are 63 (St. ouis 15, Chicago 13, etc.). There are 29 published in e Southern States, and 6 on the Pacific Coast. The orrespondent of the *Deutsche* touches upon the causes f this journalistic superfetation, and devotes a column a stinging lecture upon the sins of the *Medical Record* nd the *Medical Brief* (the collocation seems more than ccidental!) concerning their violent prejudices against ings, men, and medicines Teutonic. *Prosit, Herr ollege!*

The Serum-Treatment of Swine-Plague and Hog-holera.—A forceful illustration of the practical utility f animal experimentation is furnished by Bulletin No. 3 of the U. S. Department of Agriculture, from the ureau of Animal Industry, in the form of a report of e results obtained in the course of several years in the ientific study of hog-cholera and swine-plague and of e products of the respective causative microorganisms, ith the establishment of immunity and the transmison of its protective influence to threatened or attacked imals. The work was ably done by Dr. E. A. de hweinitz, with the collaboration of Drs. Marion orset and E. C. Schroeder, and under the general pervision of Dr. D. E. Salmon. Upon the recommendation of the U. S. Secretary of Agriculture the experimental investigations were put to the test of practical application in field-work in Page County, Iowa, during a portion of the years 1897 and 1898. In the first year, of 196 animals treated with the mixed serums, 161 were saved—about 82%,—while of 429 control-animals not so treated, only 15% recovered; in the second year 1727 animals were treated with the serums and 1304 were saved—76.84%,—while of 3197 control-animals not so treated only 600 survived—28.76%. It has been estimated that the State of Iowa alone loses $15,000,000 annually by the death of hogs from the diseases whose proper treatment at a nominal cost would save at least three-quarters of this sum. Surely a mode of investigation that yields such results in the way of preventing disease and suffering, and lessening death in animals, as well as saving large sums of money, is deserving of the most cordial approbation and of the warmest encouragement and support.

Is Man Degenerating?—A correspondent asks us in all seriousness to tell him whether in our opinion man is degenerating. He desires especially to know (in the case of civilized man) whether the facts that man is gradually losing his hair, his teeth, and his eye-sight, and that his skin is becoming thinner and more delicate and sensitive, and that he is also becoming more susceptible to pain and to shock, are proofs that he is degenerating? We can only reply by asking our correspondent to give us his proofs for the unqualified statements just quoted from his letter. How does he know that man is losing his hair and his teeth with greater expedition than he did in the stone age? How is he assured that the eyesight is worse now than then? When it comes to the skin, who has made comparative measurements of its thickness in the United States of America on the one hand and in the fabled Atlantis on the other? As for pain, is man more susceptible than the modern ape, who is supposed to be still clinging closely to the ancestral tree? And as for shock, did our primitive ancestor or the "missing link" have to brace his nerves to meet the exigencies of any such a civilization as ours? Could he have withstood railroad accidents, hotel conflagrations, polluted water, presidential elections, and modern competition any better than we? There is some advantage in dwelling in a cave instead of an 8-story flat. Our correspondent should seek the aid of the anthropometrists, who go about taking man's measurements from the crown of his head to the soles of his feet. We frankly confess that we have not the data upon which to base a scientific conclusion. Our best authority on degeneration is Max Nordau, but he bases his study entirely upon art, letters, music, and painting. These products of man we have with us handy, and can compare them with those of the past; but when it comes to a question of such perishable commodities as teeth and hair and skin, we are at a loss for a conclusion, and shrink from the responsibility of bringing an indictment against the whole human race based upon some insignificant failures in the development of man's epiblastic tissues.

Bible-House-Christian-Advocate-D.D.-LL.D.-Electropoise.—We have on several occasions called attention to the remarkable sympathy existing between the quack-cureall folks and certain kinds of so-called religious people. There is no humbug so outrageous that it cannot produce a string of testimonials by D.D.'s, LL.D.'s, and Reverends. One wonders at the present rate of degradation if every decent and self-respecting man, should the "honor" be thrust on him, will not be more ashamed of these degrees than he would be of the worst skeleton in his ancestral closet. In the *Commonwealth* of April 13th we find the "late assistant Editor of the *Christian Advocate*," writing a full-page advertisement in which there are about a score of lugged-in references to the *Christian Advocate*, to Sunday-school, Gospel, and religious matters. The following quotations from Rev. W. H. DePuy, D.D., LL.D., etc., etc., are—psychologically at least—instructive:—

> Fortunately, my early academic researches, both as a student and teacher, had embraced as specialties the subjects of Heat and Electricity. I was prepared, therefore, to perceive and appreciate a necessary and philosophic relation (cause and effect) between the thermal electric methods observed in the Electropoise and curative results alleged.
>
> The Electropoise is the simplest and most easily understood of all effective scientific curative agencies. Every part of it is freely opened for inspection. It presents no questions of mystery beyond those involved in all apparatus for the development and application of the principles of heat and electricity.
>
> Among the numerous inquiries which have reached me recently is one expressing surprise that more physicians do not recommend the Electropoise. Physicians, as a rule, are dominated by the "schools" to which they belong. In their social and professional life they are under the restrictions of professional limitations, which must be rigidly observed under penalty. It is common for medical graduates to connect themselves for their initial practical work with older practitioners, who are confirmed in the old ruts as to methods of treatment; and hence it is that innovations in medicine are few and slow, except in cases where one drug is substituted for another drug.
>
> But some estimable physicians do openly recommend the Electropoise and use it in their practice, and others in large numbers quietly permit their patients to use the new treatment; but this permission is sometimes withheld until every previous remedy known to the profession has been vainly tried. Why should not every physician, whose chief mission should be to restore, with the least delay possible, the health of his patient, and by such methods as will least imperil his constitution, be free to choose his own curative without fear of the ostracism of the professional school whose parchment he bears?

The gentleman is proud of his advocacy and protests that he has had no financial profit from it. We are incapable of understanding why he should not harvest the riches he has so well earned—it would be much more flattering to his intelligence, and to his "early academic researches" concerning "heat, electricity, and thermal electric methods." Lord Kelvin's opinion of *Electropoise* would be valueless, but for the sake of a suffering humanity De Puy, D.D., should obtain it.

Moral, Scientific, and Philologic Strabismus.—We have frequently called attention to the intimate relations of grammatical and mental squint. When a man's English is troubled with diplopia or amblyopia look out for his logic and erudition. An illustration of peculiar significance lies before us. From an advertising pamphlet designed to show that the optician (or at least this "only eyesight expert in America," as he modestly calls himself) should supplant the physician, we collate a few exquisite sentences. We trust the famous "opticists" of the medical profession whose names "the only eyesight expert in America" ties to the tail of his soaring kite, will have much pleasure in the work they are made to perform. We had supposed that lenses as used by oculists had been invented before this "opticist," and we wonder how he "treats" light, leaving the poor physician to "treat only disease." But an "officiate" who has "absolved the only relevant collegiate course," and who "measures refraction through reflected light," cannot be held to ordinary rules philologic or pathologic. Cosmic and "physico-mechanical" laws are alone acknowledged. But here are a few of the gems:

> Optical Science is Not Medical Science.—For this logical reason our optical expert, Chas. F. Prentice, Opticist, successfully adapts glasses to all optical defects of vision, in cases where many opticians and other kindred specialists who have not absolved a technical collegiate course, fail. Our expert does not treat disease, but our opticist does treat light, through lenses scientifically devised by himself, in a manner which most others have yet to learn. In fact, he is the only eyesight expert in America who has qualified at a technic college in optics and mechanics, having thus absolved the only relevant collegiate course, because spectacles and eyeglasses, when scientifically adapted to the eyes, are purely the issue of a knowledge of optical science combined with mechanical skill.
>
> Every conscientious family physician readily concede that the physico-mechanical attention to the eyes, by our opticist, is as distinct from the practice of medicine as the mechanical treatment of the teeth by the dentist. For thi reason, many physicians send their patients to us. Ou establishment combines all the facilities for doing strictly high-classed physico-mechanical eyework, because the eye measurements, as well as the lenses and their frames, are made under the personal supervision of an officiate of recognized scientific ability.

Medical Uses of Liquefied Air.—Recent investigation and experiment would seem to show that th liquefaction of air is possible, and that the energy thu concentrated can be subsequently liberated so as to b of practical efficiency. It may be conceived that in this way we may yet be provided with a substitute for steam and other forms of force, and one of even greater potency. The liquefaction of air is effected essentially by condensation and by abstraction of heat. Paradoxic as it may seem, extreme heat and extreme cold, latent or manifest, have many capabilites in common. Of their general application in mechanics this is not the place to speak; but a word or two concerning some possible uses of liquefied air in medicine may be ventured. A great need would certainly be met if by means of a small amount of liquefied air the temperature of living apartments could, when desired or needed, be reduced a given number of degrees and kept at a suitable level. Means for increasing the atmospheric temperature are not wanting, but a reliable means of reducing it has yet to be demonstrated. We hope that liquefied air may meet this need economically. It is said that the new liquid has been employed in the treatment of carcinoma with good results, although it is difficult to see how it can act other than as a cauterant, exactly as intense heat operates. It is to be feared that not much can be hoped for in this direction, nor in the treatment of tuberculosis, despite the fact that liquid air may, as it is claimed, be a germicide, again as high degrees of heat are. Agents capable of exercising a destructive action on pathogenic bacteria in the body are unfortunately, as a rule, equally capable of exercising a similar action upon the tissues of the body. That liquid air is a local anesthetic we would be prepared to believe from a knowledge of the influence of intense cold; but that it has advantages over other agents in this connection has yet to be demonstrated. From the medical point of view, all that can be said concerning liquefied air is that it has not yet evolved beyond the experimental stage, and it would be premature to discuss even its possibilities.

Nickel-in-the-slot Medical Practice.—The fundamental principle of the practice of medicine is that it is both a science and an art dependent, always and utterly, upon the practitioner's intelligence and personality. And yet before us lies a circular of *The Manhattan Medical Service Company*, a recent New York organization supplying medical intelligence and skill for 6 cents a week, or $2.00 a year. We shall be glad to see the company receive the publicity it deserves, though the announcement on our part is not made without a mingled sense of shame and sadness. The company proposes to furnish subscribers "reliable medical and surgical service, and in all cases of accident and serious illness home hospital-accommodations, with expert medical treatment by specialists." The annual fee is $2.00 "for any person in sound health between the ages of 16 and 45," although an addition states that a "single contract" can be made for 6 cents per week and a "family contract" for 10 cents per week. Treatment is carried out in "consultation offices" or a "sanatorium" (!) or at the patient's home. A nominal charge of 25 cents for medicine is made. The president of the company signs himself "George Otis Brewster, M.D." Comment seems unnecessary, further, perhaps, than to repeat Mr. Lincoln's aphorism: "You can fool all of the people part of the time and some of the people all the time, but you cannot fool all of the people all the time." The English people have long been fighting this form of professional and social disease, and have at last become convinced that it must be proceeded against by law. A bill, the object of which is to prevent the business of the physician, the surgeon, the dentist, or the midwife being carried on by a company, was introduced by the Lord Chancellor into the British House of Lords just before the Easter holidays. It consists simply of one clause enacting the prohibition stated above, and should pass immediately into law, for it remedies a state of things which men of all shades of opinion must consider wrong. Personal qualification and responsibility constitute the great safeguards of the public in their dealings with the medical profession; but a cooperative company has no personality and can generally shirk its responsibilities. Moreover, in Great Britain it has been rendered practically illegal for a medical man to practise as the paid servant of a layman, therefore the sooner the practice of a medical man for a group of laymen becomes illegal the sooner will the law be logical. If a medical man is found to be throwing the ægis of his legal medical position over an unqualified practitioner and allowing the unqualified practitioner to enjoy the benefits of his professional position, the medical man is struck off the roll of the profession by the General Medical Council, his offence being technically known as "covering." Why should medical men be allowed to "cover" a group of persons if they may not "cover" the individuals of whom the group consists? This is the argument which will commend the Lord Chancellor's little bill to sensible people, medical or lay. In every legislature of the land bills should be introduced and pushed to enactment, making the formation of such companies crimes.

The Battle of the Clubs.—This is the phrase adopted by the medical press in England to describe the long and acrimonious struggle that has taken and is taking place between certain mutual aid societies and their medical officers; and a recent conference of these societies marks a stage in the struggle. We have referred previously to the matter in the Journal, and no one can read the English medical papers without seeing that the English medical men consider it one of first importance to them as a body. The position is this. A group of men get together and offer a medical man some small sum (say 1d. a week, for that is a very usual figure) to attend upon their medical wants. If there are 500 of them he will thus receive a little over £100 a year. Naturally he cannot give them either the best attention or the best drugs at such a figure, while his life is an exceedingly unpleasant one as the salaried officer of 500 uneducated masters. But while the medical officer to such a club has a poor time himself, he is also a source of the greatest annoyance to independent medical men. For the secretaries of many of the clubs use every means that advertisement and touting supply to increase the membership of their institutions, and continually seduce the private patients of other medical men 'to become the club-patients of the club-doctor. The private practitioners contend that their colleague the club-doctor is no true professional brother in that he carries on his profession by means of organized advertisement, touting for patients, and underselling; and some medical men were for the drastic remedy of expelling from the profession all the persons who accepted service from the clubs. This they desired to do by persuading or coercing the General Medical Council into declaring that to be a medical officer to a Medical Aid Association was "infamous conduct in a professional respect," and, consequently, merited removal from the register. The General Medical Council could take no such course, if only because some medical aid associations are proper and well-managed charitable institutions, and this fact led to the institution, by the *Lancet*, of a systematic inquiry into the working of these clubs. The result of this inquiry was a resolve on the part of all medical men interested in the welfare of their profession not to accept these club-appointments unless (1) the medical officer is permitted to have a voice in admitting all members to the benefits of the association and (2) such benefits are strictly reserved for the poor and not shared in by well-to-do persons perfectly able to employ and pay a private practitioner. This latter point has just been made the subject of debate at the conference which took place in the first week in April, at Leamington, in Warwickshire, and the societies have decided not to impose any wage-limit whatever upon those who desire to receive what is practically gratuitous medical attendance. Under these circumstances the "battle of the clubs" will continue to rage, for the more self-respecting members of the medical profession can only view with dislike associations which under the guise of philanthropy exploit the labors of their medical officer and provide as a charity treatment for persons well able to pay for skilled work. Some very sanguine people think that the new bill of the Lord Chancellor can be made, when passed, to operate against the clubs, but this is a mental confusion. There can be no objection to a group of persons clubbing together to pay a medical man, so long as they pay him properly; but there is every objection to a group of persons clubbing together to do professional work or receive its emoluments without having received a professional education.

The Differentiation of Syringomyelia and Leprosy.—The symptomatology of syringomyelia cannot be considered in any sense specific. It depends upon the destruction or the replacement by hyperplastic or neoplastic tissue of certain parts of the central nervous system, and the clinical manifestations will vary with the situation and extent of the morbid process. Other destructive and irritative disease of like distribution will, as experience has taught, occasion corresponding symptoms. Leprosy at times furnishes a clinical picture that presents many points of resemblance to that of syringomyelia, just as neuritis is at times almost indistinguishable from anterior poliomyelitis, but the symptoms of leprosy are most commonly of purely peripheral character, and unassociated with indications of involvement of the spinal cord. Recent experience has, however, shown that leprosy also may be attended with lesions of the spinal cord, such as circumscribed myelitis and degeneration of the posterior columns and of the ganglion-cells of the anterior horns, and leprosy-bacilli are reported to have been found in the cord.

It will thus be seen that the differential diagnosis may at times be well-nigh impossible with any degree of certainty. A striking illustration of this difficulty is furnished by a case reported by Schultz (*Berliner klinische Wochenschrift*, March 27, 1899, p. 286) before a recent meeting of the Association of Charité Physicians. The patient was a man, 49 years old, whose condition has been studied most carefully from all points of view. At the age of 14 he fell a distance of 8 feet upon his back, striking the sacrum and the occiput. After a few months he was able to resume his work and all symptoms disappeared. A year later his brother observed a gibbosity on the right side of the spine, which increased somewhat in size during the succeeding 25 years. At the age of 19 the two distal phalanges of the ring-finger of the right hand became red, hot and painful, and were amputated. In the course of the next 16 years parts of all the fingers of that hand were successively exfoliated, sometimes with suppuration. At the age of 39, contractures developed in the third and fifth fingers of the left hand. The patient complained of pain in the left hip. He presented in each scapular region the cicatrix of a burn, which on inquiry it was learned was acquired unconsciously at the age of 9. In an area extending on the right side from between the third rib and the umbilicus back to the spinal column and on the left from the sternum to the mammillary line, sensibility was in part impaired and in part lost to thermal and to painful impressions. Upon the right side this area extended toward the neck, the side of the face and upon the whole of the arm, especially its extensor aspect. In both hands, and particularly the right, painful and thermal sensibility was impaired. Upon the forehead there was hyperalgesia, together with hyperidrosis. The tendon-reflexes in the upper extremities were diminished, while the knee-jerks were exaggerated and the gait was somewhat spastic.

In the demonstration it was pointed out that if the patient had been seen where leprosy is prevalent he would probably have been immured in a leprosery. He presented, however, only a slight degree of muscular atrophy and without degenerative electric reaction. The sensory disturbance was systematically zonular or girdle-like and not insular and irregular in distribution; only thermal and painful sensibility was affected, while tactile sensibility remained intact. Hyperidrosis has been noted a number of times in syringomyelia, but is not a feature of leprosy. The face presented a waxy appearance that has been thought to be peculiar to leprosy. The right facial nerve was slightly sensitive and possibly a little thickened. The eyelashes and the eyebrows were scanty, as is frequently observed in leprous subjects. The blood and the nasal mucus were carefully examined, but lepra-bacilli were not found. The kyphoscoliosis, the burns early in life, the long duration, were indicative of syringomyelia rather than leprosy, as well as the fact that the patient had never lived far from Berlin or was not known ever to have been subjected to exposure to infection.

The Expense, Stupidity, and Sin of Excessive Alcoholic Drinking.—According to the most recent statistics we find that the average annual consumption (in gallons) of alcoholic beverages is per inhabitant as follows:

Country.	Beer.	Wine.	Spirit.
England	30.31	0.39	1.02
France.............	5.1	21.8	1.84
Germany	25.5	1.34	1.84
United States...	12.3	0.44	0.84

Were it not that our minds have been so long obtunded by the figures, we would be struck dumb with the amazing fact that the English drink-bill for 1898 was $772,404,670, a net increase of over $10,000,000 on the bill of 1897. And the English Chancellor of the Exchequer is delighted at his $60,000,000 income from the tax on beer, and hopes it will grow larger. At the same time the Registrar-General reports that the deaths from alcoholism are rapidly increasing! Moreover, what stupidity it shows. If the number of children and teetotalers and moderate drinkers are deducted, what hogs must be several millions of people to bring the average of consumption to 25 or 30 gallons. What a thick-headed way to get food, if beer is food, or, if it be only a diluted alcohol, what a witless way to buy alcohol. Not only in the direct production of disease is drunkenness a great national curse, but in the indirect results, as Sir Henry Thompson has pointed out, the denutrition from poor food both of the workman and his family, because the money that should have gone for good food has been spent for drink. It is a sad spectacle of blundering and sin.

The Psychology of Sex.—We have taken pains to read the recent work on this subject by Havelock Ellis, about which quite a furore has just been raised in England. Both the author and the publisher, we are informed, have been sent to prison, and the book has been generally cried down as indecent. While we have little relish for this kind of literature, and recognize fully the possible evils that may come from its too free propagation, we are impelled to say that the general style and tone of Ellis' book are quite above reproach. We do not congratulate him on his choice of a subject, but we bear testimony to his scientific spirit; and we regard his persecution, if such there has been, as another evidence of that peculiar British philistinism which prefers to close its eyes to evils which exist freely in its midst. Havelock Ellis makes no pretensions to this philistinism himself, but claims boldly that sexual inversion is rife in London, and especially in the English army. In fact, he claims that his book is intended to be a study of this unsavory subject, as it is presented especially in England. Perhaps this may account for the furore.

The study of the perversions of the sexual instinct is not only legitimate, but necessary. This has long been recognized on the continent, where such literature is accepted as a necessary evil. As a phase of psychiatry the "inversion" cannot be ignored, and as a problem of medical jurisprudence it is constantly forcing itself to the fore. Its treatment, both literary and practical, is best consigned to the medical profession, which certainly can be trusted to deal with it without fear of scandal. To persecute a man who has written about it with the honest intention to elucidate and not to exploit it, is preposterous, and is an infringement on the liberty both of science and the press which should not be tolerated.

Our criticism of Havelock Ellis' book is not from the ethical but from the scientific standpoint. His greatest fault, we think, is the license which he allows himself in arraigning some of the greatest names in history and pillorying great men as sexual "perverts." For his assertions about many illustrious men, both in antiquity and modern times, he presents no adequate support, and he seems to us to have merely gathered up some of the gossip of history. This is a greater fault in our eyes than his accusations against London society and the soldiers in the English army, though it may not be so in the eyes of the British public. These latter at least are alive and can protect themselves, but the illustrious dead have few advocates. Ellis has managed to present the subject of sexual perversion in a condensed form that makes his book valuable for reference. The work is lacking in the wealth of detail that is found in Krafft-Ebing, but it presents evidence of critical acumen and condensation of thought that are noteworthy. It is not an "indecent" book—in fact, we should judge, hardly an interesting book to the merely prurient reader—but it is a book, nevertheless, that is best limited to the specialist and the genuine moralist.

Smallpox and Vaccination.—To any who may have even the faintest doubt as to the disease-preventing and life-saving utility of vaccination we commend the spontaneous testimony of a correspondent in the *Lancet* of April 1, 1899, p. 929, who writes that "not a living soul in Rangoon who has been vaccinated comparatively recently—say within the past 5 or 7 years—has had anything worse than a very mild attack [of smallpox], while dozens are dying every day from it . . . . We have over 150 [vaccinated] men, and with smallpox raging all round not one of them has taken it."

Selection.

THE MEDICAL PROFESSION AND THE UNITED STATES GOVERNMENT.

VERY recently there fell into our hands a small and ably edited periodical entitled *The Journal of Public Health*, which announces in its headlines that it is devoted, among other things, to an agitation for the *permanent appointment of a Medical Representative in the Cabinet of the President of the United States.*

We greatly doubt if many of our readers have heard of this Journal and still more if many have ever given a thought to the remarkably anomalous position in which the profession stands in relation to our Government. Among the official advisers of our Chief Executive are an Attorney-General and a Secretary of Agriculture, while the medical profession and the Public Health, far more important because touching the welfare of our citizens more nearly, both individually and collectively than either of these, are ignored. There is indeed a Surgeon-General in our army, whose residence is at the Capital and who has the quasi-distinction of being an appendix—we had almost said *appendix vermiformis*—of the Adjutant-General's Department. Without authority (for he is subject to the orders of the Secretary of War as expressed by his Chief of Staff) yet bearing a great responsibility, in time of war he is execrated by the public who lay at his door all the natural casualties of camp and field. Of the extent of his actual control even over the medical officers in the army, when once they have been assigned on the staffs of general officers, the unhappy condition of our troops before Santiago and on our transports, during the war, are sufficient evidence. The present Surgeon-General did his duty to the extent of his power and sent drugs and other equipments enough, as he has testified, but that was a very different thing from getting them to the front. We must not forget that the Surgeon-General himself is only a Staff-Officer and that Generals Commanding in camp and field do not hold themselves bound to carry out his wishes (unless enforced by a direct order from the Secretary of War), if the former do not coincide with their own opinions or convenience. Moreover, in the selection of sites for camps we have yet to hear of a single instance in which the eligibility of any situation was left to the final decision of the Surgeon-General, who of all men, by virtue of his position as chief military surgeon, should pronounce ultimate judgment on such a subject.

In time of peace he is practically a nonentity, merely doing routine department work, never heard of by the general public except on the few occasions when he makes reports and offers suggestions in regard to the general health of the community, which nobody heeds since they are without authority.

When we realize that the food we eat, the water we drink, the air we breathe are not a daily source of pestilence; that the whole country is not yearly swept by terrible epidemics; that so universally inculcated are the laws of hygiene that even the poorest, uneducated citizen cannot plead ignorance; when we realize that all this is due to the constant vigilance and devotion of medical science alone, is it not a shameful absurdity and an anachronism that the sole recognition by the People of these United States of the value of our profession consists of one *political* appointment in the Adjutant-General's Department?

Will the profession ever wake up to a sense of self-respect? Will it ever realize that it has corporate needs as well as corporal ones? We believe firmly that it will do so eventually, else we would save our words. And here surely is an object worthy of our enthusiasm, worthy of a little unselfish working for the common good.

As a corporate body of citizens we have a right to representation in the highest councils of the nation, for to what other body of citizens do the individuals, the cities, the States of this country owe so much? Upon whom are they so dependent for that which make life possible or living endurable. Are the wheat fields of the West and of Texas or the Russian thistle, the dredging of harbors and widening of channels or the internal revenue tax or even the United States Postal Service of greater value to the community at large than the absence of universal epidemics of smallpox, typhoid and typhus fever, of yellow fever and Asiatic cholera, of filth and squalor and attendant infant mortality? Yet the farmers have placed a Secretary of Agriculture at the President's elbow and there are a Secretary of the Interior and a Postmaster-General in the Cabinet.

The medical profession should and must be represented by a Surgeon-General of the United States who is a member of the Cabinet, whose appointment shall not depend upon a political patronage but shall be made upon the recommendation of the medical profession either from the State Medical Societies separately or through a convention of delegates from each State Society, such convention to be called by the President of the United States, and each set of delegates to be proportionate, numerically, to the population of the State represented.

In time of war, the Surgeon-General must have absolute authority not only over the medical department but in all matters affecting directly the health and well-being of the Army, subject only to the orders of the Commander-in-Chief, the President. In time of Peace, with a large and efficient Department under him, he should be empowered by Congress to safeguard the Public Health. He and his Assistants should constitute a National Board of Health, with which all State Boards should affiliate while preserving their independence of action within their own territory. Yet, in all cases of general menace, when two or more States are involved or the safety of the country at large is threatened, the Surgeon-General should have the right to enforce efficiency and uniformity of action by the State Boards.

This is what the country needs and what the profession needs. But it will never come to pass unless we make it come to pass. The subject must be constantly agitated by physicians individually and most of all by the *medical press*, through whose united efforts alone can the profession be regenerated. Yet how absurd it is to speak of the influence upon public opinion of the medical press, when the latter is unable to obtain even *financial* recognition from its own medical subscriber.

How can it become powerful and fight for you when you do your best to starve it, begrudging the paltry sum of your subscriptions?

This matter of non-support of medical journalism, or dilatory payments (which is almost as bad) is the old question which confronts us like a blank wall whenever any reform is proposed or earnest endeavor made to advance the honor and interests of the profession.

Not only are medical men blind and deaf to everything which would affect the common weal but they stand by in selfish indifference to the efforts of those who are fighting their battles. They are willing enough to reap but they will not pay for the sowing.

You have a press, owned and edited by your fellow-practitioners, which has for years struggled to gain efficient recognition from you while incessantly voicing your interests. But you have shamefully neglected it. You have received *its* support and failed to support *it*. How many subscribers to medical journals, "*which they wouldn't be without*," show thi-appreciation by paying in advance? and how many never pay at all? The credit system in medical literature, craftily inaugurated years ago by the lay publishing houses, has been indeed a curse to the medical profession. Medical men, by the avoidance of prompt and willing payment for what they consume, have "sold their birth-right for a mess of pottage" and stand as a body, alone among all professions and trades, disunited and voiceless.

If, in the face of such fatuous imbecility and apparently hopeless conditions, a few medical men have within the last decade made desperate and already partially successful efforts to establish a true medical press which shall be capable of uniting to defend medical interests and to establish again medical prestige in the community, it is not owing to the generous financial support of the profession at large, but in spite of the want of it.—[*The American Gynecological and Obstetrical Journal.*]

A TRAVELER FROM ALTRURIA.

Said a member of an essential oil firm: "What is the use of making a pure oil of sandal? Nobody wants it. Nobody will buy it. There isn't any market for it in America. You can't induce a wholesale druggist to touch it, and the retailers do not evince the slightest interest in it. What they want is a sophisticated article upon which they can make a great big profit."

"But what about the physicians?" the Traveler asked. "Surely they demand an oil which will effect a speedy and radical cure!"

"My dear friend!" the essential oil man exclaimed, "do you imagine that you are still living in Altruria? The physicians of that fantastic country possibly may desire to make speedy and radical cures—but, believe me, that kind of physician does not exist in America. What the Yankee doctor desires is something which will be neither radical nor speedy. Do not delude yourself with the notion that physicians in this country are pure and unadulterated philanthropists. Not on your life! They run their little Schützenfest for what there is in it—same as I run mine."

"But," objected the Traveler, "you can not surely mean that you have no other consideration in your business than that of immediate profit! I am informed that your house is one of the greatest in the line in America."

"O, as to that!" the essential oil man responded serenely, "I assure you we are very careful of our reputation. But, as one of the ancient philosophers remarked, 'when a citizen of a State exceeds his fellows in virtues, he is no longer a citizen of that State.' Mark Twain boiled that idea down into, 'Be good and you'll be lonesome.' Sabby?"

"Which I must take to mean," said the Traveler, sadly, "that the essential oil business is carried on upon lines of exceeding shadiness."

"Essential oil houses, my interesting friend, supply the wholesale druggist with that which he demands. The wholesaler gives the retailer what he asks for. The retailer is equally complaisant with the physician. You must start the reform with the doctor. Then, as the nursery rhyme has it, the stick will beat the dog, the dog will worry the pig, the pig will cross the stile, and so the old woman will get back to Altruria to-night, all right. Call again; I find your Altrurian point of view quite entertaining."—[*The American Druggist.*]

Heredity in Carcinoma.—Hunter McGuire (*Virginia Medical Semi-Monthly*, January 27, 1899) has found, from an investigation of statistics, that, while either parent may transmit a liability to carcinoma, as a rule the mother is more apt to do this; and that there is a tendency to return to normal rather than abnormal conditions. He reports the case of a man that he operated upon for carcinoma of the left breast, whose grandfather, father, and 2 brothers had died of carcinoma of the face. He also operated upon a sister of this man for cancer of the breast. The man recovered from the operation, but died 12 years later from carcinoma of the face. The sister is still well, 20 years after the operation, and none of her numerous descendants have been afflicted with the disease. [M.B.T.]

Correspondence.

RECIPROCITY ILLUSTRATED.

By A. I. PATEK,

of Milwaukee, Wis.

To the Editor of The Philadelphia Medical Journal:—

So many physicians in large cities have had opportunities of increasing their revenue by sharing profits with opticians that their Milwaukee brethren have been experiencing pangs of envy. There is now no longer a cause for this feeling, for a local "refractive and manufacturing optician" has sent us his circular, in which he says: "Believing in the fact that 'one favor is worth another,' I offer you my customary professional discount of 20 per centum on the selling price of spectacles and artificial eyes fitted to patients recommended by you. For my regular price-list see enclosed card. Should you desire to enter into business relations with me as outlined, I can be instrumental in advising patients suffering from conjunctivitis, granulated lids, etc., to consult you for further treatment."

See what a financial success a prescription for spectacles is to be to the oculist who enters into business relations with our optician:

1. The fee for prescribing.
2. The 20% discount.
3. Patients we recommended to him for treatment.

This is compound interest compounded. Truly, reciprocity is the life of trade.

CESAREAN SECTION IN RURAL PRACTICE.

By H. C. DEVENING, M.D.,

of Oakmount, Cal.

To the Editor of The Philadelphia Medical Journal:—

The following case is of more than usual interest. L. W., unmarried, a feeble-minded dwarf, 25 years old, was brought to my office last April by her mother, who feared the girl had a tumor. She gave a history of rickets, confirmed by the appearance of the patient, who was 4 feet 5 inches tall and weighed only 75 pounds. She had not begun to walk until nearly 4 years old. Upon auscultating the abdomen, the beating of a fetal heart was heard, placing the diagnosis beyond doubt. Examining the pelvis, extreme contraction, especially antero-posteriorly, was found, and delivery at term by cesarean section was advised. The patient was brought to bed June 30. Anesthesia, preceded by a hypodermic of morphin was begun with chloroform and continued with ether, and assisted by Dr. F. W. Mitchell I made the section and extracted child and placenta. The incised uterus was closed with carbolized catgut and abdominal incision with aseptic silk, and the wound dressed with aseptic absorbent cotton. A small quantity of blood and amniotic fluid escaped into the abdominal cavity and was removed by sponging with absorbent cotton wrung out of hot 1 : 5,000 corrosive-sublimate solution. Duration of operation, one hour. Considerable shock followed, continuing some hours. Morphia, whisky, and milk were given until better conditions were established. The usual vaginal aseptic douches were used night and morning. On the seventh day there was excessive tympanites and, fearing that the abdominal wound would reopen, recourse was had to aspiration and a large quantity of gas was withdrawn.

The temperature never exceeded 101½°, tympanites and some pain being the only untoward symptoms, and on July 14 the wound was entirely healed and convalescence established.

The child was a female, weighing 7½ pounds, and on March 20, 1899, although it was bottlefed and had recently suffered an attack of bronchopneumonia, it weighed 15 pounds. The mother continues well and has little or no pouching at the place of incision.

Middletown P. O.

THE LOCALIZATION OF FOREIGN BODIES IN THE TISSUES.

By J. C. REEVE, M.D.,

of Dayton, O.

To the Editor of The Philadelphia Medical Journal :—

The methods of localizing foreign bodies by means of skiagraphy and skiascopy are both complicated and expensive, if I am rightly informed, so that suggestions as to a method both simple and practical may be acceptable.

Encircle the limb or body with a copper wire or strip of lead of convenient thickness, in the neighborhood of the foreign body. By means of the fluoroscope adjust this circlet so that its near and far sides coincide, that is, the ellipse on the screen becomes approximately a straight line; at the same time arrange it so that this straight line falls across some leading point of the foreign body. This point and the circlet are now in one plane—the gist of the whole matter. Take a dermographic pencil or pen carrying indelible ink and while still looking through the fluoroscope, mark the position of the selected point of the foreign body on the circlet or on the skin beside it. This on the near side of the limb, but repeat it on the far side without disturbing the fluoroscope. Now, without disturbing the circlet, inspect the body from another direction, keeping the same plane, and mark twice in the same manner. Before disturbing the circlet mark it and its four points indelibly on the skin. Possibly a metallic pigment may be made which can be seen by the fluoroscope when applied in lines and dots. The four dots and the line they are on will usually be sufficient guide to the surgeon, but by plotting them the distance from the surface can be obtained graphically.

Having done yet very little with the plan, it is very possible that others will discover its defects, and also possible that improvements may be made in it.

A PHYSICIAN'S EXPERIENCE WITH RIPANS.

By F. PIPER, M.D.,

of Boston.

To the Editor of The Philadelphia Medical Journal :—

Some time ago my attention was called to a small pamphlet which came in a package of Ripans Tabules, and I found myself, among others, giving the article quite a marked endorsement. As I am not in the habit of giving praise to *legitimate* preparations, I was more than surprised that any such statement should have been made by me about this one, and felt that some underhand method had been used to obtain it.

Since then I have kept a sharp lookout for the manufacturers, and think I have been able to detect them and their methods in time to save myself much annoyance. The scheme is this :—A very "slick" young man came into my office and, handing me the enclosed printed prescription

Show this Recipe to your Physician.

℞.—Rhubarb : two grains.
Ipecac : one-fourth grain.
Peppermint : one-eighth grain.
Aloes : one-half grain.
Nux : one-eighth grain.
Soda : five grains.

asked my opinion as to its merits. If, now, I should have said, for example, that rhubarb was an old, tried and reliable drug, I should presently find myself saying, in a circular passed around the street, that Ripans Ready Relief, or something as ingenious, was an old, tried, and reliable remedy; but, having had experience, the reply was, *What difference does it make to you what I think of it?*

I am now for the first time told what the object is, namely that the manufacturers want to sell a compound similar to this, and that they very much desire to get me to help them at the same time procuring such favorable word as I may be enabled to say about the combination without being aware that I have contributed to the stock in trade of this particular house. By this method of procedure they have been quite successful in the past. Moreover, there is combined with this plan another, which savors of blackmail, for if you should happen to give an unfavorable reply to the young man, you may expect something like this :—*Dr. Blank, a very forlorn, patientless-appearing individual, would not advise the use of Ripans Ready Relief, feeling that it would hurt his practice.*

Believing that there are a great number of physicians who may not wish to be used to advertise a house that can hardly be more upright than the methods it uses, I have written my own experiences, hoping that they will put all upon their guard.

THE CONTAGIOUSNESS OF TUBERCULOSIS AMONG CATTLE.

By W. J. FORD, M.D.,

of Washington, Conn.

To the Editor of The Philadelphia Medical Journal :—

In reading the article in your Journal of April 8th, entitled "The restriction of tuberculosis among cattle," I was reminded of an instance which came under my observation two years ago, and which to me was most interesting and instructive. The principal business of the farmer in this vicinity is supplying milk to the New York market. There are two creameries here, and most of the milk passes through them. About two years ago an edict went out from the larger of the two, that after a certain date no milk would be received except from tested "herds." As a result the testing became very general. One man, however, who supplied milk to the village, feeling, I am sure, that his herd was free from infection, expressed his willingness to have his herd tested, but wished to delay till the autumn. In September, I think, a young bull, not a year old, was found infected in a herd in a distant part of the town, this being the only one to respond to the tuberculin test. Inquiry developed the fact that the bull was purchased from the gentleman above mentioned when it was *five* days old. A few days later this gentleman submitted his herd to examination. The testing was done by the State Commissioners, and as there were several small herds about the town whose owners had applied to the commissioners for the test, all were gotten together to the number of about

100. Not one of all—and they came from eleven different people—responded to the test except this gentleman's, and of his herd of 23, there were 12 condemned; 6 responded sufficiently to be set aside under quarantine for future examination. That evening the gentleman called on me, and at his request I visited his premises the following day. I found his stables clean, well lighted and well ventilated, with the exception of one dark, close box-stall in a corner of the barn-basement. In this box-stall the floor was covered with litter in a manner which showed it was seldom cleaned; the floor was raised about six inches from the ground; the floor-plank were poor, and the space beneath full of silt.

I learned by inquiry that two years before he had a sick cow which he kept in this stall for several weeks before he killed her; that the stall was not cleaned afterwards, and that he had used it regularly as a parturition chamber for his cows, nearly or quite all having given birth to their calves in it; and that the infected bull spent the first five days of his life in it. It is hard to conceive of a better culture-medium than the accumulation of dirt and filth on and under this stable-floor; and I am fully convinced that the sick cow stabled here two years before started the infection; that colony after colony of bacilli developed there, and infected in turn practically his whole herd.

The eleven different herds gathered and tested, all alike and all at the same time, and none responding save this one, is a strong argument in favor of the tuberculin-test. And all the circumstances connected with the stable furnish a most striking train of evidence, which, it seems to me, should teach a lesson that we, as guardians of the public health, can well afford to ponder. I fancy, similar dark and dangerous stalls are quite too common throughout the country.

DANGER FROM INSIGNIFICANT WOUNDS.

By GEO. G. HOPKINS, M.D.,

of Brooklyn, N. Y.

To the Editor of The Philadelphia Medical Journal:—

Your editorial notice, issue of March 25, 1899, of Golebiewski's article is timely. It has been my fortune to have under my care during the last 5 years between 30 and 40 patients with diffuse cellulitis of the palm and fingers, caused by neglect or careless treatment of what seemed at the time an insignificant injury to only one finger, as a rule. The majority of these cases, when referred to me, came with the expectation of amputation, as the suppurative process was extensive and the discharge profuse.

Two cases under my care last summer are worthy of note. In both, the metacarpal and carpal surfaces were inflamed. In both, after free incision had been made along both the outer and inner margins of the hands, I could pass my finger through from one edge to the other on the dorsal surface of the metacarpi between them and the dorsal tissues. Yet these men were discharged with useful hands and almost perfect motion.

When I first came in contact with such severely inflamed hands, I was inclined to amputate for fear the inflammatory process would travel up the sheaths of the tendons, as we have seen occur, thus endangering the entire arm. Since I have adopted a routine treatment in these cases, I have succeeded in saving every hand that has come under observation when the bones had not become necrosed, and even then only need sacrifice a portion. The routine treatment is to immerse the hand continuously in warm Thiersch's solution, often for a week or 10 days and even longer, with happy results in almost every case.

April 1, John ——, aged 28 years, was brought to me by Dr. Eastabrook with diffuse inflammation of the whole left hand. About 10 days before he had caught a fish-hook into the end of his third finger, and had paid little attention to the wound until it became inflamed, swollen and terribly painful. Dr. Eastabrook found it necessary to amputate the two outer phalanges. This did not stay the trouble, and he brought him to me for treatment. The hand was at once immersed in hot Thiersch solution and kept there continuously for 10 days, when the inflammation was entirely controlled and the hand reduced to normal size and shape. April 11 we cut down on the stump, and, finding the proximal phalanx in a necrosed state the bone was removed, and the necrotic tissue removed with a curet, the wound left wide open and the hand again returned to the Thiersch solution. It will be allowed to heal by granulation.

April 8, a second case, a man of 45 years, was brought me by Dr. Eastabrook with diffuse inflammation of the right hand. This poor fellow had lost all the fingers on left hand and the outer phalanx of the thumb on that hand. He is an engineer and in some unexplained way his third and fourth fingers of the right hand were caught and badly torn. The third finger had healed fairly well, but the little finger was inflamed and suppurating, the inflammation involving the entire hand.

The hand was immersed in the warm Thiersch solution, and on the 11th, the induration having been very much reduced, we opened the small finger freely, and finding the middle phalanx necrotic it was removed and free curetment done and the wound packed to control oozing; the packing was removed the next morning and the hand returned to the Thiersch bath. We expect to save the hand entire, with the exception of a portion of the little finger.

Though incomplete, these two cases are quoted to illustrate my method in dealing with this class of injuries. I have found radiographs very useful in determining the necessity for bone-excision in this class of cases.

I have at present under treatment a man 75 years old who has an ulcer on the dorsum of his left foot just back of the third and fourth toes. Two weeks ago, when he came under observation, his entire foot was inflamed and the ulcer was very deep and sluggish. To-day all general inflammation has disappeared and the ulcer has almost filled up. The treatment has been Thiersch-solution immersion.

This method of dealing with injuries of the extremities, originally slight, but which have assumed serious proportions, I have followed for the past 8 years with very flattering results.

No injury to the extremities is so insignificant that the risk of infection should not be considered and guarded against in the treatment.

350 Washington Ave.

GENERAL HOSPITAL ORGANIZATION AS A PLAN FOR THE CORRECTION OF DISPENSARY ABUSE.

By WM. T. SHOEMAKER, M.D.,

of Philadelphia.

To the Editor of The Philadelphia Medical Journal:—

Several plans have been suggested in the last few years for the correction of the so-called dispensary abuse, all of which seem to be quite inadequate in their results, and the situation remains to-day but little improved. Hundreds of unworthy cases are daily presented at the various hospital dispensaries for charitable treatment. It seems to me that the efforts to prevent this state of affairs, and to liberally bestow free treatment where due and to withhold it where not due, have failed owing to a lack of system, cooperation, and organization. As little can be accomplished without these guiding principles, I suggest a plan of general hospital organization which contemplates them in a manner which I believe to be quite capable of practical working.

There are in Philadelphia twenty hospitals having each a large and active out-patient department. Were each of these hospitals to enter into an association (to be formed) known perhaps as The Hospital Association of Philadelphia, by the contribution annually of $100 and supplying one representative from the dispensary staff, we would at once have organization and $2,000 yearly to systematically and intelligently control the great dispensary service of this city. This could be done in the following way: The Association would employ at a salary a competent individual, whose duties would be to call regularly at each hospital and receive from the clerk in charge the names of any questionable applicants, and make at once a personal investigation, and return promptly a report, affirmative or negative as the case might be. In the meantime the patient would of course be admitted to treatment, and if the report should show that he was not a proper case, free treatment could then be denied. Furthermore, the name would be at once sent to every other hospital in the Association, thus establishing a black list, as it were, and preventing imposition elsewhere.

It would be to the interest of every hospital and dispensary in the city to enter into such an association. Every hospital doubtless spends several times $100 annually on surgical dressings alone for improper cases, so that financially it would be money saved. Again, any hospital not cooperating would, after the system were established and known to the public, probably notice an increase in its patronage, which at first might seem quite flattering, but which would eventually correct itself by a desire of that hospital to enter the association.

From the standpoint of the patient, such a system would do him far greater justice. At present a patient seeking treatment at one of our dispensaries must either find his way at once to the doctor in charge, or must first present himself to a clerk who takes the name, address, etc., and gives him a card. The responsibility of passing judgment on his claim for free treatment comes then on the physician or the clerk. Certainly the doctor should have to deal only with the medical side of the case, and should not be called upon to examine into the patient's financial condition.

Again, the clerk, even though he be intelligent and well meaning, is in no position to form an accurate judgment of a patient's social condition from a perfunctory catechism in a place semi-public, and surrounded by many disturbing circumstances. I am sure many deserving cases are turned away and wrongfully treated, because the clerk in charge must hastily make important decisions without sufficient knowledge. A discarded sealskin coat does not necessarily imply riches, nor does a neat appearance mean that a person should pay a doctor and go slovenly.

Under such organization I believe the public would rapidly become educated to higher principles, and many who are abusing these great charities would be brought to a proper understanding of the purposes for which they are maintained.

FUNNEL-CHEST VS. FUNNEL-BREAST.

By JAMES R. ARNEILL, A.B., M.D.,
Demonstrator of Physical Diagnosis, University of Michigan.

To the Editor of The Philadelphia Medical Journal :—

In a recent communication Dr. George Abbott made the practical and sensible suggestion to medical writers, that the expression funnel-chest be substituted for funnel-breast. The term funnel-breast is so comparatively recent and its English literature so meager that it should not be difficult to make the change, if it be a wise and a rational one. In looking up the literature of funnel-breast in the Index Medicus and the Surgeon-General's Index, absolutely no reference is made to the subject under abnormities of the breast, but its entire literature is found under the heading, "Abnormities of the Chest." From this fact it is evident that the compilers of works of medical reference limit the meaning of breast to mammary gland. The abnormity in question is a disease of the chest-wall, bones and cartilages, and not of the mamma. This condition was first dignified with a specific name by Ebstein in 1882. In coining a name for this anomaly he probably chose between the two German expressions, *Trichterbrustkasten* and *Trichterbrust*. But for its length and clumsiness the former is undoubtedly the more exact expression and allows of fewer chances of error. Inasmuch as brust is used almost equally in the sense of chest and breast, it was perfectly natural that for reasons of brevity and euphony trichterbrust should have been chosen. This reason, however, could not have prevailed with the first translator of the expression into English, since funnel-chest is as euphonious, and even shorter than funnel-breast, and has the advantage of permitting no misconception as to the tissue involved. It is my belief that the similarity in sound of the words brust and breast influenced the translator's choice of words. Funnel-thorax is an exact translation, but must be discarded for the same reasons that rejected *Trichterbrustkasten.* It is an interesting fact in this connection that when one of the leading German philologists of the University of Michigan heard the term trichterbrust he thought of a funnel-shaped mamma, not a retracted nipple, as Dr. Abbott hints is possible.

Foster, Webster, Standard, and Worcester give as the first definition of breast, "the fore part of the body between the neck and the belly," and as a second definition, "the mammary gland," while the Century and Murray give as the first definition, "mammary gland," and as a second definition, "the fore part of the body between the neck and the belly." In both English and German, breast has been used by medical and lay writers for centuries in both senses. As early as 1000 A. D., we find quotations from Ags. Gosp., in which breast is used with both meanings. In 1387 Trevisa, Higden Rolls, Ser. VII, 39, writes: "The Virgin Mary took her breast (mamillam) out of her bosom." In 1398 Trevisa, Barth De P. R. V. XXXIII, gives the following definition: "The breste is the ouer bony parte betwene the pappes and teetes."

In non-medical English we are almost limited to the word breast to express mammary gland. So I think it a wise plan for medical and lay writers alike to drop the use of breast when they mean chest, and limit its use to designating the mammary gland.

The peculiar use of brust in the formation of compound words is interesting. Familiarity with the context and knowledge of pathology and disease, alone make them readily understood. For instance, *Brustkrebs* means cancer of the mammary gland, while *Brustentzündung* is translated inflammation of the chest; *Brustwasser* means fluid in the chest (hydrothorax), while *Brustpumpe* means breast-pump. The fact that the expression funnel-breast is sufficiently recent and uncommon not to be found in the Century Dictionary, bespeaks the hearty and immediate cooperation of medical writers, especially of those in whose textbooks the unfortunate expression appears, such as Osler and Stuart (Vierordt), in the substitution of the expression funnel-chest for funnel-breast. The same criticisms apply to the familiar expressions, pigeon-breast and shoemakers' breast. It would be a fortunate occurrence if all medical and surgical writers in the future, when dealing with these anomalies, would use the word chest, inasmuch as in a slight degree it would tend toward a greater exactness and simplicity in medical terminology.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending April 29, 1899 :—

Monday, April 24—Neurological Society.

Wednesday, April 26—County Medical Society.

Thursday, April 27—Pathological Society. At this, the annual conversational meeting, Professor R. H. Chittenden, of Yale University, will deliver an address upon **Autointoxication.** The members of the medical profession are invited to be present.

Wills' Eye Hospital, Philadelphia.—Dr. George C. Harlan has been elected president, and Dr. Charles A. Oliver secretary, of the surgical staff.

Atlantic City (N. J.) Hospital.—Miss Elizabeth Boice, of Absecon, has signified her intention of presenting $5,000 to the hospital for the purpose of erecting a new ward.

Medical Examining Board of Pennsylvania.—The next meeting of the Board for the purpose of examining applicants for license to practise medicine in the State will be held in Philadelphia and Pittsburg, June 20 to 23.

The Lycoming Co. (Pa.) Medical Society celebrated the fiftieth anniversary of its foundation April 14. Drs. W. S. Forbes, H. A. Hare, and Thomas J. Mays, of Philadelphia, and Dr. William Osler, of Baltimore, were guests and delivered addresses. At the meeting, Dr. John A. Klump was elected president, and Dr. W. E. Glosser, secretary, for the ensuing year.

German Hospital of Philadelphia.—On April 12, John D. Lankenau, president of the Board of Trustees of the German Hospital, formally transferred to the Board of Trustees the buildings and additions that he had recently erected. These comprise the new Pathologic Institute, a completely equipped hydropathic establishment, an enlarged and improved laundry-plant, additions and improvements to the fourth, fifth, and sixth floors of the hospital-building. They represent an outlay of about $80,000 and are but part of the princely gifts that Mr. Lankenau has made to the hospital during the past years.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held April 10, Dr. P. J. Eaton reported a **fatal case of pertussis complicated with bronchopneumonia** in a child of 12 years. The case was interesting from the fact that with a pulse of 140 and respirations of 40 there was no elevation of temperature. There were no convulsions, and death took place suddenly in a paroxysm of coughing. He stated that statistics show that pertussis is as fatal as typhoid fever in children.

Drs. Small, Stewart, and Montgomery also reported **cases of pertussis,** the latter stating that he had had good results from the use of thymol.

Prof. Shields, of Westminister College, addressed the Academy by invitation upon **Electricity from the standpoint of the latest developments, with especial reference to its use in medicine.**

Pittsburg (Pa.) Academy of Medicine.—At a meeting held April 3, Dr. W. B. Ewing presented a man who had **multiple lipomas of the subcutaneous tissue** distributed over the entire surface of the body. There were at least 150 of the tumors which were from 0.5 to 3 cm. in diameter. The exclusion of sarcoma and fibroma was only possible after a microscopic examination of one of the excised growths. The section was shown.

Dr. G. C. Curry read a paper on **Hemianopsia with a report of a case of the temporal variety,** and presented drawings of the visual fields. The patient, a man, gave a specific history. A syphilitic lesion at the optic commissure was held to account for the condition. In discussion Drs. Thompson, Simpson, and Milligan related cases having come under their observation. Dr. Heckel stated that the diagnosis as to the location of the lesion in the bi-temporal variety is readily made, but the determination of the nature of the lesion is often difficult. Aside from syphilitic tumor, the diagnosis of aneurysm presents fewer difficulties than many others, as vision improves and recedes with the variation in bloodpressure. He called attention to the number of words in common use which really mean just the opposite of what it is intended to express, *e. g.*, hemianopsia and nyctalopia.

Vital Statistics of Philadelphia for the week ending April 15, 1899 :—

Total mortality		520
Children under 5 years of age		153
Diseases.	Cases.	Deaths.
Pneumonia 62, congestion of the lungs 4		66
Disease of the brain 29, inflammation of the brain 26, congestion of the brain 9		64
Pulmonary tuberculosis 44, laryngeal tuberculosis 1		45
Nephritis 26, uremia 12, kidney-disease 1		39
Typhoid fever	251	38
Inanition 13, marasmus 12, debility 1		26
Carcinoma 16, tumor 5, sarcoma 1		22
Apoplexy 11, paralysis 6, softening of the brain 5		22
Senility		19
Diphtheria	53	18
Convulsions 17, epilepsy 1		18
Gastroenteritis 11, cholera infantum 4		15
Inflammation of the heart 8, fatty degeneration of the heart 2, heart-disease 2, neuralgia of the heart 3		15
Cerebrospinal meningitis	21	14
Bronchitis		10
Scarlet fever	50	4
Dropsy 6, casualties 5, teething 5, pertussis 5, cirrhosis of the liver 4, peritonitis 4, suicide 4, septicemia 4, burns and scalds 3, cyanosis 3, erysipelas 3, alcoholism 2, asthma 2, diabetes 2, diarrhea 2, disease of the spine 2, influenza 2, cystitis 2, appendicitis 2, intussusception 2, rheumatism 2, shock 2, aneurysm 1, malarial fever 1, inflammation of the liver 1, parotitis 1, inflammation of the spine 1, insanity 1, jaundice 1, malformation 1, poisoning 1, hemorrhage 1, intestinal obstruction 1, sore mouth 1, suffocation 1, syphilis 1.		

North Western (Phila.) Medical Society.—At a meeting held April 4, 1899, Dr. Charles Herwirsch reported the details of **4 atypical cases of typhoid fever.** The unusual features of the first case were severe temporal and frontal headaches of 2 weeks' standing in no wise relieved by any of the known coal-tar derivatives, neither by the ice-bag or hot-water bag, nor leeches to the temple; but disappearing promptly after the injection high up into the rectum of a normal salt-solution, a measure not aimed at the head-distress but urgently called for by impending collapse of the patient. The temperature was practically normal for the first 4 days of the illness, but for the first 20 hours there was suppression of urine, which upon reappearing showed high specific gravity and excessive uric acid and urates. For 10 days nothing but champagne could be retained. The spots did not appear until the fifteenth day. The result of the Widal reaction was negative on the twelfth day and positive on the fifteenth day. The second case showed inverted temperature, high in the morning and low in the evening. In the fourth week there occurred a chill lasting 45 minutes, followed by a relapse of two weeks' duration. The chief features of the third case were marked sordes, very much swollen tongue, furunculosis, and, after convalescence, periostitis of the left radius. The only unusual feature of the fourth case was the absence throughout the entire illness of the abdominal spots.

DR. LOUIS S. SOMERS reported 3 cases of **late consecutive oro-pharyngeal syphilis.** The first was an example of late, dry mucous plaques of the tongue, while the 2 other cases were representative of gumma of this region, one in its nonulcerative or early form, calling for large doses of potassium iodid; the other case showing extensive destruction of both tonsils from gummatous ulceration. Dr. Somers called special attention to the difficulty of obtaining a specific history in many cases, seeing which it was important to bear in mind that when all manifestations of the disease had disappeared, close study of the oro-pharynx and especially of the tongue would often show the preexistence of syphilis and enable one to detect obscure conditions which would otherwise escape notice and only add to the difficulty and uncertainty of diagnosis.

College of Physicians of Philadelphia—Section on Otology and Laryngology.—At a meeting, held March 15, DR. ALEXANDER MACCOY read a paper entitled, **Observations on laryngeal paralysis, dangerous to life, occurring in the course of typhoid fever.** He stated that laryngeal complications, such as ulcerations, perichonditis, edema, etc., occur in many infectious diseases, have been studied, and are well-known, but that paralysis of the intrinsic muscles of the larynx are not so familiar. These are often unrecognized and may be mistaken for other affections, such as croup and spasmodic laryngeal affections. Paralysis of either adductors or abductors may exist; the former affects the power of phonation only, whereas the latter affects respiration and is dangerous to life. In the latter condition, prompt recognition and relief is necessary that the patient may not die. He reported 3 personal observations; 2 had been promptly relieved respectively by intubation and tracheotomy; in the third instance, intubation had been refused and the patient died. In the discussion, DR. H. A. HARE spoke of the peripheral nature of this complication, and of the frequency of associated pharyngeal lesions in typhoid fever. The paper was also discussed by DRS. BLISS, VANSANT, KYLE, RANDALL, and MACCOY.

DR. RALPH W. SEISS read a paper on **Aural massage.** He stated that there are 3 varieties of aural massage; (1) direct vibration of the drum and ossicles by various types of probes; (2) pneumatic vibrations by many forms of suction apparatus; (3) phono-massage or sound vibration. The methods of the application of each were detailed, and the preference for pneumatic massage expressed. Aural massage was considered of utility in chronic catarrhal otitis, in true aural sclerosis, in the fibrous degeneration of elderly persons, but as being of no avail in chronic suppurative otitis. The discussion was participated in by DRS. BURNETT, GLEASON, BLISS, RANDALL, VANSANT, and SEISS.

DR. GEORGE C. STOUT read a paper entitled, **Some remarks upon chronic empyema of the accessory nasal cavities, with report of 7 cases.** The clinical manifestations and medicinal and operative treatment of the several cases were detailed. It was further stated that suppuration of the accessory nasal cavities is one of the results of chronic hypertrophic conditions of the nasal mucous membrane, which close the infundibulum, ostium maxillæ, and other openings. Nasal polypi and the infectious diseases also bear a causal relation to these suppurative processes. Surgical measures, such as paracentesis or external opening, with free drainage and irrigations with antiseptic solutions, are essential to effect a cure.

Pathological Society of Philadelphia.—At a meeting held April 13, DR. JOSEPH MCFARLAND **demonstrated the action of venin and antivenin.** The venin and antivenin were those employed by Calmette, of Lille. The antivenin is secured by drying the venom of a large variety of snakes and injecting a watery solution of this into horses, and subsequently withdrawing the blood-serum. Two rabbits were injected with 0.25 cc. of a 1% watery solution of the venin, and one of the rabbits was subsequently given 2 cc. of the antivenin. The injections were made into a vein of the ear. The first rabbit died at the end of about 1 hour. Several hours later, the second rabbit was apparently as well as ever. The practical value of the antivenin is illustrated by the fact that since the French government has obliged its surgeons to carry it with them and to use it promptly, the mortality among the troops from snake-bite, which was formerly considerable, has been greatly reduced.

DR. J. DUTTON STEELE reported a case of **myofibrosarcoma of the ovary.** The patient was a woman, aged 56 years, who, following a traumatism, developed ascites which it was necessary to remove several times by aspiration. A mass soon became evident in the left iliac region. This was removed by operation and found to involve the left ovary. The patient died of peritonitis one week after the operation. The growth measured 14 cm. by 9 cm., and microscopically consisted of a large amount of fibrous connective tissue, of unstriped muscular fibers, and embryonal connective tissue.

DR. J. M. SPELLISSY presented a specimen of **traumatic rupture of the kidney.** Following an accident, the patient had hematuria for 2 days. This ceased, and the patient was quite comfortable for 8 or 9 days. He then began to complain of some discomfort in the flank. Upon operation a perirenal abscess was detected. This was evacuated and the patient seemingly improved for a time. He died, however, on the twenty-eighth day, of purulent peritonitis. In the discussion, DR. W. M. L. COPLIN referred to a somewhat similar case.

DR. GEO. E. DE SCHWEINITZ read a paper entitled **Concerning the changes in the retinal arteries indicative of general arterial disease from the ophthalmoscopic standpoint.** He spoke of undue tortuosity, alternate contraction and dilatation, increased brightness of the central-light streak, lessened translucency, and whitish streaks about the arterial walls. He spoke also of impeded venous circulation at places where an artery crosses a vein and of ampulliform dilatation of the vessel at these points, and attributed a great importance to this, particularly as regards prognosis. In addition, edema and hemorrhages of the retina were mentioned. Cases illustrative of diagnosis, prognosis, and therapeusis were cited.

DR. W. M. L. COPLIN read a paper entitled: **Acetosoluble albumin.** It will be published in an early number of the JOURNAL.

Pittsburg (Pa.) Pathological Society.—At a meeting held April 13, DR. J. C. OHAIE presented a boy of 15 with a large, rapidly growing **sarcoma of the left knee,** which was first noticed in the latter part of December, 1898. Three weeks ago metastasis to the groin had taken place, and a few days since an enlargement of the right thigh was noted.

When presented, the greatest circumference measured 19½ inches, an increase of a half-inch in 3 days. There had been an elevation of temperature of from 1° to 2° for some weeks. Dr. R. W. Stewart remarked, that for some reason an elevation of temperature was not uncommon in rapidly growing sarcomas, and mentioned a case of sarcoma of the knee, in which he had done a hip-joint amputation 3 years ago with no recurrence up to present time. He also referred to an obscure case, the subsequent course of which proved it to be an osteomyelitis, and from which a portion of tissue had been examined microscopically and reported as sarcoma. Dr. Singley spoke of the difficulty attending diagnosis from microscopic examination alone, and thought that the pathologist should know all about the case from a clinical standpoint. He cited as an example the well-known Philadelphia case of a large ulcerating lipoma, for which the thigh was amputated with a fatal result, on account of the fact that a diagnosis of sarcoma was made from an examination of a portion of the granulation-tissue. Dr. Eugene Matson thought that the surgeon, or the man who sees the case clinically, should be as competent to interpret a description of any pathologic tissue as the man who sees the tissue through the microscope. A pathologist should not be expected to make a positive diagnosis of—say, sarcoma with the meager data usually furnished him, but in his report should simply describe what he sees.

Dr. Shillito asked for personal opinions rsgarding the value of the toxins of erysipelas and bacillus prodigiosus in the treatment of **sarcoma.** Dr. R. W. Stewart stated that he had little confidence in it and spoke of a case of sarcoma in which the patient contracted erysipelas without benefit. Dr. Ohaie said that he considered the case which he had presented inoperable when he first saw it. So far as he had been able to learn there are about 70% of recurrences in sarcoma of the knee, if an amputation is done below the hip-joint. Dr. Singley presented a section of an **endothelioma** having probably arisen from the **ovary,** and remarked upon the rarity of this variety of sarcoma.

Dr. J. B. Crombie reported a case of **osteomyelitis of the fibula.** Dr. Ohaie presented a **gallbladder containing several large black calculi,** rough and irregular in shape. The autopsy at which this specimen was obtained also revealed a floating kidney on the same side.

Dr. Welsh read a paper entitled **Recent additions to our knowledge of tuberculosis,** in which he advocated the use of Koch's tuberculin. He presented a slide of tubercle-bacilli from sputum in which the bacilli were unusually small and showed a very marked massing in large clumps. Dr. Eugene Matson spoke of some experimental work with tuberculin recently done in Berlin upon human beings with the result that nearly ⅔ of the patients, who were not known to have tuberculosis, reacted. Dr. W. B. Ewing asked if any member present had ever succeeded in finding the bacillus of tuberculosis in lupus vulgaris. He had himself examined a large number of slides from 31 cases, with negative results.

Philadelphia County Medical Society.—At a meeting held April 12, Dr. W. S. Spencer read a paper entitled **The dangers of hydrogen peroxid in surgical cases.** He stated that the liberation of the gases engendered by the use of hydrogen peroxid within cavities with small openings often produces injurious mechanical effects, and in addition, instead of accomplishing that for which it is employed, serves only to further disperse the morbific agents. He cited several illustrative cases, 1 of carcinoma of the breast and 3 of stitch abscess, in which the use of hydrogen peroxid had given rise to swelling of the tissues, crepitation, and carrying of infection to points some distance from the original focus. In the discussion Dr. H. Augustus Wilson agreed with Dr. Spencer that hydrogen peroxid should not be used in cavities with a small opening, and mentioned the beneficial uses attending the use of compressed oxygen. Dr. Lautenbach spoke of the use of hydrogen peroxid in otology, cautioning against injecting it into the ear. Dr. Mordecai Price stated that the treatment of sinuses by injecting any fluid is of no avail, and cited illustrative cases. The president, Dr. S. Solis Cohen, referred to Richardson's original paper in which he said the indications and contraindications of hydrogen peroxid are well set forth.

Dr. Reynolds Wilson read a paper entitled **Extraperitoneal effusion due to spontaneous rupture of the uterus; death from pyemia.** The patient was a primipara, who had rapid labor followed by some hemorrhage. The following day there occurred bloody stools, and subsequently an abdominal effusion; later, evidences of a mass in the abdominal walls, umbilical fistulæ, discharge of sloughs from the vagina, septicemia, and death. At the necropsy there were detected local plastic peritonitis, an abscess in front of the pubes, and sinuses extending in all directions. It was thought that the uterus had ruptured extraperitoneally, and that the extravasated blood had subsequently become infected. In the discussion Dr. Richard C. Norris narrated the details of a somewhat analogous case of **extraperitoneal effusion.** The patient was subjected to incision and drainage, which eventuated in recovery. He emphasized the importance of surgical intervention in such cases, as did also Dr. Mordecai Price. Dr. Wilson stated that he he hardly conceded that every postpartum parametritic swelling warrants surgical intervention, but stated that in selected cases it is the most appropriate treatment.

Dr. M. B. Hartzell read a paper entitled **Some unusual forms of trichophytosis.** He reported the following cases as differing from the ordinary forms: A case of tinea circinata showing 2 well-marked concentric rings; 1 of ringworm of the beard in which the upper lip was affected and a patch of tubercles resembling a tubercular syphilide occurred upon the cheek; 2 cases of agminate perifolliculitis contracted from a calf. Reference was also made to cases of deep suppurating trichophytosis, which he previously reported. Some of the more remarkable varieties of the affection as recently reported were also mentioned, such as ringworm of the palms and soles, ringworm attacking mucous membranes, and multiple gangrene of the skin due to the trichophyton.

Dr. Charles Lester Leonard read a paper entitled **Electrical heating applied to steam sterilization and the production of dry hot air for therapeutic purposes,** and also exhibited various apparatus.

NEW YORK.

St. Vincent's Hospital, New York.—The late Mrs. Margaret A. Kelly, widow of Eugene Kelly, bequeathed $10,000 to St. Vincent's Hospital.

Damages Against a Physician.—According to the daily newspapers, Dr. Thomas H. Manley has been sued by a Mrs. Selina Schneider for alleged injury to her thumb inflicted while he was treating some disease of the nail. She was a patient at the West-Side German Dispensary, and claimed that as a result of his treatment the thumb had become shriveled and useless. A sheriff's jury accommodated her by rendering a verdict for the full amount of her claim, $2,035.

Smallpox on the "Lahn."—The North German Lloyd steamer "Lahn," which arrived at New York from Bremen and Southampton April 13, was detained at Quarantine because of the presence of 13 cases of smallpox among the steerage passengers. The patients were transferred to the Riverside Hospital, and the remaining 270 steerage passengers taken to Hoffman Island for observation.

Bottles for Poisons.—A bill has just been defeated in the Legislature, which aimed to secure the universal adoption of a bottle for poisons having a distinctive shape. Its defeat appeared to be due to the fact that the bill had been drawn in the interest of a patentee of a certain form of bottle. The suggestion is now made that a law be passed making it obligatory on druggists to use for poisons three-cornered bottles only.

The N. Y. Board of Health and the Sale of Antitoxin.—On Saturday morning, April 15, a meeting was held by special appointment with Col. Michael C. Murphy, President of the Department of Health. For some time, in fact ever since the late defeat of the Collier Bill in the Assembly, Col. Murphy has been pursuing his investigations into the objectionable features of the sale of antitoxin and lymph by the Department of Health. In the course of his researches he came into communication with Prof. R. W. Wilcox, of the Post-Graduate Medical College and the physician of several hospitals. As a result Prof. Wilcox requested the appointment of a time when a delegation of physicians, druggists, business men, and editors of professional publications might be received. On Saturday morning the office of the President of the Board of Health was crowded with those who appeared in consonance with this appointment. Prof. Wilcox presented the case with accuracy and terse statements. He showed that the authorization of the sales of these laboratory products was obtained under a misapprehension, and that there now existed no reason why the Department should continue the system which so much exposed it to adverse comment. He mentioned the fact that the friends of the present system are few, and that on the other hand 500 physicians in the city of New York, and 1,500 throughout the State, including many officers of local boards of health, protest. In the course of his remarks Prof. Wilcox drew attention to the fact that under its present administration the Department of Health commanded in a far higher degree the confidence of the medical profession than had been the case for some years previous, and that for that reason there was less hesitation in coming to the Department for the discussion of a matter which so largely commanded the favor of the profession.

President Murphy replied in a very frank and encouraging statement of his aims in the matter. He deprecated anything which might seem to be a reflection on the probity of the Department involved in some late criticisms in the lay press. He said that he had been examining into the matter, and that at the present time the ablest of the clerical staff of the Department were engaged in compiling for his information the full figures of the business done in the sales of antitoxin, and other statistics which would assist him in coming to a decision. He said that he had been informed by some physicians that antitoxin would keep for but 15 days, and if that were so it seemed to be an argument in favor of the sale of the article by the city. He had just been told by Dr. Wilcox of the opinion of one expert that antitoxin would keep for 18 months, and after that would deteriorate, but slowly. This was new to him, and he would like further information on that point. Col. Murphy spoke with much feeling of the care which he gave to superintending the operations of the Department of Health, and made it plain that in all that was done in this antitoxin as in other matters his first thought was to secure the best results for the city. Further, he said that he was convinced that the Department should stop the manufacture of antitoxin except for its own use, or for any emergency that might arise.

Others who addressed Col. Murphy in support of the discontinuance of the present system were F. B. Thurber, President of the U. S. Export Association, Dr. E. Eliot Harris, chairman of the legislative committee of the State and County Medical Associations, Thomas F. Main, of the Drug-Trade section of the Board of Trade, and Dr. F. E. Stewart, editor of Merck's Archives. In conclusion Col. Murphy expressed his pleasure that so large and representative a gathering had assembled to meet him. He said that he would take into careful consideration all that had been said, and added that they would have no reason to be dissatisfied with the result which he should reach.

New York Academy of Medicine—Section on Pediatrics.—At the meeting held April 13, DR. CHARLES HERMANN presented **a series of cases of goiter in children, including examples of cretinism and Basedow's disease.** In the discussion, DR. CHARLES G. KERLEY said that he had only seen 3 cases of Basedow's disease in children. In one case, thyroid treatment had produced such improvement that the child passed out of observation; in another, a course of the same treatment extending over a few months resulted in restoration to health, and this good result had been maintained during the year and a half that the case had been kept under observation.

DR. W. P. NORTHRUP reported **a case of intussusception cured by an enema.** The child was 9 months old, and a large sausage-shaped tumor could be easily seen and felt. The condition had only lasted a few hours when, by means of a high enema of hot water, given during chloroform narcosis, the intussusception had been reduced, and had not recurred during the 3 months that had elapsed. Dr. Northrup thought that in recent cases it was worth while to spend a little time in giving this treatment a fair trial. In the discussion, DR. WALTER LESTER CARR said that the pressure of water might be reduced if the enema were sufficiently large, and if it was given slowly. Ordinarily he would not care to use a pressure greater than that represented by elevating the reservoir of fluid from 3 to 5 feet above the patient's body. DR. KOPLIK remarked that it was eminently proper to warn against using excessive pressure, as very recently he had seen a case in which the bowel had been ruptured by a neglect of this point.

DR. B. VAN D. HEDGES reported a case of **abscess of the lung following pneumonia.** When the patient, a boy of 6 years, had been first brought to him in March, 1896, the pulse had been 170, the respirations 65, and the temperature 104.8° F. Only seropurulent fluid had been withdrawn on exploratory puncture, but by April 8 it had been evident that pus was present, and accordingly the pus had been evacuated by incision into the chest, along the exploring needle as a guide, and by resection of the rib. By May 18 the wound had healed completely. He was now in excellent physical condition.

DR. HENRY HEIMAN reported a case of **crescent ma-**

aria in a child, which was the more interesting because the child had spent all its life—5 years, in New York City. Under the use of quinin, the fever subsided and the spleen diminished. Dr. Heiman said that, contrary to the opinion of many, he believed that crescent malaria was endemic in New York City. The treatment which he advised was moderate doses of quinin for 1 week, and then an intermission to allow of the development of the spore-forming parasites into full-fledged organisms. This method of treatment was in imitation of the method of "fractional sterilization."

Dr. W. N. Berkeley read a paper on **enlarged liver and spleen in infancy,** in which he reviewed the literature, and cited a number of cases to show the comparative frequency with which these enlargements promptly subsided under mercurial treatment, even after having proved most rebellious under other and approved methods. In the discussion, Dr. Kerley said that hepatic enlargement was very frequently seen in infants suffering from athrepsia. He had found hepatic and splenic enlargement present in about two-thirds of the cases of congenital syphilis coming under his notice, and as an early symptom it had seemed to him even of greater importance than the eruption. Dr. David Bovaird referred to 2 curious cases, occurring in sisters, 13 and 4 years old respectively, in which there had long existed very decided enlargement of the liver and spleen, and yet a careful study seemed to exclude malaria, syphilis and rachitis as the underlying condition. The blood had been repeatedly subjected to microscopic examination with negative result. Dr. Vanderpoel Adriance alluded to the very common enlargement of the liver in children from fatty liver, especially in connection with chronic intestinal disorder. Dr. H. Koplik spoke of infectious icterus in infants as a common cause of hepatic enlargement.

The Dispensary Bill Passed and Signed by Governor Roosevelt.—The following is the text of the Bill which after three years' labor on the part of many physicians was finally passed by the Senate and Assembly on April 18, and received the signature of Governor Roosevelt on the same day:

AN ACT

To Amend the State Charities Law, relating to the Licensing and Regulation of Dispensaries by the State Board of Charities.

The People of the State of New York, represented in Senate and Assembly, do enact as follows:

Section 1. Article one of chapter five hundred and forty-six of the laws of eighteen hundred and ninety-six, entitled "An Act relating to State Charities, constituting chapter twenty-six of the general laws," is hereby amended by inserting at the end thereof the following sections:

Sec. 19. What is a dispensary?—For the purposes of this Act, a dispensary is declared to be any person, corporation, institution, association, or agent, whose purpose it is, either independently or in connection with any other purpose, to furnish, at any place or places, to persons non-resident therein, either gratuitously or for a compensation determined without reference to the value of the thing furnished, medical or surgical advice or treatment, medicine or apparatus; provided, however, that the moneys used by and for the purposes of said dispensary shall be derived wholly or in part from trust funds, public moneys, or sources other than the individuals constituting said dispensary and the persons actually engaged in the distribution of charities of said dispensary.

Sec. 20. Licensing of dispensaries by the State Board of Charities.—A license may be issued by the State Board of Charities to a dispensary, as provided in this section. An application in writing for such a license shall be made to such board in the form and manner prescribed by it, which shall be uniform for all schools of medicine. There shall be attached to such application a statement, verified by the oath of the applicant, containing such facts as the board may require. If, in the judgment of such board, the statement filed, and other evidence submitted in relation to such application, indicate that the operations of such dispensary will be for the public benefit, a license shall be issued to the dispensary applying therefor. The form of such license shall be prescribed by the board. A dispensary shall not enter upon the execution or continue the prosecution of its purpose unless licensed by the State Board of Charities, as provided in this Act. A license shall be issued, on application, to all dispensaries legally incorporated, and to unincorporated dispensaries conducted in connection with incorporated institutions at the time of the passage of this Act.

Sec. 21. Rules and regulations.—The State Board of Charities shall make rules and regulations, and alter or amend the same, in accordance with which all dispensaries shall furnish and applicants obtain medical or surgical relief, advice or treatment, medicine or apparatus. But such rules and regulations shall not in any case specify the particular school of medicine in accordance with which a dispensary shall manage or conduct its work, or determine the kind of medical or surgical treatment to be provided by any dispensary.

Sec. 22. Revocation of licenses.—The State Board of Charities or any of its members may at any and all times visit and inspect licensed dispensaries. They may examine all matters in relation to such dispensaries, and ascertain how far they are conducted in compliance with this law and the rules and regulations of the board. After due notice to a dispensary, and opportunity for it to be heard, the board may, if public interest demands, and for just and reasonable cause, revoke a license by an order signed and attested by the president and secretary of the board. Such order shall state the reason for revoking such license, and shall take effect within such time after the service thereof upon the dispensary as the board shall determine. The said board is hereby directed to apply to the Supreme Court to revoke the license and annul the incorporation of any dispensary legally incorporated, or conducted in connection with an incorporated institution at the time of the passage of this Act, for wilful violation of the rules and regulations made by said board.

Sec. 23. Drug store or tenement house not to be used by dispensary; unlawfully display of signs.—After the taking effect of this Act, no dispensary shall make use of any place commonly known as a drug store, or any place or building defined by law or by an ordinance of the Board of Health as a tenement house; nor after such time shall any person, corporation, institution, society, association, or agent thereof, except a duly licensed dispensary, display or cause to be displayed a sign or other thing which could directly or indirectly or by suggestion indicate the existence of the equivalent, in purpose and effect, of a dispensary.

Sec. 24. Any person who wilfully violates any of the provisions of this Act, or any of the rules and regulations made and published under the authority of this Act, shall be guilty of a misdemeanor, and on conviction thereof, shall be punished by a fine of not less than ten dollars and not more than two hundred and fifty dollars.

Sec. 25. Any person who obtains medical or surgical treatment on false representations from any dispensary licensed under the provisions of this Act shall be guilty of a misdemeanor, and on conviction thereof shall be punished by a fine of not less than ten dollars and not more than two hundred and fifty dollars.

Sec. 26. All acts or parts of acts inconsistent with the provisions of this Act are hereby repealed.

Sec. 27. This Act shall take effect on the first day of October, eighteen hundred and ninety-nine.

New York Academy of Medicine—Surgical Section.—Dr. A. M. Phelps presented a number of patients to illustrate what could be accomplished by his operation for **the radical cure of hernia by inserting a network of silver wire in the inguinal canal.** He also exhibited a mass of wire and cicatricial tissue which had been removed postmortem after having been buried in the inguinal canal for 2½ years. The operation, which had first been described before this Section just 5 years ago, consists in inserting a mattress of fine and thoroughly sterilized silver wire between the transversalis fascia and transversalis muscle. He predicted that the Bassini would, in time, follow the course of the other well-known hernia operations. In the discussion, Dr. William B. Coley said that all that he had seen and heard in connection with this operation during the past 5 years had failed to convince him of its value. The cases just presented were all comparatively recent. Non-absorbable material certainly caused trouble sufficiently often to constitute a serious objection to its use. The presence of a large quantity of fibrous tissue in the canal seemed to him a disadvantage, as he felt sure that in time it would be absorbed, and then the hernia would recur. Dr. George E. Brewer said that he had used Phelps's operation in 2 cases with satisfactory results, and knew by personal observation that a number of Dr. Phelps's patients had been in excellent condition 1 or 2 years after operation. Dr. Robert T. Morris thought the operation was mechanically correct, and especially adapted to patients with poorly nourished tissues. He suggested that the use of a thin screen of finely-woven wire would enable the surgeon to secure adequate support with much less wire. He had, however, done about 100 Bassini operations, and only knew of 2 of these cases having relapsed. DR. COLEY presented 3 young men who had been operated upon by the Bassini method 6 or 7 years ago, and who were free from any sign of relapse. He also stated that he had done over 500 Bassini operations, and although he had taken pains to follow his cases carefully, he only knew of 5 relapses.

DR. GEORGE E. BREWER presented a man upon whom he had done **intestinal anastomosis for gangrenous femoral hernia.** The case had originally presented all the usual appearances of an inguinal adenitis with abscess. On incision there was a distinct fecal odor, and a mass was discovered which was taken, at the time, to be the sloughing vermiform appendix. A week or two later an operation had been undertaken with the object of extirpating the appendix, and then it had been ascertained that the appendix was normal, and that the original condition had been a femoral hernia containing a loop of ileum. As there was a large rent in the gut, the latter was resected, and an anastomosis effected with a Murphy button.

DR. W. B. COLEY presented a case of **tuberculosis of the hernial sac,** and remarked that he had been able to find only 22 such cases on record.

DR. JOHN ROGERS described a **special tube for laryngeal stenosis,** and presented a woman with specific laryngeal stenosis who was wearing one of these tubes. She had worn a tracheotomy tube for about 2 years, and then had been much annoyed by the coughing up of granulations. After thyrotomy and rapid dilatation, the ordinary intubation tube had been tried repeatedly, but it had been just as often coughed up. In the new tube there was a perforation opposite the "swell" into which a plug was screwed. This projected into the tracheotomy opening, and the patient by removing it could provide for any emergency arising from occlusion of the tube.

DR. JOHN F. ERDMANN presented a case of **rapidly recurring sarcoma of the thigh.**

DR. ROBERT ABBÉ described an **anastomosis of Steno's duct** which he had successfully performed in a case in which, after removing a large sarcoma of the cheek, the ends of the duct had been separated by an interval of one inch. He said that it was easy by a little dissection to so loosen up the duct that the two portions could be stretched and brought together, and then one portion could be drawn within the other and sutured.

DR. P. R. BOLTON read a paper entitled the **General prognosis in the injuries of the spinal cord.** He said that wounds rarely caused complete division of the spinal cord. There were 2 general classes of injuries: (1) those causing division of the fibers by agents from without, and (2) those in which nearly the same effect resulted from hemorrhage within the cord. In the first class the injury was commonly produced by bullets or spicules of bone; in the second class the hemorrhages usually occurred in the gray matter. The later were usually produced by hypertension of the cord in the direction of its long axis during forced flexion of the spine, and hence occurred most frequently opposite the most movable part of the vertebral column. The prognosis could be summarized as follows: (1) all total, and practically all partial lesions of the upper four segments were immediately fatal; (2) all total, and the majority of partial, lesions of the lower cervical and 4 upper dorsal segments caused death in about 2 weeks, and (3) total lesions in the lower dorsal, and in the lumbar and sacral segments were often survived for a long period without improvement, while partial lesions were rarely fatal. Cases of hematomyelia usually did well if let alone.

NEW ENGLAND.

By the will of the late Mrs. Harriet Frothingham Wolcott, of Massachusetts, $25,000 is bequeathed to the Massachusetts General Hospital for the foundation of free beds.

CHICAGO AND WESTERN STATES.

Academy of Medicine of Cincinnati, Ohio.—The meeting, held April 10, was devoted to a discussion of the **recent epidemic of influenza.** DR. J. T. WHITTAKER gave a detailed description of the **history** of the disease. He laid very great stress on the necessity of bacterial examination of the sputum in obscure pulmonary diseases. Some cases which have every symptomatic evidence of pulmonary tuberculosis (emaciation, cough, night-sweats, and the physical signs of consolidation) are nevertheless cases of chronic influenza. The sputum in such cases contains not the tubercle-bacillus, but the influenza-bacillus in myriads. The greatest importance of influenza lies in the fact that it induces secondary heart-changes. Myocarditis and chronic endocarditis are frequent sequels. The treatment must bear this fact in mind above all others. In severe cases, absolute rest is essential. The use of antipyretics is to be strongly condemned. The most advanced therapy seeks to sustain the heart and has recourse especially to the skin as an emunctory. Dover's powder is by far the most useful drug for this purpose. Warm baths are exceedingly beneficial. In gastrointestinal influenza, ichthyalbin is exceedingly useful, 40 to 60 grains a day rendering the intestinal tract practically aseptic and preventing the absorption of poisonous material from the bowels.

DR. SAM E. ALLEN gave a complete description of the **bacteriology** of the disease. He followed Pfeiffer's investigations step by step and noted that it was not until blood was added to the culture-media that the bacilli could be grown outside the body. He called attention to the failure of all efforts to discover just what element in the blood it is that is essential to the growth of the germ. Only the first two of Koch's triad of requirements have so far been fulfilled, the third has so far resisted all experiments; *i.e.*, the bacillus is found in all cases of influenza and in no other disease; it can be isolated and grown in artificial media, but it has not yet been successfully inoculated. The question of etiology has been further complicated by the discovery of a pseudo-influenza bacillus, extremely difficult to distinguish from the true germ. During the height of an attack of pulmonary influenza the bacilli are found in the secretions; towards the end of the attack they are crowded in the pus-cells. This is perhaps an example of the phagocytic action of the leukocytes.

DR. AYRES spoke of the **frequency of otitis media** as a complication of influenza. DR. A. W. JOHNSTONE spoke of the **influence of the influenza epidemic on gynecologic cases.** During the height of the attack he had 3 cases of appendicitis to operate on in one week and he believed the attacks to be of influenzal origin. He also cited a case of peritonitis which he believed to be due to the influenza-germ. In none of the cases was a bacterial examination made. DR. CLEVELAND expressed considerable misgivings concerning the too general use of the term, influenza. **DR. JOS. RANSOHOFF** did not believe that the recent epidemic was accompanied by surgical affections. His service at the City Hospital was not increased by surgical cases following influenza. He had operated on 8 or 9 cases of appendicitis during the past 2 months and could see no possible connection between them and influenza. Influenza could certainly be followed by catarrhal jaundice, as he had himself suffered from this complication, and it might be possible that an inflammatory swelling at the mouth of the appendix would follow the same disease. But the connection was not clear, and he thought it improper to ascribe complications to influenza unless a microscopic examination verified the suspicion. Joint-disease due to influenza had not come under his notice.

DR. A. FRIEDLANDER had the opportunity of studying the disease last fall in Vienna. He called attention to the **intimate relation existing between influenza and tuberculosis.** Influenza often brought into activity a latent tuberculosis; and even more frequently it increased the severity of an existing tuberculosis. Kretz, of Vienna, has stated that he has succeeded in inoculating animals with the influenza-bacillus.

DR. A. H. FREIBERG spoke of Witzel's recent reference to acute joint-inflammations attending influenza. He had himself seen several cases of joint-inflammation of a subacute character, and very obstinate, coming on during the convalescence from influenza. A patient under his care at present had what would probably be a permanent impairment of motion in the elbow and wrist. Last year he saw a case of gonitis accompanying influenza, the knee remaining perfectly stiff.

DR. FACKLER commented on the mild nature of the recent epidemic. Severe complications were very rare. The chief symptoms were gastrointestinal; and these were functional in their nature, leaving no sequels. The pneumonia accompanying influenza is lobular and never lobar.

Synopsis of Medico-sanitary Legislation Passed in Illinois by the General Assembly which Adjourned on April 14:—

1. An act to establish a State Colony for Epileptics, the object of which is to secure humane curative and scientific treatment and care of epileptics.

2. An Act to provide for the appointment of a State Food Commissioner and to define his duties and fix his compensation, and to prohibit and prevent adulteration, fraud, and deception in the manufacture and sale of articles of food. Under this Act it shall be the duty of the Commissioner to enforce all laws that now exist or that may hereafter be enacted in this State regarding the production, manufacture, or sale of dairy-products, or the adulteration of any article of food, and personally or by his assistants to inspect any article of food made or offered for sale within this State, which he may, through himself or his assistants, suspect or have reason to believe to be impure, unhealthful, adulterated or counterfeit, and to prosecute or cause to be prosecuted, any person or persons, firm or firms, corporation or corporations, engaged in the manufacture or sale of any adulterated or counterfeit article or articles of food which are contrary to the laws of this State.

3. An Act giving the State Board of Health supervision of all lodging-houses in cities of 100,000 inhabitants or more. Under the provisions of this measure, it shall be unlawful for more than six persons to occupy the same room for sleeping purposes at the same time in any such lodging-house, and no room in such lodging-house shall be occupied for sleeping purposes which does not contain 400 cubic feet or more of space for each person sleeping therein at the same time. Any person or persons violating any of the provisions of this section shall be adjudged guilty of a misdemeanor and shall be liable to a penalty not exceeding $100. Any landlord, keeper, manager or clerk of any lodging-house who wilfully or knowingly aids, counsels, advises or permits any person to do any act in this section constituted an offence shall be deemed guilty of a misdemeanor and shall be liable to a penalty not exceeding $100 nor less than $25.

4. An Act to amend "An Act Concerning Corporations," which provides that the Attorney-General may file a bill in chancery in the name of the people of the State of Illinois, against any corporation authorized to confer degrees, diplomas, or other certificate or certificates of qualification in the science of medicine, pharmacy, or dentistry, which conducts a fraudulent business or abuses, misuses or violates the terms of its charter, in any court having jurisdiction of the corporation and subject-matter of such bill, for an injunction to restrain said corporation from conducting its business fraudulently or abusing, misusing or violating the terms of its charter, and also for the dissolution of said corporation, and thereupon it shall be the duty of the court in which said bill is filed to grant such injunction and to hear and determine the same as in other cases in chancery.

The enforcement of this law will summarily put an end to the operations of the "diploma mills" which have disgraced the State at home and abroad for many years.

5. An Act to Regulate the Practice of Medicine in the State and to repeal all previous laws.

This measure, which, if signed by the Governor, goes into effect July 1, 1899, provides for the examination and licensing of persons who desire to practise medicine and surgery in all their branches, for those who desire to practise midwifery and for those who desire to practise any other system or science of treating human ailments, who do not use medicines internally or externally, and who do not practise operative surgery.

Applications from candidates who desire to practise medicine and surgery in all their branches, shall be accompanied by proof that the applicant is a graduate of a medical college in good standing, as may be determined by the Board, Provided that graduates of legally chartered medical colleges in Illinois in good standing as may be determined by the Board may be granted certificates without an examination.

Examinations may be made in whole or in part in writing by the Board, and shall be of a character sufficiently strict to test the qualifications of the candidate as a practitioner. The examination of those who desire to practise medicine and surgery in all their branches shall embrace those general subjects and topics, a knowledge of which is commonly and generally required of candidates for the degree of doctor of medicine, by reputable medical colleges in the United States. The examination of those who desire to practise midwifery shall be of such a character as to determine the qualification of the applicant to practise midwifery. The examination of those who desire to practise any other system or science of treating human ailments shall be of a character sufficiently strict to test their qualifications as practitioners. Provided that those who are authorized to practise other systems cannot use medicine internally or externally, or perform surgical operations, and that only those who are authorized to practise medicine and surgery in all their branches, shall call or advertise themselves as physicians or doctors. Provided farther, that those who are authorized to practise midwifery shall not attend other than cases of labor.

The fees for examination and for a certificate shall be as follows: $10 for examination in medicine and surgery, and $5 for a certificate if issued; $5 for an examination in midwifery, and $3 for a certificate if issued; for all other practitioners $10 for an examination and $5 for a certificate if issued.

The State Board of Health may refuse to issue the certificates provided for in this act to individuals who have been convicted of the practice of criminal abortion, or who have by false or fraudulent representation obtained or sought to obtain practice in their profession, or by false or fraudulent representations of their profession have obtained or sought to obtain money or any other thing of value, or who advertise under names other than their own, or for any other unprofessional or dishonorable conduct, and the board may revoke such certificates for like causes.

Any person shall be regarded as practising medicine, within the meaning of this act, who shall treat or profess to treat, operate on or prescribe for any physical ailment or any physical injury to or deformity of another. This section does not apply to any person who ministers to or treats the sick or suffering by mental or spiritual means.

The examination of those "who desire to practise any other system or science of treating human ailments," who are not permitted to call or advertise themselves as physicians or doctors, or to use medicine or perform surgical operations, will probably be in the following branches: anatomy, physiology, chemistry, histology, pathology, bacteriology, and hygiene.

A bill for an act to regulate the practice of osteopathy in the State passed the Senate, but died in the House.

This measure provided that the State Board of Health should issue certificates of qualification to persons presenting diplomas from legally chartered osteopathic schools, said certificates to be conclusive as to the right of the lawful holders to practise osteopathy in the State.

The bill provided further that the system, method and science of treating diseases of the body, commonly known as osteopathy, is hereby declared not to be the practice of medicine or surgery.

It will be remembered that an osteopathic bill passed both branches of the Legislature in 1897, but was vetoed by Governor Tanner.

SOUTHERN STATES.

Cecil County (Md.) Medical Society.—At the annual meeting held at Elkton, Md., April 13, the following officers were elected for the ensuing year: President, Dr. John H. Hardcastle, of Cecilton; secretary, Dr. Harry P. Hinchcliffe, of Elkton; treasurer, Dr. John H. Jamar, of Elkton.

Texas State Medical Association.—The thirty-first annual meeting will be held in San Antonio, April 25, 26, 27, and 28. The work of the Association is divided into 8 sections: General medicine, obstetrics and diseases of children, surgery, medical jurisprudence, etc., State medicine, etc., gynecology, ophthalmology, etc., microscopy, etc., and for each a most attractive program has been arranged. In addition, the social festivities will tend to make the meeting most enjoyable.

Tennessee State Medical Society.—At the annual meeting held at Nashville, April 11–13, 1899, the following officers were elected for the ensuing year: President, Dr. D. E. Nelson; vice-president for East Tennessee, Dr. G. M. Bazemore, of Cleveland; vice-president for Middle Tennessee, Dr. G. W. Moody, of Shelbyville; vice-president for West Tennessee, Dr. M. M. Smith, of Cedar Chapel; treasurer, W. C. Bilbro, of Murfreesboro; secretary, W. D. Haggard, of Nashville. The next meeting will be held in Knoxville.

Association of American Physicians—Program of the Fourteenth Annual Meeting to be held in the Arlington Hotel, Washington, D.C., May 2, 3, and 4:

Introductory, by Dr. G. Baumgarten, St. Louis; Idiopathic Dilatation of the Colon (Congenital), by Dr. J. P. Crozer Griffith, Philadelphia; The Relation of Idiopathic Dilatation of the Colon to Phantom Tumor, by Dr. R. H. Fitz, Boston; A Case of Presystolic Mitral Murmur Associated with Systolic Tricuspid Murmur and Jugular Pulse, by Dr. James Tyson, Philadelphia; A Case of Mitral Stenosis with Fever (Nonmalarial) of Relapsing Type, by Dr. F. P. Henry, Philadelphia; The Immediate and Remote Effects of Athletics upon the Heart, by Dr. Alfred Stengel, Philadelphia; On the Interpretation of Pulse-Tracings, by Dr. A. R. Cushny, Ann Arbor; On the Operative Treatment of Spinal Tumors, by Dr. J. J. Putnam, and Dr. J. Collins Warren, Boston; On Tabes, by Dr. M. Allen Starr, New York; On Koenig's Sign in Meningitis, by Dr. J. B. Herrick, Chicago; On Astasia-Abasia, with a Case, by Dr. J. C. Wilson, Philadelphia; A Case of Family Periodic Paralysis, by Dr. J. K. Mitchell, Philadelphia; The Continued Fever of Epidemic Influenza, by Dr. W. W. Johnston, Washington; Relapse in Typhoid Fever, by Dr. William Osler, Baltimore; Some Remarks on Typhoid Fever Among the American Soldiers in the Recent War with Spain, by Dr. Victor C. Vaughan, Ann Arbor; Further Notes on a Case of Malta Fever, by Dr. J. H. Musser, Philadelphia; Otitis Media in Lobar Pneumonia of Children, by Dr. S. J. Meltzer, New York; Endocarditis of Tonsillar Origin, with a Report of Five Cases, by Dr. F. A. Packard, Philadelphia; A Case of Fatal Epistaxis with a Study of the Blood, by Dr. George Dock, Ann Arbor; On the Diplococcus Form of the Colon-Bacillus, by Dr. J. G. Adami, Dr. Maud E. Abbott, and Dr. F. J. Nicholson, Montreal; The Organism of a Case of Blastomycetic Dermatitis, by Dr. L. Hektoen, Chicago; Tumors Involving the Hypophysis, by Dr. James Stewart, Montreal; Demonstration of an Akromegalic Skeleton, by Dr. W. P. Thayer, Baltimore; The Application of Thyroid Extract in the Treatment of a Cerebral Neoplasm, by Dr. Starling Loving, Columbus; The Action of Hepatic, Renal, and other Cells upon Phenol and Indol, under Normal and Pathological Canditions, by Dr. C. A. Herter, New York; Experimental Research Disproving the Theory that Paraxanthin-Poisoning is a Cause of Migraine, by Dr. F. Pfaff, and and Dr. J. J. Putnam, Boston; On the Toxicity of the Urine, by Dr. F. Forchheimer and Dr. R. W. Stewart, Cincinnati; Perforation of the Stomach by a Foreign Body in an Infant Seven Weeks Old, by Dr. T. M. Rotch, Boston; An Experimental Study of Pancreatitis, by Dr. S. Flexner, Baltimore. To be read by title: Peculiarities of Eruption in Typhoid Fever, by Dr. J. M. DaCosta, Philadelphia; Types of Lithic Acid Diathesis, by Dr. J. N. Danforth, Chicago; A Small Aneurysm of the Descending Arch of the Aorta, X-ray Examination Confirmed by Autopsy, by Dr. F. H. Williams, Boston.

The Johns Hopkins Hospital Medical Society.—At a meeting held April 10, Dr. Reik read a paper on **The radical treatment of chronic suppurative otitis media.** Only those cases which resist proper conservative treatment should be subjected to the radical operation. The relations of the tympanic cavities were given and the dangers from allowing a chronic suppuration to continue were emphasized. When conservative methods fail one of two radical operations are usually resorted to. The first operation is that of ossiculectomy, in which the malleus and incus are removed. The operation does not favor proper drainage of the tympanic cavity, however, and a cure is effected in only 50% of the operations. Ten years ago two Germans, Schwartze and Stacke, recommended an operation in which all the diseased tissue is thoroughly removed and the tympanic cavity lined with skin. The tympanic cavity is reached by making an incision over the mastoid and chiseling away the latter. After the tympanic cavity is thoroughly cleaned out, the skin-flaps are inverted so as to give a skin-lining to the tympanic cavity. The operation is best performed according to the modification known to the Schwartze-Zaufel method. Dr. Reik exhibited a colored boy, aged 14, who had suffered from severe double sided otitis media for 8 years. On one side the discharge was entirely cured and in the other markedly diminished by the Schwartze-Zaufel operation which he performed.

Dr. Carey Gamble reported **a case of malarial nephritis and hematuria with recovery.** The patient was a soldier who had developed malaria during the Cuban campaign. The chills yielded to quinin. After his return to Baltimore he developed a severe cough and edema of the feet in September. He was admitted to the St. Joseph's Hospital for treatment. The urine was bloody in color and contained .66⅔% of albumin. Microscopically, there were numerous red bloodcells and hyalin and finely granular casts. Later a hemoglobinuria appeared. A day or two after admission numerous hyalin estivo-autumnal organisms with crescents and ovoids were found in the blood. The patient was given very large doses of quinin before the organisms disappeared. A relapse of the chills subsequently developed at again yielded to the administration of quinin. The lbumin finally disappeared from the urine and was absent p to April 5, 1899, when the patient was last seen.

Dr. Larned also reported an interesting case of **malarial ephritis with fatal termination.** The patient was a olored girl, 7 years old. She had suffered from malaria in e summers of 1895, '96, and '97. The last attack was in uly and August, 1898, when she first noticed swelling of the ace and abdomen. She first came under observation September 24, when she was found to be suffering from general nasarca and ascites. September 25, numerous typical quaran organisms were found in the blood. The urine was canty, bloody, and contained 2½% of albumin; there were umerous casts. The patient improved under treatment with quinin, Blaud's pills, and Basham's mixture. She was ot seen again from October, 1898, until March, 1899, when Dr. Larned was called in to see her and found her in uremic oma, from which she soon died. An autopsy was obtained nd the sections from the kidney showed a chronic diffuse nephritis. Reference was made to Dr. Thayer's statistics on malarial nephritis. Acute nephritis was found in 21 instances out of 758 cases of malaria. Of these, 11 recovered, died, and in 6 cases the termination was not obtainable. Of 112 cases of acute nephritis at the Johns Hopkins Hospital malaria was the cause in 21 instances. Dr. Thayer, in iscussion, expressed the belief that malarial nephritis is much commoner than is generally supposed. Dr. Gamble's ase presented a feature often seen in malarial nephritis, iz., that the nephritis does not develop until weeks or months after the original malarial attack. These cases are eally cases of postmalarial nephritis and are analogous to postscarlatinal nephritis. Dr. Larned's case is the first one of malarial nephritis due to the quartan-parasite that has been reported. Negroes are three times more susceptible to malarial nephritis than are whites.

Dr. Miller read a paper on **the occurrence of streptococcus pyogenes in gynecologic diseases.** From 1894 to 1896 the streptococcus pyogenes was found 7 times out of a total of 127 cases in which organisms grew from the cultures taken at pelvic operations in Dr. Kelly's department. This constituted 5.5%. In 4 of the cases puerperal parametritis was present. The source of infection may be an abrasion at the placental site; there may be direct extension from the intestinal canal or from the surface of the body; or, a local focus may arise as a result of a general systemic infection. Krönig states that he has never found the streptococcus in the endometrium later than 6 weeks after the miscarriage. Dr. Miller found the organism in one case as late as 5 months, and in another as late as 12 years after the miscarriage. The prognosis seems good. Only 1 of the 7 cases proved fatal, and this patient died on the operation-table.

Orleans Parish Medical Society, New Orleans, La.—At the meeting held April 8, Dr. E. Denegre Martin presented a case of **myxosarcoma** of the coccygeal region, of congenital origin. By way of preface he spoke of the various tumors found in this region, classed as fatty, cartilaginous, osseous, vascular, fibroid, epithelial, cystic, sarcomatous, cystosarcomatous, caudal, fetal, involving Lucka's gland, and, finally, tumors of complex character. These tumors are intrapelvic in origin; they are rare, occurring more frequently in females; heredity seems to play no important part in their development. They are of variable size and are covered partly by skin, partly by mucous membranes; the bloodvessels are frequently large, dilated; when cystic they contain dark fluid usually. The patient presented was a little girl, the child of healthy parents, born September 10, 1894. Labor was normal. The tumor was nearly as large as the head, causing the midwife to believe that there were 2 heads and therefore a twin pregnancy. It was oval in form, and measured 4 by 2 inches, extending from the third sacral vertebra to the anus; the weight was subsequently found to be 15 ounces. One-half of the tumor—from the base up—was covered with skin, the remainder with what resembled mucous membrane; the superficial portion seemed cystic. In fact the existence of spina bifida was at first suspected. At the end of a week a slough began to form. On the fifteenth day after birth the child was operated on. The tumor was dissected up, and followed down to its point of origin, the coccyx, from which it was finally cut away. Hemorrhage was easily controlled. Between the coccyx and anus was left a large space, bounded laterally by the gluteus maximus of each side, in which the rectum was exposed. The sphincter was brought up to the coccyx; the glutei were dissected up and sutured together. Catgut was used for the deep, silk for the superficial sutures. Iodoform was applied over the wound. But a slight degree of shock resulted from the operation. The child was kept in the prone position and the wound protected as much as possible against contamination with feces. In spite of all precautions there was slight infection, with a rise of the temperature to 101° and the formation of a small slough—otherwise the patient's recovery was uneventful.

Dr. T. S. Dabney read "A brief protest against the mutilation of English words in medical nomenclature," taking as his text "Ne sutor supra crepidam." He favored adhering to those forms of words which indicate the original from which they were derived—thus he would write "hemo," not hæmo, analogue and not analog, etc.

The president, Dr. Isadore Dyer, called attention to the fact that there is a **strong tendency to simplify medical nomenclature,** mentioning Dr. George M. Gould, of Philadelphia, as one authority in favor of this tendency.

Drs. A. W. de Roaldes and Gordon King presented the **case of falsetto voice** that had been brought before the Society at its last meeting. Questions addressed to him brought out an exhibiton of his voice, which had now changed from the high-pitched falsetto to a baritone. Dr. de Roaldes explained that a developmental method of vocal gymnastics had been used to relieve the patient of the faulty habit which he had acquired when his larynx was congested during an attack of measles. In the first place it had been observed that this class of patients inspire insufficiently, having a tendency to retract the abdomen during inspiration. They must be taught to inspire fully and silently while permitting the abdomen to bulge, thus relieving the diaphragm and lungs from the pressure of the abdominal viscera. After a few deep inspirations the patient should be made to force out his breath in a sighing manner, then to pronounce in expiration, after forcible inspiration, and in a low bass voice, the vowel-sounds. After the habit has been acquired of pronouncing the vowels in this low register—under the guidance of men possessed of deep voices and a knowledge of music,—consonants should be associated with the vowels (ba, be, bi, bo, bu), the monosyllables are made into dissyllables and finally the patient is required to read in the same low pitch. It is at times amusing to note the astonishment of the patient when he finds himself possessed of the deep voice—one lesson of 1 or 2 hours sometimes suffices, an instantaneous cure resulting. If the treatment be not kept up, recurrence may take place. After the first lesson a watch should be kept on the patient, who must be stopped at once if he drops back to the falsetto pitch, the lower pitch being given him by his guard. In this case the above treatment had been applied with much satisfaction, with the assistence of the internes of the Eye, Ear, Nose, and Throat Hospital, as well as of Miss Bisland, who is devoting herself to the correction of errors of speech. The voice developed was bass at first, changing later to the baritone.

J. A. HORCK exhibited an apparatus used by him for the **administration of oxygen.** The apparatus consists of a metal cylinder of compressed oxygen connected with a rubber bag, and this with a wash-bottle containing plain water or a 50% solution of potassium hydrate; by means of a mouth-piece connected with the wash-bottle the patient draws oxygen through it from the rubber bag. He had found this treatment very beneficial in 2 cases of chronic asthma, in which it had been applied for 3 months, 4 gallons of oxygen being given at a sitting. In case of pneumonia a funnel might be connected with the rubber bag and held over the patient's face.

DR. HAMILTON P. JONES related the case of a sailor-boy, 17 years old, who had come to him with an **empty scrotum** and the following story: About 1½ years previously he had had a fight with a man who caught him by the shoulders and struck him in the scrotum with the knee. He suffered intense pain and was nauseated; next day he noticed that his testicles, which had been normally situated, were missing. On examination Dr. Jones found over the middle of Poupart's ligament, on the right side, a body, which on pressure caused the characteristic nausea of testicular trauma; in the same position, on the left side, was a mass 3 by 1½ by ½ inches, of a fluctuating character. Pressure on this did not cause nausea. The lad, who had had intercourse before the injury had been inflicted, and whose voice was thoroughly developed, wished to have an operation performed for the replacement of the escaped organ. There was no functional disturbance, erections being complete. Dr. Jones had advised against an operation on the testicles, and had suggested the insertion of celluloid bodies in the scrotum if the patient cared to have them for the sake of appearance. DR. DE ROALDES, referring to the statement that the patient's voice was well-developed, called attention to the fact that emasculation, to influence the voice, must take place before the development of the larynx had been completed. Traumatism of the testes could not have a retroactive influence on the larynx.

MISCELLANY.

Conference of State and Provincial Boards of Health of North America.—The fourteenth annual meeting will be held at Richmond, Va., May 23 and 24.

Rectal Specialists.—At the time of the meeting of the American Medical Association at Columbus, June 6-9, there will be a meeting of the medical men engaged in the practice of proctology, for the purpose of effecting a permanent society for the study of their specialty. Physicians interested in the project are requested to address Dr. Wm. M. Beach, 515 Penn Avenue, Pittsburg, Pa.

Obituary.—DR. SERANUS BOWEN, Roxbury, Mass., April 7, aged 59 years.—DR. NICHOLAS CHESEBOROUGH, Summit, N. J., April 7, aged 78 years.—DR. RICHARD KAY, New York, April 2, aged 52 years.—DR. ROBERT RUTHERFORD, Houston, Texas, March 31, aged 65 years—DR. WILLIAM NELSON, Danville, Va., April 6.—DR. GIDEON J. STIVERS, Louisville, Ky. April 4.—DR. ALBERT F. BENETEAU, Detroit, Mich., April 3.—DR. EDWARD FRANK, Chicago, Ill., April 5, aged 65 years.—DR. S. O. GLEASON, Elmira, N. Y., April 4.—DR. EMORY STANSBURY, Appleton, Wis., April 3, aged 60 years.—DR. DANIEL J. TITTLE, Pecatonica, Ill., April 7, aged 73 years.—DR CHARLES COLLIN, Middletown, N. Y., April 14, aged 59 years—DR. RUEL KEITH COMPTON, Pomonkey, Md., April 14 aged 72 years.—DR. D. L. MCDONALD, Shiremantown, Pa., April 11, aged 57 years.—DR. WILLIAM H. COOK, president of the College of Medicine and Surgery, Chicago, Ill., April 14. aged 67 years.—DR. ARNOLD MAUDAIN, Tremont, Del., April 15, aged 70 years.—DR. THOMAS WISTER FLANNER, Philadelphia, April 15, aged 79 years.—The New York Celtic Medical Society has passed appropriate resolutions upon the death of DR. TIMOTHY J. MCGILLICUDDY, who died January 17. He was one of the founders of the society.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service for the week ended April 15, 1899:

SMALLPOX—UNITED STATES.

			CASES.	DEATHS.
ALABAMA:	Mobile	April 1-6	3	
DISTRICT OF COLUMBIA:	Washington . .	April 3	5	
FLORIDA:	Key West . . .	March 30	1	
ILLINOIS:	Chicago	April 7	1	
INDIANA:	Evansville . .	March 31	1	(total, 17 cases.)
LOUISIANA:	New Orleans . .	March 26-April 1 .	42	2
MARYLAND:	Baltimore . . .	April 1-8	1	
N. CAROLINA:	Newbern . . .	April 6	1	
TEXAS:	Galveston . . .	April 1	4	
"	Zapata Co. . .	Smallpox present.		
VIRGINIA:	Newport News,	April 2-8	13	
"	Norfolk	April 2-7	31	
"	Portsmouth . .	April 1-7	9	

SMALLPOX—FOREIGN.

CHINA:	Hong Kong . .	Feb. 18-25	5	4
ENGLAND:	London	March 11-18 . . .	1	
GREECE:	Athens	March 18-25 . . .	31	23
INDIA:	Calcutta	Feb. 25-March 4 .		1
"	Madras	March 4-10		1
MEXICO:	Chihuahua . .	March 18-25 . . .		1
"	Mexico	March 26-April 2 .	2	2
RUSSIA:	Moscow	March 11-18 . . .	24	4
"	Odessa	March 18-25 . . .	1	
"	St. Petersburg .	March 18-25 . . .	13	1
"	Warsaw	March 11-18 . . .		3
TURKEY:	Constantinople,	March 6-13		7

CHOLERA.

INDIA:	Calcutta	Feb. 25-March 4 .		16

PLAGUE.

INDIA:	Calcutta	Feb. 25-March 4 .		23
"	Mauritius . . .	Feb. 14	1	

Changes in the Medical Corps of the U. S. Army.

RAND, First Lieutenant I. W., assistant surgeon, will proceed to Iloilo, Island of Panay, for duty with the Eighteenth Infantry.

COMBE, Major FREDERICK J., brigade-surgeon; leave for one month, on account of sickness, is granted, to take effect upon the expiration of ordinary leave. April 8.

BARRY, EDMUND, acting assistant surgeon, will proceed to Fort Monroe and report at the Josiah Simpson U. S. General Hospital for assignment to duty.

WHITTINGTON, WILLIAM L., acting assistant surgeon, now at Fort Sam Houston, will report for duty to the commanding officer, Sixth Infantry, and will accompany that regiment to the Philippine Islands.

WILLIAMS, JOHN MASON, acting assistant surgeon, will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

PHILLIPS, Major JOHN L., chief surgeon, is relieved from further duty with the Second Army Corps, and will proceed to Boston, Mass., and assume the duties of attending surgeon and examiner of recruits in that city.

SHAKESPEARE, Major EDWARD O., brigade-surgeon, will proceed to New York City on business pertaining to the medical department of the Army.

e following changes in stations and duties of officers are ordered: The order which directs Captain Robert S. Woodson, assistant surgeon, to proceed to Fort Clark, on expiration of his present leave, is amended so as to direct him to proceed to that post at once; Major Henry D. Thompson, brigade-surgeon, now on duty at Fort Clark, will proceed to Fort Sam Houston, and report to the commanding officer, Tenth Cavalry, for duty, to accompany that regiment to Cuba; Acting Assistant Surgeon Luke B. Peck, now on duty at Fort Sam Houston, will report to the commanding officer, Tenth Cavalry, for duty, to accompany that regiment to Cuba.

illcox, Captain Chas., assistant surgeon, is relieved from duty at Fort Bliss, and will proceed to Fort Sam Houston for duty.

vift, Captain Eugene L., assistant surgeon, now on duty at Fort Slocum, will proceed to Boston, Mass., for duty pertaining to the examination of the Eighth Massachusetts Volunteer Infantry to be mustered out of the service.

arshall, Thomas R., acting assistant surgeon; leave for 30 days, on surgeon's certificate, with permission to return to the United States, is granted. April 3.

ieffer, Captain Charles F., assistant surgeon, is relieved from further duty at Fort Meade and will proceed to San Francisco, and report to the commanding general, department of California, for assignment to duty.

dger, Benjamin J., Jr. ,acting assistant surgeon, is relieved from further duty at Washington Barracks, and will proceed to Fort Monroe for duty.

oberts, Frank, acting assistant surgeon, is relieved from further duty at camp near Port Cabanas, Havana, Cuba, and will proceed to Washington and report to the Surgeon-General of the Army.

yers, Jason D., hospital steward, Fort Columbus, is transferred to Fort Warren to relieve Hospital Steward Patrick O'Neill. Hospital Steward O'Neill will be sent to Fort Monroe and will report to Captain A. N. Stark, assistant surgeon, for duty on the hospital-ship now at Havana, Cuba, which is to be commanded by that officer.

reswell, Richard H., hospital steward, Savannah, is transferred to Fort Caswell, for duty.

alstead, Frederick, hospital steward, Fort Logan H. Roots, is transferred to Havana, Cuba, for assignment to duty.

ilverthorne, Alfred E., hospital steward, Jefferson Barracks, will be sent to San Francisco to report for transportation to Manila, P. I., for assignment to duty.

tark, Captain Alexander N., assistant surgeon, is relieved from command of the hospital-ship "Aid," now at Fort Monroe, Va., and assigned to the command of the hospital-ship "Terry," now at Havana, Cuba, and upon arrival there will report to the chief surgeon, Division of Cuba, for service on the coasts of Cuba.

compliance with letter of instructions, dated War Department, a board of officers—to consist of Major Frank J. Ives, brigade-surgeon; Major J. D. Glennen, brigade-surgeon—is appointed to meet at headquarters, department of Matanzas, April 6, for the physical examination of officers, applicants for transfers to the ordnance department.

arnall, First Lieutenant Carl R., assistant surgeon, is assigned to duty at U. S. Military Hospital No. 1, Havana, Cuba.

cLaughlin, W. B., acting assistant surgeon, is relieved from duty with the Seventh Army Corps, and will report to the commanding general, department of Havana, for assignment to duty.

Foreign News and Notes.

GREAT BRITAIN.

School of Medicine of the Royal Colleges, Edinurgh.—The number of students in attendance during the ecent winter semester was 1217.

The Earl of Kimberly, K.G., who was in several of r. Gladstone's Liberal administrations, has been appointed hancellor of the University of London in the room of the te Lord Herschell.

Sir Thomas Browne, M.D., the famous sixteenth entury physician and author of "Religio Medici," is to ave a statue in his native place, the ancient cathedral city f Norwich, England.

Dr. William Squire, whose death occurred on Easter unday in London, was for some time consulting physician St. George's, Hanover Square, Dispensary and contributed both the big medical encyclopedias of his day, *Quain's ictionary of Medicine* and *Reynolds's System of Medicine,* his ubject being pulmonary diseases.

Vital Statistics of Scotland for 1898.—According to the Registrar-General's Report, during 1898, there were 130,779 births in Scotland, being 318 per 10,000, or 3.08%, of the estimated population. There were 78,486 deaths, being 184 per 10,000 of the estimated population, or 1.84%.

Vital Statistics of England for 1898.—The estimated population of England during the past year was 31,397,078; the marriages numbered 254,955; the births 922,873, and the deaths 552,040. Of the children born 468,780 were males and 454,093 females; and of the deaths 284,154 were those of males and 267,886 females.

Dr. Octavius William Andrews, surgeon in the British navy, has been awarded, on the nomination of the Director-General of the Medical Department of the Navy, a gold medal and a prize of £100 "in consideration of his excellent work at the Royal Naval Hospital, Haslar, in connection with sanitary science." The prize was awarded in accordance with the regulations of the Chadwick Trust.

The will of the late Sir William Jenner has been proved at the Principal Probate Registry. The eminent physician's gross estate was sworn at £385,000, but this very large fortune was not all made in medical practice, for some few years before his death he inherited from a brother, an Edinburgh tradesman, a great sum of money. The will contains the munificent bequest of £10,000 to the Royal College of Physicians of London, over whose fortunes he long and ably presided.

Addison's Disease in the Insane.—At a meeting of the Pathological Society of London, held April 4, Dr. Cecil Beadles, assistant medical officer at the London County Asylum, showed among a series of pathologic specimens from insane patients, some interesting specimens taken from a case of Addison's disease. Dr. Beadles at the same time demonstrated the great rarity of the condition known as Addison's disease among the insane by stating that out of 27,000 persons admitted as lunatics only 4 suffered from it.

Antipneumococcic Serum.—Dr. J. W. Eyre and Dr. J. W. Washbourn contribute to *The Lancet* an interesting investigation which they have undertaken at the Bacteriological laboratory of Guy's Hospital into the efficacy of the antipneumococcic serum prepared by Dr. Pane, a preliminary account of which appeared in the *Centralblatt für Bakteriologie* of May 27, 1897. From the experiments of Drs. Eyre and Washbourn it would seem that the serum possesses widely protective powers, and the authors state that they feel justified in anticipating further successes in the treatment of pneumonia and pneumococcal affections following its use.

The New President of the Royal College of Physicians of London.—Contrary to general expectation, Sir William Broadbent failed to secure election as president of the college of which he is certainly one of the most famous members. The voting of the Fellows placed him second to Dr. William Selby Church, the senior physician to St. Bartholomew's Hospital, who was the official candidate for the presidency, and who obtained the post partly through his own excellent reputation as a learned physician and a man thoroughly in touch with all collegiate affairs, and partly through a belief that Sir William Broadbent was not on this particular occasion putting forward his claims seriously. Dr. Church enjoys, we believe, the singular distinction for a modern physician of never having written anything since his thesis for his doctorate in the University of Oxford.

A Curious Violation of Medical Secrecy.—The case-books of a well-known special hospital have recently been sold by auction in London under circumstances which have excited considerable astonishment and indignation. It appears that at the hospital in question the records are presented to the visiting medical staff, and, one of these gentlemen having died, the manuscripts were sold with his library. Now, hospital-notes, if they are to be worth anything, must often contain the most intimate information concerning the patient, his habits and the habits of his parents and relations, while the records are, for purposes of reference, always kept under the patient's true name. That such notes as these should be sold for a few pence at a public auction is a highly scandalous matter, and the blame which has generally been attributed to the hospital for not taking greater care of information given to their officers upon the usual basis of medical secrecy is thoroughly well deserved.

Dr. George Charles Wallich, whose death occurred recently at the advanced age of 83, was a first-class man of science whose original worth never received quite the recognition that it deserved. He was a surgeon-major in the Indian Medical Service, but retired in 1860, and on the recommendation of Sir Roderick Murchison and Professor Huxley was attached as naturalist to *H. M. S. Bulldog* on her voyage surveying the Atlantic for the proposed submarine cable. The information obtained from the various procedures of sounding were neither large nor conclusive, but Dr. Wallich's vast (and self-taught) knowledge of the subject enabled him to establish the bathymetrical limits of animal life. From this time forward until his death he labored with wise powers of reasoning and much originality and independence of ideas at the investigation of pelagic problems; but his labors received little public acknowledgment, and it was not until 1898, when he was 82 years of age, that any scientific association honored itself by honoring him. But last year the Gold Medal of the Linnæan Society—a really learned and rather exclusive body—was awarded to Dr. Wallich " in recognition of his researches into the problems connected with bathybial and pelagic life."

CONTINENTAL EUROPE.

Richard Mohrmann, the "Bandwurmdoctor," convicted of malpractice, died recently in the almshouse at Frankfort a. M.

Physicians in Germany are fighting the Krankenkassen and trying to have laws passed restricting their membership to those with salaries.

American Physicians in Vienna.—The number of American physicians attending courses in the University of Vienna during the past semester was 102.

Antitetanus Serum.—It is reported that Professor Roux, of the Pasteur Institute, has informed the French Academy of Sciences that he has a new serum for the treatment of tetanus.

Prof. Richet assisted by Dr. Langlois is conducting a series of interesting experiments, in the physiologic laboratory of the École de Médecine, upon the varying pressure of the intestinal gases, as influenced by respiration.

Nemesis.—The *Lancet* states that the Turinese Town Council, on the advice of its hygienic officers, used to publish the names and addresses of the dealers whose unsound articles of food had been impounded in the interests of the consumer. That salutary regulation it has lately dropped, and now I hear of alarming cases of poisoning in the subalpine capital due to the sale and ingestion of "funghi avvelenati" (poisonous mushrooms). Extensive seizures of th incriminated fungi have in consequence been effected, t be followed, it is to be hoped, by a return to the due "advertisement" of the nefarious vendors.

Paris Biologic Laboratory.—Every effort is bein made to complete, before 1900, the Paris Biologic Laboratory. This laboratory is situated immediately opposite th Pasteur Institute, and is to form a part of that institution The building is very commodious and is now almost unde roof.

Death by Decapitation.—It is reported that Dr Eimer, of Paris, recently created somewhat of a stir b stating that death by decapitation is very slow. He aver that the blood does not flow out of the head as it does from the rest of the body, and in consequence the head has feeling and consciousness for at least two hours after decapitation.

A monument to the memory of Dr. Jea Hameau, of La Teste, Gironde Department, France, i about to be erected by a number of his countrymen. D Hameau, who was born in 1779, and died in 1851, is generally admitted to have been a forerunner of Pasteur, as he discovered and applied the principles of bacteriology 40 year before his illustrious countryman.

An exhibition of nursing appliances will be hel in connection with the forthcoming Congress on Tuberculosis, to be held in Berlin from May 10 to June 1 under the presidency of Prof. von Leyden. The general department will comprise models of sick-rooms, apparatus for heating, ventilation, and disinfection, bed food for invalids, baths, wearing apparel, and books on nursing; the special department will comprise apparatus an appliances for the nursing of tuberculous patients, of sic children, of surgical patients, of the inmates of lunati asylums, and of women in childbed; there will also be section for nursing in time of war and in the colonies. Suc of the objects exhibited as possess exceptional importance o interest will be kept together so as to form a permanen museum of nursing.

Gynecologic Operations upon the Insane.—At recent meeting of the Société de Chirurgie de Paris, Picqu presented a communication upon the question of the gynecologic operative treatment of the mentally unsound. H stated that the frequency with which gynecologic affection have been found in the insane has been variously stated—60%, 80%, 93%. His figures are 88%. He believes tha many of the mentally afflicted may be completely cured b operation on the generative organs, and that much of th opposition to this method of treatment comes from an improper conception of the true principles that should guid Many base their opinions upon the results of operations upo epileptics and hysterics, persons who should not be subjecte to such surgical intervention. He reports 66 cases that h divides into three classes: (1) those in whom the mental disturbance showed itself together with disease of the generativ organs, some of the patients being aware of this disease, an others in ignorance of it; (2) sexual hypochondriacs wh had become so after the appearance of the mental derangement; (3) those convalescent from disturbance but whos complete recovery was retarded by some affection of the generative system. He had operated upon 18 patients and ha had 11 absolute successes, 3 improvements, 3 were neither benefited nor made worse, and 1 died. The 3 remaining stationary were 2 hysteric women, and 1 suffering from persecution-mania. In addition he had treated 4 other patients, making his complete statistics 12 cured, 6 improved, 3 stationary, and 1 death. He stated in conclusion that the patients for operative treatment should be carefully selected, that those suffering from persecution-mania, general paralysis, or hysteria, should not be operated upon, and expressed the opinion that in case some definite lesion be detected to justify operation, success might be anticipated in a good proportion of the cases.

Serum-Treatment of Anthrax.—The *Lancet*, quoting the *Gazetta degli Ospedali* of March 19, states that Dr. F. Abba and Dr. G. Piccardi, of Turin, give details of a case of anthrax pustule successfully treated by means of Professor Sclavo's antianthrax-serum. The patient, a youth 17 years of age, February 26, discovered in front of his right ear a small pustule which increased in size during the 2 following days, the surrounding area at the same time becoming swollen and red. March 1, when the medical men first saw him, the pustule had an irregular blackish surface and was surrounded by vesicles the fluid of which contained numerous bacilli similar to those of anthrax; the whole right side of the face was greatly swollen; the evening temperature was 38.6° C. (101.4° F.). That evening the patient received a subcutaneous injection of 22 cc. of the antianthrax-serum. On the morning of March 2 the edema was increased, the eye was completely closed, and much fluid had escaped from the vesicles during the night; the temperature, however, had fallen to 37.5° C. A second injection of 11 cc. of the serum was given. In the afternoon the patient was free from fever and the eyelids were beginning to open. On the morning of March 3 the swelling was limited to the cheek and to the external corner of the eye and the case rapidly went on to recovery. The diagnosis of anthrax was confirmed by inoculations made on guineapigs, the animals dying in from 36 to 48 hours. It was found that when guineapigs were inoculated with fluid collected from the vesicles 10 hours after the first injection of the antianthrax-serum they survived from 7 to 8 hours longer than those which had been inoculated with fluid collected before the beginning of the treatment, while fluid collected 34 hours after the beginning of the treatment did not cause death. This is said to be the twenty-seventh case of anthrax which has been successfully treated with Professor Sclavo's serum.

The Sixth Annual Assembly of the Laryngologists of South Germany convened in Heidelberg, April 3. The Association contains 147 members, the officers being: President, Prof. Dr. Killian, of Freiburg; vice-president, Dr. Eulenstein, of Frankfort-am-Main; secretary, Dr. Hedderich, of Augsburg; treasurer, Dr. Neugass, of Mannheim. Prof. Dr. Jurasz, of Heidelberg, was the representative of the local members to act as host. The members came together socially on Sunday night; Monday morning they held their business session; Monday afternoon took an excursion just out of Heidelberg, and Monday evening were received by Professor and Mrs. Jurasz. The appointed lecture this year discussed **voice fatigue and voice hygiene,** and was delivered by Dr. Avellis, of Frankfort. His principal contention was that fatigue rests not in muscles or peripheral nerves but in the cerebrum. The fatigue noticed in cases of colds, etc., is really fatigue of the breathing apparatus; but even here the brain is that most concerned, as is shown when we attempt to regulate our breathing and make it rhythmic. He believed that the best tests of the voice were not with the laryngoscope, but by means of the ear. He had not much faith in medicaments, and put his trust in exercise. Therefore, he laid stress on teaching children in the schools to use their voices aright. Dr. Jens, of Hanover, followed with a paper on **The position of the arytenoid cartilages in singing.** He began by saying that he believed that very few teachers understood the teaching of the use of the voice; but that in the teaching and exercising lay the success and conservation of the voice, for the natural way was usually wrong. He went on to describe the position of the cords in the training by the Italian in contrast to the German method. In the former, he found that the cords did not touch, but were almost parallel, while in the voice trained by the German system he found them together behind, and this he regarded as liable to lead to failure in the finer notes, as well as to damage to the voice. In the discussion that followed, Dr. Avellis' therapy was attacked, as well as Dr. Jens' distinction between the Italian and German methods. Dr. Eulenstein, of Frankfort, presented a case, noteworthy because of its rarity, of right-sided recurrent paralysis with inspiration-stridor, in which he had found a mediastinal tumor. He presented both the Röntgen-ray photographs and the dissected parts. Dr. Werner, of Manheim, showed a **sarcoma of the left side of the larynx;** this he had removed, and the patient was doing well. Dr. Killian, of Worms, discussed a case of **multiple cranial nerve-injury,** in which the province of the accessorius seemed called into question. He then presented a man with a **tumor in the foramen cæcum,** about the size of a cherry, and discussed the **pathology of the ductus lingualis.** Prof. Dr. Jurasz, of Heidelberg, called attention to a **case of restitution of the vocal cords,** it being the same that he had discussed at the last meeting; the cords were now of respectable size, and the woman could speak loud enough and distinctly enough to be heard throughout the auditorium. Dr. Schäfer, of Neustadt a. H., demonstrated an **aneurysm of the artery pharyngea ascendens.** Prof. Dr. Seifert, of Würzburg, discussed **tuberculosis of the lacrimal canal.** He believed it secondary, not primary, and that there were three ways of infection—from the bony walls, from the nose, and from the conjunctiva tunica. He believed the last the most frequent. In the discussion, cases were presented illustrating various phases of this disease, especially when it had attacked the bones. Prof. Dr. Siebenmann, of Basle, discussed methods of **treating sinuitis maxillaris chronica by resecting the medial pharyngeal wall.** For exploratory purposes he used his little finger. This procedure did not meet the approval of the other speakers on the subject, and several instruments were presented specially designed for this purpose. Siebenmann favored resection only when the teeth were intact. Dr. Winckler, of Bremen, presented a great number of photographs, showing **treatment of cases of pus-formation in the forehead cavities.** His great contention was, that no one method is adapted to all circumstances. Dr. Proebsting, of Wiesbaden, demonstrated a preparation from a child that died of **thymus hyperplasie with inspiration stridor.** Prof. Dr. Killian, of Freiburg, related the **history of the use of bronchioscopy** during the last year. One case was specially interesting in which some foreign substance had lodged in the left bronchus and formed a granulated swelling. He had, further, two cases of enlargement of the esophagus, and one peculiar case of perichondritis of the nasal septum. Dr. Semon spoke of the sections devoted to laryngologists and otologists at the international congresses, showing how personal and local troubles had made failures of all attempts at union save at Berlin. He related the troubles at Washington with the homeopathists. At the conclusion of his address the Association resolved to ask that the laryngologists and otologists be given independent sections at the Paris congress next year. The next meeting will be held in Heidelberg next year at Whitsuntide. The report will be given again by Dr. Avellis, but with the assistance of Professor Seifert.

MISCELLANY.

Obituary.—William Squire, M.D., St. And., F.R.C.P. Lond., consulting physician to St. George's Hanover-Square Dispensary, London, aged 75 years.—Dr. John Brunton, at one time vice-president of the Obstetrical Society of London and of the Medical Society of London, in London, March 23, aged 63 years.—George Charles Wallich, M.D., F.R.C.S. Edin., surgeon-major, Indian Medical Service (retired), March 31, aged 84 years.

Christian Science and the Text: "A Righteous Man Regardeth the Life of His Beast."—The following communication appeared in a recent number of the *Lancet:*

To the Editors of the *Lancet.*

Sirs:—It may interest your readers to know that the therapeutic effects of Christian Science can be used for the benefit of the lower animals as well as man. In a recent conversation with a prominent light of that sect she related a case in which a valuable race-horse "went sick," and after 5 veterinary surgeons had failed, a lady Christian Scientist was called in with the usual happy results. I naturally asked what was the sin which the horse had committed (for "disease is the result of sin") and I was told that it was its master's sin that made it ill. The lady had brought Christian Science to bear on the master and the horse got well and won him $6,000. This vicarious suffering seems to throw fresh light on the text "A righteous man regardeth the life of his beast."

I am, sirs, yours faithfully,
Wm. Rushton.

Lord Curzon on Medical Science.—According to the *Indian Medical Record*, on the occasion recently of the presentation of the fourteenth annual report of the National Association for supplying Medical Aid to the women of India, Lord Curzon, Viceroy of India, in his presidential address, delivered the following remarks relative to medical science:

"And now I come to the last boon, which is science, and medical science in particular, and about this I say that no two opinions can possibly be entertained. There may be prejudices, and there may be scruples arising from long custom, or from ignorance, or from other causes, but doubts there cannot possibly be; and I say this, that if we had come back to you from the West with our medicine in our hand, and with that alone, we should have been justified in our return. For what is this medical science that we bring you? It is no mere collection of pragmatic or experimental rules; it is built on the rockbed of pure and irrefutable science; it is a boon which is offered to all, rich and poor, Hindoo and Mohammedan, woman and man; it lifts the purdah without irreverence: and it is, so far as I know, the only dissolvent which breaks down the barriers of caste without sacrilege. Medical science, indeed, is the most cosmopolitan of all sciences, because it embraces in its merciful appeal every suffering human being in the world."

The Latest Literature.

British Medical Journal.

April 1, 1899. [No. 1996.]

1. Remarks on Some Modern Medical Aspects of Life Assurance. Peter Eade.
2. A Case of Typhoid Fever without any Lesion of the Intestine, which Gave the Widal Reaction during Life, and from which the Bacillus Typhi Abdominals was Obtained by Culture from the Enlarged Mesenteric Glands found at the Necropsy. J. H. Bryant.
3. The Pathology of Gas-Poisoning, Illustrated by 5 Recent Cases. J. Lorrain Smith.
4. The Neutralizing Power of Calmette's Antivenomous Serum: its Value in the Treatment of Snake-Bite. D. Semple and G. Lamb.
5. A Case of General Paralysis of the Insane in a Child, in which a Gallstone was Found after Death. John Thomson and D. A. Welsh.
6. Organo-Therapy in Exophthalmic Goiter. Henton White.
7. Fibroma of Base of Skull Removed through the Cheek. W. F. Brook.
8. Acute Epidemic Dysentery. Edwin Henry.
9. Occurrence of Blackwater Fever in Assam. Arthur Dumville Homphrey.
10. The Prevalence of Blackwater Fever in Assam and the Duars. Arthur Powell.
11. Case of Strangulated Inguinal Hernia in a Boy 2½ Years Old; Operation; Recovery. D'Arcy Power.
12. Coin in the Esophagus removed by the aid of the Fluorescent Screen. A. B. Roxburgh.

1.—Eade discusses **some modern medical aspects of life assurance.** The relation of tuberculous diseases to the question of life insurance must continue to be carefully studied, especially the question of communicability of phthisis. While we know at the present time that heredity consists only in the tissues of some bodies being so constituted as to form an unusually suitable soil for the bacillus to grow in, at the same time it remains the duty of insurance officers to reject such doubtful lives, or only to accept them with a due, often very heavy, rating up, equivalent to the apparent risk involved. Previous pleural effusions are regarded with some suspicion, especially when the pleurisy has been bilateral, since double pleurisy with effusion is in such a large proportion of cases due to the presence of the tubercle-bacillus. We have arrived at a state of knowledge on the subject of heart-diseases in which we are bound to give a more discriminating prognosis, and to avoid the error of refusing any case of organic heart-affection without reference to rates of premium or time for which the insurance is desired. The two renal diseases of especial importance in life insurance are albuminuria and diabetes, or glycosuric conditions. The temporary albuminuria often observed in youths in many instances is comparatively harmless, while the albuminuria occurring in many acute diseases or specific fevers commonly passes away in convalescence. Albuminuria in adults, especially the middle-aged, must be regarded as a serious symptom and one requiring most careful consideration. The same class of cases as those referred to in adolescence exists in adults, but in many other cases the probability of its presence being due to permanent and organic causes is so great as to render an insurance upon the life at any reasonable rate quite dangerous. The albuminuria which is observed in those cases of sedentary or studious young men in whom it is combined with oxaluria, possesses a fairly favorable prognosis, and such a life may be accepted at ordinary rates after the recovery, which may be confidently hoped for.

Regarding the subject of diabetes, our ideas have been very materially altered in recent years. The subjects of intermittent glycosuria are often acceptable for insurance at properly estimated rates of premium, and stout persons of 45 or 50 who begin to pass sugar in the urine and are in otherwise healthy condition, may live for at least 10 or 15 years, and are, therefore, insurable on endowment policies for shortened periods. Even in these cases, however, one is bound to err on the side of caution, and to postpone accept ance of the life for a sufficient time to establish certainty of its being a mere passing occurrence. The bearing of the duration of life of the parents upon the probable longevity of the children, is a very direct and important one in this connection, as is also the physical development and physique of the individual. As to the height and weight, at the present time the average weight for average height is rather above what is commonly met with in practice, a statement that is also true of the chest-measurements. A considerable margin in either direction is admissible under ordinary circumstances. There is at the present time not much ground for relaxation of the usual strict inquiries into the habits of the proposer. The habitual use of alcoholic liquors, especially of strong whisky, is so common and destructive that this question always demands careful investigation. The result from this practice is disease or degeneration of the nervous tissues or other organs, and the shortening of the life-expectation proper to the special age, and on which the normal premiums are based. There seems to be good reason to hope before long for at least a more modified form as to the absolute or comparative noninsurability of many of the lives now customarily rejected on account of present morbid conditions or proclivities. [S.M.H.]

2.—Bryant describes a case of **typhoid fever without any lesion of the intestine.** The subject was a male child aged 1 year and 9 months. Two weeks before coming under observation the child sickened with diarrhea and vomiting. His condition improved very much and 3 days before being seen he was considered quite well. On the day following this the diarrhea and vomiting recurred. On the next day he was admitted to the hospital. At this time the temperature was 103.8°, the pulse 136, and respiration 48. He was anemic and wasted and was lying on his side with his legs and head flexed on the trunk. The abdomen was distended and a little rigid. The spleen could be felt 2 inches below the costal margin. The liver was just below the costal margin. Examination of the lungs showed the presence of a pneumonia. The child gradually grew worse. On the seventh day after admission the bowels opened 9 times, the stomach retained no food, the abdomen was very distended, the temperature was 104.8°, and a diagnosis of typhoid fever was made. The blood was examined and gave a "very smart" Widal reaction. The child died the following evening. The autopsy revealed early patches of a septic bronchopneumonia, some enlargement of the spleen and liver, and entirely normal condition of the ileum, no swelling or discoloration of Peyer's patches, and nowhere in the intestine could any sign of recent typhoid ulceration be found, nor was there any suggestion of a healing or healed typhoid ulcer. The mesenteric glands were much enlarged, soft, and pinkish-gray on section, appearing in a state of acute inflammation. None of them were suppurated or caseated. Bacteriologic cultivations were made from the mass of enlarged mesenteric glands and the bacillus obtained gave the characteristic positive and negative reactions of the bacillus typhi abdominalis. The author reviews 15 cases of a similar nature, 11 of which during life presented the characteristic symptoms and signs of typhoid fever. In 1 case the fever was of the recurrent type and the spleen was considerably enlarged. In 1 case purpura was a prominent symptom; in 1 case dyspnea and signs of pneumonia were found and a diagnosis of pneumonia was made during life; and in 1 case jaundice and hematuria were noted. Death took place on the sixth, tenth, twelfth, and twentieth day up to the sixth or eighth week from the beginning of the symptoms. Enlargement of the spleen was noted in 8 of the cases, enlargement of the mesenteric glands in 9, pneumonia and pulmonary congestion in 5, and congestion of the meninges in 1. The bacillus typhi abdominalis was obtained from the spleen in 14 of the cases, from the liver in 4, from the kidneys in 3, from the lungs in 3, from the mesenteric glands in 2, from the heart in 1, from the biliary passages in 1, and from the spinal cord in 1. The above analysis shows the possible widespread distribution of the bacillus typhi abdominalis, and indicates that in whatever organ the chief nidus of the growth may be, the resulting toxins will produce the characteristic clinical features of the disease. It is interesting to note in connection with this last-mentioned point the excessive diarrhea which occurred in the case reported, which shows that the diarrhea has no marked relation and is in no way dependent upon the extent or severity of the ulceration which is usually found. Two additional cases, a brother and sister of the child whose case was reported, are added to the paper. Both of these cases ran a normal course. [S.M.H.]

3.—Smith made a study of the **pathology of gas-poisoning** and observed 5 cases. There are 2 facts of importance which must be kept in view in regard to the pathology of this condition. The first is the effect of the saturation of the hemoglobin with carbon monoxid, and is equivalent to that of depriving a person of oxygen by decreasing the amount of air breathed. A person exposed to carbon monoxid when placed in normal air gradually eliminates the gas from the blood, so that after some hours it completely disappears. The eliminating force is the affinity of the oxygen for the hemoglobin. In any case where urgent symptoms of suffocation are present pure oxygen should be administered. The second factor to be considered in the pathology is the after-effect to the patient of being nearly suffocated. The more important elements of this are (1) the reduction of the body-temperature. The patient if cold should be warmed as rapidly as possible by the ordinary means applied externally and internally; (2) when the blood is over 30% saturated with carbon monoxid, even slight muscular exercise produces violent headache, and if the saturation be a little higher, the exercise causes giddiness. Therefore when the blood is highly saturated with carbon monoxid the treatment should include complete rest; (3) an increased excitability of the nervous system is seen in the convulsions and tetanic spasms which occur and the patients not infrequently die from damage to the nervous system hours after being removed from the gas; (4) the heart is frequently affected; (5) the patients sometimes develop pneumonia after exposure as a result of lowering the normal resistance to the pneumococcus. [S.M.H.]

5.—Thomson and Welsh had under their care a patient who, between the ages of 10½ and 11 years, developed symptoms of **mental disease.** She died at the end of her 17th year. She had **congenital syphilis.** About her 14th year she was full in flesh, but from that period gradually became extremely emaciated. After her mental symptoms began, she grew very little in stature, her breasts remained undeveloped, and she never menstruated. She had frequent headache and sometimes complained of severe abdominal pain during the last year of her life. Two years before death she suffered much from incontinence of urine and feces. Her pupils reacted very imperfectly to light and accommodation, and after the mental symptoms began they were for a long time distinctly irregular in contour. Her kneejerks were increased from the onset. She had ankle-clonus during the last year of life. As to the motor symptoms her tongue was tremulous, and there was marked tremor of the hands. In the beginning she walked clumsily, with her feet far apart. At 13½ years of age she could no longer go down stairs without help, and at 15 years she could still stand, but after 16½ years she was unable to do so. Her speech was characteristic and slow. She had her first convulsive seizure when 13 years old. The attacks, not frequent in the beginning, became more so at about 15 years of age, but were only occasionally severe in character. They increased in severity during the last 6 months of life. When 10 years old the patient was thought by her parents and teachers to be of ordinary mental capacity. Towards the end of her 11th year she began to grow stupid both in her school work and at home. This gradually augmented and she became very irritable. Her memory for certain things was retained. Between 13 and 14 years of age she had various hallucinations. The course of the disease was steadily downward. There was an aggravation of the symptoms for some time after each fit or set of fits. The pathologic report showed extreme emaciation; her lower limbs flexed rigidly from permanent contracture of muscles, and there was several bedsores. An examination of the head showed the calvarium irregularly thickened, the dura mater thickened and adherent, and excess of cerebrospinal fluid at the base of the brain and in the widened sulci of the vertex. There was great venous engorgement of the pia arachnoid and it was opaque and milky-looking from chronic thickening. The cerebral convolutions were greatly atrophied, especially in the frontal and parietal regions on each side. On section the cortical gray matter was seen extremely atrophied, its layers indistinct and its consistence tougher than normal. There were irregular patches of congestion and increased toughness in the white matter. The basal ganglia were congested, the lateral ventricles somewhat dilated and their endyma showed fine, scattered granulations. More numerous and more prominent granulations were present in the fourth ventricle. The choroid plexus showed no obvious change. Microscopic sections of the cortex from various regions showed changes characteristic of general paralysis in the nerve-cells, in the neuroglia and in the vessels. The spinal dura was thickened and adherent to the pia mater from the first cervical to the fifth dorsal, and again over the seventh and tenth dorsal segments. The pia generally was thickened. The thymus gland persisted as a thin flattened mass extending down to the third costochondral articulation. The gallbladder was greatly distended with clear, water fluid. The cystic duct was dilated and tortuous and towards its hepatic extremity a single gallstone was firmly impacted. There were scattered patches of perihepatitis over the surface of the liver. The spleen showed marked perisplenitis. The uterus was infantile. [S.M.H.]

6.—White, from having observed postmortem considerable enlargement of the thymus gland in 2 fatal cases of Graves' disease, endeavored to ascertain whether the enlargement of the thymus was an effort on the part of nature to counteract the effect of excessive thyroid secretion, or whether it participated in producing the fatal results. He selected 3 cases, in 2 of which he administered first suprarenal extract and afterward thymus extract. To the third case he gave thymus extract alone. He concludes from the results of the treatment, that neither thymus nor suprarenal extract is a perfect antidote to the thyroid secretion. The thymus extract, however, seemed to relieve the nervous symptoms of the disease, which he considers interesting, since the thymus is most active at that period of life when the brain development is most rapid. [S.M.H.]

7.—The operation, done for the removal of the **fibroma** from the **base of the skull,** was carried out through a transverse incision in the cheek. The parotid duct was isolated and the masseter muscle divided. The tumor was then removed by twisting it off its pedicle, which procedure was rendered rather difficult by the projection of a lobe up into the temporal fossa. The greatest dimensions of the growth were 4½ by 2¼ inches. [G.B.W.]

8.—Henry treated a patient suffering from a **mild attack of dysentery,** from which he completely recovered. When he was nearly well, his wife, who had been nursing him, developed dysentery. There were 2 children; 1, aged 5, remained in the house, and the other, aged 14 months, was removed. Several weeks later the one remaining in the house developed the disease. The convalescence was retarded on account of an obstinate diarrhea. After 2 weeks the younger child spent the daytime at home and in a few days developed dysentery, from which he rapidly died. About 10 days later the grandmother also developed a mild attack of dysentery. The mother during convalescence developed a septic rheumatism, as did also the grandmother during her attack. [S.M.H.]

12.—A child who had **swallowed a penny** was examined by the Röntgen-rays, and the coin was seen lying in the upper part of the neck. The child was then etherized and an x-ray tube placed under the neck, a metal coin-catcher was then passed into the esophagus through the mouth, and the operator, guided by the shadows cast on the fluorescent screen, was able to engage and remove the penny. [G.B.W.]

Lancet.

April 1, 1899. [No. 3944.]

1. On a Case of Strangulated Hernia into the Post-cecal Pouch. C. W. Mansell Moullin.
2. Chronic Mediastinitis (Indurative Mediastino-pericarditis). Thomas T. Whipham.
3. Blackwater Fever. W. H. Crosse.
4. A Case of Cerebrospinal Meningitis treated by Laminectomy and Incision of the Dura Mater in the Dorsal Region; Drainage; Recovery; Remarks. H. D. Rolleston and Herbert W. Allingham.
5. The Complications of the Serum Treatment of Diphtheria. Charles Bolton.
6. On Certain Variations in the Motor Phenomena of Chorea. James W. Russell.
7. Maté or Paraguay Tea. Gordon Sharp.
8. A Case of Perforated Gastric Ulcer; Operation; Recovery. Charles R. Box and E. Owen Thurston.
9. Two Cases of Spreading Traumatic Gangrene; Amputation; Recovery. George Heaton.

1.—The case of a man, 40 years old, is reported, who was taken ill with severe griping pain in the epigastrium. Four days after the beginning of the attack he was taken with vomiting, which continued up to the time of his death. Neither feces or flatus were passed by the bowel, the abdomen was distended and rigid, and the right testicle was drawn up, although pain did not shoot into it. Later in the attack the pain was localized chiefly in the right iliac fossa. He gave a history of 4 previous attacks of a similar character. A diagnosis of **inflammation about the appendix** was made and operation undertaken. On opening the abdomen the finger was passed down toward the cecum and a ring constricting some intestine was found. The fingernail was easily passed underneath it and a brownish offensive fluid escaped. The general peritoneal cavity was packed off with iodoform-gauze, a drainage-tube inserted, and the wound was left widely open. The patient never rallied and died the same day. At the necropsy, **hernia** of a loop of ileum **into the fossa subcæcalis** was found. The opening into the pouch was only an inch in diameter. [Moullin comments on the rarity of herniæ into the peritoneal fossæ, and believes the case reported to be unique. As compared with the usual forms of hernia the condition is rare, but Brösike, of Berlin, has reported upwards of 50 cases of hernia into the various peritoneal fossæ, a sufficient number to make it important for the surgeon to consider this as a possible cause of trouble. M.B.T.]

3.—A man 24 years old was taken with pains in the legs and on the following day the pains were diffused and he had a dull, singing sensation in his ears which persisted till he became deaf. On admission to the hospital there was pain in the muscles of the back and legs, but no other objective signs of disease. Three days later there was retraction of the head, rigidity of the muscles of the neck, and headache. On the fourth day the condition had become worse, rigidity had spread to the muscles of the back, no knee-jerks could be elicited, the patient screamed with pain, and his temperature began to rise. The patient became worse until on the sixth day he was alternately comatose and actively delirious. A diagnosis of **cerebrospinal meningitis** was made. As there had been no improvement under medical treatment and it was thought that the patient would die without something was done, an **operation** for the purpose of **establishing drainage** to relieve pressure-symptoms was decided upon. An incision was made from the lower dorsal region and laminectomy of the seventh and eighth dorsal vertebræ was performed. The dura mater bulged and was incised for about an inch. Coagulated lymph and cerebrospinal fluid escaped to the amount of about 3 ounces. A drainage-tube was inserted and the wound loosely sutured and antiseptic dressing applied. The first day the patient was decidedly better, discharge from the wound continuing for 3½ weeks. When at times the discharge became impeded by healing, the patient's condition was worse until free escape of the fluid resulted. At the end of 6 weeks the tube was removed, however, and after about 2 weeks the wound had entirely healed. The patient's condition has gradually improved; he is able to walk, but is still weak and anemic. [M.B.T.]

4.—Bolton has carefully examined 100 cases of **diphtheria** for the purpose of studying the complications of the **serum-treatment.** He observed rashes, pains in and around the joints, fever, transient albuminuria, abscesses, bruising and sloughing at the seat of injection, and certain constitutional disturbances. The blood serum is responsible for causing the rashes, the pains and the fever, as these occur whether the horse from which the serum is taken be immunized or not. Different horses produce different effects with regard to the prevalence of pain and the varieties of rash, and hence the percentage of these varies constantly. Large and multiple doses increase the frequency of rashes to a slight extent. Urticarial and erythematous rashes may occur alone or together. In the 100 cases, 25 were urticarial, 31 erythematous, and 44 combined. Of the 44, 26 were mixed and 18 successive, the rashes following one another immediately or after an interval of a few days, either urticaria or erythema coming first. The time of appearance of these rashes varies from the second to the eighteenth day after injection. Neither the size nor number of the doses affects the severity or time of appearance of the rash. Rashes ordinarily last for 2 or 3 days. The urticarial rashes are of the ordinary type. There are 4 types of the erythematous rash, one resembling erythema multiforme, one the simple erythema in patches, one is scarlatiniform, and one morbilliform. The pains usually affect the joints and surrounding tendinous and muscular structures. There may be a little swelling but any quantity of fluid in the joint is exceptional, and the overlying skin is usually normal. As to the fever, the rise of temperature occurs most frequently with rash and pain, next with rash alone and rarely with pain alone. Of the 100 cases, 26 had fever associated with rash and pain, 17 had fever with rash alone, 46 had rash alone, and 11 had rash associated with pain. In the 100 cases 54 had albumin in the urine. In 25 it was present before the rash appeared; in 29 there was albuminuria during the course of the rash. In 24 of the 29 cases there was a trace only of albumin and it lasted from about 1 to 3 days, disappearing before the rash had gone. In the remaining 5 cases the albumin was in considerable quantity and outlasted the rash in 3 cases. Of the 24 cases in which a trace of albumin appeared in the urine after the rash had come out and disappeared before the rash, 11 had more or less fever at the time, leaving 13 cases out of the 100 with nothing to account for the albumin except that it was coincident with the rash. These 13 cases were considered to have been dependent upon the serum. It was so slight and lasted for such a short time that no possible harm could have resulted to the kidneys. Abscess at the seat of injection is due to infection as the result of careless technic. Bruising around the seat of infection occurred 8 times in the 100 cases. Sloughing is a most uncommon condition, there being but 1 case on record. Constitutional disturbances are sometimes quite marked. On the whole, the complications of antitoxin, while at times very painful and inconvenient, are quite harmless. [S.M.H.]

5.—Russell, in studying the handwriting of some cases of **chorea,** discovered very unexpected variations in the power of writing, and that these variations in many cases had no relation whatever to the violence of the choreic movements. He recognizes the existence of 5 groups separated from one another by differences in the manner in which they reacted to the demand to perform delicate coordinated acts. In his article he reproduces the most typical autographs of these various groups. The cases belonging to the first group are those which have little or no power of control over their movements, incoordination being probably present in at least many of the cases; those belonging to the second group have power of control practically complete, with no incoordination; those of the third have very slight or no choreiform movements, with much incoordination; those of the fourth group have perfect control over choreic movements, but great incoordination, while in those of the fifth group the movements are moderate, there is much central defect, and writing is impossible. [S.M.H.]

6.—Sharp from a study of **mate or Paraguay tea** finds it very destructive to the function of the gastrointestinal tract, causing nausea, loss of appetite, vomiting, a dull, drowsy headache, some relaxation of the bowels, and a sensation of heaviness in the legs. An hour after a full dose of the ethereal extract of maté there occurred nausea, moderate relaxation, and great discomfort in the region of the transverse colon, followed by a sleepless night and a headache the following morning. There was slight diuretic action. A study of maté remaining after exhaustion with absolute ether showed the presence of caffein and tannin as its chief constituents. [S.M.H.]

7.—A girl, 17 years of age, who had been under treatment for several years for **dyspepsia** was suddenly taken with violent abdominal pain. During the year previous to the attack she had vomited blood twice and just before the attack she had eaten heartily. On admission to the hospital the abdomen was found rigid, distended, tender, and motionless, the pulse was 124, the temperature 100.2° F. Thirteen hours after the onset of the symptoms the abdomen was opened through the left rectus muscle. Turbid fluid escaped and fibrinous exudate was present on the stomach and liver. A small perforation was found on the anterior surface of the cardia just below the lesser curvature of the stomach. The whole indurated area about the perforation was inverted and two rows of Lembert sutures were inserted. A turbid fluid was found in the pelvis and counter opening was made and drainage-tube inserted above the pubes. The abdomen was flushed with sterile water and a gauze-drain passed to the site of the ulcer and the greater part of the wound was sutured. The patient vomited after the operation but her general condition improved gradually and she was discharged in good health 5 weeks after the operation. [M.B.T.]

8.—A boy who had sustained a fracture at the lower third of the forearm was taken with rise of temperature and severe pain 4 days after the injury. The hand was found black and cold and the forearm was dusky. Amputation was peformed at the shoulder joint and rapid recovery followed. Bacteriologic examination showed the presence of **bacillus coli communis.** The presence of this microorganism has rarely been reported in cases of **traumatic gangrene.** A second case of traumatic gangrene following compound fracture of the right tibia and fibula is reported. A successful amputation at the middle of the thigh was performed. [M.B.T.]

New York Medical Journal.

April 15, 1899. [Vol. lxix, No. 15.]

1. An Extraordinary Case of Aortic Aneurysm. Carl Beck.
2. A Remarkable Case of Tertiary Syphilis. Eliv Janson.
3. Report of a Necropsy in a Case of Akromegaly, with a Critical Review of the Recorded Pathologic Anatomy. Louis J. Mitchell and E. R. Le Count.
4. Some Observations of Malarial Disease in the Province of Santiago de Cuba. Frederick W. Fabricius.
5. The Practical Application of the Skiascope. J. W. Sherer.
6. An Arcus Senilis Tattooed. W. L. Bullard.

1.—A man 39 years old, without history of any constitutional disease, had noticed a small swelling on the left side of his neck 5 years previously. The swelling grew constantly and he had occasional periods of slight dysphagia and hoarseness. Two months previous to the time of report he was taken with slight dizziness and feeling of constriction of the throat and chest, and with recurrence of dysphagia and hoarseness. The tumor extended over the sternum, the sternal portions of the clavicles, and the whole anterior surface of the neck; its diameter was 7½ inches, slight thrill could be felt on palpation; the pulse of the right side was weaker, but there were no signs of the arteriosclerosis. The patient's general condition was good. A skiagraph showed complete atrophy of the sternum and the sternal portions of the clavicle. The slight pulsation of the **aneurysm** was thought to be due to the presence of abundant coagulum. **Injections** in the vicinity of the tumor of 5 grams of **gelatin,** suspended in 200 cc. of sterilized normal saline solution, were given every 4 days. Under this treatment its size has decreased, the hoarseness has disappeared, and the general condition is improved. [M.B.T.]

2.—Janson reports a case of **tertiary syphilis.** Nine years after the initial lesion the subject developed a papule surrounded by a red area on the bridge of her nose. This developed into an ulcer, which extended rapidly, eventually destroying the entire nose, spreading laterally close to the inner canthus of both eyes, extending downward, involving the cheeks to within a quarter of an inch of the malar eminence. The bony framework of the nose was entirely gone. The cartilaginous septum, the vomer, the inferior and middle turbinated bones were entirely destroyed. The patient was given potassium iodid in large and increasing doses. Locally an ointment of calomel was used, together with a spray of corrosive sublimate. The patient's condition rapidly improved and the ulcer finally healed. [S.M.H.]

4.—Fabricius gives a historical account of **malarial disease in the province of Santiago de Cuba,** and reports the result of a study of the blood made in malarial cases in this region. He describes a small, rod-shaped body of a dark bronze color, of about the length of half the diameter of a normal bloodcell and a sixth of its length in thickness, the ends being somewhat thick and rounded, which he observed in 3 cases. These organisms were not numerous, but were very motile, rapidly passing across the field by a peculiar swinging motion of the posterior half. In the center there was a highly refractive spot closely resembling a spore. The organism attacked a number of red cells in its course, apparently endeavoring to enter one. At times it would lie in close apposition to a cell. While being observed it gradually increased in thickness, especially at the ends. The movements became slower, and finally ceased, and the bright refracted spot was seen to escape from it, dancing about between the adjacent cells, finally seeming to penetrate one and become lodged. The organism itself again became motile, the difference in thickness between the extremes and the center becoming more marked, until finally a constriction separated the anterior from the posterior segment. In the latter another bright spot was visible. The organism divided into 2 parts at the constricted point. The posterior segment with its spore becoming round, entered a nearby red blood-cell, where it remained without any further change. The anterior segment was lost sight of. In 1 case this organism was found associated with small tertian parasites, in the other with 2 very fine, hyalin, unpigmented bodies, resembling a malignant quotidian. In all these cases a large number of highly refracted spots identical in appearance with discharged spores were found, free in the plasma and enclosed in the red cells. No deduction was made regarding the pathologic significance of these organisms. [S.M.H.]

5.—Sherer describes the methods of using the x-rays in ophthalmology. [M.B.T.]

6.—Bullard reports the case of a woman, 30 years old, whose eyes he tattooed successfully under cocain-anesthesia for premature arcus senilis. [M.B T.]

Medical Record.

April 15, 1899. [Vol. lv, No. 15.]

1. Cases of Sciatic and Brachial Neuritis and Neuralgia—Treatment and Cure by Electro-static Currents. William J. Morton and W. B. Snow.
2. Hemorrhagic Apoplexy — Its Etiology, Pathological Anatomy, Prognosis and Treatment. George E. McLaughlin.
3. Thyroid Feeding as an Aid in the Development of Backward Children. H. H. Vinke.
4. Some Remarks on the Use of the Obstetric Forceps. S. Marx.
5. Puerperal Infection with the Bacillus Aerogenes Capsulatus. Francis Carter Wood.

1.—Morton has employed **static electricity for the cure of neuritis.** Even in the earliest stage he applies the spark directly to the tender points. Lately he has been in the habit of connecting the patient with the prime conductor of the machine so that he does not form a part of the circuit but is subjected to powerful electric surgings that are, however, painless. Under this treatment, relief is immediate, cure occurs usually within a short period, and it is not necessary for the patients to remain absolutely at rest. Altogether he reports in detail 39 cases of sciatic neuritis and 41 cases of axillary and brachial neuritis. The duration of treatment for the first group averaged 32 days, and varies from 4 to 78 days. For the second group, the average is 22 days, and varies from 5 to 42 days. Fifty-seven patients were cured and did not relapse, 23 were relieved, but have not since been heard from in regard to the permanency of the condition. In none of the acute cases was there any tendency to the development of chronicity. [J.S.]

2.—McLaughlin believes that about two-thirds of all cases of **cerebral apoplexy** are caused by syphilis, heart-disease, Bright's disease, excessive exposure, intemperance, and chronic alcoholism. The remaining third are caused by gouty or rheumatic diathesis, producing arterial disease. Attacks do not occur so frequently after intense effort as is supposed, many taking place during sleep. Usually there is disease either in the form of endarteritis or periarteritis, with miliary aneurysms of the arteries of the base. The prognosis may be judged from the temperature; fever appearing or increasing after the third day, and being a very serious symptom. Treatment consists in bleeding, and, perhaps, the administration of aconite, potassium bromid, and iodid. Drastic purgatives are to be avoided. Rest is exceedingly important. [J.S.]

3.—Vinke reports 2 cases of **backwardness and one of macrocephaly** in which he used **thyroid extract.** The first, a girl 2 years 8 months of age, was born of a mother who suffered from a large goiter. She could scarcely speak intelligently, was dull, timid, the bridge of the nose was sunken, and the body was misshapen by heavy layers of fat. Seven weeks after the beginning of the treatment, her weight decreased from 45 to 34 pounds, with corresponding diminution in the size of the limbs. The second patient was a characteristic cretin. Treatment was begun at the age of 2 years and 9 months, but was carried on irregularly. The patient improved greatly, is now able to walk, talks coherently, and her hair has become natural. She has increased 5 inches in height. The third case was a macrocephalic, 5 years of age, with depressed nose, and rather unelastic skin, that interfered with movements of the fingers. Under thyroid treatment she grew 2 inches in four months, became less good-natured, was anxious to speak, and showed general improvement in her condition. [J.S.]

4.—Marx, in discussing the **use of the obstetric forceps,** believes that, (1) The forceps should never be used unless there are positive indications for its use. The so-called "Luxus" instrumentation is never an indication. When nature asserts herself as unable to deliver spontaneously, then, and then only, does art come in. Exhaustion on the part of the mother is recognized by changes in temperature and pulse, as also on the part of the child by alterations in rapidity, volume, and strength of the fetal pulsations, and a continuous free discharge of meconium in the absence of a breech presentation. (2) The head must be in a normal position, or so relatively normal that operative interference will readily convert it into one. It is always better, however, to convert by manual methods faulty positions before having recourse to instrumental interference, as witness: face case, chin behind. Under these conditions manual flexion of the head is resorted to, to convert it into occipito-anterior position when forceps delivery is accomplished. Face case with the chin in front is considered a normal position; hence direct forceps application. (3) The head must be engaged or at least fixed at the brim. [W.K.]

5.—Wood reports a case of **puerperal infection.** At the autopsy the whole body was noticeably swollen and there was a marked emphysema of the subcutaneous tissues. The superficial veins were distended with gas, and on opening the abdomen a large amount of gas escaped. When the pericardium was opened some gas escaped. Gas was present in the viscera and could be squeezed from the vessels. Anerobic cultures furnished an abundant growth of bacilli, which corresponded in every particular, including pathogenic properties toward animals, with the bacillus described by Welch and Nuttall under the name of bacillus aerogenes capsulatus. [W.K.]

Medical News.

April 15, 1899. [Vol. lxxiv, No. 15.]

1. The Differential Diagnosis of Pelvic and Abdominal Diseases in the Female. (Illustrated and continued.) Paul F. Munde.
2. The Statistics of Fifty Autopsies on Tuberculous Subjects. Aldred Scott Warthin.
3. Experience with Litten's Diaphragm-Pnenomenon in 220 Cases. Richard C. Cabot.
4. Foreign Bodies in the Larynx. Charles H. Knight.
5. An Extraordinary Case of Retained Consciousness During Complete Surgical Anesthesia. S. Ormond Goldan.

1.—Munde discusses the **differential diagnosis of pelvic and abdominal disease in the female.** Among the special instances cited is the differentiation of kraurosis from eczema, for which it is most readily mistaken. Deformities of the external genital organs and various forms of spurious hermaphrodism must be distinguished and are sometimes puzzling. Urethrocele and suburethral abscess are of diagnostic interest. A cyst of the anterior vaginal wall may be mistaken for a cystocele. The diagnosis of gonorrhea of the vagina, endometrium, or endosalpinx cannot be made by the eye or nose, as there is nothing distinctive about the appearance or odor of the discharge, nor the color of the vagina. Only the discovery of the gonococcus would settle the diagnosis of gonorrhea, which the habits and associations of the woman might lead us to suspect. The early diagnosis of carcinoma of the cervix is sometimes difficult. When the disease is in its infancy and nothing but prolonged menstruation or an intermenstrual oozing attracts the woman's attention, it may not be easy to decide whether the swollen, ragged, bleeding lips of the cervix are merely due to a puerperal laceration or to malignant disease. As a rule, in a benign case the tissues are hard and bleed but little on touch, whereas if the ulceration is malignant the finger can easily break down and crush portions of the cervix, and the bleeding is profuse although easily arrested. [W.K.]

2.—Warthin reports the statistics of 50 autopsies made on 41 cases of pulmonary tuberculosis, 7 cases of acute miliary tuberculosis, 1 case of tuberculous meningitis, and 1 of tuberculous lymphadenitis. In the 41 cases of pulmonary tuberculosis, the lungs, pleuræ, larynx, bronchial glands, liver, spleen, and kidneys were affected in all the cases. The meninges were affected in 24%; the brain, heart, fallopian tubes, uterus, in 7%; the bones and peritoneum in 9%; the small intestine and the mesenteric glands in 95%; the large intestine in 17%. In all cases there was fatty infiltration of the liver; in 90% fatty infiltration of the heart, in 80% cloudy swelling of the kidneys and chronic congestion of the spleen, in 20% amyloid spleen, in 15% amyloid kidney, and in 4% amyloid liver. Warthin concludes that metastasis in pulmonary tuberculosis is more important than is generally believed, and calls attention particularly to the invariable involvement of the larynx. In 4 cases of acute miliary tuberculosis occurring in males, the primary focus was the left seminal vesicle. In the 3 females, the primary focus was a caseating mesenteric gland, the dissemination occurring through the thoracic duct. [J.S.]

3.—Cabot has investigated Litten's phenomenon in 220 cases. He summarizes his results as follows: in 102 cases without pulmonary or diaphragmatic disease, the average excursion was 2½ inches on each side. In 11 cases of pleural effusion, 5 of adherent pleura, 3 of dry pleurisy—the shadow was absent on the affected side. In 6 of emphysema, the shadow was almost or entirely absent. In 30 of phthisis, the excursion had diminished on the affected side; even in incipient cases it may show this change. The shadow is diminished or missed in cases of muscular weakness or obesity. A large collection of ascitic fluid renders it invisible, but it is not abolished by great enlargement of the liver or spleen. Finally, it is cheaper, more satisfactory, and less unpleasant than the use of the x-rays. [J.S.]

4.—Knight reports a case of **foreign body** lodging in the **larynx.** At first it was thought that the "shoe hook" had been swallowed, but attempts to cure the loss of voice were futile, and finally the laryngeal mirror discovered the foreign body impacted in the right ventricle of the larynx near the anterior commissure. The hook was removed through a partial laryngo fissure, after tracheotomy. [G.B.W.]

5.—Goldan reports a case in which a complete consciousness of the surroundings was retained into the third stage of chloroform anesthesia. The patient experienced no pain, but knew all that was going on, such as the surgeon talking to the nurse, an instrument dropping on the floor, etc. [G.B.W.]

Boston Medical and Surgical Journal.

April 13, 1899. [Vol. cxl, No. 15.]

1. Traumatic Cerebral Edema: Its Pathology and Surgical Treatment A Critical Study. J. W. Courtney.
2. The Local Treatment of Pneumonia in Children. R. F. Chase.
3. Treatment of Phthisis. A. B. Farnham.
4. A Case of Hematomyelia. E. C. Larrabee.

1.—The conclusions arrived at in this, the first portion of Courtney's paper, are that **traumatic cerebral edema** can find no place as a pathologic or clinical entity, but is an inevitable sequence of contusion. The seat and extent of the edema is, because of its depending on other lesions, largely fortuitous. In rare instances in localized injuries, the brain is capable of ridding itself of the edema through its venous channels. In the remaining cases of extensive injury or injury of vital portions the possibility of operative relief is precluded. Contusion per se can easily cause death and death in such cases is the result of anemia of the bulb. (To be continued.) [G.B.W.]

2.—Chase, as a result of his experience with 45 cases of **pneumonia,** many of which occurred in children, has reached the conclusion that certain methods of treatment, at present in disrepute, are nevertheless of much value. The flaxseed poultice, made according to modern methods, and repeated frequently, diminishes pain, relieves the dyspnea, lessens the rales, and the effect is soothing, not infrequently causing a restless child to fall asleep. The mustard-paste also seems to be of benefit, but must be used with caution. For hyperpyrexia, he employs cold water or alcohol sponges, and uses the ice-cap to control delirium. Nursing is of course important. [J.S.]

3.—Farnham considers that the **important points in the treatment of pulmonary consumption** are plenty of air, no matter what its temperature, careful management of digestion, and local treatment to the upper air-passages. He has used the Tesla-Thompson high-tension battery with apparent benefit in some cases. Among drugs, he employs creasote, ozone, strychnia, and other substances. [J.S.]

4.—Larrabee reports the case of a man 26 years of age who had had a luetic infection 6 months before. Two days before admission to the hospital he had pain in the back, and following day both legs were weak. The night before the admission he was completely paralyzed in the left leg, the urine was retained and there was some vomiting. When examined, it was found that the left leg was completely paralyzed, and that the whole of the left side from a line 2 inches below the nipple was hyperesthetic. On the right side, there was impairment of motion in the leg, and the whole side was anesthetic from a line 4 inches below the nipple. A curious feature was that temperature-sense was lost in the left leg below the knee. The tache cérébrale was present. The mind was clear, and death occurred suddenly, seven days after the onset. At the autopsy, a slight swelling was observed in the upper dorsal region of the cord, extending for 5 cm. In this region the gray matter was softened and yellowish, and there was a hemorrhage in the left half of the cord, extending for a distance of 6 cm. The pia mater was thickened. There was marked proliferative endarteritis in the vessels of the upper dorsal region and many of the vessels of the pia and of the roots were enormously dilated. Throughout the cord there were numerous areas of hemorrhage, destroying the greater part of the white substance and in some regions the anterior cornua of the left side. There was also some degeneration in the posterior root zone. A diagnosis of **hematomyelia, syphilitic endarteritis, and syphilitic infiltration** of the pia was made. [J.S.]

Journal of the American Medical Association.

April 15, 1899. [Vol. xxxii, No. 13.]

1. Surgical Anatomy of Hernia. Raymond Custer Turck.
2. Lead Ileus Mistaken for Appendicitis. John Prentiss Lord.
3. Treatment of Sudden Severe Postpartum Hemorrhage. Joseph B. DeLee.
4. Extrauterine (Tubal) Pregnancy. Rudolph Matas.
5. Naphthalin in Typhoid Fever. Albert Woldert.
6. Johannes Evangeliste Purkinje. Russell Burton Opitz.
7. Some Unusual Symptoms in Myxedema. Arnold Jolly.
8. Suggestions as to Treatment of Alcoholism. Daniel R. Brower.
9. Chronic Catarrhal Otitis. Clarence R. Dufour.

1.—In a series of dissections, 27 of which were of adult males, 9 adult females, 3 children, and 11 fetuses, Turck finds the **average length of origin of the internal oblique** muscles in the male to be 6 cm.; in the female the length of origin is considerably greater. These measurements differ from those given by the standard textbooks, in which the length of origin is usually estimated as about ½ of the outer portion of Poupart's ligament. The average distance of the internal ring from the pubic spine was found to be 6.4 cm., from the anterior superior spine 5.8 cm. showing that the ring was situated above the outer half rather than above the center of Poupart's ligament. As usually described in the female the ring is even nearer the anterior superior spine. All these factors increase the strength of the abdominal wall at this region and lessen the liability to hernia. [In this paper great importance is attributed to the influence of muscular strength of the abdominal wall while the intraperitoneal fossæ and other anatomic considerations, which might enter into the causation of hernia, are not at all taken into account. M.B.T.]

2.—The case of a man, 28 years old, is reported, who had been ill for 5 days with pain and tenderness over the lower part of the abdomen, and with vomiting and constipation. A diagnosis of **appendicitis** had been made and an operation was undertaken. The appendix was found perfectly healthy, but a mass of small intestine was found, the lumen of which was greatly contracted to about the size of the little finger. The abdominal wound was closed and stimulants and cathartics were administered. From the history of the case, which was obtained later, the condition is believed to have been due to **lead-poisoning**, resulting from drinking considerable quantities of warm beer which passed through a lead pipe. [M.B.T.]

3.—Various measures are suggested for the **arrest of postpartum hemorrhage** without anything particularly new being mentioned. Delee has the greatest confidence in gauze-packing of the uterus and vagina for the arrest of severe cases of hemorrhage. [M.B.T.]

4.—A case of **ectopic pregnancy** is reported occurring in a woman, 30 years of age, who had borne 3 children. Some time after the second month of gestation the woman was suddenly taken with acute pain in the hypogastrium, accompanied by great prostration, dizziness, faintness, and deathly pallor. On physical examination there was considerable distention and great tenderness over the lower part of the abdomen. Vaginal examination showed the uterus to be displaced down toward the right, and immovable; the posterior culdesac was distended by a semifluctuating mass that filled the pelvis. Matas saw the patient 2 weeks after this and made a puncture through the posterior vaginal wall, from which pure blood was aspirated. A diagnosis of hematocele was made, caused by ruptured tubal pregnancy but it was decided to await operation until the patient's condition improved. The hematocele continued to increase in size and ruptured into the general peritoneal cavity where it became encysted. Laparotomy was undertaken to extirpate the sac and 13 days after this, dull pain was noticed in the right hypochrondrium followed by hectic fever and profuse sweating and increased area of hepatic dulness. By aspiration a considerable amount of streptococcic pus was withdrawn from the liver. The hectic temperature ceased after the operation and improvement continued for several days, but the temperature gradually rose again and free **hepatotomy** was performed, after resecting the 9th rib, and over a pint of thick pus was evacuated. After this operation the condition gradually improved and the patient left the hospital 62 days after the laparotomy and 28 days after the hepatotomy. [M.B.T.]

5.—Woldert reports favorable results from the use of **naphthalin in the treatment of** 8 cases of **typhoid fever.** The gaseous distention seems to be relieved by its use and in no case did hemorrhage occur. The temperature does not seem to be influenced by the drug. It it especially indicated at the onset of tympanites; after paralysis of the bowel has occurred from over-distention it could do no good. None of the patients required any stimulant throughout the disease and a good recovery followed in all. [M.B.T.]

7.—Jolly reports the case of a woman, 26 years old, who had great thickening of the skin, falling of hair, pimply face, and absence of atrophy of the thyroid gland peculiar to **myxedema,** while on the other hand there was a very rapid pulse, difficult breathing, exophthalmos and the sweating peculiar to **exophthalmic goiter.** While some typical symptoms of each disease were wanting there were important symptoms of both diseases present. If the thyroid theory of the origin of this disease be true, Jolly does not understand why the symptoms of both diseases should occur in this case. [M.B.T.]

9.—In the treatment of **chronic catarrhal otitis** Dufor recommends otomassage. This is accomplished by means of a small air-pump which draws the membrana tympani outward and then pushes it gently inward. After an experience of 3 years in the use of this method he has found that from 60 to 65% of the cases are benefited. More cures or benefits are obtained in the hypertrophic than in the hypoplastic form of the disease. This treatment is used twice a week in most cases. [M.B.T.]

Journal of Nervous and Mental Disease.

April, 1899. [Vol. xxvi, No. 4.]

1. Motor Paths in the Brain and Cord of the Monkey. E. LINDON MELLUS.
2. Acute Anterior Poliomyelitis Occurring Simultaneously in a Brother and Sister. With Remarks upon its Etiology. FREDERICK A. PACKARD.
3. A Case of Hysteria in which a Needle-puncture was Followed by Typical Symptoms of Ascending Neuritis. J. TORRANCE RUGH.
4. Clinical Notes on a Case of Syringomyelia. SMITH ELY JELLIFFE.
5. Anomalous Symptoms Following Traumatic Hemorrhage into the Spinal Cord. WILLIAM M. LESZYNSKY.

1.—Mellus performed an interesting series of experiments consisting essentially in the removal of a small portion of the cortex from the brain of a monkey, and the examination of the central nervous system after intervals varying from 10 to 40 days by the Marchi method. It is impossible to give all the results of his valuable paper. He notes that the **amount of degeneration** varies considerably. It involves the association fibers and the commissural fibers, passing through the corpus callosum, which he does not believe represent collaterals, but are independent nerve-fibers; all of those from the motor region passing through the inner third of the corpus to be distributed to the convolutions of the opposite hemisphere. As the projection fibers pass through the internal capsule, they become more or less scattered. In the upper portion of the internal capsule, fibers from the leg were found in the posterior half, fibers from the hand or facial areas in the anterior half. In the lower portion all the motor fibers were found within the limits of the middle third of the posterior limb. Many of these fibers passed into the optic thalamus, where they stopped. The others were found in the middle third of the crus, and some of them passed into the substantia nigra. The remaining fibers passed through the pons and the medulla, and were scattered over the entire cross section of the left pyramid; then were divided into 2 groups, one remaining on the same side of the spinal cord, and the other crossing over to the opposite side. The fibers ultimately bent towards the anterior cornua, but could not be traced very far in that direction. Lesions in the facial area gave rise to degenerated fibers in the internal capsule and crus, in similar situations to those already described, although there were occasionally deviations from this arrangement. In some cases lesions of the facial area could not be traced as far as the pons. In other cases degenerated fibers were found in the tegmentum, through which they ran to the facial nucleus on the same side, although in nearly all the cases both facial nuclei seemed to be supplied by fibers from both sides. [J.S.]

2.—Packard reports the cases of 2 children, 2½ and 1½ years of age, who had been exposed to bad weather, and 3 days later developed the symptoms of acute spinal paralysis, the boy in the left leg, the girl in the right arm. Both limbs showed the characteristic **alterations following acute anterior poliomyelitis.** Packard collects the literature of this condition and finds several instances of the simultaneous occurrence of the disease in various members of the same family, or in various persons in the same neighborhood. Such epidemics have hitherto not led to any satisfactory elucidation of the etiology of the disease. Packard, however, is inclined to believe that the simultaneous occurrence of cases in 2 persons of the same family indicates that anterior poliomyelitis may be due in many instances at least to infection. [J.S.]

3.—Rugh reports the case of a girl 22 years of age, who ran a needle through her finger. There were no immediate symptoms. Several days later, the patient noticed pain in the finger, followed by swelling and redness, and 2½ weeks later, a chill with rise of temperature occurred. She was delirious and complained of pain in the back of the neck, and heaviness of the head. The following day, large red edematous spots were found on the arm with sharply defined edges elevated above the surrounding skin. The next day, these had changed from red to mottled blue, and there was a similar spot under the left breast. In all these regions there was local elevation of temperature. About 2 years later, there was pain in the hand and arm, new hemorrhagic areas appeared, and there was partial loss of power. The muscles responded normally to electricity. There was complete anesthesia of the arm, and hysteria was suspected. All treatment, excepting suggestion, with a placebo, was discontinued, and rapid recovery ensued. Rugh considers the eruption to have been localized purpuric or hemorrhagic ecchymosis. The weight of authority appears to be against the possibility of an **ascending neuritis** following a nonseptic injury. The most difficult point in the diagnosis of the case he reports was the differentiation of the purely functional condition from the possible organic one. [J.S.]

4.—Jelliffe reports the case of a boy 22 years of age, who at the age of 19 presented the clinical picture of **atrophy of the Aran-Duchenne type.** His family history was negative. In his previous history the only thing of significance was the fact that for some years he had been obliged to carry heavy weights on his left shoulder. He first noticed stiffness of the fingers of the left hand with paresthesia in the arm, and there was beginning curvature of the spine. A few years later, stiffness commenced in the right arm with slight atrophy of the muscles of the hand, that at present is not very pronounced. The left upper extremity shows marked atrophy of the hand, and to a less extent of the muscles of the forearm and arm. The reaction to galvanism is diminished, but not qualitatively altered. The left pupil is slightly contracted. The reflexes of the arm are lost, tactile sensation is preserved, but up to the shoulder there is loss of pain and partial loss of temperature-sense. The latter was completely lost a few months before the last examination, but has apparently returned. The patient burns himself readily, and the sores heal slowly. Both hands are cold and bluish. [J.S.]

5.—Leszynsky reports the case of a man who fell three stories and struck upon the buttocks. He was immediately **paralyzed in both lower extremities.** In the course of some years, he recovered so that he was able to walk with crutches. The muscles of the legs show a quantitative decrease to both forms of electricity. The plantar reflexes are active. The Achillis-tendo reflex is exaggerated, and ankle-clonus is readily elicited. The left kneejerk is absent; the right only present when reinforced. The movements of the legs are somewhat uncertain. The cremasteric reflex is feeble. In both legs on the anterior and inner surface, there is complete analgesia and impairment of the temperature sense. Tactile perception is preserved. Leszynsky diagnoses a hemorrhage into the cord with partial destruction of the tissue from about the tenth dorsal to the upper sacral segment. [J.S.]

Neurologisches Centralblatt.

April 1, 1899. [18. Jahrg., No. 7.]

1. A Contribution to the Knowledge of Tumors of the Cerebrum and the Changes in the Spinal Cord that Result from Them. A. Schüle.
2. Ankylosis of the Spinal Column. S. Popoff.
3. Certain Changes in the Nerve-Cells of the Cerebral Cortex in Progressive Paralysis that are Shown by the Golgi Method. A. Agapoff.
4. Critical Review of Bethe's Article, the Anatomic Elements of the Nervous System. N. v. Lenhossék.

1.—The patient, a servant of 16 years, had been in good health, until one month before admission, when she complained of vertigo, headache, and vomiting associated with some loss of vision. When admitted there was paresis of the left abducens, an extreme degree of choked discs, but no disturbance of motion or of sensation. Both patellar reflexes were lost, but the plantar reflexes were preserved. The gait was very unsteady, and the patient had a tendency to fall to the right. There was continual complaint of headache, but lumbar puncture did not show marked increase in pressure, although 25 cc. of fluid was withdrawn. The patient died within 2 months of the first symptoms. At the autopsy, there were marked signs of **intracranial pressure.** All the ventricles of the brain were greatly dilated, and there was extreme edema of the spinal cord. A cystic tumor that microscopically resembled a gliosarcoma arose in the left striate nucleus. This grew towards and pressed upon the medium portion of the optic thalamus of the right side. Degenerated fibers were found by the Marchi method in the posterior roots of the upper dorsal and lumbar regions of the cord. During life, a local diagnosis was probably impossible. There was no disturbance of mimicry or other symptoms of tumor of the thalamus, and in spite of the pressure to which the internal capsule was subjected, there were neither distinct motor nor sensory symptoms. Schüle believes that the changes in the spinal cord were not immediately caused by the tumor, but were the result of the extreme degree of pressure to which this part of the nervous system had been subjected. [J.S.]

2.—Popoff reports the case of a man, 23 years of age, who had been obliged to work in the cold for 5 hours. On the evening of the same day, he had fever and pain in the lumbar region which persisted and was soon associated with pains in the cervical region of the spinal column. The patient felt a gradual forward bending of the body which continually increased, and finally led to an extreme posterior curvature of the spine. The head was not affected. The legs were weak and had a marked tendency to tremble. There were frequent attacks of pain in the knees and spinal column, and Achillodynia. As a result of treatment, the spinal column became very slightly straighter and the pains disappeared. **Spondylose rhizomelique** occurs apparently in 2 forms; one, described by Marie, is characterized by gradual bending of the spinal column, particularly in the cervical region, and one by von Bechterew in which the ankylosis is not complete occurs as a hereditary form. The present case appears to be midway between these two types, and is further interesting on account of the rapid development of the deformity. It appears to support Bäumler's hypothesis, that, as a result of injury to the legs, the spinal cord is obliged to function more actively in order to maintain the balance of the body, and as a result of excessive effort becomes inflamed. [J.S.]

3.—Agapoff has studied the brains of 6 cases of **progressive paralysis,** 2 men and 4 women, and found that the protoplasmic processes of many of the pyramidal cells had lost their gemmules. In many of the others, the number of these lateral processes were diminished. These changes were not found in the brains of 2 persons, psychically normal, nor in 3 brains of insane persons, one of acute delirium and the others of secondary dementia. In the latter, although many of the cells contained a normal number of gemmules, some showed a diminution of them. He states that in all normal conditions, the distance between 2 gemmules is from 1μ to 2μ; when they are diminished 3μ to 4μ. [S.S.]

4.—Lenhossék continues his criticism of Bethe's experiments and the analyses of their results. Bethe succeeded in removing a ganglion-cell from the central nervous system of a crab without destroying the surrounding neuropil. He found that the reflexes of the antenna governed by this cell were at first not affected but disappeared in the course of several days, and he concluded that the **ganglion-cell was not essential to the actual performance of the reflex,** but that this could not continue indefinitely if the cell were removed. This experiment Lenhossék criticises because the protoplasmic processes were not and could not be removed with the body of the cell, and, moreover, experiments upon invertebrates are not recklessly to be utilized for explaining nervous processes in higher animals. That the dendrites serve chiefly for the purpose of providing nutriment for the neuron, Lenhossék doubts, on account of the multiparious forms of cells found in the cerebellum. In conclusion he expresses his own view of the neuron-theory as follows: That it is not the result of imagination, but rests upon positive anatomic observations that have never been successfully disputed. The sporadic anotomic observations of nerve-cell anestomosis, with the exception of Apáthy's statement that the elementary fibrils formed a network in the neuropil, have all been contradicted. The latter has not been confirmed. Physiology does not contradict the neuron-theory; pathology rather favors it, and no one is justified to-day in saying that the neuron-theory is in the least invalidated by recent discoveries, nor would the fact that contact between contiguous neurons sometimes occurs, destroy the theory. In conclusion, he gives a brief criticism of Bethe's idea that memory is an individual act performed each time it occurs only as a result of some external stimulation, and draws the comparison between the position of pictures in the brain and the tunes in an automatic musical instrument. [J.S.]

Deutsche medicinische Wochenschrift.

March 9, 1899. [25. Jahrg., No. 10.]

1. Concerning the Theory of Insufficiency of Tone in the Spinal Muscle (tabes dorsalis). Rosenbach.
2. Upon the Diazo-reaction and its Clinical Significance. Michaelis.
3. Concerning Fractures of the Metatarsal Bones through Indirect Force (the Cause of so-called Swelled-foot). Thiele.
4. Upon Development of Röntgen-ray Experience. Dorn.

1.—Rosenbach, as a result of extended observations upon the kneejerk, has reached the conclusion that the **predisposition to tabes dorsalis is frequently congenital,** or at least acquired in very early life. He has found typical symptoms of the disease, or at least function-disturbance of the muscular tone, at the age of 20 years, in patients who have consulted him in regard to other conditions. It does not follow, however, that all these cases will develop locomotor ataxia, for it is a disease that may become quiescent at any time. Reasoning from the analogy of diabetes and tuberculosis, Rosenbach concludes that in the earlier stages locomotor ataxia is frequently curable and will become recognized as such. In order, however, to place this early diagnosis upon a scientific basis, it is necessary to study what he calls the "Energetik" of the nerves according to new points of view. The most remarkable feature of the ataxia of posterior sclerosis is the fact that it is so markedly increased by closing the eyes, that is, loss of visual control. In other forms of ataxia this is not necessarily the case. Ataxia may occur without disturbance of sensation, as in chorea laryngis; or sensation may be disturbed without ataxia, as in neuritis or neuralgia. Rosenbach recognizes 3 forms of disturbance of movement in the nervous system: first, of the apparatus transforming force, energogene disturbances; second, of the apparatus regulating or distributing movement, tonomotor anomalies; third, anomalies of the apparatus giving forth power, energolytic disturbances. He admits that investigations having for their object the elucidation of these three classes would be exceedingly difficult. [The paper is unfinished. In spite of the author's arguments, we are not convinced that it is necessary to render the study of ataxia as complicated as he seems to desire, and we consider the introduction of such confusing terms a distinct misfortune. J.S.]

2.—Michaelis divides diseases with relation to the diazo-reaction into 4 groups. In the first, the diazo-reaction occurs rarely, if at all; such as diseases of the nervous system, chronic disease of the heart and kidneys, malignant tumors, etc. If it should occur in the last-named condition, it usually indicates secondary infection. The second group includes those diseases in which the reaction is always present, usually in the early stages. To this belong preeminently typhoid fever and measles. In typhoid fever particularly, the presence of the reaction in association with fever, headache, etc., often enables the physician to recognize the disease in its earliest stages. In the diseases of the third group, the reaction occurs frequently, but not invariably. In this are included scarlet fever, erysipelas, pneumonia, diphtheria, pyemia, etc. The fourth group comprises pulmonary consumption. If in the course of this disease, the diazo-reaction occurs, it indicates either that the process is very extensive, or will progress very rapidly, and the prognosis becomes very grave. Cure is impossible; improvement, if any, merely transient. In this group are found the cases of acute caseous pneumonia. Michaelis draws the sweeping conclusion that no case of consumption with the diazo-reaction in the urine is suitable for reception and treatment in institutions organized for the cure of this disease. In conclusion, he gives the following description of the method employed: Reagent A consists of sodium nitrite, 0.5; water, 100. Reagent B consists of sulfanilic acid, 2.5; muriatic acid, 25; water, 500. Two parts of B and 98 of A are mixed, and to this an equal part of urine is added. This is agitated, and finally about ⅛ of the total quantity of liquor ammoniæ is added. In case the diazo-reaction is present, the solution becomes intensely red, and upon shaking, the froth at the top is of a light pink color. [J.S.]

Centralblatt für innere Medicin.

March 25, 1899. [20. Jahrg., No. 12.]

1. A Case of Acute Dermatomyositis. W. Neubaum.

1.—The patient, a girl of 17, was suddenly attacked by fever, headache, and severe pain in the right leg; this began to swell, first in the leg, then in the thigh. There was suppression of urine. When admitted, the whole right leg was swollen, tender, and edematous. The left thigh was also slightly swollen and tender. All the other members were apparently normal. The urine coagulated completely by boiling, and contained a considerable number of tube-casts and a little blood. Two days later, there was severe pain in the back, and in the intercostal regions. The urine became more copious in amount, and contained 28% of albumin. Some of the edematous fluid was withdrawn from the subcutaneous tissue, and cultures were made. The patient subsequently developed a pneumonia, with hemorrhagic expectoration, and there was an abundant eruption of roseola-like spots. The spleen was enlarged to percussion, but not palpable. The Widal reaction and cultures from the subcutaneous tissue were entirely negative, but there was a pleural effusion in which a few diplococci were found. A portion of the gastrocnemius muscle was excised, and red bloodcells were found between the fibers, but no micrococci. Subsequently, the patient developed a pleural effusion upon the other side, serous diarrhea, and considerable difficulty in swallowing, as a result of the involvement of the muscle of the throat, and there were frequent attacks of epistaxis. Convalescence, progressed slowly but steadily. During the whole course of the disease, the patient had suffered from severe perspiration. Ultimately complete cure was established. The diagnosis of this case as **acute dermatomyositis** is not difficult, the only other condition that might be considered being thrombosis of the inferior cava, but this can be excluded on account of the subsequent involvement of the muscles of the neck and the roseola eruption. Moreover, the patient had the characteristic symptoms of profuse sweating and persistent insomnia. Nephritis appears to have occurred in many of the reported cases. In the present instance, it was more severe than usual and developed earlier. Neubaum believes that the disease is due to the presence of a toxin circulating in the fluids of the body. He is skeptical regarding a bacterial origin, because bacteria have never been found in any of the fluids or tissues. The prognosis is always extremely doubtful, particularly if nephritis is severe, and the muscles of respiration or deglutition are involved. In regard to the treatment, the only thing is to relieve the pain, and meet the indications as they arise; the former is best accomplished by warm packs and narcotics, the latter must vary with the nature of the case. [J.S.]

Münchener medicinische Wochenschrift.

February 21, 1899. [46. Jahrg., No. 8.]

1. Contribution on Local Anesthesia. Hölsher.
2. What is the Value of Gargling? Saenger.
3. On Tetany Following Partial Strumectomy. Schilling.
4. Experiences with Orthoform. Asam.
5. Report of the Orthopedic Ambulatory Surgical Clinic at Munich in the Year 1898. Lange.
6. Contribution on Debatable Points of Melancholia. (*Continued.*) Tecklenburg.
7. The Embarrassment Resulting from the Multiplicity of Medicinal Agents. Rosenbach.

1.—**Local anesthesia** is gradually extending its adaptability higher up on the extremities. Complete anesthesia of the whole hand can be accomplished readily by the following method: Render the hand bloodless and apply an elastic ligature one to two inches above the wrist, inject about 20 cc. of a 0.2% solution of cocain in the region of the nerve-trunks and wait 15 minutes. Complete anesthesia of all the tissues of the hand will then generally be present. [G.B.W.]

2.—Saenger has made experiments to determine the **therapeutic value of gargling.** He touched the tonsils of a patient suffering from angina with methylene-blue, and had the patient gargle with clear water immediately afterward—the water came out untinged. In some experiments the water issued slightly colored, which is explained as follows: During expiration the air carries a little of the coloring matter mixed with the secretion of the tonsils with it and deposits it in the oral surface of the soft palate, whence it is washed off by the gargling-fluid. When the tonsils, the soft palate, and a part of the tongue were powdered with flour, and the patient gargled with an iodin-glycerin solution, a blue color developed only on the tongue and velum, not on the tonsils. Sometimes a person is found that has the ability so to gargle that the gargling-fluid reaches the parts behind the anterior pillars of the fauces; such skill, however, is rare. Gargling in throat-affections has, moreover, the disadvantage that it puts into action the very parts that should be at rest. Instead of gargling the author recommends **direct applications without rubbing.** The surface should merely be **touched** with the application. [D.R.]

3.—The patient, 15¾ years old, was operated on for the relief of pressure-symptoms produced by a large **goiter.** Only a partial resection was undertaken. The left and middle lobes being alone removed. About 4½ months after the operation the first attacks of **tetany** developed rather suddenly and at first were confined to the arms but later attacks included both legs and arms. The last attack was on the eighth day after the first and was very weak and in the arms only. [G.B.W.]

4.—Asam's experiences with **orthoform have not been uniformly satisfactory**—in 9 cases the remedy produced inflammatory phenomena at the point of application, and even, in 2 cases, also at a distance. The disagreeable symptoms came on after an application lasting from 3 to 14 days, but always after the substance had exhibited the favorable effects with the production of which it had been credited. The basic orthoform was always employed. [D.R.]

Centralblatt für Chirurgie.

April 1, 1899. [26. Jahrg., No. 13.]

1. The Etiology of Congenital Dislocation of the Hip, with Remarks Concerning its Treatment by the Paci-Lorenz Method. G. Drehmann.
2. Traumatic Coxa Vara. P. Sudeck.

1.—In the cases of **congenital dislocation of the hip** which have been observed by Drehmann traumatic processes during intrauterine life seem to have been the most frequent etiologic factor. In the Breslau clinic, 104 cases have been treated, 88 in females and 16 in males. In 43 cases, reduction by the Lorenz method was undertaken, and in 19 cases the head of the bone has remained in position; in 8 of these for from 3 months to a year without any apparatus. The condition of the joint was definitely determined in each case by skiagraphs. Paci is credited with priority in the introduction of the bloodless method of reduction, although Lorenz has elaborated and perfected the method. [M.B.T.]

2.—A man, 38 years old, slipped and fell, his legs being forcibly separated. There was severe pain in the right hip which kept the patient in bed for 3 days, but in 10 days he resumed his work without any severe symptoms being noticeable. Four months after the injury pain returned and the patient entered the hospital. The limb was found considerably shortened and the x-ray photograph showed a condition of **coxa vara.** It was evident from the picture, however, that there had been no break of the under side of the neck of the femur. The symptoms were exactly those of coxa vara during adolescence and the condition is believed to be due to an incomplete fracture. [M.B.T.]

Revue de Médecine.

February 10, 1899. [19me Année, No. 2.]

1. Aphasia, Hemiplegia, Apoplexy,—the Result of Gastric Hemorrhage; Autopsy. L. Bouveret.
2. Arterial Tension in Typhoid Fever. Alezais and François.
3. The Value of Tube-Casts in the Diagnosis and Prognosis of Renal Diseases. M. Pehu.
4. The Importance of Typhoid Fever in the Etiology of Epilepsy. M. Dide.
5. Cerebral Concussion Resulting in Death. J. Boyer and J. Lepine.

1.—Bouveret's case was of marked interest. It occurred in a man, 58 years of age, who had had all the signs of **stenosis of the pylorus**; he had been operated upon 2 years before, and gastroenterostomy had been done. The operation had been very successful, and his trouble had been much decreased, but on October 5, 1898, he was taken with a **sudden profuse hematemesis.** He was given subcutaneous injections of salt-solution and enemas of hot water. Within a minute after the administration of the first enema the pulse, which had been impalpable, was felt at the wrist. He continued to vomit, but the vomitus was only slightly stained with blood. At the time of his admission the patient spoke with some difficulty, and on the following day he had complete motor-aphasia; at this time there was also a facial monoplegia and slight paralysis of the limbs. The next day the aphasia persisted, but was less, while the hemiplegia had disappeared. Three days latter, the aphasia continued, but his condition was much improved. October 15 the man suffered a sudden apoplectic attack, with a complete right hemiplegia, and death followed in coma. The autopsy showed that there was no dilatation of the stomach. The anastomosis of the stomach with the intestine had been made on the anterior face of the pyloric region with a portion of the jejunum, about 40 cm. from the pylorus. The pylorus itself at the time of death had a wide lumen, as the result of fresh ulceration which had carried away a good deal of the tissue; the ulcer was from 8 to 10 cm. in diameter. The vessel from which the hemorrhage had come could not be found. The gastroenterostomy seemed to have been entirely successful, there was no dilatation of the duodenum, the opening was entirely free, and not contracted. The success of the operation had probably been largely dependent upon the fact that the junction had been made high up in the jejunum in a portion of the bowel that ran almost horizontally across towards the gastro jejunal orifice, so that there was little tendency to reflux into the stomach. There was found a thrombus in the coronary, hepatic, and splenic arteries, and in the celiac axis. It probably took origin in a branch of the coronary artery which had been opened by ulceration. The brain was found entirely free from any lesion excepting edema, and Bouveret considers the case one of serous apoplexy. [D.L.E.]

2.—Alezais and François have made a study of **arterial tension in typhoid,** largely with a view to the establishment of a prognosis. As a result they state that hypotension is usually marked in cases of moderate gravity, while in grave cases with pulmonary or nervous complications, or even with intestinal hemorrhage there is frequently a tension which is relatively reassuring, so that it is difficult to draw any prognostic conclusions from the condition of the arterial tension. They would not altogether discard this, however, as a means of prognosis; for instance, if the tension falls suddenly, one should always think of weakness of the heart, or of the possible appearance of hemorrhage, and should proceed to proper treatment of the heart and vessels; and, on the contrary, if, in the midst of alarming symptoms, the tension remains good, it is a sign in favor of a fortunate outcome. The tension is, however, extremely irregular, and the rapidity of the pulse is of much more value in prognosis. [D.L.E.]

3.—Pehu has undertaken the study of all the cases which showed albuminuria or casts that have come under the care of M. Bard throughout many years past; and, so far as possible, he has studied them in relation to the conditions found at the autopsy. As the result of these studies he is unable to agree with many who cast doubts upon the **value of tube-casts in the diagnosis of diseases of the kidneys,** and thinks that the reason that so much question of their value has arisen is that those who have come to doubt them have not distinguished sufficiently between the different varieties. He divides them into those caused by transudation,—these are hyalin casts,—and those containing fibrin, red corpuscles and hemoglobin; second, desquamation-casts, which include the colloid, fatty, amyloid, and epithelial varieties; third, those the result of proliferation of the tissues. Granular casts are, he says, characteristic of epithelial nephritis; their discovery in considerable numbers, and their persistence are sufficient to lead to a diagnosis of nephritis. The other varieties of casts are much less useful in diagnosis; hyalin casts are found chiefly in disturbance of the renal circulation, but they are not characteristic. As to prognosis, the study of the granular casts is of value. In the acute stages of the disease they are numerous, the granules adhere together and are compact; their diameter is somewhat small. In the subacute stage the granules are less numerous and less coherent, but the diameter is increased; colloid casts are often seen in this stage. In the chronic stage the number of casts is less and they are shorter. If the disease is improving the albumin and casts gradually disappear, while if there is a cicatricial process in the kidneys a variable quantity will appear, generally followed later by diminution of the albumin and probably entire, or almost entire, disappearance of the casts, together with increase in the amount of urine. [D.L E.]

4.—Dide reports his study of 120 cases of epilepsy in the Ville-Evrard, in 7 of which there was a history of typhoid fever. These he divided into 3 classes; those in which there was a marked family-history of nervous disturbance, those in which there were infantile convulsions and in which the typhoid was probably only an accidental and exciting cause of the outbreak of epilepsy; and those in which there was entire absence of family-tendency toward nervous disturbance or personal history of any such conditions as infantile convulsions which might have been the cause of the epilepsy; in such cases it seems probable that typhoid fever was the cause of the disease. He reports in detail 4 cases of the latter variety. All of these cases had typhoid fever shortly before the outbreak of the epilepsy, and the fever had been severe in several, and accompanied by violent delirium which was usually protracted. Dide believes that **typhoid may cause an outbreak of epilepsy** in various ways. It may act simply as an accidental exciting cause in those predisposed by hereditary influence; it may have the same etiologic role in those predisposed by infantile affections, such as convulsions; or in a certain number of cases it does of itself cause the disease, probably from the effect of toxins. [D.L.E.]

5.—The case of **cerebral concussion** reported occurred in a farmer, 45 years of age, who was admitted in coma. He had suffered a fall while in entire health, though no one had seen the accident; he fell into coma, which was broken by periods of violent delirium; his head was straight, the eyelids closed; the pupils contracted and immobile (morphia had been given previously) the eyes were not deviated; consciousness was entirely lost, the respiration was irregular and stertorous, the temperature slightly elevated, and the pulse 90 per minute; the urine was normal. Occasionally he cried out in a wild manner and made striking gestures with his hands; these symptoms came on repeatedly in the form of crises. He was bled, given purgative enemas, and ices placed upon the head. Death occurred on the following day, and the postmortem examination showed an entire absence of fracture of the skull or of hemorrhage into the brain-tissue. There was a slight subcranial extravasation. No lesions were found in the nervous tissue or in the vegetative organs. The authors record a case previously reported by Demme in which the same form of coma-vigil, occasionally broken by frequent outcries and excitement, followed an injury to the head. Death from cerebral concussion is rare. [D.L E.]

Revue de Chirurgie.

February 10, 1899. [19me Année No. 2.]

1. The Permanent Results Following Gastroenterostomy. H. Hartmann and M. Soupault.
2. Forcible Reduction of the Deformity of Pott's Disease. P. Wiart.
3. Wounds of the Pericardium and Heart and Their Treatment. Ed. Loison.
4. Solid and Inflamed Cystic Tumors of the Mesentery. P. Bégouin.
5. Habitual Dislocation of the Metacarpo-phalangeal Joint of the Thumb. Ch. Féré.

1.—Hartmann and Soupault consider only those cases of dyspepsia to be suited for **gastroenterostomy** in which medical treatment has failed and in which the dyspepsia is accompanied by pain and other symptoms (*syndrome pylorique*) due to an obstruction at the pylorus. Stenoses due to benign growths are cured by operation with incredible rapidity. In the case of malignant growths death results from various causes; extension of the growth to the liver, the peritoneum and more rarely hemorrhages and perforations. The duration of life after the operation depends upon the general condition of the patient and the extent of the growth. In their own cases the shortest duration of life was 1½ months; the longest 18 months; and the average about 7 months. This is about the average shown by the statistics of all operators. After the operation the stomach usually returns to about its normal dimensions. In case dilatation persists it is usually due to the improper location of the opening into the intestine or a flexure of the intestine preventing the stomach from emptying itself, or the infiltration of the carcinoma prevents contraction. The new opening usually retains the gastric contents a suitable length of time. In 2 cases an exception to this rule was observed. The important functions of the stomach are usually somewhat interfered with: after methodic study of all their cases, a complete return to the normal has never been observed. The chemic secretion of the stomach is considerably altered; the quantity of liquid retained is diminished, and its acidity is reduced, the irritation of the glands by disease or operation causes, for a time, free secretion which diminishes little by little. Regurgitation of bile into the stomach is an extremely common occurrence; it was lacking in but a single case. Numerous operations have been proposed to prevent this reflex of bile. The most commonly practised is entero-enterostomy. Two cases were subjected to this supplementary operation, but bile was found present in the stomach 2 months after operation. In all cases constipation, which was present before the operation, disappeared after the operation and the stools were usually abundant and regular. Diarrhea has been frequently noted, in some cases reducing the strength of the patient and forming a grave complication. Five cases are reported in detail, in 4 of them anterior gastroenterostomy was performed; 3 of the operations were for carcinoma, one for cicatricial contraction of the pylorus and another for obstinate gastritis. [M.B.T.]

2.—Wiart gives abstracts from various sources of 45 cases of **forcible reduction** of the deformity of **Pott's disease.** In addition, 2 deaths are recorded from chloroform, 7 cases in which death rapidly followed the intervention, and 10 cases in which death resulted some weeks after the operation. He draws the conclusions that children about to be operated upon by this method should be in good general health and should have slight, if any, pulmonary lesions; old gibbosities which are solidly ankylosed should not be meddled with. In case of movable deformities in the process of development and in which the disease is slight, there appear to be perfect cures resulting. The older and more extensive deformities usually show slight, if any, improvement. [M.B.T.]

3.—Loison tabulates 90 cases of **wounds of the heart and pericardium,** in which the lesion was discovered during operation or at the necropsy. In 70 cases death occurred without intervention, 56 from internal hemorrhage, 12 from infection, and 2 from cerebral hemorrhage. The nature of the instrument causing the wound is reported in 78 cases; nearly all of them were penetrating wounds from small arms; 48 of them from a knife. The right ventricle was injured in 31 cases, the left ventricle in 26 cases, the right auricle in 6 cases, and the remaining cases were of the left auricle, great vessels, and unclassified. In 45.5% of the cases there was also a wound of the pleura, and in many of the other cases other organs were injured. Pericardotomy followed by tampon of gauze was practised in 3 cases, with cures in all. Eight pericardotomies followed by suture of pericardium were followed with 3 recoveries and 5 deaths.

In 5 cases in which wounds of the heart were sutured followed by packing or suture of the pericardium there were 2 cures and 3 deaths, one of them from an independent cause. The results of intervention thus seem to be favorable. The time intervening between the accident and death varies in different cases from some minutes to several hours. The clinical peculiarities of the various cases will be discussed in a continuation of the paper in the next number. [M.B.T.]

4.—In this continuation of his article upon **tumors of the mesentery,** Begouin concludes his discussion of the methods of operation. The main portion of the article is taken up, however, with an extensive bibliography and table of 57 operations for this form of tumor.

5.—Féré considers habitual dislocations of the metacarpophalangeal joint of the thumb from the etiologic standpoint. In 218 cases of insanity, feeblemindedness, dementia and epilepsy, he has found 43% of these luxations. Infantile hemiplegia and the other anomalies of development coincident with a frequent cause of the trouble. In the remaining cases the condition may be considered a stigma of degeneration. [M.B T.]

Sundry French Journals.

1. Hereditary Edematous Dystrophy. Henry Meige. (*Presse Méd.*, December 14, 1898. No. 102.)
2. The Role of the Liver in the Infections. H. Roger. (*Presse Méd.*, December 21, 1898. No. 104.)
3. Duodenal Malformations; Perivaterian Diverticula. Letulle. (*Presse Méd*, January 11, 1899, No. 3.)
4. Radiographic Studies on the Topography of the Internal Ear. Th. Guilloz and P. Jacques. (*Rev. Heb. de Laryngol. d'Otol., et de Rhinol.*, January 14, 1899. 20me Année, No. 2.)
5. The Cardiac Complications of Pregnancy and Their Treatment. M. Oui. (*Gaz. Heb. de Méd. et de Chirur.*, January 15, 1899. 46me Année, No. 5.)
6. Contribution to the Study of Arterial Lesions in Tuberculous Subjects. Challe. (*Paris Thesis*, 1899, No. 6.) (*Gaz. Heb. de Méd. et de Chirur.*, January 22, 1899. 46me Année, No. 7.)

1.—Meige reports the case of a girl, aged 17 years, and a domestic by occupation, who presented a condition of the right lower extremity that she called phlebitis. From the groin to the base of the toes the leg presented a **hard edema** that was painless, and that had persisted for 5 years. The development of the condition was gradual; it first appeared in the foot and increased upward. There was a difference of at least 10 cm. (about 4 inches) between the measurements of the right and left leg. All other parts of the patient's body were uninvolved and she possessed no evidence of organic disease, and hysteria could be excluded, although the right side of the body presented an hypoesthesia and the edematous leg was entirely anesthetic. The patient had a sister who, at the age of 13 years, began to develop a similar condition. The disease in the second patient involved both lower extremities; thigh, leg and foot; but at 5 different times this patient had suffered from attacks of pain, redness, and increased swelling of the edematous members. The mother of these girls, a woman 40 years of age, also had "big legs," that began in the same manner at the age of 13 years, and that affected only the legs. A boy in the family, aged 13 years, had shown for several months the beginning of the same condition. The swelling had first shown itself in the right foot and subsequently had involved the lower half of the leg. Inquiry into the family-history revealed the fact that the mother had had two brothers who were affected with the same hard, painless, white, and chronic edema. In both brothers the condition began at puberty; in one it involved both lower extremities; in the other both legs were the seat of the change. The maternal grandmother and the maternal great-grandfather of the two girls each presented the same condition in both lower extremities, below the knee. The edema appeared to be due neither to visceral disease, to traumatism, nor to compression; furthermore, it did not seem to be the result of infection, intoxication, dyscrasia, nor cachexia. The author suggests the name of **hereditary edematous dystrophy** for the condition. [J.M.S.]

2.—After reviewing some of the recent literature on the **role of the liver in the infections,** and after describing some of his own experiments that tend to throw light upon this subject, Roger concludes that the liver is capable of stopping and of destroying certain microorganisms, such as the anthrax-bacillus and the staphylococcus aureus, and that the protective action of the organ is increased or diminished by a number of conditions. Among the latter may be mentioned the unfavorable influence of inanition, and the good results following the use of sugar and of ether when given in small doses. Therapeutists have used alcoholic drinks for a long time in severe infections, and experimentation thus has revealed the method by which these substances increase the protecting power of the liver. [J.M.S.]

3.—Letulle reports 2 cases in which there was a blind pouch passing inward through the wall of the duodenum, in the neighborhood of the ampulla of Vater. He likens these perivaterian or **duodenal diverticula** to Meckel's diverticulum. [Meckel's diverticulum is the remains of the omphalomesenteric duct that connects the developing gut with the umbilical vesicle. We fail to see how these duodenal diverticula are similar to Meckel's diverticulum, although they may be specimens of Meckel's diverticulum itself. As is well known, this anomalous structure may be seen coming off from the duodenum. J.M.S.]

4.—Guilloz and Jacques have filled the internal ears of infants with a metallic mass and, by taking skiagraphs of the temporal bones, have succeeded in outlining the **topographic relations of the labyrinth.** [J.M S]

5.—Oui discusses the **cardiac complications of pregnancy and their treatment.** He gives the following guiding principles concerning the advisability of marriage and pregnancy in patients that are suffering from cardiac disease: If the cardiac muscle is healthy; if there has never been broken compensation; or if the patient lives in a condition that is favorable to rest, marriage and pregnancy may be authorized, although a lesion of one of the orifices of the heart exists. It is the duty of the physician, however, to inform the patient that if pregnancy occurs it will be necessary for her to place herself in such an environment that she may preserve her own life and that of her child, and that the necessary conditions for the accomplishment of this result should be prescribed by a physician. The patient should also be warned against the unhappy influence of too frequent pregnancies. On the other hand, it is necessary to advise against pregnancy in all those that have shown loss of compensation, however slight, particularly if such loss of compensation accompanies mitral stenosis; in those in which her social position does not allow the woman to take the necessary care of herself; and in those in which there is albuminuria, hepatic lesion, or pulmonary lesion. [J.M.S.]

6.—Challe has studied the **lesions of the arteries in tuberculous subjects.** These tuberculous lesions, very rare in the large vessels, are more common in the arterioles. It is possible to see in tuberculous subjects exempt from all diathesis capable of producing arterial change the phenomena of gangrene. These areas of gangrene are produced around arteries that may or may not present an altered intima by arterial thrombosis. In certain cases, the thrombosis indicates an associated infection, in other cases the bacteriologic examination has been negative and the cause of the condition has required further investigation. In a case under the observation of the author, he admits that there were arterial lesions in which the calcification only involved the media and in which he could not find detachment of the intima. In spite of this case, the intima of the vessels is frequently altered and, in some situations, the endarteritis is the most prominent part of the lesions that are not specific, but that aid in the production of thrombotic phenomena in tuberculous patients. Tubercles of the intima of the arteries are rare and have no clinical importance. Periarteritis of a tuberculous nature, on the other hand, is common and is seen most frequently in the meningeal vessels, where miliary aneurysms frequently develop as a direct result of the lesion. The arteries in the neighborhood of a tuberculous nodule are seldom attacked by arteritis or by thrombosis, the lesions of the vessels in such regions being nearly always of a destructive character. In cases of surgical tuberculosis destruction of the arteries may be observed to proceed from without inward and to be followed by grave or fatal hemorrhage. Clinically, tuberculosis of the arteries has no interest because of the slowness of its evolution and the slight amount of pain produced. [J.M.S.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.,

of Philadelphia.

Saline Solution in the Hemorrhage of Typhoid Fever.—(*Editorial—Lancet*, January 14, 1899.)—The value of saline injections in hemorrhage, and collapse from other causes is now well attested, though they are not, perhaps, so widely used as they ought to be. Not many cases of their use in hemorrhage occurring in typhoid fever have been published. In the *Intercolonial Medical Journal of Australasia* Dr. J. Ramsay relates the following case: A man, aged 46 years, had severe typhoid fever; the temperature was 104.2° F., and the pulse was 100. He passed 8 ounces of blood and on the following day 10 ounces, and a few more ounces with the stool. The temperature fell to 97.6°, the pulse was from 70 to 80, the respiration was sighing, and the skin was clammy. Brandy, strychnin, and digitalis were given without effect. The pulse became weaker and unconsciousness and lividity of the hands and ears supervened. He was practically moribund. Two pints of normal saline solution at 100° was injected into the median cephalic vein. Towards the end of the injection the pulse improved in volume and the general appearance became better. But the effect was only temporary. The patient was livid and lay with half-closed eyes, hiccoughing, vomiting and passing urine involuntarily. Four hours after the first injection 1½ pints of the solution were injected. Improvement again followed, which was more lasting. After this the fever ran the ordinary course, a relapse of 10 days' duration occurred, and he slowly convalesced.

W. M. Gabriel, writing in connection with this article (*Lancet*, January 21, 1899), points out that *rectal* injections of saline solution in such emergencies is not referred to. He tried this treatment with conspicuously good results in one case. A man, aged 31, had repeated attacks of severe intestinal hemorrhage in typhoid fever. The last left him apparently *in extremis*, with all the signs of immediately impending death from collapse. Other means having been exhausted, there was injected into the rectum a pint of hot saline solution, which had to be retained by artificial means owing to the contractility of the sphincter ani being suspended. After several minutes had elapsed a faint indication of radical pulse became perceptible and the sphincter shortly afterwards resumed its function. All other ordinary means were then adopted to aid reaction, but 6 hours later it was deemed advisable to repeat the rectal injection. The result was distinctly favorable. Recovery ensued. Mr. Gabriel refers to the advantages of this method over the more cumbrous intravenous injections. Saline injection is becoming the recognized method of treating dangerous hemorrhages and also (though less adequately recognized) puerperal convulsions. Yet while intravenous and subcutaneous injections have been recommended again and again, the value of rectal injections so much more easily administered and on the whole preferable, has escaped the notice of most writers.—*Medical Review of Reviews*, February, 1899.

Incontinence of Urine:

℞.—Tincture of lycopodium	2½ drams.
Compound tincture of cardamom	2½ drams.
Simple sirup	½ ounce.
Water, to make	2 ounces.

M. Sig.—One-half ounce every fourth hour.

Proctor Sims recommends:

℞.—Extract of belladonna	$\frac{1}{10}$ grain.
Camphor water	½ ounce.

To be taken 3 times a day.

—*British Medical Journal.*

The Introduction of Cocain Through the Unbroken Skin by Means of an Electric Current.—A. Lewis Jones (*The Clinical Journal*, March 8, 1899) states that the introduction of anesthesia locally by cocain introduced through the unbroken skin by electric osmosis has certain useful applications in minor surgery. For example, in the small electrolytic operations necessary for the removal of facial blemishes, such as moles, superfluous hairs, and small capillary nevi, this mode of sparing the patient pain without recourse to general anesthesia is very useful. It is much easier to produce anesthesia with a solution of cocain in guaiacol than it has been hitherto with watery solutions. He employs a solution of 6 grains of cocain (not the hydrochlorate) dissolved in a dram of guaiacol. If a little of this mixture upon a piece of blotting-paper be placed upon the skin and a current applied to it, anesthesia sufficient for the purposes indicated can be produced in about 4 or 5 minutes. The positive electrode should be placed on the blotting-paper. It should consist of a flat disc of bare metal of suitable size. Care must be taken that the metal does not touch the skin at any point. The current is then turned on until it reaches about 4 milliamperes for an electrode half an inch in diameter. At first from 10 to 15 cells are necessary to produce this current, for the solution has a high resistance, but soon conduction improves and the number of cells may be reduced. The action should not be prolonged for more than 4 or 5 minutes, since the solution itself is slightly caustic. Common sensation may not be entirely done away with, but the perception of pain is so nearly abolished that the patient will bear the introduction of a needle with calmness. Without claiming more than a little for this method of using cocain, the author concludes that in the kind of cases indicated it offers a means of saving the patient from a certain amount of pain, that he has found it certainly useful, and that he now employs it regularly.

Dysuria from Uric Acid.

℞.—Benzoic acid	5 grains.
Sodium borate	5 grains.
Water	1 fluidounce.

To be taken every two hours. —*Canada Lancet.*

Suppositories for Cystitis.

The *Gazzetta degli ospedali e delle cliniche* for January 31, attributes to Guyon the following suppository for subduing the pain of cystitis:

℞.—Extract of belladonna Extract of opium	of each 15 grains.
Iodoform	¾ grain.
Virgin wax	15 grains.
Cocoa butter	45 grains.

—*New York Medical Journal.*

A Few Observations on the Action of Hypodermic Injections of 2½% Solution of Sodium Cinnamate on Tuberculous Patients.—Lovtsky (*Vratch*, vol. xx, No. 1) emphasizes the well-established fact that the treatment of tuberculosis is mainly hygienic and dietetic. All attempts to kill the bacilli in the organism have met with signal failure, and the only thing left to do is to build up the tissues so as to enable them to fight off the diseased process by fibrous encapsulation of the already affected areas. However, there are many who cannot change their mode of life to any great extent, nor has the community, as yet, built any sanitariums for such patients. In these cases, reliance is to be placed mainly on drugs, and of these Peruvian balsam, or its active principle, cinnamylic acid and its salts, has been found by many competent observers to be the most efficacious. Their numerous observations led them to the following conclusions: (1) The treatment by sodium cinnamate has an invigorating influence on the vascular and nervous systems of the patient, improving digestion and sleep, stopping the night-sweats, and in general promoting a feeling of well-being. (2) By proper treatment, small and medium doses of sodium cinnamate are absolutely harmless. (3) Sodium cinnamate causes leukocytosis and inflammation, with subsequent formation of fibrous connective tissue around the tuberculous nests. It probably also aids in the elimination of the poison from the infected tissue, thus aiding it in overcoming the infectious process. (4) Incipient forms of tuberculosis of the lungs are apparently cured in a comparatively short time. (5) In treating patients with considerable infiltration but without cavities, the disease is not only improved for some time, but the local infection is limited. (6) Tuberculosis of the intestines is apparently also mitigated by sodium cinnamate. (7) Advanced forms of the disease do not respond to this treatment, but even in these cases the patient feels better and the night-sweats stop. The author, by the suggestion of Prof. Shapiro, has experimented with this drug in 8 cases of pulmonary tuberculosis, with results fully conforming to the above conclusions. Nearly all the patients gained in weight. The bacilli for a time disappeared from the sputum, reappearing in far lesser numbers. The sputum changed from purulent to mucous, and the cough diminished. All the patients remained, during the treatment, at their daily vocations, not changing their mode of life. The treatment was administered twice a week. The injection was made into the cellular tissue of the back, between the shoulder-blades. The initial dose was 1 division of a Pravaz syringe, gradually raised to 6. Distilled water was used in making the solution, and other antiseptic precautions rigidly observed.—*International Medical Magazine*, March, 1899.

Resorcin in Alopecia.

Brocq recommends the following methods of using this remedy in alopecia:

℞.—Resorcin	1½ grains.
Quinin hydrochlorate	3 grains.
Pure vaselin	1 ounce.

This is to be applied to that part of the scalp which is devoid of hair, or from which the hair is rapidly falling. If the falling of the hair persists, it is well to incorporate with it 5 to 15 minims of tincture of cantharides, or to use the following:

℞.—Resorcin	3 grains.
Quinin hydrochlorate	5 grains.
Precipitated sulphur	30 grains.
Pure vaselin	1 ounce.

Should these preparations produce much irritation of the scalp, an ointment composed of 20 grains of borax to 100 of vaselin should be applied. After the irritation is relieved, weaker preparations of resorcin and quinin can be employed, of which the following is an example:

℞.—Salicylic acid	5 grains.
Resorcin	3 grains.
Quinin hydrochlorate	5 grains.
Precipitated sulphur	30 grains.
Pure vaselin	1 ounce.

Should the falling of the hair be associated with seborrheic eczema, a mercurial ointment, such as that of yellow oxid of mercury, varying in strength from 1 in 25 to 1 in 10, according to the severity of the trouble, should be used. This is only to be rubbed upon isolated patches at a time. After it has been employed and an alterative effect upon the skin produced, resorcin may again be resorted to:

℞.—Resorcin	4 grains.
Salicylic acid	7 grains.
Pure vaselin	1 ounce.

When the scalp is excessively greasy, the ointment previously employed and the natural oil of the skin should be removed by washing the scalp with a weak solution of ammonium acetate or by using castile soap and warm water. Under no circumstances should the oily preparations be used continuously without occasional cleansing of the scalp.—*Practitioner.*

A Simple Method of Controlling Epistaxis.—Cornick (*Journal of the American Medical Association*, March 25, 1899) states that all that he has found necessary in controlling epistaxis has been to fashion with a pair of scissors a dry plug of prepared sponge, in size and length comparable to the little finger of a 12-years-old child. This should be carefully soaked in boiled water to free it of grit, squeezed dry to free it of unnecessary fluid, and inserted its full length, gently, along the floor of the bleeding nostril. No styptic is necessary, it would be needlessly irritant. The expansive pressure of the soft sponge against the bleeding site, increased by the coagulation of a few drops of blood in its interstices, will check the bleeding at once. It should be removed in 12 hours, and under no circumstances allowed to remain longer than 24. Melted vaselin containing .5% of carbolic acid, applied with a medicine-dropper in liberal quantities, is the only local treatment called for afterward.

Subcutaneous Injections of Olive Oil as a Substitute for Nourishment by the Mouth.—Rochemont (*Deutsches Archiv für klin. Med.*, Bd. lx., Heft 4 u. 5) has successfully employed subcutaneous injections of olive oil in cases where food could not be taken by the mouth. An insane subject, who refused nearly all nourishment, was given daily 5 ounces of olive oil subcutaneously; during the first 5 days he gained nearly 4 pounds, and in the following 5 days 2 pounds. A delirious phthisical subject, with diarrhea and tuberculous laryngitis, received from 2½ to 5 ounces of oil hypodermically daily, and although no food was given by the mouth, he gained nearly 8 pounds in 18 days. This method of using olive oil was first recommended by Leube and may be employed whenever there is an inability to take nourishment by the mouth. The author insists that the apparatus should be such that it can be thoroughly sterilized, and that the injections should be under as low a pressure as possible in order to avoid pain, and into a part covered with loose skin. In well nourished patients the oil is taken up very slowly, but in emaciated subjects absorption is complete within 2 or 3 days.

Diabetes Insipidus in Infants.

℞.—Quinin sulphate	6 grains.
Zinc sulphate	1½ grains.
Sugar	5 grains.

Sig.—To be divided into 10 powders, 5 to be taken daily.

℞.—Fowler's solution	of each 2½ drams.
Tincture of valerian	

Sig.—Five to 10 drops 3 times daily.

—Monti.

Belladonna in the Profuse Expectoration of Phthisis.—I have in a number of cases employed the tincture of belladonna in order to arrest secretion when this was in large amount and evidently coming chiefly from chronically inflamed tubes. Frequently this, unaided by any other drug, has proved of marked benefit, lessening the secretion considerably and speedily. Especially have I observed this action in children suffering from pneumonic phthisis or the later stage of bronchopneumonia; in them 10 to 15 minims every 4 hours has, in a few days, almost entirely removed numerous moist rales and, when the child has been old enough to expectorate, reduced the amount of the sputum to a minimum. I have not, however, generally found it efficacious in relieving any accompanying spasm. These remarks on the action of belladonna are in no way new, but only a confirmation of many which have previously been made.—Arthur Foxwell in *Essays in Heart and Lung Disease.*

Hemorrhoids.

Kossobudski recommends the following ointment:

℞.—Chrysarobin	12 grains.
Iodoform	5 grains.
Extract of belladonna	10 grains.
Vaselin	7 drams.

Seasickness.

Morel-Lavallée recommends the following mixture to control the vomiting of seasickness:

℞.—Menthol	1½ grains.
Cocain hydrochlorate	3 grains.
Alcohol	2 ounces.
Sirup	1 ounce.

Sig.—A teaspoonful every half hour. —*Practitioner.*

Injections of Gelatin in Aneurysm.—Moyer (*Medicine*, March, 1899) draws the following conclusions from a review of the literature: (1) Gelatin solutions are of some value in the treatment of saccular aneurysms; (2) they are of no value in diffused enlargements of a vessel; (3) the remedy is used empirically, the experimental work affording little or no basis for the treatment; (4) solutions not stronger than 1% should be used; (5) great care should be exercised in technic—failures in asepsis are easily made, as the fluid is a good culture-medium. The solution should be kept in a brood oven to determine bacterial growth; (6) there may be dangers in the treatment, but observations heretofore made are insufficient to indicate what they are; (7) absolute rest in bed should be enjoined, and other remedies suitable for these cases may be given at the same time; (8) it is not a cure for aneurysm, but may rank in the future as a treatment; (9) the method is worthy of more extended trial.

Original Articles.

THE RÖNTGEN-RAY DIAGNOSIS OF RENAL CALCULUS.[1]

By CHARLES LESTER LEONARD, A.M., M.D.,
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Although our knowledge of the etiology and symptomatology of renal disease has made great advances within recent years, there are many cases in which an absolute diagnosis is practically impossible. Those who have been called upon most frequently to make a differential diagnosis admit most freely that often they cannot establish a diagnosis because of the indefiniteness of the symptoms.

The classic symptoms of calculous nephritis are not always present, and, when apparently present, operation has frequently failed in detecting a calculus. The cases that are most easily diagnosed are those in which the patients have passed calculi at some previous time, while repeated urinary analyses show crystals of uric acid or calcium oxalate with an intermingling of blood, at times in large quantities, in microscopic quantities all the time. Renal colic has manifested itself in repeated attacks, while marked tenderness and constant pain are persistent symptoms that are increased by violent exertion or sudden jarring.

These symptoms are not always present, nor can the diagnosis be made with ease in all cases. Mr. Henry Morris said in his Hunterian Lectures of last year: "In many cases, however, mistakes in diagnosis are bound to arise. Morbid conditions other than stone will be found from time to time, in which the character of the pain and the state of the urine point to calculus as the probable cause."

The ease with which the symptoms of the different morbid conditions of the kidney may be confounded with calculous disease will be seen by glancing at their symptomatology, while the masking or absence of a symptom must increase the difficulty. Thus, in the early development of malignant or adenomatous disease, before the tumor can be detected, the clinical symptoms are pain referred to the diseased kidney and a recurring hematuria that is slight, yet has all the characteristics of the hematuria in calculous disease.

In the milder cases of hemorrhagic pyelitis red and white blood-cells are present in the urine. In the more severe forms the hemorrhage is more marked while the pain varies in intensity and is referred to one kidney. Operation in many of these instances of suspected calculous disease has shown that no calculi were present. The tissues of the kidney were not altered. The only pathologic change noted was a thickening of the mucous membrane of the pelvis and calices with an infiltration of cells in its stroma.

The presence of blood, pus, epithelium, and shreds of tissue are common to both calculous nephritis and tuberculous nephritis, while the symptoms of pain and tenderness on pressure in the area of the kidney vary in both from time to time. The only differential diagnostic point of real value is the presence of tubercle-bacilli in the urine. Their detection and recognition is often a matter of great difficulty and is sometimes impossible. In many other forms of pyelonephritis the symptoms are often so similar to those of calculous disease as to be very confusing.

In cases of movable kidney there may be severe paroxysms characterized by abdominal pain, chills, nausea, vomiting, fever, and collapse. Blood and pus may be present in the urine. When the amount of mobility is slight, the similarity of the symptomatology makes the differential diagnosis very difficult. We know, too, that the two conditions may exist in the same kidney at the same time, which adds to the complications. Mr. Morris says of such cases: "I have explored several cases in which the diagnosis was very doubtful, but the severity of the sufferings is so intense that the patients have willingly submitted to an operation. The exploration has proved the absence of a calculus, but has revealed a degree of mobility behind the peritoneum, in what I have designated a cinder-sifting manner, altogether out of proportion to any mobility detectable by clinical examination; in some of them no mobility whatever could be made out by bimanual abdominal palpation. In these cases complete relief has been obtained by nephropexy. In other cases I have found, instead of calculus, the kidney more or less displaced, and though little, if at all, movable, yet greatly engorged with venous blood, owing to distortion of the veins at the hilum. In other cases, again, the kidney has been swollen and congested with venous blood, obstructed by the pressure of tough and condensed perinephric cellular tissue."

There are many other conditions depending on a certain amount of mobility in the kidney, as when the ureter is sharply bent, that may produce many symptoms similar to calculous nephritis.

Ureteritis is a condition in which very little is known of either pathology or symptomatology. Judging from the symptoms produced by inflammation in other portions of the urinary tract, it is capable of producing symptoms and conditions that would simulate renal lithiasis. When its pathology and symptomatology are more clearly determined it will probably be found that the condition will account for many of the cases that are now classified as nephralgia or that are operated upon for calculi where none are found.

A case that may have been of this character, and that illustrates the impossibility of excluding calculus by ordinary diagnostic methods, was reported to the French

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[1] Read before the College of Physicians of Philadelphia, March 1, 1899.

Academy of Surgery by Le Dentu. The patient had had for 12 years what were apparently attacks of nephritic colic. The only symptom that was wanting was the presence of crystals of uric or other acids in the urine. These crises were frequent during 2 or 3 years and were modified by the use of mineral waters. After a period of apparent cure they recurred and had persisted during the past 6 years. It was during a particularly severe attack that it was considered best to make an exploratory nephrotomy, the symptoms seeming to indicate the presence of a calculus. None, however, was found, although the kidney presented marked external appearances of inflammation. This author concludes that there are cases purely medical in their nature, that so closely simulate calculous disease as to make the diagnosis impossible. He believes that exploratory operation is justifiable when the symptoms are particularly severe.

Legueu also reported before the same society a case in which there was apparently a severe nephritic colic in the left kidney. No calculus was found during the nephrotomy, but the operation afforded relief.

Such cases as these, reported by men of wide experience, fully conversant with the entire symptomatology of renal disease, show how easily mistakes can be made, and demonstrate most clearly the necessity of a more accurate diagnostic method.

There are also many conditions in organs outside the kidneys giving rise to symptoms that involve a differential diagnosis from calculous disease. This is especially true of the right kidney, which lies in close proximity to the liver, the ascending colon, the appendix, and, in the female, the ovary. A case reported by Tédenat serves as an illustration of these difficulties. He found the symptoms of pain and hemorrhage that were referred to the kidney, to have been produced by the pressure of an intestinal cancer upon the kidney.

The cases of renal disease that simulate calculus or some of those conditions outside of the kidney that might be confused with it, are not the only difficulties in the way of a differential diagnosis. There are cases of calculus in which there are no symptoms or in which the symptoms are referred to some other organ. It is in these cases of unsuspected calculus that the greatest danger lies for the patient. Mr. Henry Morris says of such cases: "If such silent, lurking calculi could be discovered and removed, many deaths from calculous anuria, much illness and suffering from perinephric abscesses and renal fistulæ and many kidneys undergoing atrophy and degeneration might be saved by well-timed operation."

Besides these there are cases of quiescent calculus—calculi that have made their presence known by a previous attack of renal colic, in which all the symptoms have subsided and the patient is in apparent health, although no calculus has been passed. There is no greater error than to tell such patients that there is nothing to be done, that the stone may pass of itself, and that the danger is past. So long as a calculus remains in the patient's kidney there is imminent danger. Calculous anuria may set in at any moment and be followed by death. It is impossible to tell what the condition is in the other kidney. The absolute positive or negative diagnosis should be made as soon as possible, and if a calculus is present it should be removed.

We know that there must be many cases in which impaction takes place, and after a series of attacks of nephritic colic, during which the calculus is pushed along through the ureter, it finally becomes quiescent. The intrapelvic pressure soon equalizes the intranephritic blood-pressure, the pain ceases, the kidney ceases to secrete, and finally undergoes atrophy and complete loss of function. That such cases occur without a correct diagnosis of the symptoms being made is certain by the numerous cases reported in which, after anuria, both kidneys have been found totally destroyed by calculous impaction, also by the cases so frequently met with in postmortem examinations. Many of the cases "cured" by medicinal treatment may find their explanation in this condition, and many quiescent calculi may owe their quiescence to their impaction in the ureter and the total destruction of the function of the kidney in which they originated. Thus the danger of anuria from the formation or presence of calculi in the other kidney, and their impaction, is increased, for one kidney is already destroyed. It is easy to appreciate from these considerations how dangerous it is to allow a case of calculus, no matter how quiescent or how completely the symptoms may have been relieved, to go undiagnosed and untreated by the removal of the calculus.

The profession now possesses the means of making such diagnoses. The presence or absence of all calculi can be fully established and their exact location in the ureter determined. Is it right to allow a patient to run the risks of the total destruction of one kidney because it is believed that the cessation of symptoms means a cure? It might have been when there was no absolute method of diagnosis and when operation was attended by a high mortality. The surgeon now can make the diagnosis, and it has been shown that exploratory nephrotomy and early nephrolithotomy have no greater mortality than litholapaxy. The indications therefore for operation are very evident. There is no need to wait for complete anuria. Effort should be made to prevent the destruction of the first kidney attacked while the other is yet fully capable of carrying on its doubled duties.

Exploratory nephrotomy has been one of the most valuable aids in these obscure cases, and by it we have gained much valuable information in regard to the conditions that simulate calculous disease. The frequency with which it has been resorted to by the best diagnosticians shows the need of an absolute method of diagnosis.

Such are some of the difficulties that surround the differential diagnosis of renal calculus. We have seen how the condition is imitated by other pathologic processes, and how calculi grow within the kidney without giving rise to the classic symptoms, utterly destroying its functional activity before they are recognized. We find that clinical experience has demonstrated the need of early absolute diagnosis and speedy operation, and yet we find that the symptoms are not clearly enough defined in many instances to make this possible. It is at such an opportune time that the absolute positive and negative diagnosis of renal calculus by means of the Röntgen-ray has been placed in our hands. Those who understood the difficulties and knew the value of an early diagnosis hoped when Röntgen's discovery was announced that this method might make the diagnosis of renal calculus easy.

In early experimentation, only the more opaque forms of calculi could be detected by the rays then capable of penetrating the lumbar region, since the calculi were found to vary in their relative opacity and the less opaque were readily penetrated. The positive diagnosis was thus the only one that was valuable.

During some studies of the value of the different qualities of Röntgen discharge I found that rays given out by what is now termed a "soft" tube would produce a contrast in the shadows of the less dense tissues, such as muscular, tendinous, and adipose tissues. From these experiments it was concluded that if a sufficient volume of low-vacuum discharge could be obtained it would be possible to penetrate the lumbar region and differentiate between all forms of calculi and the surrounding tissues.

The invention and development of the self-regulating x-ray tube by H. Lyman Sayen, of this city, made possible the production and maintenance of the necessary volume of discharge in a low vacuum. This would be impossible with any other than a self-regulating tube, unless it was connected with an air-pump while in operation; for the vacuum is gradually raised by the discharge through the tube, so that the rays emitted later will penetrate the less opaque calculi and destroy their shadows.

This makes the technic of this method of diagnosis difficult. An exposure that is too long, or with a quality of Röntgen-ray that is too penetrating, will destroy the detail of the lesser densities in the negative and make an imperfect diagnosis. With too short an exposure or too "soft" a tube the differentiation is not sufficient. It is, therefore, necessary to adapt the light and exposure to the individual case. As the shadows produced vary so slightly in their densities great care must be exercised in reading the negative. All, however, that is essential to the absolute positive or negative diagnosis are 2 or 3 negatives in which the detail of the softer structures is clearly defined. When the outline of the kidney can be readily made out, it is certain that no form of calculus can escape detection. We thus see that it is not only possible to detect calculi that are present, but also to demonstrate the absence of all calculi no matter what their density. This is the step that has made this method of diagnosis of the greatest value where renal calculi are suspected.

That such definition and detail are possible and that an absolute positive or negative diagnosis can be secured in all cases has been proved by clinical experience. In all of the 21 cases which have been studied since an absolute diagnosis was found practicable, the outline of the kidney itself has been demonstrated in the negatives, thus making it certain that no calculus could have escaped.

Of these 21 cases, 11 were subsequently operated upon, with an absolute confirmation of the diagnosis in each instance. In 6 of the cases calculi were diagnosed and the diagnosis was confirmed in all its details by the operation. Multiple calculi were found in 3 cases, while in one, calculi were present in both kidneys.

The practical value of this method of diagnosis, outside of the absolute knowledge of the presence of the calculi, was very manifest in these cases. Where multiple calculi were present the detail regarding their number and relative position was very valuable, as in two instances the surgeon under other circumstances would have been satisfied with the removal of one calculus. In one case the second calculus was completely encysted, while in the other the calculi were in a deep diverticulum of the inferior calix, beyond the reach of the exploring finger when passed through the first incision, and were only found through a second incision in the cortex based on the data obtained from the skiagraph.

In another case the calculus was quiescent and almost unsuspected, the only symptoms being a slight amount of pus and albumin and an indefinite intermittent pain in the lumbar region. The presence of a small calculus was shown by a series of skiagraphs, and the operation, based upon the Röntgen-ray diagnosis, demonstrated its correctness.

In two other cases the positiveness of the diagnosis was of great value. It encouraged the operator in a persistent search that was rewarded by the removal of small calculi that might have been overlooked.

The case in which calculi were discovered in both kidneys is of great interest. In regard to such cases Henry Morris says: "In several of the fatal cases in my list of nephrotomy and nephrectomy for stone, the opposite kidney has been proved, by postmortem examination, to be disorganized by unsuspected calculus."

The frequency with which such cases occur both in clinical work and postmortem examinations shows how necessary is a method of diagnosis that can determine beforehand the condition, as regards calculus, of both kidneys. The very nature of renal lithiasis makes it highly probable that both kidneys are frequently inolved. The only solution so far advanced is the xploratory incision of both kidneys. The Röntgen-ay diagnosis would seem to be a most efficient means f determining this vital point, and also of determining he presence or absence of impacted calculi in the reter.

The great value of the Röntgen-ray method of diagosis is in the possibility of detecting these calculi in heir incipiency. Henry Morris has shown, by the tatistics of his operations, that the advantages of an arly diagnosis and operation are very great. His tatistics are: Nephrolithotomy (or early operation), ortality, 2.9%; nephrotomy, 23.25%; nephrectomy, 9.4%.

The value of early operation before the kidney has ecome disorganized, before its function has been parially or totally destroyed, and before infection and supuration have set in, is clearly demonstrated by these tatistics. In addition, where the calculi are small, quiesent, or just suspected, the danger of impaction and onsequent anuria is guarded against, while early operaion, before a pyelonephritis is present, will avoid the angers and annoyance of a suppurating urinary fistula uch as frequently follows late operation.

The detection of unsuspected calculi is a great field, n which the value of this method can find no better xpression than the words already quoted: "If such ilent, lurking calculi could be discovered and removed, any deaths from calculous anuria, much illness and uffering from perinephric abscesses and renal fistuæ, and many kidneys gradually undergoing atrophy nd disorganization might be saved by well-timed peration." These calculi *can* be discovered.

The value of such an absolute diagnosis in cases of alculous anuria cannot be overestimated. In these ases we have the ureter or the pelvis of the kidney locked by a small calculus, while the second kidney s absent, atrophied, or its functional activity has been reviously destroyed. The condition of the patient has o bearing in these cases, the attack comes on suddenly nd with severe symptoms. The entire functional acivity of the kidneys has been abolished. Acute pain ay be experienced from the outset, but (and here is ne of the difficulties in the way of a diagnosis) it may nly last a day or two, or it may be that no symptom f pain and no previous history of renal colic can be btained to guide the surgeon in determining which idney to operate upon. Pain localized in one kidney ay be a misleading guide, as was shown in the case eported by M. Léonte, who operated in a case of anuria here there was marked pain and colic referred to the ight kidney. The patient died and the autopsy showed calculus impacted in the left ureter. In such cases he application of the Röntgen-rays will show the exact ocation of the calculus and determine the seat of peration.

The localization of the exact point of the obstruction is one of the greatest difficulties in the way of successful operation in these cases. If the calculus is impacted in the ureter the only method of detecting it is by direct palpation either through the rectum, vagina, or the abdominal wall. These methods are very unsatisfactory and it is usually necessary to operate upon the kidney and explore the ureter by retrograde catheterization.

The value of the precise localization is, therefore, very manifest, as the whole operation can be planned before it is commenced and confined to the ureter alone if the impaction is there.

The advantages of the Röntgen-ray method of diagnosis in cases of renal calculus, as demonstrated by clinical experience, are: Its absolute accuracy, positiveness and comprehensiveness; its freedom from pain, shock, and danger; and, in addition, all the advantages that accrue from an early absolute diagnosis. Completeness of operation is assured by the detail which it gives, while the operation is facilitated in its execution. The negative diagnosis will frequently render operative interference unnecessary and save the patient the risk and annoyance of an exploratory operation. The positive knowledge it gives regarding the presence of calculi in one or both kidneys makes operation upon the wrong kidney impossible and gives warning of the danger when both kidneys are involved. Its value is therefore evident in all classes of cases—when there is but a suspicion it saves the patient from the menace of anuria; when the calculi are known to be present it gives their absolute location and number; and when no calculi are present it saves the patient the risks of an exploratory nephrotomy. It consequently has indications for all classes of cases and offers a solution for the diagnostic difficulties surrounding calculous nephritis. The diagnosis it affords is absolute, both positively and negatively, and has the advantages of mathematic accuracy.

THE MEDICAL EXPERT'S DUTY AND WHERE HE MOST FREQUENTLY FAILS IN IT, WITH ILLUSTRATIONS FROM THE ZELNER CASE.

By JOHN V. SHOEMAKER, M.D., LL.D.,

of Philadelphia.

Even to the ordinary nonexpert and nonprofessional observer it is very obvious that, at the present time, there is something seriously remiss with the medical expert. Why is it that his opinion has come to have so little weight with the court and jury and is so generally discredited by the public? What possible warrant is there, for instance, for this charge against the professional expert, grave in its implication, made by Judge Davis of the Maine Supreme Court: "If there is any kind of testimony that is not only of no value, but even worse than that, it is, in my judgment, that of the medical expert"? A partial explanation, by no means, however, complimentary, was given by Chief Justice Chapman, of Massachusetts, who said: "I think the opinions of experts are not nearly so highly regarded as they formerly were; for, while they often afford great aid in determining facts, it often happens that experts can be found to testify to any theory, however absurd." Justice Grier, of the United States Supreme Court, has also publicly stated that "Experience has shown that opposite opinions, of persons professing to be experts, may be obtained to any amount."

It must be that there is some grave dereliction of duty on the part of individuals appearing before the courts of justice in the capacity of medical experts, to give occasion for statements from the bench which reflect so directly and seriously upon the credibility and value of their testimony and indirectly upon the whole medical profession. Let us inquire very briefly as to the duty of the medical expert.

It is the theory, and should be the practice, that the medical expert is called in as amicus curiæ, a friend of the court, to facilitate the attainment of the ends of justice. He is brought into court, in the first place, to elucidate by his explanations technical points connected with his profession which otherwise would be obscure and which might escape comprehension by court or jury; and, secondly, to carefully formulate and express an opinion, based upon his skilled knowledge, upon hypothetic cases submitted to him upon the witness-stand. The medical expert should always keep in mind the wise admonition of Taylor.[1] "In reference to *facts*, a medical witness must bear in mind that he should not allow his testimony to be influenced by the consequences that may follow from his statement of them, or their probable effect on any case which is under trial. In reference to *opinions*, their possible influence on the fate of a prisoner should inspire caution in forming them; but when once formed they should be honestly and candidly stated without reference to consequences." . . . "The questions put on either side should receive direct answers from the medical witness, and his manner should not be perceptibly different whether he is replying to a question put by counsel, for the prosecution or the defense. The replies should be made in simple language, free from technicality."

Having briefly summarized his duties, let us inquire as to the points upon which the medical expert is often remiss. The first and most glaring fault that the medical expert can commit is to permit himself to form a positive opinion as to the general merits of the case or as to the guilt of a prisoner, and to allow his bias, consciously or unconsciously, to influence his testimony. A second fault, somewhat similar to the first, is the forming of a judgment upon very insufficient grounds and expressing positive convictions upon doubtful points, thereby possibly lending the weight of his personal authority to support error. A third fault is want of scientific accuracy in his definitions and explanations to the court, and the use of technical terms without explaining them in simple language. A fourth fault is in making rash and unguarded statements in reply to questions which require deliberation in order to be answered properly. A fifth fault is in attempting to reply to questions which have not been properly framed, or which are improper in themselves and should not have been asked of him at all.

A recent trial before the criminal court of this city has again directed attention to the lamentable differences of opinion among those who were called upon to testify as medical experts, and has led many, both in and out of the medical profession, to wish that some arrangement might be devised by which the ends of justice might be attained with less display of differences among doctors. The old question "Quis custodiet ipsos custodes" may be well asked, when authors of text-books and teachers of therapeutics fail to agree upon such simple questions as the diagnosis of strychnin-poisoning and the toxic dose of this well-known alkaloid. In the PHILADELPHIA MEDICAL JOURNAL, Professor H. G. Wood, one of the witnesses for the prosecution in the case referred to,—the Zelner case, in which a widow was under trial for causing the death of her husband and was acquitted—has contributed an article in which he expresses his opinion that in this instance there has been a gross miscarriage of justice, and declares that the fault lies at the door of the legal profession and the community. He insists that very radical changes must be made in the system now followed in all our criminal courts, upon whom he lays the blame for "the greatest blot upon American civilization, the extraordinary number of homicides in the United States." In his distribution of censure he omitted, inadvertently no doubt, to discuss the question whether or not the medical expert himself might not be somewhat at fault. The present communication takes up this side of the question, without intending, however, that it shall be entirely personal in its application, although it will be necessary to refer specifically to Dr. Wood's testimony, in illustration of some of the points that will arise in the progress of the discussion of the salient features of the medical expert testimony in the trial of Mrs. Zelner.

The stenographer's official report of the cross-examination contains some remarkable statements, which deserve to go on record among the curiosities of medico-legal literature. It will not be unprofitable to review a part of the testimony in illustration of some of the faults enumerated.

The following extracts are taken verbatim from the testimony of the medical experts. Dr. Marshall was not quite accurate when he defined the "ptomain" of tetanus (page 156[2]) as "a ptomain that results from the e of the tetanus bacterium.” In his reply to the estion, “Will not the ptomains that arise (in the dy), the cadaveric ptomains, many of them produce asms of lockjaw?” He said, “I know of none except e tetanus-ptomain.” As a matter of fact the tetanus- ison is not a ptomain at all, but a specific nuclein or xin, having little in common with cadaveric alka- ds. The question was also asked of Dr. Marshall, s it not a fact that the same colors and the same actions that you have described here may be the sult of contact with ptomains,” to which Dr. Marshall plied, “No, sir;” and when asked if he was positive out that, he responded, “Yes.” But he should also ve informed the court that Ciacci[3] and others declare at there is a ptomain like strychnin, “which re- mbles strychnin in color-test to sulphuric acid and tassium bichromate.”[4] Halliburton (Physiological d Pathological Chemistry) says that “there is, so far at present known, no class-reaction by which alka- ids of animal can be separated from those of vege- ble origin.”

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[1] A Manual of Medical Jurisprudence, by Alfred Swaine Taylor. Eighth American Edition by John J. Reese, M.D. Philadelphia, 1880. Pages 48 and 54.

[2] This number refers to the page of the stenographer's court report.

Dr. Marshall further testified (page 165) that the tal quantity of alleged strychnin found in the tissues 015 gr.) “is consistent with the administration of a xic dose and inconsistent with the administration of medicinal dose,” and yet some therapeutists have ministered larger doses. Pereira (Materia Medica, l. ii, p. 548) reports a case of a Swede, who was ven $\frac{1}{8}$ grain of strychnin 3 times a day for several eeks. “The dose was then increased to $\frac{1}{4}$ grain, and terward to $\frac{1}{2}$ grain, with the same frequency, for any days without any marked effect.” He finally ed, however, of a strychnin-asphyxia.[5] Dr. Marshall so made the remarkable statement that when strych- n is referred to in the text-books, strychnin sulphate usually meant. “That is, among physicians, if a ysician speaks of strychnin, he means strychnin lphate” (page 166). And this in spite of the fact at we have such a thing as a United States Pharma- peia, which defines strychnina as strychnin, and in ich both strychnina and strychninæ sulphas are ficinal. Certainly no reputable physician, in writing prescription, is in the habit of ordering “strychnin” hen he means “strychnin sulphate.”

The total quantity of the substance which Dr. arshall obtained from about 10 pounds of muscular sue taken from the thighs and a portion of the brain, d which he positively declared was strychnin, nounted to only .0296 G. (nearly .03 or $\frac{1}{34}$ grain). Mr. obinson, from a larger quantity of material, extracted ough to make it amount to $\frac{1}{4}$-grain altogether. The tter gentleman stated that he had also found in e stomach and intestines another $\frac{1}{4}$-grain, so that the two chemists working on about 20 pounds of tissues from Reuben Zelner's body, assert that they detected about $\frac{1}{4}$-grain of absorbed strychnin, besides about $\frac{1}{4}$-grain of strychnin in the intestinal tract which had not been absorbed (and consequently had not caused any toxic effects).

The Coroner's medical examiner, Dr. Cattell, testified that he had personally never witnessed a case of strychnin-poisoning and was not familiar with the symptoms; and also that he had found lesions in the brain, which, “if in larger number, might have caused death” and yet, which he “did not think” could have been the cause of death. Nevertheless, he was willing to swear positively, after having been informed of the results of the analysis made by Dr. Marshall and Mr. Robinson, that the condition found “was not consistent with death from natural causes” (page 202) and that “Reuben Zelner died from the effects of strychnin-poisoning” (page 204). At the same time he refused to declare that there were no ruptures of the brain or its membranes; he would only say that he “did not see any.” He admitted, however, that there were lesions of the spinal cord (page 206) which he could see with the naked eye, and congestion of the bloodvessels (page 207).

When asked by the court if this condition of the spinal cord, when taken in connection with the lesions found in the brain, could in any case have caused death, Dr. Cattell said, “I can't answer that question.” And then he explained his inability on the ground that “it is too indefinite” (page 208). This answer concluded his testimony and left the court with a reasonable doubt as to the cause of death, and discredited his former positive statement that death was caused by strychnin and by nothing else.

Dr. Horatio C. Wood was placed upon the stand and was asked if he had read the testimony of Sergeant Hoffman and had heard the testimony of the two chemists, Dr. Marshall and Mr. Robinson, and also the testimony with regard to the negative results of the postmortem examination; and, on his reply being affirmative, he was further asked by the District Attorney the following question: “Taking all these into account, what do you say was the cause of death of Reuben Zelner?” His reply was given without a moment's hesitation, “My opinion is that the death was due to strychnin-poisoning. The cause of death was strychnia.”

With due respect, it may be submitted that the District Attorney should not have asked, and Dr. Wood should not have answered, this question. Dr. Wood should have demanded that a hypothetic case should be submitted for his opinion, and his reply should have been (unless he changed his mind), “My opinion is that in the hypothetic case submitted to me, the cause of death was most probably strychnin-poisoning.” The testimony at most could only establish a strong proba-

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Vaughan and Novy, Ptomains, Leukomains, Toxins, and Antitoxins. Phila- lphia, 1896. Page 539 et al. [4] Also see Farquharson on the “Medico-legal portance of Ptomains,” *The Journal of State Medicine*, London, January, 1893. uoted by Wormley. Microchemistry of Poisons (page 548). Philadelphia, 5.

bility and not an absolute certainty. There were not sufficient facts in the evidence submitted to make it clear enough to warrant the expression of a positive opinion as to the cause of death. The only witness who testified to the clinical symptoms gave testimony which, both positively and negatively, was opposed to the theory of death as the result of strychnin-poisoning. Sergeant Hoffman did not give in his graphic recital the characteristic and classical symptoms of strychnin-poisoning. He said nothing about convulsions until he was interrupted by the District Attorney, who suggested the words "convulsive and rigid," whereupon he replied, "Yes," and then continued his account, which showed that he had no apprehension of a fatal result, and said that he considered it an ordinary case of cramps, until Zelner "turned his face to the right and he says 'dying,' he straightened out and was dead." How can any unprejudiced mind see any analogy here to the violent convulsive spasms which accompany strychnin-poisoning? Zelner simply straightened out, or stretched himself out, in his death agony,—no convulsions of muscles, no locking of the jaw, no lividity of the face.

One fallacy appeared in the evidence that, in passing, invites examination. Without commenting upon the fact that Dr. Wood added together the amount of alleged alkaloid extracted from the tissues and that which had *not* entered the tissues but was found in the stomach, in order to make an amount large enough to approximate what he fixed as the toxic dose of strychnin (one-half grain), let us proceed to examine his statement that "the minimum dose of strychnia that has taken life in the adult is from $\frac{1}{3}$ to $\frac{1}{2}$ grain." . . . "So that there was present without doubt more than the minimum fatal dose of strychnia in the body of Mr. Zelner." The fallacy here consisted in assuming that the minimum fatal dose, or something near it, would necessarily be fatal in the case under discussion. Why did not Dr. Wood inform the Court that strychnin has been given medicinally in doses of $\frac{1}{4}$ and $\frac{1}{2}$ grain, without producing death, and that in a recent issue of the *Therapeutic Gazette* he had himself advised the administration of $\frac{1}{2}$ grain of strychnin sulphate at a dose? Dr. H. G. Thomas, of Alliance, O., reported a case in which a man swallowed 5 grains of strychnin, and one hour and three-quarters elapsed before any symptoms manifested themselves, and yet, under the use of emetics, the patient recovered. Dr. T. Anderson has also reported a case of a man who took 7 grains in 2 doses, 5 hours apart and entirely recovered. (*American Journal Medical Sciences*, 1848, page 562).[6]

In Dr. Wood's own work on Therapeutics, he mentions cases where 10, 20, and, in one instance, even 22 grains of strychnin have been swallowed and yet failed to cause death.[7] Moreover, the statement of Dr. Wood that strychnin, when taken in medicinal doses, does no accumulate in the system, must not be taken too absolutely, as it is a rule with exceptions. Dr. Wormley, a former colleague of Dr. Wood's, said that "This resul has occasionally been observed" and gives an illustrative case.[8]

When asked if the phenomena might not have been due to poisoning by ptomains Dr. Wood replied (page 222), "Ptomain-poisons don't act like strychnia upon the bloodpressure. The whole question of ptomain-poisoning, I may say, is a very recondite, hidden one with a very great deal of difference of opinion even as to their existence in the profession; but they are usually very typical, producing gastrointestinal irritation, with lower bloodpressure, more or less fever and exhaustion, with or without convulsions. Ptomain-poisoning does not produce an abrupt death, a straightening-out, which was described in this man; which I have never seen in anything but strychnia-poisoning, and which I cannot conceive of as coming from anything but strychnia or tetanus."

Is there not some recklessness of speech in such statements? Dr. Wood may not be fully posted as to what is going on in other departments at the University than his own, but he should know that all the principal medical colleges in Pennsylvania include in their teaching to the students some positive instruction on the subject of ptomain-poisoning, which is by no means a "recondite, hidden one" at the present day. McFarland's *Text-Book upon the Pathogenic Bacteria* (Philadelphia, 1898), which is received as an authority and recommended to students by the faculty, has on page 78 a very clear statement as to the nature of these putrefactive alkaloids, and named a number of them, which are now recognized by those familiar with the subject. It is not true that there is "a very great deal of difference of opinion, even as to their existence, in the profession," if we mean by this term the portion of the profession which is informed upon the subject, and whose opinion alone should have any weight in a court of justice.

Experiments made by Laborde upon a substance extracted from the spleen of an ox showed that it possessed decided toxic properties, "bringing on a dyspneic condition with convulsive movements and loss of motion." (Vaughan and Novy, *Ptomains, Leukomains, Toxins and Antitoxins*. Philadelphia, 1896. Page 539.)

Ptomains giving reactions similar to those of strychnin and also causing tetanic spasms, have been found in dead bodies by Selmi and others (Vaughan and Novy, page 284). A few milligrams of one of these ptomains injected under the skin of frogs "caused instantaneous death."

When more specifically questioned as to the cause of death, Dr. Wood replied categorically to questions as follows:

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[6] Quoted from Wormley's Micro-Chemistry of Poison. Phila., 1885. P. 546.

[7] Wood's Therapeutics, Its Principles and Practice, 9th edition. Philadelphia, 1896. Page 546.

[8] *Loc. cit.*, page 548.

(Page 231.) *Q.* In this case what would you say was the cause of death?

A. Cramp asphyxia.

Q. Explain what that means.

A. It means that the spasm of the muscles of the trunk ets the trunk in a rigid cast so there can be no movement of nspiration or expiration and no air comes in and out of the ungs, and the patient dies.

(Page 232.) *Q.* Does he die from want of air?

A. No, sir; there is plenty of air there; he dies from inability to get air in.

Q. And to get air out?

A. Yes, sir.

Q. He cannot respire at all?

A. No, sir; he cannot move his chest.

And yet Officer Hoffman swore that this man who, according to Dr. Wood could "not move his chest," and who died "from inability to get air in," conversed with his attendants and uttered complaints up to the very moment of dissolution!

The learned judge permitted the question to be asked, "whether or not such a condition of brain as that (which Dr. Cattell had described) would be found in a case of strychnia-poisoning." Dr. Wood replied, "Any vio-ent continuing convulsion, putting an enormous strain and pressure on the bloodvessels, may give rise to little ruptures of the bloodvessels, and there may escape into mucous membranes of various character minute spots of blood, and they may give rise also to trouble in nerve-tissue; in forcing out as fluid some of its watery parts, and so, while the existence of ecchymoses, or the existence of watery exudation, does not prove that a patient had died of strychnia-poisoning; and while heir absence does not prove that the case was not trychnia-poisoning, they may be present; they are an accident secondary to the poisoning, shifting, sometimes present, sometimes not."

The coroner's physician, as has already been stated, admitted that lesions in the brain in the case of Reuben Zelner might have existed, and yet have been overooked by him, on account of his neglect to use all the means at his command to determine whether they were present or absent. Dr. Cattell, when asked whether or not death might result from such microscopic lesions of the brain, testified at first that he did not know; and then, correcting himself, declared positively, "I say death might occur from such lesions" (page 201). This admission that the cause of death had not been positively established, and that a more careful examinaion of the brain might have revealed lesions which might have been the cause of death, left the whole question in doubt and broke the back of the case of the Commonwealth. This is more particularly evident when the statement is taken in conjunction with the econd admission of the coroner's physician, that he did find a lesion of the brain, "a slight edema" (page 204), and "a fluid which leaked out of the bloodvesels," and his confession, when in reply to the question, "Wouldn't such fluid leaking out of the bloodvessels cause death?" that "it might." The amount of edema, or effusion, amounting to 15 cc., "or perhaps half an ounce," according to this authority, did not cause death, "because it was not sufficient;" however, "if in sufficient quantity, it might cause death."

Collating the evidence of Dr. Wood and Dr. Cattell upon the subject of the condition of the brain and spinal cord, the edema and serous effusion—what is commonly known as "serous apoplexy"—it appears that *if it had been caused by strychnin-poisoning it must have been the consequence of* [in the words of Dr. Wood] "*violent continuing convulsions, putting an enormous strain and pressure on the bloodvessels.*" Now it is very clear that the prosecution produced not a scintilla of evidence that such "violent continued convulsion, putting enormous strain on the bloodvessels" had been observed during life. If Reuben Zelner's features had been livid and turgid with blood, would not this fact have struck even an unprofessional observer? If he had been black in the face, would not the friendly policeman have been impressed by it? If there had been "violent, continuing convulsions," would not the bystanders have commented upon the fact? It is very significant that Officer Hoffman said not a word about convulsions, violent or otherwise. In fact, convulsions, although the keystone of the arch of the theory of strychnin-poisoning, would not have appeared in the testimony at all, had not the attorney for the Commonwealth put the words in the witness's mouth by a leading question, and although the witness answered "yes," it is doubtful if he fully comprehended the sinister significance of the question. Further examination of this man (who was the only witness of the symptoms prior to death that the Commonwealth relied upon to bolster up the theory of the medical experts that the symptoms were produced by the toxic action of strychnia) developed nothing to sustain this theory, but on the contrary he swore that there was no sardonic grin and no lividity of the face, and other symptoms usually present in strychnia-poisoning. The only clinical fact elicited by the Commonwealth in support of the theory of strychnin-poisoning was cramps in the legs, unless the statement that "he straightened out and was dead" might, in the mind of the medical expert, become transformed into "violent, continued convulsions" which would be required, according to Dr. Wood's testimony, to account for the existence of the brain-lesions found by Dr. Cattell, which Dr. Cattell swore might have caused death, but did not because there were a few cubic centimeters less of the fluid in the brain than he considered requisite to produce the fatal result.

And it was on testimony such as this that the prosecuting attorney relied to convict, on otherwise purely circumstantial evidence, a poor woman of one of the most serious crimes known to criminal law! The learned judge certainly showed great restraint in simply directing the jury that no case had been made out and that it was their duty to acquit the defendant without leaving the box, instead of expressing his just indignation that a woman's character should have been assailed and a human life should have been put in jeopardy on such flimsy grounds.

In the article published in the Philadelphia Medical Journal, February 18, 1899, upon the Zelner case, Dr. Wood alludes freely to the "lust for gold," and intimates that the medical witnesses for the defense were animated by mere mercenary motives. In reference to this particular case the most direct rebuttal that could be made to the implied charge is contained in the following letter, which I submit from the defendant's counsel:

My Dear Sir:—I have read Dr. Wood's article on the Zelner case in the Philadelphia Medical Journal of February 18, 1899, and I note these statements, "From doctor to doctor with a large fee in hand, the counsel goes, until at last a man is found who is willing to give the opinion that is wished." . . . . "Dr. Hobart A. Hare was consulted by the attorneys for the defense, but gave the positive opinion that the case was one of strychnin-poisoning, and consequently he was not called upon to testify." It is the fact that Dr. Hare was consulted by one of my colleagues solely at your request as to his ability to qualify as an expert for the defense. No *positive* or any other opinion was given by him that the case was one of strychnin-poisoning. His sole reason for declining to act as an expert was, "I would not care to take the stand as opposed to Dr. Wood," intimating, I believe, that Dr. Wood has been his preceptor. No fee was offered or demanded by him, and the only fees paid were those paid to yourself and Dr. Meeker, both very moderate and proper, and entirely consonant with the limited means of the unfortunate prisoner, and very much less than the sum for which Dr. Wood afterwards "mandamused" the city. No other physician was approached or consulted, and Dr. Hare would not have been thought of, if you, yourself, had not suggested him. It is to be observed, therefore, that these statements, along with nearly all others of the article, have merely a bowing acquaintance with the facts; they certainly can claim no undue familiarity with them. The ingenious and versatile gentleman who wrote the article has embellished and adorned it with the fragrant flowers of an oriental fancy. His whole paper as a literary production is unique. It cannot be classified. As a work of fiction it lacks interest; as a mere history, it is redolent of legend and fable. And yet it carries us back to the trial and reminds us that we should be profoundly grateful to this eminent gentleman, who for 30 years has contended in courts of justice with those adverse forces which have retarded American civilization, and made the American people a "byword and a reproach" among the "upper middle classes in England and the Continent of Europe;" grateful in the knowledge, which we are sure will also gratify Dr. Wood, that his remarkable effort on the witness-stand to reconcile and harmonize (or perhaps differentiate) the expert and the author, potently determined and greatly accelerated the very sensible conclusion of the Zelner case.

Very sincerely yours,
(Signed) Maxwell Stevenson.

To John V. Shoemaker, M.D., 1519 Walnut Street.

A man affected with leprosy at present lives in Mecklenburg, Germany. He is a merchant who went to South Africa some 18 years ago. Lately he lost health and finding that the local physicians could not diagnose his case returned to Berlin 2 years ago, where he was pronounced a leper. He lives in the village of Gehlsdorf, near Rostock, where he was allowed to buy a house separated from others. In the upper story of this he lives with his brother; while his mother with a servant lives below. In this way the authorities believe that they prevent danger of a spread of the disease.

CEREBRAL HEMORRHAGE WITH TEMPORARY GLYCOSURIA: REPORT OF CASE.*

By R. B. H. Gradwohl, M.D.
of St. Louis, Mo.
Assistant Physician, St. Louis City Hospital, St. Louis, Mo.

It is but seldom in practice that a case is met which serves as an object of common interest to both the experimental physiologist and to the practical clinician. The case which is here reported is of this character and the plea for its recital is that it is worthy of attention because it performs the double function of interesting two diverse classes—the laboratory-worker and the clinical observer. The case which the writer desires to call to the attention of the profession is one that came under his care in the St. Louis City Hospital.

One Isaac Lyman, a canvasser, aged 46 years, a native of New York City, was brought to the institution at 7.10 a.m., January 29, 1899. The limited and meager family-history which came with the case showed that the patient had been the subject of chronic alcoholism for 20 years or more; that he frequently went on protracted sprees; that he had suffered with the usual infantile diseases and that his adolescent and adult life had been uneventful, so far as the contraction of any serious acute or chronic diseases was concerned. Nothing was gleaned as to his hereditary predisposition for apoplectic, syphilitic, nephritic or diabetic conditions nor was there a history of direct syphilitic infection in this individual. So far as his immediate family knew, he had never suffered with any of the subjective symptoms of either diabetes mellitus or chronic Bright's disease. It was learned that he had been on a fishing-trip for a week or two and had returned home on the day before he came to the hospital. He had appeared to be in his usual good health when, suddenly, without any apparent immediate exciting cause in the shape of worry, sudden fright or traumatism, he fell over and became unconscious. He was comatose when he came under our observation.

He was a man of average build and muscular development and his adipose tissue was fairly well retained. He was not emaciated. There were no signs of dropsy. The face was pale; there was no floridity of the countenance and no shortness of the neck, conditions so often taken as being symptomatic of the so-called "apoplectic habit." Respiration was slow and shallow, but not stertorous; likewise was there no puffed-out appearance of the cheeks. His pupils were rather small, the left being somewhat larger than the right; both were irresponsive to either light or accommodative reflexes. There was complete motor-paralysis of all the voluntary muscles which are accessible to the ordinary tests, *i.e.*, the upper and lower extremities, the tongue, lips, etc. The deep reflexes were wholly absent, but the superficial reflexes such as the cremasteric, etc., could be elicited. The pulse was slow, full, and strong, but there was no appreciable hardening of the arterial wall. Rectal temperature was 96° F. Teeth were good and fairly well kept; tongue was coated. An odor of coal-oil emanated from the patient's mouth. Puncture with pins, the application of heat, etc., failed to rouse the patient from his comatose state. No evidence of cardiac or pulmonary lesions could be made out.

The urine was immediately withdrawn by means of a soft rubber catheter and was subjected to microscopic and chemical analysis: 200 cc. of a pale-colored urine was obtained; specific gravity 1022; albumins, about 0.1%, demonstrated by nitric-acid contact-test, potassium ferro-cyanid and picric-acid tests; sugar present to the amount of about 3% (Fehling's, Nylander's, fermentation, phenyl-hydrazin tests). No acetone could be found. The urine was acid in reaction and clear, and after centrifugalization, no sediment was obtained. Microscopic examination was negative. No casts were present.

To further complete the diagnosis of the existing diabetic condition, the writer resorted to the blood-test devised and recommended by Dr. Ludwig Bremer. This test is made by spreading the blood on glass slides, heating them for 10 minutes in a hot-air oven at a temperature of 135° C. and then dipping them in a 1% solution of congo-red or a ¼% solution of methyl-blue. The blood proved refractory to these stains and remained unstained, a phenomenon which Dr. Bremer points out as peculiar in all diabetic conditions, providing the specimens are prepared and heated properly.

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* Read before the Medical Society of the City Hospital Alumni, St. Louis, Mo., March 2, 1899.

The patient was given 2 drops of croton oil; his head was kept elevated. At 11 A.M. no change was noted in his condition; analysis of 400 cc. of urine which was now withdrawn gave similar results to the first analysis. Venesection which was now performed, did not alter his condition for the better. The temperature had mounted to the normal at 1 P. M.; temperature 104° F., pulse 140, respiration 34, at 3 P. M. The urine now withdrawn, 200 cc., showed no sugar-reaction but still contained the albumins in the same quantity. The temperature rose to 106°F. just before death, which occurred at 6.30 P.M. The blood-test made just before death and just after death (blood being taken from the median basilic vein) was negative. Neither albumins nor sugar were found in the urine withdrawn postmortem, 300 cc. in amount.

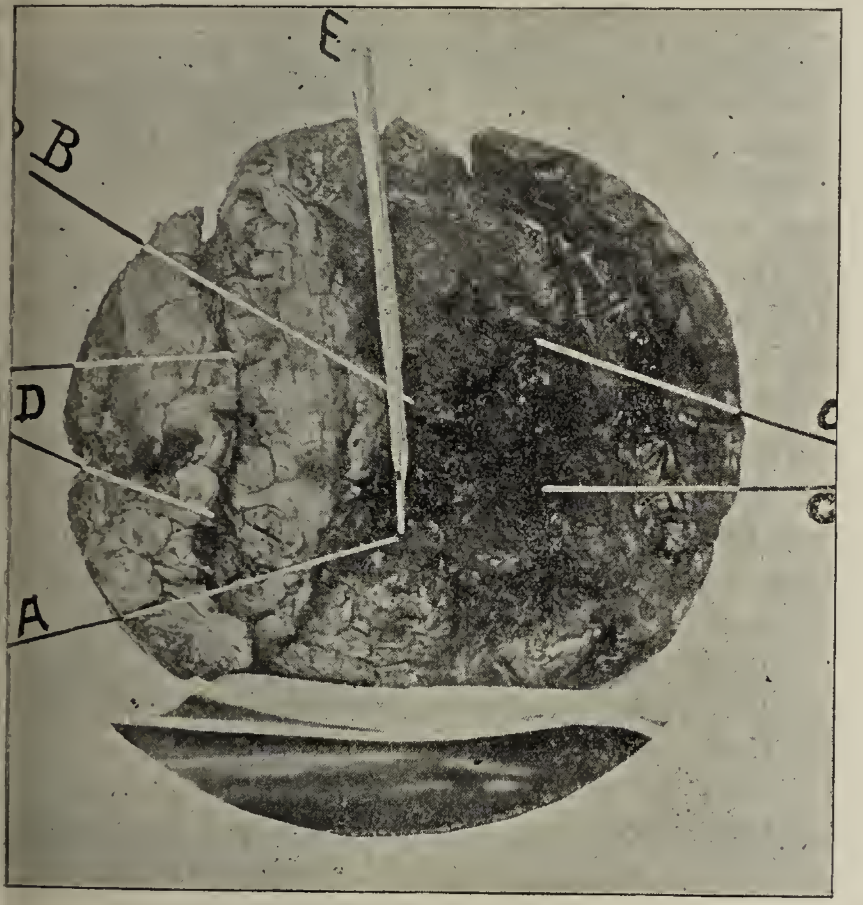

Fig. 1. The brain has been laid open from above downwards by the usual "postmortem incisions." (*a*) Fourth ventricle directly at the end of the pointer (*e*); (*b*) third ventricle, and (*c*) right lateral ventricle, are filled by the dark blood-clot. The left lateral ventricle (*d*) is empty, being originally filled by liquid blood which escaped on incision of the brain.

Postmortem examination revealed the following: Slight hypertrophy of the left ventricle; kidneys, liver, pancreas and stomach normal. The most pronounced pathologic changes were noted in the cranial cavity; on opening the brain, it was seen that dark, liquid, blood filled the left lateral ventricle and that the remainder of the connecting ventricular system, *i. e.*, the third, fourth and right lateral ventricles, contained a dark blood-clot of good consistency. On washing off the clot, the source of the hemorrhage was found to be a ruptured miliary aneurysm located on the right lenticulostriate artery, the so-called "artery of cerebral hemorrhage" or "Charcot's branch." Rupture of the aneurysm within the internal capsule had caused a breaking-down of the thin ventricular wall and a spreading of the blood through the entire ventricular system. This frequently happens when a severe hemorrhage takes place within the internal capsule.[1] Microscopic examination of sections of the liver, pancreas, kidneys and thyroid gland revealed nothing of importance. The arteries at the base of the brain were atheromatous. The intra-ventricular pressure of the clot produced a softening of the cortical substance immediately encompassing the ventricles, as demonstrated both macroscopically and microscopically.

The appearance of sugar in the urine in this case was due to the pressure exerted by the blood-clot on the floor of the fourth ventricle in the area known as "Bernard's diabetic center." It was Claude Bernard who, in the celebrated piqûre experiment, first produced an artificial glycosuria by puncture of the floor of the fourth ventricle in the brain of a rabbit.[2] This has been done time and again on rabbits, dogs, cats, etc., until now it is accepted as one of the classic laboratory experiments. The experiment as originally performed by Bernard was simply the puncture of the floor of the fourth ventricle by means of a stylet thrust into the medulla from above, *i. e.*, in a direction forward and downward from the external occipital protuberance. It has been since modified and the glycosuria can be produced just as readily by filling the fourth ventricle with paraffin introduced through the needle of a hypodermic syringe which has been thrust through the cerebellum. The observation has been frequently made that in examination postmortem to diabetes mellitus, the only pathologic change that could be found at the autopsy was some lesion of the central nervous system, particularly lesions in the floor of the fourth ventricle, such as tubercles, cysticerci and sclerosis of the medulla. These findings, together with the knowledge of the experimental production of diabetes by puncture or pressure on the floor of the fourth ventricle justly lead us to say that they are prime etiologic factors in the causation of diabetes mellitus.

The manner in which disturbances in the floor of the fourth ventricle cause an elimination of sugar through the urine is explicable on the ground that lesions in that place, *i. e.*, in the diabetic or vasomotor center, produce a vasomotor paralysis. The question then suggests itself, what relationship is there between a vasomotor paralysis and the glycogenic function of the liver? This is still a matter *sub judice*, but according to the latest physiologic researches, it is held that impulses travel down the cord from the vasomotor center to the fourth dorsal vertebra and thence radiate to the thoracic ganglia and to the liver. It is sufficient to say that the glycogenic function of the liver is interfered with by a vasomotor paralysis and thereby an undue amount of the sugar which is normally stored up in the liver in the form of glycogen is set free in the blood-stream and this surplus is expressed from the circulatory system by the agency of the renal apparatus.

The predisposition for hemorrhage in this case was supplied by the patient's long-continued abuse of alcohol so that ultimately an atheromatous condition of the arteries was brought about. I believe that the appearance of sugar in the urine in this case was due to the direct mechanical pressure exerted by the clot on

Bernard's center. In looking over the literature, it has been noted that frequent observations on temporary glycosuria in connection with cerebral hemorrhage have been made by various writers. Notice has already been taken of the observations concerning the artificial production of glycosuria by the growth of tumors in the floor of the fourth ventricle. Most of the writers on the subject contend that any increase in the intra-cranial pressure, such as a hemorrhage, edema or traumatic injuries, will be followed by a temporary glycosuria.[3] The first who probably described glycosuria following cerebral hemorrhage was Leudet.[4] Frerichs described 6 cases and Olivier 5, with autopsies.[5] Many reports are found in literature. In the majority of cases the cerebral hemorrhage is very severe, but in some cases (very mild cases) a large amount of sugar may be found.[6] According to Olivier the sugar in the urine does not appear until 2 hours after the first attack. The amount of sugar varies much, sometimes disappearing for a time completely and often before death it disappears altogether. In case the apoplexy is not fatal, sugar can be found in the urine for 6 days. The amount of sugar varies from under 1% to 2.9% (Schutz), 4% (Frerichs). A light grade of polyuria may also be present and very often albuminuria.

The seat of the hemorrhage in most of these cases was in the hemispheres or was intermeningeal and not so situated that there could be any direct effect on the fourth ventricle. Among these cases, however, were found a number where the hemorrhage was in the pons; in only one case did the glycosuria become permanent.[7] Naumyss[8] and others are inclined to believe that the increase in intracranial pressure is the causative factor in this production of artificial glycosuria in cases of cerebral hemorrhage. On the other hand, there are observers who have claimed that direct intraventricular pressure is responsible for the transitory glycosuria. Morokow[9] states that the increase in pressure following these attacks of cerebral hemorrhage causes an increase in the amount of urine excreted, and that sugar sometimes appears in the urine when the hemorrhage is in the fourth ventricle. He also states that a passing albuminuria may be present in these cases. Oppenheim[10] says that sugar may appear in the urine in cases of cerebral hemorrhage, but not very often, and then usually not until from 12 to 20 hours after the onset of the attack. Jaksch[11] states that although transitory glycosuria has been reported after apoplexy, he has not been able to find a case among 50 cases of fresh apoplexy within 2 years. According to Mills,[12] glycosuria is most likely to result when the lesion is in the fourth ventricle. Loeb[13] believes that in most fatal cases of cerebral hemorrhage, sugar exists in the urine, but that its excretion rarely continues longer than from 12 to 24 hours; also, that albuminuria is often present and always lasts longer than the glycosuria. Robin and Kuss[14] make similar statements.

It may be well to speak of a case which R. Lépine[15] records. He cites a case where a woman who had a transitory glycosuria during an apoplectic attack, revealed a hemorrhage in the internal capsule postmortem. The hemorrhage in that case, however, was so slight that we can hardly believe that "the increase-in-pressure theory" would explain the condition. In speaking of this particular case, Gould[16] justly questions the value of observations of that kind and says "it may be questioned if records like the above and the inferences aid much in the diagnosis of obscure diseases like diabetes."

From a review of the preceding references it can readily be seen that there have been but few cases where it has definitely been proved that pressure in the fourth ventricle produced a transitory glycosuria. The weight of authority goes to substantiate the theory that any increase in intracranial pressure would produce glycosuria by indirectly acting upon the floor of the fourth ventricle. In other words there have been but few, if any, cases analogous to the Bernard piqûre experiment. I hold that this case is an example of that classic experiment. The disappearance of sugar from the urine after a few hours was due to the fact that all of the glycogen in the body had been transformed into sugar and had been eliminated; secondly, to the fact that hyperpyrexia supervened, and it has been established that in conditions of hyperpyrexia, sugar disappears from the urine. The albuminuria persisted; this has been noted before by Loeb.[17] Dana[18] makes the same statement. It is simply a functional renal defect and has no significance so far as the likelihood of the existence of any kind of nephritis is concerned.

The case which I have cited is worthy of attention because of its clinical and physiologic aspects. Robin and Kuss[19] have ventured the suggestion that we might make use of the occurrence of transitory glycosuria in apoplexy as a differential diagnostic test from a condition of uremic coma, *e. g.*, eliminating the question of diabetic coma, if we find sugar in the urine of a patient who is in a coma simulating uremia and apoplexy, we may decide in favor of apoplexy. Of course, this is rather a finely-drawn diagnostic measure, but still it is worthy of remembrance when we are confronted with cases of that kind. Cases of this kind are highly interesting, and serve to narrow the gap which separates the laboratory worker from his colleague in the field of clinical medicine and, at the same time, make still more evident the fact that commonplace incidents are of little moment unless they are well fortified by the strong bulwarks of lucid explanation founded on scientific axioms.

With the reconciliation of experiment and practice, with the coincidence of theoretic and accurate practical observations, weighed in the balance, and each exactly balancing the other, another great achievement is added to this already-memorable epoch of medicine and another barnacle of empiricism is swept from the keel of the ship of science. Aside from the satisfaction given to those high in point of training in both experimental and clinical medicine, each demonstration of this kind lends an air of confidence to the minds of those who are wavering between the choice of acceptance of empiricism or truthful, logical medicine, and forces them over to the correct side. In short, it is a source of the greatest pleasure for the experimenter to confirm the observation of the clinician and vice versa. The laboratory-worker and the practitioner should strive together, each to unravel the seemingly inexplicable problems of the other. Then will the quintessence of investigation, the agreement of theoretic teachings with the phenomena of nature, be at hand.

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ANTHRAX.—THE INFLUENCE OF TANNERIES IN SPREADING THE DISEASE.[1]

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My attention was called to this subject by the outbreak of anthrax in men and in cattle at 3 different points in the State of Pennsylvania during the summer and fall of 1897. From reports which I have not been able to entirely verify, it is likely that so many as 12 men and 60 head of cattle died of anthrax near tanneries in this State during the year. The men were without exception, operatives at the tanneries, while the cattle were on pastures watered by the streams carrying off the refuse of these tanneries.

The importance of the subject led us to make as thorough an investigation of these outbreaks as was possible under the circumstances. At the instance of Dr. Leonard Pearson, state veterinarian of Pennsylvania, on December 9, 1897, I visited the tannery at Proctor, Pa., where the last outbreak occurred. I found the operatives considerably excited, standing in groups about the street, as a result of 3 cases of anthrax, 2 of which had resulted fatally within a short period of time, and 1 of which was then under treatment. The last case fortunately terminated in the recovery of the patient. From one of the physicians in attendance on this case I learned that 4 men had died in the vicinity besides the 2 just mentioned, from an acute affection which was diagnosed at the time as pneumonia, but which he considered, in the light of subsequent events, to have been cases of pulmonary anthrax. I made bacteriologic examinations from the blood and from the eschar which marked the initial lesion in the man then sick, and, from them isolated the anthrax-bacillus, which proved to be of quite a virulent type when inoculated into guineapigs. From the liver and spleen of a cow that had died at one of the other 2 tanneries at which outbreaks occurred, I also succeeded in isolating virulent anthrax-bacilli. The superintendent of the third tannery, which I did not visit, told me that 24 cases of "malignant pustule" had developed among the operatives recently, 3 of the cases proving fatal. There was no bacteriologic examination in any of these cases, and the diagnosis was made entirely from the symptoms. Below this tannery at least 12 head of cattle had died in a short time before my visit to the neighborhood, deaths occurring so far as 10 miles down the stream. From one of these animals I obtained specimens some time after death. Though I failed to isolate the anthrax-bacillus, the symptoms were such as to leave little doubt that anthrax was the cause of death in most, if not in all, of the cattle which had died.

In tracing the history of the cases at these 3 tanneries and in looking for the cause of the outbreak, I gained the information that they were all operated under the United States Leather Co., and that each of them had received a part of a cargo of hides shipped from China. Among the operatives, these Chinese hides go under the technical name of "murrain" hides, and are believed by them to come from cattle which have died of disease. However, the superintendent of the Proctor tannery did not agree in this opinion, believing that some of them had been from animals slaughtered for beef and that some had been taken from animals dead of disease. There seems to be no positive way of telling the difference between the two.

This brief outline shows the danger to which every State engaged in the tanning business is at all times liable. It cannot be doubted that from all the countries which ship raw hides to the United States there may come at times the hides of cattle which have died of anthrax. There is a law in the United States providing against the importation of hides from districts where anthrax is known to exist, but the difficulty of enforcing it lies in the fact that the hides often do not come directly from such districts and also that the reports from some such countries are exceedingly meager, and it is impossible from these reports to be sure of the good health of the cattle there.

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[1] Read by title before the American Public Health Association, 1898.

Occasionally, cases of anthrax are reported among workers in leather, and one case has occurred in the city of Philadelphia in a brush maker, employed in making coarse scrubbing-brushes, in the manufacture of which a mixture of hog's bristles and horse-tail hairs were used, the hair being all imported from Siberia and the southern part of Russia, both sections of Europe in which anthrax occurs quite frequently. One instance has come under my observation in which a horse died of anthrax, the infection seeming to come either from the leather of which the collar was made, or else from the hair with which it was stuffed, although I was not able to prove this mode of infection positively. The horse was one of a number in a stable all doing similar work, and all had been together for quite a period of time, but none of the others had the disease either previously or after.

In studying the cases which occurred in men at the tanneries in this State I was struck with the fact that, so far as I could obtain positive histories, all of these cases occurred in those handling the hides in a dry state, and in no case could I trace the history of an infection taking place after the immersion of the hides into the tanning fluids. While there are some reasons for this, such as the inability of a soft and flexible hide to produce a wound in the skin, as is easily done by the ragged edge of a stiff, dry hide, it occurred to me that the tanning fluid might have such an action on the anthrax-germs as to prevent danger from them after exposure to these fluids. This has led me to make a study with the object of determining what, if any, disinfecting action the process of tanning has on anthrax-germs in the spore-stage.

Briefly outlined, the process of tanning as carried out in the tanneries of the State of Pennsylvania, which I presume is that in common use elsewhere also, is as follows: The hides are soaked in clean water for about 10 days, then milled, and sweated for 4 days in order to loosen the hair, after which they are milled again and put on the beams for scraping. They next go into the tanning liquors, which are 7 in number. The hide is put into a solution made of 3 parts of water to 1 part of liquor No. 1. This liquor is changed quite frequently, so that at the end of 5 or 6 days it is of the strength of liquor No. 2, in which it is left from 6 to 10 days; it is then transferred to No. 3 for about 12 days; No. 4, for 16 days; No. 5, from 18 to 20 days; and Nos. 6 and 7 for about 20 days, the whole process occupying usually about 120 days. No chemicals whatever are used in the process, except the solution of bark.[2]

Through the kindness of Superintendent J. H. Ball, of the tannery at Proctor, Pa., I obtained a supply of each of these 7 tanning fluids. I have with them carried out two separate experiments, each having for its object the determination of the effect of these fluids on the spores of anthrax. I have used silk threads impregnated with a spore-culture of the germ and dried. These threads are easily penetrated and contain nothing which would protect the spores from the action of the fluids, as is the case with hides. Hides contain a large amount of albuminous material, which, as is well known, combines with tannin to form a protective covering for bacteria, so that we may consider that the spores on silk threads should be more easily killed than spores contained in hides, or in dried blood which may be adherent to hides. The culture of anthrax used was obtained from the organs of a cow which had died of anthrax in the neighborhood of one of the infected tanneries.

In the first experiment the spore-threads were treated as outlined in the process for tanning, beginning with the solution of fluid No. 1 and gradually increasing in strength until No. 7 was used. In the second experiment the threads were at once immersed into the strongest tanning fluid, No. 7. This was changed every week for the first month and subsequently changed once a month. The fluids were always used in abundance, 100 cc. being the amount in which the threads were immersed. One thread from each of these was at first taken out each week, inoculated into bouillon, and the culture thus obtained inoculated into guineapigs. After the first month this was only done once a month. The threads have now been immersed for a period of 180 days. The growths obtained at this date are perhaps a trifle less abundant than those obtained at the early stages of the experiment and the virulence of the germ has been possibly lessened in a very slight degree, the last guineapigs inoculated living for about 36 hours, whereas in former inoculations death occurred in from 24 to 26 hours. However, I unfortunately neglected to weigh accurately the animals used, and the attenuation of virulence is so slight as to have very little practical value. Yet from these experiments we may conclude that the process of tanning as ordinarily carried out does not in any way protect the operatives from infection by the anthrax-germ, so far at least as regards its effect on the viability and virulence of the germ, though it is possible that the combination of the tannin with the albumin in the hide may "fix" the germs so that they are less liable o become detached from the hide.

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[2] The numbers of these tanning solutions indicate approximately the percentage of tannin contained in them—from 1% to 7%. They are rated by means of the "barkometer," which is merely a specific-gravity float, much like the ordinary urinometer, the scale being graduated so as to show percentages of tannin in solution at 60° F. As tan-bark contains other principles besides tannin which are soluble in water the instrument does not give the exact percentage of tannin, which is somewhat lower than indicated in the reading.

Since the preparation of the above, the experiment has been continued; so that at the present time 244 days, or more than twice the number required for tanning, have elapsed since the spore-threads were first put into the tanning solutions. That the relative scantiness of growth in cultures mentioned has not been entirely, if at all, due to destruction of the spores has been shown by the fact that I have several times obtained numerous colonies of anthrax on plates made from a few drops of the sediment at the bottom of the flask, proving that a large number of the spores were washed out of the threads, but even in this entirely unprotected condition, they do not appear to have been njured to any appreciable extent. The last guineapigs noculated weighed 470 and 500 grams, and died in 28 and 24 hours respectively. The virulence of these cultures was fully equal to that of the original, and at no time has there appeared to be any marked difference n the virulence of the cultures in the two experiments, though in No. 2 the strongest solution has been used from the outset.

These experiments, together with the cases mentioned illustrate the necessity of some method of properly disinfecting hides brought from foreign countries before allowing them to be sent to our tanneries, and this disinfection should preferably be done at the port of shipment. Unfortunately no method has yet been devised for the disinfection of hides which does not njure them for subsequent use, though attempts have been made by the Federal Government to plan and enforce some such method. In this connection much is to be hoped for from some one of the several methods recently devised for tanning by the use of formalin, which is unquestionably one of the most powerful germicides.

In some experiments by myself a few years ago, it was found that anthrax-spores on silk threads were killed by a momentary immersion into formalin, and it is hard to see how they could escape destruction during a prolonged immersion of a hide in a solution of this substance. Any method of disinfection by this agent should be capable of destroying the most resistant spores. It is stated by some authorities that anthrax-spores from different sources have varying degrees of resistance to destructive agents, which may be regarded as a race peculiarity. Thus von Esmarch found that anthrax-spores, according to their origin, required a 5% solution of carbolic acid for at least 2 days, and in some cases even so long as 40 days, for their destruction. Some anthrax-spores will resist a 1% aqueous solution of corrosive sublimate as much as 3 days, though their virulence is destroyed in 20 hours. They will occasionally live in water or steam at 100° C. for so long as 12 minutes, and not infrequently so long as 5 minutes. A dry heat of 140° C. for at least 1 hour is required for their certain destruction.

It is probable also that the resistance of different spore-cultures depends somewhat on the culture-media on which these cultures are grown, on the temperature at which the formation of the spores takes place, and on their age. Frankland has shown that spores formed at 20° C. are more resistant to the action of light than those formed at the incubator temperature. Dry spores seem to be practically indestructible under ordinary circumstances, and may be kept for years without any deterioration of their virulence or power of growth. It is certain also that the hide of an animal dying of anthrax will contain the spores of the germ and not simply the vegetative form which is comparatively easily killed, for it must be remembered that the flaying of the animal gives free access of the oxygen of the air to the germs contained in the capillaries of the skin and subcutaneous cellular tissues, the one condition so necessary to the formation of the spores. Animals usually die of anthrax during warm seasons so that the temperature necessary for the formation of spores is also usually to be had under these circumstances.

The important points for the protection of our cattle industry and of the operatives in tanneries are then as follows:

First: The discovery of an economic and simple method of thoroughly disinfecting hides without injury.

Second: A more reliable method of obtaining reports from countries which export hides.

Third: A process of tanning which will in itself destroy the spores of the anthrax-bacillus.

A CONTRIBUTION TO THE STUDY OF THE MICROCOCCUS TETRAGENUS IN ACUTE ANGINA.

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Within recent years an enormous amount of experimental and clinical study has been done upon the various forms of angina, but more particularly with reference to the bacteriologic determination of the microbic factors entering into a causative relation to this disease. Many of these researches, however, have related to the more common forms of the malady. As a direct result of this work upon the more frequent types of acute angina the attention of investigators was naturally turned to the bacteriologic investigation and clinical determination of certain types of angina in which other pathogenic agents assumed the role of etiologic factors of importance. Thus arose the modern conception and classification of a disease concerning which much confusion had previously existed; diphtheria as a bacteriologic unity became firmly established on the one hand, and on the other, those pseudo-diphtheric forms which microbiologic research has shown to depend frequently upon infection with the streptococci,[1] the staphylococci,[2] less commonly upon invasion by the pneumococcus,[3] the diplococcus of Brisou,[4] bacillus coli communis,[5] bacillus of Friedlander,[6] and finally more rarely infection by the micrococcus tetragenus.

The conception of the micrococcus tetragenus (Gaffky) as a pathogenic agent in animal and human pathology is comparatively new. Experimental studies for a time seemed at variance in their results with clinical observations; some investigators, such as Padbielsky,[7] concluded that this organism is not pathogenic for animals. Padbielsky based his contention upon the results of his experimental researches with rabbits, but these conclusions are opposed to the results of Biondi, who demonstrated the receptivity of rabbits for the micrococcus tetragenus. The pathogenicity for some animals has received abundant confirmation in the investigations of Boutron,[8] P. Teissier,[9] G. Roux,[10] and F. J. Bosc and Galavielle, of Montpellier.[11]

Instances have been published in which the organism was conclusively shown to be capable of producing more or less circumscribed pathologic processes in the human subject. Indeed, observations of generalized infection have been recorded. The micrococcus is ordinarily regarded as a common saprophyte, and it is in contradistinction to this variety that certain writers have been in the habit of referring to the virulent forms as the micrococcus tetragenus septicus.

Kaspar[12] was the first to identify the relations of this organism to localized suppurative infections in the report of a case of an abscess of a tooth in the pus of which it was found. Karlinsky[13] subsequently contributed additional examples of its association with various localized processes of the same nature. This observer directs attention to the frequency with which it is found in connection with abscesses about the nose, mouth, and neck; and this observation receives explanation in the fact that it is commonly found in the saliva of healthy individuals[14] and of the newborn,[15] in the nasal secretions,[16] and in the expectorations of tuberculous subjects.[17] Kapper and Steinhaus[18] some years ago published a case of an abscess of the angle of the jaw, in the contents of which the tetragenic coccus was found. Raffin[19] isolated it from a phlegmon of the neck, and Monnier[20] from the milk of a wet-nurse affected with axillary adenitis. Infections with this coccus have by no means been limited to comparatively trivial processes of this character, but, as already referred to, more extended and serious invasion may occur. Some cases of bronchial infection have been reported in which it was found.[21] Netter,[22] Faisans, and L. Damany[23] isolated it from the contents of serofibrinous and purulent pleuritides, and M. F. Benoit[24] cultivated it from a pericardial exudate. Lepage and Bezançon[25] reported a case of circumscribed suppurative meningitis from which the micrococcus tetragenus was isolated in pure culture. A. Chauffard and F. Ramond studied two instances of fatal septicemia due to it similar observations were made by Netter.[27]

The possibility of recovery after serious infection and general invasion of the system is shown by the case of A. Bertaux[28] that occurred in a man 37 years of age Following a phlegmonous angina, the culture from which contained streptococci and staphylococci, there developed a pseudo-rheumatism, polyarticular in character, and shortly afterwards followed by pulmonary implication with hemoptysis and by phlebitis of both legs. Cultures taken from the blood on two successive occasions at an interval of 15 days contained the micrococcus tetragenus in pure growth. The case ultimately ended in recovery.

The reports of observations of acute angina following infection with the coccus tetragenus are apparently extremely scanty in number. The three cases reported in this paper were studied during the course of routine bacteriologic examinations of suspected cases of diphtheria during the last two years. The following are the histories of the cases, for two of which I am indebted to Dr. James P. Boyd, of Albany, and Dr. Bates, of Schenectady, N. Y.:

Case I.—Daisy W., 21 years of age. Family and past personal history unimportant. Patient was acutely taken ill August 17, 1898, with fever and sore-throat. Examination of the throat the following day showed a diffuse, raised grayish membrane covering the greater portion of the left tonsil. Elsewhere the throat was markedly injected, but free from membrane. The membranous formation progressively increased, so much so that on the third day of the disease the entire pharynx, both tonsils and posterior portion of the buccal cavity were covered by a moderately-raised grayish-white membrane, readily removable, but showing a marked disposition to recurrence. On the evening of the fourth day the throat was quite clear, but the succeeding morning the left tonsil became again covered with a membrane similar to that previously observed, which disappeared the morning of the fifth day of the disease to reappear for the last time on the sixth day and finally disappear on the evening of the same day. From this time on convalescence was speedy, so that 9 days after onset of the angina the patient was again attending to her daily vocations. There was no glandular enlargement about the neck or submaxillary region.

The constitutional manifestations were moderate in intensity; the temperature oscillated between 100.5° and 104° F., the latter registration occurring on the third day of the malady. Some cardiac weakness existed during the first four or five days. The onset did not suggest grippal infection nor was there any apparent pleuritic implication at any time. A culture from the throat was taken on beef blood-serum on the second day of the disease, and coverslips from the tube showed a great many large, oval cocci, for the most part arranged as tetrads, some as diplococci, and still others discretely distributed throughout the specimen. The culture was plated and found to be a pure growth of an organism behaving upon media in the following manner:

Agar-agar.—White, slightly elevated, moist, moderately abundant growth.

Blood-serum.—Similar growth to that on agar slant.

Gelatin-stab.—White or yellowish-white growth along line of inoculation. In four or five days a definite "button-like" growth on surface of gelatin. No liquefaction of gelatin.

Milk.—No coagulation of milk.

Potato.—Fairly thick, moist, slimy, grayish, elevated growth.

Sugar-media.—No gas-formation.

Bouillon.—Uniform cloudiness of medium, with subsequent formation of a grayish or white precipitate.

Coverslips from media rarely show tetrads, but more gen-rally cocci with the diplo-arrangement. The organism ains with Gram's method.

The experimental inoculations were made intraven-usly into a full-grown rabbit and subcutaneously into guineapig. Both animals received 0.5 cc. of a young ouillon culture of the tetragenococcus, the one into the uricular vein and the other into the subcutaneous tis-ues of the thigh. The rabbit succumbed in 27 hours, nd the guineapig on the third day. From the blood f both animals the organism was cultivated in pure rowth. At the point of inoculation into the guinea-ig a localized abscess formed, the coverslip from hich contained large cocci, the predominating dispo-ition being that of tetrads surrounded by capsules. he capsule arrangement was particularly characteristic round those cocci obtained from the blood.

Case II.—Mr. V., aged 30, was suddenly taken sick with a hill, followed shortly by marked fever and sore-throat. Ex-mination of the throat showed a diffuse gray-white mem-rane covering the left tonsil and the back of the pharynx. ymptoms of the disease promptly subsided on the fifth day fter the onset of the trouble. A culture was taken from the hroat on the second day upon blood-serum, and the cover-lips from this culture contained a few small cocci, with no articular arrangement, and other larger cocci either in airs or in tetrads; very rarely single cocci of the same size ould be made out. The culture was plated in the usual nanner and two sets of colonies were made out, one corre-ponding to the large cocci and constituting the predominat-ng organism; the other, five colonies in number, consisted f an organism morphologically similar to the smaller coc-us seen in the coverslips. Investigation proved the pre-lominating coccus to correspond culturally with the organ-sm studied in the culture from Case I. The smaller coccus, which was only present in small numbers, responded to all he tests of the staphylococcus pyogenes albus. One cubic entimeter of an 18-hour bouillon-culture of the micrococ-us tetragenus injected subcutaneously killed a full-grown guineapig in 6 days; the organism was recovered in pure ulture from the blood. Two cubic centimeters of an 18-hour bouillon-culture of the staphylococcus pyogenes albus, also introduced subcutaneously at the same time into a oung rabbit, produced no result beyond a small purulent collection at the point of inoculation.

Case III.—Miss B., 50 years of age. The patient at inter-als of 2 or 3 years suffered from 3 previous attacks of sore-hroat, the last occurring one year ago. The tonsils had been removed 3 years ago. The present attack was acute in its onset, and the symptoms were quite suggestive of grippe—fever, occipital headache, and pain in muscles. Examination on the following day showed a temperature of 102° F., rapid pulse, and membrane-formation in the throat. Covering the anatomic regions of both tonsils and pillars was a white membranous patch which was easily removable. The pos-terior wall of the pharynx, on the other hand, was covered with discrete, pin-head sized, white or grayish-white, slightly elevated points. The membrane successively appeared and disappeared for 3 times during this illness. The submaxillary glands were moderately enlarged. At no time was there any evidence of pleuritis.

A culture taken from the throat on the second day of the patient's illness contained an almost pure growth of a mod-erate-sized tetrad coccus, and very few rather short and somewhat thick bacilli. Subsequent bacteriologic examina-ion showed the coccus to be the micrococcus tetragenus present in the culture in practically pure growth. The other organism gave all the tests of the bacillus coli communis.

The experimental introduction of 1 cc. of a young bouil-on-culture of the coccus into the auricular vein of a full-grown rabbit produced death in 4 days; the organism was recovered from the blood. A similar dose of the bacillus intravenously injected into another full-grown rabbit pro-luced some apparent stupor of the animal for several days, but otherwise no effect was observed.

M. E. Apert in the early part of the last year[29] reported 3 cases of angina from which the micrococcus tetragenus was isolated. The first case was a man, previously in good health, who was acutely taken sick with fever, malaise, and pain in the right chest. Physical examination subsequently showed evidence of exudate into the right pleural cavity. During the latter part of this illness examination of the throat revealed a white membrane over the pharynx and pillars, which were markedly congested. Covering the livid mucous membrane were a multitude of salient, discrete points, the size of a grain of sand. "Ils donnaient l'apparence d'une gorge qui aurait été comme saupoudrée de grains de sable." The tonsils were not enlarged, nor was there any enlargement of the submaxillary glands. A culture from the throat contained a pure growth of the micrococcus tetragenus. The second case occurred also in a man who was admitted into the Hotel-Dieu suffering from pleurisy with serous effusion. On the fifteenth day of his residence in the hospital he was taken ill with symptoms of sore-throat. Each tonsil was covered with 5 or 6 lenticular spots of a white color, giving the appearance of a typical follicular angina. The culture contained streptococci, micrococcus tetragenus, and a few colonies of staphylococci. A few drops of a bouillon-culture of the tetragenic coccus killed a mouse in 24 hours, and from the blood of the inoculated animal the organism was recovered. Case 3, a man, admitted into the Hotel-Dieu with phenomena suggestive of grip, congestion at the base of both lungs, and pleural rub on each side. The throat was covered with a slight white membrane; and the culture contained streptococci, a small coccus, and some 10 colonies of the micrococcus tetragenus. One-quarter of a cubic centimeter of a bouillon-culture of the last organism inoculated into a mouse produced no effect.

The conclusions of Apert may be summed up as follows:

1. The micrococcus tetragenus, sometimes found as a saprophyte in healthy throats, can, in certain cases, acquire virulence and produce angina.

2. In certain cases of pure tetragenic infection, the angina has a special appearance which is designated as "angine sableuse" (Dieulafoy).

3. The micrococcus tetragenus may also be found associated with other organisms; in some cases it is virulent and may be supposed to contribute to the production of the angina; and finally, in still other cases, it is not virulent and must be regarded as an inoffensive saprophyte.

Under the term tetragenic angina we would include only such cases as show experimentally a definite virulency of the organism and in which the predominating organism is the micrococcus tetragenus. In our 3 cases the virulence was pronounced and the predominating organism, when the culture was not pure, always was the tetragenic coccus. Furthermore, the associated bacteria in the two cases of mixed infection of our series proved by animal experimentation to possess little or no virulency. The third case reported by Apert must be excluded per se as an instance of tetragenic infection of the throat, since the tetrad coccus was not only present in small numbers, but showed no virulency whatever for a mouse in the dose of .25 cc. Instances of this type are by no means uncommon, as we have often shown, in which some colonies of the micrococcus tetragenus were present along with other bacteria of greater virulence for animals.

The pleuritic implication coexisting with the cases of Apert was not noted in the three cases which I have reported in this paper. Curiously, however, the cases of septicemia reported by Chauffard and Ramond, Castaigne, and several other investigators showed pleural involvement.

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A CASE OF POISONING BY RHUS TOXICODENDRON ACQUIRED IN AN UNUSUAL MANNER.

By J. ALISON SCOTT, M.D.,

of Philadelphia.

The manner in which people develop poison by one or the other form of rhus is interesting. From time to time medical literature contains cases in which infection from poison-ivy or poison-oak has been acquired in an odd and sometimes amusing manner. So far back as 1720 there was reported to the Royal Society of London, by Dr. Sherard and Mr. Dudley, several cases of rhus-poisoning caused by the smoke of burning wood. In a graduating thesis, 1798, Thomas Horsfield,[1] of Bethlehem, Pa., published "An extensive dissertation on the Rhus Vernix, Rhus Radicans, and Rhus Glabra; commonly known in Pennsylvania by the names of poison-ash, poison-vine, and common sumach." Horsfield described the physical character of the plants found in the neighborhood of Philadelphia and the northern part of Pennsylvania. He noted the peculiar susceptibility of some people to the poison, and observed that others were not affected by the handling of the vines or the application of them to the tongue or fauces. He also stated the manner in which the poison was acquired, (1) by exhalation and efflorescence; (2) by the smoke of the burning wood; (3) by the actual contact of the leaves; (4) by the immediate application of the juice.

He regarded the juice of the plant as the active and poisonous ingredient, and noted that the inflammation of the skin caused by the juice was of an unusual and unique character. He observed that the most susceptible portions of the body were the eyes, the scrotum, the legs, and the thighs, and noted a "sympathy fever" of the arterial system accompanying the poison. He also cites several cases of an annual return of the poison without subsequent exposure. (Dr. Benjamin S. Barton, then Professor of Materia Medica in the University, was himself an example of this.) He applied the juice of the poison-ash to himself, producing vesication and the typical sequence. He inoculated himself between the skin and the cuticle. He also observed the effect of the infusion taken internally. The remedies he used were interesting: First, blood-letting; second, purging; third, the application of cold locally and the copious taking of sea-water. Of local applications corrosive sublimate received the highest recommendation. An ointment of the red precipitate of mercury was also highly commended. It had such reputation at that time that it was called "poison-salve." He also naively says that "more violent but less commendable remedies were spirits of urine and soot dissolved in milk." In fact Horsfield's investigations in reference to the clinical effects of rhus toxicodendron still hold to-day.

The manner in which the poison can be acquired is usually in one of three ways:

1. It may be communicated by direct contact with the leaves or juice. This is the common method in which the poison is acquired. The period of development is usually short, and the disease rapidly assumes a characteristic appearance. The cases are not commonly severe, and not attended with mortality, although one fatal case is reported in the *New York Medical Journal*, 1873, by White.

2. Poison may be communicated by indirect contact. Cases of this kind are rather unusual. J. Abbott Cantrell[2] reports a case of a parturient woman at the Philadelphia Hospital who was infected with rhus-poisoning from her nurse. The nurse had taken a stroll

rough a neighboring cemetery and gathered some of e poison-ivy leaves and brought them with her to a om adjacent to the ward. She had washed her hands veral times with soap and water before approaching e patient, who, however, in three days developed symp- ms of rhus-poisoning. Dr. S. C. Busey[3] reports a case which the husband conveyed the affection to the wife d child. The primary poison in this case was contracted the husband tying his horse to a bush the character which he did not observe. Dr. J. B. Walker[4] reports case of a woman who contracted poison by sleeping pon the pillow-case which had been used by her ster's husband who had been poisoned about the head d neck a few days prior. My own case, which will e submitted, comes, I think, under this class of infec- on.

3. Poison can be contracted by exhalation or efflor- cence. There are in the literature cases of unusual terest. John M. Maisch[5] states that while he was orking upon the isolation of the active principle of us, many people were poisoned by the fumes of it his laboratory. Many physicians of good repute ave in their practice patients who insist that the wind lowing over poison-ivy vines and upon them is suffi- ient to produce an attack of poisoning. Under this ead may be classed cases of poisoning by Japanese cquer, which is prepared from the resin of a tree imilar to our poison-ash. Dr. D. W. Prentis[6] cites a ost interesting case occurring in a man who opened a ottle of Japanese lacquer at the Smithsonian Institute, hich had been there for years. He felt a warm breath pon his face, and in three days his hands and face ere covered with the typical rhus eruption. In this ase, the patient himself was familiar with the effects f the lacquer, having studied its manufacture in Japan, nd he himself had made the diagnosis before the octor arrived.

Romyn Hitchcock[7] cites the case of a naval officer ho had been sick for a long time, the attending urgeon being unable to understand his condition. A apanese doctor, who was called into consultation, said t once it was poisoning caused by a newly-lacquered creen which had been placed by his bed. With its emoval the patient rapidly became well.

The first man to isolate the active principle of rhus was J. Khittel,[8] who, in an article in one of the German harmaceutic journals in 1858, attributed the action of he poison to a volatile alkaloid. In 1865, John M. Maisch[9] attributed the action to a volatile acid, which e called toxicodendric acid. Maisch's views have een generally accepted by the profession, and his re- ults are quoted by Huseman, L. Lewin, and James C. White.

Dr. Franz Pfaff,[10] of the Harvard Pharmaceutic Laboratory, has come, however, to an entirely different conclusion, and considers the methods of Maisch inaccurate. In fact, Maisch himself acknowledges that his investigations were not complete, and that some time in the future he would publish the further result of his studies. Pfaff thinks that the so-called toxicodendric acid is nothing but acetic acid, and not at all the cause of the poison. He isolated an oil, "toxicodendrol," non-volatile, which is oxidized in contact with the air, and transformed into a solid resin, soluble in common solvents, but insoluble in water. This oil was found in the leaves, branches, and roots. Applied to the skin, it produces the typical rhus-poisoning. Experiments upon animals as to its effect upon the organs show that there is a marked irritation upon the kidneys, producing an active inflammation and fatty degeneration.

Pfaff's investigations are particularly interesting in the light of reports from reliable men and trustworthy patients who have been poisoned without contact with or proximity to the vines. He considers these cases as mythical. His investigations are also important in the light of treatment. As the active irritant is soluble in all oil-preparations or fatty substances, treatments by oil or ointments simply serve to spread the infection. Soap and water, followed by washing with alcohol, he considers the best form of treatment. Dr. Louis R. Frank,[11] of Milwaukee, states that he has applied a specimen of the oil sent him by Dr. Pfaff to his arm upon different occasions, rubbing it in thoroughly, without any inflammation resulting. The same experiment, with no results, was tried upon the forearm of a druggist. He suggests that perhaps neither of them are susceptible to the poison.

My own case follows :—

On February 19, 1898, about noontime, Mr. C., aged 34, white, occupation a tea-broker, had a chill that was followed by headache and fever. He stated that he had not been feeling well for a week or 10 days. He had what he thought was a cold, and felt bilious. When seen at 4 o'clock on the same afternoon, his breath was fetid, tongue rather heavily coated and yellow, pulse 100, temperature 104°. He had headache over the brow and in the occipital region. He had no nausea and no cough. Upon physical examination, the lungs were found to be perfectly clear, and heart-sounds normal in every respect. There was no abdominal tenderness, no iliac gurgling. The splenic area was not increased, and the spleen could not be palpated. The following day there was a slight drop in temperature to 102.4°; pulse, 72. Bowels had been well moved, but he had not had a good night because of the continuance of his headache. The next day at noon, his temperature was 100°; pulse, 72; the tongue still heavily coated, yellowish-white. At 6 o'clock the same evening, the temperature had risen to 101°. The blood-examination made upon this day by the Widal test was negative.

The following day the patient seemed to be improved in all respects, and I considered him about convalescent, though he had had nose-bleed upon that and one or two of the previous days. I had been afraid from the character of the onset, the headache and the appearance of the tongue, that he was developing typhoid, but by this time had changed my mind.

Upon visiting my patient at noon on February 23, I found that he had had a very bad night. He had been able to sleep but little because of a very severe pain about the angle of the lower jaw and along the cervical glands. He also had intense headache. His temperature was 104.4°; pulse 104. There was extending over the bridge of the nose, and upon each malar prominence, a sharply-outlined butterfly-shaped zone of redness. The eyes were partially closed by the swelling of the lower lids. At 6 P.M. the temperature remained at 104°; the pulse 100. The bowels had not been moved. He had had nose-bleed during the afternoon. There were no abdominal symptoms. The following day, small vesicles containing a clear yellowish fluid were observed on the outer wall of the inflammatroy zone, which had now spread a little down the cheek, and up between the eyes. The temperature remained at 104.4°. On the 25th the temperature continued extremely high, 104.4°; pulse, 96. At 6 P.M. it had risen to 104.6°; pulse, 100. The inflammatory area had extended up over the forehead, and down well toward the angle of the jaw, and into the beard. The eyes were almost closed by the swelling around them. A second specimen of blood taken for Widal's test again showed no typhoid reaction.

The patient now told me that he had discovered what had caused this inflammation. He said that he had always been susceptible to "poison-ivy," having had many attacks of the poison; that in the spring he was afraid to drive through the country for fear that the breeze blowing from the poison-vines would infect him. He had been poisoned the previous August, and during that attack had used a bottle of sweet oil upon his face. February 22, feeling that his nostrils were somewhat stuffed up, he had secured the bottle of sweet oil previously used in the attack of rhus-poisoning, and had rubbed some of the oil well in over the nose and cheek. Some six hours later, he had been attacked with pain, and his fever had risen to the point mentioned. Upon the 26th, or four days after infection, the temperature at 9.30 in the morning was 101.4°; pulse, 86. At 6 P.M. it had again gone up to 104°, with the pulse 104.

During these 3 days the patient had not felt uncomfortable except for the inflammation upon the face. The urine at this time had a specific gravity of 1025, contained a distinct cloud of albumin, no sugar, and a considerable number of small granular casts shown by microscopic examination. Three days later examination showed the urine yellow; specific gravity 1020; distinct cloud of albumin; no sugar; slight excess of leukocytes; a little uric acid; some 10 or 15 casts, one or two epithelial; a few granules, and a few red blood-corpuscles. By the middle of March it was practically normal.

By March 1 all signs of inflammation had disappeared from the face, except in the left ear, which was slightly reddened and somewhat swollen. The tongue remained heavily coated, gray. During the 5 or 6 days of active fever the man had lost fully 12 to 15 pounds. He had become distinctly anemic, and had lost much strength. By the 8th or 10th of the month, he was able to spend several days at Atlantic City, and returned feeling well, except that his strength was yet far below par. The inflammatory condition on the face disappeared entirely in two weeks' time by superficial desquamation of the affected area. This area did not seem to be sufficiently deep-seated to be erysipelatous in character, but did in every particular resemble acute dermatitis, produced by one or other varieties of the poison-ash or poison-ivy. A microscopic examination of the oil which was rubbed upon the face revealed a large number of cocci which could not be differentiated. Bacteriologic examination of the oil, kindly made for me by Dr. Abbott, showed a single colony upon the plates, which was composed entirely of streptococci.

In looking over the notes of the case, I was interested to notice the resemblance to the prodromal stage of typhoid. The chill followed by the headache, fever, and preceded by some days of general malaise with a continued fever and badly coated tongue, put me on my guard in that respect. I scarcely expected the first examination of the blood to give the typhoid reaction, although I waited until the fourth day of the disease. By that time I became convinced that the patient had not typhoid, but had had probably an attack of influenza without marked catarrhal symptoms or muscular pains. Upon the day that I expected to find him convalescent, his temperature had taken a decided jump. He had again had nose-bleed, and I now thought that he was getting an attack of erysipelas, which, however, had nothing to do with his prior sickness, and I so told the family. The continuous high fever without a corresponding elevation of the pulse was curious to note. There was mild delirium at night. In the absence of any further confirming evidence of enteric fever, I concluded that the man's illness was due entirely to the facial inflammation.

He was treated symptomatically from the start, the bowels being moved by repeated small doses of calomel; the temperature controlled by means of quinin and sponging; the heart sustained by liberal doses of whisky and strychnia, and the facial inflammation treated by repeated antiseptic lotions of mercuric chlorid, or black-wash, and with a dusting-powder of bismuth, zinc, and boracic acid.

I think the case was one of poisoning by the active principle of the rhus toxicodendron. If Dr. Pfaff is correct, the oil which forms a toxic principle is easily soluble in oils, alcohol, ether, etc., but insoluble in water, and would have easily been preserved in the menstruum of sweet-oil. It might be argued that the condition was one of mild streptococcal invasion, but the inflammation was neither purulent nor phlegmonous in character, and its subsequent clinical history does not tally with that form of facial inflammation.

In order to prove that this was a case of true rhus-poisoning, I should have attempted to inoculate susceptible individuals with the oil. I did not care to again jeopardize the health of my patient to that extent, and subsequent to the bacteriologic examination the oil was lost. I believe, however, having seen the facial inflammation from the onset, noting its characteristic appearance without marked systemic affection other than febrile reaction, that this was a true case of rhus-poisoning and have thought it worthy of reporting.

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Macroglossia is a very rare condition. J. J. Pratt (*Indian Medical Gazette*, January, 1899) reports a case in a boy 3½ years old. The tongue protruded about an inch and a half between the teeth, the mouth was constantly open, saliva dribbling, and the patient was unable to masticate food and spoke and drank with difficulty. The tongue had become inflamed 8 months before, and had gradually enlarged. Under chloroform-anesthesia the tongue was drawn out, transfixed by ligatures, which were crossed and tightened, a round incision was made through the whole thickness of the organ behind the teeth-marks, and the prolapsed portion removed. The patient made a rapid recovery, and on leaving the hospital was able to eat, drink, and speak without difficulty. [M.B.T.]

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The Law Regulating Dispensaries in New York.—The New York Legislature has passed what is known as the "Dispensary Bill," and it has been signed by the Governor, thus making it the law of the State. This we believe is the first practical legislation to correct the abuses of dispensary management in this or any other country. Too much credit for the enactment of this law cannot be given to the Committee on Legislation of the New York State Medical Association, of which Dr. E. Eliot Harris is chairman, and to the various other organizations which supported the movement through all its stages. The important features of the new law are those which empower the State Board of Charities to exercise a strict supervision over the dispensaries to the extent of revoking the license of any one for cause, and the provision requiring each dispensary to obtain a license from the State Board. The power to revoke a license is properly guarded, so that every dispensary is protected from any abuse of this power. But the best guarantee that the new duties of the State Board of Charities will be discharged in the interests of a sound public policy is found in the fact that it is composed of some of the most prominent citizens of the State, is entirely nonpartisan in character, and is an unpaid commission. It consists of twelve members, one from each of the eight judicial districts, and three additional from the City of New York, and one from Brooklyn. The profession of other States and of England, where the subject of dispensary abuses is in an acute stage of agitation, will watch the progress of developments of the administration of the New York law with the greatest interest. We earnestly hope and believe that the law will prove to be the beginning of the end of a most disgraceful condition of affairs both sociologically and professionally. Other States should enter upon similar courses of procedure. There is no remedy except through the law and a united profession.

Government Support of the Theater in the United States.—The progress of our country in imitation of foreign models is extremely rapid, but in no respect is it more so than in that pertaining to subvention of the theater by the State. In fact we have outdone the Europeans in this respect, for while they, as a rule, have but a single governmental play-company for each nation, we have one for each State. Moreover, the allowance by the foreigners is moderate and even niggardly, but we support our actors—at least the stars—with true American opulence, giving them millions of money, and if they wish it, gladly making them our senators and rulers. Each year we require our 40 or 50 troupes to assemble at the respective capitals of the States and re-enact the screaming old American farce entitled *Government, or the Triumph of the Bosses.* One of the most rollicking scenes in the last act is that representing the meeting of the appropriations-committee, in which the plunder of the State treasury is carried out with the most solemn and sancti-money-ious demeanor. "If there's not enough money in the treasury," cries the medical politician-actor, "vote it any way, and we'll find a way to get it. Did we not unselfishly take care of the sick soldiers in our elegant hospitals, the heroes who sacrificed their blood and their lives for us—and —I move you, sir, that the hospital which made the biggest advertisement get the most money." "The way to get it" was shown on one of the stages by the epilog. Usually farces do not have epilogs, but in the instance alluded to, the fun was given a delightful quip by one of the actors, dressed as a gentleman, appearing after the curtain had fallen, and with naive innocence protesting that the schools must be sacrificed to the hospitals—"the State, you know, must care for legs before it cares for brains." After a brief vacation diligent rehearsals will commence of the new State play, *Sine "Qua" non*, for the opening of the next season.

The Influence of Sodium Chlorid on the Secretion of Urine.—In view of the somewhat liberal use, both medical and surgical, that is being made of sodium chlorid in solution in the form of enteroclysis, hypodermoclysis, intravenous injection, irrigation of serous cavities, etc., the results of some observations made by Prof. W. H. Thompson and communicated to the Royal Academy of Medicine in Ireland (*British Medical Journal*, April 1, 1899, p. 793) are not without interest. Solutions of sodium chlorid (0.65 and 0.9%) were injected into the external saphenous vein of dogs in quantities varying from 30 to 50 cu. cm. and the urine secreted collected from both ureters by means of cannulas. The animals were given a hypodermic injection of morphin and were anesthetized with a mixture of chloroform and ether (1 to 2) during the operative procedures. The urine was collected for definite periods before and after injection of the salt-solution. It was found that a marked increase took place in the amount of urine secreted, which reached its maximum in the second hour after the injection, but had not wholly subsided at the end of four hours. This increase far exceeded the amount of fluid injected. After making allowance for this quantity the average of ten experiments showed an augmentation of over 300%. Both the total nitrogen and the urea also were increased, the augmentation reaching its maximum in the hour immediately following the injection. These effects were found not to be due to dilution of the blood or hydremic plethora caused by the injection, nor could they be ascribed to any supposed necessity for getting rid of the sodium chlorid injected. In many cases the actual output of chlorids was diminished. The anesthetic mixture was found to be without material effect on the secretion of urine. No adequate cause has thus far been found to account for the diuresis. Whatever the explanation, the procedure would seem indicated, as it has in many instances already proved efficient, in the treatment of conditions attended with deficient elimination of urine, particularly in the presence of toxic states, such as uremia, diabetic coma, opium-narcosis, etc.

A question of musical progress, possibly some would prefer to say regress, is presented in the mechanic devices now extensively used for piano-playing and organ-playing, which have been nearly if not quite perfected by Yankee ingenuity. The waste of life and the injury to musical appreciation in the deplorable slavery to the piano ordered by fashion has been one of the strange morbidities of civilization. The ultra-critical among musicians may sneer at "mechanical music," but nothing could exceed the mechanicalness, so far as fault goes, and utterly without the mechanical merit of accuracy, of most of the piano-playing of school-girls and amateurs. We are fully aware of the dangers of the mechanical devices (the æolian, pianola, etc.), but, after all, we believe these machines conduce as much to genuine musical progress as they do to physiologic progress and to checking the occupation-neurosis of piano-playing. In fact, in permitting *all* the attention to be given to *expression* the devices (at least as they will be perfected) must prove of great benefit in the true popularization and appreciation of music. Certainly they must help to do away with that more stupid and expressionless "music" which results from forcing children and young people to attempt the acquirement of a technic impossible to nine-tenths of them. The best method of carrying on the warfare against absurd and excessive key-board pounding, with its resultant disease, lies in the use of the perfected mechanical devices of which we speak.

The Visiting Nurse Society.—The utility and the value of the trained nurse have been so firmly established and are so generally recognized that these subjects are no longer within the pale of discussion. As things go, and as trained nurses must be remunerated, much the larger portion of the community would be deprived of the services of these valuable assistants of the physician if some compromise were not effected by which two apparently remote extremes might be brought together. The difficulty has been overcome and the benefits of skilled nursing and attendance extended to the homes of even the most humble through the organization of the visiting nurse society, which provides nurses who visit the sick and attend to their needs in accordance with the instructions of the attending physician, for small fees in the case of those who can afford to pay them, and gratuitously when the means of pecuniary recompense are wanting. No better work can be conceived; it is true charity, not pauperization; and it is, therefore, deserving of the heartiest encouragement and the most cordial support. The Visiting Nurse Society of Philadelphia illustrates as well as figures can the good that may thus be accomplished. The society is to be credited for the year 1898–99 with the care of 1880 cases, comprising 15,939 visits to needy sick persons, of whom 903 contributed something for the service. As is pointed out in the society's annual report, its work bears fruit not only in the actual help rendered, but notably also in increased cleanliness and in additional attention to the rules of hygiene. By reason of the severity and the length of the winter, and the excessive prevalence of influenza, pneumonia, and typhoid fever, the demands upon the resources of the society have been more than ordinarily heavy, so that it finds itself with an almost empty treasury, and it should not have to issue an appeal in order that its funds shall be amply replenished. The main office of the society is at 1340 Lombard St., and Mrs. Albert P. Brubaker, 105 North 34th St., is the treasurer.

The Abuse of the Piano.—Dr. Waelzhold, according to a cablegram, has started on a crusade against the piano. He seeks to prove in the case of girls that excessive practice on this instrument leads to chlorosis and nervous disorders. He condemns the "deadly custom" of compelling young girls to hammer the keyboard before they are 15 years old, and claims that even at that age the practice should be restricted to those who have real talent and a robust constitution. Waelzhold even cites figures (how reliable, we can not say) which tend to show that of 1000 young girls studying the piano before the age of 12 years 600 were afflicted with nervous disorders later in life; while of a similar number who began to learn the piano later in life only 200 suffered in like manner. Of those who never touched the piano only 100 were afflicted in a similar way. The violin is accused of being an even more dangerous instrument than the piano.

We are not much impressed with Waelzhold's statistics, because nothing is more unreliable in such a study than figures. The personal and hereditary equation comes in to such a marked extent, that a narrow or one-sided view (such as is often given by statistics) leads to erroneous conclusions. We firmly believe, however, that the abuse of the piano can cause a true "occupation-neurosis," and that the risks of incurring this disorder are generally overlooked by parents and contemptuously ignored by music-teachers. The fault is mainly with this latter class. The disorder may assume several phases. There may be merely a general obscure neurasthenic state, or, what is much worse, there may be a true "piano-player's palsy"—exactly identical with the affection of scriveners,—or there may be (and usually is) a combination of these two. In this latter type, the arm may be painful, contractured, paretic, and even slightly wasted, while the more general neurasthenic symptoms are presented in a syndrome of cerebral, spinal, and gastric derangements which is characteristic and easily recognized. In this country we occasionally see such cases, from a mild to an aggravated type, but they are not so common as Waelzhold seems to have observed them abroad. This is probably because we have not yet become such a nation of 'piano-punchers" as the Germans and English.

The fault, as said above, is largely with the music-teachers, and they are the parties who should be held accountable. We have known of cases in which young women were allowed, if not even encouraged, to practise at the keyboard for seven and eight hours a day. Disastrous results followed, and in one case disablement of the arm with distinct neurasthenia of more than a year's duration was a consequence. Music-teachers are proverbially obstinate and tyrannous, and they are also woefully ignorant of and indifferent to the laws of health. Let the remedies be applied first to them—*i. e.*, let them know that they must reckon with the physician.

The Cause of Scarlet Fever.—Scarlet fever comports itself in every respect like a microorganismal disease; but, despite the abundant opportunities for study and the zeal of bacteriologists, the cause has remained unidentified. By many, the streptococcus, which has been found in the throat and even in the blood of scarlet-fever patients, is considered the etiologic factor, but Frosch and Kolle, in the last edition of Flügge, ertainly express the prevailing sentiment when they say hat the epidemiology and course of scarlet fever, as an infectious disease *sui generis*, cannot be brought into accord with the biology of streptococcus and the course of streptococcus-infections.

The most recent claimant to be considered the cause of scarlet fever is a diplococcus discovered by William J. Class, of Chicago. Dr. Class had been detailed by the Board of Health to study the disease, which during the winter-months and up until March of this year had presented a high degree of virulence. On a special glycerin-agar medium, containing 5% by weight of black garden-earth, he succeeded in cultivating from the scales and from the throat-secretions of scarlet-fever patients a large diplococcus, resembling, in its biscuit-shape, the gonococcus. The organism has no capsule, shows no spores, is devoid of flagellæ, and possesses no independent motility. It is decolorized by Gram's method, although not as completely as the gonococcus. Growth on the black-earth agar-medium occurs, at 35° C., in from 48 hours to a week, the colonies appearing as small, whitish-gray bodies along the track of the inoculation and around the scale, if that was used. On agar and glycerin-agar, on gelatin, bouillon, and potato, growth does not take place; in blood-serum the organism multiplies slightly, but is soon overshadowed by other bacteria always present in the scales. For rabbits and guineapigs it is not pathogenic. By injecting a culture into the ear-veins of swine, Class was able to produce a disease closely resembling human scarlet fever; moreover, he succeeded in growing, from the blood and the scales of the infected animal, the same species of microorganism as that originally injected. It would appear from this that the organism conforms to the laws of Koch as to pathogenicity, and if other investigators confirm the observations—the members of the medical staff of the Chicago Board of Health have begun individual and independent researches—Dr. Class will have made one of the most important discoveries of recent times. We sincerely hope, for his own triumph and for the glory of American medicine, that the confirmation will speedily follow. The work of Dr. Class has been epitomized in a report of the Department of Health of Chicago, but we shall soon publish an original article on the subject by Dr. Class.

The Treatment of Syphilis of the Nervous System.—In a volume of clinical lectures, recently published, Gilles de la Tourette devotes 80 pages to that subject of never-failing interest—nerve-syphilis. He really only discusses syphilis of the spinal cord in these 80 pages; so the reader has some right to look for novelties, especially in the domain of treatment. The author is optimistic to a high degree with reference to the curability of syphilis, and reaches more satisfactory conclusions in his pages than a good many neurologists do in their wards. In fact, Gilles de la Tourette seems to us to resemble some other specialists, in the fact that he does not resist the temptation to write brilliantly about his therapeutic triumphs in syphilis of the nervous system. He adopts a tone of encouragement and hope that must be especially welcome and invigorating to those clinicians who have often watched in vain for the gratifying results about which he writes. This is all the more remarkable because the French author cautions his readers against confusing the effects of drugs with the natural remissions which occur in the disease. Nerve-syphilis, he says, may be arrested in its progress; it may even recede without treatment, but this retrocession is seldom equivalent to a definite cure. In a word, even in the most favorable cases the *restitutio ad integrum* is much more apparent than real.

Gilles de la Tourette believes, however, that treatment is able to do more than merely secure a natural remission (which would have occurred anyhow), and says that the reason why so many incurable syphilitic paraplegics people the hospitals is that they have been insufficiently treated, and especially not treated in time. This sounds like a grave arraignment of practitioners in general, and surprises us; for certainly if there is any disease that we supposed was thoroughly treated to-day it is syphilis. In fact, in some medical centers we think it is over-treated—especially in France and Germany. Tourette insists that there are two causes for the failure to treat nerve-syphilis early enough: first, the fact that the patient does not recognize the early symptoms of his disease, and, second, the fact that his physician does not recognize them. Between the ignorance and the neglect of the two the disease gains fatal headway, and by the time the neuropathologist (with his hypodermic syringe and giant doses of the iodids) appears on the scene, the nervous tissue, or some of it, is irreparably destroyed.

We protest that all this sounds rather hackneyed to us, and is something like a begging of the question. It is indubitable that grave crises of nerve-syphilis can occur in the very midst of active treatment. The richest nervous clinic in this city (Blockley) proves that fact occasionally. It would therefore seem that such ultra statements as those made by Tourette should be modified, and that it should be recognized that the whole game is not entirely in the hands of him who takes the first trick. We believe, in fact, that many erroneous views are held and taught about the curability of nerve-syphilis, and that a very moderate tone is more in accord with the teachings of experience.

The Localization of Pulmonary Lesions, with Particular Reference to their Surgical Treatment.—The difficulties attending the exact diagnosis, not only of the nature, but also of the situation and extent, of certain pulmonary lesions that of recent years have been considered amenable to surgical treatment, is well illustrated by a paper read by Tuffier, at a recent meeting of the Société Médicale des Hôpitaux de Paris, and noted in a recent number of the *Lancet*. Tuffier had devoted considerable attention to pulmonary surgery, and presented at the meeting of the International Medical Congress held in Moscow, an analysis of the accessible cases—306 in all. His study of these cases convinced him that the difficulties attending upon pulmonary surgery were due rather to insufficiency in diagnosis and defective localization than to shortcomings in surgical technic, and this opinion was confirmed by 17 cases of pneumonotomy that he had himself performed. It is self-evident that the successful surgical treatment of a pulmonary lesion presupposes an exact knowledge of its unity or multiplicity, its nature, its situation, and its extent. Of such importance are these that it seems opportune to narrate some of the results of Tuffier's study. Of 221 cases, the diagnosis was incomplete in 45; in his own 17 cases, an error was committed in 7, although his patients had been examined by one or several of his most distinguished colleagues. Hepatic abscess could be distinguished from purulent pleuritis only with great difficulty. A nonsuppurating hydatid cyst supposed to be situated in the liver, was found by him to be confined entirely to the lower lobe of the right lung. In another case of hydatids, the physical examination seemed to indicate that the lesion affected the upper two-thirds of the lung, but at the operation, the cyst was found as large as a fetal head, filled with living echinococci, and limited to the lower lobe. Radiography had revealed no opacity in this region. In a case of gangrene of the lung, the center of the lesion had been localized in the eighth intercostal space; the inferior extremity was found in the seventh. The depth of the lesion was still more difficult to define. Two patients had been operated upon, in whom the physical examination seemed to indicate that pneumothorax was present. Operation revealed cavities situated a finger's breadth below the surface of the lung. This mistake was considered inevitable, as the lung was indurated, lardaceous, and adherent to the chest-wall. He refers to several other errors in diagnosis, one in particular in which multiple punctures failed to reveal an abscess complicated with gangrene, and another operated upon by Quincke, who opened one cavity, and in which the necropsy revealed another. The extent of the cavity was most difficult of determination, as small ones might simulate large ones. Bronchiectasis presented especial diagnostic difficulties, in that a number of small suppurating excavations might manifest the signs of a large cavity. The diagnosis in one case was septicemia consecutive to an extensive superficial excavation of the anterior portion of the lower left lobe. The incision revealed several small cavities the size of a walnut. The puncture was considered equally as inefficacious as auscultation. The form of expectoration might lose its significance, particularly in children in whom the thorax is supple, as all the bronchi might be emptied by a single effort, this simulating the evacuation of a single large cavity. The number of lesions is also most difficult to ascertain. The majority of errors in diagnosis were made with reference to the inferior lobe of the lung; they were much rarer in lesions of the apex.

Tuffier's paper is a noteworthy contribution, and the lesson it inculcates is of importance not less to intern ists than to surgeons, but rather more. It simply emphasizes what has already been mentioned in these columns, that it is not sufficient to state that a patient, for instance, has pneumonia, typhoid fever, echinococcus-cyst, or gangrene of the lung, but we must employ all the resources of our art in an endeavor to ascertain the nature, the extent, and the exact situation of the lesion, as well as its unity or multiplicity, the presence or absence of complications, and the ability of the individual to resist or ward off the onslaughts of the particular morbific agents. Tuffier does not desire to invalidate the reliability of medical diagnosis, believing that error is exceptional, and in this opinion we concur. But there remains the percentage of errors, and in our efforts to reduce this to a minimum, recourse must be had to all diagnostic adjuvants. Especial aid may be anticipated not only from a conscientious employment of all the subdivisions of physical diagnosis, but also from radiography, as well as from a careful study of instances of previous diagnostic errors.

The Results of Operation for Carcinoma of the Breast.—Great improvement has taken place in late years in the results of operations for the removal of the carcinomatous breast, and it has been demonstrated conclusively that if radical operative treatment of a proper character be instituted sufficiently early, permanent cure can be effected in a large proportion of cases. It is obviously essential that whatever is done be undertaken before too widespread extension of the disease has taken place, and a successful issue can be hoped for only if all diseased tissue is removed. A long time must elapse in the individual cases before the establishment of a permanent cure can be definitely accepted as having taken place. An exceedingly interesting and valuable contribution to this subject has been made recently by Watson Cheyne (*Lancet*, March 18, 1899, p. 756), who presents a further report upon 61 cases of carcinoma of the breast previously operated upon at periods varying from one month to 6 years prior to the time of the earlier report, three years ago. Of 21 cases in which three years or more had then elapsed after the operation, recurrence had taken place in 9, while in the remaining 12 the patients had remained well. Of this latter number 9 are yet alive and well; another has been well until lost from view, and one has died, not from local recurrence, but from hemorrhage resulting from carcinoma of the bowel. Of 40 cases in which less than three years had elapsed subsequently to the operation signs of fresh disease had appeared in 10, death from the operation had occurred in 1, 2 had been lost sight of, and in 27 there had been no recurrence. Of this last number 18 are yet alive and well; death has taken place in 1 without recurrence; in 6 recurrence has taken place with certainty, in 1 death, probably from recurrence, and in 1 the result is not known. Of 20 patients alive and well at the time of the earlier report, from one to 6 years after the operation, 17 are still well.

To the cases previously reported, 38 fresh ones are now added, in which from one to three years have elapsed since the operation. Of this number 26 patients have remained well without recurrence; one refuses to report, although she appears well; in one the result is unknown; one died suddenly about two weeks after the operation; 7 died from recurrence; one, in whom there had been recurrence, has probably died, and one, in whom there appeared to be slight recurrence, has been operated upon and appears well. Thus, among a total of 89 cases in which from one to nine years have elapsed since operation, 56 have with certainty been free from recurrence.

These results are in the highest degree admirable, and they could have been made much more brilliant had operation been declined in a number of cases of unfavorable prognosis, but it was wisely concluded that such selection would not have been fair to the patients; and, besides, in several instances in which it was thought that recurrence must take place the patients remained well. Operation was declined only when it was evident that removal of the disease was impossible on account of internal deposits, or of irremovable external deposits, or of extreme weakness.

In performing exploratory operations when the diagnosis is involved in doubt, it is recommended that the suspected growth be not incised in situ, but be excised, together with an area of apparently healthy surrounding tissue, in order to avoid possible infection. After removal the examination should preferably be made by someone not participating in the operation, or if such an assistant be not available the hands and the instruments should be scrupulously disinfected before the operation is resumed.

Especial importance is attached to free removal of the subcutaneous covering of the malignant growth, and this should be effected without regard to the question of subsequent closure of the wound. All the skin over the breast proper should be removed, however small the growth, and if it lies to one side of the breast special incisions must be made around it in order to get well wide of it. The skin and just sufficient fat to enable it to retain its vitality should be dissected up and the muscular fibers should not be exposed till just below the clavicle above, beyond the middle line in front, over the origin of the abdominal muscles below, and over the edge of the latissimus dorsi behind. None of the pectoral fascia or the fascia over the muscles must be left behind in the area of the wound.

Only the lower half of the pectoralis major muscle is removed, unless it is itself the seat of disease. Thorough clearing of the axilla is an absolutely essential part of the operation. The posterior triangle of the neck is attacked only in the presence of glandular enlargement.

In the after-treatment it has been found advantageous to place in the axilla a pad of salicylic wool sufficiently large to keep the arm at about a right angle with the chest and then to support the arm on a pillow. Even after the patient gets up it is well to keep the arm out from the side, though perhaps not at a right angle, for some weeks. In this way contraction is largely avoided and use of the arm is speedily recovered.

A New Medical Man in Fiction.—Following in the steps of Holmes, Doyle, and Mitchell, Mr. S. Squire Sprigge, of London, England, has turned for a time from his arduous editorial duties on the *Lancet* to the diverting fields of fiction, and makes his debut in a handsome little volume entitled "Odd Issues," containing thirteen short stories which teem with satire, wit, and ingenuity. As indicated by the title, they are all of odd and unexpecting ending, and in each tale the interest is skilfully carried to the last paragraph. There is such entire absence of things commonplace and amateurish, that we gather that these are the cullings of a long and patient apprenticeship. We congratulate Mr. Sprigge upon his versatility, and we venture the hope of a more pretentious work from him.

The Philadelphia Monthly Medical Journal for February has been mailed to subscribers. We again call the attention of those who have not ordered the Monthly, to the great value of these articles. Our supply of copies reserved for future subscribers is being rapidly exhausted. The subscription price is only $1.00 a year. The table of contents of the February number is as follows:—

1. The Histology and Histogenesis of Certain Tumors of the Parotid Gland, with Particular Reference to those of Endothelial Origin. By Aloysius O. J. Kelly, A.M., M.D., of Philadelphia.
   (The Essay winning the First Prize of $200 in the Department of Pathology.)
2. The Cutaneous Paratuberculoses. By James C. Johnston, M.D., of New York City.
   (The Essay winning the First Prize of $200 in the Department of Specialties.)
3. The Pathology of the Pacinian Corpuscle. By Aldred Scott Warthin, M.D., of Ann Arbor, Mich.
   (The Essay winning the Second Prize of $50.00 in the Department of Pathology.)
4. Physical Examinations; Methods for Medical Examiners in Life Insurance. By Samuel W. Latta, M.D., of Philadelphia, Chief Medical Examiner Relief Department of the Pennsylvania R. R.
5. The Connection of the Female Generative Organs and Laryngeal Affections. By Seymour Oppenheimer, M.D., of New York City.
   (The Essay winning the Second Prize of $50.00 in the Department of Specialties.)
6. Syphilitic Insanities and Pseudoinsanities, with especial Reference to their Prognosis and Treatment. By Chas. K. Mills, M.D., of Philadelphia.
7. The Role of Vegetable Parasites in Affections of the Skin. By Frank J. Thornbury, M.D., of Buffalo, N. Y.
8. Catarrhal Deafness. By J. Waldo Jewett, M.D., O. et A.C., of New Haven, Conn.

Editor and Reader No. 21.—Nonpaying "subscribers" do not pay. We have previously alluded to the widespread disgrace of medical journalism which consists in the continuance of a hundred varieties of nonpaying "subscribers." Physicians frequently receive several copies of one issue of a journal in the same mail, and it is well known that in the attempt to humbug advertisers every shameless method of making the circulation appear large is resorted to. But this plan is, we hope, about "played out." Absolute frankness combined with truthfulness is the best plan. You can fool all of the advertisers some of the time, and some of them all the time, but you can't fool all of them all the time. They are now pretty well convinced that "circulation" consists only in copies sent to those physicians who actually pay their money promptly for the journals they take. Only the journals paid for are read. We have also repeatedly emphasized the fact that only by paying for its medical journals can the profession ever secure an independent and useful type of medical journal. We have just dropped from our list between 300 and 400 names of men who have not kept their contracts as to payments. Nonpaying subscribers do not pay; they pay neither the advertiser, the journal, nor the profession.

Rupture of the Uterus; Postmortem Cesarean Section.—F. D. Kendall (*Virginia Medical Semi-Monthly*, January 27, 1899) reports a case in which he was called by a midwife to see a woman in labor, but on arriving found the patient dead. An unsuccessful attempt was made to deliver the child with forceps, and it was determined to open the abdomen. On incision the uterus was found ruptured from the fundus to the os on the left side, and on the right side was intramural fibroid tumor. The womb weighed 14¼ pounds. The woman was 34 years old, and had borne 6 children before without trouble. The child died just after delivery. In a second case he was called by a midwife to see a woman dying in labor. On opening the abdomen the uterus was found ruptured, the placenta was intact, and the cord pulsating feebly. A male child, weighing 10½ pounds, was removed, and is still living and well. The mother was a primipara, 18 years old. [M.B.T.]

Diagnosis of the Condition of Each Kidney.—Reynolds (*Bulletin of the Johns Hopkins Hospital*, November, 1898) relates the case of a woman, 31 years old, who had several times, during a period of 8 years, passed bloody urine. Between the attacks she suffered from headache and bearing-down pains; during the attacks these would cease. The ureters were catheterized and the urine collected separately—that from the right ureter was bloody. No tubercle-bacilli were found, but a guineapig inoculated with sediment from the urine of the right kidney developed tuberculosis, while one inoculated with urine from the left kidney did not. The right kidney was removed by operation, and presented the interesting and unusual condition of miliary tuberculosis of the pelvis and the kidney. In 2 other cases of suspected renal tuberculosis, guineapig-inoculation gave negative results—the cases afterward came to operation, and in neither was the kidney tuberculous. Reynolds considers the guineapig-inoculation, using the urine obtained by catheterization of the separate ureters, as the most delicate test for renal tuberculosis. He makes an interesting point with regard to the symptoms of chronic renal disease (tuberculosis and simple pyelitis especially), namely, that the inflammatory symptoms may often be found most marked on the sound side. This is probably, he thinks, because each exacerbation of the disease on the affected side leads to an increased elimination of toxic materials from the functionally more active kidney; and this excites a transitory and somewhat acute inflammation of the mucous membrane of the urinary apparatus on the sound side. This transposition of symptoms should not be forgotten. The side on which the symptoms were first noticed is usually the diseased side. [D.R.]

Correspondence.

SKIASCOPY OF THE RESPIRATORY ORGANS—A CORRECTION.

By A. W. CRANE, M.D.,

of Kalamazoo, Mich.

To the Editor of The Philadelphia Medical Journal :—

Dear Sir :—I regret to find that unintentionally I have done Dr. J. E. Stubbert, of the Loomis Sanitarium, an injustice in my article on skiascopy of the respiratory organs, published in the March number of the Philadelphia Monthly Medical Journal. A paragraph from Dr. Stubbert's letter to me states the matter concisely. He says: "My article on the Röntgen-rays, covering 72 cases, was published in the *Medical Record* of June 22, 1897, and the article you refer to in the Philadelphia Medical Journal of March, 1898, covers 100-cases. You will therefore note that my article on this subject antedates that of Dr. Williams, of Boston, which you will note was published in the *American Journal of the Medical Sciences* of December, 1897."

I hope that this correction may reach all the readers of the Monthly Journal.

THE MANHATTAN MEDICAL SERVICE CO.

By L. O. BREWSTER, M.D.,

of New York City.

To the Editor of The Philadelphia Medical Journal :—

In the Philadelphia Medical Journal of April 22, I notice your justifiable attack upon the nickel-in-the-slot medical companies. There are 7 such companies in New York City, and innumerable lodges and clubs working quietly on the principles outlined by you in this week's Journal. *The Manhattan Medical Service Co.* was organized to help the very poor people and relieve the overcrowded condition of our dispensaries, at the same time paying the physicians for attending those persons who otherwise would pay the physicians nothing. No members are allowed to join who have not been investigated and found unable to pay a physician. If others creep in they are dropped as soon as discovered. This principle has aroused the enmity of the companies operating indiscriminately for gain.

If our recently passed Dispensary Bill meets all requirements we will give up at once.

Will be glad to furnish you any further information.

[We gladly insert the foregoing letter in order to correct the impression given by the editorial note, and to give recognition of the motives inspiring the founders and managers of the company.—Ed. Phila. Med. Journal.]

BREWER'S YEAST IN FURUNCLES, ETC.

By THOS. C. MINOR, M.D.,

of Cincinnati, O.

To the Editor of The Philadelphia Medical Journal :—

In your issue of April 1, I note a communication from Dr. Alfred Gordon, of Philadelphia, on "Brewer's Yeast in Furuncles and Carbuncles." Following the treatment for carbuncles and furuncles outlined by the late George C. Blackman, Professor of Surgery in the Ohio Medical College, I have always used yeast internally, in such cases, and the same agent externally in poultices in conjunction with wood charcoal. I have followed this practice for 30 years and always with uniform success. The remedy is an old English one and must date back to some very remote period of time. The nausea and diarrhea that sometimes follow the first use of the yeast may be remedied by small doses of codein, given half an hour after the administration of the agent. The dose of the yeast may be increased to a dessertspoonful after the third day, as patients soon come to tolerate the taste and even to like the remedy. The yeast should always be kept in a cool place, or renewed every other day. It is a simple and very valuable agent and produces wonderful results in cases of inanition among children and even adults. In all bad cases of sore throat it evidences its beneficial effects within 24 hours. There are many physicians in the South and Southwest who never treat carbuncles or boils without adding yeast to their local treatment. A trial of ordinary brewer's yeast will speedily convince the most sceptical that it has a tendency to check suppuration.

April 22, 1899.

"BISHOP POTTER ON THE SALOON."

By A. J. HESSER, M.D.,

of Pittsburg, Pa.

To the Editor of The Philadelphia Medical Journal :—

To my mind if the question of the saloon is to be discussed in medical journals, it should be discussed on its merits—scientifically—and not be biased by misinformation and prejudice. You say: "This is the worldly, practical view, and is the one which the scientists accept of everything." Do scientists always accept the "worldly view?" "Bishop Potter scores the prohibitionists, and the grotesque hypocrisy of their system from Maine to Kansas," and receives the Journal's praise for "the episcopal rhetoric." Since when came there to be an especial "episcopal rhetoric"—pray?

"He places the temperance problem flatly on a scientific basis," you tell us. We will just stop a minute to look that question squarely in the face. Bishop Potter and you, Mr. Editor, would not seek to eradicate the saloon—"a hopeless task," you say. "First remove the cause or causes if possible" has been hammered into every medical student from the time of Hippocrates till the present time, and I presume it will be hammered into the future student so long as men think rationally. In this very issue of the Journal your first words are "murder by typhoid." You say "Councils are ethically guilty of homicide, . . . the legal accountability would be made as clear." Why do you say these hard things against councils? Simply because they will not take the known measures to remove the cause of typhoid fever. Are you not a citizen of this State and of Philadelphia? Are you not "ethically" responsible for all future deaths from typhoid fever in Philadelphia, if you neglect to place those responsible for said murders where they cannot continue to kill?

Compel them to face the issue in the courts, then only are you free from complicity.

If the councilmen of Philadelphia are "ethically guilty of multi-murder for neglecting to remove the cause of typhoid fever in Philadelphia," by what process of reasoning would you and Bishop Potter make prohibitionists "medieval monastic ascetics" for trying to remove the cause of a death-dealing agent greater than typhoid? "Grotesque hypocrisy." Is the use of invectives, calumny, and intemperate language "flatly scientific"? Bishop Potter's words are: "Arrogant, unscrupulous, untruthful, fanatical, foolish, hysterical." Bishop Potter has done the prohibition cause a good turn. I am glad he said what he did. I am answering you and not him; he is not worth a thought. "Faddism, errors, extremes." Have you never heard of fads, or errors, or extremes in the great science of medicine? See Matthew 7: 3, and Luke 6: 41. You say "from the medical standpoint, etc., no person can estimate them at their true value more accurately than physicians." I ask you what estimate is held in higher esteem by prohibitionists than is that of the physician? Have you ever in your life heard any person say the evils from alcoholics were "the only evils in the world"? Come, come now, confess; such a statement could come only from such as Bishop Potter, or Gen. Egan, or others, when passion reigns instead of reason.

"Not a small part of the good work that physicians do is, we doubt not, to inculcate the principles of true temperance;" *e. g.*, keeping typhoid patients for weeks on whisky, often ad libitum, and that too without a knowledge of its alcoholic strength or purity; by advising nursing mothers to use alcoholics to "make milk;" giving quinin and whisky for breaking up a cold or to cure influenza; by using medicines put up in a menstruum of 16% to 24% alcoholic strength. (A menstruum should be without an active physiologic action.) Oh, we physicians are "flatly scientific!"

Many physicians are prohibitionists, and their number is increasing yearly. Many physicians are total abstainers, "Bishop Potter and the purely practical and truly ethical standpoint" notwithstanding, and their number, too, is growing larger; note that the menus of medical banquets are becoming more and more nonalcoholic. Drunkenness—the legitimate fruit of the saloon—is no longer fashionable or respectable or a joke or a weakness or anything else than a disease, else why discussed in medical literature? The propagation of it is nothing short of a crime, and he who supports the legalized liquor traffic is a criminal! Is "the freedom of regenerated manhood" to be permitted—yes, aided—to fill our penitentiaries, our jails, poorhouses, workhouses, hospitals, and above all, our insane asylums, epileptic homes, and nervous-disease clinics? God forbid! Shall innocent babes be brought into this world under a great curse? Is "the vast population" crying for vaccination or for pure water, *e. g.*, in Philadelphia? Why are your cries not heard, and why is there not such an uprising of "the vast population" as would compel those criminal councilmen to give germ-free water? The vast population is ignorant of the facts in your pure-water appeal; likewise, it is ignorant of the facts concerning the evils resulting from alcoholics used as beverages.

"A vast population cannot and ought not to be coerced by the whims of a few people." Did not the present Governor of New York, while police commissioner of New York City, stop Sunday sales of alcoholics, and has New York City not a vast population? Are you forgetting the vast population of school-children, who are coerced by the whims (?) of a few people to be vaccinated, and that, too, without any guaranty that modern technic will be observed?

Would you "seek to control" smallpox or yellow fever or other contagious or infectious diseases, or would you seek to crush them out? Which?

The liquor curse has oftentimes entered our own ranks, and has taken from us some of our best and most promising men. Physicians must awake and be vigilant. Physicians should always be in the van of any army fighting against any disease or cause of disease. A verse occurs to me just now:

"Yes, God is for the right,
However man goes wrong,
The race he gives not to the swift,
Nor victory to the strong.

"It matters not how weak the cause,
If worthy in his sight,
It will triumph soon or late,
For God is for the right."

Compliments to the best medical journal in America.
4518 Liberty Avenue.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending May 6, 1899:—
Wednesday, May 3—College of Physicians.
Thursday, May 4—Obstetrical Society.

Dr. George Woodward, recently a member of the Board of Health, has received the endorsement of the Young Republican Club of Germantown for the nomination for Common Council to fill the vacancy caused by the resignation of Samuel Goodman.

Northampton County (Pa.) Medical Society.—At the eleventh annual meeting held in Easton, April 21, the following officers were elected for the ensuing year:—President, Dr. Charles McIntyre, Easton; secretary, Dr. F. H. Ervin, Bethel; treasurer, Dr. Amos Help, Easton.

Medical Club of Philadelphia.—At the meeting held April 21, Drs. William T. Bull and William B. Coley were guests of the society. Addresses were made by the president, Dr. J. M. Anders, Drs. W. T. Bull, W. B. Coley, W. W. Keen, DeForrest Willard, W. L. Rodman, and others.

Appropriations to the various hospitals of Philadelphia and Pennsylvania, amounting to about $1,000,000, were made by the Legislature just prior to adjournment. The Hospital of the University of Pennsylvania and Jefferson Medical College Hospital received $75,000 each, and the Medico-Chirurgical College Hospital $120,000. Numerous other hospitals received smaller amounts.

The faculty of the Woman's Medical College of Pennsylvania has addressed a communication to Mayor Ashbridge praying that Dr. Frances G. VanGasken, one of the instructors in the college, be reinstated as a medical inspector in the Bureau of Health. Dr. VanGasken and 3 other inspectors were recently relieved of their appointments as a result of the exigencies of political transmutation.

University of Pennsylvania.—The Trustees of the University of Pennsylvania have created 2 Professorships of Clinical Medicine in the Department of Medicine. Individuals desiring to be considered as candidates for the positions may send notice of such desire to the Dean of the Medical Faculty, University of Pennsylvania, before May 15, 1899. The position of Assistant Professor of Applied Anatomy will be vacant September 1, 1899. Candidates for this position may also give notice of their candidacy by addressing the Dean of the Medical Faculty before May 15, 1899.

Dr. W. G. Stewart, who died, April 14, at Newville, Pa., aged 57, had a rather unusual relationship with the medical profession. He was the son of Dr. Thomas Stewart, the brother of Drs. Thomas and J. Sloan Stewart, and the father of W. Blair Stewart of Atlantic City, N. J. An autopsy made by his brother and son, in connection with two other physicians, determined the cause of death to be "congestion of the lungs and liver."

Laboratory of the State Board of Health of Delaware.—The State Board of Health of Delaware has established a laboratory in Newark, Del., at the State College, for the purpose of aiding the physicians of the State in the diagnosis of typhoid fever, diphtheria, tuberculosis, hydrophobia, as well as other diseases which can be elucidated by examination of urine, blood, stomach-contents, etc. The aim will also be to carry on original investigation with a view of furthering the progress of sanitary science in general and bacteriology in particular. Prof. Chester, the State bacteriologist, has been appointed director and Dr. A. Robin bacteriologist and pathologist of this laboratory.

A Reference-Library for the Department of Histology in the Woman's Medical College of Pennsylvania.—The proceeds of a concert that was given some time ago under the auspices of the students of the Woman's Medical College of Pennsylvania, and some personal contributions of a few of the students, have been presented to the department of histology for the purpose of founding a reference-library for the department. Dr. Emma L. Billstein has been appointed trustee of the fund, the income only of which is to be employed for the purchase of such books as the trustee may deem expedient. This is an action on the part of the students worthy of extended emuation.

Pittsburg (Pa.) Academy of Medicine.—At a meetng held April 17, Dr. E. B. Haworth reported a case of varicella which for a time much resembled variola. Some of the vesicles were umbilicated, and a few of them later became pustular. Dr. E. B. Heckel stated that the umbilicaion of variola eruption is most characteristic and of coniderable diagnostic value. Dr. T. C. Christy remarked upon the difficulty of differentiating between varioloid and chickenpox. He had never seen an abundant eruption in varioloid. Dr. E. H. Small asked if other cases had followed one reported by Dr. Haworth. (There were no others.) Dr. . C. Thompson related personal experience with varioloid. Prof. Shields continued his lectures upon Electricity.

The American Medical Supply Company, we learn, s the name of a company whose object is to issue contracts according to which the company agrees to furnish for a small yearly ($6.00) or monthly payment, the services of a regisered physician, and medicines in case of sickness. The following are given as reasons why one should have contracts with the company:

First.—Because it will save you money.

Second.—Because our Physicians are the *best* that can be secured; are paid by the year, and not for each visit, and, therefore, will get you well as quickly as possible.

Third.—Because you are liable to be taken sick *at any time* and may not have the money to pay for medicine and the services of a Physician.

Fourth.—Because you may *prevent* a serious sickness by consultng one of our Physicians before it is *too late.*

Fifth.—Because you will not have *large* Doctor and Drug bills to worry about.

Sixth.—Because you can call on or send for one of our Physicians as often as necessary.

Agents are wanted everywhere.

Vital Statistics of Philadelphia for the week ending April 22, 1899:—

Total mortality	505
Children under 5 years of age	122

Diseases.	Cases.	Deaths.
Pneumonia 62, congestion of the lungs 5		67
Pulmonary tuberculosis		63
Heart-disease 30, inflammation of the heart 5, fatty degeneration of the heart 2		37
Apoplexy 22, paralysis 9, softening of the brain 5		36
Nephritis 26, uremia 6		32
Typhoid fever	242	29
Marasmus 15, inanition 6, debility 4		25
Inflammation of the brain 15, congestion of the brain 5		20
Diphtheria 15, membranous croup 3	57	18
Casualties 14, burns and scalds 3		17
Gastroenteritis		17
Senility		14
Convulsions		14
Carcinoma 11, tumor 3		14
Cerebrospinal meningitis	20	6
Scarlet fever	42	1
Smallpox	3	0
Bronchitis 9, peritonitis 7, cyanosis 6, dropsy 6, teething 6, erysipelas 5, cirrhosis of the liver 4, intestinal obstruction 3, abscess 2, diabetes 2, hemorrhage 2, hernia 2, appendicitis 2, rheumatism 2, suicide 2, alcoholism 1, colic 1, drowned 1, homicide 1, inflammation of the liver 1, measles 1, pertussis 1.		

Philadelphia Obstetrical Society.—At a meeting held April 6, Dr. W. Frank Haehnlen read a paper on **The clinical significance of peptonuria in pelvic abscess, with report of illustrative cases.** Peptonuria is frequently present when there is a breaking up of leukocytes, etc. It is of value as a symptom in obscure conditions. Pyogenic peptonuria is present in suppurative conditions. In ulceration of the intestine the peptone passes directly into the blood. Its mere presence in the urine is not sufficient to warrant final conclusions, but with the clinical symptoms it becomes a useful corroborative sign. Dr. Haehnlen reported 7 cases in which peptonuria was present and operation proved the presence of pus in the abdominal or pelvic cavity.

Dr. F. C. Hammond discussed **Perineal lacerations and immediate repair.** Lacerations of the perineum and pelvic floor are accidents bound to happen in the hands of the best obstetricians. The unpleasant sequels of these lacerations, the cystocele or rectocele with uterine malpositions, either posteriorly or downward, which so frequently ensue, are powerful arguments in favor of more careful attention to immediate repair of these injuries. Careful examination should always be made and even slight tears repaired, because the danger of subsequent infection is much diminished.

Dr. Daniel Longaker detailed indications and method employed in **manual dilatation of the cervix uteri.** Dr. A. J. Downes reported 3 interesting cases: (1) **ureteral fistula following curetment of a cancerous uterus** in which celiotomy was performed, the adhesions around the ureter broken up, an angulation relieved, and spontaneous cure resulted; (2) primary and secondary celiotomy for **angulation of the sigmoid flexure of the colon;** fecal vomiting followed the second operation and the patient ultimately recovered; (3) a case of **varicocele of the right lateral wall.**

Philadelphia Neurological Society.—At a meeting held April 24, Dr. Charles K. Mills presented a **case of anomia.** The patient had lost almost completely the power of naming objects. Dr. Eshner discussed the terminology of this condition.

Dr. Elizabeth R. Bundy reported a case of **tetany** occurring in a young woman. Trousseau's sign could be readily elicited, and Chvostek's symptom was also present. The patient had greatly improved.

Dr. J. K. Mitchell presented a patient who had had a severe attack of **multiple neuritis** after inunction with 4 ounces of mercurial ointment for the purpose of curing pediculosis. There had been no stomatitis, but later the patient had suffered from pain in the limbs, which then became paretic, so that he was bedridden, and at the same time there were very pronounced disturbances of sensation. Muscle-sense was completely lost, common sensation was greatly impaired, and there was extreme atrophy of the muscles, reactions of degeneration, and slight contractures. After two months, recovery was almost perfect. The patient is now unable to flex the foot dorsally, but otherwise is exceptionally strong. Some months ago there was a distinct line of pigmentation on the forehead. Dr. Mills inquired if there had been any history of alcoholism. Dr. Dercum remarked that the absence of stomatitis and the presence of pigmentation was extremely unusual in mercurial poisoning, and that the case in some respects resembled arsenical multiple neuritis. Dr. Mitchell believed that his case was an atypical form of mercurial poisoning, as the history was clear and the patient in all respects was an intelligent and truthful man.

Dr. C. W. Burr reported a **case of tremor** in a woman 25 years of age. It had come on 8 years ago without apparent cause, and now was present whenever the patient was under observation. It consisted of violent irregular movements in the head and of all four extremities. The patient, however, was able to walk without falling. When not under observation, or in her habitual environment, the tremor disappeared completely. There were no other hysterical stigmata. Dr. Dercum remarked that the case some years ago would have been spoken of as paramyoclonus multiplex.

Dr. John H. Musser and Dr. Joseph Sailer read a paper upon **The occurrence of symptoms resembling those of disseminated sclerosis, or the development of general spasticity in cases of infectious disease and anemia.** A case of septicemia following suppurative nephritis presented the typical motor symptoms of disseminated sclerosis. Two cases of typhoid fever developed, in the course of the disease, exaggeration of all the reflexes, in one case associated with slight contractures of the muscles. One patient recovered with diminution of the reflexes, the appearance of Romberg's symptom and slight ataxia of the gait. The other patient died, and a small area of acute degeneration was found in the posterior column of the cervical region, and the cells of the columns of Clarke showed distinct alteration; otherwise the spinal cord was normal. A case of chlorosis had exaggerated reflexes, ankleclonus, but no spasticity and no hysterical stigmata. There was a fine tremor of the hands. In a case of progressive pernicious anemia, a small area of acute focal myelitis was found in the lumbar region.

Dr. J. W. McConnell reported a case of **epilepsy in which the epileptic attacks were apparently replaced by transitory paralysis.** He called particular attention to the theories of Pilcz upon the nature of this condition.

Dr. A. Ferree Witmer reported a case of **paraplegia brachialis,** somewhat resembling bilateral neuritis of the brachial plexus. He believed the lesion to be pachymeningitis hypertrophica cervicalis. Dr. Spiller confirmed the diagnosis, and exhibited some microscopic specimens from a similar case.

College of Physicians—Section on Ophthalmology.—At a meeting, held April 18, Dr. W. F. Norris spoke favorably of the **uses of holocain** as a local anesthetic and germicide, particularly in the treatment of corneal ulcers. In several obstinate cases, a speedy change for the better, with rapid diminution of the infiltration-area and healing of the ulcer was manifested after flushing the conjunctival sac and touching the floor of the ulcer with a cotton swab saturated with a 1% solution. Its germicidal properties were confirmed by Dr. Bergey in the laboratory of the University of Pennsylvania, who found that colonies of staphylococcus were killed in 2½ hours.

Dr. Norris exhibited the result of an **operation for the cure of symblepharon.** A transplant from behind the ear, introduced into the conjunctival sac, became adherent to and amalgamated with the conjunctiva, so that motion of the ball was almost complete.

Dr. C. A. Oliver demonstrated a **new method** (a modification of Frost's plan) for the **implantation of glass balls** into the orbital cavity in cases of enucleation. After the exposure of the tendons of the 4 recti muscles, he unites the 2 lateral tendons by a long, continuous catgut suture and the 2 vertical tendons by a similar and separate suture and then divides them from the ball. After enucleation and cleaning of the cavity the glass ball, ⅔ the size of the eye removed, is introduced. It is secured in its position by joining the divided ends of the lateral and then those of the vertical tendons. The cut edges of the conjunctiva are brought together by a series of silk threads. There is no reaction and the socket is ready for an artificial eye in a short time. The results are fully as good as those obtained by Mules' method.

Dr. P. N. K. Schwenk reported several cases of **traumatic dislocation of the eyeball.** In simple dislocation, the ball lies in front of the lids, which are closed spasmodically behind it, with stretching but without laceration of the orbital tissues. In compound dislocation the muscles are torn, the orbital bloodvessels are ruptured and the ball may be wounded. Tarsorrhaphy and pressure-bandage are indicated, but when unsuccessful the only remedy is enucleation.

Dr. W. C. Posey reported a case of **complete monocular blindness after a head-injury, followed by full restoration of vision.** A young man received a hard blow over the left eye from the occiput of a child's head, and 36 hours afterward noticed deterioration of vision, as though a veil were dropping before the eye. In 5 days the veil had so thickened that the vision was totally gone, the pupil fixed and unresponsive, the optic disc pale and the venous pulse showed marked alterations in rhythm. Rest in bed, leeching, salines and profuse sweating were followed by mercurial inunctions and potassium iodid. In 3 days light-perception had returned to the upper field and in 3 weeks vision was restored to the normal. The fields, mapped early in the period of recovery, showed a small absolute central scotoma and a paracentral relative scotoma. The blindness was ascribed to fracture through the orbit, probably through the roof of the sphenoid.

Dr. G. E. de Schweinitz reported a case of **oculomotor paralysis** without involvement of the ciliary muscle, in a man of 22, **occurring during the relapsing period of a severe case of typhoid fever.** Four months after the attack the ptosis had disappeared, but there was limitation of the upward, downward, and inward rotations, particularly the last. The lesion was probably either a meningitis or a neuritis.

Dr. B. A. Randall challenged the common view that there is a **hypermetropia acquisita** or a natural reduction in the refraction of the eye. That near-sight grows less annoying is generally ascribable to the narrow pupil of age; that far-sight appears which has been previously unnoted is due to yielding of the accommodation which had covered it. Flattening of the lens is as little proven as the popular idea that the cornea flattens, and the claim that the lens layers become more homogeneous in refraction-index with age seems contrary to most known facts. Old eyes like young eyes are generally hypermetropic, often in noteworthy degree, but the assumption that they were emmetropic in the middle period of life lacks scientific basis.

Dr. C. A. Veasey reported a case of **double choked discs in otitic thrombosis of the sigmoid sinus without pyemia** in a 12-year-old boy, who had had a mild attack of diphtheria 4 months before the appearance of the aural symptoms. He had severe earache with mastoid abscess which had been evacuated. Two weeks later there was facial paralysis of the same side, frontal headache, repeated vomiting and great emaciation, but no retraction of the head, no mastoid symptoms and but slight elevation of temperature. The mastoid was opened by Dr. W. W. Keen and found filled with pus and the wall of the lateral sinus gangrenous. The latter contained a half-decomposed clot extending nearly to the torcular herophili. Recovery from the local symptoms was prompt. Three days after operation, edema of the discs was present. The swelling increased to typical choking with exudation and hemorrhages and subsided in a few weeks. Two years later there was in the left, a large central scotoma, V. $\frac{6}{100}$, and in the right eye a narrow annular relative scotoma, V. $\frac{6}{7.5}$.

Dr. G. C. Harlan exhibited a pair of **improved bifocal lenses** in which the reading disc, constructed of flint glass, is inserted into the interior of the distant glass which is made of crown glass. The large lens is split into halves which are cemented together after the small lens is inserted between them. Dr. Thompson agreed with Dr. Harlan that they are superior to all other forms of bifocal lenses.

NEW YORK.

Disappearance of Dr. Robert S. Tracy.—Dr. Robert S. Tracy, a young physician of New York, went to Saranac Lake for his health last October. According to the newspapers, he left the sanitarium on the night of April 19, and did not return. His relatives were unable to assign any reason for his sudden and mysterious departure.

Sterilized-Milk Booths in the Parks.—Mr. Nathan Strauss desires to extend his system of milk-booths by establishing them in the parks, but the Mayor obstinately opposed the scheme, saying that it would be an entering wedge for the establishment of soda-water booths and other stands, and that it would result in disfiguring the parks.

The Buckley Tree-Planting Bill.—This bill, which has already been noted, is a sanitary measure, has been referred to Mayor Van Wyck for consideration. The bill, which is known as No. 2006, has passed both the Senate and Assembly. In view of the fact that it was to come up for consideration by the Mayor, the New York County Medical Association, at its regular meeting on April 17, unanimously passed a resolution petitioning the Mayor to take favorable action upon it. The bill gives the Park Department the power to create a Bureau of Forestry, to establish nurseries and to plant trees in front of property when the owners have no objection. For those persons who have had a birds'-eye view of New York City, and have compared it with that of many other large cities, it will not be difficult to come to the conclusion that such a step should be taken, both from a sanitary and an esthetic point of view.

New Headquarters for the Health Department.—It has just been decided to lease for the Health Department for a period of 10 years, and at a rental of $10,000, the old home of the New York Athletic Club at Fifty-fifth Street and Sixth Avenue. This is much more central than the present location in the lower part of the city, near the City Hall.

No Inspection of Cattle Entering New York State.—Last January a bill was presented in the Legislature providing that an inspector should pass upon all cattle entering the State, and admit none but those free from tuberculosis. It came up in the Senate April 10 and was defeated. The debate, which was somewhat spirited, evolved itself into a controversy between business and humanitarian interests. Business interests prevailed, the plea being that it would injure the business of a few cattle-dealers.

Kissing the Bible Abolished.—Word comes from Albany that the Governor has signed the bill of Senator Brown, the object of which was to permit witnesses to dispense with kissing the Bible in the administration of oaths. Magistrate Kudlich, of the Harlem Court, in commenting upon this health-measure, said that at one time he had noticed a witness, whose lips were a mass of ulcerated patches, kiss the Bible when being sworn. The magistrate had at once ordered the book to be destroyed, and had given notice that thereafter no witnesses would be asked to kiss the book.

Hospitals for the Treatment of Pulmonary Tuberculosis.—The following bill, which has passed both houses of the legislature, is of considerable interest to the physicians of New York State. Its purpose is to stop the long-condemned practice of intermingling tuberculous cases with acute diseases, especially pulmonary in character, in the wards of larger hospitals. It is to be hoped that the provisions of this act will eventually be made to affect all cities in this State, and that it will confine the establishment of hospitals for the treatment and segregation of pulmonary tuberculosis to the country districts.

AN ACT TO ALLOW CITIES OF THE FIRST CLASS TO ESTABLISH, EQUIP AND MAINTAIN, OUTSIDE OF THEIR CORPORATE LIMITS AND WITH THE APPROVAL OF THE STATE BOARD OF HEALTH, HOSPITALS FOR THE REGULAR TREATMENT OF THE DISEASE KNOWN AS PULMONARY TUBERCULOSIS.

Section 1. Any municipal corporation having a population, according to the last State census, of 250,000 or more inhabitants, shall have the power, whenever its Board of Health shall deem it necessary for the promotion of the health of its inhabitants, to establish, equip and maintain, outside of its corporate limits, and at such place or places, within the State of New York and not within the corporate limits of any other municipal corporation, as may be determined upon under the provisions of this Act, a hospital or hospitals for the regular treatment of the disease known as pulmonary tuberculosis.

Sec. 2. Whenever any such municipal corporation shall desire to exercise the power conferred by this Act it shall, through its Board of Health, select such locality outside of its corporate limits, but within the State of New York and not within the corporate limits of any other municipal corporation, as it may consider best adapted, by reason of climatic and other conditions, for the treatment of the said disease, and shall make application to the State Board of Health for the approval of the site so selected. Upon said approval being given the said municipal corporation may acquire title to such lands as its Board of Health may designate within the limits of the locality submitted to and approved by the State Board of Health. The provisions of law relating to the acquiring of private property for public purposes are hereby made applicable as far as may be necessary to the acquiring of title to said lands.

SEC. 3. All hospitals or institutions now or hereafter established or maintained within the corporate limits of any municipal corporation for the regular or special treatment of persons suffering from the disease known as pulmonary tuberculosis shall be subject to the approval of the respective local Board of Health; special ward or pavilions for the treatment of cases of pulmonary tuberculosis in existing hospitals shall be provided with separate nurses, cooking utensils, washing and plumbing facilities.

SEC. 4. This Act shall take effect immediately.

New York Academy of Medicine.—The meeting of April 20 was taken up with a continuation of the **discussion on malaria.** DR. JAMES EWING discussed the **morphology of** the **malarial organism** with the aid of lantern projections. DR. W. S. THAYER, of Baltimore, said that recent experiments had shown that while the crescent bodies were sterile, they might give rise to another cycle of development outside of the body, and these could again enter the human system through mosquito-bites. DR. THAYER then read a paper on **malarial nephritis.** He said that 836 cases of malaria had been treated in the wards of the Johns Hopkins Hospital, and that in 68 of these the urinary examination had not been recorded. Of the remaining 768, albumin had been present in 44.6%, and casts in 16.4%. Of 395 cases of tertian malaria, albumin was present in 36.4%, and casts in 12.6%. Of 315 cases of estivo-autumnal malaria, albumin was present in the urine in 36.5%. A study of the cases showed the greater frequency of nephritis in malaria of long standing or that had been improperly treated. The prognosis was usually favorable. He asserted that the very widespread opinion that quinin was irritating to the kidneys was entirely without foundation in fact.

DR. WILLIAM H. THOMSON read a paper entitled **Some of the less common effects of malaria, with remarks upon the treatment of chronic infection.** He described 2 fatal cases of cerebral malaria in which the condition had resembled uremia. At the autopsy the cerebral vessels had been found loaded with pigment. For the relief of obstinate periodic neuralgias dependent on malarial infection, he declared that he had been uniformly successful with a combination of ergot and quinin. He felt sure that there would be very few cases of chronic malaria if the first attack were always carefully treated for 6 weeks at least, and the blood were examined microscopically at intervals for 9 months after apparent recovery. The treatment recommended by the speaker was to commence with a mercurial laxative and follow it up with quinin, so timed that the last portion of the desired quantity of quinin was given 1 or 2 hours before the expected time for the chill. Ginger in an equal dose, and capsicum in one-fourth the dose, were valuable adjuvants to quinin. Last fall, in the treatment of 47 cases of Cuban malarial fever occurring in the returned soldiers, he had exceptionally good results from a combination of quinin and paregoric.

New York Academy of Medicine—Section on Medicine.—At the meeting held April 18, DR. L. R. MORRIS reported an interesting case of **cerebellar tumor,** occurring in a child of 6 years. The autopsy showed a small round-cell sarcoma lying in the cavity of the third ventricle, and reaching forward and downward into the infundibulum. Apparently 2 or 3 hemorrhages into the tumor had occurred.

PROFESSOR JOHN A. MANDEL gave a **demonstration of Jollis' ferometer.** He said that by the aid of this instrument it was possible in less than 15 minutes to estimate directly the quantity of iron from the ordinary sample of blood, *i. e.*, $\frac{1}{500}$ cc. In brief, the method consisted in evaporating the blood and incinerating it; then fusing it with $\frac{1}{10}$ grm. of acid potassium sulphate, and dissolving it in a measured quantity of water. To this 1 cc. of hydrochloric acid was added, and some sulphocyanid of ammonium. The test depended upon the red color produced when the sulphocyanid was added to a ferric salt, and the quantity was determined by comparison with a standard solution of iron with suitable precautions against errors.

DR. H. W. BERG reported a **case of septic endocarditis complicating gonorrhea.** It occurred in a young man, and its onset was characterized by a chill, fever and swelling of one of the metatarsal joints. The gonococci were demonstrated in the urethral discharge. For about 3 weeks there was a high septic temperature, followed in a few days by a loud blowing murmur over the apex of the heart, a rough murmur over the aortic valves, and general convulsions. The autopsy showed the valves of the heart to be ulcerated, and the kidneys to be the seat of nephritis and of some round-cell infiltration. In the vegetations on the aortic valve were cocci morphologically resembling gonococci.

DR. THEODORE C. JANEWAY reported in detail a long and complicated case of **subdiaphragmatic abscess due to streptococcus-infection.** Only colonies of streptococci had been found in the pus at the time of operation. The abscess had ruptured into the left pleural cavity after 11 weeks.

DR. GORHAM BACON reported **a case of infective sigmoid thrombosis** in which numerous staphylococci, streptococci, and pneumococci had been found in the discharge from the ear. There was a history of a long-standing otorrhea, and of acute illness for 2 weeks, but at the time of operation the patient had appeared to be already decidedly septic. The lateral sinus was explored, and a portion of the internal jugular vein removed. The pus from the mastoid cells and from the jugular vein contained only streptococci.

DR. W. H. KATZENBACH reported **a case of hemorrhagic pleurisy** occurring in a man of 45 years. About 48 ounces of hemorrhagic effusion had been removed from the chest, and had been found to contain streptococci and staphylococci. The patient died suddenly about 2 days afterward.

New York County Medical Association.—At the meeting held on April 17, DR. R. ABRAHAMS exhibited a female baby, 7 weeks old, having a **patulous Meckel's diverticulum.** After the separation of the cord, there was left a protrusion, 1½ in. long and ½ in. in diameter, with a fine aperture in its center, which admitted a fine probe. Fecal matter occasionally escaped from this opening. In the discussion, DR. DAVID P. AUSTIN cited 2 similar cases, and stated that in both instances, after the separation of the funis, he had pulled out the mass, and by means of fine silk ligature had succeeded in closing the opening. DR. PARKER SYMS suggested that when simple suture was not effective, an inverted skin-flap would accomplish the desired result.

DR. LOUIS FISCHER made some remarks on **Recurring laryngeal stenosis after intubation.** He quoted the late Dr. O'Dwyer as summing up the causes of this condition in the word "traumatism," though admitting the exceptional cases of paralysis of the vocal cords. The seat of the lesion which was responsible for this prolonged stenosis was usually just below the vocal cords, where there was normally a constriction, and where the cricoid cartilage limited the swelling to the central portion. The best way to prevent the condition was by very gentle and skillful intubation, the use of a properly constructed tube, preferably of rubber, and removing it every two or three days to avoid irritation from calcareous deposits. When repeated intubation was required, he had found it exceedingly useful to adopt O'Dwyer's suggestion of applying medication directly to the ulcers within the larynx. This was conveniently done by immersing the tube in hot gelatin containing 25% of alum and 20% of ichthyol, or 3% of iodoform. In the discussion, Dr. Francis J. Quinlan spoke of the necessity, when doing intubation, of being prepared for a tracheotomy at a moment's notice.

Dr. H. J. Boldt read a paper on **extrauterine pregnancy,** in which he spoke more particularly of the advanced form, and exhibited an illustrative specimen. Regarding the treatment, he recommended operating as soon as possible after the seventh month, but if the case were not seen until about the time of the death of the fetus, it was well not to interfere until reasonably sure that the circulation in the placenta had ceased. In the discussion, Dr. J. E. Janvrin told of his early experience with the electric treatment of ectopic pregnancy, and of the unfortunate case in 1886 which had first led him to insist that it was the physician's duty to resort to laparotomy—an opinion which increasing experience had only served to strengthen. Dr. Andrew F. Currier spoke of the deformities to which the fetus was liable in cases of abdominal pregnancy. He said that it was not very widely known that a considerable number of infants had been delivered alive in these cases by laparotomy. In a recent collection of 19 cases, the mortality had been 61.1%, and 4 of the infants had been deformed. The most common malformations were asymmetry of the head and face, and club-foot. The cause was to be found in the absence of the protecting amnion and fluid. Dr. E. A. Ayers dwelt on the important question of the management of the placenta in these advanced cases. He stated that he had already reported a collection of 101 cases, with only 20 children still living. The maternal mortality even at the present time was 38.5%. As it was next to impossible to determine before operation whether the fetus was outside of the peritoneal cavity, the primary incision should be made into the abdomen near the pubes. When possible, the effort should be made to control the circulation by ligation of the ovarian and uterine arteries before disturbing the placenta. In not a few cases the situation of the placenta was such that it was divided by the first incision. He had recently had some encouraging results from an experimental study of the action of certain substances when injected into the umbilical vein, which seemed to show that at least decomposition of the placenta could be postponed for a considerable time.

Dr. Carl Beck read a paper on **Fractures of the lower end of the radius,** in which he said that an extended study of such fractures, with the aid of the Röntgen rays, had convinced him that fissure of the head of the ulna and fracture of the styloid process were common accompaniments of this fracture of the radius. He recommended the use of a wire splint for the intra-articular fractures for a few days until the swelling had subsided, and then the wearing of a "bracelet" 4 inches wide. For the extra-articular or Colles' fracture he did not favor the use of short splints at the outset. After the third week, passive motion should be made. In the discussion, Dr. J. W. S. Gouley insisted that the main point in the treatment of Colles' fracture was to avoid immobilization of the wrist-joint; hence the splints could hardly be too short. He was accustomed to employ 2 short and narrow splints, held in place by straps of adhesive plaster, and made it a rule to examine the parts every 3 or 4 days. In most cases a band of plaster could be substituted for the splints after 3 weeks. Dr. Charles Phelps said that he had invariably followed the method described by the last speaker, and knew from long experience that in most cases it would yield a perfect result. Dr. Parker Syms thought that where the case was complicated by much injury to the joint it was right and proper to immobilize it for a time. He had devised a simple and comfortable splint for this fracture, which consisted of a piece of sheet lead fitted to the forearm.

CHICAGO AND WESTERN STATES.

The bill regulating the practice of medicine in Colorado has been vetoed by Governor Thomas.

Chicago Polyclinic.—Dr. Henry P. Newman has been elected professor of gynecology, to succeed the late Professor Etheridge.

Dr. Nicholas Senn, of Chicago, is being prominently spoken of in connection with the Republican nomination for Governor of Illinois next year.

Missouri State Medical Association.—The next meeting will be held in Sedalia, May 16 to 18, instead of in Joplin, as previously announced.

Northwestern Medical College.—Dr. Gustav Fütterer, for 9 years chief assistant in Rindfleisch's pathologic laboratory, has been appointed professor of pathology. Dr. Fütterer's experiments upon the gallbladder and liver are well known.

Physicians' Club of Chicago.—A regular meeting was held April 24. The subject discussed was "Marriage," with the following speakers and subjects: "The Purpose of Marriage," Dr. L. Harrison Mettler; "The Dissolution of the Marriage Contract," Judge O. H. Horton; "The Regulation of Marriage," Dr. A. H. Burr; "The Future of Marriage," Rev. Frank Crane.

Smallpox in Ohio.—The Ohio *Sanitary Bulletin* for March-April contains some interesting information regarding the present epidemic of smallpox in the State. From April, 1898, to April, 1899, 1429 cases of smallpox were reported to the State Board of Health. Eighteen cases ended fatally, a mortality of only 1.26%. Nearly 40% of the cases occurred in adults. Vaccination has proved an almost absolute protection. The spread of the epidemic was favored by its mildness, by the inexperience and at times criminal ignorance of the attending physicians. From January 1 to April 6, 761 new cases were reported with a mortality of 13 (1.07%). The cities of Cincinnati, Cleveland, and Columbus furnished 616 cases with 10 deaths.

Cincinnati Society for Medical Research.—At a meeting held April 13, Dr. Ravogli presented a series of microscopic slides illustrating a case of **pityriasis rubra pilaris.** The case occurred in a woman of 41 years. Pieces of skin were excised from the arm and prepared for microscopic study. The disease is one chiefly of the epidermis. The stratum lucidum and the stratum spinosum are hypertrophied, being twice as thick as normal. The sweatglands are enlarged, their epithelial cells much hypertrophied. The derma is only secondarily involved. The papillæ are compressed by the hypertrophy of the surrounding epithelium, and seem smaller. Considerable exudation is present in the derma, especially around the vessels. The hypertrophy of the arrectores pilorum is marked, accounting for the cutis anserina (a typical clinical symptom). The whole process may be summed up as one of hyperkeratosis. The follicular papules are formed by masses of keratinized cells blocking the hair-follicles. In the discussion Dr. Shields objected to the name proposed, and thought the disease was a form of lichen ruber acuminatus. There is considerable doubt as to whether the disease begins primarily in the corium or in the rete malpighi. He has made sections of cases after the skin had returned apparently to its normal condition; the infiltration was still present in the corium. The enlargement of the papillæ is similar to that in lichen ruber. In support of his view as to the similarity of the two diseases he presented photomicrographs of the latter disease. Dr. Heidingsfeld thought that there could be no doubt that the diseases are separate and distinct entities. All the dermatologists agree to this except the pupils of Kaposi. Dr. Ravogli, in closing, insisted on the difference of the papillæ in the two diseases. In pityriasis rubra pilaris the papillæ are small, compressed. In lichen ruber they are large, hypertrophied.

Dr. Henry W. Bettmann presented a specimen of **sarcoma of the brain** in a woman of 55 years. The woman was semi-comatose for weeks, and died of catarrhal pneumonia. The sarcoma was of enormous size, had taken origin in the left ventricle, broke through the lateral wall of the ventricle into the left foramen ovale, which it almost completely filled with large irregular masses. Dr. Bettmann also presented a specimen illustrating the ravages of **tertiary syphilis.** The patient died of extravasation of urine. In the region of the bulb the periurethral tissues were infiltrated with gummatous masses, which had penetrated the urethra leading to the extravasation. The bladder-wall contained gummatous masses; the left kidney contained a broken-down gumma the size of a small orange.

Dr. A. H. Freiberg demonstrated a series of microscopic specimens: (*a*) An **adenocarcinoma of the mammary gland** of a woman aged 41 years. The tumor had grown rapidly for 6 months. Macroscopically the excised tumor looked like a benign growth. The sections showed malignant changes occurring in various places in the gland-tissue. The tumor, which may be called an adenocarcinoma, is identical with one shown by the demonstrator before the Research Club last season. (*b*) **Tendon-sheath tuberculosis of the hygroma variety.** The "bodies" were of unusually large size. No tubercle-bacilli could be demonstrated in them, though in places the appearance was typically tuberculous. (*c*) **Mammary adenoma,** the growth being composed for the most part of duct-proliferations. (*d*) An **angioendothelioma of the liver.**

Chicago Medical Society.—At a meeting held April 19, Dr. F. Kreissl presented 2 cases of **senile enlargement of the prostate** with complete urine-retention, cured by the galvanocaustic radical treatment—Bottini's operation.

The first case showed a rather unusual combination of hypertrophy, sarcoma, and phosphatic calculi. After galvanocaustic incision of the hypertrophied median and right lateral lobe in July, 1898, free urination in intervals of 2 to 3 hours in the day and 4 hours in the night followed within 6 weeks. Shortly afterward the patient returned with symptoms pointing to the possibility of stone or tumor in the bladder, although no stone was found by means of the stone-searcher, since cystoscopic examination of the viscus was impossible on account of the profuse hemorrhage following the introduction of the instrument. Suprapubic cystostomy, performed December 15, 1898, resulted in finding an exulcerated left lateral lobe, a large diverticle of the trabeculated bladder, and 14 phosphatic concrements of the average size of a large pea, all imbedded in deep intratrabecular nests, and covered with a thick layer of granular tissue. The scrapings of the exulcerated portion of the left lobe proved upon microscopic examination to be sarcomatous. The abdominal wound healed in 5 weeks. To-day patient has continence of from 4 to 5 hours day and night; the urine is almost clear; residual urine 15 to 45 cc., which apparently is due to the diverticle. Patient is 56 years old.

Case II.—Patient 71 years old, practising physician in this city, had complete retention for the past 4 years; tenesmus; painful attempts to urinate every 15 to 20 minutes day and night for the last 6 months. A futile attempt by a colleague to pass a solid metal catheter resulted in a false passage in the bulbus, followed by profuse and lasting hemorrhage. The patient was seen in this condition March 2, 1899, and upon cystoscopic examination the median and left lateral lobes were found considerably enlarged. Bottini's operation, March 7. The patient catheterized himself in the first few days after the operation, producing profuse hemorrhages by entering the false passage and by scraping eschars from the incisions. Soft tube No. 8 was left in the bladder for 4 days, whereupon hemorrhage promptly stopped. To-day, 6 weeks after operation, the patient has full control over his bladder for 3 to 4 hours, painless micturition, and from 30 to 45 cc. of residual urine in 48 hours. The observation of the case is not yet complete.

Dr. George E. Shambaugh presented a case of **chronic empyema of the sphenoid sinuses** without involvement of neighboring sinuses.

The patient was a woman, aged 40, who has had a purulent discharge from the nose for at least 10 years. This discharge was more profuse a few years ago than at the present time. For the past few years she has noticed a tendency to the formation of greenish-yellow crusts in the nose, which, from time to time, were discharged into the handkerchief. Since this crust-formation has taken place there has been more of a tendency for the pus to drop back into the pharynx. The patient suffers much from frontal headaches, which are often of a throbbing character. She has a dry pharyngitis and is troubled some with dyspepsia.

On examining the nose by anterior rhinoscopy greenish crusts were found between the middle turbinated body and the septum in the olfactory space in both sides of the nose. In no other part of the nose have crusts ever been found. Pus sometimes appears over the middle and inferior turbinated bodies. On making a post-rhinoscopic examination the greenish crusts are readily seen between the middle turbinated body and the septum, but no crust-formations were ever seen on the vault of the pharynx.

Removing the crusts from the olfactory space, the opening of the sphenoid sinus on the left side can be readily seen as a dark oval-shaped spot. Frequently the opening is marked by a pulsating light-reflex such as we often see in suppurative otitis media with perforation of the drum. A sound can be passed through the opening into the sinus to a distance of 8.1 cm. from the anterior inferior nasal spine. The presence of pus in the sphenoid sinus on the left side was repeatedly demonstrated by first wiping out the nose thoroughly with a pledget of cotton, then, letting the patient drop the head forward, pus was seen to pour out of the opening into the olfactory space.

The absence at all examinations of crusts or pus in the middle meatus of the nose excluded in this case the possibility of an involvement of the maxillary sinus, the frontal sinus or the anterior ethmoidal cells. An involvement of the posterior ethmoidal cells was also excluded by watching the case for a number of weeks, during which time the sphenoid sinus was repeatedly washed out and the nose again examined after waiting half an hour. At no time did pus reappear in the olfactory space, which it would have done had the posterior ethmoid cells been involved.

Drs. L. L. McArthur and D. N. Eisendrath gave the clinical history and pathological report upon an interesting case of nephrectomy for **hypernephroma,** or, as it is frequently called after the pathologist who first called attention to its origin from aberrant adrenal tissue, **Grawitz' tumor, or aberrant adrenal tumor of the kidney.**

The clinical history was that of a man 47 years old, whose chief complaint was blood in the urine and pain in the back. This latter symptom had existed for 6 years past, the former for 2. An exploratory nephrotomy was performed August

24, 1896, for probable renal stone, but none found. A small pigmented area in the capsule was removed for diagnosis, and thought to be melanotic sarcoma, but, owing to faulty preparation of the specimen, the diagnosis remained in doubt. Six months after, a small nodule could be felt over the lower pole of the kidney of the opposite side, thought to be a secondary metastasis. The hematuria ceased, and the patient seemed to regain his health. February 25, 1899, examination showed a growth at the posterior end of the old cicatrix, apparently of hen's-egg size, with an induration beneath it leading directly to the right kidney, which was now more than double its normal size. There was nothing to be felt of the supposed former metastasis. The patient had lost 20 to 30 pounds in weight and had again noticed blood in the urine occasionally. A nephrectomy was performed, much difficulty being encountered in loosening up adhesions of the capsule from the cicatrix posterior to the kidney, so it was necessary to stop the operation before the removal of new growth in the old scar. During the first 48 hours there was severe singultus and emesis, with very scanty secretion of urine. On the fifth day 1500 cc. normal salt-solution was transfused through the vein of the forearm. During the following 48 hours the quantity of urine rose to 2500 and 2700 cc. respectively. Convalescence was steady and uneventful, and the patient left the hospital on the thirty-first day after operation.

The most striking factors in the clinical history were the more prolonged history of dull pain, the occasional appearance of blood in the urine, the mild cachexia of so extensive a growth, the apparent line of least resistance to its growth in the cicatrix of the first incision.

Drs. McArthur and Eisendrath stated that prior to 1883 many forms of renal growths were grouped under the head of lipomata. Some authors had previously, and others since that time, described these neoplasms as adenomata arising from the renal tissue itself. Grawitz was the first to bring order out of chaos when he maintained that these growths formerly described as lipomata in reality had their origin in suprarenal tissue misplaced within the kidney. His reasons for believing these tumors to be of adrenal origin were (1) the subcapsular position in which aberrant adrenal tissue is likely to occur; (2) the cells were quite different in form from the renal cells, and contained fat-globules in large drops like fatty infiltrated liver-cells; (3) the capsule and the arrangement of the tumor-cells in rows, like the suprarenal cortex, the preponderance of cells over stroma; (4) amyloid degeneration of bloodvessels present in his case only in the adrenals. Others, like Chiari, Lubarsch, and many others, supported Grawitz's views and added the following criteria: (1) the similarity between tumors of the adrenal body itself and these growths; (2) the presence of glycogen. The frequency with which portions of the suprarenal tissue are found under the true renal capsule and embedded in the renal cortex was shown to be astonishingly great by Grawitz. As a rule, the cortex only is represented in these accessory adrenals, but May found both cortex and medulla represented in 2 cases. The accessory adrenals are found in all portions of the surface of the kidneys. Those deeper in the cortex are explained by the fact that when the lobules of the fetal kidney are united in early life they are enclosed, and remain buried in one of the furrows, and thus in the renal cortex. The aberrant adrenals may develop into simple hyperplastic nonmalignant or into malignant tumors. According to Beneke, a transition of the tumor into a sarcoma takes place by gradual changes in the form of the cells and the increase of chromatin in their nuclei. An excellent review of the literature with pathologic description of 9 cases was published by Dr. A. O. J. Kelly (Philadelphia Medical Journal, July 30, August 6, 1898). The tumor in the case reported was about the size of a cocoanut, occupied the center of the kidney, leaving an island of kidney-tissue at the upper and lower poles only, growing down into the pelvis, pushing the ureters before it. On section it was seen to be distinctly encapsulated. Toward the posterior surface it had caused such atrophy of the renal tissue that the latter was reduced to a mere connective-tissue capsule. Toward the periphery in the fresher areas it had a yellowish, more or less homogeneous appearance, and in the older there were extensive hemorrhages, and a necrotic area at the center of the tumor. Microscopic examination showed a number of large, clear, polyhedral cells, in many of which the protoplasm was replaced by one or more large vacuoles which represented fat; the cells were more or less regularly arranged in columns, separated from each other by delicate septums of connective tissue. The tumor itself bore a striking resemblance to the stratum fasciculare of the normal adrenal cortex. In one portion a gradual change in the character of the cells seemed to occur, which looked as though it were changing into a sarcoma, but this could not be stated with certainty. Tests for glycogen were positive.

SOUTHERN STATES.

Founders' Day at Tulane University.—Students of all departments of Tulane University united in celebrating founders' day, April 13. M. S. Davie, Jr., and A. C. Magruder, of Colorado represented the medical department, delivering addresses.

Smallpox in New Orleans.—Up to April 20, 179 cases of variola (7 white, 172 colored) have been reported in New Orleans. There have been 3 deaths; 38 cases remain under observation. In one case pregnancy, advanced to the eighth month, complicated a confluent attack of variola; notwithstanding the severity of the disease, gestation continued undisturbed.

Cocain as an Anesthetic.—Cocain is used extensively in the surgical clinic of Dr. Rudolph Matas, professor of surgery in the medical department of Tulane University (New Orleans), being employed in cases generally subjected to the dangers of general anesthesia. Corning's method is followed, the nerve-trunk being injected with cocain to produce analgesia of its peripheral distribution, and a constriction applied above the cocainized area (in the extremities). The strength of the solution varies between .2% (Schleich formula) and 1%. Two cases in point may be briefly referred to. In the first the ring and little fingers of one hand were removed for epithelioma after cocainization of the musculo-spiral, median and ulnar about the elbow-joint; in the second case, presenting frostbite of a Chopart stump, the great sciatic was exposed a little above the popliteal space and cocainized; a cocain atmosphere was also created over the internal saphenous nerve in the lower third of the leg. In both cases pain was entirely eliminated. A full report of such cases is to be made later.

Medical Society of the State of Tennessee.—The 66th annual meeting was held in Nashville, April 11, 12, and 13. Addresses of welcome were delivered by Governor McMillan and Dr. J. A. Witherspoon, of Nashville. During the course of his remarks the Governor stated that he considered it preferable to practise on the dead rather than on the living, and that he was not in sympathy with those who disapproved of not burying the paupers—whom charity had kept alive for many years, who had no friends, who live at public expense, die at public expense, and are buried only at public expense. He believed it better that the bodies of such should be delivered to the medical profession for purposes of study. (Before the Society adjourned, a bill became a State law, providing that the unclaimed bodies of paupers should be delivered to the medical profession.) The addresses of welcome were responded to by Dr. I. E. McSwain, of Paris. Dr. T. H. Marable, of Clarkesville, president of the Society, being formally introduced, the Society proceeded to the scientific business.

Dr. A. M. Trawick, of Nashville, read a paper on **The Hippocratic oath.**

Dr. I. A. McSwain, of Paris, read a paper on **Immunity and susceptibility.**

Dr. J. A. Crook, of Jackson, read a paper on **Subcutaneous rupture of large arteries from contused wounds.** He discussed those cases in which the walls of the artery are injured by the traumatism, while the skin and adjoining soft parts remain comparatively intact, and reported a case in point. He stated that whether the obstruction to the blood be rapid or slow the injury is grave and followed by gangrene of lesser or greater severity. Occasionally healing occurs after arterial attrition and there remains but a slight weakness of the affected limb. Prognosis should be guarded and treatment conservative. The entire limb should be thoroughly cleansed and rendered aseptic, attention being given to every abrasion in the cuticle lest it be the point of entrance for infection. This should be followed by enveloping the limb in hot antiseptic packs, wet or dry, over which thick layers of dry cotton should be applied, and supported gently by a bandage. If indicated, punctures should be made in the cellular tissue to relieve the tension and allow the effused blood to escape. If the patient be seen early it may be beneficial to open up the limb, evacuate the effused blood and ligate the ruptured vessel. After the artery is secured, if there be much shock, saline infusion is indicated. Later the treatment will depend on the condition of the limb and the character of the gangrene. If it be dry and localized we should wait for nature to complete the line of separation; if moist and rapid, amputation high enough to include only sound tissue in the flaps is the only resource. In the discussion Dr. J. B. Cowan, of Tullahoma, stated in cases in which gangrene must inevitably follow an injury, it would seem prudent to immediately amputate the injured member. Dr. J. B. Murphy suggested that possibly in some cases it would be better to cut down, ligate the artery and remove all the clots of blood, and thus give a better opportunity for the collateral circulation to be carried on. Dr. Crook, in closing, said that it is not always easy to get the consent of the patient to operation in cases in which the skin is not broken and there is use of the hand, but this does not relieve the physician of the duty of advising operation in such cases when it would seem to him best. Dr. Murphy's suggestion to ligate the artery would be advisable in cases seen early; in late cases it is better to drain and thus relieve the pressure.

Dr. Stephen Thatch read a paper on **The treatment of typhoid fever.**

Dr. T. W. Gallion read a paper on **Chorea, with report of a case complicated with pregnancy.** In the discussion, especial commendation was accorded Fowler's solution and tincture of the chlorid of iron. Dr. G. C. Savage, of Nashville, reported a case in which recovery followed the relief of eye-strain, by the use of properly-fitted glasses.

Dr. B. W. Stone, of Nashville, read a paper on **Melancholia.**

Dr. D. R. Neil, of Nashville, read a paper on **The motor and sensory areas of the brain and their physiologic functions.**

Under the heading of **Reports of Cases,** Dr. Savage reported a case of **paralysis of the eye-muscles, involving the inferior rectus and superior oblique,** causing the affected eye to move downward more slowly than the healthy eye.

Dr. Lenoir, of Portland, reported a case of **gunshot wound of the head,** in a little negro boy, caused by a small pistol, the bullet passing from the child's forehead to the region of the parietal bone, near the back part of the head. After trephining, some spicules of bone were removed and the wound irrigated with bichlorid solution, 1:4000. Notwithstanding the operation was long delayed and the patient was at one time thought to be dead, the little fellow completely recovered. He is able to do manual work, although there is still complete paralysis of the right arm.

Dr. Neil reported a case of **retention of urine in a man aged 86 years,** which, after the failure of other remedies, was relieved by the extract of the saw-palmetto.

Dr. Travis reported a case of **severe intermittent headache** in a young man of 19 years, relieved by the removal of a nasal spur.

Dr. T. J. Happel, of Trenton, reported an **operation upon a lady of 92 years in which a cancerous growth was removed under chloroform.** The immediate result was prompt recovery.

Dr. Herron, of Jackson, reported a case of **spasms in a child 2 years old,** in which questioning brought out a history of an eruption, and a therapeutic test confirmed the diagnosis of **syphilitic gummata.**

Dr. Griffin reported a case of **spasms in a child of 2 years** in which the diagnosis was obscure.

Dr. Gallion reported the case of a lady, aged 72 years, upon which he **operated for the removal of a tumor** and secured ready union.

Dr. Douglas, of Nashville, reported 7 cases of **gun-shot wounds of the abdomen and one stab wound of the abdomen,** in which the number of perforations varied from two to nine. Many of the cases were very irregular in symptomatology. In 3 of the cases there was only a small bullet wound in the anterior surface of the abdomen, without shock, constitutional symptoms, pain or vomiting. Dr. Douglas makes it a rule, after ascertaining that there has been penetration of the abdomen, to make an abdominal section. Neither the location of the wound nor the size of the missile can give assurance that there is not perforation or hemorrhage. Six of the 7 cases resulted in recovery. Success was attributed largely to the time of operation, which was in every instance under 5 hours after the receipt of the injury; and to the promptness with which the shock was treated on the table. The bleeding points were immediately sought for and an intravenous injection of salt-solution given. Dr. Douglas prefers wiping out the abdominal cavity to the use of irrigation.

Dr. W. F. Rochell read a paper on **The medulla as a speech-center.**

Dr. J. T. Herron read a paper on **Sudden deafness with aphasia of 8 months' duration.**

Dr. J. H. Preston, of Humboldt, read a paper on **Puerperal septicemia.**

Dr. Jere L. Crook, of Jackson, read a paper on **Practical suggestions regarding amputation of the foot.** Instead of following the classic amputations, such as Hey's, Lisfranc's, LeFort's, Mikulicz's, Chopart's, Pirogoff's, Syme's, etc., described in the textbooks, Dr. Crook believes that the operator should keep in mind the following ideas and purposes: (1) to save every bit of tissue possible; (2) to treat the foot as a whole; (3) to make the bone-sections wherever suficent soft tissues can be secured to cover the severed ends. The bloodsupply of the flaps should be borne in mind. Many secondary amputations have been necessitated by failure to regard circulatory anatomy in the sweeps of the knife. DR. DUNCAN EVE, of Nashville, commended the conservatism of the paper, but could not agree with the recommendation to make an amputation of the foot without regard to articulations, treating it as one bone, as suggested. DR. CROOK, in closing, stating that the object of the paper was to induce the younger operators not to occupy their minds so much with the technic of the various classical amputations of the foot, but rather to pay attention to the salvation of as much of the foot as possible.

DR. T. J. HAPPEL, of Trenton, read a paper on **Vesical calculus in women.** He stated that when stones are crushed and flushed out through a dilated urethra, not only is there danger of incontinence of urine, but also that t is almost impossible to be confident that none of the particles has been allowed to remain, and possibly form the nucleus of future calculi. He believes the suprapubic operaion, even though the stone be large, is not to be compared o the vaginal route when this canal is fully developed, as in he adult female, especially in cases of married women. In he suprapubic operation there is no natural drainage. The bladder must be flushed either through the abdominal incision or the urethra. In either case the urine must be reained in a bladder already inflamed, where it acts as a still urther irritant, or must drain out through the abdominal wound at the risk of urinary infiltration and of setting up nflammatory action in the site of the wound. In the vesicovaginal route the urine flows out constantly at first, allowing no new irritation of the inflamed lining of the bladder and permitting a free and ready escape of urine, pus, mucus and any remaining portion of the calculus. In no other way can ve obtain so favorable conditions for recovery. In the rushing operation no arrangement is made for drainage, nor is it possible to prevent at all times a fragment of the alculus from embedding itself in the bladder-walls, where it annot be, and is not, found till grave symptoms have developed, necessitating a new exploration of the bladder. In he discussion, DR. DOUGLAS stated that he was very much in avor of crushing the stone and removing it through the peculum or the urethra in some cases.

DR. G. P. EDWARDS read a paper on **The physiologic nd therapeutic effect of static electricity.**

DR. A. B. COOKE reported **some interesting cases of ectal surgery.** In one instance a piece of almond-hull, esembling to the touch a piece of bone, had been removed rom a rectal fistula. It had evidently been forced into a ssure and become buried.

DR. R. J. MCFALL read a paper on **The treatment of pneumonia,** in which he detailed the symptomatic indiations.

DR. RICHMOND MCKINNEY, of Memphis, read a paper on **Tuberculous laryngitis.**

DR. T. H. MARABLE delivered the presidential address on **Are the uses of tobacco detrimental to mankind?** He spoke of tobacco as a drug, the continued use of which must be harmful.

DR. R E FORT, of Nashville, reported **a unique case of gunshot wound of the abdomen, and a case of aneurysm.** In the first case a 32-caliber pistol-ball had entered the left iliac region about 2 inches above a point midway between the crest and anterior superior spinous process of the ilium. There were considerable shock and subnormal temperature; the pulse was 100, the extremities cold, and there was a board-like rigidity of the abdominal muscles on the left side. The abdomen was opened in the median line, revealing slight hemorrhage and fecal matter in the abdominal cavity. Two wounds of the small intestine were found about 6 inches apart. These were repaired by purse-string sutures reinforced by peritoneal Lembert sutures. In the sigmoid flexure there was a small wound of the mesentery on one side. By introducing a small silver probe it was found to enter the caliber of the gut in the "deadly mesenteric" space. It being impossible to continue the operation through the median incision alone, a crucial incision was made to the wound of entrance in the abdominal wall. A longitudinal incision of the mesentery was made, in the middle of which was the mesenteric wound. The mesenteric fold was separated from the gut. Here a longitudinal wound was found about three-fourths of an inch in length. This was closed by Lembert sutures and the mesenteric wound closed with silk. The wound of exit was looked for but without success. Dr. Fort *believed the ball had lodged in the caliber of the gut,* and gave instructions to save the feces, but when the order was given, 3 hours after operation, the patient had already had 2 large evacuations which had been thrown away, and it was not found afterwards. The patient made a good recovery, being discharged well on the sixtieth day.

The patient in the second case had had a 16 years' history of syphilis, with a fusiform aneurysm of right femoral artery in Scarpa's triangle, which had appeared 10 months before. The tumor measured 10½ by 7½ inches. Operation: An incision was made from an inch within the anterior superior spinous process of the ilium, an inch above Poupart's ligament, inward 4 inches, dividing skin, fascia of the external oblique, fibers of the internal oblique and transversalis muscles, down to the transversalis fascia, which was picked up by tissue-forceps, nicked and divided by blunt-pointed scissors; pushing the peritoneum backward the iliac fossa was exposed. After removing some enlarged lymphatic glands and adipose tissue the artery and vein were exposed, the sheath was opened, and by blunt dissection with the handle of the knife, combined with the use of the aneurysm needle, a double No. 11 braided silk ligature was passed and tied and the wound closed. The entire leg and foot were thickly wrapped in *crude* cotton and a loose bandage applied; hot-water bags and a 15-pound bag of shot were placed on the tumor. Collateral circulation was promptly established, pain vanished, the tumor has diminished two-thirds in size, and patient is out of danger. In the discussion a number of interesting cases of gunshot-wounds were reported.

DR. WILLIAM D. SUMPTER, of Nashville, reported a case of **appendicitis with hematoma of the ovary,** and DR. E. L. CLEAVES, of Cottontown, read a paper on the **nonoperative treatment of appendicitis.** These two papers were discussed conjointly. Some of those who took part in the discussion would operate immediately in all cases, and did not believe in the existence of catarrhal appendicitis. But the opinion generally prevalent seemed to be that the appendix may be involved in a catarrhal inflammation and that medicinal treatment, especially the use of enemata, should be tried in nearly all cases.

Dr. W. D. Haggard, Jr., of Nashville, presented 8 **specimens of appendicitis,** most of them perforated. The patients had been subjected to operation and all but 1 had recovered.

Dr. B. F. Travis, of Chattanooga, read a paper on **Corneal ulcers and their treatment,** recommending the use of ichthyol.

Dr. A. L. Macon, of Fredonia, reported a case of **ventral hernia of the pregnant uterus.**

Dr. J. F. Griffin, of Tiptonville, read a paper on **The abuse of quinin in malaria hematuria.** In the discussion mention was made of the necessity of differentiating hematuria from hemoglobinuria. In the latter, quinin was considered to be a useful remedy, but seldom of value in the former.

Dr. H. C. Chance, of Tazewell, read a paper on **The fever of the mountains of Upper East Tennessee.** The fever was described as bearing a marked resemblance to typhoid.

Dr. J. M. Black, of Knoxville, reported some cases of **tubal pregnancy.**

CANADA.

Montreal Medico-Chirurgical Society.—At a meeting held on April 10 Dr. Lapthorn Smith reported a case of **removal of a fibroid tumor from the uterus during pregnancy.** The patient had noticed a hard lump in the right side which became more painful as pregnancy advanced. The tumor was easily removed and the course of pregnancy was not interfered with.

Dr. J. M. Elder recorded a case of **gastric ulcer with operation.** The patient was a female, about 45 years of age, who had previously been apparently in perfect health. She was seized suddenly with hematemesis, bringing several ounces of bright blood. She was given opium and cold was applied to the epigastrium. The vomiting persisted, being occasionally coffee-colored. As the condition did not improve she was removed to hospital, where Drs. Elder and Armstrong operated. By this time, while the patient had not vomited much, she was very pale and the pulse was high. An incision was made in the median line and the colon was found to be full of blood. On opening into the stomach a discolored patch, the size of a fifty-cent piece, was found near the cardia, and in this a small artery could be seen spouting. The vessel was secured, the ulcer turned in and the incision closed. The patient died shortly after. Dr. Elder was of the opinion that if he had operated earlier and had not delayed with opium he could have saved the patient, as she had evidently bled to death internally. Dr. H. A. Lafleur thought it was an unusual case, but would hesitate to give up the use of opium in cases of gastric ulcer. Of course when an artery was eroded, opium would be dangerous.

Dr. H. A. Lafleur recorded a case of **tuberculous meningitis in a child.** It presented all the cardinal symptoms of such cases. He had performed lumbar puncture, removing about 20 cc. of almost clear exudate. In a sedimented portion 3 tubercle-bacilli were found in 5 microscopic fields. Some 10 cc. injected into a guineapig produced general miliary tuberculosis. Dr. Lafleur, in the course of discussion, referred to the ease with which lumbar puncture was performed. It was the exception to find bacilli in the exudate, probably from lack of care or a sufficient amount of fluid. He pointed out the difference in character between the exudate in tuberculous meningitis and that of cerebrospinal meningitis. Dr. Adami referred to the fact that to produce tuberculosis in experimental animals one must inject at least 15 tubercle-bacilli.

Dr. A. G. Nicholls reported for Dr. H. S. Birkett and himself a case of **carcinoma of the larynx.** Six months before being admitted to hospital, Dr. Birkett had examined the larynx and found some swelling of the left vocal cord, with a circular ulcer at the left processus vocalis; the right cord was also slightly sluggish in movement. He advised a preliminary tracheotomy, which was refused. He did not see the case again for six months, when he was called in in consultation to see the patient, who had an attack of urgent dyspnea. He was removed to the Royal Victoria Hospital, and a tracheotomy was performed. This was difficult, owing to the thickness of the neck and an enlarged middle lobe of the thyroid. The ordinary tracheotomy tube was not large enough, so a catheter was temporarily employed. The man died shortly after, apparently from asphyxia. At the postmortem there was found to be almost complete collapse of the lungs, a fatty heart, and secondary carcinoma-nodules in the liver. The rima glottidis was practically closed, the left vocal cord being swollen inward and upward, obliterating the fossa. At the left processus vocalis was a circular ulcer about 1 cc. in diameter through which necrosed cartilage was protruding. Microscopically, the growth was a small soft glandular carcinoma apparently originating from the mucous glands; a chain of enlarged inflamed glands was found along the course of the recurrent laryngeal nerve. The interest of the case lay in the slow development of the carcinoma. The mucon of the trachea was greatly swollen and inflamed, and there was abundant pseudo-membrane about the tracheal wound.

Dr. G. G. Campbell read a paper on **Pneumonia after ether.** There were two forms of pneumonia—the lobular and the lobar. According to statistics there were only about .3% of pneumonia in ether cases. He thought that the vast majority of the pneumonias were due, not to the ether, but to inhalation of foreign particles. It was of importance to begin ether gradually, and, if there was much mucus, to induce vomiting. Facts went far to prove that ether was antiseptic, as Sternberg had pointed out.

MISCELLANY.

A medical examiner in Arkansas writes to the general agent of one of our popular life-insurance companies, asking: "What will be the normal specific gravity of the urine for 1899?" A general agent that would not secure the services of that M.D., at once, is not "up to snuff."—[*Southwestern Medical Record.*]

Our Losses in the Philippines.—The losses of our troops in the Philippines from August 6 down to and including the reports of April 23, are as follows:

Killed	195
Died of wounds	51
Died of disease	278
Total deaths	524
Wounded	1,130
Missing	15
Grand total	1,669

Officers of the Congress of Physicians and Surgeons.—The following officers have been elected by the executive committee: President of Congress, Dr. H. P. Bowditch, Boston, Mass.; secretary of congress, Dr. W. H.

Carmalt, New Haven, Conn.; treasurer of congress, Dr. Newton M. Shaffer, New York City; chairman of executive committee, Dr. Landon Carter Gray, New York City; secretary of executive committee, Dr. W. K. Simpson, New York City. The next congress will meet at Washington, D. C., in May, 1900.

Obituary.—Dr. John Chester Payne, Poughkeepsie, N. Y., April 14, aged 80 years.—Dr. Harvey Everett, Middletown, N. Y., April 9, aged 88 years.—Dr. Robert Loughran, Kingston, N. Y., April 11, aged 64 years. Dr. Peter Pyrne, Herkimer, N. Y., April 13, aged 79 years.—Dr. H. T. Lechner, Boyertown, Pa., April 16, aged 32 years.—Dr. W. L. McBryer, Pittsburg, Pa., April 10, aged 37 years.—Dr. T. H. Briggs, Battle Creek, Mich., April 7.—Dr. E. R. Travers, Amboy, Ill., April 13, aged 67 years.—Dr. Thomas E. Collier, Atlanta, Ga., April 12, aged 64 years.—Dr. Charles Rocke Cullen, Gaines Mill, Hanover County, Va., April 5, aged 73 years.—Dr. F. Henry Kretz, New York, April 23, aged 54 years.—Dr. John R. Conway, New York, April 22, aged 36 years.

Dr. Biggs, the Chicago Board of Health, and the Sale of Antitoxin.—From the last report of the Chicago Department of Health we excerpt the following paragraph:

> A copy of this communication [see p. 755, this Journal of April 8] was also mailed to Dr. Biggs, with a personal note, acquitting him in advance of any intention of defaming the Chicago department, characterizing the statements as "alleged," and asking "What does it all mean?"
>
> To this Dr. Biggs has replied: "I am very glad that you gave out the statement to the Associated Press that you did, and can only say that it is *absolutely true* so far as my knowledge goes."
>
> Dr. Biggs' opportunities for obtaining full and exact "knowledge" of the relations of this department with the New York department have been ample, not alone as to the quality of the antitoxin furnished by the one and used by the other, but as to the success of its use, concerning which he says in his reply:
>
> "Certainly, nowhere in the world have there been more remarkable results than have been obtained in Chicago, and no one is more competent to express an opinion on this subject than the Chicago Department of Health."

Meeting of the American Medical Association.—The *Journal of the American Medical Association* states that among other plans for the coming meeting of the Association are the following: A reception to the visitors will be given on June 8, at the Columbus Auditorium, to which the members of the Board of Trade and their wives will be invited. Governor Bushnell will give a reception in their honor at the State capital. An informal entertainment will be given at the Great Southern, and in addition there will be many receptions in private houses. Mrs. Canfield will have charge of the entertainment of the ladies and she will be assisted by the members of the Art Association and the Federated Clubs. There will be an entertainment at the Country Club and at the Ohio State University. The badges for the delegates will be of sterling silver, of neat and appropriate design.

The revised assignment of meeting-places is as follows: General sections, Grand Opera House; Practice of Medicine, Senate Chamber; Diseases of Children, House of Representatives; Surgery and Anatomy, First Congregational Church; Gynecology and Obstetrics, Y. M. C. A. Auditorium; Cutaneous Medicine and Surgery, First Congregational Church; Ophthalmology, Y. M. C. A.; Laryngology and Otology, Y. M. C. A.; Neurology and Medical Jurisprudence, First Presbyterian Church; State Medicine, Stomatology, committee rooms, State House; Physiology and Dietetics, committee room, Board of Trade; Materia Medica, Pharmacy and Therapeutics, Council Chamber, City Hall.

Health-Reports.—The following cases of smallpox, yellow fever, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service for the week ended April 22, 1899:

SMALLPOX—UNITED STATES.

			CASES.	DEATHS.
CALIFORNIA:	Los Angeles . .	March 25–April 8 .	4	1
COLORADO:	Denver	March 18–April 1 .	9	
DISTRICT OF COLUMBIA:	Washington . .	April 1–18	17	
FLORIDA:	Jacksonville . .	April 8–15	1	
INDIANA:	Elmira	April 8–15	2	
KENTUCKY:	Louisville . . .	April 1-6	15	1
“	“ . . .	April 6–13	11	1
LOUISIANA:	New Orleans . .	April 1–8	5	
“	“ . .	April 8–15	18	1
“	Shreveport . . .	April 18	1	case imported from Mexico.
MASSACHUSETTS:	Boston	April 8–15	5	
MICHIGAN:	Benton T'nship,		reported present.	
“	Kalamazoo . .	April 1–15	5	
“	Watervlit Township,		reported present.	
NEW YORK:	Buffalo	April 20	1	
“	Elmira	April 8–15 . . .	1	
OHIO:	Cincinnati . . .	April 1–7	27	1
“	“ . . .	April 7–14	11	
“	Cleveland . . .	April 8–15 . . .	13	
PENNSYLVANIA:	Johnstown . .	April 8–15	1	
“	Pittsburg . . .	April 8–15	3	
RHODE ISLAND:	Providence . .	April 20	1	
VIRGINIA:	Alexandria . .	April 15	1	new case.
“	Newport News .	April 8–13	10	
“	Norfolk	April 7–12	23	
“	Portsmouth . .	April 7–12	18	1
WASHINGTON:	Spokane	April 1–8	2	

SMALLPOX—FOREIGN.

BELGIUM:	Ghent	March 25–April 1 .		1
BRAZIL:	Bahia	March 11–18 . . .	3	1
CHINA:	Hong Kong . .	Feb. 25–March 4 .	2	1
COLUMBIA:	Barranquilla .	March 25–April 1 .	2	
EGYPT:	Cairo	March 11–18 . . .		1
ENGLAND:	London	March 18–25 . . .	1	
FORMOSA:	Tamsui	Jan. 1–31	9	
“	“	Feb. 1–28	15	
MEXICO:	Mexico	April 1–9	1	
RUSSIA:	Moscow	March 18–25 . . .	22	
“	Odessa	March 25–April 1 .	5	
“	Riga	Jan. 1–31		15
TURKEY:	Constantinople,	March 13–20 . . .		8
“	Smyrna	March 5–12		1

YELLOW FEVER.

MEXICO:	Vera Cruz . . .	April 6–13	2	

PLAGUE.

FORMOSA:	Tamsui	Jan. 1–31	56	35
“	“	Feb. 1–25	125	84
“	“	Feb. 22–March 8 .	107	63

Changes in the Medical Corps of the U. S. Army.

Young, W. G., acting assistant surgeon, is granted leave for two weeks, with permission to return to the United States.

Jarrett, Arthur R., acting assistant surgeon, is relieved from temporary duty at Fort Columbus, and will comply with the orders assigning him to duty as examiner of recruits at Providence, R. I.

Matthews, Major W. S. H., brigade-surgeon, in addition to his present duties, will report to Lieutenant-Colonel James M. Marshall, D. Q. M. G., to act as medical inspector in the construction of the new general hospital now in progress at the Presidio, vice Major Guy L. Edie, brigade-surgeon, relieved.

Groff, Major George G., brigade-surgeon, the order which discharges him from the volunteer army is revoked.

McGee, Anita Newcomb, acting assistant surgeon, will proceed to Fort Monroe on business pertaining to the medical department, and on completion of this duty will return to Washington, D. C.

McEnroe, Robert L., hospital steward, Fort Riley, will be sent to Fort Crook. He will report to the commanding officer of the Sixteenth Infantry for duty with the hospital corps detachment of that regiment.

Gibson, Major Robert J., surgeon, is relieved from further duty at Fort Meade and will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

McDill, Major John R., brigade-surgeon, is relieved from further duty with the First Division, Seventh Army Corps, and will proceed from Camp Columbia, Havana, Cuba, to Washington, D. C., and report to the Surgeon-general, U. S. Army.

Manly, First Lieutenant Clarence J., assistant surgeon, is appointed acting assistant quartermaster and acting commissary of subsistence, and assigned to duty on the hospital ship "Missouri," now at Newport News, Va., to relieve Captain Charles Weiser, chief surgeon.

Ames, Roger Post, acting assistant surgeon, will proceed from New Orleans, La., to Havana, Cuba, for assignment to duty.

Brackett, John E., acting assistant surgeon, is relieved from further duty on the hospital ship "Missouri," and will proceed from Fort Monroe to Washington, D. C., and report to the Surgeon-General of the Army.

Wells, David D., acting assistant surgeon, is relieved from further duty on the hospital ship "Missouri," to take effect on arrival of that ship at Havana, Cuba, and will report to the commanding general, division of Cuba, for assignment to duty.

Archer, James F., acting assistant surgeon, will proceed to Cienfugos, Cuba, reporting upon arrival to the commanding general, department of Santa Clara, for duty.

Lundy, Pemberton, acting assistant surgeon, now at Pinar del Rio, will accompany the two battalions, Third United States Volunteer Engineers, to the United States as medical officer. Upon completion of this duty he will return to his proper station, Pinar del Rio, Cuba.

Combe, Major Frederick J., surgeon, now on leave at Brownsville, Tex., will accompany the Tenth Cavalry from Fort Brown to Galveston, Tex., and report for duty to the commanding officer of the battalion of that regiment ordered to sail from Galveston, Tex., to Santiago, Cuba, where, on arrival, he will report to the commanding general, department of Santiago, for assignment to duty in that department.

Reed, Major Walter, surgeon, will proceed to Havana, Cuba, and report to the commanding general, division of Cuba, for duty pertaining to the sanitary inspection of the camps, barracks, and hospitals in the vicinity of Puerto Principe, Cuba, and report upon the causes of the prevalence of typhoid fever among the troops at that place. Upon the completion of this duty, Major Reed will return to Washington, D. C., and make a full report of the results of his investigation.

Austin, R. Emmet, acting assistant surgeon, is relieved from further duty at Camp Wetherill, Greenville, S. C., and will proceed to Fort Sam Houston, and report to the commanding officer, Tenth Cavalry, for duty with that portion of that regiment ordered to Galveston, Tex., for transportation to the department of Santiago, Cuba.

Henderson, Clinton B., hospital steward, now supposed to be on furlough at Versailles, Ind., will report on or before the expiration of his furlough at Fort McHenry, for duty.

Neale, John, hospital steward, is relieved from duty at Fort McHenry, and will be sent to Washington, D. C., for duty in the Army Medical Museum.

Brooks, W. H., acting assistant surgeon, is relieved from duty with the Seventh Army Corps, and will proceed to Puerto Principe, Cuba, for duty.

A board of officers, to consist of Colonel Wm. H. Forwood, acting surgeon-general; Captain Edward Everts, assistant surgeon; Captain Thomas U. Raymond, assistant surgeon, is appointed to meet at San Francisco, Cal., May 15, and at such times thereafter as may be necessary, for the examination of officers of the medical department for promotion.

Porter, First Lieutenant Alexander S., assistant surgeon, will report May 15, to Colonel Wm. H. Forwood, acting surgeon-general, president of the examining board at San Francisco, Cal., for examination for promotion.

Changes in the U. S. Marine-Hospital Service,

for the fourteen days ended April 20, 1899:

White, J. H., surgeon, to proceed to Savannah, Ga., for special temporary duty. April 15.

Carrington, P. M., surgeon, upon completion of inspection duties to proceed to the Brunswick (Ga.) quarantine station, while en route to rejoin station at Washington, D. C., for special temporary duty. April 7.

Cobb. J. O., passed assistant surgeon, to proceed to Fort Stanton, New Mexico, for the purpose of establishing a marine-hospital at that place. April 19.

Wertenbaker, C. P., passed assistant surgeon, to proceed to Newport News, Norfolk and Portsmouth, Va., for special temporary duty. April 8.

Nydegger, J. A., passed assistant surgeon, to inspect unserviceable property at Wilmington, N. C. April 8.

Wickes, H. W., assistant surgeon, granted leave of absence for seven days. April 8.

Cumming, H. S., assistant surgeon, to proceed to Norfolk, Va., for special temporary duty. April 8.

Mathewson, H. S., assistant surgeon, to inspect unserviceable property at the San Francisco quarantine station. April 15.

von Ezdorf, R. H., assistant surgeon, to proceed to Savannah, Ga., for special temporary duty. April 7.

McConnell, A. P., acting assistant surgeon, granted leave of absence for four days from April 17. April 17.

Marsh, W. H., acting assistant surgeon, granted leave of absence for five days from April 25. April 18.

Todt, W. C., acting assistant surgeon, granted leave of absence for five days. April 17.

Dudley, D. E., sanitary inspector, to proceed to the Tortugas Quarantine Station for special temporary duty. April 7.

La Grange, J. V., hospital steward, to proceed to Fort Stanton, New Mexico, and report to Passed Assistant Surgeon J. O. Cobb for duty and assignment to quarters. April 19.

BOARD CONVENED.

Board convened to meet at Philadelphia, Pa., at 10 a.m., April, 18, 1899, for the physical examination of an officer of the Revenue Cutter Service. Detail for the Board: Surgeon H. W. Austin, chairman; Assistant Surgeon M. J. White, recorder.

APPOINTMENTS.

Hill, E. D., of Massachusetts, appointed Acting Assistant Surgeon. U. S. Marine-Hospital Service, for the physical examination of keepers and surfmen in the Life Saving Service at Plymouth, Mass., and vicinity. April 15.

Howell, D. C., of Michigan, appointed Acting Assistant Surgeon, U. S. Marine-Hospital Service, for the physical examination of keepers and surfmen in the Life Saving Service at East Tawas, Michigan, and vicinity. April 15.

Changes in the Medical Corps of the U. S. Navy

for the week ending April 22, 1899.

Bright, G. A., medical director, retired April 9, Section 1444, R. S.

Clarke, J. H., medical director, retired April 16, Section 1444, R.S.

Garton, W. M., assistant surgeon, detached from the "Supply," when put out of commission, and ordered to temporary duty at hospital, New York, N. Y.

Waggener, J. R., surgeon, order of April 3 modified; ordered to San Francisco, Cal., when the marine battalion is ready for passage to Manilla, P. I.

Griffith, S. H., surgeon, detached from duty as a member of the Marine Examining Board, Washington, D. C., and ordered to the "Prairie."

Herndon, C. G., surgeon, detached from the "Prairie" and granted sick leave for two months.

Snyder, J. J., assistant surgeon, detached from hospital, Newport Naval Station, and ordered to the "Wabash."

Ross, J. W., surgeon, retired, detached from duty at Army Hospital, Havanna, Cuba, and ordered home.

Dixon, W. S., medical inspector, detached from the Naval Academy, and ordered to Washington, D. C., April 15, for duty as member of the retiring board.

Drake, N. H., surgeon, ordered to duty as member of the Naval Medical Examining Board, New York, N. Y.

Streets, T. H., surgeon, detached from duty as member of the Naval Medical Examining Board, New York, N. Y., and ordered to the "Philadelphia," as fleet surgeon, by steamer of April 19.

DuBose, W. R., surgeon, detached from the Naval Hospital, Brooklyn, N. Y., and ordered to the Naval Academy.

Gaines, J. H., surgeon, retired, granted leave to go abroad for six months, from May 6.

Crawford, M. H., surgeon, ordered to duty at the naval recruiting rendezvous, Chicago, Ill.

Taylor, J. S., assistant surgeon, detached from the recruiting rendezvous, Chicago, Ill., and ordered to "Independence" temporarily.

DeLancy, C. H., assistant surgeon, detached from the "Amphitrite" and ordered to temporary duty at the marine recruiting rendezvous, Savannah, Ga.

Intussusception.—R. W. Murray (*Liverpool Medico-Chirurgical Journal*, January, 1899,) has found records of 19 cases of primary laparotomy for intussusception during the last 4 years, with 13 recoveries. He has operated personally in 3 cases. In one the intussusception could not be reduced, resection was performed, and the child died. In a second case the bowel was reduced with great difficulty, however, the child might have recovered but that, being very cold and collapsed, it was placed on a very hot water-pillow and its back and buttocks were badly scalded. It also died. In the third case, occurring in a girl-baby of 6 months, the intussusception could be felt through the abdominal wall occupying the transverse colon, and blood and mucus escaped by the rectum. On opening the abdomen the intussusception was found to be of the iliocecal variety, about 6 inches in length, and was readily reduced. At the time of the operation the child was in collapse, but the next morning there was marked improvement and subsequent convalescence was uneventful. In conclusion Murray calls attention to the fact that injections of water and air have been used for hundreds of years and give 75% of failures. Primary laparotomy promises much better success and its early performance is urged. [m.b.t.]

Foreign News and Notes.

GREAT BRITAIN.

The Midwives Bill came on for discussion in Parliament on April 12, but was "talked out" without a division, the debate standing adjourned *sine die.*

The Chair of Natural History in the University of Aberdeen, left vacant by the death of Professor Nicholson, has been filled by the appointment of **Mr. J. Arthur Thomson, F.R.S. Ed.,** a well-known zoologist.

University of Glasgow.—Dr. Robert Muir, recently pathologist to the Edinburgh Royal Infirmary, and professor of pathology in the University of St. Andrews, has been elected professor of pathology in the University of Glasgow to succeed the late Professor Coates.

The Prevention of Communicable Diseases in Edinburgh.—A meeting was recently held in the Edinburgh Council Chamber between representatives of the Royal College of Physicians of Edinburgh and a sub-committee of the Public Health Committee of Edinburgh Town Council, to consider a communication from the College respecting the carriage and dispersal of disease through milk, water, etc. The Royal College of Physicians pointed out that an enormous amount of work consisting of analyses and scientific investigations had been done in its laboratory for the good of the city, and without charge, and submitted that the time had now come when the corporation of Edinburgh —if the value of the College's services was recognized—should at least share the out of-pocket expenses. The matter has been left to the consideration of the Public Health Committee, but the view taken by the College is so evidently reasonable that it will probably be acceded to.

Removing 2,000 Bodies from a Crypt.—The Vestry of St. George the Martyr, Southwark, a very old London parish, has just received a letter from the Home Secretary stating that certain human remains in the crypt of St. George's Church must be removed without delay on account of the danger to public health arising therefrom. Over two years ago the medical officer of health for the district, Dr. F. J. Waldo, made a forcible representation to the Vestry as to the necessity for removing and reburying these bodies—stated to be 2,000 in number—but the Vestry received his recommendations with rudeness as well as coldness, stating that the procedure would entail expenses upon the parish. Those expenses now have to be met, as the Vestry is not likely to dispute the fiat of the Home Office, while sanitarians and public-spirited citizens are chuckling over the sharp rebuke to the spirit which made the Vestry prefer snubbing their medical officer to doing their duty by the community.

Mr. Jukes de Styrap, whose death is announced to have taken place recently at Shrewsbury, bore an odd name which was very familiar to all the medical profession in Great Britain; for he wrote a popular handbook to professional behavior, entitled "A Code of Medical Ethics," which was accepted by the common consent of most medical men as authoritative. In this little book, which displays considerable casuistry as well as much unaffected piety, the medical man will find directions how to order himself in the presence of the difficulties that constantly arise in professional life between a practitioner and his patients, a practitioner and his medical colleagues, a practitioner and his assistants, etc. Of course, in delicate matters of medical etiquette circumstances so entirely dictate the behavior that is proper that it is impossible for any code to lay down general laws to fit particular cases; but with this inevitable drawback Mr. de Styrap's manual was wonderfully useful and complete. Even if the exact position in which a medical man desired assistance might not be considered in "The Code of Medical Ethics," similar positions were certain to be noticed, while the spirit of tolerance and charity inculcated could only conduce to good manners and kind-hearted procedures.

Tuberculosis and Queen Victoria's Cows.—The value of tuberculin in the diagnosis of tuberculosis has received considerable confirmation by the result of certain experiments carried out at the home farm, Windsor Castle, upon 40 Shorthorn and Jersey cows belonging to the Queen. It had already been announced by the Prince of Wales at a meeting held at Marlborough House in the interests of the new national Society for the Prevention of Consumption and other Forms of Tuberculosis, that a herd of cows belonging to Her Majesty had been destroyed. The details of the experiments with tuberculin have now been made public. All the cows appeared healthy before the tests were commenced save that in some of them the temperature was above the normal. In 34 cows the temperature rose after injections of tuberculin to 104° F. or more; 4 appeared not to react; and 2 were doubtful. The whole herd was slaughtered, and of the 34 whose temperature had risen above 104° F., 33 were found to be tuberculous, and 1 (in which case the temperature rose much more suddenly) to have uterine disease. Of the 4 animals presenting no reaction 3 were found to be quite healthy and another to have one small caseous gland. The 2 cows concerning whose state the veterinary surgeons were doubtful proved to be tuberculous.

A new Lunacy Bill is to be introduced into Parliament, amending the existing lunacy laws to the extent of no less than thirty clauses, an amount of alteration and addition which marks clearly the increasing interest that is being taken by the community (and consequently by the legislators) in insanity and its various social problems. In one direction the new lunacy bill itself requires amendment, and English medical men are not likely to be slow in pointing this out. The clause providing for the pensioning of medical officers in lunatic asylums is unsatisfactory, for it leaves to the committee of management of the asylum the duty of making for their retiring officers "such allowances as they think proper." This is the wrong principle of awarding pensions. A pension should depend upon the length of service of the recipient, and should certainly amount to an irreducible minimum. A committee might well be allowed to grant more than such a minimum, but it should not be in their power to grant less. Their duty toward the public is to cherish the good servant and *to get rid of the bad one.* The pension of a bad servant should be arranged never to be a high one, for it should depend upon the length of time over which his services have extended, and with a good committee this time should not be long. A clause in the new bill provides for a grant of allowances or gratuities to asylum officials in case of injury in discharge of their duties, which is only a proper recognition of the exceptional nature of their services.

CONTINENTAL EUROPE.

Dr. Julius Lazarus celebrates during this month the twenty-fifth anniversary of his appointment as physician to the Jewish Hospital in Berlin.

Medical Society of Vienna.—Professors Weinlechner, von Ruess, and J. Mauther, were recently elected presidents.

Incontinence of Urine.—A case occurring in a syphilitic was completely cured, at the "Necker" hospital, Paris, by hypodermic injections of calomel.

Dr. Schlatter, who became well known through his successful total extirpation of a carcinomatous stomach, has been appointed professor of surgery in Zurich, to fill a newly created chair.

"Grip" and Appendicitis.—DR. Faisans, at a recent meeting of the Hospital Medical Society (Paris), stated that the result of his observations and investigations, led him to attribute the cause of appendicitis to the "grip."

National Health Society in Germany.—Under the lead of Professors von Leyden and Rubner a new national health society has been formed, the objects of which are stated to be: (1) To give the greatest possible publicity to the laws of hygiene, and the results of hygienic research; (2) to take up a position with regard to all social questions affecting the health of the masses; and (3) to propose and support such practical undertakings as may be conducive to national health.

Syphilis of the Breast.—Professor Fournier, of the hospital Saint Louis, at Paris, exhibited at a recent clinic an interesting case of syphilis. The patient was a woman, aged 40. A true syphilitic chancre was seated upon the right breast, and 20 more on the left. These lesions were accompanied by all the other classical symptoms. Prof. Fournier, in concluding his remarks, observed that he had seen (1877) but one other similar case, that of a woman who had 27 chancres.

Microscopic Test for Small Particles of Uric Acid.—The Switzerland correspondent of the *Lancet* states that the importance of diagnosis being evident in cases of gravel where very little substance is obtainable, Mr. Albert Brun publishes a note on the subject. Examine the particle in monobromid of naphthalin, the index of refraction of which is 1.66. Compare this with indices of refraction of uric acid, 1.73; calcium oxalate, 1.60; calcium phosphate, 1.63; and the diagnosis becomes possible under the microscope. If on raising the tube of the microscope the crystal becomes brilliant the substance under the microscope has a higher index than the fluid in which it is immersed; it becomes darker if the substance has a lower index than the fluid. The importance of the test is clear for cases requiring medical treatment or surgical intervention. Polarization offers still further proof, as uric-acid particles are dichroic and appear darker in polarized light than oxalates.

Plague.—In a recent letter to the Pasteur Institute, dated at Nhatrang (Annam) Dr. Yersin describes the symptoms of a typical case of plague. There is no difference in the plague-symptoms, between the Annamites, Chinese, and Indians. The disease is ushered in suddenly with a chill, followed by a high temperature (39° to 41° C.) The patient now becomes dizzy and walks like a drunken man, complains of headache and lassitude. The conjunctives are strongly injected, respiration rapid, pulse frequent, vomiting, and constipation. The bubo appears during the *first* hours of the attack and develops rapidly. The bubo is generally unique and is situated, in order of frequency upon groin, axilla or neck; it is *always painful* to the touch. The bubo is confined to the lymphatic glands with swelling of the neighboring tissue. The second day the temperature remains elevated, respiration anxious, and pulse more frequent. Delirium now begins. The bubo has attained the size of a pigeon's egg. The third day, the pulse is excessively frequent (140). The patient is in agony and the bubo is the size of a hen's egg. Death usually supervenes about the fourth day, by paralysis of the respiratory center.

Action for Injuries Caused by the X-rays.—An action has recently been brought in a Paris law-court for damages caused by the x-rays. Mme. Mockert suffered from an affection of the hip-joint. Her medical attendant recommended an operation; the patient disliked the idea. In order to ascertain that it was necessary, an examination with the x-rays was made by a specialist. The first sitting lasted 40 minutes, the second 45, the third an hour and a quarter. The result was negative. After the second sitting the skin of the region radiographed was red and mottled. A few days subsequently there was a sore place which was followed by a scab. The suffering was so intense that it was feared that the patient would go out of her mind. Gangrene seemed to be threatening. Mme. Mockert was taken to the seaside. Five medical men attended her at a cost of £136 15s. Mme. Mockert and her husband sued the radiographer for £200 damages. Counsel for the defence read a letter from Dr. Bardet, head of the Laboratory of the Pitié Hospital, wherein he states that if any responsibility is attached to the use of Röntgen rays they cannot be utilized. The susceptibility of patients to the influence of the x-rays varies like their susceptibility to that of drugs. The Court has decreed that a medical commission be appointed to decide as to the duration of the examination considered safe. Judgment is postponed.—[*British Medical Journal.*]

Coeducation in the German Universities.—According to the *British Medical Journal*, clinical students of Halle University have publicly protested against the admission of women to the medical curriculum. In a paper fixed on to the University blackboard they hotly oppose, not the study of medicine by women, but the attendance of women at clinical courses in common with male students. They appeal to the clinical students of Germany, who, they say, either know by experience or can fully imagine the awkward situations, outraging all sense of decency, which necessarily ensue from such study in common. "With the female students," they say, "cynicism has entered our university"—and they imperatively demand the exclusion of female students from the men's clinical courses, appealing to the medical students of all German universities to join in the protest. The Berlin medical students have not followed the lead of their Halle brethren. They have refused to let the protest be fastened on their University blackboard. In Halle itself an authoritative counter-declaration has appeared, signed by the Dean of the Medical Faculty, Professor Weber. The complaints of the students have been carefully considered by the medical professors, and have been found to rest partly on misunderstandings, partly, however, on direct misrepresentation. Through their Dean the medical professors solemnly declare that neither morality nor the scientific gravity of clinical instruction has suffered in any way since the admission of female students, nor have the tone and general deportment in the clinics and lecture-theaters changed for the worse in any way. They declare the students' accusations to be totally unfounded, and deplore the animosity shown by them against the female students, which these latter have done absolutely nothing to deserve; and they would not hesitate to proceed against the authors of the protest if they were not convinced that they had not realized the full meaning of the step they had taken. Finally, the professors hope that peace will soon be restored and the good feeling between professors and students henceforth remain undisturbed.

Society Report.

[From our Special Correspondent.]

THE TWENTY-EIGHTH ANNUAL CONGRESS OF THE GERMAN SURGICAL SOCIETY.

Held at Berlin, April 5, 6, 7, and 8, 1899.

First Day.

The Congress was held in Langenbeck House and was opened by the president, Prof. Hahn, the director of the City Hospital at Friederichshain. The large amphitheater was, as is usual, crowded, among those present being Professors Kocher, of Berne, von Esmarch, of Kiel, Gussenbauer, of Vienna, Trendelenburg, of Leipsic, Küster, of Marburg, Krönlein, of Zürich, Hoffer, of Würzburg, Wagner, of Königshütte, von Bramann, of Halle, and von Bergmann, König and Sonnenburg, of Berlin. In the election of a president for the ensuing year, von Bergmann, of Berlin, proved to be the unanimous choice. The president began by mentioning the names of the members who died during the past year. Among these was Professor Guelt, of Berlin, the author of the well-known history of surgery. [Professor Guelt was the secretary of the Congress last year, and through him our correspondent obtained many favors whereby our report was rendered more complete.] He then read a letter of Lieutenant-General von Coler, Surgeon-General of the army, referring to the completion of the first part of a historical work written at the request of the Minister of War, commemorating the work of German surgeons, and the development of military surgery. This first part, edited by Prof. Köhler, gives the lives and deeds of the military surgeons and the development of military surgery in the seventeenth and eighteenth centuries.

The scientific part was opened by Prof. König (Berlin) with a paper on **Foreign bodies in joints.** By foreign bodies is understood small, movable particles of cartilage or bone which form in the joint as a result of disease. The affection is especially one of youth, and of males more than females. The knee and elbow are the joints of predilection. The cause is, usually, according to his experience, a destructive inflammation of the joint followed by a fall or like injury, which separates part of a product of the inflammation from its attachment. This separated particle may be part of an inflammatory hyperplasia, or part of the bone or cartilage, the result of a destructive process. Sometimes the body is actually free in the joint, again it is attached. The symptoms manifest themselves sometimes by rheumatic pains and impossibility of moving the joint in certain normal ways; again, and this is more usual, there are sudden violent pains on performing certain movements, which the patients soon learn to avoid. Occasionally the patient also experiences a decided "crack" in the joint. In the majority of cases these bodies can be seen by the Röntgen rays.

Discussion:—Prof. von Bergmann (Berlin) said that foreign bodies were also common in the joints of old people suffering from inflammatory joint-affections. Barth (Dantzic) described the histology of these foreign bodies. He considered them always the result of destructive inflammation.

Brain-Surgery.—Prof. Kocher (Berne) spoke on the requirements for successful operations for epilepsy. In all cases caused by wounds or tumors he recommends operation. The bone chiseled through is removed entirely, in order to avoid a return of the increased tension. In cases in which old cortical scars cause the attacks, little or nothing is gained by their removal.

Discussion:—Prof. von Bergmann (Berlin) insisted that operations for epilepsy were only successful if done before the development of a pronounced epileptic condition. He believed that Prof. Kocher's fear of a return of pressure-symptoms if the trephined bone was returned to its place was unwarranted. He detailed the case of a young girl with porencephalus and a defect in the skull, 14 cm. long by 8 cm. wide, who suffered from epilepsy. He operated and closed this defect by a periosteal flap taken from a neighboring region, thereby curing the epilepsy completely. He also presented a patient who was shot in the brain 4 years ago, and who developed epilepsy 3 months later, and, though operated on, the bullet could not be found. In 1897 an abscess of the brain developed, which healed after opening. After this second operation he had no epileptic attacks till lately. They are now coming on again, probably caused by the presence of the bullet. Prof. Krönlein (Zürich), speaking on wounds of the brain by small-caliber bullets, related a case of suicide in which the entire top of the skull was shot off and the brain thrown out on the ground. Except some slight tearing of the superficial convolutions the brain was uninjured. In a second attempted suicide, the same make of gun and bullet being used, the ball penetrated the forehead and passed along the floor of the skull, coming out posteriorly without causing even a moment's unconsciousness. Two further cases of wounds of the head with the 1898 Swiss model showed extensive destruction of the skull and brain. Dr. Barker (London) described a case of a young Russian, an attempted suicide, who shot himself twice in the mouth and then walked to the police station to announce the fact. Since they set up no disturbance, the bullets were left in the brain, after they had been accurately located by the Röntgen rays. Some slight paralysis existed for a time, but passed off and epilepsy followed. He was now operated on, the bullets removed, and although hemiplegia followed the operation, it gradually disappeared and the patient became entirely well. Dr. von Beck (Carlsruhe) gave the statistics of the Heidelberg clinic in 8 cases of epilepsy in which operation was done either by Prof. Czerny or himself. Five cases were the result of injuries. Like Kocher he does not believe in replacing the bone removed by the trephine or chisel, fearing the return of pressure-symptoms. Dr. Lauenstein (Hamburg) reported a case of severe epilepsy in a 25-year-old man with innumerable attacks, paralysis, and beginning blindness. In spite of the fact that a large opening was made in the skull no pathologic change was found, yet marked improvement followed the operation. He considers the improvement due to the relief of pressure.

Resection of Spinal Column for Spondylitic Paralysis.—Prof. Trendelenburg (Leipsic) reported 8 cases. The patients suffered with more or less extensive paralysis of the legs, sensation, as well as the functions of the bladder and rectum being practically normal. The operation consisted of raising a flap of skin over the prominence and chiseling through the laminæ. The spinous processes with laminæ are removed up and down to a point where the dura is seen not to press against the bone. The operation was in every instance successful, and the paralysis which usually became somewhat more marked after the operation, gradually disappeared within 6 months or therabouts. He considers operation contraindicated in very early stages of the inflammation; the older the paralysis the better, seemingly, is the prognosis of operation.

Discussion:—Troje (Braunschweig) recommended for the resection a chain saw.

Concussion of the Brain.—Prof. Tilmann (Greifswald) described an apparatus which he constructed to imitate the conditions in the skull. He claimed that the explanation of concussions lay in the physical conditions present and that the cause was to be found in the difference in the specific weights of the gray and white substance of the brain of the contained blood and of the surrounding fluid.

Discussion:—Prof. Gussenbauer (Vienna) said with reference to Kocher's paper that in his experience the removal of cortical scars causing epilepsy was sometimes followed by cure, and that in all cases the attacks disappeared for some time. He claimed too that cure often followed plastic operations on the skull in cases of epilepsy with congenital bony defects.

With reference to Krönlein's case of shot-wound he claimed that the brain was thrown out by the hydraulic pressure of the intermeningeal fluid which was violently and suddenly forced underneath. With reference to Tillman's theory of concussion he said that the fact that the blood and brain fluid were present under different amounts of pressure was left entirely out of consideration.

Bacteria and Wounds.—Dr. Friedrich (Leipsic) read a paper on "Bacteria of the air infecting wounds." He said that infection by this means was overestimated; that even when the germs fell into an open wound there was very little danger of infection, because it took quite a long time, about 8 hours, for bacteria floating in the air to recover and start their function of reproduction, while the reaction of the tissues about the wound began almost at once, giving them a marked advantage over the bacteria. Under ordinary circumstances he claimed there was no fear of the microorganisms being picked up by the circulation, for this it was necessary that the bacteria be under pressure in the wound.

Dr. Senger (Erefeld) read a paper on **disinfection of the skin**, in which he detailed experiments for the purpose of seeing when the skin became sterile. He concluded that it practically never became so, and that, therefore, in operating the hands should be washed in an antiseptic, the effect of which would be lasting.

Dr. Schnitzler (Vienna) detailed experiments by which he proved that a predisposing cause (such as general debility, or a general disease of the individual) was sufficient to awaken the virulence of microorganisms in cases where they were latent. This could also be observed clinically in the relapses of bone-suppuration, and late suppuration in the case of enclosure of foreign bodies, as for instance bullets.

Noma, and its Cause.—Dr. Perthes (Leipsic) read a paper on this subject, in which he claimed the cause to be a bacterium, somewhat similar to the actinomyces, working on prepared ground. Because it required a certain predisposition or weakening of the tissues, the disease was not transferable to the lower animals.

Discussion:—Dr. Samter (Königsberg) claimed to have seen the organisms described by Perthes some years ago, but he did not complete his investigations.

Dr. Pitschmann reported 6 cases of gangrene foudroyante, seen by himself and Dr. Lindenthal. The disease consists in a rapid progressive gangrene of the skin and the muscles, with marked formation of gas in the tissues. The course is short, the patients dying with symptoms of intense intoxication. The only hope is in amputation of the limb as soon as possible. The disease begins in infected wounds, though actual suppuration may not be present. In some of the cases they found a parasite, which caused an apparently similar disease in animals.

Aleppo Boils.—Dr. Loewenhardt (Breslau) gave an interesting account of some cases of Aleppo boils occurring in participants of the late royal tour through Palestine. On account of the prominence of the afflicted and the dreadful disfigurement of the disease the interest of the highest authorities was awakened in the question. The speaker had the opportunity of seeing and examining three cases in the Breslau Hospital, within the last few years. He exhibited wax models and microscopic preparations from the cases he observed beyond the Caucasus. In most of those cases the disease was limited to the face. It ran a severe course, with marked general disturbances, yet the prognosis was always favorable, the ulcers healing spontaneously with scar-formation. He called attention to 20 cases found by the French physicians in 1883 in a battalion just returned from Algiers.

Second Day.

Gloves in Operations.—Dr. Schlosser (Prague) gave a passing mention to the exhaustive discussion of this subject in last year's Congress (Philadelphia Medical Journal, page 824), but reiterated the facts of the Prague clinic, that, although some surgeons advocated rubber gloves, and others silk. or combinations of both, in Prague they were still satisfied with leather gloves that had been soaked in zylol.

Congenital Dislocation of Hip and its Treatment.—Professor Hoffa (Würzburg) described this condition from its pathologic and clinical aspect. As a rule the children are unable to walk without support, and if the dislocation is double, scarcely able to walk even with support. Yet there are a number of cases in which the deformity is so slight that operative interference is unjustifiable. In the operable cases 2 methods of reduction confront the surgeon: the cutting down on the joint and replacing the bone, or the more common modern way, the bloodless operation or reduction by force. This latter method obtains the preference, and though successful in the majority of cases, if it should fail, the second may be tried. He said this method was only applicable up to a certain age, which might be said to be about 10 years. In very young children management of the position may be sufficient. In many cases the condition is one not of dislocation but of "mislocation" or misplacement of the head of the femur, function in the majority of such cases being scarcely impaired. He gave statistics of 127 cases treated by himself in the various ways. In the bloodless method the reduction was controlled by means of skiagraphs. In 25 cases he adopted a slightly different personal modification of the bloodless operation with especially good success. He exhibited a number of cured cases, in whom a deformity was unnoticeable. He detailed the case of a girl on whom he tried the bloodless operation and failed, and then cut down on the joint, replacing the bone with success. Before the operation the child could scarcely walk a step; today she dances, skates, and rides a bicycle. Prof. Lorenz (Wien) also said that the patient had outgrown the bloodless operation by the age of 10 years, and if the dislocation was double-sided, by 7 years. The younger the patient the better the prognosis in operating; after a certain age, a normally placed but stiff joint was the most to be hoped for. In the course of 3 years he has done the bloodless operation 360 times, in about a third of the cases the result being controlled by skiagraphs. When possible he advises strongly the bloodless operation, because it gives the best results as to appearance and usefulness. He also described a personal modification of the bloodless method. Dr. Petersen (Bonn) described a mechanical apparatus used in Schede's clinic for the bloodless operation. By it the power employed can be exactly regulated, and the accidents occasionally happening averted.

Discussion:—Dr. Drehmann (Breslau) showed a skiagraph of a hip-joint on which the bloodless operation had been done 2 years ago. On the margin of the acetabulum could be seen a new bony outgrowth, which it seemed would tend to hold the head of the femur better in place. Prof. Mikulicz (Breslau) gave his experience of 100 cases. Since the advent of the Röntgen-rays he has been disappointed in several cases of the bloodless operation in which clinically the bone appeared in place until the skiagraph showed the displacement. He considers all the ordinary bloodless operations of equal value, and believes the nonsuccess in some cases to be due, not to the method employed, but to the peculiarity of the case. In his opinion many of the dislocations take place during birth, and these are the easiest to reduce. In precongenital cases the hindrance to reduction lies usually in some peculiar formation of the joint-capsule. For very young children he recommends the wearing of a "corset" adapted to the part, which usually brings about the desired result. In the other points he agreed with Hoffa and Lorenz. Dr. Heusner (Barmen) laid especial stress on the after treatment. He exhibited an apparatus for reduction and exact application of the bandage. Drs. Höftmann (Königsberg) and Lange (Munich) exhibited also arrangements for the same purpose. Dr. Narath (Utrecht) reported 6 cases of fracture of the femur coming under his observation caused by the operation. Prof. Lorenz (Vienna) closed the discussion by insisting that even when a perfect anatomic result was not obtained the gait was considerably improved.

Tuberculosis of Bone.—Dr. Benda (Berlin) dealt especially with the connection between bone-tuberculosis and general miliary tuberculosis. He reported in detail 3 such cases. Dr. Küttner (Tübingen) reported some cases of tubercular osteomyelitis of the long bones, on account of their rarity in comparison with acute osteomyelitis due to other infectious processes. Dr. Büngner (Hanau) spoke on tuberculosis of the symphysis pubis, and drew a parallel between that and tuberculosis of the sacroiliac synchondrosis. Tuberculosis of the symphysis attacks adults, with a predilection for the female sex, and may affect both bones. The peculiar dissemination, as well as the form of the purulent collection, which has more than once been taken for a hernia, is the result of the anatomic conditions of the parts. Dr. Sudeck (Hamburg) dealt with the anatomy and etiology of coxa vara of adolescence. He fell in line with Sprengle's opinion that in the majority of cases the cause is to be sought in oft-repeated light mechanical insults or traumatisms which lead to injuries in young growing bone easier than in fully developed bone. He also presented a case of bowing of the neck of the femur due to traumatism.

Surgery of Gastrointestinal Tract.—Prof. Krönlein (Zürich) reported a case of traumatic gastric ulcer in a man, 48 years old, who received a violent blow in the epigastric region. Up to this time perfectly healthy, he now began to experience violent pains, and suffer from serious attacks of vomiting. He gradually lost weight on account of the little nourishment he was able to take, until finally operation was decided on. A large ulcer completely surrounding and barricading the pylorus was found. The pyloric end of the stomach was removed and the patient fully recovered. Microscopic sections showed no signs of cancer. The speaker called attention to the importance of the case in regard to accident practice. Dr. Wagner (Königsberg) described a case of similar origin. Prof. Rehn (Frankfurt a.M.) reported a singular case in which he operated on a servant-girl, 25 years old, for severe peritonitis. It was necessary to resect a portion of the intestine. The operation was successful, the patient recovered, and went about her work. After 4 months she began to complain of intense pains in the abdomen, then symptoms of complete intestinal obstruction came on, and a second celiotomy was done. Within the intestine causing the obstruction was found a gauze compress. That it had been accidentally left behind at the first operation, and had lain there for 4 months without causing the last symptom, seemed to the speaker almost impossible; yet there only remained the other explanation, which the patient denied, namely, that she had swallowed it. He also exhibited a preparation of an umbilical hernia which contained a portion of large intestine within which was a gallstone. He talked of the fate of gallstones generally that had gotten into the intestine.

Third Day.

Surgery of Gastrointestinal Tract (Continued).—Prof. Krönlein (Zürich) exhibited a portable electric-light apparatus, which is always ready for immediate use. All the parts are protected from the dust by glass. Dr. Lexer (Berlin) reported a case of persistent omphalomesenteric duct in a child. Histologically he found that it was exactly similar to the mucous membrane at the pyloric end of the stomach. He considered it an embryologic curiosity not before observed. Dr. Kellnig (Dresden) reported a series of experiments on animals relating to the disturbance of function of the gastric mucous membrane after operations on the gastrointestinal canal, especially gastrointestinal anastomosis. Dr. König, Jr. (Berlin), reported a case of resection of the stomach for gastric ulcer with continual hematemesis. The ulcer was situated near the pylorus, but the operator only removed the source of the trouble. The resulting cicatrix caused obstruction, and the abdomen was opened again and a gastrointestinal anastomosis done. This new pylorus also closed up and a third celiotomy became necessary. This one was done by the speaker, and a new gastrointestinal anastomosis made with complete success. He exhibited the patient. Prof. Braun (Göttingen) reported a case of repeated celiotomy for perforation of a duodenal ulcer 11 months subsequent to a gastrointestinal anastomosis. He considered the cause of the ulcer to be irritation due to overflow of the acid gastric juice. Prof. Hahn (Berlin) and Dr. Kausch (Breslau) each reported a similar case. Prof. von Beck (Carlsruhe) reported a case of gastrointestinal anastomosis by means of the Murphy button. Three months after operation epigastric pain and digestive disturbances developed, and on a second celiotomy the button was found exactly in the position that it had previously been placed. A second anastomosis was done, this time too with the button, and with complete success. He also reported a case of complete intestinal obstruction in a woman, in whom, on celiotomy, the cause of the obstruction was found to be a drinking-glass that had been forced high up into the rectum. This rather singular "corpus delicti" was removed only with considerable difficulty. Dr. Koerte (Berlin) detailed a case of gastric ulcer of traumatic origin, similar to Professor Kronlein's, and reported 7 cases of complete intestinal obstruction by gallstones. In the majority of these the diagnosis was made before operation. Dr. Hadlich detailed a unique case of ntestinal obstruction, in which the intestine was found completely divided, the ends being blind pouches. The separation had taken place gradually and was caused by tissue bands. Dr. Modlinski (Moscow) and Dr. Herczel (Budapesth) offered new modifications of gastrointestinal anasomosis. Dr. Gersuny (Vienna) described what he called ypical peritoneal adhesions. These are frequently to be een on the sigmoid flexure, and can lead to no inconsiderable disturbance. That they are mentioned so rarely is only because they are not sought. They arise probably as he result of small hemorrhages into the serous membrane, nd it is not unlikely that analogous adhesions may form on the appendix, causing closure of its lumen. Prof. von Beck (Carlsruhe), in discussing these adhesions, mentioned several cases of complete intestinal obstruction of which he considered them the cause. Prof. Graser (Erlangen) spoke on acquired diverticula of the intestine; numerous investigations of the intestine, after injection of its bloodvessels, lead him to the conclusion that these diverticula were the result of cardiac insufficiency. They are especially frequent on the sigmoid flexure, the loose areolar tissue of which lends itself naturally to their formation. A long continuance of this diverticulum may lead to acute inflammation, with the production of peritoneal adhesions. In discussing this, Dr. Hansemann (Berlin) said he did not consider Prof. Graser's theory proved, as to the origin of these diverticula. He believes their formation due to a congenital tendency in certain individuals, which tendency is still inexplicable.

Bowing of the Neck of the Femur.—Dr. Sprengel presented two patients, one before, the other after operation, both due to traumatism. He agreed with Kocher that the condition is due to a loosening at the epiphysis, and showed skiagraphs and 2 preparations from operations, demonstrating this. He did not believe that the case exhibited yesterday by Dr. Sudeck was one of bowing, but actual fracture of the neck of the femur. He mentioned the medico-legal importance of differentiation between bowing due to injury and that due to constitutional conditions. The results of operative interference are still sub judice.

Discussion:—Dr. Hofmeister (Tübingen) said that for the differentiation of idiopathic bowing from loosening of the epiphyseal cartilage after traumatism a very accurate previous history must be obtainable. Prof. Kocher (Bern) mentioned the possibility of either a gradual or sudden bowing. Dr. Henle (Breslau) reported favorable results in 4 cases operated on in Mikulicz' clinic.

Club-Foot.—Prof. Neuber (Kiel) said that in cases in which the tendo-achillis was to be cut, he had given up the old procedure of subcutaneous division and now cut down openly. He thought he was better able to avoid secondary contraction. He exhibited an apparatus for holding the foot in place.

Treatment of Old Dislocations of the Elbow-Joint.—Dr. Bunge (Königsberg) reported the excellent results at the Königsberg clinic. The joint was freely laid open, and all the soft tissues standing in the way of reduction were cut through, till reduction was possible. They frequently found small pieces of bone, broken off at the time of the dislocation, to be the interfering objects; frequently also transverse fractures of the lower end of the humerus which had healed obliquely. To prevent the reformation of adhesions it is necessary to institute passive motion early and keep it up a long time.

Ostitis.—Dr. Franke (Braunschweig) described a peculiar form of inflammation of bone in which the bone is riddled by newly-formed connective tissue in the meshes of which lie the necrosed bone-particles.

Treatment of Cardiac Injuries.—Dr. Wehr (Lemberg) detailed experiments on animals in which portions of the heart-wall were removed and the wound sutured. The procedure that he recommends is a free opening of the chest by a skin and bone flap. Hemorrhage is to be controlled by the fingers. In the discussion, Prof. Rehn reported that the patient in the case of heart-wound operated on by him 2 years ago was in excellent condition.

Appendicitis.—The discussion of this subject was very complete from every standpoint. The etiology and treatment were considered by both clinicians and surgeons. Prof. Renvers (Berlin) said that the disease may appear in the course of an acute intestinal catarrh and the patient may recover without the necessity of surgical interference. Purely local diseases in the region of the cecum vary considerably in their symptomatology, yet it is only when the inflammatory process extends to the appendix and reaches its serous coat, particularly if perforation takes place, that the especially severe symptoms manifest themselves. When advanced as far as this, immediate operation is the only hope; after 24 hours the patient's life cannot be saved either with or without operation. Some cases of appendicitis cure spontaneously, and, though seldom, the cure may be lasting. Relapses indicate operation. Suppurative conditions may occasionally, by favorable accident, cure spontaneously, but the chances without operation are small. Prof. Ewald (Berlin) dealt especially with the chronic form of appendicitis. He said it was often hidden by indefinite, sometimes rather general, symptoms and could present decided difficulties to a proper diagnosis. He called this the masked form. Here it is especially difficult to decide on operation, the condition apparently standing on the boundary-line between the practitioner and the surgeon. Prof. Sonnenburg (Berlin) spoke on the necessity and time of operation. As to the uncertainty of the prognosis of an attack, surgeons and practitioners agree. Cases in which health is disturbed for a long time, or in which an acute inflammation does not disappear within 5 days, require operation. In case of suppuration two operations come into consideration, the opening and draining of the pus-sac, an operation practically without danger, but which does not always lead to lasting cure, or the complete removal of the appendix, which is more dangerous, but is radical in its effect. His experience advises the latter operation when the arrangements necessary for the operation are present. The after-treatment consists in a funnel-shaped tamponade, in a free and large opening. The necessity for operation during intervals between attacks depends on the particular seriousness and conditions of individual cases. Dr. Riese reported several cases in which in the course of typhlitis disease of the kidney developed with a probable causal connection. Prof. Dührssen (Berlin) spoke on simultaneous disease of the appendix and the female pelvic organs.

Discussion:—Prof. Gussenbauer (Vienna) suggested that the names scolicoiditis offered by Nothnagel be employed instead of appendicitis. Dr. Rotter (Berlin) said that Sonnenburg had only reiterated the opinion of the majority of German surgeons in his statement of the time for operation, and with this he agreed. But he did not believe that the removal of appendix was indicated except in those cases in which its removal could be accomplished without too much difficulty. Prof. Kümmel (Hamburg) denied that the symptoms could indicate the exact anatomic condition. He operates not at all in light cases, in moderately severe cases only at a secondary rise of temperature, in general peritonitis always and immediately. The pulse is the best indicator of the condition. Prof. Rehn (Frankfurt a. M.) confirmed Sonnenburg in almost everything. Dr. Koerte (Berlin) remarked that Prof. Sonnenburg was not so quick in operating as he formerly advised. Prof. Jordan (Heidelberg) reported a case in which acute peritonitis (the consequence of typhlitis) developed into a chronic suppurative condition.

Fourth Day.

Surgical Diseases of the Kidney.—Dr. Wilms (Leipsic) spoke on mixed tumors of the kidney. He added little or nothing to our present knowledge of these tumors as to their pathology or etiology. He said their origin was due to misplaced tissue during embryonal life, but whether this was of itself capable of developing, or required something external as an injury to start it he was not prepared to say. He mentioned the question of the mechanical theory of tumors (and this was more or less discussed yesterday in connection with certain of the results of accidents), but no satisfactory conclusions were reached. Prof. Krönlein (Zürich) exhibited an interesting specimen of a cystic kidney removed from a pregnant woman without interfering with the pregnancy. Prof. Jordan (Heidelberg) discussed the etiology of perinephritic suppuration. He said that acute pus-formation was the result of the deposition of pyogenic microorganisms from the blood in the loose cellular nonresistant tissue of the kidney-region, the microorganisms having gained entrance to the blood from a tonsilitis, a furuncle or other such unremarkable source. The consequence of this was frequently suppuration of the kidney, because the vessels of the renal capsule and this perinephritic tissue stood in such close connection. He believes in operating as soon as a diagnosis of abscess is made. Dr. Müller (Hamburg) exhibited a calcium carbonate kidney-stone that had been diagnosed by the Röntgen-rays and removed by operation. Dr. Ringel (Hamburg) contended that it was only under peculiarly favorable conditions that a calcium-carbonate stone could be skiagraphed, and he added that most of the renal calculi were of this composition. But, on the contrary, oxalate calculi were easily seen in the picture.

Discussion:—Prof. Köster (Marburg) considered the removal of a kidney for cystic degeneration in contradiction to Prof. Krönlein as impermissible, because in a shorter or longer time the disease invariably attacks the companion organ. Removal of part of the kidney was at most indicated. Dr. Steiner (Berlin) confirmed Prof. Köster.

Surgery of the Bladder.—Dr. Modlinski (Moscow) detailed his operation for complete removal of the bladder in cases of malignant growths, or when the bladder-wall is riddled with small tumors. A new bladder is made from the lower part of the rectum.

Carcinoma of Penis.—Dr. Küttner (Tübingen) reported 2 cases in which metastasis first took place not to the inguinal, but to the lumbo-sacral glands. He concluded therefore that though the majority of operations become radical with the removal of the inguinal glands there are a few cases in which this does not hold. Still, he considers the prognosis favorable for malignant disease of the penis.

Surgery of the Larynx.—Dr. von Manegoldt (Dresden) detailed several successful cases of operations on the larynx for strictures and perforations caused by tuberculous or syphilitic ulcers and operative interference for tumors. To fill a gap or open a stricture he transfers a piece of cartilage with its perichondrium from a costal cartilage.

Treatment of Inflammatory Affections of Joint and Muscle.—Prof. Krause (Altona) advised hot air for rheumatic and gouty cases, and exhibited an apparatus for preparing it. The results, good in most cases, were surprising in many.

Discussion:—Dr. Bier (Greifswald) said that this treatment had been recommended by him in 1891. His apparatus was much simpler, yet entirely as useful.

Skin-Grafting.—Dr. Braun (Altona) said that after careful histologic study of healed skin-grafts made after Krause's method, he found the principal constituents of the graft remaining, namely the elastic and connective-tissue elements.

Discussion:—Dr. Henle (Breslau) confirmed Braun's findings in investigations on animals. Prof. von Esmarch (Kiel) said that what they called Krause's grafts had been spoken of 20 years ago by Wolfe, an Englishman. Prof. Krause (Altona) contended that the transference of unpediculated grafts had been done 100 years ago by an Italian, but that the correct preparation of them he had taught and therefore it was with justice that they were designated by Mikulicz, Krause's grafts.

Surgery of Gallbladder.—Dr. Ringel (Hamburg) exhibited a gallbladder, dilated to the size of an ostrich egg, which was removed by operation. It contained numerous stones about the size of a cherry, and many small warty tumors simulating carcinomata. Prof. Jordan (Heidelberg) also exhibited a gallbladder with sarcoma.

For the next two hours the papers were "rushed," and no order of general subjects was maintained. Some of the more interesting ones were:

Dr. Woerner (Gmünd) recommended for **fractures of the leg** bandages of celluloid in place of plaster-of-Paris. The material is lighter and can be as easily applied.

Dr. Lewy (Dorn) insisted on the necessity of employing **double-poured dry plates** in skiagraphs of the thoracic and abdominal cavities in order to obtain good pictures. And further, that the light should be turned on during deep inspiration, while the patient held his breath.

Dr. Sultan (Göttingen) exhibited a **new intestinal button.** He claimed the disadvantage of the Murphy button lay in its weight, through which it was liable to cause perforation. But the attempts at absorbable buttons which have been made so far he considers unsuccessful. His button is of decalcified bone, the two parts of which join together with a metal clasp; and in order to render it not too rapidly absorbable the bone is covered with rubber.

Dr. Holländer (Berlin) advocated the treatment of **lupus** by means of hot air and showed patients. He differentiated two forms of the disease, a rapid and slow.

Dr. Martens (Berlin) exhibited a patient with a **hernia of the right lung.** The hernia projects through the space between the clavicle and first rib.

Dr. König, Jr. (Berlin), reported and showed microscopical preparations from a case of **angiosarcoma** of the medulla of a long bone.

The Latest Literature.

British Medical Journal.

April 8, 1899. [No. 1997.]

1. Remarks on the Open-air Cure or Hygienic Treatment of Consumption. C. THEODORE WILLIAMS.
2. The Etiology and Prevention of Tuberculosis. D. S. DAVIES.
3. Hysterectomy as a Conservative Operation. J. BLAND SUTTON.
4. Remarks upon the Operative Treatment of Distended Small Intestine in Acute Obstruction and in Acute Peritonitis, with Illustrative Cases. A. ERNEST MAYLARD.
5. On the Removal of a Nevoid Tumor of the Intestine. JAMES H. NICOLL.
6. A Method for the Reduction of Dislocations of the Hip. CHARLES A. STURROCK.
7. The Modern Doctrine of Bacteriology, or the Germ-Theory of Disease. GEO. GRANVILLE BANTOCK.
8. Case of Phthisis Treated by the Open-air Method. W. T. LAW.
9. A Useful Maneuver in Some Cases of Ruptured Urethra. MAX F. SIMON.
10. Poisoning by the Application of Belladonna-Plaster. OLIVER SMITHSON.
11. Placenta Dimidiata with Bifurcation of the Cord. ERNEST J. BEARDS.
12. Case of Anencephalic Fetus. WILFRID GLEGG.
13. Asphyxia from Pressure of an Abscess under the Chin while under the Influence of Nitrous Oxid. HOWARD H. C. DENT.

1.—Theodore Williams has advocated the **open-air cure of consumption** for a number of years. The general principles on which it should be conducted he considers are: (1) as much exposure to fresh air as possible; (2) abundant dietary, limited only by the assimilative powers of the patient; (3) freedom from all excitement, with repose of mind as well as of body; (4) exercise regulated to the strength and requirements of the patient, and (5) careful medical supervision of every detail of the invalid's daily life. [S.M.H.]

2.—Davies, in an article on the **etiology and prevention of tuberculosis,** discusses the question of communicability of phthisis from person to person, attributing to the dissemination of dried sputum the chief means of its spread. The spread of the disease through the medium of infected dwellings is a question of the greatest importance. The hereditary transmission of the disease is acknowledged, but instances of this sort are exceptional. The dissemination through food, especially meat and milk, is a rather common experience. The preventive measures to be adopted should consist of a thorough inspection of all slaughter-houses by properly qualified inspectors, proper inspection of dairies with notification of all udder-diseases in cows, the extension of legal powers with regard to the exclusion of tuberculous cows from a district, and the taking, for examination, of samples of milk. The sanitary condition of cow-sheds should receive careful attention, and there should be certain powers of control by a district in which any milk is sold or consumed over its sources of supply in an outside district. So far as the disease in man is concerned, Davies recommends registration, either voluntary or under special legislative powers quite unconnected with those of general notification, and involving only those special measures and precautions necessary in this particular disease. [S.M.H.]

3.—Bland Sutton discusses **hysterectomy as a conservative operation.** It is a very remarkable fact that the health of a woman during her sexual period of life suffers less from the loss of her uterus, than from the complete removal of the ovaries. The menstrual organ is the endometrium, governed in some obscure way by the ovaries. Close observation and study of clinical reports show that continued menstruation after oophorectomy occurs under 2 distinct conditions: (1) When oophorectomy has been performed for inflammatory lesions of the tubes and ovaries; 2) when the operation has been carried out to anticipate the menopause in patients with uterine myomata. Sutton believes he operative disadvantages of abdominal enucleation of myomata compared with hysterectomy are many. It is usually a long operation, and is accompanied by greater loss of blood, and entails a deeper degree and longer duration of shock. It is important to remember that one, two, or many myomata may be successfully removed, and one or more smaller tumors remain undetected, which may subsequently grow and necessitate hysterectomy. A woman suffers no remote inconvenience from the loss of her womb, and the principles of conservative surgery are more truly observed by sacrificing it in preference to removing both ovaries. Sutton's conclusions are that a careful consideration of all the facts makes it clear that the uterus can only be considered as a receptacle or reservoir wherein oosperms may develop. It is secondary, and certainly subservient, to the ovaries. It is not a vital organ, and its removal entails two physiologic sequelæ in women during the sexual period of life, namely, amenorrhea and sterility. It is necessary to discuss the uterus in this way because of the notion or superstition that there is something which distinguishes the uterus from other viscera, and that its removal is followed by mental aberration, and other serious nervous disturbances. All this is now known to be mythical, but a careful consideration of the physiology of the ovary in the light of increased knowledge, mainly the outcome of surgical enterprise, leads us to a better appreciation of ovarian dominance, and its tyrannical influence over the life and well-being of women. [W.K.]

4.—In the treatment of **acute intestinal obstruction** of almost equal importance with the removal of the exciting cause, is the treatment of the overdistended gut. Overdistention and paralysis of the bowel are in part caused by the damming back of the bowel-contents, but probably more important is the muscular exhaustion and fecal poisoning. Therefore all operative measures should have in view (1) the prevention of any increase in the distention of the bowel; (2) the removal as completely as possible of the intestinal contents. To accomplish these purposes Maylard makes an "evacuatory incision" longitudinally placed on the bowel, and through this incision squeezes out the contents of the bowel by drawing it through his thumb and finger. After this has been done he then hunts for the obstruction. [G.B.W.]

5.—Nicoll reports a case of intussusception caused by a **nevoid tumor** of the small intestine. The intussusception was irreducible, so that the whole mass had to be excised and the cut ends of the intestine united by Czerny-Lembert suture. The patient made a good recovery. [G B.W.]

6.—The **method for reduction of hip-dislocation** reported by Sturrock, is as follows: The surgeon kneels upon his left knee (the patient lying on his back on the floor), when the left hip is dislocated, and on the left side of the patient. The patient's thigh is then flexed to a right angle to the trunk and the leg to the thigh. The calf of the leg is then laid on the right knee of the surgeon. The ankle is grasped with the left hand and the condyles of the femur with the right. The thigh is then abducted for thyroid dislocations, adducted for dorsal, and pubic, and rotated in all, by drawing the leg away from the middle line and keeping the knee steady. Traction is now made by depressing the ankle, the surgeon using his knee as a fulcrum, and finally, the thigh is rotated out; while this last is being done the head of the femur slips into the acetabulum. [G.B.W.]

7.—Bantock contributes a paper on the **modern doctrine of bacteriology, or the germ-theory of disease,** in which he believes he has shown that the poisons of variola, vaccinia and syphilis are not and cannot be the product of a bacillus; that Löffler's bacillus is not a constant, and therefore cannot be the essential element for the production of an attack of diphtheria; that the essential element in the case of gonorrhea is not the gonococcus; that the essential element in the case of typhoid fever is not the bacillus typhosus; that this bacillus can live but a few hours in ordinary sewage; that not a single specimen of this bacillus has ever been discovered in sewer-gas, and hence typhoid fever cannot be attributed to it, because of its contained germs; that in the case of the epidemics of Maidstone and King's Lynn there exists no proof of the contamination of the water by typhoidal matter as indicated by the presence of the bacillus typhosus; that there is no evidence worthy of the name that tuberculosis is due to the ravages of the tubercle-bacillus; that the cholera-bacillus cannot be regarded as the essential element in the production of cholera, and that the same can be said of the plague and its special bacillus; that the so-called pathogenic microorganisms are constantly found under conditions consistent with perfect health, and that in more than one notable instance they not only appear to, but actually do exert a beneficent influence. In concluding this rather remarkable article Bantock says all these things—which are facts, not opinions, capable of demonstration and proof—go to show that the modern doctrine of bacteriology is a gigantic mistake; that we are already at the parting of the ways, and that it is safe to predict that ere long it will be recognized that these various bacilli play a beneficent role in the economy of nature. [S.M.H.]

8.—Law reports a case of phthisis which he successfully treated by the open-air method so long as 15 years ago. There was tuberculous involvement of the left lung to the extent of cavity-formation. The patient was treated in his own home, which was situated in an elevated locality in the country not far distant from the sea. His bedroom was stripped of all superfluous hangings, curtains and carpets; and sweeping and dusting were forbidden; cleansing was done by means of damp cloths. His room-window was open night and day. While the pyrexia persisted, absolute rest was insisted upon. He was given a large amount of nourishment, but very little medical treatment. So soon as the pyrexia disappeared the patient was allowed to take exercise in the grounds in gradually increasing amount. The patient improved rather rapidly. At the end of 2 years he reported himself to have been in very fair health for many months, and he had regained his normal weight and was able to walk several miles without difficulty. Coughing and expectoration had practically ceased. The physical examination showed a marked shrinking of the cavity with retraction of the lung; in short, with all the physical signs of the lung in the process of healing. [S.M.H.]

9.—The case reported is that of **ruptured urethra,** in which the upper end of the urethra was found by passing a catheter through a suprapubic wound into the bladder, thence into the urethra until it appeared in the wound of rupture. [G.B.W.]

10.—Smithson observed symptoms of **poisoning** in a man as **the result of the application of a belladonna-plaster.** The patient had been in the habit of wearing belladonna-plasters. The symptoms of poisoning were attributable to the presence of too much belladonna in the particular plaster. [S.M.H.]

11.—Beards reports a case of **placenta dimidiata** with bifurcation of the cord. The two portions were exactly equal in size and dimensions, circular in shape, and measured 6½ inches in diameter, their circumference being united for about one inch. The cords were separate for about eight inches from their insertion, when they became fused, forming a single cord of unusual thickness. [W.K.]

12.—Glegg reports a case of anencephalic fetus; the child, a stillborn female, measured in length 15 inches, the general development corresponding to 7½ months. On inspection the fetal head showed entire absence of the cranial vault posteriorly, a broad, red tract extended down the back for a distance of 5 inches, in the center of which the spinal cord lay exposed, showing the entire length terminating in the cauda equina. The vertebral laminæ and spines were absent. [W.K.]

13.—Dent had under his care a boy aged 12 years, with an extensive **abscess between the chin and the hyoid bone.** The patient was very ill and had some evidences of septicemia. He was placed in a recumbent position and given nitrous oxid gas. The face-piece was removed after anesthesia was induced and an incision made in the median line over the swelling. This was scarcely begun when respiration became embarrassed and the air ceased to enter the chest, although the movements of the thorax continued. Observing a complete obstruction to the entrance of air a tracheotomy was performed, but the patient died. The autopsy showed an abscess the size of a small orange excavating the body of the tongue and resting on the top of the larynx. There was no connection between the trachea and the abscess. Death was thought to have been due to pressure of the abscess upon the glottis, acting either directly or by causing spasm of the sphincter laryngis. This pressure was increased by the recumbent position, the extension of the head necessary to open the abscess, and the pressure of the knife. [S.M.H.]

Lancet.

April 8, 1899. [No. 3945.]

1. An Address on the Operative Treatment of Varicose Veins: A Record of 50 Cases of Trendelenburg's Operation and of Two Cases of Excision of Large Thrombi. A. Pearce Gould.
2. Chronic Mediastinitis (Indurative Mediastino-pericarditis). Thomas T. Whipham.
3. Remarks upon Exploratory Operations upon the Stomach for Obscure and Obstinate Gastric Symptoms, illustrated by a Case of Gastrorrhaphy for Dilated Stomach. Ernest Maylard.
4. Experiments with Paine's Anti pneumococcic Serum. J. W. H. Eyre and J. W. Washbourn.
5. Ice or Heat as a Local Application? Remarks on Ice-massage in Painful Cases of Rheumatoid and Allied Forms of Arthritis and on the Local Application of Cold in some other Affections. William Ewart.
6. A Case of Extrauterine Gestation Closely Resembling Uterine Pregnancy; Operation Four Months after Term; Recovery. E. Bromet.
7. Chronic Œdema of the Conjunctiva associated with Disease of the Middle Ear. Rayner D. Batten.
8. Note on the Treatment of Influenza by Large Doses of Carbolic Acid. Arthur Wiglesworth.
9. Notes of a Case of Aneurysm of the Ascending Arch of the Aorta Rupturing into the Pericardium; Necropsy. W. Gray.
10. Note on a Case of Asphyxia from Pressure of an Abscess under the Chin while under the Influence of Nitrous Oxide. Howard H. C. Dent.
11. A Case of Tuberculosis Pericarditis; Necropsy. G. A. Sutherland.

1.—Gould believes that many sufferers from **varicose veins** derive very imperfect relief from stockings and bandages and are appropriate subjects for operation. He has performed **Trendelenburg's operation,** of tying the internal saphena veins on 50 patients and he gives in tabular form the age, sex, condition before operation, and results in these cases. The patients, almost without exception, applied for treatment because of pain and disability for work. In some cases a modified operation was performed, dissecting out the vein after tying a short distance above the varix. He concludes, however, that ligature of the healthy saphena vein some distance below the femoral is not by any means a certain cure for varix lower down; on the other hand excision of the saphena near its entrance into the femoral vein has in no case failed to give relief from all pain. Usually there is more or less rapid shrinking of the vein after the operation. A troublesome complication of varicose veins is thrombosis. Formerly this condition was treated by incision, turning out the clot and allowing the wound to granulate, but Gould has of late, dissected out the thrombosed portion of the vein and immediately closed the wound with excellent results. He believes that this procedure is to be recommended in all cases of this kind. [M.B.T.]

2.—Whipham reviews 36 cases of **chronic mediastinitis** which he has collected from the literature. The disease is more frequent in adults than in children. 28 of the 36 cases were males. There seems to be no particular antecedent affection which can be regarded as especially causative. It seems to follow a large number of conditions. The frequent association of chronic peritonitis is remarkable. The condition of the heart as shown by the autopsies, which were made in all but 2 of the 36 cases, shows no constant lesion. In but 11 of the 36 cases there was enlargement of the heart, which is distinct evidence that the disease does not, in the majority of cases, at least, take its origin in an inflammation primarily affecting the heart, although in some instances changes occur in the surrounding tissues which are sufficient to call forth such increased action of its muscular walls as to lead eventually to hypertrophy and occasionally to great hypertrophy. On the other hand the mediastinal changes may be present to an extreme degree and the heart remain at its normal size. It is not improbable that inflammatory processes beginning early in life outside the heart itself may lead to chronic thickening of the pericardium, obliteration of its cavity, and arrest of the growth of the heart. The pericardium is usually more or less affected in these cases, and in the majority is either partially or entirely obliterated by fibrous adhesions. The effect of this condition upon the pulse is to increase its frequency, give rise to irregularity, and in 9 of the 36 cases pulsus paradoxus was present. In 50% of these 9 cases there was no constriction of the large vessels by fibrous growth, which finding refutes Kussmaul's theory that pulsus paradoxus is of great diagnostic significance in this particular pathologic condition. This condition is not associated with any structural changes in the kidneys. Albumin is not a constant constituent of the urine, but is often present in greater or less quantity, dependent upon the state of the circulation rather than upon organic changes in the kidneys. Ascites was present in 16 of 21 cases in which definite results regarding this sign were given. It was accompanied by chronic thickening of the peritoneum unconnected with cirrhotic changes in the liver. The cause of this chronic peritonitis is not understood. The common and almost constant change in the liver is enlargement due to venous obstruction. In some cases there was thickening of the splenic capsule. In 1 case the spleen was soft and friable, and in 7 firm and congested. In 5 instances it was enlarged, in 1 of these—a case of alcoholism—to a considerable extent. The condition of the pleuræ was noted as follows—fibrous mediastinitis existed in 1 case, adhesions to the chest-wall and to the pericardium in 9, adhesions to the pericardium alone in 3, adhesions to the surrounding parts in 2, pleuritis in 1, adhesions and a small amount of fluid in 2, cavities obliterated in 1, dense fibrous tissue in the upper part of the mediastinum in 1, no adhesions in 1, adhesions to the pericardium and diaphragm in 1, adhesions to the chest-wall and mediastinum in 1, adhesions to the pericardium, chest-wall and diaphragm in 2, left-sided pleurisy with effusion in 1 case, bilateral in 2 cases, much thickening of the right pleura in 1 case, extensive fibrous adhesions with much left-sided and moderate right-sided effusion in 2 cases, a matting together of all the structures in the thorax in 1 case, fibrous investment of the left lung an inch in thickness in the vertebral groove in the left pleura in 1 case, and in 5 cases no mention of the condition. The diagnosis is difficult. Prominence of the veins of the arms and neck, puffiness of the face and thorax, duskiness of the lips, cheeks, and tongue, and the presence of ascites are valuable signs. The treatment is of little value. Children who are convalescing from rheumatism should be kept at rest until all possibility of endocardial and pericardial inflammation has ceased. [S.M.H.]

3.—Maylard believes that instead of proceeding for months in treatment by medication of obscure **gastric troubles** that an **exploratory operation** should be undertaken. In this way carcinoma of the stomach could be discovered sufficiently early in many cases to allow of removal, which would probably result in permanent cure. This procedure has been recommended by Kocher and Keen. Certain cases of apparently purely functional disturbances have, in some way, been relieved by exploratory operation. A case is reported occurring in a man aged 55, who had suffered for 2 years with pain in the epigastrium, of a burning, gnawing character. The pain was aggravated by hunger and relieved by taking food. He had never vomited nor passed blood, the stomach was considerably dilated; he had lost flesh, gastric remedies gave rise to no improvement. An exploratory operation was undertaken. No adhesions, contraction, thickening at the pylorus, or evidence of gastric ulcer were discovered after opening the abdomen or after gastrotomy. The opening in the stomach was closed by Lembert suture and a longitudinal fold was taken in the anterior wall, tucked in and secured by Lembert's sutures; after the operation the patient vomited blood in sufficient quantity to indicate free hemorrhage into the stomach, and the next day the wound was reopened, the stomach exposed and the bleeding, which came from small veins at the margin of the incision, was arrested. After this the patient made an uneventful recovery and since the operation has been relieved from his original trouble and pain, and has gained greatly in health and strength. [M.B.T.]

4.—Eyre and Washbourn have experimented with **Pane's antipneumococcic serum** No. 2, which is of such strength that 1 cc. neutralizes in a rabbit 3,000 fatal doses of the pneumococcus. They employed the method of injecting the serum into the circulation and immediately afterwards inoculating the cultivation into the peritoneal cavity, thereby excluding the direct action of the antiseptic upon the cultivation. Their results coincide with the claims of Dr. Pane. They demonstrated the fact that the serum will protect against pneumococci obtained from 2 different sources. They predict success in the treatment of pnemonia and other pneumococcic affections in the human subject with this serum. [S.M.H.]

5.—Ewart reports a case of painful rheumatoid arthritis of the left hip, a case in the first acute attack of rheumatoid arthritis and a case of pemphigus with acute and painful joint-affections, in which treatment by **ice-massage,** gently rubbing the exposed surface with a smooth block of ice for a few minutes at a time, resulted in immediate relief of the pain, which relief lasted a considerable period of time. He suggests that a similar marked relief may be afforded in the severe articular pains of acute rheumatism and in various forms of neuralgia. Recently he has applied this remedy with success for the relief of the severe pleuritic pain which commonly accompanies acute pneumonia. [S.M.H.]

8.—Wiglesworth reports the successful use of **carbolic acid** in doses of 12½ grains every 2 hours in **influenza.** Very remarkable relief follows after the first few doses. He refers to a case in which he had administered 13½ grains every 2 hours during the waking hours of the patient for a period of more than 2 weeks. There were no evidences of deleterious effect upon the kidneys, heart, nervous centers, nor alimentary canal. He administered the dose in 4 drams of syrup of orange peel and 1½ ounces of water. [S.M.H.]

9.—A railway employe, who had been injured, was found lying on his left side unconscious, and his respiration was shallow, and very little or no heart-action could be discovered. About 20 minutes later he died, and at the necropsy a large sacculated **aneurysm** of the ascending arch of the aorta was found to have **ruptured into the pericardial sac.** [M.B.T.]

10.—A boy of 12, who had been ill 10 days, was brought to the hospital with an abscess between the joint and the hyoid bone. Gas was administered and an incision made, when the respiration suddenly became embarrassed. Artificial respiration was commenced, but this proving ineffectual, tracheotomy was performed, and efforts at resuscitation were continued for one hour without avail. On opening the trachea it was found that the **abscess** had **burst** into the **trachea,** causing suffocative spasm. [M.B.T.]

11.—Sutherland had under his care a girl aged 8 years who gave a history of an illness lasting over a period of 6 weeks. It was accompanied by shortness of breath, coughing, loss of strength, and a tuberculous family history. When first seen she had a temperature ranging between 100° and 104° F. The superficial veins of the thorax and the abdomen were distended. Breathing was rapid and labored. The left side of the chest moved less than the right. Percussion over the left chest showed impaired resonance everywhere, there being dulness at the left apex anteriorly and at the back, with absolute dulness below the second rib, extending 1 inch to the right of the sternum. Over this area the breath-sounds were scarcely audible. The vocal fremitus and vocal resonance were absent. The breathing at the left apex was bronchial with some crepitations. The right lung was normal. There was distinct bulging in the precordial region, with slight but definite edema. The heart-sounds were weak, distant and clear. The action was regular and very rapid. The pulse was weak and small in volume. An exploring needle was introduced into the left axilla and some turbid fluid withdrawn. Following this the fluid continued to ooze from the site of puncture, saturating a large dressing and causing considerable subcutaneous swelling in the axillary region. After the escape of considerable amount of liquid the heart examination showed a distinct pericardial friction to the right of the lower end of the sternum. A diagnosis of **nonpurulent pericardial effusion** was made. The child improved for a time, and a month later there were evidences of a mild general edema with enlargement of the liver and spleen, with an increase of the cough and practically no change in the physical signs in the left chest. About 6 weeks later the child developed tuberculous meningitis, from which she died after 2 weeks, just 4½ months from the time the first evidences of pericarditis occurred. The autopsy showed the pericardium firmly adherent to the inner surface of the sternum, and to the costal wall in the left axillary region. The sac occupied almost the whole of the left pleural cavity and extended 2 inches beyond the median line. On opening it there was a gush of turbid fluid. The sac was much thickened and the inner surface covered with dense, fleshy, or fatty-looking material which was of the consistence of cream cheese. The heart, which lay entirely free, was covered with tuberculous nodules of various sizes up to that of a pea. The valves were normal. The left lung was pushed up to the apex and close against the vertebral column. It was very firm. There were no tubercles in either lung. The bronchial glands were enlarged but not caseous. The mesenteric glands were enlarged and a few of them caseous. The spleen contained small tuberculous nodules. The surface of the brain was everywhere intensely congested, and along the side of the longitudinal fissure was covered with small tubercles which did not extend more than an inch from the median line. The membranes at the base were opaque and thickened. [s.m.h.]

New York Medical Journal.

April 22, 1899. [Vol. lxix, No. 16.]

1. Syphilis and the Liver. J. G. Adami.
2. Logical Analysis in Therapeutics. Charles E. Quimby.
3. Report of a Necropsy in a Case of Akromegaly, with a Critical Review of the Recorded Pathologic Anatomy. Louis J. Mitchell, and E. R. Le Count.
4. The Treatment of Syphilis. Boleslaw Lapowski.
5. The Treatment of Gallstones. Walter Lester Carr.
6. The Surgical Treatment of Gallstones. (Biliary Calculi). Carter S. Cole.

1.—The greater frequency of hepatic manifestations in congenital than in acquired syphilis is due to the fact that the infection is through the placenta and that as a consequence the infected blood coming from the placenta passes through the liver before it reaches the heart or any of the other tissues of the fetal organism. Adami sums up his studies relating to the **hepatic manifestations in infantile syphilis** as follows: (1) syphilis may lead either to granulomatous deposits in the organ or to interstitial fibroid changes; (2) the specific granulomata may be present either in the form of minute multiple gummata or of isolated larger gummata, such as in general are regarded as being of tertiary nature; (3) it is not possible to regard the one form as secondary and the other as tertiary, for either may exist with cutaneous disturbances of the secondary type; (4) by analogy, the interstitial fibroid change so common in infantile syphilis would appear in the main to be secondary to a degeneration and necrosis of the hepatic parenchyma induced by the action of the toxins of the syphilitic virus upon the individual liver-cells. In part, it is developed in direct association with the development of miliary gummata. The same lesions are to be met with in the adult liver as are recognizable in the organ affected by antenatal disease. There may be (1) large and well formed gummata; (2) miliary gummata; (3) acute parenchymatous hepatitis (with jaundice), (4) syphilitic cirrhosis. The element of time, however, introduces frequently a difference in appearance not seen in the infantile liver, as, for instance, (5) obsolescent gummata; large gummata undergoing involution and absorption with surrounding and limiting fibroid change and contracture, which constitutes the most common and most typical syphilitic lesion of the adult; (6) obsolete gummata, represented by puckering and deformity of the organ with a relatively small amount of fibroid growth radiating from the seat of the previous gummatous formation and by nothing else; (7) a further lesion, seen with great rarity in children, is the development of tumorlike growths so sharply defined and so large as not infrequently to lead to the false diagnosis of malignancy. From the structure of these masses, they are probably the outcome of a slowly progressive centrifugal infection of the liver-tissue, from an originally isolated gummatous focus, with associated reactive hyperplasia of the liver-tissue at the periphery; progressive infiltration of the newly-formed parenchyma by miliary gummata, and eventually replacement of this last by fibrous connective-tissue; so that microscopically, these tumorlike growths present an outer layer of liver-tissue, infiltrated by collections of small cells enclosing dense amounts of fibrous tissue, with more or less "gummy" degeneration. Another point of difference between the appearance of the adult and infantile lesions, is the predominance of generalized fibrosis in congenital syphilis, and of focal granulomatous changes in the syphilis of adults. The explanation of this difference is probably due to a greater susceptibility, and lower power of resistance to injuries inflicted by toxic substances on the part of the young liver-cell. It is more prone to degenerate, and if the view that the fibrosis is largely of the replacement type be correct, there exists in this feebleness of the young liver-cells sufficient explanation why fibrosis predominates. The adult cells, on account of their function of eliminating toxic substances from the blood, become more capable of withstanding toxins with advancing life. Thus, in the adult there is not the tendency for the extreme fibroid change to manifest itself under the action of irritants which in the young lead to its production. The reasons why the liver of the newly-born infant more than the other organs is susceptible to these degenerative changes are, (1) it is especially concerned in elimination of toxic substances and its cells bear the brunt of intoxication by the syphilitic virus; (2) placed between the placenta and the general circulation of the fetus, its cells tend to eliminate toxic materials brought by the umbilical vein. In this way again they bear the brunt of intoxication and at the same time reduce the amount of toxic material capable of acting deleteriously on the other organs. There is another factor in the production of specific lesions, namely, arterial change—endarteritis and periarteritis. Little is known concerning the part played by this in the production of these lesions. From the above studies it is seen that while the changes seen in the adult and infantile syphilitic livers are etiologically and anatomically identical, they may present differences due in part to their relative duration and in part to the reactive powers of the hepatic parenchyma at different life-periods. [s m.h.]

2.—Quimby makes a plea for a more scientific and exhaustive analysis of the facts in hand to the end that our clinical therapeutics may keep pace with abstract scientific investigation. [s.m.h.]

5.—Carr, in discussing the **treatment of gallstones**, recommends morphia and atropin hypodermically for the relief of the pain during an attack, together with the inhalations of chloroform, hot applications to the abdomen and hot-water bottles to the feet. Draughts of hot water containing soda bicarbonate are also useful. If the abdomen is much distended, flushing of the large intestine is indicated. After the intense pain subsides, calomel followed shortly by sodium sulphate or phosphate should be administered. To overcome the conditions associated with the formation of biliary concretions, the diet should be restricted to eliminate fats, sauces, gravies, fried articles, pastry, and all rich foods likely to cause colicky attacks. Meats, fish, green vegetables, fruits and breads are allowable. The free use of Vichy water or water containing sodium bicarbonate taken before meals, together with laxative doses of phosphate of sodium are useful. Carlsbad salts are valuable. There are probably no drugs which dissolve the biliary calculi, but turpentine is a useful intestinal stimulant and antiseptic. Sweet oil is useful for the purpose of increasing peristalsis and thereby aids in the expulsion of stones, even if it does not dissolve them. Sodium salicylate stimulates the flow of bile and pills of bile coated with salol given 2 hours before meals will prevent putrefactive intestinal changes. Surgical interference should be considered when the symptoms are those of impaction, or where there are constantly recurring attacks of colic with dangers of suppuration and perforation. [s m.h.]

6.—Many cases of **gallstones** give rise to no symptoms for a long time, and may even be entirely relieved by medical treatment; in other cases a single stone may give rise to aggravated symptoms of the trouble. In case medical measures have failed to relieve the attacks and they are frequent, of great severity, with or without jaundice, or attended by signs of suppurative inflammatory processes, surgical intervention is demanded. In many cases simple incision with drainage is all that is needed. In all suppurative cases great care should be taken to avoid infection of the peritoneal cavity. Swabbing out the cavity of the gallbladder with pure carbolic acid controlled by alcohol, is highly recommended. In these cases complete removal of the gallbladder is seldom necessary. [m.b.t.]

Medical Record.

April 22, 1899. [Vol. lv, No. 16.]

1. Notes on Cysts of the Breast. William T. Bull.
2. Salicylic Acid in the Treatment of Pneumonia. William C. Sebring.
3. A Case of Resection of Bowel for Carcinoma. Carlos C. Booth.
4. The Lung and Heart Reflexes: A Contribution to the Study of Heretofore Undescribed Clinical Phenomena. Albert Abrams.
5. The Use of the Extract of Suprarenal Capsule in Ophthalmic Practice. Frank N. Lewis.
6. Surgical Treatment of General Peritonitis, with Report of Cases. Frank D. Gray.

1.—During the past 14 years Bull has records of 39 cases of **retention-cysts of the breast.** The majority of cases were in married women who had had children; in only 4 was there a history of mastitis, or sore nipples. The diagnosis is easy when the cysts are superficially situated or in small soft breasts; they are smooth and rounded in outline and offer elastic resistance; the skin is never adherent, the nipple is normal, and they are usually painful, while small cancerous deposits are not usually painful. Puncture with a hypodermic needle is the final diagnostic test. Aspiration alone has cured or rendered quiescent 14 cases for periods of from 3 months to 6 years. This experience leads Bull to advise that treatment be begun with aspiration and that incision should be undertaken only in case the cysts refill or are unusually large, or in case the patient is exceptionally nervous and is tormented with the idea of the development of carcinoma. Patients with general cystic diseases are advised to wait, as sometimes the condition remains without change; advanced cystic disease calls for excision of the breast. There is little evidence that this condition degenerates into carcinoma; if so, it is very slow in development. [M B.T.]

2.—Sebring has treated about 100 cases of **pneumonia** with only one death. To all of these cases he administered **salicylic acid,** sometimes alone, sometimes in combination with other remedies. The ordinary dose used in rheumatism, that is, from 8 to 10 grains every 2 hours, was employed. The effects are: The quieting of a tumultuous pulse in the early stages of the attack; sedative action upon the nervous system; relief from the pleuritic pains; prevention of serious disturbances of the sensorium; support of the pulse; prevention of hyperpyrexia; the temperature rarely exceeds 103° F., possibly as a result of the profuse perspiration; there are few complications; and subsidence occurs by lysis, the recovery is very rapid, all the severe symptoms of the disease being markedly diminished. On the other hand, resolution s usually somewhat slow. Sebring suggests that the action s probably due to the antiseptic qualities of the drug. Altogether he believes that salicylic acid is a specific for lobar pneumonia. [J.S.]

3.—A pale, anemic woman, 62 years of age, had been aken with severe pain in the abdomen 8 weeks previous to he time when first seen. Before this she had suffered little pain, her bowels were regular, and there was no vomiting. A movable tumor was found midway between the anterior uperior spine and the umbilicus, the surface was oval and mooth and it was not painful on pressure. On opening the abdomen a **carcinoma** involving the **ileum and colon** was found, 6 inches of the ileum and 5 inches of the colon were resected and anastomosis by means of Murphy's button was performed. The patient made a good recovery and has done well since. [M.B.T.]

4.—Abrams has noted that there is marked **dilatation of the lungs** if the nasal mucous membrane or the utaneous surface is irritated, as, for example in the latter ase, by a spray of ether. The signs of this dilatation are: diminished excursion of the pulmonary borders during respiration and obliteration of the areas of cardiac and splenic dulness. There is hyperresonance of the lungs, and disappearance of the apex-beat. He also calls attention to the fact that in many individuals there are localized areas of dulness over the thorax, which he has shown to be due to partial atelectasis that can be obliterated by deep breathing. These areas produce a slight shadow upon the Röntgen plate. Finally, he notes the existence of a so-called **cardiac reflex,** that is, contraction of the heart when the precordial surface is irritated. This can only be seen by means of the fluoroscope. Abrams concludes that the existence of these reflexes indicates the value of vigorous cutaneous friction in various diseases, and during the period of the development in the lungs. This relieves the heart and is capable, therefore, of replacing the Schott method of treatment. [J.S.]

5.—From a limited experience in the use of **suprarenal extract in ophthalmic practice,** Lewis believes that it is of decided benefit in cases of dacryocystitis and hypopyon keratitis, diminishing the congestion and permitting more complete anesthesia, but it is not of benefit in purulent ophthalmia, in glaucoma, and in deep-seated inflammations. [M.B.T.]

6.—Gray reports 10 operations for **general peritonitis.** In 5 cases the condition was due to perforative **appendicitis** and 2 of the patients died. In a case of general peritonitis following specific vaginitis, drainage was followed by recovery. In another case, due to **perforation of the gallbladder,** recovery followed. A perforation of the Fallopian tube was treated by removal of the tube and ovary and drainage. A good recovery followed. In a typical **perforating ulcer** of the ileum, following **typhoid fever,** the patient survived the operation for 3 days, and at the necropsy the suturing was found to have been successful. Numerous cicatrized typhoid ulcers were found, and it was evident that the case had been one of walking typhoid with late perforation. Seventy per cent. of recoveries in conditions in which the free use of opiates and other medical nonoperative interference is powerless, is a great improvement, and Gray believes that operation is as much indicated in cases of suppuration as is the free incision, evacuation, and drainage of any large abscess-cavity. [M B.T.]

Medical News.

April 22, 1899. [Vol. lxxiv, No. 16.]

1. Chronic Nephritis Affecting a Movable Kidney as an Indication for Nephropexy. George M. Edebohls.
2. The Galvanocaustic Radical Treatment of Hypertrophy of the Prostate. F. Kreissl.
3. The Differential Diagnosis of Pelvic and Abdominal Diseases in the Female. Paul F. Mundé.
4. A Case of Tetanus Treated with Antitoxin; A Case of Tetany; A Case of Pharyngeal Abscess Diagnosed as Tetanus. James R. Arneill.

1.—An important indication for the operation of nephropexy is nephritis in the floating kidney. It is thought that the congestion occurring in a movable kidney may very readily give rise to disease of that organ, and that therefore anchoring of the kidney, by stopping the frequent congestion, may be an important factor in the cure of the diseased condition. In the 6 cases reported by Edebohls, four were cured by the fixation, albumin and casts disappearing from the urine. [G.B.W.]

2.—**Bottini's method for treating enlarged prostates** is coming more and more in vogue. This is chiefly due to the improvement in the apparatus, allowing of better control of the heat, etc. The operation is simple and gives very satisfactory results. The reason cauterization gives such benefit is that the actual cautery in all organs and tissues, with very much connective tissue, displays not only a limited but also a remote effect; or, in short, every cauterized spot forms a shrinking center for the surrounding tissues. Kreissl reports 5 cases of undoubted hypertrophy, all of which were successively operated on. [G.B.W.]

3.—Mundé concludes his study of the difficult points in **differential diagnosis of pelvic and abdominal diseases in women.** He reviews the points of distinction between inflammatory masses in the peritoneal cavity and exudates or blood-coagula in the pelvic cellular tissues. The difficulty in definite diagnosis of ectopic pregnancy is also discussed. A movable kidney is often to blame for abdominal pains and digestive disturbances. Appendicitis and salpingitis dextra are frequently associated and noticeable in the interval of chronic cases by a small tumor situated midway between the appendiceal and ovarian regions, tube and appendix being coadherent. [W.K.]

4.—Arneill reports a **case of tetanus** occurring in a colored boy 16 years of age. The disease developed 8 days after a puncture-wound of the foot. Four days later he was admitted to the hospital with the muscles of the neck, trunk, and legs tonically contracted, and in a state of opisthotonos. Convulsions were produced by very slight peripheral irritation. Cultures from the site of the wound showed the presence of tetanus-bacilli. Altogether 90 cc. of tetanus-antitoxin was injected subcutaneously without effect. He also reports the case of a middle-aged woman who suffered with griping pains in the region of the umbilicus, which had existed since her eighteenth year. During the previous 12 years she suffered from cramps over the entire body, particularly involving the wrists, which were flexed towards the trunk, the fingers being in the position characteristic of tetany. The feet were affected in a somewhat similar way. There was marked gastroptosis and dilatation of the stomach. From time to time there was a tendency on the part of the subcutaneous tissues to swell, which Arneill regards as a form of angioneurotic edema. Finally, he reports a case of a man, 30 years of age, who was admitted to the hospital with his jaws firmly locked. There were no spasms in the other parts of the body, but the condition had occurred after the extraction of a molar tooth, and tetanus was suspected. Finally, by the use of a gag, the jaws were separated enough to permit the view of the pharynx, which was inflamed and swollen. An incision evacuated a considerable quantity of pus, and the patient gradually recovered. [J.S.]

Boston Medical and Surgical Journal.

April 20, 1899. [Vol. cxl, No. 16.]

1. Sir Benjamin Collins Brodie, Bart.: A Sketch. James D. Mumford.
2. Traumatic Cerebral Edema: Its Pathology and Surgical Treatment—A Critical Study. J. W. Courtney.
3. Suprapubic Prostatectomy; Third Lobe. J. W. Elliot.

2.—The analysis of 5 cases of brain-injury shows (1) that there is not a single element in any one of the 5 that is incompatible with the assumption that brain-contusion was the underlying cause of the vascular hyperemia, bulging and edema so carefully noted by Bullard; (2) that evidence is lacking of the value of this edema as a localizing factor in head-injuries; (3) that recovery was in no case the indisputable sequence of operative interference. In making post-mortem examinations the diffuse and scarcely macroscopic lesions of the generalized contusion often escape observation. (To be continued.) [G.B.W.]

3.—Elliot reports 3 cases of **suprapubic prostatectomy**, in all of which the operation was attended with considerable success. In one case, complicated by stone, a prostatic bar had developed so as to cover the stone, which lay in the deep *bas fond*, from instruments passed for diagnostic purposes. The stone was not detected until the operation. [G.B.W.]

Journal of the American Medical Association.

April 22, 1899. [Vol. xxxii, No. 16.]

1. Where Shall We Send Our Tubercular Patients? Frank E. Waxham.
2. Modern Anatomy. Edmund W. Holmes.
3. One-sided Amblyopia. H. Gradle.
4. Surgery of the Biliary Passages. John B. Deaver.
5. Surgical Treatment of Habitual Criminals. A. J. Ochsner.
6. Recurring Gonorrhea. Harry Greenberg.
7. Recurrent Rheumatic Iritis. S. D. Risley.

1.—The various advantages offered **tuberculous patients** as regards **climate** and accommodations in many of the towns in Colorado, New Mexico and Arizona are considered. In conclusion, Waxham expresses his belief that there is no one place suitable for all cases, and frequently patients do better by remaining part of the year in one region and then removing to another for the balance of the year. Too often patients return to Eastern homes before the disease is entirely cured, and the result is rapid recurrence and a second struggle for life, which is often futile. [M.B.T.]

2.—See this Journal, Vol. III, p. 580.

4.—Deaver gives reports of 46 cases in which he has operated for various **pathologic conditions of the biliary passages.** Gallstones frequently exist for a long time without giving rise to any disturbances, and operation is only needed when the stones are causing obstruction, or when inflammation supervenes. The early signs of biliary colic are usually not marked; there is, at first, a little discomfort in the epigastrium, not unlike acute dyspepsia; the pain is colicky and often referred to the right shoulder-blade; jaundice is present or absent, depending upon the location of the obstruction; the region of the gallbladder is usually very tender, and enlargement can be made out by palpation or percussion. Cholecystitis may exist independent of gallstones. In the differential diagnosis the suddenness of the attacks, the absence or slight degree of jaundice, the absence of gallstones in the feces, the absence of tenderness, and the fact that the attacks usually yield to a medicinal treatment, point toward cholecystitis. However, if medical treatment fails, cholecystotomy should be performed in any case. In regard to the technic of the operation, Deaver advises incision through the rectus muscle, packing-off with gauze to avoid infection, freeing adhesions, and careful inspection of the ducts. An incision is made into the gallbladder or common duct according to the necessities of the case. He does not find any mechanical appliance necessary in suturing. In case drainage is indicated, the gallbladder is sutured to the abdominal wall. [M.B.T.]

5.—In dealing with **habitual criminals** some method should be employed which will not in itself be a punishment to the criminal; it must not result in deformity, endanger his life, or interfere with his enjoyment of life should he reform. Ochsner suggests **resection of the vasa deferentia** of both sides as a suitable operation. He reports 2 cases in which he has performed this operation, and he finds that there is no impairment of sexual power or any harmful effect 18 and 20 months after the operation. The operation is performed under local anesthesia. The advantages following this operation in habitual criminals would be that it would do away with hereditary criminals from the father's side and would protect the community without harming the criminal. The same treatment is suggested for chronic inebriates, imbeciles, and paupers. [M.B.T.]

6.—Greenberg reports the case of a man who married 9 months after cessation of all symptoms of gonorrheal urethritis. Ten days after marriage all the symptoms of the disease returned and the diagnosis was confirmed by bacteriologic examination. The man's wife also came under treatment for gonorrheal urethritis. This case is cited as one out of many in which Greenberg has found that, although the microscope fails to show gonococci, yet it is evident that they exist latent in some folds of the urethra and are liable to regain their virulence under favorable conditions. The same is true in the female; prostitutes apparently free for some time from gonorrhea, nevertheless infect the male urethra. [M.B.T.]

The Infants' Hospital of the White Cross of Budapest presents mortality-statistics that are likely to excite the wonder and, at the same time, the admiration of the medical world. During the past 12 years, the hospital has been under the direction of Dr. M. Szalardi, and although almost all the infants received are sucklings under 1 year of age, the mortality-rate has never been over 5%. From September 1, 1897, to September 1, 1898, 1,325 children were cared for, and of these but 49 died, a mortality-rate of 3.6%. Of the total number but 446 were ill, and of these 49 died, a mortality-rate of 10.98%. Gastrointestinal disorders made up 32.9% of the total number of instances of disease, and the mortality from these affections was 7.3%. These very favorable results are obtained by Dr. Szalardi as a result of his almost invariable rule to admit with the infants their respective mothers. It is evident that with artificial feeding such results could hardly be attained. During the 12 years of Dr. Szalardi's directorship, there has been but one severe epidemic of gastroenteritis. During the course of this the reception and discharge of infants were interrupted for 4 days, the patients were isolated, the hands of the attendants were carefully washed with corrosive sublimate, and the apparel was disinfected. As a consequence of these precautions the epidemic disappeared rapidly. Under Dr. Szalardi's direction many children, the subjects of congenital syphilis, have also been saved. His rule is to send the child with its mother to the country, and to keep both constantly under medical supervision.

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.,

of Philadelphia.

Urotropin in Chronic Cystitis.—Heubner (*Therapie der Gegenwart*, February, 1899) reports 5 cases of cystitis in children in which he employed urotropin successfully in 4. In the fifth case, the one in which the results were negative, a postmortem examination revealed tuberculosis and pyelonephritis. The author's experiments agree with those of Nicolaier, who found that when the urine was acid in reaction no beneficial results were observed. In Heubner's 4 successful cases the cystitis was always associated with ammoniacal urine, so that the reaction was either alkaline or neutral, and the odor offensive. The improvement appeared at the same time in each patient, that is when the urine became acid in reaction. In the unfavorable case, notwithstanding a severe affection of the urethra and bladder, the urine was acid, and the remedy was without effect. From a study of these and other cases the author concludes that it is advisable to treat with urotropin only such cases in which the alkaline or neutral reaction of the fresh urine leads one to expect an early appearance of ammoniacal fermentation; and, secondly, the drug should not be discontinued too soon after improvement has been noted. Even when improvement is noticeable the urotropin should be given for at least 3 weeks without interruption. If, after discontinuing the remedy, cloudiness of the urine reappears, it should be resorted to again, and continued for double the time, when a new test should be made to determine the permanency of the improvement. The more chronic the disease the longer should the treatment be continued. No bad effects on the nervous or digestive systems were observed with the prescribed doses, which were, for children from 7 to 10 years old, 10 to 30 grains a day. The drug should be given in divided doses, 3 or 4 times a day.

The Treatment of Dyspepsia.—William Murrell (*Medical Press and Circular*, January 25, 1899) states that oil of cajeput is worth all of the other antifermentatives put together. Three drops should be given on a lump of sugar or a crumb of bread, at frequent intervals. Glycerin is an excellent remedy; a teaspoonful in a wineglass of water flavored with a little lemon-juice will, in many cases, effect a cure. He has found equal parts of glycerin and glycerin of borax efficacious. He suggests the following prescription:

℞.—Boroglycerid	½ dram.
Glycerin	½ dram.
Spirits of chloroform	15 minims.
Syrup of lemon	½ dram.
Water to make	1 ounce.

Capsicum is most useful in dyspepsia of drunkards. Stimulating the mucous membrane of the stomach by the application of tincture of iodin is good practice. He suggests the following solution, which should be taken before food, and the patient directed to roll over from side to side once or twice so as to diffuse it evenly over the entire stomach:

℞:—Tincture of iodin	10 minims.
Glycerin	½ dram.
Water	1 ounce.

Used in this way the iodin causes no pain, but only a pleasant sensation of warmth.

The Treatment of Furunculosis.—Turner (*Therapeutic Gazette*, March 15, 1899) states that Brocq, of Paris, has tried yeast in the treatment of furunculosis, and has found it most efficacious. This treatment had already been mentioned by Follin, Gingeot, and Debouzy. Brocq began trying it in 1894, and has used it on about 50 patients suffering from diverse complaints, such as carbuncles, boils, and infectious or inflammatory diseases of the skin. According to Turner, Brocq himself has long been subject to periodic attacks of carbuncle, occurring every 4 or 5 months. Other drugs failing to give relief he tried yeast, and as a result the pains diminished rapidly after the third day, all edema and inflammation being checked in their progress, and in some cases suppuration being prevented. Brocq has described several other cases in which surprising results were obtained most rapidly, and there was no recurrence of the disorder. He uses fresh beer yeast. When this substance is bought from the Paris brewers, it seems to be a sort of light chestnut-colored cream, and is uniform in appearance; but on being allowed to stand, three distinct layers are formed. These should be well mixed together, and a heaping teaspoonful taken at each meal in a glass of water or beer. Baker's yeast can be also ordered, but it is not so efficacious. A piece about as large as a small hazelnut may be mixed with honey, and taken thrice daily at each meal. The full dose is on average 3 teaspoonfuls daily, but it may be increased to 9 or 10 in some cases. The administration of the yeast may cause indigestion, and in rare cases diarrhea. These symptoms are not very tenacious, and by using this medicament discreetly, no untoward results need be expected. Brocq has not found it necessary to use complicated external applications. As to the yeast, it should be quite fresh and changed every day in summer and every 2 days in winter.

The Treatment of Whooping-Cough.—J. Madison Taylor (*Pediatrics*, April 1, 1899) writes that practical researches during some months in a large epidemic of whooping-cough, have led him to believe that a variety of measures directed to local cleansing of the upper respiratory passages are powerful in limiting both the progress and severity of whooping-cough. No one agent in his hand has accomplished so much as an acidulated solution of quinin. He states that a member of his class at the Polyclinic College, Dr. W. B. Taylor, of McKeesport, Pa., had found vaccination a prompt method of relieving whooping-cough, 9 cases out of 11 being entirely relieved in at least 2 weeks from the time of vaccination. Dr. Huffman, in 1884, read a paper on the subject before the Alleghany County Medical Society, giving credit to Dr. Knox, of McKeesport, who suggested the treatment 20 years ago. In conclusion he speaks very highly of the following mixture for relieving and checking the force of the paroxysm:

℞.—Amyl nitrite	½ dram.
Spirit of chloroform	3 drams.
Ether	5 drams.

A few drops of this mixture can be applied on a handkerchief held to the child's nose during the "lock spasm."

The writer is convinced that this measure has limited the severity of the process upon children in many directions. He has yet seen no reason to fear any danger from its use.

A Simple Method of Preparing Solutions of Suprarenal Gland for Nasal or Laryngeal Application.—Tederman (*Laryngoscope*, April, 1899) states that for the past few months he has been experimenting with various antiseptics as preservatives of suprarenal extract, and has found that in solution they all prohibit the marked vasoconstricting action of the gland. He has employed a glycerin-solution with satisfactory results. A 25% aqueous solution of glycerin is sufficiently antiseptic to prevent putrefaction for some time, and in this strength the solution is not too viscid. He applies the "glycero-watery extract," by means of cotton applicators, both before and immediately after the application of cocain. In this manner, constitutional symptoms of cocainism can be avoided. Two or three applications of the suprarenal extract prove sufficient. As reaction does not follow in a number of instances, it is always judicious to employ a nasal plug, for about 24 hours, over the site of the operation. A tampon of nosophen keeps the wound antiseptic and dry. The solution of the desiccated extract is made as follows: About 10 grains of the gland is employed to the dram of a 25% glycerin-watery solution. A half-ounce or an ounce of this mixture is placed in a wide-mouthed bottle, and well shaken. It is then allowed to stand in the room at the ordinary temperature (68° F.) for about 48 or 52 hours. During this time the bottle is occasionally shaken. The mixture is then permitted to filter through the ordinary filter-paper into a clean bottle. The filtrate, a slight amber-colored solution, is now ready for use. It is advisable to employ a small quantity of the "extract-solution" at each sitting. In this manner the remainder of the solution, if placed in a cool atmosphere, will keep clear for some time.

Duboisin in Exophthalmic Goiter.—Kautz recommends the cautious use of the following solution of duboisin.

℞.—Duboisin sulphate	$\frac{1}{120}$ grain.
Water	30 minims.

To be taken 2 or 3 times daily.—*Revue de Médicine.*

Iodipin in Bronchial Asthma and Emphysema.—Otto Frese (*Münch. med. Woch.*, 46 Jahrg., p. 213) has used iodipin (iodin addition-product of sesame oil, containing 10% of iodin) in 13 cases of asthmatic affections, 6 of which were purely bronchial, and 7 occurring with chronic emphysema and bronchitis. Two to three teaspoonfuls were administered daily. Each teaspoonful of iodipin weighs about 3.5 gm., and corresponds therefore to 0.35 gm. of iodin (equivalent to 0.457 gm. of potassium iodid). From this it follows that the quantity of iodin ingested daily in the form of iodipin is less than is usually administered in the form of the alkaline iodids. The preparation was generally taken without repugnance, and but few were unable to take it after a week's trial (it has a purely oleaginous taste). The effects obtained were, in almost all cases, very good, and in a few cases even astonishingly so. Pharmacologically considered, many authors believe that the effectiveness of the alkali iodids is ascribable not only to the iodin, but also to the general action of the salt, and thus explain the greater effectiveness of potassium as compared with the sodium salt. With iodipin these considerations cannot, of course, prevail, yet the remedy influences pathologic conditions as do the alkali iodids, from which it would follow that the liberated iodin does, after all, play the chief part in the therapeutic action. Iodipin possesses, however, special advantages of the iodids ordinarily employed. For instance, it never affects the stomach, while it causes a peristalsis of the intestines at times very desirable. Toxic symptoms were never observed to follow the exhibition of the preparation in the doses given, and even coryza was only once met with, and that transitorily. In two cases, patients complained of nausea, vomiting, and diarrhea, but it was doubtful if these were caused by the iodipin. No other symptoms of iodism were observed, and in no case was there any conjunctivitis, headache, or acne. A further advantage possessed by iodipin is its sustained effective action, this being continued for some time even after the use of the remedy had been suspended. This effect, it is believed, is due to the fact that the iodipin remains in the system longer than do the iodids of the alkalies. The writer also states that in a number of cases the action exerted by the iodipin appeared to be greater than that afforded by the alkali iodids, this being substantiated by several patients who had been using the ordinary iodids for years. This greater effectiveness may be due, the author believes, to the fact that the iodin is liberated in greater quantity than when the iodids are employed, and that the iodin is carried to all parts of the body and liberated in a nascent state.—*Merck's Archives*, March, 1899.

A Mixture for Coryza.—Malbec recommends the following mixture:

℞.—Hyoscyamus extract		2¼ grains.
Potassium iodid Potassium bicarbonate	} of each	30 grains.
Extract of licorice		75 grains.
Anise water		4 ounces.

Lactic Acid in Endometritis and Endocervicitis.—Dalche (*Nouveaux Remèdies*, xv, No. I) states that lactic acid is a natural antiseptic for the vaginal cavity. In 3% solution it destroys the bad odor and greenish-yellow color of leukorrhea and diminishes the amount of secretion. It is distinctly beneficial in endometritis and endocervicitis. Its use is free from danger. The author recommends douching with lactic acid (1 to 35), the introduction of tampons (1 to 33 parts of glycerin) every 8 days, with daily hot-water douches in the interim.

Ilkewitsch (*Archiv f. Gynäk.*, October 30, 1897) states that the normal acidity of the vaginal secretions is due to lactic acid. In the secretions of the normal vagina of a pregnant woman 0.4% of lactic acid was found. He contends that in 99 out 100 cases, when the vaginal secretions are distinctly acid, pathogenic microorganisms cannot be found therein. He irrigates the vagina with 800 to 1000 cc. of a 3% aqueous solution of lactic acid for the purpose of destroying bacteria. As an application to the uterine mucosa and cervical erosions he recommends a strength varying from 50% to 100%. He concludes, (1) that the application of lactic acid to the endometrium diminishes considerably the amount of secretion; (2) that irrigations of the vagina with a 3% solution destroy pathogenic organisms and cure kolpitis; (3) that the same solution removes unpleasant odors; (4) that it changes the color of the discharge from yellow-green to white; (5) that it is a safe remedy in ambulatory cases, and that the remedy will in many cases replace curettage.

Intestinal Indigestion with Constipation.

℞.—Bismuth subnitrate	2 drams.
Taka-diatase	1 dram.
Magnesium carbonate	2 drams.
Sodium bicarbonate	1 dram.

Divide into 12 powders.
Sig.—One before meals.

Toluylenediamine in the Treatment of Biliary Obstruction.—Willoughby (*Therapist*, March 15, 1899) reports the following case in which toluylenediamine was used with good results. In 1895 a lady, aged 45, the mother of several children, who had hitherto had good health, began to suffer from sudden attacks of intense pain in the epigastrium, often leading to vomiting, and relieved only by injections of morphin. A year later symptoms of obstructive jaundice set in, digestion became greatly impaired, and she lost flesh and strength. Lauder Brunton, who saw her in consultation with Willoughby, concurred in the diagnosis of periodic obstruction of the cystic duct by a gallstone, and advised cholecystotomy or cholecystectomy in the event of a failure from a course of Carlsbad salts. She did not improve, and in 1897 Vaughan Harley saw her and suggested that the obstruction was caused by inspissated bile and mucus, or "bile sand," rather than calculi; deprecated operation, put her on a diet of large draughts of hot water, and quantities of meat, milk, and vegetables, recommending active exercise in the open air, the use of dumbbells and the rowing machine, and a daily manipulation of the gallbladder with a view to expressing the obstruction. Sir William Roberts concurred with Vaughan Harley as to the diagnosis, but the treatment proved unsuccessful. Seeing in Brunton's work on the "Action of Medicines" toluylenediamine recommended as the only drug that he had found to be really effectual in increasing the secretion of bile, *i. e.*, of its solid and liquid constituents alike, and feeling that the troubles were due to a catarrhal condition of the gallbladder, he finally decided to give this remedy a trial. At first 1 grain in full form was given daily. At the end of a week, as no ill effects were observed, and no appreciable benefit, he increased the dose to 1 grain morning and evening. From that time the most indisputable improvement set in; the attacks became fewer and trivial; once only was there vomiting, and only once was morphin needed. Three weeks later they ceased altogether. She was able to eat and drink as any one in perfect health, to walk and go anywhere, and within a couple of months had regained her natural color and normal stoutness. Willoughby believes that Harley's diagnosis was correct, and that the effect of the drug was to stimulate the hepatic cells to a free secretion of normal bile, and to restore the mucous membrane of the gallbladder and duct to a normal condition. The prompt recovery after 3 years of unsuccessful treatment, to his mind excludes the suggestion of mere coincidence and a *post ergo propter* explanation.

Diabetic Coma.

Lepine recommends the following solution for intravenous injection:

℞.—Sodium chlorid	1 dram.
Sodium bicarbonate	2½ drams.
Distilled water.	1 quart.

Formalin in Puerperal Sepsis.—W. Fell (*Australasian Medical Gazette*, March 20, 1899) cites a case of puerperal sepsis in which he packed the vagina with strips of linen soaked in formalin solution, 1 dram to 6 ounces, leaving it 12 hours. It acted continuously, on account of its penetrating fumes, and beyond causing a little smarting had no ill effect. The temperature came down at once and the patient made a rapid recovery.

Original Articles.

THE DEBT OF THE PUBLIC TO THE MEDICAL PROFESSION.

The Oration delivered before the Medical and Chirurgical Faculty of Maryland, at the Celebration of the Centennial Anniversary of their Foundation, April 26, 1899.

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It is a graceful courtesy, which I very highly appreciate, that you should ask a stranger, instead of one of your own members, to address you on this festal occasion. The fact that you have completed an existence of a century as a medical society naturally suggests that he address should be somewhat of a review of the past. I have, therefore, chosen as my subject "The Debt of he Public to the Medical Profession." I shall endeavor o indicate, in a brief outline, a few particulars, in which I shall show how much the profession has done for the community. The conclusion, therefore, is inevitable hat there is an obligation on the part of the public to ecognize this debt by affording enlarged facilities to a profession which has given of its time and labor so unselfishly for the good of the public.

In one respect the medical profession differs from all others, in that it is the only profession which is self-destructive. While we live by ministering to the wants of those who are suffering by accident and disease, I glory in the fact that the medical profession is foremost n the endeavor to abate disease and to prevent accident. The profession could not have attained this end by its own efforts alone, but it has been dependent very argely upon the general intelligent co-operation of the public, and of sanitary engineers, and also of legislators, or the legal means to make effective the measures which he profession has shown to be needful for the public health.

Public hygiene or sanitation has been a very large element in arresting the ravages of disease, which, in ormer times, swept as pestilences over entire nations, and even continents; and it is a source of pride to us hat among the foremost sanitarians in every community are the doctors. It is a very striking fact that diseases which once assumed the form of veritable pestilences are now, at least in civilized countries, almost unheard-of, and others, though they have not yet disappeared, have had their fangs drawn, so that the public suffers ar less than it formerly did. If the voice of the proession were heeded, even the diseases which have been argely abated would almost, if not entirely, disappear. Let us briefly consider a few of these diseases:

I. THE PLAGUE.—Among the most fearful epidemics which have devastated the world, perhaps the worst has been what is known as the plague. It is represented now by what is known as the bubonic plague, of which we have had a memorable instance within the last two years in India, when over 250,000 lives have been lost. But, bad as it has been there, its recent devastation is as nothing compared with its former ravages. Those of you who have read James' novel, entitled "The Fire and the Plague," will recall the vivid and frightful picture of the plague in 1665, during which 70,000 persons perished in the then relatively small city of London alone. Still earlier, in the fourteenth century, the Black Death, as was then its horrible name, swept over Europe, and carried off 25,000,000 people, one-fourth of the entire population of that continent! This frightful destruction, it will be observed, took place in the then most civilized countries of the world. By contrast, the bubonic plague of the nineteenth century is limited wholly to peoples who are only semi-civilized, among whom sanitary laws are not understood, and the grossest violation of them is a common every-day occurrence. But this terrible mortality, it would seem, is never to be repeated. As a result of laboratory researches, the bacillus of the plague has been discovered, and Haffkine has recently introduced a preventive inoculation with sterilized bouillon-cultures of its bacillus. In India, which is now the home of the plague, Haffkine has shown extraordinarily good results, both in experimental inoculations of animals and of man. For example, of 20 rats from a ship, newly arrived from Europe, 10 were inoculated with the protective serum and 10 were not. Into the cage in which the whole 20 were kept, a rat suffering from the plague was introduced. Of the 10 uninoculated rats, 9 died. Of the 10 rats rendered immune by inoculation, only one contracted the disease. Following upon this and many other experiments, it was deemed right to inoculate human beings, and there are thousands now who owe their lives to this preventive inoculation.

To take but a single instance, in the town of Lower Daumaun, 2,197 persons were inoculated, 6,033 remaining unprotected. Of the latter 1,482 died, almost 25%, whereas only 36 of those who were inoculated succumbed to the disease, less than 1.2%. (Osler's Practice, 3d edition, p. 193.)

Would it be an impertinent question were I to ask whether there could be mentioned a single lawyer who has thus cut off the means of livelihood of his brothers-in-law, or a single merchant who would so destroy his own business and that of his fellow-merchants by pointing out a means by which the community could dispense with his wares?

II. CHOLERA.—Another scourge which has been almost throttled in civilized countries is the cholera. It first appeared in Europe in 1832, and in France alone 120,000 people died. In the single city of New York there were 3,500 deaths. Its ravages have been conspicuous very recently in the city of Hamburg, when in three months, in the summer of 1892, there were 18,000 victims, with 7,614 deaths. Engineers and physicians can proudly point to their achievements in this epidemic. The city of Altona, which is physically continuous with Hamburg, drank the water of the Elbe, but, being located nearer the mouth, drank the water with all the added contamination of Hamburg; yet in Altona there were only 516 cases as against 18,000, and many of these were refugees from Hamburg itself. The explanation is a very simple one. Hamburg drank the unfiltered water of the Elbe, whereas the inhabitants of Altona had a filtration plant, which was their efficient bulwark against the disease.

This is taking into account only the question of life, which is, of course, by far the most important. But looking at it also from a commercial point of view, we all remember how the business of Hamburg was for the time ruined. The few millions which would have properly filtered the water of the same river for Hamburg were lost five or ten times over by the merchants of Hamburg as a result of their fatal delay. The voice of the physicians and sanitarians of Hamburg was but a voice crying in the wilderness until emphasized by the hoarse diapason of disease. This is an object-lesson which our own country and many of our own cities would do well to heed.

III. Yellow Fever. — Another scourge, similar in its extent and its violence to the plague and the cholera, and one which appeals to the people of this country even more than these two, is the yellow fever. The fearful epidemic of 1797 is well known to every intelligent American. Not limited to the southern portion of our country, its pathway was strewn with corpses in all the larger cities of the North as well as of the South. Our own immortal Rush has left a monument to his name in his efforts to stem the tide of the disease. By his unselfish bravery and his devotion to duty in the midst of pestilence he has set us an example which the whole country admires, and which, fortunately, will never again be needed. The later freedom of this country from similar widespread and fatal epidemics of yellow fever is due chiefly to the intelligent plans for sanitary reform and to our vigilant quarantine regulations, which, as a rule, during the present century have kept it at bay.

We are now about to do better, for having driven the indolent and ignorant Spaniard from Cuba, we shall be able to attack the disease at its fountain-head. The efforts of our officers, especially of General Wood, whom we gladly recognize both as physician, diplomat, and warrior, will bear the richest harvest of good by exterminating the disease in Cuba itself. Before this we could only erect a defensive wall against the disease; now we can prevent it in its very home.

How much such prevention of disease means commercially is shown by a statement in the newspapers only 10 days ago, that capitalists had $40,000,000 ready to invest in New Orleans if the sewage question can be solved and epidemics of smallpox and yellow fever prevented.

IV. Scurvy.—Prior to the present century, scurvy was one of the most dreaded diseases on shipboard. Armies were decimated by it and navies rendered useless; sometimes half a ship's crew would be disabled by scurvy. Until the researches of physicians showed that it owed its origin to the lack of fresh vegetables, its ravages were frequent and widespread. In 1795 there was introduced into the British navy the admirable regulations for provisioning ships of war, drawn up by Blane. Since then scurvy has almost disappeared. At the present time it is seen only in exceptional circumstances, such as have recently arisen in the Klondike. Even in the long, lonely voyages to the pole, our means of furnishing the crews with vegetable food in various forms has prevented any outbreak of importance.

V. Typhus Fever.—Another scourge of humanity in past ages has been the dreaded typhus fever. Its various synonyms,—ship-fever, hospital-fever, jail-fever, camp-fever,—reek of filth, overcrowding, and the want of sanitation. "A complete history of typhus," says Murchison, "would be the history of Europe for the last three and a half centuries." It was as dreaded as the plague itself. How rare it is now is shown by the fact that in my entire professional life of nearly forty years, I have never known in Philadelphia of more than half a score of cases, and have never in my life personally seen a single one. The modern exemption of armies, ships, jails, and hospitals from typhus is due to our own profession more than any other agency.

VI. Typhoid Fever.—I wish I could tell the same story of typhoid fever. Unfortunately the public has not yet listened to the voice of sanitary physicians. Every year a large harvest of deaths is furnished the grim reaper in almost all of our American cities by typhoid fever. And yet typhoid is as preventible a disease as typhus; so much so that an English writer has declared that "for every case of typhoid fever somebody ought to be hung." The means of its diffusion are well known. Water contaminated by the typhoid bacilli and milk similarly contaminated are the two chief means by which it reaches the gastro-intestinal tract of man. What damage can be done by a single case was well shown in the town of Plymouth, Pennsylvania, in 1885. "A portion of the water of the town was derived from a reservoir supplied by a mountain stream some distance above. A man ill with enteric fever occupied a house near the bank of this stream, during January, February, and March. Upon the ground, frozen and covered with snow, the copious dejections of this patient were thrown without disinfection. Toward the end of March a thaw, accompanied by rain, took place. About the 10th of April, an extraordinary epidemic of enteric fever developed in the town, chiefly among those receiving water from the reservoir. In a population of 8,000 people, about 1,200 cases occurred." The remedy, as some of us in Philadelphia have tried to point out as orcibly as we could, is clear. Purify the water-supply nd provide good sewerage and typhoid fever almost isappears. In Vienna the typhoid rate of 12.5 deaths er 10,000 inhabitants fell to 1.1 after a pure water- upply was obtained. In Dantzic it fell from 10 per 0,000 to 1.5. In Munich, after the introduction of a ood water-supply and proper sewerage, the rate fell rom 21 per 10,000 to 6.3; in Boston from 17.4 per 0,000 to 5.6. These are but cold figures. If we could ransfigure them and let them represent broken hearts nd desolated homes, and measure them by anguish and orrow, they would speak more eloquently than mere ercentages.

All of the diseases thus far considered have been iseases which have disappeared either wholly or very rgely, at least in civilized countries, as a result of mproved sanitation, and I can, therefore, well claim hat the public owes their disappearance or limitation the efforts of the medical profession aided by engin- ers, by intelligent legislators, by improved methods of od-supply, and by the general intelligence of the ntire community. But the greatest preacher of ghteousness has been the doctor.

VII. Smallpox.—The next disease to which I ask our attention is one which owes its abolition wholly to e physician. In these days, a century after Edward enner's memorable inoculation of James Phipps on ay 14, 1796, we can hardly appreciate what smallpox as. A few facts, however, will show its dreadful rav- ges. Dinsdale, who went to St. Petersburg to inocu- te the Empress Catharine, says that 2,000,000 people ied in a single year in the Russian Empire from small- x. In 1707, in Iceland, out of a population of 50,000, ,000 died. In Mexico in the 16th century, 3,500,000 ople died, leaving, in some places, scarcely enough ive to bury the dead. At the end of the 18th century, ilbert Blane estimated that "an adult person who d not had smallpox was scarcely met with or heard in the United Kingdom." When servants were ad- rtised for, it was common to specify "that they ust have had smallpox in the natural way." In 1688, an advertisement for a counterfeiter, it was noted as means of his identification that he was "without pock- les." At the Institution for the Indigent Blind, two- irds of the applicants were made blind by the small- x.

It attacked the high as well as the humble. In e family of William III of England, his Queen, Mary, s father, his mother, his uncle and two cousins, chil- en of James I, all died of the smallpox and the ng himself barely escaped with his life. During the th century, one Emperor and two Empresses of Aus- a, six archdukes and archduchesses, an elector of xony, an elector of Bohemia, a Dauphin and a King France, a King of Sweden, and a Czar of Russia here all numbered among its victims. So fearful were ravages, that Bernouilli estimated that 60,000,000 persons died from smallpox in the century the close of which saw the foundation of this very Faculty. Well might Macaulay say: "The havoc of the plague had been far more rapid, but the plague visited our shores only once or twice within living memory. But the smallpox was always present, filling the churchyard with corpses, leaving on those whose lives it spares the hideous traces of its power, turning the babe into a changling at which the mother shuddered, and making the eyes and cheeks of the betrothed maiden objects of horror to her lover." It was "the most terrible of all the ministers of death."

But in 1796 arose the medical David who was to smite this Goliath. From that time till the present smallpox has been shorn of all its terrors. Very recently, in Jenner's own country, attempts have been made to show that vaccination was useless; that it drove out of the system one vile disorder by introducing another, that it disseminated instead of preventing disease. Were we to grant all that is falsely alleged as to the introduction of tuberculosis and syphilis, even then the benefits it has conferred would outnumber the evils ten-thousand-fold. But, as a matter of fact, the cases in which evil results have followed are few and far between, and by the use of animal virus instead of the humanized and by the proper antiseptic care in vaccination, which is really a minor surgical operation, all of these ill effects can be avoided.

A few statistics will show the benefits vaccination has conferred. In Sweden, before vaccination, the deaths per million were 2045. Since compulsory vaccination was introduced they have fallen to 155. In England during the eighteenth century, the average deaths per million were about 2000. Since the epidemic of 1871–2 and the enforcement of the law for vaccination, the deaths have fallen to 53 per million, and in Scotland they have fallen to 8. In Prussia, before compulsory vaccination, there were 309 deaths per million; in the last 10 years only 7. In Austria, without compulsory vaccination, in the last ten years the average has been 458 deaths per million, and in Belgium without compulsory vaccination from 1875 to 1884, there were 441 deaths per million. In the Sheffield epidemic of 1887–8 of the unvaccinated population, 1 in 20 died; of those who were vaccinated, 1 in 1300.

Another illustration of what havoc a single mild case may work was seen by the epidemic in Montreal fourteen years ago. Among the French Canadians, there was the greatest prejudice against vaccination, so much so that there were even vaccination riots. As a consequence of this prejudice a large unprotected population grew up and the materials were ready for an extensive epidemic. The soil had been prepared and it only needed the introduction of the seed, which in due time came in a Pullman-car conductor from Chicago, February 28, 1885. Within the next 10 months thousands of persons were stricken with the disease and 3164 died in a city of only 185,000 inhabitants—*i. e.*, one person in every 58 died, besides all those whose lives were blighted by its disgusting relics. Perhaps no more striking proof could be given of the value of compulsory vaccination and re-vaccination than the experience of Germany and France in the Franco-Prussian war. In the German army there were but 261 cases, while in the French army, which was not similarly protected, there were 23,469. Again our Philadelphia Welch (*N. Y. Med. Jl.*, March 17, 1894) has shown that among 5000 cases of smallpox, of 1412 cases with good vaccination marks, the death-rate was 8.78%; whereas among 1759 cases unvaccinated, the death-rate was 58.38%.

And yet, in the face of these well-established facts there are people who declaim against vaccination. Happily, in view of the well-known and almost universally recognized protective power of vaccination, the good sense of the American people will never allow us to go back to the old days of death and disfigurement. Well may Prof. Whittaker say "the most consummate cynic must admit that, up to the present time, Edward Jenner has been the greatest benefactor that the world has ever known." Even the untutored Indians declared "we shall not fail to teach our children to speak the name of Jenner and to thank the Great Spirit for bestowing upon him so much wisdom and benevolence."

VIII. Tuberculosis.—The most noteworthy feature in modern medicine is the introduction of laboratory methods in the study of various diseases. We are only really at the beginning of this method, but it has yielded results of such inestimable value that its future is certain to reward the diligent searcher after truth with a rich harvest.

Among other diseases which have been investigated with very fruitful results is tuberculosis, a disease which ranks with alcoholism and syphilis as the three most disastrous to the human race, and, in the case of tuberculosis, to animals as well as man. To Robert Koch, of Berlin, a physician, belongs the credit of discovering and of proving absolutely its cause, namely, the bacillus tuberculosis. While it is perfectly true that this has not yet led to the hoped-for results in the cure of the disease, yet all must admit that the discovery of the cause of any disorder is the first step toward its cure. Moreover, the results, even from a diagnostic and therapeutic standpoint, have been by no means insignificant.

First of all it has enabled us to determine positively the existence of tuberculosis of the lungs and the intestines with absolute certainty, and at a much earlier stage than was before possible. Hence even the ordinary treatment at our disposal, change of climate and the administration of remedies is instituted at a much earlier period than formerly, and so leads to cure in cases which, under the older uncertain methods, would have run on until they had become practically incurable. Secondly, although the tuberculin treatment of Koch has not realized all that was hoped for, yet by better methods and improved tuberculin, a number of cures have resulted. Even had Koch's researches proved of no value to the human race, its value in the early and certain diagnosis of tubercle in the lower animals has proved of the greatest possible value to our dairymen and butchers in the preservation of their herds, and to the community in preventing the use of tuberculous meat and milk as articles of food, a use which is fraught with the greatest danger to human beings. The reaction which follows the use of tuberculin in animals is acknowledged by all veterinary surgeons as practically of the greatest value in weeding out tuberculous animals from herds of cattle. It is not too much to hope that further researches may yield a healing serum which will be of far greater value than anything thus far produced. Even the present results have justified all the labor and expense which have been involved in the discovery of the cause of tuberculosis.

IX. Diphtheria.—The laboratory has given us a proof of its value, however, in another direction, in which we are treading on much firmer ground. Diphtheria is one of those diseases which does not yield to improved sanitation. Whether it show itself in sporadic cases, or as an endemic or epidemic, its death-rate has been appalling. Until a few years ago, its mortality was placed at about 40% of all the cases attacked. But laboratory researches and experiments upon animals have robbed it of more than half its terrors. Perhaps the three most important papers thus far published are those of your own Professor William H. Welch (*Johns Hopkins Bulletin* for 1895) and the collective investigations of the American Pediatric Society of 1896 and 1897. Welch investigated 7166 cases from 80 different sources. Among this large number of cases, 1239, or only 17.3%, died, a diminution in the mortality, as a result of the use of the antitoxin, of 55.8%. It is very striking, also, to observe the different results of the treatment according to the day on which it was begun. The following table shows the regularly increasing mortality according to the day on which the treatment was begun, from the first to the eighth days:

Day	Mortality, %
1	18.3
2	22.7
3	38.1
4	53.6
5	67.0
6	67.4
7	72.5
8	81.6

Could figures be more eloquent, or call more loudly for the earliest possible use of the remedy?

In the first collective report of the American Pediatric Society, there were nearly 6000 cases in the practice of 615 physicians. The large number of physicians from all over this country and Canada eliminates accidental variations due to climate and to the personal equation of any one physician. The mortality was 12.3%, or, leducting the 218 cases which were moribund at the ime when the treatment was begun, a mortality of only 3.8%, instead of 40%! In over 4000 cases, in which he treatment was begun during the first three days, he mortality was only 4.8%. The results of this treatment are still more striking in the laryngeal cases, vhich require intubation or tracheotomy. In 5546 uch cases reported by 242 physicians before the introduction of the serum, the mortality was 69.5%. In 33 cases in which the serum was used, the mortality vas but 25.9%. In the report of 1897, it is stated that efore the introduction of the serum treatment, 90% of he cases of laryngeal diphtheria required operation; fter its introduction, only 39.2%. Before the serum reatment was introduced, recovery took place in 27%, nd death in 73%; after the serum treatment was ntroduced the figures were precisely reversed; recovery ook place in 73% and death in 27%.

In the PHILADELPHIA MEDICAL JOURNAL for April 1, 899, p. 631, is given the still more recent results in hicago. In ten years of the pre-antitoxin period the nnual average of deaths was 1417. In the three years fter the antitoxin treatment was introduced, though he city's population was larger both by natural increase and by annexation, the annual average was only 51 deaths, a direct saving of 600 lives a year, and a 0% reduction of the previous mortality. The closing emarks of Professor Welch are eminently in point: The discovery of the healing serum is entirely the esult of laboratory work. It is an outcome of the tudies of immunity. In no sense was the discovery n accidental one. Every step leading to it can be raced, and every step was taken with a definite pur-ose and to solve a definite problem. These studies nd the resulting discoveries mark an epoch in the istory of medicine. It should be forcibly brought ome to those whose philozoic sentiments outweigh entiments of true philanthropy, that these discoveries hich have led to the saving of untold thousands of uman lives have been gained by the sacrifice of the ves of thousands of animals, and by no possibility ould have been made without experimentation upon nimals." Each year, for all future time, will add housands of human lives thus saved by the laboratory.

X. HYDROPHOBIA.—Another direct result of labora-ry research is the splendid achievement of Pasteur in e cure of hydrophobia. Prior to his researches about 4% of those bitten by animals believed to be rabid were ttacked by hydrophobia, and of the persons so attacked veryone died, a mortality of 100%. There is no authentic ase reported of recovery after the development of hydro-hobia. But in 1893 the mortality in St. Petersburg, cases submitted to Pasteur's treatment, was only 84%; in Turin, in 1894, the mortality for ten years as only 0.95%; and in Paris, in 1897, of 1060 per-ons bitten by animals, proved experimentally or diag-osticated by a veterinary examination to have been rabid, only 6 died, a mortality of 0.56%. Instead of 141 deaths from a horrible and formerly irremediable disease there were only 6 deaths!

Figures such as these can leave no doubt in the minds of reasonable persons that this gift of the laboratory has been of the greatest possible value.

XI. TRICHINOSIS.—Another direct result of laboratory research has been the discovery of the trichina worm. When studying in Berlin in the winter of 1865–66 I well remember the demonstration, among the first that had then been made, of the cause of a dreadful epidemic of trichinosis. In the little town of Hedersleben, in Saxony, a butcher killed three hogs and made them into sausages. They were eaten by a large number of the inhabitants of the little town. Several hundred persons fell desperately ill and I think over 100 died. Professor Virchow sent one of his assistants to the town to discover the cause of the trouble, and all of the students in the Pathological Institute in Berlin were intensely interested in the discovery that the epidemic was due to the fact that one of these hogs had been infested with the trichina. A portion of the infected pork was brought to Berlin and fed to some of the lower animals and the life history of the trichina was studied with the minutest care. As a result of this and of similar studies, the means of prevention of the disease was very soon discovered. Heat kills the worm and so renders it innocuous. The epidemic in Hedersleben was due to the fact that the inhabitants had eaten insufficiently cooked sausages in which the parasites were still alive. Digestion dissolved the capsule in which they lay and freed them for their future devastating work. Cooking would have entirely prevented the epidemic. Since these studies, all civilized countries have made obligatory by law the microscopic investigation of several portions of the carcasses of all hogs which have been killed for food, and all of our meats derived from the hog now are perfectly innocuous by having eliminated all of the infected carcasses.

XII. ANIMAL DISEASES.—Had I the time and were I as familiar with the facts in veterinary medicine as in human medicine, I should be able to point out to you the laboratory studies which have been undertaken abroad and in this country by our admirable Bureau of Animal Industry as to anthrax (wool-sorters' disease), the cattle plague, chicken cholera, swine fever, hog cholera, and lumpy jaw or actinomycosis, and show you that not only is the human race a debtor to the laboratory, but how much animals themselves are protected. The commercial value of such researches in a country such as ours, which exports such quantities of meat, can hardly be over-estimated. It is within the mark when I say that many millions of dollars are saved annually in our flocks and herds as a direct result of such laboratory investigations. Inasmuch, also, as a number of these diseases are capable of infecting the human subject (and the number of cases of anthrax and of actinomycosis is large), they are as important to the human race as to animals.

Let us now leave medicine proper and turn to surgery. Before doing so, I must point out the fact that all the diseases so far considered are medical and not surgical. I often hear it said that while surgery has made such giant strides of late, medicine has lagged behind. It is but just to the physicians to call attention to the fact that the statements already made show that medicine has made equal or even greater progress. The saving of life in diphtheria is less dramatic, less striking to the average mind, but it is none the less real or less beneficent.

XIII. Anesthesia.—We come now to two of the epoch-making discoveries in the history of medicine, both of which have been made in the last half-century—the discovery of anesthesia and of antisepsis. Though Long, of Georgia, had used ether prior to 1846, practically the introduction of anesthesia dates from October 16, 1846, when, for the first time since Adam parted with his precious rib, in the Massachusetts General Hospital, Dr. John C. Warren performed a major surgical operation without inflicting the slightest pain. The news went like wild-fire, and anesthesia was soon introduced into every clinic and at almost every operation throughout the civilized world. Prior to that time, a surgical operation was attended with horrors which those who live in these days cannot appreciate. He was the best surgeon who could perform any operation in the least possible time. The whole object of new methods of operating was to shorten the period of frightful agony which every patient had to endure. Every second of suffering saved was an incalculable boon. To submit to any operation required then a heroism and endurance which are almost incomprehensible to us now. All of the more modern, deliberate, careful, painstaking operations involving minute dissection, amid nerves and bloodvessels, when life or death depends on the accuracy of almost every touch of the knife, were absolutely impossible. It was beyond human endurance to submit one's self for an hour, for an hour and a half, for even two hours or longer, to such physical agony.

It is a striking commentary on the immediate results of anesthesia to learn that, in the five years before the introduction of ether, only 184 persons were willing to submit themselves to such a dreadful ordeal in the Massachusetts General Hospital, an average of 37 operations per annum, or 3 per month. In the five years immediately succeeding its introduction, although the old horror could not at once be overcome, 487 operations, or almost 100 annually, were performed in the same hospital. During the last year in the same hospital, a Mecca for every surgeon the world over, over 3700 operations were performed. It is not an uncommon thing at the present day for any one of the more active surgeons of this country to do as many as 400 to 500 operations in a year. I have known as many as 19 operations to be done in the Jefferson College Hospital in a single day—equalling six months' work in Boston before the introduction of ether.

Such a boon, the direct gift of the profession to a suffering world, has placed the public under a debt which can never be sufficiently appreciated, still less be repaid. Every sufferer may well bless the names of Morton and Warren, to which should be added certainly the name of that giant of surgery, Sir James Y. Simpson, who discovered the anesthetic use of chloroform in 1847.

Both anesthetics have their dangers, and the profession will never be satisfied so long as there is the slightest danger in the use of any such drug. Our researches are still directed toward the discovery of the ideal anesthetic. This will not be, in my opinion, an anesthetic like cocain, which abolishes pain without abolishing consciousness, but, rather, one which, without danger to life, will bring unconsciousness to everything, including pain, for this reason: Very frequently during an operation emergencies occur (especially hemorrhage) which, although the surgeon is perfectly capable of coping with them, yet would greatly alarm the patient and might defeat the object of the surgeon, were they known to the patient at the time. That such an ideal anesthetic will be discovered is as certain as that the twentieth century will soon dawn upon us. Happy will be the surgeons who can operate without the least fear of their anesthetic, and yet be certain that the patient is relieved from all suffering and free from all danger of shock or other after-consequences.

XIV. Antisepsis.—Even the introduction of anesthesia, however, did not rid surgery of all its terrors. The acute pain of the operation was abolished, but the after-suffering, as I knew only too well in my early surgical days, was something dreadful to see. The parched lips of the poor sufferer, tossing uneasily during sleepless nights, wounds reeking with pus, and patients dying by scores from blood-poisoning, from erysipelas, from tetanus, from gangrene, were only too familiar sights in the pre-antiseptic days. Then, again, there arose one of these deliverers of the human race whose name can never be forgotten and whose fame will last so long as time shall endure. Jenner, Warren, and Lister are a triumvirate of names of which any profession may well be proud. Thank God, they all sprang from virile Anglo-Saxon loins! No praise, no reward, no fame is too great for them. That Lord Lister still lives to see the triumph of his marvellous services to humanity is a joy to all of us. And when the profession arose en masse, within the last few years, at the International Congress of Berlin and at the meeting of the British Medical Association in Montreal, and welcomed him with cheer after cheer, it was but a feeble expression of gratitude for benefits which no words can express.

Before Lister's day, erysipelas, tetanus, gangrene, and blood-poisoning in its various phases were the constant attendant of every surgeon. They were expected guests at almost any operation; and when in rare cases we obtained primary union without a drop of pus and without fever and with but little suffering, it was a marvellous achievement. Now it is precisely reversed. The surgeon who does not get primary union without a drop of pus, with no fever, and with little suffering, asks himself—what was the ault in my technic? To open the head, the abdomen, or the chest 30 years ago, was almost equivalent to signing the death-warrant of a patient. The early nortality of ovariotomy was about 60%; two out of hree died. Now many a surgeon can point to a series of 100 abdominal operations with a fatality of only 2% or 3%. When Sir Spencer Wells recorded his first 000 cases of ovariotomy, it was calculated that after leducting the years which the patients who died from he operation would have lived had no operation been lone, the net result of the thousand cases was an ddition of 20,000 years to human life. One thousand variotomies under antiseptic precautions at the present would certainly add at least 30,000 years to human ife. Would not such a guerdon be enough for any nan?

This, too, is a direct result of laborious laboraory researches, beginning with the investigations of iebig and Pasteur on fermentation. Lister went still urther. Even before the discovery of the bacteria of supuration, of tetanus, and of erysipelas, he showed us xperimentally how, by surgical cleanliness, we could void all infection and so banish these pests from our ospitals and bring life and health to many who otherise would have perished from operations which are ow perfectly safe.

The mortality of compound fractures in the pre-antiseptic days was about 60%. It was one of the most readed of all accidents. Its mortality now is perhaps ot over 3%, and the mortality from sepsis after such a acture, in the hands of well-instructed surgeons, is almost nil. Prior to Lister's day, the mortality of major mputations varied from 50 to 63%. Now, it is from 0 to 20%. And so I might go on with operation after peration and show how they have become so safe that e need not dread any, saving exceptional cases.

These two modern discoveries, anesthesia and antipsis, have utterly revolutionized modern surgery. hey have made possible operations which, by reason of eir length and pain and danger, were utterly unjustifible in former days, but are now the daily occupation of busy surgeon. And, far better than this, they have nabled us to bring to homes and hearts, which otherse would have been broken up and wrung with sorw, the comfort of life restored to dear ones upon whom pended the happiness and support of the families. anslate figures into happy hearts and prosperous homes if you can, and then you can tell me what Warren and Lister have done for humanity!

XV. Bravery of the Profession.—But it is not only by its achievement in specific diseases that the profession has brought the community into its debt. Quite as much by his character has the physician pointed the way to the noblest development that human nature can obtain. Not only has he diminished the horrors of war, but he has shared in its perils and has shown a disregard of danger and fearlessness in the performance of his duty which is worthy of all praise. During the Civil War 40 medical officers lost their lives in battle and 73 were wounded, a number "proportionately larger than that of any other staff corps." The heroism of Gibbs, who perished in Cuba, is known to you all. Dr. John F. Bransford had resigned his commission as surgeon in the navy in 1890, but immediately volunteered for service in the war with Spain. During the battle of July 3, off Santiago, he dropped his scalpel and bravely took charge of a gun, fighting gallantly throughout the engagement, his services as surgeon not being called upon until the wounded prisoners were brought on board. Like the mother of the Gracchi, we may proudly point to such and say, "these are our jewels."

But while gallantry in action justly merits our highest admiration, there is a quiet, unostentatious bravery in the midst of pestilence, which is no less heroic, though less dramatic.

> "In 1832, that most dreaded of all scourges, Asiatic cholera, for the first time broke out all over this country with the greatest virulence. Easton was only eighty miles from New York, and the citizens, in terror lest the dread disease would reach their own town, appointed a young, intrepid surgeon to visit New York and learn what he could for their benefit. When others were fleeing in frightened thousands from the pestilence, Gross bravely went directly into the very midst of it, reaching New York when the epidemic was at its very height. In that then small and half-depopulated town 385 persons died on the very day of his arrival—and he stayed there a week in a hot July, visiting only its hospitals and its charnel-houses. What call you that but the highest type of bravery?—a bravery which Norfolk and Mobile and Memphis have since seen repeated by scores of courageous physicians ready to sacrifice their lives for their fellow-men, with no blare of trumpets, no roar of cannon, no cheer of troops, no plaudits of the press! No battlefield ever saw greater heroes; no country braver men!"

And Gross was not alone in this bravery. Amid arctic snows and surrounded with desolation, Kane and Hayes have shown what steady courage could do in arctic exploration; while the revered Livingstone, in the midst of the wilds of Africa, surrounded by savage beasts and still more savage men, exposed to the dangers of fever and miasm on every hand, showed what the doctor could do amid torrid heats in the performance of his duty in exploring an unknown continent and in exterminating the traffic in human life. At this moment in India, Burma, China, Africa, 268 brave medical missionaries, of whom 64 are no less brave women, are endeavoring to bring the blessings of modern medicine and of Christianity to the natives of those benighted lands. "We can imagine," says the *Lancet*, "no career more lofty or honorable than that of a well-informed, capable, and courageous medical missionary." Their efforts especially in bringing health to the downtrodden women of heathen lands, in their efforts to abolish child-marriage with all of its attendant horrors, and in their ministrations to the sick of body and of soul have been fruitful of the highest good to millions of the human race.

XVI. Generosity of the Profession.—Moreover, there is no profession which gives so freely for the good of the human race. Where is the doctor whose ear is deaf to the cry of suffering humanity in cases of accident, or during the pangs of maternity, who will not deprive himself of well-earned sleep and needed recreation, to minister to his suffering fellow-creatures without ever a thought of any pecuniary benefit to himself?

I am sure that the public does not appreciate the amount of time and the value of the services given to the poor by the rank and file of the profession. Take a single example with which I am familiar. In the Jefferson Medical College Hospital the last report shows 129 medical men on the staff of the hospital. As nearly as I can estimate, they give every year about 60,000 hours of their time to the poor, which, at 8 hours per diem, amounts to 20 years of labor of one man, year after year, and their services, were they paid for at a very moderate rate, make an annual gift to the poor of over $500,000. This, mark you, is from a single hospital in a single city. Were we to take account of all the hospitals in every city and town in this country, you can easily see how many millions of dollars' worth of gratuitous services and how many decades of time are given to humanity every year by the medical profession. It is only by such vast aggregates that we can appreciate how much there is of generous giving on the part of the profession which we do well to love and honor.

How shall the public pay this great debt? "Freely ye have received, freely give." We do not ask dollar for dollar, but may we not expect a Scriptural tenth? Not for our own pockets, but for our hospitals; not to minister to our own ease and enjoyment, but to equip our libraries and laboratories for larger and more fruitful work; not for our own homes, but for our colleges, to furnish us the means for better teaching; not for ourselves, but for humanity, to whose service our lives are dedicated.

In Mr. John Wanamaker's gallery is one of the most striking pictures I have ever seen. On a large canvas by Fritel, in the center of the picture, advancing directly toward the spectator, is a large cavalcade of warriors arrayed in corselet and casque. Their stately march at once arrests the eye. The leader is Julius Cæsar. He is flanked by Napoleon and Alexander the Great and followed by Attila, Semiramis, and a lengthening host of those whom the world counts among its greatest conquerors. They advance between two long rows of rigid, ghastly corpses all stretched at right angles to their line of march. Spectral mountains in the distance hedge in a desolate plain given over to the vulture, the bat, and silence.

I would that some artist might paint a companion picture of the "conquerors in medicine," instead of the "conquerors in war." Instead of spectral hills and a barren waste, the scene should be laid in a fertile, smiling valley, bounded by the Delectable Mountains. The stately procession should be led by Edward Jenner. He should be flanked by Joseph Lister and John C. Warren, and followed by Simpson, Billroth, Livingstone, Ambroise Paré, Virchow, John Hunter, and many a modest but unknown hero who has yielded up his spirit in the performance of his duty. Instead of treading their way between lines of corpses, they should march between lines of grateful men and women and a host of God's little children who, on bended knee and with clasped hands, would reverently invoke Heaven's richest benediction upon their deliverers.

Thus should humanity recognize its debt to the medical profession.

MUNICIPAL MEDICAL INSPECTION OF SCHOOLS.*

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Introduction.—While it is true that municipal school-inspection for the detection of disease is the result of scientific knowledge and research brought down to date, yet in a thesis upon such a policy, it is, without doubt, best to view its purpose and advantages from a very simple, practical, and utilitarian standpoint, not emphasizing nor elaborating the scientific detail, which, accumulating through the years, has finally in its culmination so equipped the medical man that he can and does speak authoritatively when he demands in behalf of the public weal systematic school inspection for the detection of disease. It is worthy of note that through the ages the medical profession has been the willing and loyal servant of the public. The gratuitous service it has rendered to man is incalculable. In times of national or worldwide distress, in the peril of contagion, in the daily needs of the general public, the medical man is, with the rarest exception, found ready and willing to shoulder responsibilities and burdens, render skilled aid, and extend to the careless, indifferent, and ofttimes ignorant laity, the beneficent results of scientific research and knowledge.

The logical result of this policy should be that the dictum of the profession, calm, dispassionate, and scientific, be received with profound respect and appreciation, and its recommendations for the public good be eedily and firmly established by legislative bodies, e administration of the resulting laws being vested the hands of skilled and conscientious men, not nder the control of the professional politician, nor bject to the caprice of any man nor party who, vulture-ke, battens on the State for aggrandizement and the ratification of purely selfish ends. Strange to relate, is condition does not in any sense obtain. *Per contra*, ch a result would be considered by many worthy tizens, otherwise well intentioned, as a delusion, a ental mirage, the utopian dream of a theorist or ealist. Note the limited power of Health Boards, the ck of wise and scientific municipal, State, and na-onal health-laws, the widespread, bland, and childlike difference to the patent and potential values of a ational Department of Public Health.

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This excursion may seem to the off-hand observer t germane to the subject. But to the more diligent eker after truth it is borne home that, unfortunately, is is a vital as well as a just prelude to a considera-n of municipal medical inspection of schools.

DIFFICULTIES.—Reflection upon the manifold diffi-lties and Augean obstacles cast in the path of spection in other cities where it has been proposed the politician, ignorant of the fundamental and sic laws of health and hygiene, triumphing over the sinterested advice and urgent appeals of the scientific edical man, and the painful, sluggish indifference of e lay public, to such a simple and yet efficient ethod of prophylaxis—bids us pause and wonder our vaunted nineteenth century civilization and cul-re are what they are claimed. How long shall unin-med School Boards ignore the right of the child to gienic surroundings? How long are the children of State, helpless under the caprice or indifference of average school director, to be exposed to contagion?

PLAN.—Varying with local conditions the plan of nicipal medical school-inspection embraces a daily pection, by an accredited doctor of medicine, of all k children of every public school. This inspector uld be vested with authority to make competent amination of the sick child, under favorable sur-ndings, and, if found necessary, to dismiss the child m school, with advice to the parents to consult the ily physician, and to restrain the child from attend- school until well.

RESULTS.—The practical results from this plan are early detection of sickness in its varied forms; an earlier institution of treatment in diseased con-ions; (3) a checking of disease in the acute and acute stages; (4) a diminution of chronic affections; a diminished number of days of absence from ool; (6) the limitation, if not actual destruction, of lemics and epidemics; (7) improved health-standard schools; (8) improved scholastic attainment of ools.

hat early detection of sickness in its varied forms would be secured is manifest. Daily, rigorous inspection, by a competent physician, of all ailing or complaining children, and of those who, through an inherent stoicism or reticence, may only disclose their need objectively to the teacher, will more accurately designate diseased states than can possibly be secured by any other means.

The earlier institution of treatment in diseased conditions could be secured, as the inspector should be authorized to dismiss the sick child from school with a message to parent or guardian to consult the family-physician for such treatment as may be indicated. Too often, under a regime not equipped by medical inspection, a child will attend school for several days, irritable or listless, fretful or indolent, this *status* not dependent upon ill-nature, but upon an actual or oncoming illness. It is but a bare statement of a fact to mention that an elevated temperature indicative of an indisposition, if not an actual infection, may often be detected in children, perfunctorily sent to school by parents, whose ignorance is their only excuse. Such children should not be permitted to remain at school, a burden to themselves and too often a menace to the health of the entire community.

A checking of disease in acute and subacute stages will be secured by daily inspection of a competent character, and diminution of chronic affections will logically follow.

In regard to effecting a diminished number of days of absence from school, it can readily be seen that early treatment, effecting earlier cures, will abbreviate the daily "absent record." Superficially it may seem that a child sent home when merely unwell increases the school "absent from duty" average; yet this is not so, for the *return* to duty is hastened.

The limitation, if not actual destruction, of endemics and epidemics will be secured by isolating from school at the earliest date (and subsequent institution of proper home treatment),—*the fons et orīgo mali*,—the primary case or cases.

There will result improved health-standard of schools, since dismissal of the actual sick and merely ailing children raises the health-average of a school.

There will be improved scholastic attainment of schools, as by retaining only the healthy child in school higher efficiency in the daily task will be noted. *Mens sana in corpore sano* produces, everything else being equal, high-grade work.

DEMANDS OF THE CHILD.—It is also worthy of mention that the sick child demands dismissal from school; the healthful child demands that the sick be dismissed; the first on account of its physical necessities, the second for self-preservation. Our children are justified in expecting truly hygienic school surroundings. It is their right. In no other fashion can this condition be secured than by competent daily medical supervision.

Requisites.—Inspection, to attain a high degree of efficiency, should be made under favorable conditions. The physician should not be compelled to examine children in the classroom, halls, or wardrobes. A room of suitable dimensions, reasonably secure from noise, and properly equipped, should be provided for him. The equipment need not be elaborate,—an ample window, an argand burner with reflector and bull's-eye condenser, running water and a sink, small table, cotton, wooden tongue-depressors (to be burned after each examination), gauze, antiseptic tablets and bandages (for emergencies), and suitable culture-tubes and slides (for the detection of bacterial infection), towels, stationery, and two or three chairs, would doubtless be sufficient for all ordinary needs. Arrangements should be made with the local Health Board by which inoculated culture-mediums should be promptly received at the laboratory, and a suitable report returned to the school, *and to the inspector*, at the earliest opportunity. The inspector should be informed in order that he may intelligently control present and future measures; the principal of the school should also be made aware of the findings, that he may keep an accurate record, which in the monthly report will check the more scientific record of the medical man. Upon the discovery of a communicable disease the infected child should be rigidly restrained from attending school, and with the cooperation of the local Health Board, adequate fumigating and sterilizing treatment of the school should follow, with general vaccination of the pupils in cases of discovered smallpox.

Measures of Control.—The dictum of the medical inspector should be authoritative and absolute in all schools under his supervision, in order to secure efficient and tangible results. In extraordinary issues he should be guided and controlled by a Medical Advisory Council, to whom, under all circumstances, he is responsible; the Council itself having general oversight of the entire inspection system and assuming all responsibilities for thorough and scientific results. The personnel of the Medical Advisory Council would doubtless vary with local conditions; but the acting Health Commissioner, acting Superintendent of the Public Schools, and the Presiding Officer of the representative Medical Society of the town (one lay and two medical members), would constitute a compact and efficient body. The schools of the town should be thrown into districts, each district to be under the control of an inspector. Contiguity of the schools, and their individual numerical size should control district peripheries. A small reserve or alternate staff of inspectors should be appointed, to serve as substitutes, when the regular inspectors are forced by illness, absence from the city, or an emergency case, to forego the performance of their daily duty.

The formation of the individual school-inspectors into a body, holding regular meetings, for discussion of general sanitary and health topics, has been tried in Boston, and proved a success. In view of the fact that such subjects are of vital value, it would be well to have the proceedings of such a body duly reported and printed in a form accessible to the reading public.

Remuneration.—The inspector should be paid for his service from that portion of the municipal funds designated for school use and controlled by the Board of Education. Remuneration may be furnished in the form of a stated monthly or yearly salary; or upon a *per capita* basis, the number of sick children furnished by the principal and examined by the inspector to serve as a guide. The former plan would doubtless be the simpler, the latter is characterized by the greater equity. Under either system monthly bills should be formulated by the individual inspectors, upon official blanks, and after endorsement by the Advisory Council should be paid by the Board of Education, or by the constituted proper authority.

Duties of the Representative of the Schools.—Though in the vast majority of cases the presence of a third party is unnecessary, yet it would probably be wise to enforce the personal cooperation and presence of the principal, or some accredited representative, at all examinations. This representative should furnish to the School Board, upon official blanks, a monthly record of the action upon and final disposition of each case under observation, said record to serve as a check upon the more elaborate and scientific memoranda furnished to the Medical Advisory Council by the inspector.[1]

Restraints Upon the Inspection Service.—In order that the interests of the general medical profession should not be impaired, and that the right of the family to select and employ its own physician be held inviolate, the inspector should be forbidden the privilege of treating any case at the school, to solicit the child or the child's family to become a member of his private *clientele*, or to suggest or outline any treatment or plan of treatment in response to the appeals of child, parent, or guardian, made upon the school premises.

Necessarily such applications for professional care as are made at the inspector's private office, or in the thousand and one avenues of approach, beyond and outside of the limits of the duties of his inspection service are not under the supervision of the Medical Advisory Council; and the inspector would be justified in acting independently in these extra-official capacities He should, however, be permitted to serve, yielding temporary medical aid, such accident or emergency cases as may arise while he is upon the school premi s engaged in inspection. After the temporary needs ve been met, the child should be dismissed into the nds of the regular and proper authorities, no further rvice from the inspector to be permitted.

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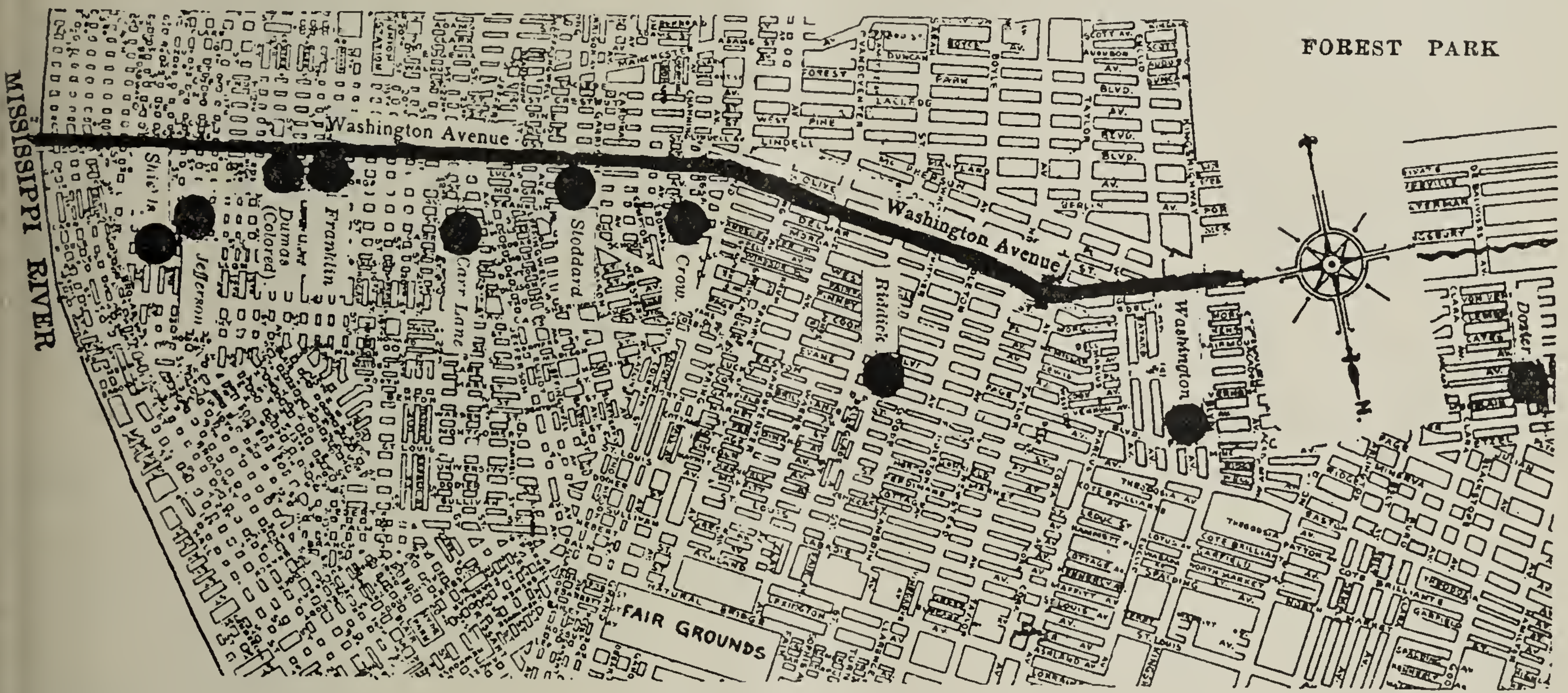
[1] The usual objection of school authorities that principals and teachers ar even now overburdened with duties, and can hardly assume this additiona labor, should not be permitted by the public to weigh against the manifest advantages of a medical inspection service. Proper arrangements can be made and the public should demand that the necessary cooperation of the schoo authorities be enforced.

Inspection Data.—The first school-inspection serce performed in this country was instituted in Bosn, November 1, 1894, after surmounting incredible stacles, and only then under the stress of a severe idemic of diphtheria.[2] Efficiency was manifest from e beginning. Comparatively recently the Boston an has been copied in other towns, notably New ork City; reports from the latter place denote comete satisfaction. The only plan of inspection which sembles this method is in vogue in Brussels, where chool doctors" are employed, to whom pupils are nt when suspected of being ill from infectious disses. These doctors are under the control of the Bureau of Hygiene."[3] In this city (St. Louis) an inection service extending over a period of 11 weeks



s instituted by the "Medical Society of City Hosal Alumni," and carried out under the sanction and operation of the local Board of Education. The purse of this inspection was to demonstrate to said ard of Education the importance of establishing an equate medical inspection-service over the local ools. The following extracts from the report of the ommittee on Medical Inspection" of the "Medical ciety of City Hospital Alumni," compactly summar- the results that were secured:

> n the plan of organization of this service, after mature sideration, a number of schools were selected which, from ir location and other circumstances, were deemed fully fairly representative of all classes and conditions of ils to be found in the local public school population. ools thus selected were 10 in number and comprised se situated next north of the lines of Washington Ave-, extending from the river to the western city limits, the ool population thus represented embracing all classes and nationalities, and ranging from those in the eastern part, where the home conditions are of the worst, to those near the western suburbs, where the home conditions are of the best. The map submitted herewith shows the location of these schools and their relation to the municipal territory, while the figures appended hereto show the enrollment of pupils during the opening week and at the end of the first quarter in November.

Schools.	Week Ending Sept. 9, 1898.	Quarter Ending Nov. 11, 1898.
Carr Lane	741	930
Crow	947	1043
Dozier	854	996
Franklin	608	761
Jefferson	1412	1361
Riddick	992	1162
Shields	839	1137
Stoddard	1080	1335
Washington	602	700
Dumas (colored)	638	1024
Total	8713	10449

> The work was begun October 10 and conducted in accordance with the following rules which were first submitted to, and approved by the Society, and they were in all material points also concurred in by the school authorities.
>
> 1. The two physicians assigned to each school shall alternate weekly in the service.
> 2. The calls shall be made daily at the hour of 10 o'clock, and the principal must be at once notified of the presence of the physician.
> 3. Every pupil found ailing or thought by the teacher to be indisposed shall be brought promptly to the notice of the physician for inspection,—such facilities as the school may afford for the examination in private being placed at his disposal, and the principal or his or her representative must be present at every examination.
> 4. Cultures shall be taken in every suspicious case of throat-disease, for the purpose of bacteriologic tests by the Health Department.
> 5. Wooden spatulas shall be used in making examinations of the throat, and these when once used must be immediately destroyed.
> 6. No medicine shall be given nor medical treatment extended by the physician to the pupils during such calls, but every case of illness must be at once reported to the principal, with appropriate suggestions as to the proper care or disposition of the pupils found ailing; emergency aid may, however, be rendered on request of the principal.
> 7. No inspection of school buildings or premises on complaint of sanitary defects shall be made by the physician under any circumstances.
> 8. Careful records shall be kept by the physician of every

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urgin: Transactions Massachusetts Medical Society, 1897.

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List of Diseases found in the Schools.	SCHOOLS.																												Totals.	Approximate Percentages.
	Carr Lane	Crow.			Dozier.			Franklin.			Jefferson.			Riddick.			Shields.			Stoddard.			Washington.			Dumas (Colored).				
	Dec.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	Oct.	Nov.	Dec.		
Specific Infectious Diseases:																														
Diphtheria										1																	2		3	
Measles								1																					1	
Whooping-cough																	1	1											2	
Mumps													1																1	
Chickenpox	1		1															1									1		4	
Influenza										16							1		1										18	
Tuberculosis					1								1																2	
Malaria		10	3	1	1	3	1	3	1	1	6	2				2	2	2		2				2				1	43	
Typhoid fever										2																			2	
																													—— 76	4.7 +
Diseases of Oral and Respiratory Tract:																														
Stomatitis																	1		1										2	
Alveolar abscess																	3	3	1										7	
Acute pharyngitis		7	13	6				3	2	6	2	4	1			4	21	9	9					8	5	5	18	4	127	
Chronic "		26	5	4				2		7	5		2				4	10	2						2		2		71	
Acute tonsillitis		11	4	4		2	5	9	3	15	1	11	7	1	3	5	4	6	1	1		1		4	6	19	21	10	154	
Hyper. "		2	4	1	3	4	4		3	7	12		1		3	2	15	11	2				5	4	4	10	8	2	107	
Acute rhinitis		1	3		1						3	3			1	3			1				1					1	18	
Chronic "		5	2	1				1		3	7		2	3			4							1		1	1		31	
Ozena														1															1	
Deviations of septum																										1			1	
Epistaxis										1			1																2	
Pharyngitis		10									7	2											6	2				1	28	
Adenoid disease																				1			3	1					5	
Acute laryngitis		3							5	4	2	11	2			1	1	1	1						1		2		34	
Chronic "								1		6	10																		17	
Acute bronchitis		3		1		1		1		5	1	41	26	1	1	7	19	11	9					1		4	2	1	135	
Chronic "									1		40					3		1					1				1		47	
																													——787	49.1 +
Diseases of the Ear:																														
Foreign bodies															1														1	
Otitis media (catr'l)		1																1	1				2	1	3		1	1	11	
" " (sup.)								1						4	1		2		1				2			2		3	16	
Imperfect hearing*								1	1	1		1											3		1	1			9	
																													—— 37	2.3 +
Diseases of the Eye:																														
Foreign bodies											1	1																	2	
Blepharitis		2												2		3	1						2			4		3	17	
Stye																1	1	1					1	1					5	
Ptosis																								1					1	
Coryza		38	8	13									3				1		1				2					1	67	
Conjunctivitis			1	1			1	2		2	7	2	4	2	1	1			2	1			1	3		2		1	34	
Interstitial keratitis																		1								4			5	
Opacity														1												2			3	
Strabismus											2	1	7	1		1	1	3								4			20	
Nystagmus													1																1	
Imperfect sight*		6			5	8	3	34	2	4		1	6	64	9	13	3	1	3				22	9	4	26	1	3	227	
																													——382	23.8 +
Diseases of the Skin:																														
Acne							1				5															1			7	
Dermatitis					1								2										1						4	
Eczema									1		4			1			2	2									2		12	
Erythema simplex																										1			1	
Furunculosis													1						1										2	
Herpes					1									1															2	
Impetigo contagiosa																	1												1	
Pediculosis													1					2						4					7	
Tinea		1										1				2	1	1											6	
Verruca														1											1				2	
Condylomata													1																1	
																													—— 45	2.8 +
Miscellaneous Diseases:																														
Anemia		2	1	1					1		21	2					2									1			31	
Debility										1																4			5	
Headache (habitual)								1	2	6		1	2	7	1	12	7	3	1						2	2			47	
Cervical adenitis										4	3		1				1									9	5	2	25	
Chorea			1																										1	
Ulcer													1												1			1	2	
Deformities											1		1				1												4	
Sprains																1													1	
Fractures										1																			1	
Contusions									1						1		2												4	
Wounds		2	1	1								1		2		1	1									1			10	
Abscess											1							1											2	
Dental caries		2	1							1			4	2	2									1	1	1	1		16	
Neuralgia			3			1	1	1						1									1	1					9	
Epilepsy																										1			1	
Rheumatism		1				2			1		1		1		2	2								2					12	
Cardiac diseases			1						1				3		1		1		1										7	
Gastric "		13	6	3	1	5			2				5	2			5	2	4		1		1		3	1			55	
Intestinal "		17	3	2								1	1	1				1	1	1						2			30	
Urinary "								1						4													2		7	
Torticollis													1																1	
Ganglion																									1				1	
Cellulitis of face																		2											2	
																													——274	17.1 +
Totals	1†	163	61	39	14	26	16	62	27	94	142	86	90	102	27	64	109	77	44	6	1	1	54	46	35	109	70	35	1601	
Unclassified		4						4			1			3						1					1	1			15	
Nil		2												8										4	1		5	1	21	
																													—— 36	

Number of pupils examined 1565

Number of pupils recommended to be sent home 156

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* Without visible cause.

† The value of the report from the Carr Lane School is practically *nil*, owing to the probable lack of cooperation and intelligent assistance from those in charge of this school. (N. W. S.)

case examined and these records shall include the name, age, sex, and residence of the pupil, the principal symptoms observed, the ailment or disease found or suspected to exist, the action taken and recommendation made in each instance.

9. Weekly reports shall be made to the Society and a monthly synopsis of the returns submitted to the Board of Education.

It will be seen from an examination of the table which accompanies this report and which gives the complete figures for the 11 weeks' service, that a total of 1,565 pupils were examined and 1,601 cases of ailments and diseases disclosed; while it was recommended that 156 pupils [practically 10%.—N.W.S] in all be sent home on account of existing infirmity or disease deemed dangerous either to the child affected or to his school associates. Of the total morbidity found only 76 were of the kinds included in the class termed Specific Infectious Diseases, which embraces those maladies that are most to be feared among the school population, such as diphtheria, scarlet fever, measles, whooping-cough, etc. The cases of diphtheria found were capable of exact identification only by means of culture-tests, the symptoms being mild to a degree that would not suffice to detain the child at home; but, nevertheless, they were potent for continuous widespread communication of the infection to the susceptible associates. During December influenza manifested itself to a degree unmistakable in a number of cases, but in many nstances masking its presence behind catarrhal symptoms of the air-passages, or a suffused condition of the eyes coryza). The full intensity of this pandemic visitation was probably not felt in the schools until after the close of the ervice, December 23, and the evil wrought by it is, as yet, ncapable of full estimation.

Of the total ailments found, 787, or more than 49% were affections of the oral and respiratory tracts, and of these onsillitis and pharyngitis lead the list, the number being espectively 261 and 198, both the acute and chronic forms being included in these figures. Next comes 182 cases of bronchitis in both forms, followed by laryngitis 51 cases, and hinitis 49 cases. These figures serve to show how heavily he brunt of morbid influences falls upon the anatomic tracts under consideration, and what an important part they play n the morbidity and mortality of school life.

Diseases of the ear numbered 37 cases, catarrhal and suppurative discharges appearing in 27 cases, while 9 cases of mperfect hearing, without visible cause, were reported. In ffections of the eye 382 cases were found, 227 of which were eturned as being imperfect sight without visible cause. The imitations of the inspection naturally forbade critical exmination to ascertain the causes of the defects, or to what xtent the statements of the pupils in this respect could be ccepted as being trustworthy. The other principal ailments ound in this classification were coryza 67, all forms of conunctivitis 34, and strabismus 20. [It is worthy of mention hat many eye cases of a chronic or neglected character were ot referred to the inspectors after they had been seen once r twice, in order to not unnecessarily burden the service with multiple visitation from the same individuals.—N.W.S.]

Diseases of the skin numbered 45 cases, some of them beng of a communicable nature, as tinea in several forms, ediculosis, and impetigo contagiosa. In the class Miscelaneous Diseases is a total of 274 cases, a number of which ecessarily rest only upon the statement of the child exmined, as headache, neuralgia, gastric, intestinal and rinary diseases, the prescribed scope of the inspection ot extending either to the determination of their acuality or cause, if really existent. The principal figures hown here are, gastric diseases 55, headache (habitual) 47, emia 31, intestinal diseases 30, and cervical adenitis 25.

In reviewing the results of this work it may not be amiss o repeat that its fundamental and controlling purpose was he instant detection of those diseases capable of being assed from child to child either directly from person to erson, or indirectly by means of infected things, as books, encils, toys, clothing, etc. In so far as the medical observaon thus exercised extended, it was found that the physical ondition of the pupils at the inception of the service was easonably good, the preceding summer having been not an unhealthy one, and notwithstanding the inclement weather xperienced more or less through the fall months, no pronounced tendency toward the development of the more dangerous diseases was observed in the schools. Disorders of the throat and air-passages were, however, very generally noted in the course of the work, which would predispose to and afford favorable conditions and soil for the most malignant diseases of child life, provided the efficient agents of those diseases were introduced.

Mention has already been made of the high percentage which diseases of the oral and respiratory tracts hold in the grand total, and in this fact lies a meaning that must be obvious to every medical man. The tonsils and associated mucous surfaces when irritated or inflamed constitute a highway for the entrance of diphtheria, scarlet fever, tuberculosis, and probably other infectious disorders; and while such diseases in a severely developed form suffice to detain a child at home, yet there are many cases so mild in character that school attendance is not interrupted, and it is this class that serves to most actively and efficiently spread the disease, while innocent of a knowledge of its dangerous nature; and these walking cases constitute an obstacle to the thorough control of dangerous disorders vastly more formidable than those that are individually of a more severe character. The cases of diphtheria that were found were of this kind, and in their detection and exclusion, as well as in the early recognition of other dangerous ailments, lie the merit and justification of this work as a public health service. The circumstance that local conditions did not concur to develop these maladies to an epidemic intensity, as has been the case here in some other years, does not weigh against this contention, the fact must stand unchallenged that in the public schools are assembled daily the largest numbers of the youthful population anywhere gathered together, comprising all nationalities, classes and kinds; and that here lies the field in which the most strikingly effective public-health work on preventive lines can be accomplished. A very considerable proportion of ear-diseases, with impaired or destroyed hearing and impending dangerous complications, undoubtedly have their origin in disorders of the throat and air-passages attendant upon or consequent to measles, influenza, scarlet fever or diphtheria. The results of the inquiries incidentally made into the condition of the eyes and sight emphasize the need for expert skill in order to decide in cases of complaint of imperfect sight the fact of real visual defect and the proper remedy, or whether the asserted fault was without good foundation. It may, however, be safely assumed that the number of reported cases of habitual headache bears a determinate relation to defective vision among school children; and indeed some other ailments may be found to possess such a relationship.[4]

The following method by which the school inspectors act in harmony with and are agents of the local Health Board has been found of service in Boston.

It should be remembered that the Boards of Health of this State are authorized and required by statute law to take charge of any case of contagious or infectious disease which may be dangerous to the public health; and while it is preferred that many cases should remain at home and be cared for by the family and the family physician, their isolation at home must be satisfactory to the Board of Health, and so certified by a medical agent of the Board. So also in the discharge of such patients from isolation, the evidence of their freedom from disease, and the safety of their return to school or to the public, must be satisfactory to the Board of Health and come from its medical agent. For this duty the same medical inspectors are serving as agents of the Board of Health in the control of infectious diseases which are treated at home. We send to each of the school inspectors every morning a bulletin of the cases of diphtheria and scarlet fever which have been reported during the previous 24 hours. Each medical officer selects the cases reported in his district, visits them to see if they are properly isolated, leaves a card for the attending physician informing him of the official visit, and reports his approval or disapproval of the patient's isolation at once to the Board of Health. If the patient is properly isolated the inspector places a card on the door of the room to indicate the official designation of the room for the isolation of the patient. If the case is not properly isolated, and it cannot be commanded at home, he reports the fact to the Board of Health, and such patient is taken to the hospital. He makes another visit to the patient on the question of discharge from isolation, and again reports to the Board of Health. If it is a case of diphtheria a negative report from the laboratory to the Board of Health is necessary, and if it is a case of scarlet fever, desquamation must have ceased, and the fact certified by the agent before such patient can lawfully be released from isolation. The agent of the Board is thus held responsible for the proper isolation of the patient at home, for recommending the patient's removal to the hospital when necessary, and for the patient's release from isolation. In other words, the Board of Health is provided with trustworthy information upon which it can act for the best protection of the schools and the public against the spread of infectious diseases.[5]

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[4] Transactions Medical Society of City Hospital Alumni, St. Louis; *St. Louis Medical Review*, January 28, 1899.

It is hardly necessary to state that the so-called infectious and contagious diseases, specific in origin, are communicated in a variety of ways; and that crowded school-rooms, common drinking-cups, wardrobes, desks, and water-closets, are ready agents in transmitting morbific material. That these conditions are existent to-day in our schools is patent; and that disease is thus transmitted is a logical outcome. What scientific method of disease-detection and prophylaxis is in vogue? To our shame, be it said, there is none. That infective material, such as diphtheric virus, may be attached to the ordinary implements and surroundings of school-life, has been conclusively demonstrated in the laboratory by Ernst.[6]

Kindergarten Data.—If there be any one grade that is, by its very environment and manner of existence, more productive of disease-transmission than any other, this grade is, without doubt, that which is ordinarily termed "kindergarten." The following reasons suffice to account for this condition:

1. Large numbers within a comparatively confined space.[7]
2. Educational material used in common.[7]
3. Tables and chairs used in common.[7]
4. Cleansing agents used in common.[7]
5. Games demanding intimate contact.
6. Especial susceptibility of the child (at the kindergarten age).

[These facts have been derived from personal observation in the kindergartens in St. Louis, and from information secured from competent kindergarten teachers.]

A number of children disproportionate to the cubic contents of the room is the rule. One or two rooms, or one relatively large room divided by arches, or two smaller rooms connected by door-spaces, frequently contain from 75 to 100 children. The air is noticeably impure, and is kept respirable only by opening the windows during recess. This is the condition in the more favored schools. In the congested districts twice as many children may receive instruction in the same rooms daily, being divided into sections. Unusual air-contamination, and double the amount of incidental personal soil are thus introduced into the room. It is unfortunately true that in the congested areas the index of personal cleanliness is markedly low, and the probability of disease growth and transmission is proportionately greater.

The so-called "gift materials" (balls, wooden blocks, beads, sticks, tablets, and rings), are used in common, also rubber balls covered with wool. These articles are not characterized by scrupulous cleanliness, sundry wipings by the teachers, after school hours, being the only care afforded. Even these spasmodic cleansings are not obligatory. The vicious possibilities are apparent. Paste and paste-brushes are used in common; and the brush that to-day may be moistened in the mouth of a child in the early stage of a diphtheric or scarlatinal infection, to-morrow is absent-mindedly lubricated by an innocent neighbor. Modeling-clay duly moistened (perchance surreptitiously by the saliva of a tuberculous child, or molded by the fingers of an infant with impetigo contagiosa, or one harboring pediculi) is also common property.[8]

The tables ordinarily supplied are 18 x 36 inches, and are supposed to meet the needs of two children. These tables are not only common property, but kindergarten teachers are compelled, when the number of pupils is excessive, to place 3 or 4 children at each table, thus adding the further element of contagion—crowding. *I can find no record that the tables are ever scrubbed.*[9]

In some schools the towels are washed every other day; in some schools a weekly cleansing is deemed sufficient. One basin and one towel are passed from child to child, from 15 to 30 children being supplied by the same agents. This is the condition in the more favored localities, and where the teachers *voluntarily* use some individual caution. In other schools it is a prevalent practice to wash the children (total number wrapped in obscurity) upon one dampened towel. Description of the actual condition of said towel, and its possibilities as a disease-transmitter, is hardly necessary.

The kindergarten system includes various games. These games require more or less intimate contact among the children. The so-called "circle-work games" demand clasping of hands, no selection of neighbors, necessarily, being possible. In the "pigeon-house" game, a small circle (possibly 6 feet in diameter) is formed of children. Within this circle two or more children are placed. All the participants are required to *pack together as closely as possible*. In the "birdsnest" ame the same compacting process is noticeable; and he parent-bird is supposed to be feeding its young the child imitating the process by opening its mouth, nd, in fancy, dropping some food into the open mouths f its playmates—intervening space between the faces rom 1 to 6 inches).

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[5] Durgin: Transactions Massachusetts Medical Society, 1897.

[6] Durgin: Transactions Massachusetts Medical Society, 1897.

[7] Some of these conditions are necessarily prevalent in the other grades of the school.

[8] Modeling-clay in the *St. Louis schools* is not used twice; an abundance of fresh material is kept on hand and supplied as needed. (Supt. of Kindergarten.)

[9] Information has later been furnished that the tables are cleaned. I find no rules compelling the teachers or janitors to properly scrub these tables. There is apparently a disinclination toward thorough and adequate cleansing on account of scratching or otherwise injuring the surface of these articles of furniture.

That virgin soil, relatively speaking, invites infection is rue. And when said soil is infected, that relative virulence manifest is also true. Changing from the abstract to he concrete, it follows that kindergarten pupils, tender n years, comparatively free from subjection to ante-atal contagion, are far more liable to infection than hose of maturer years, in whom a phase of resistance, not immunity, has been established. That this cientific fact is recognized, more or less gropingly, by he laity, is shown in the conventional statements of others, that their children have had none of the dis-ases of childhood as yet, they are "still too young to nd to school, you know; but next year when we send em to the kindergarten I suppose that they will catch easles and whooping-cough and all the rest." These cts have been noted by other observers. They are ot peculiar to St. Louis, but are characteristic of the indergarten system.[10]

No scientific acumen, nor even unusual intelligence needed to realize that this intimate contact, these mpacting methods, common implements and mate-als, and careless attention to cleanliness and basic ygienic measures, are prolific sources of contagion.[11]

General Conditions.—The kindergarten also shares other unfortunate conditions common to the higher ades. They have common drinking-cups, water-osets, and wardrobes, where clothing is sometimes ng three or four deep upon the walls, or piled in large skets, there to be placed in contact with all possible hygienic and contaminated conditions. The habits school-children exchanging pencils and pens, mois-ning the carbon in the so-called "lead pencil" for the rpose of accentuating the line, expectorating upon e slate and slate sponge, interchange of chewing gum, d promiscuous embracing and kissing among the rls, are well known, and of weight in estimating the ssibilities and probabilities of disease transmission. hool floors are scrubbed but rarely, probably not more an twice or three times yearly, even under a liberal anagement. It is considered sufficient to use dust-ushes and pan. The janitor, mantled and aureoled clouds of dust, as he "cleans up after school," is a vid reminiscence of school life. Walls and ceilings practically innocent of any real cleansing.

It is well known that virulent sputa and infectious material exhaled from the lungs or discarded by the skin (even though in microscopic quantities), are not only actively infectious at the moment of divorce from the host, but, favored by lack of suitable cleansing and other hygienic agents, preserve their malignant power for weeks—the more resistant bacteria retaining their power for months. In the light of these well-known facts the pernicious possibilities of this method of dry-cleaning of schools are apparent. That no vast number of cases has been absolutely traced in their infection-career to an original contact with contaminated dust, does not militate against the gravity of this cleansing method, or, to be more accurate, *this lack of proper cleansing method.*

As an example of the efficiency of an inspection service, I quote the following:

> "Numerous instances have come under our observation when a child has been found in school suffering from an infectious disease, by the medical inspector of schools, and sent home; this case has been followed in due time by other cases in children whose only discoverable exposure was that which occurred in the schoolroom. Fresh evidence of such exposure and of its effect has been brought to my attention within a few weeks, occurring in the service of Dr. Arnold, one of our school inspectors. An epidemic of diphtheria occurred in a primary school in which there were 40 pupils, 14 of whom were attacked with diphtheria within a period of 18 days, all from one room. Of the 14 cases 7 were discovered by the school inspector and *3 of these only by cultures.* All suspicious cases were dismissed from school May 5, and recommended to the care of their family physicians. The next morning every pupil was examined and many cultures were taken. The class was then dismissed from Thursday to the following Monday, the room disinfected and cleaned up. For 10 days after their return the throat of every pupil was examined by the medical inspector when they first assembled in the morning, and no pupil who had been absent with any suspicious symptoms was allowed to return until it was proved by a negative culture that there could be no danger. As a result of these measures not a single case of diphtheria resulted beyond those known to have been infected at the time the epidemic was discovered. A similar experience with scarlet fever occurred in the service of the same school inspector within two weeks, in which 11 cases resulted from the presence in school of one pupil whose illness had been attributed to German measles."[12]

Statistics.—The following statistics have been compiled from the annual reports of the Health Commissioner of the city of St. Louis. Unfortunately an accurate scarlatinal record for the fiscal year 1888–89 could not be procured.

From these two tables the following (Table 3), which is self-explanatory, has been deduced. Attention is called to the fact that the average school-month produces more cases, and a greater actual mortality than the average vacation-month. It is of interest, however, to also note that the average lethal percentage is heavier during the vacation-month, in both scarlet fever and diphtheria. It would doubtless be immature to state that the monthly school excess over vacation is due entirely to the existing school session. Yet, that the congregation of large numbers of children in our schools during 10 months of the year is not only a factor, but probably a very important factor, in disseminating contagion, and

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Durgin: Transactions Massachusetts Medical Society, 1897.

It may be noted that our local schools are conducted as carefully as could be ected, when due allowance is made for the usual limitations; and that the icipals and teachers in control can hardly be presumed to be versed in up-to-e sanitary and hygienic measures. But in the occasional school or school-m where carelessness and ignorance obtain, lurks the menace to the child the general public; and in these instances inspection is especially demanded.

[12] Durgin: Transactions Massachusetts Medical Society, 1897.

TABLE I.—DIPHTHERIA.

Fiscal Years.	April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Jan.		Feb.		March.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
88-89......	137	44	89	34	93	34	64	15	88	28	131	48	215	61	136	47	170	60	117	38	138	44	117	36
89-90......	111	30	109	33	51	12	62	14	71	15	127	23	144	37	108	29	88	33	64	13	59	19	36	6
90-91......	40	6	44	19	47	16	44	15	47	15	68	17	71	21	59	15	88	23	55	20	68	25	65	22
91-92......	70	23	50	22	24	11	43	14	40	13	78	15	96	34	81	23	101	27	77	21	43	11	51	16
92-93......	50	16	37	16	15	7	23	5	59	15	68	26	84	18	97	28	67	28	63	34	77	19	81	31
93-94......	52	19	39	16	26	10	21	9	41	18	48	18	60	28	60	22	45	18	51	18	32	10	34	12
94-95......	48	17	27	11	26	10	29	11	42	15	48	12	75	23	193	61	146	38	145	37	101	26	107	25
95-96......	96	22	119	31	77	23	132	41	155	36	330	60	615	87	583	73	417	55	296	48	191	29	185	21
96-97......	144	21	67	11	75	14	62	15	72	8	148	28	159	25	190	29	186	30	147	17	71	10	98	1
97-98......	92	10	77	14	81	8	37	3	50	8	102	13	159	23	259	34	247	32	139	17	130	21	104	9
Totals.....	840	208	658	207	515	145	517	142	665	171	1148	260	1678	357	1766	361	1555	344	1154	263	910	214	878	179

TABLE II.—SCARLET FEVER.

Fiscal Years.	April.		May.		June.		July.		Aug.		Sept.		Oct.		Nov.		Dec.		Jan.		Feb.		March.	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
89-90......	69	8	97	9	102	11	81	3	144	10	172	4	258	21	253	15	237	18	171	10	141	3	157	8
90-91......	103	9	142	9	115	12	82	6	114	4	114	8	99	6	119	5	135	7	125	16	99	4	89	8
91-92......	69	8	73	6	59	3	44	2	66	6	71	5	74	7	83	15	139	16	94	12	113	23	63	6
92-93......	60	5	65	13	86	12	50	13	60	9	108	5	156	22	128	13	109	24	91	25	66	8	77	4
93-94......	84	8	75	9	41	5	19	3	45	2	61	2	65	2	64	6	75	7	87	8	57	2	58	1
94-95......	36	1	34	2	27	2	21	3	23	5	33	......	48	2	75	1	106	2	72	3	44	3	67	2
95-96......	56	2	51	4	17	1	10	......	12	......	27	1	34	2	40	1	53	2	35	3	18	1	28	1
96-97......	24	......	12	1	13	......	3	......	4	......	12	......	24	1	44	1	38	......	21	2	22	......	35	1
97-98......	21	9	27	1	49	3	30	......	23	1	35	1	92	......	180	7	156	4	88	5	66	5	60	......
Totals.....	522	50	576	54	509	49	340	30	491	37	633	26	850	63	986	64	1048	80	784	84	626	49	634	31

TABLE III.

	SCARLET FEVER—9 years.				DIPHTHERIA—10 years.			
	Vacation (2 months).		School (10 months).		Vacation (2 months).		School (10 months).	
	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.	Cases.	Deaths.
Totals	831	67	7,168	550	1,182	313	11,102	2,538
Monthly average (in total)	415.5	33.5	716.8	55.1	591.	156.5	1110.2	253.8
Excess of a school-month (in total) over a vacation-month (in total) *cases*	....	....	301.3	....	....	....	519.2	....
Excess of a school-month (in total) over a vacation-month (in total) *deaths*	....	....	....	21.5	....	....	....	97.3
Mortality percentage	....	8.06	....	7.67	....	26.48	....	22.86
Excess mortality percentage of vacation over school-month	....	.39	....	....	....	3.62	....	....

thus increasing disease-prevalence, can hardly be controverted.*

Conclusion.—Many of the unfortunate conditions herein noted merit attention. But it would be absurd to presume that they would, or in certain instances could, be rectified on demand, or even after a considerable lapse of years. "The enrolment of pupils for the past fiscal year was 81,917."[13] It is highly improbable that the municipality would furnish to our public school youth 81,917 individual wardrobes, drinking cups, water-closets and toilet requisites; that school interiors would be daily, or even weekly, scrubbed; or that the daily physical condition of every child be certified by a competent medical man. These improbable possibilities are necessarily not gèrmane to the scope of this discussion, they obscure rather than clarify the field of investigation.[14] But daily medical supervision will counteract many unfortunate conditions, will eradicate many more; intelligent and painstaking observance of basic sanitary laws is both possible and feasible; and the public should not condone neglect of these simple and wise policies. The right of the child to truly hygienic surroundings physical, in all that that implies to-day, as well as to truly hygienic surroundings mental, is paramount. Any selfish, partisan, or otherwise narrow-minded act that militates against full fruition in response to this demand—this right,—*is a crime.*

A CASE OF TRAUMATIC EPILEPSY IN WHICH AN OPERATION WAS PERFORMED, WITH RELIEF TO THE PRESENT TIME—22 MONTHS AFTER THE OPERATION.

By W. H. HUDSON, M.D.,

of LaFayette, Ala.

Gaines R., aged 15 years, was struck a severe blow on the head, March 26, 1893. Immediately on receiving the blow he fell to the ground, but got up and walked towards his home; after going about a mile "he fell down and shook all over." After recovering from the fit he found that he could walk only with difficulty; but with the aid of comrades he reached the home of a relative, where he spent the night.

Two days after the injury I saw the boy for the first time. He was suffering severely from headache; there was no paresis of the face, but the right arm and leg were markedly paretic. I examined his head carefully, but could find no evidence of fracture, although there was a little thickening of the scalp over the right occipital bone, of which he complained, and over the left parietal bone near the median line of the skull and just posterior to the upper end of the fissure of Rolando was another spot of thickening scalp, which gave pain on pressure. The grasp of the right hand was less than half that of the left. The pain-sense, while not destroyed, was greatly inhibited. The temperature-sense was somewhat interfered with. His arm could be moved, but none of the delicate movements of fingers, hand or forearm could be made. He could not tell the difference by touch between my silk handkerchief and the woollen blanket on his bed. A half-dollar put in the palm of his hand he called a dollar. He said a wooden dumbbell, weighing half a pound, weighed about 5 pounds. The right foot, toes, and leg were somewhat more paralyzed than the arm. The other senses were in nearly the same condition as in the arm.

The diagnosis of endocranial hemorrhage was made and an operation advised. There was no material change, except an intensification of all the symptoms, until the fourth day, when I removed a large firm blood-clot which lay between the bone and dura mater. There was a slightly depressed fracture of the bone as shown in Fig. 1, inner circle, and the clot extended about as outlined by larger circle. Under the cross in the center of the inner circle the clot was nearly or quite an inch thick. The patient made a rapid operative recovery, and a few weeks after the operation was entirely well. Some little awkwardness about the thumb and fingers of the right hand remained for some time, and the muscular sense was slow to return.[1] After the recovery from the operation the boy was entirely himself. He was amiable, intelligent, and industrious. His family-history was good. There was no history of epilepsy in any member of his family. About 10 months after the blood-clot was removed, he was out hunting, and during the excitement of trying to get a squirrel out of a tree, he had an epileptic fit. It is not known how it began, but it lasted some time and it was an hour or more before he could walk home. He was dazed for several hours after this fit, and his mother thought that he was never "just right" afterwards. Some days after this convulsion I was informed of it, and gave the boy some advice, and a solution of potassium bromid. The case was not under my care, however, and it was some months when Dr. B. F. Rea, Jr., informed me that the boy had had several violent epileptic fits, and that the bromid appeared to have no effect in preventing the attacks. The boy was sent to me again and I gave his father minute instructions as to watching him during the attacks. The boy informed me that he thought that some, if not all, the attacks began as a jerking in his right leg. I learned later that for some moments before the attacks came on that he felt an unusual sensation in his right leg, then for a moment or two

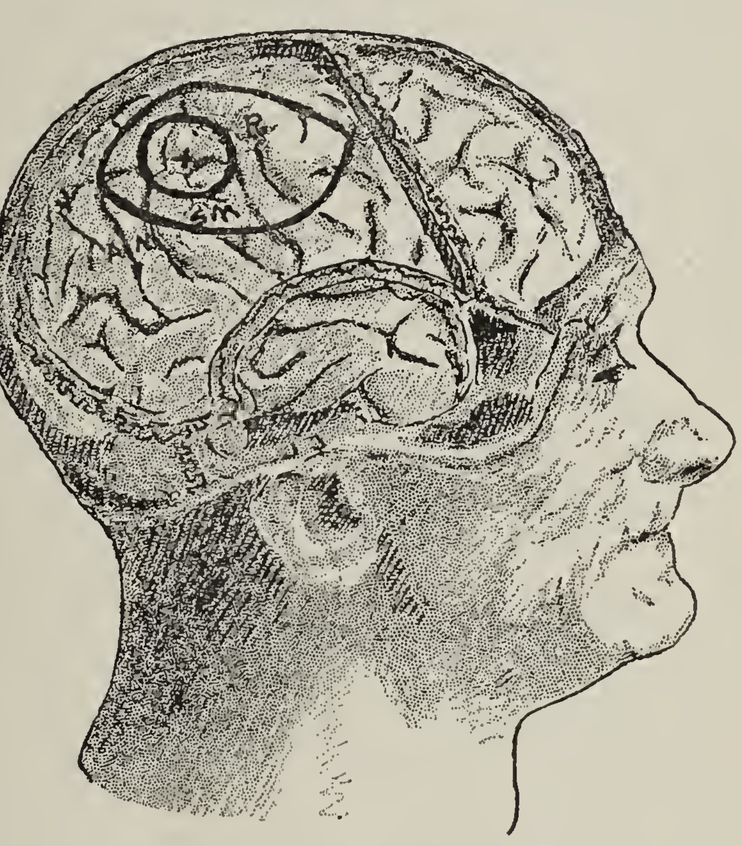

Fig. 1.

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* It is self-evident that these facts, noted in connection with the public school ystem, are equally applicable to the so-called "private" and parochial schools. rom the standpoint of the public, medical supervision of these schools is imortant, in distinct proportion to their numerical size.

[13] 44th Annual Report of the Board of Education of the City of St. Louis.

[14] It is almost gratuitous to mention that the purport of this thesis is not to isparage, nor to, in any way, detract from the manifold and patent excellences f the public school system. But the public school system, like other systems, ncludes within its plan and scope vicious factors. To these factors attention is rawn. Toward the nullification of these factors, or the mitigation of their vil effects, are these suggestions directed. As in the beginning of all reform movements, the initial steps must be made cautiously and slowly. The excelnt work of Francis Galton in his Anthropometric Laboratory in the Kensingon Museum conveys some of the possibilities of scientific medical school supervision of the future.

[1] The above is the synopsis of the case as reported in the *Annals of Surgery* for October, 1893.

there was a jerking which flexed and extended the leg on the thigh several times, then the jerking attacked the right arm and at this instant he fell unconscious in a general epileptic fit. This condition agreed entirely with the points in the brain which had been most likely involved in the injury which he received in 1893.

A marked condition was his mental change; he became morose, indolent, and even dangerous; so much so that his mother told me that she and the children were afraid of him. The fits gradually increased in frequency until on some days he would have as many as 4, usually, however, he had about 2 a week; all of them, so far as I know, beginning first in the right leg, then extending to the arm, and at this instant becoming general. I have no account of any attack which was confined to the leg or arm.

In the early part of 1897, his condition having grown so desperate, he was sent to me for an operation, if one offered any hope of relief. He was then quite a typical epileptic, but was very desirous for an operation. I had his head shaved before examining him. The original opening in the skull could plainly be felt, and the brain could be seen and felt pulsating beneath.

One thing attracted my attention especially, the extreme hypersensibility of the entire left side of the head, and to a certain extent about the back of the head. It was almost an impossibility, on account of this increased sensitiveness, to examine the region of the opening through the skull. I had seen the same condition, and to as marked a degree, in a man from whose skull I removed a pistol ball. This man had been shot through the right eye, the ball passing backward through the brain, lodging in the skull just above the lateral sinus on the right side of the head. A large part of the ball remained within the cavity of the skull against the brain and surrounded by the dura mater. After the ball was removed this extreme hypersensibility disappeared.

With the ordinary surgical precautions I made a large horseshoe-shaped incision through the scalp and exposed the skull so as to place the old opening in about the center of the field. The edges of the skull around the old opening were quite sharp and the opening was closed by a dense but thin membrane. After a little difficulty I was able to get a pair of rongeur forceps under a part of the edge of the opening in the skull and rapidly cut the thin skull away to the extent of 2 by 2¼ inches; the brain at this time did not pulsate but showed a considerable tendency to bulge into the opening. The dura mater was densely united to the brain beneath and required the knife to separate them. After discovering this fact it was my intention only to separate the dura from the brain and apply a piece of dentist's gold foil which I had sterilized and had ready for use; but on examining the brain the part which had been adherent to the dura appeared bluer than natural and the surface had a slight look of sclerosis. Moreover, it bulged into the opening to such an extent that I explored it in two directions, thinking I would find a cyst. No cyst was found and I decided to remove the cortex at the place which had been adherent to the dura mater. A portion of cortex nearly half an inch thick and larger than the first phalanx of the thumb was removed—one artery in the center of the brain from which the excision was made required a ligature. The surface veins were tied before excising the brain. The dura mater was replaced and stitched with fine silk; and the scalp closed with silkworm-gut, with a small strip of iodoform gauze in the lowest portion of the wound.

I find it best to use this little drainage; it does no harm if removed on the second day and certainly, in my cases, always serves to relieve the discharge of serum which usually occurs. I wish also to lay stress on the importance of aseptic wax for controlling the bleeding in bone, and the great advantage of doing many of these operations on the brain in two stages. After trying many methods of controlling hemorrhage from the scalp, I must say that I know of none which eliminates this very serious danger entirely.

After the operation the right leg and arm were both much paretic; the arm much more than I expected. Sensation to pain was much inhibited, and sensation to temperature was affected. The muscular sense was also much disturbed. The patient made a rapid recovery, there being no rise of temperature, or any unfavorable symptom of any kind. The leg and arm gradually regained their functions, it being only a few weeks before he walked well, while the arm, after a few weeks, revealed defects only in the delicate movements. The boy says that he can not even now button his clothes as well as formerly. After the operation some potassium bromid was given, and a few ounces of tincture of opium in 10-drop doses. The opium was preferred by the patient, who never took it in larger doses than 15 drops. For some months after the operation the boy complained of a feeling of discomfort in his right arm, and took the opium for this pain when it was severe. The opium was never taken to such an extent as to produce the habit.

Beyond the pain in the arm, which has not been present for nearly a year, there has been no symptom of importance. There has been no fit, nor any indication of even the local spasm of leg or arm; his mind has regained its normal condition; he works regularly as a plasterer or drayman; he is cheerful, bright, and happy; and his mother says he is entirely natural in every way. It will be borne in mind that the 3-year limit has not yet been reached by more than a year; and that, before this time, the fits may return. In the case here reported I will venture the statement that there will be no return of the fits, but if they should return it will not affect the merits of the case in so far as the essential fact which I wish to bring out is concerned. This evident fact is, that the cause of the epilepsy was removed by the operation, and if the fits return they will be the result of changes produced in the brain by the trauma of the operation.

I cannot be certain whether the adhesion between the brain and the dura, producing an abnormal excitability in the nerve-cells of the cortex or structural changes in the cortical nerve-cells, was the cause of the fits. A microscopic examination of the excised portion of brain did not reveal the changes one would expect to find as the cause of the fits, and I am of the opinion that the attacks were due to the adhesions which existed between the brain and dura and the changes in the nervous system produced thereby.

I will also call attention to the excessive hyperesthesia which has been mentioned as existing about the head after certain cases of cerebral injuries as perhaps indicating adhesions between brain and dura. This condition has existed in two of my own cases, in which adhesions were found, and when they were removed the sensibility was found to be normal as soon as an examination could be made after the operations.

It is not my purpose to enter into any study of the cases in which operations have been done for epilepsy;

erhaps the time for such a work has not come, but it important to record all cases on which operations ave been performed, whether they are successes or ailures.

CETOSOLUBLE ALBUMIN IN THE URINE. A BRIEF REVIEW OF THE LITERATURE ON THE SUBJECT AND A REPORT OF TWO CASES.[1]

By W. M. L. COPLIN, M.D.,

of Philadelphia.

Professor of Pathology in the Jefferson Medical College.

IN 1889, Pattein[2] called attention to the occasional resence in the urine of a form of albumin precipitated y boiling in the absence of acetic acid, but undergo-ng re-solution upon the addition of acetic acid ; or if endered ever so faintly acid by acetic acid, the albumin ould not be thrown down upon boiling.

He attempted to artificially produce this form of lbumin from the albumin of blood-serum, and also rom egg-albumin. Later[3] Pattein reported the results f his experiments and believed that it was possible by light changes in the reaction of the medium, by the ction of certain sodium salts, by processes of filtration, nd by evaporation, to convert serum-albumin, in part t least, into acetosoluble albumin.

For this reason he believes that the acetosoluble lbumin is but a modified form of serum-albumin, and at the modification takes place in the conducting ortion of the urinary apparatus. He is of the opinion at the albumin enters the urine at the level of the lomerulus as serum-albumin and is altered in its escent through the tubes of the kidney under the in-uence of some secretion of the epithelial cells or by me special change in the reaction of the medium in hich the albumin is being carried.

Combemale and Desoil[4] briefly review the work of attein and give the reported cases, adding thereto a se of their own. Of the cases collected by these uthors the first[5] in their collection is that of an lamptic, aged 21 years. The urine contained from 3 to 40 grams of albumin per liter, determined by the ichloracetic acid method; the urine remained clear if ndered acid by acetic acid and boiled; or if boiled, e precipitate formed would be redissolved by acetic id. In the course of time the albumin diminished to gram per liter and later took on the reaction of rdinary serum-albumin.

The second case closely resembled the first, the atient being an eclamptic, the urine containing not nly the acetosoluble albumin, but a small quantity of albumin which reacted in the usual way. As the authors remark, this evidenced a mixture of serum-albumin and acetosoluble albumin.

The third case was in a parturient who did not have eclampsia, but who eliminated a large quantity of albumin; a few days before confinement and also on the day of confinement, the serum-albumin was replaced by acetosoluble albumin.

A case is reported[6] in which a man, aged 38 years, excreting 500 grams of urine containing 15 grams of albumin in the 24 hours, was placed on a rigid milk-diet; when the quantity of albumin quickly was reduced to 2 grams in the 24 hours, and changed from the usual form of serum-albumin to the acetosoluble albumin. Later the albumin changed back to serum-albumin, sometimes giving one reaction, and sometimes the other.

To these previously reported cases, Combemale and Desoil add an unpublished case, giving in detail the results of the urinary examination. The patient was a male, 39 years of age, an alcoholic with symptoms of interstitial nephritis, hypertrophy of the heart, very slight edema, shortness of breath, etc. The quantity of urine varied from 1200 cc. to 2 or 3 liters, specific gravity between 1004 and 1010, with a small quantity of chlorids and urea, and an abundance of phosphates, the latter probably due to the exclusive milk-diet. The clinical symptoms were undeniably those of renal lesion; the sediment contained hyalin and fatty casts. On boiling there was an abundant grumous precipitate, which dissolved in acetic acid or nitric acid. The solubility in acetic acid was complete, whether acid be added before the formation of the precipitate or afterward. The presence of albumin could be abundantly demonstrated by the reagent of Tanret or by Esbach's test, by potassium ferrocyanid and the acetic acid test, or, if precipitated by trichloracetic acid and heat, the quantity of albumin could be estimated to be 2.5 to 3 grams per liter.

To the foregoing collection of cases I wish to add the following:

CASE I.[7]—Mrs. A. B., 7 months advanced in her second pregnancy, gradually developed symptoms of an atypic typhoid which later became typic. Early in the second week of her illness the urine was brought to the laboratories of the Jefferson Medical College Hospital for examination. It had been carefully examined and albumin had been demonstrated a few days previously, but not in the specimen submitted. The specific gravity was 1022; color high; there was slight sediment, and the acetic acid, and nitric overlying tests and nitric-magnesian tests were negative. With regard to the nitric-magnesian test there was some doubt, but certainly there was not sufficient reaction to enable one to say positively that the case was one of albuminurai. The ferrocyanid and the acetic-acid tests were fully satisfactory, and the reaction clearly that of albumin. Microscopic examination showed the presence of few granular bodies which were regarded as casts. The trichloracetic-acid test was not made, nor was the reagent of Tanret tried. The biuret test was not conclusive; this was attributed to the fact that the solutions were in an unsatisfactory condition, and expecting to make later detailed repetition of the test with fresh solutions, the examination at this time was not made as it should have been. For some reason or other samples were not delivered to the laboratory for some days, and when the second sample was examined we failed to find either albumin or casts. Repeated estimation of the quantity of urea showed a slight reduction, never, however, sufficient to deserve special consideration.[8]

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[1] From the laboratories of the Jefferson Medical College Hospital. Read before e Philadelphia Pathological Society, April 13, 1899.

[2] *Comptes rendus Acad. des Sciences.* 1889.

[3] *Bulletins de la Société de Biologie.* March, 1891.

[4] *Archives Provinciales de Médecine,* Tome 1, No. 2. February, 1899.

[5] Soc. de Biologie. December 10, 1897.

[6] Société de Biologie, December 18, 1897.

[7] I am indebted to Prof. Hare and Dr. Holder for the privilege of reporting this case.

This patient is still under observation and the urine is being watched for the reappearance of the usual serum albumin or acetosoluble albumin, neither of which have been found at any recent examination.

Case II.[9]—Stout, plethoric child, aged 10 years, suffering with mild attack of tonsillitis. Temperature had been stationary for about 3 days at 103°. There was follicular distention with some ulceration of tonsils followed by necrosis and exfoliation of considerable portion of the mucosa. Thinking that the case might be diphtheria, antitoxin was administered on the second day. A most careful bacteriologic examination was made, revealing the presence of staphylococci, aureus and albus, and the pneumococcus, but no diphtheria bacilli. The urinary examinations were conducted in the laboratory of the Jefferson Medical College Hospital. Before the administration of the antitoxin a trace of albumin was demonstrable by the acetic acid and boiling test, and also by the nitric overlying test. On the day following the administration of the antitoxin the temperature fell, the throat-condition greatly improved, and from this time convalescence was uninterrupted. An examination of urine on the day following the administration of the antitoxin, showed the absence of albumin by tests which had been utilized to demonstrate it previously, and acetosoluble albumin had replaced the serum-albumin. This was slight in quantity, consisting of but little more than a positive trace. It continued present for 72 hours in diminishing quantities, and finally disappeared. Now after a relapse of nearly two weeks it is no longer demonstrable.

From the foregoing cases and from a superficial study of the literature it is apparent that the boiling and acetic-acid and nitric-acid tests are not to be depended upon in all cases. In this form of albuminuria, and it may be in any form of albuminuria, we have occasionally, or, it may be constantly present, in the urine a form of albumin soluble in acetic acid. This form of albumin is precipitated by Tanret's reagent, by Esbach's reagent, trichloracetic acid, and by potassium ferrocyanid. Our growing knowledge of the albumins present in the urine tends more and more to show the unreliability of any single test as a constant index to the presence or absence of albumin.

The presence of acetosoluble albumin in health has not been demonstrated. The fact that a large percentage of patients in whose urine it has been demonstrated are pregnant women may show there is an intimate connection between pregnancy and the presence in urine of this particular form of albumin. Again, failure to detect albumin in certain cases of eclampsia may be due to this routine use of reagents which fail to react in the presence of this morbid product.

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[8] I am indebted to Dr. Holder for the urea-estimate.

[9] I am indebted to Prof. Graham for notes of this case.

SYPHILITIC GASTRALGIA.[1]

By ALLEN A. JONES, M.D.,
of Buffalo, N. Y.
Adjunct Professor of the Principles and Practice of Medicine, University of Buffalo.

Among the causes of gastralgia, syphilis should be given a more prominent place. A few years ago, in a paper upon painful gastric neuroses,[2] I called attention to syphilis as an important cause of gastralgia, and since that time further observations have strengthened my views in that regard.

Organic gastric disease of syphilitic origin has been a subject of study for many years; but, from a clinical standpoint, nervous gastralgia, resulting from syphilis, has not been accorded the position that it seems to me it should occupy. Syphilitic ulcers, neoplasms, and gastritis are considered the most common manifestations of the disease in the stomach, but there are cases presenting symptoms referable to the stomach that are not due to any evident lesion of the organ, but are rather those of a nervous disturbance, and they more or less promptly disappear upon the establishment of antisyphilitic treatment.

It is, of course, quite evident that gastralgia and other symptoms not infrequently accompany organic syphilitic lesions of the stomach. This is illustrated by J. Kiser's[3] case of a young woman who had gastric ulcer with symptoms which did not yield to ordinary treatment, but were promptly controlled by the administration of mercury. In this case the gastric symptoms were an accompaniment of the earlier stages of syphilis, as mucous patches appeared upon the tonsils and attracted attention 10 weeks after the treatment, other than antisyphilitic, had been begun. In this connection Hemmeter's 2 cases of children with hereditary syphilis are of particular interest.[4] These children were both daughters of a man who had contracted syphilis in the German army in 1870. One child, 11 years of age, had gastralgia and incessant vomiting, which symptoms disappeared completely in 2 weeks under mercurial inunctions. The other child had also gastralgia and vomiting, and was entirely relieved by large doses of potassium iodid. Hemmeter considers these cases of syphilitic gastritis and not instances of functional disturbance. Stockton has invited attention to syphilis as a cause of functional gastric disorder, in his admirable contribution upon "The Nature and Management of Functional Gastric Disorders," in 1894.[5] In this paper the author referred to the very late phases of syphilis in cases that presented, as a rule, none of the ordinary tertiary lesions. In 11 cases mentioned, prompt and lasting improvement followed the adminis-

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[1] Read before the Fourth District Branch of the New York State Medical Association, May 10, 1898. [2] Painful Gastric Neuroses. *Medical News*, September 29 and October 6, 1894. [3] *British Medical Jour.*, No. 16, 1891. [4] Diseases of the Stomach. John C. Hemmeter, M.B., M.D., etc., 1897. [5] *The Medical News*, December 15, 1894.

ation of potassium iodid after ordinary methods of
eatment had been employed and had failed to cure.
n Valzah and Nisbet[6] also mention syphilis as one
use of toxemia giving rise to idiopathic gastralgia.

It will be seen that some difficulty may be experi-
ced in differentiating between cases with and those
thout any organic lesion to account for gastralgia,
d not only is it necessary to consider such cases, but
o those in which there exists some complicating
urosis, as, for instance, hyperchlorhydria, a secretory
sturbance that is only partially and temporarily re-
ved by the exhibition of alkalies and gastric sedatives,
t which succumbs to the use of potassium iodid and
ercury. The derangement of secretion seemingly
pends upon the blood condition obtaining in and
lowing syphilis. Likewise, pyloric spasm and Reich-
nn's disease, so frequently accompanied by pain in
e stomach, are sometimes met with in specific cases.

Beside the cases of gastralgia I observed in the series
erred to by Dr. Stockton, others have come to my
tice in my own practice, two of which seem worthy
special mention.

he first of these was in a man, aged 34, who was married
d whose wife had borne 3 children. The first was stillborn,
e second bled to death, from what cause and in what manner
o not know, and the last child was living, and was said to
healthy. The patient had had a chancre 14 years before,
d the primary sore was followed by a rash; he took medi-
e at that time. His family-history was negative, and his
sonal history included an attack of influenza in 1890. He
sented himself in the autumn of 1894, giving an account
attacks of severe pain in the epigastrium, resembling in
ry way essential gastralgia. The painful attacks were
ompanied and succeeded by marked eructation and fre-
ently by vomiting. The bowels were constipated and the
ne was abundant, of low specific gravity, and at times con-
ned a small amount of albumin, secondary, it is believed,
the toxemia and digestive disturbance. The gastric con-
its had a high acidity, but not abnormally so. Free HCl
s present in the proportion of 0.21%, and occasionally was
nd in the empty stomach. The high HCl acidity indi-
ed treatment for hyperchlorhydria, and that was carried
t carefully for 2 weeks with only slight improvement. Ap-
dicitis, gallstones, and other possible causes of severe epi-
stric pain were carefully considered and excluded. The
s were refracted and other possible reflexes investigated,
t all to no avail. Finally potassium iodid was given in in-
asing doses; the symptoms at once subsided, and the patient
ned several pounds during the following 10 days. All other
dication was discontinued, except aloin for constipation,
l the man made uninterrupted improvement.

It has been found that potassium iodid depresses
l secretion and in a normal stomach acts as a detri-
nt to digestion. It may be that the drug gave relief
promptly in this case partly by its influence upon
stric secretion.

he second case observed was in a man, aged 44, who
ne under my observation for the first time 1 year ago.
gave a history of having had attacks of gastralgia for a
mber of years, and said they had increased in severity
l frequency. No jaundice had ever followed a painful
oxysm; no evidence of appendicular colic nor of renal colic
uld be found. Gastric carcinoma was excluded, the
mach-contents being normal at each examination. The
ition and size of the stomach were correct. Appetite was
r, the tongue was clean, the bowels somewhat sluggish. Pain occurred commonly in the night, lasted about a half-hour, radiated to the left and upward, was relieved in some degree by lying on the left side, was often lessened by eating or by hot drinks. It was difficult to elicit a clear history of syphilis, but iodid of mercury, arsenic, and gold were given and continued for 1 month, at the end of which time there was complete relief from gastralgia. In July two ulcers developed, 1 on the right jaw and the other on the right forearm. Potassium iodid was not given at that time. The ulcers spread steadily until they involved a large surface, and they were pronounced undoubtedly syphilitic by Dr. Grover Wende. Potassium iodid and mercury were prescribed later and improvement followed. There has been no return of the gastralgia. This patient also had pain in the right tibia, which was considerably thickened.

In reference to the use of potassium iodid in cases of hyperchlorhydria accompanied by gastralgia, I have repeatedly found that the drug does not often control the symptoms in other than postsyphilitic cases, in lieu of which it would seem that the pronounced effect of iodids observed in these cases depends upon an antisyphilitic influence exerted through the blood rather than upon any local effect.

In all cases that have been classed as syphilitic gastralgia, tabes dorsalis has been carefully considered and excluded if possible, but sometimes gastric crises occur as the earliest symptom in syphilitic cases of tabes, and in such the gastralgia bears so close a relation to specific disease that it is classified as above, even though it accompanies an organic cord-disease that is also specific in its origin.

DENTAL DISEASES AND TRIGEMINAL NEURALGIA.

By HENRY H. BURCHARD, M.D., D.D.S.,
of Philadelphia.
Professor of Dental Pathology and Therapeutics in the Philadelphia Dental College.

PAIN arising from dental disease is of two types, local and reflex. Definitely localized pains are as a rule characteristic of diseases of the pericementum (the periosteum of the tooth)—all of the symptoms of infective periostitis being present. Chronic nutritional changes in the periosteum of tooth may, however, give rise to reflex disturbances.

On the other hand, the characteristic of pain, due to disease of the dental pulp, is that it is rarely localized in the tooth affected. Normally the pulp lacks tactile sensitiveness, *i. e.*, the sense of location, and as in other organs having an analogous nerve-supply, disturbance of its nervous elements is expressed by indefinitely located pain. There is a tolerable degree of constancy as to the extent of the reflex, or its distance, with the nature of the pathologic changes present in the pulp. Acute infectious diseases of the organ are usually accompanied by pain immediately about the tooth affected. The reflexes differ, even among these diseases; for example, active hyperemia of the pulp is accompanied by pain in the region, or closely adjacent, of the affected tooth. As a rule the reflex-pains in this disease

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he Diseases of the Stomach, 1898.

do not extend beyond the area of distribution of the corresponding nerve-trunk. If the pulp affected be that in one of the lower posterior teeth the pain is usually confined to the inferior maxillary nerve, very frequently its auriculo-temporal branch. If it is the pulp of an upper tooth the pain is confined to some portion of the distribution of the superior maxillary nerve, and not infrequently to its ophthalmic branch.

In venous hyperemia, and acute inflammation of the pulp, the reflexes are wider than in the former case. A degree of reflex which would be unusual in the former disease is common with these latter vascular and nutritional disorders.

These three conditions are sharply differentiated in clinical dentistry, because each, aside from presenting a distinctive symptomatology and pathology, has individual prognosis and indicated therapeutics. The vast majority of the more common reflexes of dental origin recorded in medical and dental literature are associated with inflammation of the pulp, or pulpitis. It is in this variety of disturbance that patients positively locate pains in teeth which are not the seat of the disturbance. Neuralgia, with sore spots at the supraorbital, infraorbital, and mental foramens, pains in the ear, eye, and over the occiput, are very common.

Reports of clinical cases, by the general practitioner, ophthalmologist and aurist, recording pains in the eye, ear, and other localities due to diseased teeth, show that these are in many cases traceable to pulpitis, although the reports state, indefinitely, diseased teeth as the cause of trouble, failing not only to differentiate the variety of pulp-disease, but to state whether the affection was of the pulp or pericementum. Were this omission only by the average practitioner, it would call for no comment, but such acute observers as Lauder Brunton, Galezowski, and others fail to record not only the nature of the dental disease, but which sensory structure of the tooth was the seat of affection.

A record of such cases and comments upon them would make a long essay in itself. The seat of the pain in all of these acute pulp-diseases is easily determined by taking a mouthful of cool or hot water, the specific stimulus of the pulp, when a paroxysm of pain referred to the region of the affected tooth will be felt.

The present essay was called forth by Dr. W. G. Spiller's pathologic report of Dr. W. W. Keen's cases of resection of the Gasserian ganglion.[1] The general result of this report was to demonstrate angio-sclerosis of the vessels, and a degeneration of the nervous elements of the affected ganglion.

Many, or most cases of resection of the branches of the fifth nerve have a history of trigeminal neuralgia, at first located in one branch of the nerve. A resection of the nerve-trunk is made, and there is a period of relief of indefinite duration. Reappearance of the neuralgia demands a second and more extensiv
resection.

Many of these cases present the following history
First appears a maxillary neuralgia for the relie
of which the extraction of one or more teeth i
advised. The teeth may or may not exhibit distinc
evidence of sufficient cause for neuralgia, but presumably a competent dentist has been consulted befor
determining upon extraction. Extraction may furnis
temporary relief, only to have an extension of th
neuralgia follow.

In some cases, the dental practitioner, failing t
obtain an abnormal response from the pulp of a suspected tooth through applications of cold or heat, ma
suspect pulp-degeneration and obtain its characteristi
symptom by making a prolonged application of heat
when the pulp responds tardily, and frequently by
reflex pain. The destruction and removal of the pul
follow. The sclerotic change and its surrounding
exhibit evidences of long-continued nutritional disturbance. Numerous teeth, particularly those of persons having the gouty diathesis, exhibit this pulp
sclerosis.

The important clinical feature of these cases is thei
association with widespread and intractable reflex
pains, and the difficulty in diagnosing the pulp-affection, since not infrequently the tooth may exhibit n
external evidences of disease. In many cases a refle
neuralgia of long standing has been entirely cured b
the removal of the affected pulp.

There is a different history in that class of person
called neuralgics. In some of these cases a periodically reappearing neuralgia is relieved for a period b
the removal of a sclerotic pulp; reappearance of th
pain may suggest extraction of the tooth and this wil
be followed by a period of relief, after which the neuralgia reappears. The duration of relief appears t
depend upon the promptness with which the pulp i
removed in the early history of the neuralgia.

I draw the inference that in these cases an ascendin
degeneration of the nerves is established, the beginnin
of which may be a pulp-irritation and its terminatio
may be degenerations of the Gasserian ganglion. Thi
coincides with the history of such cases—that thei
persistence and reappearance are largely determine
by the promptness with which pulp-degenerations i
neuralgic patients are diagnosed and treated.

Austrian Balneologic Congress.—The first Austria
Balneologic Congress was held in Vienna, March 28 to 31
under the presidency of Professor Winternitz. The sitting
were rather poorly attended, there being but 80 member
participating. There were numerous addresses, among whic
may be mentioned that of Dr. Clar on the influence of climatotherapy on the circulation and the blood, and that of Dr
Strasser on the influence of hydrotherapy on the circulatio
and the blood.

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[1] *American Journal Medical Sciences*, November, 1898.

The Philadelphia Medical Journal

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Columbus, Ohio, Claims the Honor of the Lowest Death-rate.—According to the *Columbus Journal*, Dr. Schueller, the Health-Officer of Columbus, Ohio, estimated the population of the city to be 140,000, and, based on this, the death-rate for 1898 was 9.8, the total number of deaths having been 1,390. The *Journal* criticises the claim of Toledo to have 150,000 population, and unintentionally shows that the committee who should have charge of the award of prizes for the lowest death-rate, concerning which we had half jestingly written, might find itself submerged in a deluge of statistical difficulties. It is, of course, not an easy matter to judge how far the statistics of any vital phenomena may be inaccurate, and perhaps the estimate of the death-rate of a city may never attain absolute accuracy. But within certain limits it must be of great value and interest, and the rate of the Columbus Health-Department is certainly most remarkable and praiseworthy. Is it possible that there is another city in the world as large as Columbus with a death-rate below the figure given?

Parades and the Practice of Medicine.—We claim to be just as patriotic as our neighbors, and perhaps even a little more so. Like every true Philadelphian we like a military parade, and even hope that the day may yet come when we shall see the naval officers on horseback instead of riding in carriages. We realize that it is in the nature of parades to obstruct traffic, and we can bear our share of the inconvenience with equanimity. But it is part of our function to speak in the interests of the sick—the poor unfortunates who must stay in bed while the soldiers and bands march on. These invalids require attendance; doctors must be on the go; consultations must be met; hospitals must be visited; operations must be performed; and women must be confined. When a parade is more than a half-hour in passing a given point, and a hurried physician is on the wrong side of it, and cannot break through it in either a carriage or a car, and is losing time and patience (perhaps even patients), the point of professional endurance is passed! Such a state of things existed at Broad and Walnut streets for certainly 45 minutes (perhaps longer) during the recent parade on the day the Grant statue was unveiled. It could have been avoided by the police opening a way through at stated intervals.

A surgical mistake, if we may believe the report published in a newspaper, and one of exceptional grievousness, has occurred in Montreal. It is said that an ophthalmic surgeon enucleated the one remaining functional eye of a patient instead of the injured eye he intended to remove. We trust the report is not true, although we believe that similar things are told about clinics. There is even a story, probably apocryphal, of the amputation of a sound leg, followed by the perfect recovery of the leg supposed to have been hopelessly diseased, and which it was the intention of the surgeon to cut off. To avoid the error of the enucleation of the sound eye, we know one ophthalmologist who makes it an invariable rule prior to operation to make a black ink cross upon the forehead above the eye to be operated upon. However rarely such an accident does happen, it is one that may occur at any time, a moment's inattention thus endowing two lives with the tragedy of lifelong suffering.

Notification and Registration of Tuberculosis.—Now that tuberculosis is known to be a communicable disease, and therefore a preventable one, the importance of recognizing cases and of assuring the purity of their surroundings must be obvious. This last end cannot be effected, however, without a knowledge of the existence of such cases on the part of some centralized authority with intelligence and with power to act. It is for this reason that notification of cases of tuberculosis to health-boards or other like or specially designated bodies is of the utmost importance, and particularly when the disease occurs among those who, by reason of carelessness, ignorance and want, are most exposed and must subject others to the dangers of infection. Recent action upon these lines by the government of South Australia, as cited by the *British Medical Journal*, is therefore worthy of the highest commendation, and deserving of intelligent imitation. According to the Health Act of 1898, assented to January 4, 1899, by the Governor, with the advice and consent of the Parliament of South Australia, "Every medical practitioner attending on, or consulted by, any person suffering from pulmonary tuberculosis shall, so soon as the fact becomes known to him, report the same to the local board of the district in which the person resides." If the case has been previously reported, a second notification is not necessary. The practitioner is entitled to a fee of 2s. 6d. for his certificate. Disinfection is provided for at the discretion of the medical attendant or the health-officer. Provision is made for inspection of cattle and meat, and destruction of tuberculous cattle, with compensation only when the diagnosis has been at fault. Milk from tuberculous cows can be sold only after having been boiled for 10 minutes, and the local board notified. The adoption of measures like the foregoing inspires the hope that the reduction in the prevalence of and the mortality from tuberculosis that has already been set in motion will go on with increased and increasing momentum.

Poor Politics and Worse Medicine.—We fear the Mayor of Philadelphia is in sad need of a wise medical mentor. When he publicly announced that the statistics of typhoid fever in Philadelphia were inaccurate, because many cases so classed were doubtless cases of enteric fever instead of typhoid fever, all medical men and all well-informed laymen smiled grimly; but they probably said to themselves that such errors could be passed over in a forgiving silence if the future should show betterment. But, alas, the improvement seems to become very retrograde. Silence will certainly no longer do in the face of the order recently issued by his Honor, and we feel impelled to condemn most vigorously the proposition to make citizenship in Philadelphia the condition of eligibility for appointments as resident physicians to the Philadelphia Hospital. The order is poor politics, bad civic patriotism, worse charity, and the very worst medicine. The reputation of Philadelphia as a medical center will inevitably suffer if the order is not rescinded. The professors and trustees of every medical college should and doubtless will at once inform the Mayor of their opinions upon this subject. If put in force, the order will be of some service to the other medical institutions of Philadelphia, which are more liberally and wisely managed, and especially to those of rival cities, but it can only work harm to the patients at Blockley and to Philadelphia medicine.

Biliary Calculi in Children.—It is probably not generally recognized that biliary calculi may form early in life and that they have actually been found in infants and even in newborn. They are most common in the second half of life, and rare before the twenty-fifth year.

The formation of biliary, like that of other, concretions must be attributed in a general way to the precipitation of certain substances ordinarily held in solution, and it has of late come to be thought that in the process bacteria play a most important part. It does not seem likely, however, that this etiology is operative in the case of the newborn, as it would naturally be supposed that under ordinary conditions the fetus in utero is sterile.

An interesting contribution to this subject has recently been made by Still (*Lancet*, April 8, 1899, p. 963), who at a meeting of the Pathological Society of London related 3 cases of biliary calculi in children aged 9 months, 8 months, and 5 months respectively. There had been, during life, no symptoms specially pointing to this condition, although in one case the child screamed and frequently drew up its legs as if with abdominal pain. There was no jaundice. The calculi were small, the largest measuring 3.5 mm. by 2 mm. They were dingy-black in color and seemed in the two instances examined to consist of bile-pigment, with no trace of cholesterin. In another case, in a child 4 years old, there had been attacks of biliary colic with jaundice, but no gallstones were found.

Records of 20 other cases had been discovered in which gallstones were found in children under the age of 14 years. Of the whole number 10 were in infants either stillborn or dying shortly after birth, and 14 occurred within the first 10 months of life. Among the cases in the newborn jaundice was almost always present.

The apparent special liability to gallstones in intra-uterine life and early infancy, as indicated by these observations, is attributed to a tendency to stagnation of bile in the gallbladder at this period, as evidenced by the viscid biliary secretion often found in infants, and favored by the muscular weakness and inactivity of the diaphragm.

Phthisis and Sex.—The sixtieth annual report of the Registrar-General of Great Britain, dealing with the births, deaths and marriages that took place in the kingdom during 1897, has just been published, the enormous mass of figures to be dealt with being responsible for the delay. As usual, the report contains some exceedingly interesting and suggestive statistical material for which the public has to thank a medical man, Dr. John Tatham, who occupies the responsible position of Superintendent of Statistics to the General Register Office. The figures in relation to pulmonary tuberculosis are sure to be scanned with particular interest, having regard to the prominence that has lately been given to methods for the arrest of the disease by preventive measures. In the course of the year 1897 the deaths in the United Kingdom from pulmonary tuberculosis numbered 41,642, and were equal to a rate of 1341 per million persons living of both sexes—the population of Great Britain and Ireland in 1897 amounting to a little over 31,000,000. *This is the lowest rate on record*, with the exception of the rate for 1896, which did not exceed 1307 per million. The incidence of the affection in the two sexes is a little remarkable. Comparing the figures of the seven years which have elapsed since the last census, *i. e.*, 1891–1897, with those of the ten years 1861–1870, we find the general decrease in mortality large, but also that the decrease has been much larger mong females than males, and among the young than mong those more advanced in age. Among males the eduction at the several age-groups from infancy to the wenty-fifth year has ranged between 49 and 60%, ut among females from infancy to the thirty-fifth it as ranged from 49 to 58%. In 1861–1870 the mortalty was higher among females than among males at all ge-groups between 5 years and 35 years; the mortality f males being greater at ages under 5 and over 35. In 891–1897 the period of life during which females were nore liable than males to die of the disease extended nly from 5 to 20 years of age; the mortality of males eing greater at ages under 5 and over 20. In nine ounties in England, however, viz., in Hampshire, in eicestershire, Middlesex, Rutlandshire, Surrey, Sussex, Varwickshire, Worcestershire, and the county of Lonon, the mortality of females at one age-period, viz., 15 25, has been so much below the average during the even years 1891–1897, as to be actually less than the nortality between the same ages and throughout the me range of time among males. The reason for this eversal of the usual state of affairs is not hazarded by e Registrar-General nor is it very easy to guess.

A Million-dollar Lying-in Hospital.—During the st half dozen years over $200,000,000 have been onated for charitable and educational purposes by merican citizens. As accurately as may be ascerined the figures are as follows:

In 1893	$29,000,000
In 1894	32,000,000
In 1895	32,800,000
In 1896	27,000,000
In 1897	45,000,000
In 1898	38,000,000
Total	$203,800,000

He would be a rash statistician who would state what rt of this tremendous amount of money will eventlly be of any considerable service to civilization. It good to know that magnanimity and generosity are prevalent, but we hardly doubt that the fact is of ore value to humanity than the results. If we could ve national charities associations to teach philthropists how not to waste their money! If they uld be taught how to do the most good with ! A fresh example of what may prove to be isdirected benevolence has lately occurred. About o years ago it was announced that Mr. J. Piernt Morgan had agreed to give $1,000,000 for the rpose of erecting a new lying-in hospital in New rk City, but he made it a condition that the money ould not be turned over until he was satisfied that the rporation could provide the necessary funds to meet e running expenses. A few days ago he came to the nclusion that this condition could be fulfilled, and fore his departure for Europe so notified the trustees. ne cannot but admire the generosity of the giver, but ere are very many members of the medical profession in New York City who feel that this is but another of a number of examples of prodigality in donations to hospitals which is entirely uncalled for; it is, in other words, misdirected philanthropy. An excellent illustration of this was afforded in the case of what was, until very recently, known as the Cancer Hospital. The founders of this institution contributed lavishly to its support, from the best of motives and in the sincere belief that there was dire need for such a special hospital. They erred, but it was because they were misinformed, and now they are content to have the name changed so as to be more in accord with the work actually done there. In the case of the purposed million-dollar hospital we fear history has repeated itself. The present hospital, which is soon to be superseded by this more pretentious one, although apparently of modest scope, has, so we are informed, wrought much injustice to the physicians of the east side. This reminds us that one of the physicians who is most actively engaged in the work of this institution, and who seems to hold its destiny in his hands, is said to have made it his boast that in a few years he would have the city of New York divided into a number of hospital districts, and that he would, by this scheme, control a large part of the obstetric practice of the metropolis. Is this dream to become a reality, or will public opinion, molded by the practical knowledge and influence of the rank and file of the medical profession, dissipate it into thin air?

Animal vivisection, under proper conditions and limitations, all rational and humanitarian minds hold justifiable, on the broad general ground that humanity does and must control and utilize the animal world for the good of civilization. When the entire human race declines to use animals as food and means of labor then it will be time to consider the question of the absolute prohibition of vivisection. We have nothing but pity strongly dashed with contempt for the sentimentalists, who spend their lives in deftly spying out the abuses of vivisection and more cunningly ignoring its uses. First acknowledge and help the uses and then we will heartily join in remedying the abuses. That these abuses have existed, and that occasional instances occur at the present time, especially in Europe, no normal-hearted scientist would deny. Indeed, these abuses are most harmful to medicine, and every true physician feels that they are even greater professional injuries than they are general sociologic wrongs. It is, moreover, a clear law of nature, and one which we are all fast learning, that the work and the life of the vivisector who is cruel or even indifferent to the suffering of the animals he uses, come inevitably to resultlessness. The best scientist now sees this; he will be no discoverer of valuable truth who is careless of his methods; and one condition that may never be safely ignored is the condition of the most solicitous care as to suffering and morbid sensation. We disbelieve utterly in the use of vivisection, painful or painless, for didactic purposes; we disbelieve in painful vivisection for the acquirement of skill or operative technic—very little of which is done; we believe that pain must and can be avoided in the vast majority of vivisection-experiments, and in the very few in which it is unavoidable it must be made as short and as little as possible, and must be for objects of the clearest promise of good. Of the many classes of beneficence marshalled so admirably in Dr. Keen's splendid address published by us last week, there is hardly one that, directly or indirectly, has not been due to vivisection. This being true, the bigoted and illogical crusade of the antis and the panantis against science and the medical profession must be detested by every lover of animals and of his fellow men. When "prohibitionists" bring to bear on this question intellect and logic backed up by *common sense*, then—and only then—will every physician join them in their laudable efforts to prevent the abuses, and to lessen the sad affliction of pain, disease, and high death-rates so apparent now in all life.

"Human vivisection" differs from animal vivisection in the one fundamental distinction that whereas the latter (under wise and humane limitations) is permissible for the welfare of the human race and the progress of science, the former is permissible only for the good of the individual himself. The advancement of science cannot outweigh the concern for individual welfare, and the sacrifice of one individual to others must never be sanctioned, except in rare instances, as, for example, sometimes in obstetric cases. This seems to us the broad distinction which must obtain between the use of animals and of man in so-called "vivisection" experiments. It is true that this word "vivisection" is wretchedly misapplied, and is given absurd definitions by prejudice and bigotry. But since it will be used, we must apply it to those new operations, tests, and procedures upon the living organism which are as yet of more or less unproved efficacy in the cure of disease or in the elucidation of physiologic and therapeutic truth. So conceived, there can be no escape from the necessity and the advisability of "human vivisection," although the connotation of the words is bad and the distortion of meaning by the antis inevitable. Every new operation, or variant of an old operation, and every advance in clinical therapeutics, thus becomes a "vivisection-experiment," but it is one based strictly upon the principle of the good of the individual patient, and furthermore upon an intelligent study of the conditions, upon the history of previous similar scientific procedures, and upon conscientious interpretation of the relation of physician and patient. To prohibit any new operations or modifications of older ones, which promise better results than have been previously attained, is to confine the surgeon to the present admittedly imperfect methods. Witness, for example, the introduction of anesthesia, the new operations upon the head, the abdominal organs, and the lungs, the introduction of cocain and all other new drugs, the bath-treatment of typhoid fever, etc. By the application of the principle emphasized the much-talked-of use of the criminal upon whom to try novel procedures not demanded by his disease is ruled out; the use of anyone's person, indeed, is absolutely forbidden when the dominant motive is other than a pure desire for his welfare. The question as to the consent of the patient, or of his friends, does not seem to us of quite so great importance as it does to many others, because no lay person can have the faintest degree of intelligent understanding of the problem, and his judgment is of course valueless. But when the patient's good is the controlling motive the patient's consent is usually unnecessary, although it is, we believe, well to make the proposal as clear as possible to the patient or his friends. It is precisely advice by the informed and skilled, to the sufferer uninformed and inexpert, which is the essence of every professional relation. In cases of exceptional hazard or of great doubt the conscientious physician or surgeon will always ask the advice of one or more colleagues. But the absolute interdiction of new therapeutic measures and surgical operations would certainly not be in the interest of the patient, of the community, or of humanity. Let us be frank in condemnation and alert in the prevention of the crimes of those, if there be such, who become as great enemies of science and of the profession as they are of the patient and the community, when they overstep the sacred rights of personality and use individuals as tools for other ends This use of another as an instrument, and not for his welfare, is the quintessence of all crime and injustice Let no member of the noblest and most unselfish of all the professions be guilty of a double crime in breaking this law.

A Lesson from Germany as to Care of the Insane.—In view of the urgent necessity for an increase in the accommodation for the insane in many parts of the country, it may not be uninteresting to give a brie description of the methods employed in Prussia Kroemer has recently published (in the 31st volume of the *Archiv f. Psychiatrie und Nervenkrankheiten*) a description of the provincial asylum at Conradstein $1,000,000, or 4,000,000 marks were allotted for the preparation of this institution. A large estate was purchased for $66,000, situated not very far from the railroad station, with which communication was rendered easier by the construction of a small field railroad The extent of the land enabled the director to make arrangements for the disposal of the sewage in the fields, and then for the cultivation of these fields by the inmates. In the first three years the results were o satisfactory that there was some reason to believe hat ultimately the institute would be almost self-supporting. All of the patients that were able to work at rades were employed to the best advantage, and in ome cases it was found desirable to allow the working atients to sleep near the working-rooms. The women ere employed in the kitchen and laundry. The institution was laid out in the form of a series of central dministration buildings flanked on either side by a umber of small buildings designed especially for the lass of inmates they expected to contain. Sufficient pace was left for additions to the latter from time to me, as further demands were made upon the institution. Dr. Kroemer gives detailed plans of all these uildings. It is interesting to observe the skill with hich the floor-space is divided, so as to permit both e segregation of those cases that are benefited by ciety, and the isolation of those who are dangerous themselves and others.

In accordance with German customs, the patients are rst divided into first, second, and third classes, the tter being those supported by the institution, and the hers those able to pay a larger or smaller stipend. ich minute details as the general direction of the ind have been studied in order to face the houses in e most desirable direction. The individual houses e intended to accommodate about 60 patients each, cept those for the violent and dangerous patients, whom about 50 are kept in one building, and those ildings intended for the observation of new patients fore definitely classifying them, which accommodate . The houses for the second and first class patients commodate about 20 or 30 patients. Every possible onomy was practised in the construction of the fferent houses; only so much cellar or attic being ilt as was absolutely required. This requirement, cording to Kroemer, was under and over the portion rresponding to the middle of each house; about oneird of the surface being covered altogether. In order diminish noise, all the floors have an air-space beath them, and the rooms in which the violent patients e confined are surrounded by narrow corridors. ater is secured from artesian wells, and the entire ace is lighted by a central electric plant which also rnishes motor power of the various forms of machinery. It is unfortunate that the jealousy of laborions and the visual limitations of our governing dies render such an intelligent adaptation of means ends practically impossible in this State. The fact at such institutions can and do become self-supporting in Germany is only another illustration of the vantages of the intelligent direction of even the orest class of workmen.

Peptones and Albumoses.—The albumin of the od, in order to become absorbable and fulfil its funcn in the economy, must be converted into substances that possess a high degree of diffusibility. The conversion is brought about by the so-called proteolytic ferments of the stomach and intestine, the final product of whose action are the peptones. Peptone is a proteid body, but it differs from the proteid from which it is derived, the "native" albumin, in being more diffusible and more soluble, in not being coagulated by heat or by absolute alcohol, and in not being precipitated by ammonium sulphate, the almost universal precipitant of proteids.

Closely allied to the peptones, and until comparatively recently confounded with them, are the albumoses, intermediate products of digestion intercalated between the native albumins and the peptones, and partaking of the character of both. With the peptones they show the property of being more diffusible than the parent albumin (although they are much less diffusible than the peptones), and of not being precipitated by heat or by absolute alcohol. Like the albumins, however, they are precipitated by saturation of their solution with ammonium sulphate.

The chief differences between albumoses and peptones are probably physical; in their action on the animal body they resemble each other closely, both being decidedly poisonous. This poisonous property throws some light, from a teleologic point of view, on a very interesting physiologic fact; on the fact, namely, that peptones and albumoses, although formed in abundance in the stomach and intestine, are never found in the blood. In the passage of the products of digestion through the canal of the stomach and bowel, the two substances disappear so completely that their presence can never be detected in the blood of the portal vein. This absolute vanishing of the peptones and albumoses is one of the most remarkable phenomena in nature. The explanation seems to be that the epithelial cells of the gastrointestinal tract transform all the peptones and albumoses back into albumins. Some have maintained that the transformation is brought about by the lymphoid cells chiefly; but the weight of opinion is in favor of the first-mentioned view. Moreover, it does not matter so much where the change takes place; the all-important fact is that it *does* take place, and that thereby the poisoning of the system is prevented. When albumoses and peptones are injected intravenously in sufficient dose, they produce general signs of intoxication, and in addition exert an action on the blood and on blood-pressure—they diminish the coagulability of the former and greatly depress the latter. Under certain disease-conditions albumoses, rarely peptones, find their way into the blood in man, and not being assimilable by the blood, are eliminated in the urine. Thus there is albumosuria in fever, in phosphorus-poisoning, in acute yellow atrophy of the liver, in malignant disease, particularly when it affects the stomach, and in gastric ulcer. It is fair to assume that the entrance of albumoses into the blood in diseases of the digestive tract is connected with an impairment of the power of the epithelial cells to reconvert them into albumins.

What symptoms the presence in the blood of spontaneously formed albumoses produces is not definitely known; it seems, however, that albumoses are pyrogenic, *i. e.*, generate fever.

The distinctly toxic effects of injected albumoses and peptones have hitherto been attributed to a specific property of these substances, but the recent investigations of a French chemist, M. Fiquet, throw strong doubts on this view. This observer finds that pure peptone is absolutely nontoxic, and believes that the poisonous action of ordinary peptone depends on an admixture of impurities. The injection of more than 8 grams of pure peptone per kilogram of animal is harmless, while ordinary peptone is toxic in doses of from 0.40 to 0.80 grams for each kilogram of animal.

Pure peptone, moreover, has no anticoagulative properties. What is true of pure peptone is likewise true of pure albumoses. The toxicity of pure albumoses and peptones depends, according to Fiquet, on the presence of ferments and products of bacterial action, and he has isolated two groups of substances—one called albumotoxins and one belonging to the group of ptomains. It is possible that the toxicity of the first depends on the presence of the ferments, pepsin and trypsin, or of products of the action of these. The ptomain-bodies resemble the interesting bases isolated by Gautier and by Brieger.

Fiquet's observations have an important practical bearing, insomuch as albumoses and peptones are at the present time extensively recommended as substitutes for ordinary albuminous foods. Voit has recently shown their inutility in this respect, contending that they are merely stomachics and laxatives. Fiquet believes them useful in dyspepsia, but insists that no product should be administered without a previous test on an animal. At least 2 grams per kilogram of body-weight should be injected into a rabbit—neither toxic symptoms nor alteration in blood-coagulability should develop—otherwise the substance is harmful.

These researches and others of a similar nature are a sign that dietetics is gradually coming under the sway of exact science.

Royalty Visits the Pasteur Institute.—Oscar, King of Sweden, with his suite, visited the Pasteur Institute April 18. Every department was thrown open, explanations were given by Prof. Metchnikoff, Drs. Roux, Borel, and Martin. The bacteriologic display made by the institution was certainly fit for a king. The exhibit was mounted upon the tables in the technical laboratory; each germ was separately illustrated by a growth in the different culture-mediums by an inoculated animal, under the microscope and a pathologic specimen; the toxins and antitoxins were placed upon the same table with the germ that produced them. The King was deeply interested and expressed his approval.

Reviews.

Transactions of the Luzerne County Medical Society for 1898. Vol. VI.

This volume contains evidences of careful editing and the character of the papers as presented to the society show conscientious work on the part of the members. The volume also gives interesting data as to members, officers, etc.

Transactions of the College of Physicians of Philadelphia. Third series, Vol. XX. Printed for the College. 1898.

These volumes of Transactions contain valuable data as to membership of the society, the officers, committees, etc. The volume for 1898 presents the papers read at the meetings of the society during the year, together with memoirs of Dr. Harrison Allen, Dr. William H. Ford, Dr. Thomas D. Dunn, and the usual memoranda of the society.

Retinoscopy, or Shadow-Test, etc. By James Thorington, M.D. Third edition. Revised and enlarged, with 43 illustrations, 12 of which are colored. Philadelphia: P. Blakiston's Son & Co., 1899. Price, $1.00.

That three editions of this best of manuals upon the subject have been demanded within two years is a sufficient fact of praise. Five new illustrations have been added.

A Manual of Bacteriology. By Herbert U. Williams, M.D., Professor of Pathology and Bacteriology, Medical Department, University of Buffalo. With 78 illustrations. Pp. 263. Philadelphia: P. Blakiston's Son & Co., 1898. Price, $1.50.

The contents of this manual are arranged in four parts, of which the first is devoted to bacteriologic technic and comprises seven chapters covering nearly one-fourth of the book. The instructions are brief and direct and, if less attractive to the writing-table bacteriologist than other parts, will be appreciated by the student who is not content to know the science by proxy. The second part, of about the same extent as the first, treats in an interesting manner of the biology of bacteria, of toxins, and of immunity. Nonpathogenic bacteria are briefly reviewed in the third division, and pathogenic bacteria are considered at greater length in the fourth part. Part II includes chapters on "Germicides" and on "Surgical Disinfection," by Dr. Thos. B. Carpenter and Dr. Chauncey P. Smith, respectively, which add to the usefulness of a useful manual. The book is neatly printed and contains helpful illustrations and a full index.

Diagnosis by the Urine, or the Practical Examination of Urine with Special Reference to Diagnosis. By Allard Memminger, M.D., Professor of Chemistry, Urinology and Hygiene in the Medical College of the State of South Carolina; Visiting Physician in the City Hospital of Charleston, etc., etc. Second Edition, enlarged and revised. With illustrations. 8vo. pp. 124. Philadelphia: P. Blakiston's Son & Co., 1899. Price, $1.00.

This is a concise, well-written little manual whose peculiar feature consists in the differential diagnosis of chronic nephritis on the basis of a classification of the normal absolute, the absolute, and the relative absolute of solids and urea found in the urine, with albumin, and with or without tube-casts. The clinical phenomena upon which diagnosis is based are the presence of albumin in the urine; a diminution in the relative absolute solids and urea, with a normal quantity of solids and urea; or an excessive amount of absolute solids and urea; and an increase in the relative absolute solids and urea at the expense of the absolute. The presence of tube-casts confirms the diagnosis. Brief rules for life-insurance examiners are given.

An American Text-Book of Diseases of the Eye, Ear, Nose, and Throat. Edited by G. E. de Schweinitz, A.M., M.D., and B. Alex. Randall, M.A., M.D., Ph.D. 766 engravings, 59 of them in colors. Philadelphia: W. B. Saunders, 1899. Cloth, $7.00, net; Sheep or Half-morocco, $8.00.

If any composite books are ever found worthy of praise this will be one, but we cannot forbear expressing our dislike of such books, unless the work of the different authors is controlled, subordinated and fused into an organic unity by the general editors. With independently written and signed articles the editors cannot deal so dictatorially as they desire, and so there is often a double injustice. To illustrate: Of what earthly use to 999 out of 1000 purchasers are the 20 or 30 pages of mathematic formulas in the volume reviewed, beginning on page 107? Dr. Brubaker's few pages of simple and excellent exposition are worth volumes of such theoretic waste. Or take this sentence, in which the author summarzes, glides over, misrepresents, tells nothing about, the whole subject of the treatment of exophoria by prism-gymnastics:—

> "Exercise of the prism-convergence (*sic*) (so-called adduction) with *prisms*, base (*sic*) out, is often useful in exophoria (particularly convergence-insufficiency), but often fails."

What a mockery of helpfulness, a pompous grin of no-knowledge are these words,—all that is said upon the subject.

But we dislike to play the part of faultfinder,adding only that the student who for the ophthalmologic portion chooses this book instead of Dr. de Schweinitz's separate and quite perfect treatise just issued in a new edition, will, we think, make great mistake. The advantage of the present book is that t unites in one volume the sciences of the eye, ear, nose, and throat, and will thus be welcomed by the large number of specialists whose practice covers these departments. In he last three mentioned no safer guide could be found than Dr. Randall, and without intended disparagement of the work of the contributors, we wish he had written every page with his own hand. Both authors have clearly aimed to prevent the usual faults of the composite system, and if the deal were possible of realization they would have succeeded. Our space will not permit us to give in detail many points of xcellence and a few of criticism, which we have noted. Mr. aunders has certainly done well his part. The portion deoted to Diseases of the Eye is made up of 36 chapters in 18 pages; that to Diseases of the Ear of 13 chapters in 189 pages; that to Diseases of the Nose and Throat of 20 chapers in 406 pages. A 36 page index completes a volume of 251 pages—one, we must add, somewhat too heavy to hold or much continuous reading.

Human Anatomy. A Complete Systematic Treatise by Various Authors, including a Special Section on Surgical and Topographical Anatomy. Edited by Henry Morris, M.A., M.B., London. Senior Surgeon to the Middlesex Hospital; Examiner in Surgery in the University of London; Member of the Council and Chairman of the Court of Examiners of the Royal College of Surgeons, England; Honorary Member of the Medical Society of the County of New York. Illustrated by 790 woodcuts. Second Edition, pp. 1274. Philadelphia: P. Blakiston's Son & Co., 1898. Price, Cloth, $6.00.

Of all the textbooks of moderate size on human anatomy in the English language, Morris is undoubtedly the most up-o-date and accurate. The changes from the first edition are ot marked, perhaps the most noticeable feature is that here are 20 less cuts than in the first edition. Those which ave been omitted, however, will not be greatly missed The aving of space by the omission of a discussion of histology s a decided advantage, giving room for much matter of mportance in these days when every student is obliged to wn a special treatise on histology. To enumerate the umerous differences which are noticeable in the descripons given by this book from those in many of the older anatomies would require too much space. The changes, owever, almost without exception, tend toward an improved nomenclature and greater accuracy. This is particularly noticeable in the parts devoted to descriptions of the abdominal viscera and the joints. A few of the old errors, such as a description of anterior and posterior lips of the os uteri are still retained. For the student, the surgeon, or for the general practitioner who desires to review his anatomy, Morris is decidedly the book to buy.

A Handbook of Obstetric Nursing. For Nurses, Students, and Mothers. By Anna M. Fullerton, M.D., Obstetrician, Gynecologist, and Surgeon to the Woman's Hospital of Philadelphia; Clinical Professor of Gynecology in the Woman's Medical College of Pennsylvania. Fifth revised edition; illustrated. Pp. 262. Philadelphia: P. Blakiston's Son & Co., 1899. Price, $1.00.

A distinguished surgeon has said that "a perfect nurse is a perfect woman, rarely to be had; but good temper, implicit and uncomplaining obedience, gentleness, cleanliness, and some degree of physical strength and endurance are absolutely essential." The obstetric nurse has a graver responsibility than has either the medical or surgical attendant; for she has the charge of two lives instead of one, and at a time when rare judgment must often be exercised. Emergencies frequently arise which must be met promptly, if successfully. For this excellent reason we believe Dr. Fullerton's Handbook valuable in the training of an ideal nurse. In the fifth edition of this work, every effort has been made to bring its teaching up to the requirements of modern practice. We note valuable additions to the chapter on antisepsis in confinement-nursing. The latest and most improved methods in the application of disinfectants and antiseptics to obstetric practice have been supplied in this revision of the work. We commend this little volume to nurses, teachers of nurses, and to the obstetrician; for the latter may read and learn many valuable points from a writer of such practical experience.

Diseases of the Nervous System. A Handbook for Students and Practitioners. By Chas. E. Beevor, M.D., Lond. F.R.C.P., Physician to the National Hospital for the Paralyzed and Epileptic, etc. With illustrations. 12mo, pp. xxxix, 432. Philadelphia: P. Blakiston's Son & Co. 1898. Price, $2.50.

The author, in a compact volume of about 400 pages, gives a cursory view of the diseases of the nervous system. Necessarily, some parts of his subject are more or less neglected, particularly that treating of the diseases of the peripheral nerves, which is compressed into 15 pages; a very disproportionate amount of space when it is considered that 24 pages are allotted to the cranial nerves. Some parts, on the other hand, are very satisfactory, in particular that upon the organic diseases of the brain. The author has, perhaps, been less successful in his description of the functional conditions. The first part of the book, containing the general anatomy and physiology of the nervous system, is very good indeed. The description of the structure of the brain and cord is clear, not too complicated for the student, and quite adequate for the purposes of the clinician. It includes the description of various experiments performed by Beevor himself, chiefly in association with Victor Horsley. The introduction of two figures showing the motor areas of the cortex in the brain of a monkey and an ape is interesting, but perhaps, considering the extreme limitation of space at the disposal of the author, somewhat unnecessary. It is, however, well to teach students at the very begining of their career how greatly neurologists are dependent upon animal experimentation for their knowledge of the physiology of the nervous system. An attempt has evidently been made to put in as brief a form as possible the entire subject of diseases of the nervous system, and it has been accomplished with considerable success. It may well be questioned, however, whether such a book is at all necessary; for a description of nervous diseases, such as Beevor has furnished, a student can turn readily to most of the textbooks on general medicine. If he desires particularly to become acquainted with nervous diseases, either as part of his general equipment, or because he intends making more or less of a specialty of that branch, it will be impossible for him to dispense with the large textbooks by English, American, and foreign writers. Beevor's book has the great advantage, however, of being written by an authority upon the subject, and, for the purpose of a rapid review of the diseases of the nervous system, can be very highly recommended. Some valuable plates and tables form an important appendix to the volume.

Vaccination: Its Natural History and Pathology. Being the Milroy Lectures for 1898. Delivered before the Royal College of Physicians of London. By S. Monckton Copeman, M.A., M.D. Cantab., M.R.C.P. Lond., Medical Inspector of Her Majesty's Local Government Board; Lecturer on Public Health in the Medical School of Westminster Hospital, etc., etc. 8vo, pp. x, 257. London and New York: Macmillan & Co., Limited, 1899. From John Wanamaker. Price, $2.00.

In nine chapters and an appendix we have discussed in this timely monograph in a judicial and rigidly scientific spirit the various aspects of vaccination, of whose defence there should be no need, when we compare the conditions that existed a century before the publication of Jenner's treatise on the subject with the state of affairs to-day after the lapse of a century. Quoting Macaulay's reference to the death, in 1694, of Queen Mary, wife of William III, we find that

> "That disease, over which science has since achieved a succession of glorious and beneficent victories, was then the most terrible of all the ministers of death. The havoc of the plague had been far more rapid; but the plague had visited our shores only once or twice within living memory; and the smallpox was always present, filling the churchyards with corpses, tormenting with constant fears all whom it had not yet stricken, leaving on those whose lives it spared the hideous traces of its power, turning the babe into a changeling at which the mother shuddered, and making the eyes and cheeks of the betrothed maiden objects of horror to her lover."

Dr. Copeman first traces briefly the history of smallpox and then discusses consecutively the relationship between variola and vaccinia, the history of various lymph-stocks, the histology of the vaccine-vesicle, its bacteriology, the question of variola and vaccinia in the monkey, the subject of antitoxin, that of animal vaccination, and the use of glycerinated lymph. The appendix deals with the preparation and storage of glycerinated calf-lymph in certain European countries and with the bacteriology of vaccine-lymph. Twelve well-executed illustrative plates accompany the text. The book is one that should be read by all who are actively interested in vaccination as a prophylactic against smallpox.

The First Baptist Church of Philadelphia: Its History and the Bicentennial Celebration of its Foundation. 1898. Edited by William Williams Keen, M.D., LL.D. Pp. 511. Philadelphia: American Baptist Publication Society. Cloth, $3.00. Half Turkey Morocco, $5.00.

This church history is of more than local interest from the fact that the records for the earlier years were very full, and thus many quaint, obsolete customs are illustrated, and many curious facts brought out. Allusion is made to the ravages of yellow fever in Philadelphia, in 1793, 1797, 1798, and 1799, the Association several times resolving to meet in Philadelphia provided no "contagious disease exist" at the time. The minutes of the church repeatedly refer to the calamity, and in 1797, the year of the worst epidemic, no meeting of the Association was held. An interesting point is the early stand taken for temperance, this going to the lengths of even censuring a former minister of the church for using spirituous liquors, in a day when every man of substance had brandy and whisky upon his sideboard and was considered derelict in hospitality did he not offer such refreshment to his guests. The minutes show that in 1706 a young woman who had some trouble with her hip-joint was alleged to have been cured by "laying on of hands and prayer." It is interesting to note that a committee of 15 was appointed to investigate the case, but it would also be interesting to have the substance of their report presented in order that the attitude of the lay mind to such miraculous cure could be determined. The volume is handsomely printed on heavily-calendered paper, and is a valuable souvenir of an interesting occasion.

Correspondence.

PURPURA SIMPLEX FOLLOWING THE GRIP.

By ROBERT T. GLENDENNING, M.D.,

of Manchester-by-the Sea, Mass.

To the Editor of The Philadelphia Medical Journal:—

Sir: On January 9, 1899, I was called to treat a case of the grip. The patient was a man of about 45, a carpenter by trade, with a history of previous good health. He had pains in the head, back, and limbs, a severe irritating cough, night-sweats, and frequent attacks of bleeding from the nose. He had at least eight of these hemorrhages, some of them quite severe. His temperature, in the afternoon, went up to 103° F., and his pulse was about 90. Antipyretics soon lowered the temperature, and relieved the pain, and liquid peptonoid with creasote helped the cough. In less than a week, his temperature and pulse were normal, and I ceased visiting him. Two days after my last call he sent for me to come and see him on account of a rash upon his legs. He said that this rash had been preceded, for about 12 hours, with pain in his ankles and heels. The rash was purpura simplex. The hemorrhages, anteriorly, did not go above the knee, but posteriorly they extended up to the hips. In about three days another crop come out, but not as extensive as the first one. I gave him dilute sulphuric acid for 4 days, then 15-drop doses of the tincture of the chlorid of iron, three times a day, and told him to stay in bed. In little over a week the spots had almost faded out, and there was no recurrence. He gained strength slowly, not getting back to work for over a month.

THE TOXICITY OF STRYCHNIN.

By A. D. McCONACHIE, M.D.,

of Baltimore, Md.

To the Editor of The Philadelphia Medical Journal:—

In your issue of April 22, Dr. Jno. V. Shoemaker refers in his article, "The Medical Expert's Duty," to the minimum toxic dose of strychnin sulphate, as given in the testimony of Dr. Wood in the Zelner case, saying that the "minimum dose of strychnia that has taken life in the adult is from $\frac{1}{3}$ to $\frac{1}{2}$ a grain." He refers to the "fallacy in assuming that the minimum fatal dose or something near it would necessarily be fatal in the case under discussion," and criticises Dr. Wood for not informing the Court that strychnin has been given medicinally in doses of $\frac{1}{4}$ and $\frac{1}{2}$ grain without producing death, and that much larger doses had been taken with no fatal results. In confirmation of this, the following report may be of interest:

A few weeks ago I was called to rescue a robust man, about 43 years, weighing approximately 160 pounds, who had 7 hours previously taken 3 grains of strychnin, possibly more, not less, as he stated he had deliberately taken 60 tablets of $\frac{1}{30}$ grain each, by his own count, at 11 P.M., and a half-hour later, in despair of not getting the desired result he arose and counted out 30 more tablets and then drained the bottle, not knowing how many additional ones he had swallowed. He then returned to his bed and in a short time began to have convulsive movements with a tetanic condition of the legs and the jaw-muscles. He purposely refrained for 3 hours from any attempt at giving alarm to his attendant occupying the next room. After that time he was unable to speak or even get out of bed and so remained until 5 A.M., when he called is man and I was sent for, arriving at 6 A.M., 7 hours after he drug had been taken. Upon entering the room I found he man with his teeth clenched, the pupils dilated, the body pisthotonic, the hands clenched, and the arms drawn tightly owards the body. After a short period this was followed by elaxation. I at once instituted the usual restorative neasures—a hypodermic of apomorphin and attempted to vash the stomach, but could not do so without an anesthetic, vhich was not at hand. Vomiting or attempts thereat soon nsued, with no evidence of any strychnin therein. This was ollowed by a sedative, and the patient was quiet by noon; e was ordered to appear at my office the next day.

I cannot attribute his recovery to any therapeutic measure sed. He recovered, and I have no doubt would have done o had no treatment been used. The inherent measure of mmunity from poisons, medicinal, bacterial, etc., cannot be stimated. The personal factor of resistance is not a known ntity, or as yet not sufficiently known as to warrant mphatic statements—especially as medical-expert testiony—relative to the amount of any toxic substance that ill invariably prove fatal.

16 West Franklin Street.

PRIORITY IN SKIAGRAPHY.

By J. MOUNT BLEYER, M.D.,

of New York City.

o the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

I HEREWITH forward you reprints of articles as follows: (1) Crookes" 'X' and other Light Ray—A problem yet to be lved in Therapeutics," *N. Y. Medical Journal*, February 26, 96; (2) "An Original Research on the Fluoroscopic Diagnos of certain forms of Lung, Throat, and Heart Diseases," *harlotte Medical Journal*, April, 1897, being a paper read at the n-American Congress, November 16, 1896. These are forrded simply to correct early data on exactly the same bjects, for which a prize in your contest was conferred on r. A. W. Crane, and on which Dr. Albert Abrams publishes article. I simply want to establish the fact that I was e *first* to have carried out the detail experimental work in Fluoroscopy in lung, nose, and throat diseases," etc., in this any country. The reprints and dates speak for themselves. you will kindly notice these, I do not see in what will rob or reflect in any way upon the valuable and ost scientific papers which your JOURNAL has published. ese papers are most creditable, and deserve the encomins they have received. Had I been one of the committee award of prizes I should have voted as they did. Both these blications cannot fail to produce other work of similar ture and aid in the progress of such valuable and scienic experimentation.

460 Lexington Avenue.

THE PUBLIC SALUTARIUM.

By HERBERT J. HOPKINS, M.D., C.M.,

of Pittsburg, Pa.

the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

NEARLY every hospital has what is called its contagious rd or wards, where patients with different contagious disses are isolated, as it were, en masse; a distinction, hower, being made in practically all instances between its dical and surgical contagious cases.

Years ago, when all things pertaining to the relief of the sick poor were in a crude form at best, this distinction, no doubt, was deemed a triumph of nicety, and that position is hardly challenged to-day. Some 6 years ago, while a resident surgical interne of the Manhattan Eye and Ear Hospital, New York (probably one of the best equipped special hospitals in the world), I remember hearing grave discussions on the condition of the conjunctiva subsequent to an attack of gonorrheal conjunctivitis—with what frequency was it followed by trachoma or granular lids? for it was the rule there as soon as the gonorrheal disease subsided for the trachomatous granules to appear. Gonorrheal conjunctivitis and trachoma are 2 of the worst diseases to which the eye is subject and both are highly contagious, consequently they were both isolated (?) together in that hospital, and to the best of my belief this practice prevails in nearly all hospitals in which isolation is attempted, with this difference: other contagious cases are admitted to the same ward. The result was what has been hinted at—the gonorrheal patients almost invariably contracted the other disease, trachoma, probably much the worse disease of the two, and this in spite of the utmost vigilance and care of skilled attendants. In my private practice, when gonorrheal cases are treated in the homes of the patients, the results have been without exception more favorable than we ever get at the hospital, and in no instance has trachoma developed subsequently.

This opens up a large field for inquiry as to what extent intercommunication of disease prevails in hospitals as a rule, especially in large general hospitals. Years ago, hospital-gangrene became a pest and could not be overlooked; not so with many other diseases, *e. g.*, those cited above, or possibly what occurs every day in venereal wards, when the non-infecting sore is converted into the infecting one, to be followed in due time by the usual phenomena of syphilis—or typhoid and tuberculous cases, or diphtheria and scarlet fever, etc.; so that, while admitting the desirability of small hospitals in every town and city for the reception of patients suffering from the different contagious diseases and that such health-preserving refuges ought to be provided at the public expense for the sake of the general health of the community, it is of the first importance that they be conducted with a fine discrimination, every disease represented being accommodated with a separate ward or room and its individual nurse. People will not voluntarily go to that vulgar (?) infectious (?) pesthouse, but if unable to provide proper isolation (separate room and trained attendant) in their own homes, they would resort to that new haven of infinitely superior salubrity, viz., "the salutarium."

THE NEW YORK BOARD OF HEALTH AND THE SALE OF ANTITOXIN.

By REYNOLD W. WILCOX, M.D.,

of New York.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

IT IS with great pleasure that I have read the result of the correspondence between Health Commissioner Reynolds, of Chicago, and Dr. Biggs, of the Bacteriological Laboratory of this city, as to the quality of the antidiphtheric serum which was the subject of commerce between the Health Departments of Chicago and New York. Dr. Biggs in his letter to Dr. Reynolds accepts the position that what Dr. Reynolds says in rebuttal of the testimony at Albany is true, therefore it amounts to a withdrawal of the charges which were made before the Assembly Committee that worthless serum had been sold to Chicago. Now it is of importance to note that this purely foreign and extraneous matter is cleared away and the way is now open to consider the main subject, the withdrawal of the New York Department of Health from commercialism, a subject on which you have taken a prominent stand as a forceful advocate.

A well-attended meeting was recently held with Col. Michael C. Murphy, the President of the Department of Health, at which the subject of the continuance of the municipal sales of lymph and antitoxin was thoroughly discussed. The result was in the main favorable. Two points rather suggested themselves to President Murphy for further investigation. One was this transaction in serums with Chicago. He felt that some explanation was necessary to prevent the currency of the idea that the department had been acting improperly. This, of course, will be set at rest by Dr. Biggs' statement, which you have cited from the Chicago authority. The other point was as to the keeping-properties of antitoxin.

President Murphy had been informed that the serum would not keep more than two weeks. If that were the case, he said that the department would have to keep its laboratory in constant operation in order to keep a steady supply of fresh serum on hand for current needs. Since the meeting he has received communications from all the leading bacteriologists of the country on that point; the expression of their opinion has been, of course, uniformly, that he has been misinformed, and that no reliable serum is known to any of them which will appreciably deteriorate in that short time and that all are efficient after even a year.

Reserving these points for further explanation, which has now been supplied him, President Murphy expressed himself as pleased with the presentation of the case and assured the deputation that he would shortly announce his decision and that they would not be disappointed. It has been made clear in the discussion of this subject that the general sentiment of the medical profession is against the continuance of the present commercial system. Colonel Murphy now recognizes that he has the power to perform an act which will gather about his department the approval of physicians in the city and the State, and that with the cessation of the sales-system, which can be effected by a simple order of the department, he can accomplish a cessation of the recent criticism which has been directed at his department. The medical profession of the city of New York is now in better accord with its Health Department than ever before, and if the department will only cease this irritating practice of selling antitoxin there will remain practically no question at issue between the profession and the department. A strong effort has been made to convince President Murphy of this, and it is hoped that it will soon be successful.

749 Madison Avenue.

AN ANOMALOUS OBSTETRIC CASE.

By JUDSON LAUGHLIN, A.M., M.D.,
of Grinnell, Iowa.

To the Editor of The Philadelphia Medical Journal :—

On January 21 I was called to deliver a woman, about 35 years of age, of her fourth child. I found an attendant holding a napkin firmly over the presenting parts, in order to support the perineum and prevent the prolapse of internal hemorrhoids. On removing the napkin I found the child's head just ready to pass, in fact it protruded at onc and in the course of one or two more pains the child was bor cyanotic, and in a poor condition. To try to resuscita it seemed at first useless, nevertheless success attende the efforts. Upon examining the child before handing it t the nurse, I found a state of affairs which at first baffled m as I had never had a similar case come under my observ tion. On the left side, about 1½ inches in length, all th tissue, muscles, and true skin were ruptured from the attachments to the vertebræ, also the tenth, eleventh, ar twelfth ribs were fractured at their necks, leaving intact on the epidermis, which was so nearly transparent as to brir into full view all the subjacent abdominal viscera. I cou diagnose definitely the fractured ribs, as they were draw from apposition to such an extent I was afraid the inta membrane would rupture, as it seemed so fragile and eve respiration caused it to bulge.

I brought the fractured ribs as nearly as possible in apposition and held them by bandages over aseptic absor ent-cotton. Over this dressing the usual infant's band w carefully pinned, so as to bring about equal pressure. Th child was dressed and cared for in the usual manner. A the family lived 7 miles in the country, I did not see the ba for 24 hours, but to my surprise I found it yet living. took nourishment from the spoon and tried to nurse, b could not on account of weakness. The dressing was part removed on the third day so as to allow me to see t wound. At this time the condition was unchanged exce that the intact membrane was darker, so much so as to re der it opaque.

On the eighth day there was oozing of fluid through t bandage, but I advised that the dressing be not remove and that the child be kept in so near absolute rest as pos ble, for I was confident the membrane had ruptured, a thought that in all probability to remove the dressing wou result in the immediate death of the child. The bowels a kidneys seemed to be performing their natural functio but cerebral complications set in about the tenth day. T child lived in a semicomatose condition 10 days after t cerebral symptoms first appeared, making altogether abo 20 days from birth.

Was this trouble due to the fact that the articulations the tenth, eleventh, and twelfth ribs, like the first, are with single facet of the articulating vertebræ, hence are peculiar weak? Or was it of some traumatic origin? My first thoug was possibly there was a lack of development, or some formity or another, but by close examination I could ma out all the vertebræ, and the articulation of the head of t rib in each facet, thereby doing away with any theory of la of development. I concluded that the fracture was caus by the powerful contractions of the neck of the womb whi exerted pressure about the injured region of the ribs wh the head was held and retained in the vagina.

Some young practitioners encounter these very rare cas, and perhaps one who has had the unfortunate fate to counter three of them in less than that number of years his early practice, may be pardoned for feeling a desire shirk too much unusual responsibility. September 2, 18 I had a case in a primipara, who began having puerpe convulsions at the onset of labor-pains. After det mining definitely the nonviability of the fetus I delive the mother by craniotomy of a monstrosity of enorm size. The mother lived 19 days. In another primipa November 7, 1898, the woman had been in labor 12 ho with no engagement, and after waiting patiently 6 ho longer, thinking nature would come to our rescue, as the patient was becoming very much exhausted, and the fetus had shown no signs of viability, the mother was delivered by craniotomy. The fetus was hydrocephalic. The mother made a good recovery in 20 or 30 days.

The first case related was, so far as I can learn, a very extraordinary one. Possibly the child's life could have been saved—could it? If I am wrong in regard to the cause of the fracture of these ribs, or any physician sees where I was at fault in regard to the treatment of the case, I would like very much to be corrected.

UNJUST VERDICT AGAINST THOMAS H. MANLEY, M.D.

By HERMAN B. SHEFFIELD, M.D.,
of New York.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

In your valuable journal, April 22, your New York correspondent stated that a verdict had been rendered against Dr. Thomas H. Manley for alleged injury to the thumb of a dispensary patient. As assistant of Prof. Manley I am thoroughly familiar with all the particulars of the case in question and deem it proper to rectify the erroneous report. The patient had been treated for necrosis of first phalanx of thumb for some time, and as the usual methods were futile, it was found necessary to remove the affected phalanx. This was done with the *consent of the patient.* It appears that the natural consecutive shortening of the thumb did not quite please her newly acquired husband and that a lawyer thought it profitable to bring suit against Dr. Manley. As Dr. Manley was careless enough not to heed the summons of the complaint, the trial came up in his absence and a verdict was rendered against him by default. Since then the case has been reopened, a new trial will take place with a proper defense, and there can be no doubt that the case will be dismissed. It seems to me that your correspondent did not at all act in accordance with the rules of medical ethics in so hastily copying from a daily paper the above-mentioned notice without consulting Dr. Thomas H. Manley as to the ruth of the matter. While I believe that those who know of Dr. Manley's position as a conservative surgeon, gave no credence to the story, the few who do not know him must have gained an erroneous impression of him.

The Lenval Prize.—According to the *Lancet*, this prize, which has been founded by Baron Léon de Lenval, of Nice, will be awarded at the International Otological Congress to be held in London from August 8 to 11, 1899. The regulations or its award are as follows : (1) In connection with the Inernational Congresses of Otology the sum of 3,000 francs has een given to found a prize bearing the name of "The Lenal Prize." (2) The interest of this sum, which has accumuated between one International Otological Congress and the ext, shall be awarded to the author of the most marked dvances in the practical treatment of affections of hearing uring that time, or to the inventor of any new apparatus hich is readily portable and improves considerably the hearng power of deaf persons. (3) The sum of 3,000 francs will be eposited in a public bank in the name of the president of he jury. (4) The International Otological Congress will elect jury each time, consisting of seven members. The jury will ronounce its decision at the closing meeting of each conress. All persons desirous of competing for the prize are quested to communicate with Mr. Creswell Baber, honorary cretary-general, 46, Brunswick-square, Brighton, England, ating the facts on which their claim is based.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending May 13, 1899 :

Monday, May 8—Academy of Surgery.

Tuesday, May 9—Pediatric Society.

Wednesday, May 10—County Medical Society. At this meeting Dr. Conklin, professor of zoology in the University of Pennsylvania, will deliver an illustrated lecture on **The phenomena and mechanism of inheritance.** The members of the medical profession are cordially invited to be present at the meeting.

Thursday, May 11—Pathological Society.

Friday, May 12—College of Physicians—Section on General Surgery.

Medical Society of New Jersey.—The annual meeting will be held at Allenhurst instead of at Deal Beach, as has been announced.

Dr. Henry D. Heller, of Hellertown, Northampton County, Pa., has been appointed by Governor Stone, quarantine physician at the Port of Philadelphia, vice Dr. Henry C. Boenning, removed.

Philadelphia Pathological Society.—At the annual conversational meeting, held April 27, Professor R. H. Chittenden, of Yale University, delivered an address upon **Autointoxication,** which will be published in a future number of the JOURNAL.

Bradford County (Pa.) Medical Society.—The following is the program of the meeting announced for May 9 : Some diseases of the nervous system, by Dr. G. W. Durga, of LeRaysville, the discussion to be opened by Dr. E. A. Everitt, of Burlington ; The uric-acid diathesis, by Dr. Francis Chaffee, of Towanda ; The treatment of acute rheumatism, by Dr. F. A. Thompson, of Durell ; The treatment of chronic rheumatism, by Dr. J. E. Everitt, of Franklindale, the discussion to be opened by Dr. E. R. Park, of Warren Center.

The Pennsylvania Society for the Prevention of Tuberculosis has elected the following officers for the ensuing year :—

President, Guy Hinsdale, of Philadelphia ; vice-presidents, H. S. Anders, J. Solis-Cohen, Benjamin Lee, Miss E. W. Redfield, Talcott Williams, all of Philadelphia, and S. A. Knopf, of New York City ; secretary, A. H. Davisson, of Philadelphia ; treasurer, Mrs. Helen C. Jenks, of Philadelphia ; solicitor, James L. Stanton, of Philadelphia ; board of directors : Lawrence F. Flick, S. G. Dixon, Guy Hinsdale, H. S. Anders, Benj. Lee, Leonard Pearson, George Woodward, A. H. Davisson, Mrs. Helen C. Jenks, James L. Stanton, Mazyck P. Ravenel, Miss E. H. Carroll, Miss E. W. Redfield, Mr. M. E. B. Hampton, all of Philadelphia.

Public Baths Association of Philadelphia.—The annual report for 1898 shows a total of 21,656 baths, the largest number in any one day being 541, on July 30. The building was thrown open to the public April 21, 1898, therefore these figures only represent the work of 8 months. The enterprise differs only from a private business venture in that the capital invested is not expected to yield a profit. When the income covers the running expenses and repairs the business will have attained complete success. Meanwhile there is a deficit of $514.57 for the work of last year, easily accounted for by the fact that, as in all new enterprises, the expenses of the first year are relatively high, and for this contributions are asked, which may be sent to the treasurer of the association, Franklin B. Kirkbride, 517 Chestnut Street, Philadelphia.

Vital Statistics of Philadelphia for the week ending April 29, 1899:—

	Cases.	Deaths.
Total mortality		501
Children under 5 years of age		125
Diseases.		
Pulmonary tuberculosis		70
Pneumonia 54, congestion of the lungs 3		57
Typhoid fever	218	37
Heart-disease 24, inflammation of the heart 5, fatty degeneration of the heart 2		31
Nephritis 24, uremia 13		37
Marasmus 11, inanition 11		22
Apoplexy 17, paralysis 4		21
Inflammation of the brain 21, congestion of the brain 2		23
Senility		19
Gastroenteritis 10, cholera infantum 8		18
Carcinoma 12, tumor 5		17
Casualties 14, burns and scalds 2		16
Diphtheria 14, membranous croup 4	42	18
Convulsions		15
Cerebrospinal meningitis	23	14
Scarlet fever	44	5
Peritonitis 9, bronchitis 6, hepatic cirrhosis 5, drowned 4, appendicitis 4, alcoholism 3, cyanosis 3, intestinal obstruction 3, suicide 3, diabetes 2, erysipelas 2, gangrene 2, influenza 2, inflammation of the liver 2, pertussis 2, asthma 1, dysentery 1, laryngitis 1, poisoning 1, teething 2.		

Revision of the Pharmacopeia.—The following circular-notice has been issued by Dr. H. C. Wood, president of the National Convention for Revising the Pharmacopeia, held in Washington, D. C., in 1890:

To All Whom It May Concern:

In accordance with instructions given by resolutions passed at the National Convention for Revision of the Pharmacopeia of the United States of America, held in Washington, A.D. 1890, I herewith give notice that a General Convention for the Revision of the Pharmacopœia of the United States of America will be held in the City of Washington, D. C., beginning on the first Wednesday in May, 1900. It is requested that the several bodies represented in the Convention of 1880 and 1890, and also such other incorporated State Medical and Pharmaceutical Associations and incorporated Colleges of Medicine and Pharmacy as shall have been in continuous operation for at least 5 years immediately preceding this notice, shall each elect delegates, not exceeding 3 in number; and that the Surgeon-General of the Army, the Surgeon-General of the Navy, and the Surgeon-General of the Marine-Hospital Service shall appoint, each, not exceeding 3 medical officers to attend the aforesaid Convention.

It is desired that the several Medical and Pharmaceutical Bodies, and the Medical Departments of the Army, Navy and Marine-Hospital Service shall transmit to me the names and residences of their respective delegates, so soon as said delegates shall have been appointed, so that a list of the delegates to the Convention may be published in accordance with the Resolutions passed at the 1890 Convention for the Revision of the Pharmacopœia, in the newspapers and Medical Journals in the month of March, 1900.

Finally, it is further requested that the several Medical and Pharmaceutical Bodies concerned, as well as the Medical Departments of the Army, Navy and Marine-Hospital Service, shall submit the present Pharmacopœia to a careful revision, and that their delegates shall transmit the result of their labors to Dr. Frederick A. Castle, 51 West 58th Street, New York City, Secretary of the Committee of Revision and Publication of the U. S. Pharmacopœia, at least 3 months before May 2, 1900, the date fixed for the meeting of the Convention.

Philadelphia County Medical Society.—At a meeting held April 26, Dr. D. J. Milton Miller read the report and exhibited the specimens from a case of **recovery from perforation in typhoid fever followed by a second and fatal perforation.**

The patient was a girl, aged 11 years, who had a severe attack of typhoid fever accompanied by high fever. On the twenty-third day copious intestinal hemorrhage occurred, and three days later rather indefinite indications of intestinal perforation developed. The condition of the patient was not thought to indicate operation, and marked improvement ensued. A relapse occurred, and on the thirty-fifth day there occurred another perforation, and the patient died before an operation could be performed. At the necropsy there was found a healed perforation 6 inches from the ileocecal valve, to which was attached a portion of the mesentery (the latter had evidently occluded the perforation and prevented infection of the general peritoneal cavity), and a second perforation 12 inches from the ileocecal valve, and general peritonitis.

The difficulties attending the diagnosis of intestinal perforation were commented upon, and importance attached to the recognition of the preperforative stage. If the latter be diagnosed, perforation may be averted, or an operation may be performed early, and the earlier the operation the more probable is success. In the discussion, Dr. G. G. Davi referred to the difficulties in the diagnosis of intestinal perforation and stated that in most cases in which a diagnosi is possible, the condition of the patient is already too desperate to warrant operative intervention. Drs. J. P. C. Griffith and L. J. Hammond also commented upon the difficultie attending the diagnosis.

Dr. J. H. Gibbon reported a case of **foreign body removed from the esophagus** and presented a skiagrap showing its position.

The patient was a boy, aged 5 years, who had swallowed "campaign button." He had subsequently been unable t swallow solid food, and partook of liquids with great difficulty The skiagraph showed the button lodged opposite the secon dorsal vertebra, from which situation it was readily remove by a swivel coin-catcher.

NEW YORK.

New Yorker medicinische Monatsschrift.—Dr. A Ripperger has succeeded Dr. Alfred Michel as editor.

Care of the Teeth.—At one of the free lectures give to the people, under the auspices of the Board of Educatio of New York City, Dr. Victor C. Bell gave a much-neede and important lesson regarding the care of the teeth, punctuating his remarks by well-chosen lantern-slides illustrativ of the evil results of neglecting the teeth. The lecturer asserted that it was not at all uncommon at the present tim to find infants with decayed teeth and girls of 14 or 16 wearing artificial teeth.

Society of the Alumni of the Sloane Maternit Hospital. At the annual dinner held April 28, the following officers were elected: President, Dr. George L. Brodhead; first vice-president, Dr. A. Ernest Gallant; secon vice-president, Dr. Eugene Coleman Savidge; recording secretary, Dr. James D. Voorhees; corresponding secretar Dr. Frank R. Oastler; treasurer, Dr. Edwin Sternberger pathologist, Dr. James Ewing; members of the Council, Dr James J. Philips, William S. Stone, Edward W. Peet.

Resting Places and Pensions for Trained Nurse—The Trained Nurses' United Aid Society of America hel its first meeting the other day, and elected a Board of Managers. W. Watts Sherman is president, James J. Higginso treasurer, and Mrs. M. H. Willard, secretary and manage It is hoped, in time, to establish homes of rest, and perha eventually provide pensions for nurses who have become incapacitated for further work. At present the society h rooms at No. 15 West Forty-second Street, New York.

A Supposed Victim of Hypnotism.—Last Mond a man with a broken neck was taken to the Manhatt Hospital in New York City. He had been found unconscio leaning against a fence. On inquiry, the police learned th this man had been one of a party who had been discussi hypnotism in a saloon opposite the spot where he had be found. It also leaked out that this man had been one hose experimented upon in this saloon, and that while in a rance he had been taken out of the saloon and placed gainst the fence. According to the Coroner's physician, his man's brain weighed only 37 ounces, and there was an xcess of white over the gray matter. Death had resulted rom a fracture of the spine in the cervical region.

Charles Jewett, M.D., professor of obstetrics and ediatrics at the Long Island College Hospital, Brooklyn, has een appointed president of the faculty, the position made acant by the resignation of Dr. Alexander J. C. Skene, who s to take charge of the new hospital for workingwomen. Dr. Jewett has held his professorship in Long Island College ince 1882.

Encouraging Operations at Home.—At one of our reat medical gatherings only a few weeks ago it was predicted y one of the speakers that there would be soon a revulsion of eeling against the present fashion of seeking refuge in a ospital whenever one was suffering from a serious illness or equired an operation, no matter how simple. The prediction seems to have been already, in part at least, fulfilled, for ast Friday evening a new medical organization intended to 'encourage operations at home" sprung into being. It is alled "The New York County Medical Pharmaceutical eague," and its president is Dr. Samuel F. Brothers.

Unprotected Windows in Hospitals.—Last Monlay night another victim was added to the already long list f those who have leaped to death from hospital-windows. his time it was from the St. Mark's Hospital, New York, nd although the nurse made a frantic effort to avert the ragedy by seizing the woman's clothing, it tore in her hand, nd the unfortunate woman plunged to her doom. There eems no ground for charging negligence in this instance, nd it is only recorded here in the hope that it may call ttention to the obvious moral of this oft-told tale.

An Echo of the Dispensary Legislation.—This OURNAL has taken care to give its readers early and full nformation regarding the Dispensary Bill, and has called ttention to the good work done for it by various medical rganizations, and particularly by Dr. E. Eliot Harris, who s a member of the legislative committee of both New York tate and County Associations. In recognition of his serices, Assemblyman Murphy, who introduced the dispensry bill of the present year, has sent Dr. Harris, as a trophy, he pen with which Governor Roosevelt signed this bill. he note and pen, tastefully framed, have been presented to he library of the New York State Medical Association.

New York County Medical Society.—At the meetng held April 24, DR. J. E. STUBBERT, of the Loomis Sanitaium at Liberty, read a paper entitled **Some auxiliaries o the climatic treatment of phthisis.**

He said that he had been surprised to find that in not less han 38% of cases of pulmonary tuberculosis there was, in ddition, disease of the upper air-passages, and he had learned hat the results of treating phthisis were materially better proper attention were given to the management of this omplicating condition. For the anemia of incipient tuberulosis he had found daily applications of static electricity a aluable adjuvant to the administration of iron. In testing he serum-treatment at the sanitarium they had used, for he most part, the serum prepared at the biochemic laboraory of the United States Government. Of the 90 cases so reated, 24% had been apparently cured; 36% had been improved; 8% had remained stationary and 32% had grown orse. The treatment was contraindicated in advanced ases, or when the heart-action was rapid and feeble, or in ases of severe mixed infection. One notable feature in these cases was the entire freedom from relapses. Of the drugs employed, ichthyol had yielded the best results, and if it were so administered as to prevent its solution in the stomach, 30 grains could be given 3 times daily without untoward effects. It quickly converted fetid and purulent sputum into mucoid and frothy sputum. Of the 51 cases in which it had been used, 14% had been apparently cured; 55% had been improved; 19% had remained stationary and 12% had grown worse. The new and almost unknown drug, kalagna, an extract from a plant growing in South America, had yielded results which seemed to warrant placing it on the same footing with ichthyol, creasote and the other semispecifics. Small doses are sufficient to saturate the patient's system, and it does not disturb the functions of the alimentary canal. He had treated 29 cases with this remedy, of which 5 had been incipient, 19 moderately advanced, and 5 far advanced. Of this number 24% had been apparently cured, 38% improved, 18% unimproved, and 20% had grown worse. Creasote and guaiacol had been employed in 71 cases, 22 being incipient, 34 moderately advanced, and 15 far advanced. Of this number 16% had been apparently cured, 40% improved, 17% unimproved, and 27% had grown worse. Comparing the cases cured by these different methods, it would be found that 55% had been credited to ichthyol, 40% to creasote, 38% to kalagna and 36% to serum. Ichthyol seemed to be more especially indicated in cases of mixed infection, as it has but a feeble germicidal action on the tubercle-bacillus.

In the discussion, DR. EGBERT LE FEVRE said that in his experience, ichthyol had been chiefly of benefit in the cases of mixed infection. Unless the dose of the serum was most carefully adjusted, it was likely to do more harm than good, and hence he believed this method should be used only in sanatoria under the strictest supervision. Some recent observations with inhalations of formalin seemed to indicate that this agent exerted a distinctly germicidal action on the tubercle-bacilli as well as the bacilli of mixed infections. DR. S. S. JONES described the good effect of the serum in 3 cases. DR. J. DARWIN NAGEL said that he was the first physician in this country to use kalagna, and he had done so at the request of the Belgian consul, who had learned of the medicinal properties of the plant. At three different times he had tested the extract of kalagna sent him by this gentleman, but as the results had been for the most part negative, he had abandoned the treatment. DR. S. A. KNOPF mentioned respiratory exercises and hydrotherapy as valuable auxiliaries to treatment.

DR. WILLIAM M. LESZYNSKY read a paper on **Some of the essential features in the diagnosis and treatment of so-called idiopathic epilepsy.**

Regarding the diagnosis, he cautioned against confounding the mental excitement following an attack with hysteria, and suggested that under such circumstances one should search for some of the stigmata of hysteria. Epileptic convulsions occurring during sleep might go unrecognized for years. If the person often arose in the morning with congested conjunctivæ and sore limbs, or if urine or feces were involuntarily voided in the bed, the physician should insist upon some one sleeping with the patient to determine positively whether or not there were nocturnal seizures. It was well to have the eyes examined, and any abnormities of vision corrected, but the theory that insufficiencies of the ocular muscles were a cause of epilepsy had not yet been proved. It was an established fact, all but universally recognized, that the removal of healthy ovaries did not cure this disease. An important part of the management of a case of epilepsy consisted in regulating habits of life, securing proper occupation and rest, relieving constipation and improving the general health and the digestion. The patient should be seen by his physician at least twice a week for the first month, and once a week for a month or two more, after which he should see him at short intervals for a long time. When there were only two or three fits a year, and they could be directly traced to some error in diet or other indiscretion, it was unwise to resort to the bromids. He had seen no advantage in combining the bromids. Children tolerated relatively large doses, but the smallest dose which would control the attacks was a safe rule to follow. It was customary to avoid the bromid acne by adding a few drops of Fowler's solution of arsenic to each dose of the bromid. After the bromids had been taken for a considerable time, their sudden withdrawal would almost always prove disastrous, and the patients and their friends should be warned of this.

In the discussion, Dr. C. A. Herter spoke of the relation of the toxicity of the urine and of the blood to epilepsy. He stated that while the French had advocated the theory of the toxicity of the urine, they had not been careful in their experiments to eliminate important sources of error. He had himself examined the blood from 18 cases of epilepsy, and could say that in 15 of these a most careful examination had failed to reveal any special toxicity of the blood. It was quite possible that the increase in the toxic properties of the serum might result from disturbances of digestion.

Dr. David Webster spoke of his experience as one of the committee appointed some years ago to investigate the claims of Dr. George T. Stevens that he could cure epilepsy by tenotomies of the ocular muscles, and said that in his own experience there had never been a case of epilepsy cured in this way; moreover, he had seen many persons who had been treated in this way by others, and they had been far from cured.

Dr. Egbert H. Grandin said that ovarian disease could only influence idiopathic epilepsy by aggravating the condition, and he did not believe that at the present time there was any gynecologist of repute who would remove healthy ovaries in the vain hope of curing epilepsy.

CHICAGO AND WESTERN STATES.

Automobile Ambulance.—Probably the first electric ambulance ever constructed has been presented to a Chicago hospital. It weighs 1600 pounds and is capable of a speed of 16 miles an hour.

Dental Dispensaries.—Arrangements have been made whereby the Chicago Bureau of Associated Charities will open a dental dispensary in each of its 10 districts, to furnish dental service to the poor at the smallest possible cost. The dentists volunteer their services, and materials will be supplied at cost. Teeth will be pulled for 10 cents and filled for from 15 to 25 cents.

Prof. J. C. Webster, of McGill University, Montreal, formerly of the University of Edinburgh, has accepted the chair of obstetrics and gynecology in **Rush Medical College,** Chicago. He brings to this new field a wealth of experience with the superb training which characterizes the modern methods of the great University of Edinburgh, and it is believed that his coming will be a great incentive to the scientific spirit in the profession in this country, the results of which will be incalculable in their benefits to the people.

The Bulletin of the Cleveland General Hospital is the title of a new quarterly medical journal edited, under the auspices of the staff of the Cleveland General Hospital, by Dr. Charles J. Aldrich. Its principal aim is indicated in its title. The first number contains in addition to 8 original articles based upon work of the staff in the hospital, editorial comment, chips from the clinics, medical and surgical notes, practical therapeutics, reviews of new books, and various selections and translations. We trust that success may attend the efforts of the editorial management.

Medical Society of City Hospital Alumni, St. Louis.—At the meeting held May 4, the scientific program was as follows:—Pulmonary tuberculosis with tuberculous ulcers of the esophagus, by Dr. Charles Fahnestock; Operation for Strangulated Hernia complicated with retained testicle and intraabdominal encysted hydrocele of the cord, by Dr. Julius Kohl. The report of the special committee on a plan for the medical inspection of all the St. Louis public schools, together with the recommendation of the Advisory Council, was considered.

Medical Society of the State of California.—At the 29th annual meeting held at San Francisco, April 18-21, papers were read as follows:

The President's Annual Address, by Dr. William Watt Kerr; The Toxic Basis of Insanity, by Dr. H. E. Sanderson, of Stockton; Obsessions, by Dr. Leo Newmark, of San Francisco; Remarks on Diagnosis and Modern Treatment of Pulmonary Tuberculosis, by Dr. George L. Cole, of Los Angeles; Treatment of Erysipelas by Antistreptococcus-Serum, and of Pneumonia by Antipneumococcus-Serum, by Dr. George L. Cole, of Los Angeles; Typhoid Fever, with Death in One Week from Onset: Autopsy Findings, by William Fitch Cheney; Stomach versus Heart, from a Clinical Standpoint, by W. J. G. Dawson; Dietetics in Diseases Affecting the Nutrition, by A. J. Sanderson, of St. Helena; Improved Instruments for Litholapaxy, by Dr. George Chismore, of San Francisco; Tumors of the Bladder, Report of 7 Cases, by Dr. Granville MacGowan, of Los Angeles; Observations on the Use of Formaldehyd as a Disinfectant, by Dr. H. A. L. Ryfkogel, of Oakland; Hypertrophy of the Pharyngeal Tonsil, and Its Relations to Ear-Troubles, by Dr. H. Bert Ellis, of Los Angeles; A Contribution to the Study of Antral Disease, by Dr. J. D. Arnold, of San Francisco; Ocular Neurasthenia, by Dr. E. J. Overend, of Oakland; Discussion of 5000 Cases of Refractive Error, and a Case of Melanosarcoma of the Conjunctiva; Death, by Dr. George C. Pardee, of Oakland; Recent Work in Clinical Microscopy, by Dr. H. A. L. Ryfkogel, of Oakland; The Malarial Fevers of the Sacramento and San Juaquin Valleys, by Dr. Philip King Brown, of San Francisco; A Case of Marked Deformity of the Nails (Onychogryphosis) in Anesthetic Leprosy, by Dr. D. W. Montgomery, of San Francisco; A Case of Foreign Body in the Septum of the Heart, by Dr. W. Ophuls, of San Francisco; A Case of Unusual Cardiac Tuberculosis, by Dr. A. W. Hoisholt, of Stockton; Pseudocirrhosis of the Liver, with Concretio Pericardii, by Dr. Herbert K. Moffitt, of San Francisco; Bacterial Causation of Decay and Disease of the Teeth, with Lantern-Slide Illustrations, by Dr. A. C. Hart, of San Francisco; Our Sick and Wounded in the Philippines, by Dr. P. J. H. Farrell, of San Francisco; Intestinal Anastomosis, by Dr. J. Henry Barbat, of San Francisco; Three Cases of Double Synchronous Amputation of the Lower Extremities, by Dr. Thomas W. Huntington, of San Francisco; Two Successful Cases of Amputation through the Hip-Joint, by Wyeth's Method, by Dr. Charles G. Levison, of San Francisco; Report of a Case of Fracture, Dislocation in the Cervical Spine, and Presentation of the Specimen, by Dr. W. Le Moyne Wills, of Los Angeles; Intravenous Injections of Mercury in Syphilis, by Dr. F. Dudley Tait, of San Francisco; A Study of Cesarean Section, 4 Cases, by Dr. W. S. Thorne, of San Francisco; Preliminary Report on Transplantation of the Ovaries, by Dr. James McCone, of San Francisco; Some Unusual Features of Tubercular Peritonitis, with Report of Cases, by Dr. E. E. Kelly, of San Francisco; A New Method of Applying the Plaster Jacket in Vertebral Tuberculosis, by Dr. S. J. Hunkin, of San Francisco.

The officers elected for the ensuing year are, Dr. George Chismore, president; Dr. G. W. Davis, first vice-president; Dr. E. E. Kelly, second vice-president; Dr. Philip Mills Jones, secretary; Drs. Sanderson and Malaby, assistant secretaries; Drs. C. C. Wadsworth, F. B. Carpenter, E. G. Frisbie, E. E. Kelly, J. M. Williamson, F. Dudley Tait, and George H. Evans, board of examiners. San Francisco was determined upon as the place for the next meeting.

Chicago Medical Society.—At the meeting held April 26, Dr. Rudolph W. Holmes read a paper on **Inversion of the uterus complicating placenta prævia; etiology and mechanism considered.**

In 830 cases of inversion compiled by various authorities he was able to find 4 cases (which includes his own) which comprehended both complications. A priori, placenta prævia ought to be a frequent precursor of inversion from the hemorrhages which are almost constant in the former condition, and a fruitful cause of the latter. The conditions found in prævia are antagonistic to the etiologic factors of inversion.

ge.—In inversion Crampton, Crosse and Stone give re-
ectively 79, 76 and 70% occurring in women under 30, but
% of births are in women under that age. In prævia
ad and Mueller state 54 and 51% respectively above 30.
ævia is 3 times as frequent in period when version is not
one to occur.

Parity.—In 338 cases of inversion 58% were in primiparæ,
t firstborn are to offspring of multiparæ as 1 to 2½ or 3. Pre-
nderance is due to congenital causes in most cases, may be
quired from any change in structure of generative organs;
always dependent on errors in innervation and other causes
e but contributory. Simpson and Read state 92 and 80%
prævias occur in multiparæ. Crampton in 223 cases of in-
rsion gives only 6% as prematurely delivered, while Read
516 cases of prævia gives 88.3% as prematurely de-
ered.

Placental Site.—Crosse states that fundal location of the pla-
nta is so constant that it may be deemed essential. Hen-
states in 23 cases of inversion, the placenta was always
ached to the fundus or vicinity. In normal conditions there
s fundal implantations in 22% (Read), 12% (Hennig), in
examinations by authors collated by the former, and 651
latter. Inertia of placental site, or distinct paralysis of
ne, or other local or general inertia is indispensable. The
a about the ora fallopii is prone to depression (Oldham),
d contraction of Ruysch's muscle increases the introcedent
rt. Pressure of breech (or head) on fundus may cause
emia and later a paralysis which may be the beginning of
inversion, especially in dry labors or oligo-hydramnion
ahs); 65% (Lee) and 25% (Beckman) of placentas are ad-
rent. Duncan, Seiler, Desarmeaux attest to adherent pla-
ta and inversion dependent on common cause—inertia of
cental site. Tractions on the cord have produced inversion;
% (Lee), 36% (Stone), 21% (Beckman), 28% (Crampton).
edés' on atonic uteri, violent means of delivery may cause
ersion. Spontaneous inversion may be due to abdominal
ssure, muscular action, or placental influences; one may
effective, but usually all act by concerted action. Abdom-
l pressure is always present in puerperal women, though
vered; the retentive power of that pressure is absent about
lower part of the uterus in the first hours postpartum.
hen a depression exists muscular action may accelerate
inversion, but it never starts the process, unless adher-
placenta is substituted for the depression; expulsion of
erbirth means dragging the fundus after it. A short cord
y pull out an atonic uterus when the child is expelled. A
vy placenta normally so or enlarged from syphilis, in-
cts, or a retroplacental blood-clot of Schultze may bring
petus to start inversion.

echanism.—Two general kinds: one from the fundus
ressed into the cavity, the process being completed from
ve downward; the other process begins at the cervix and
gresses upward. Duncan interpreted the maneuver prop-
; Radford and Smith have based their theories on mis-
ception of the true facts. Hunter first explained sponta-
us active inversion. The cervix has no consideration in
mechanism—is a formless, inert structure, and of no
ical value. Duncan's views comprise 4 methods of inver-
n; spontaneous active and passive inversion, the propel-
power being the abdominal pressure and muscular
ion in the former, and the pressure alone acts in the lat-
; artificial active and passive inversion, the former due to
management accompanied by muscular action of the
rus, the latter caused by mismanagement of the atonic
rus. Crosse gave credence to inversion by eversion of
vix long before Taylor explained his theory of spontane-
active inversion. Duncan had depicted the condition as
mal, due simply to the prolapse of a contracted body
n on the atonic cervix. Taylor defines his theory in
ms which can be only an exaggeration of physiologic
ivity of the uterus; according to him the longitudinal
scle-fibers alone contract, but for clinical purposes the
scular elements cannot be isolated, nor can they contract
hout the participation of the other strands. Prolonged
scular action as he describes can only produce a diminu-
of the uterine volume, which precludes an inversion by
ive means. Neither can the process be produced by
sive action, for Barbour and Webster have proven by
en sections that the lower uterine segment and cervix
practically cut off from the abdominal pressure during
first hours postpartum by the uterine body which is in close approximation to the parietes; pressure is exerted on the fundus, and is in entire abeyance on the lower uterine segment. Spontaneous inversions comprise about 75% of all instances of the condition; the attenuation of the lower uterine segment in placenta prævia minimizes the structure engaged in inversion, both theoretically and clinically, thereby lessening possibility of inversion after prævia. Of greater import is the absence of fundal atony, and the absence of abnormal stimulus (the depression) to the uterine body. In the passive type the inert lower segment is not influenced by abdominal pressure, but the operative deliveries stimulate contractions, and reduce probability of adynamia uteri. In Read's cases 726 were operative labors, besides 213 had placental manipulations. Artificial causes existed in 25%, largely due to funic tractions, but in prævia methods of delivery tend to separate the placenta partially, or in toto, or at least tear the placenta that it comes away in pieces, thus reducing the surface acted upon by the tractions in the manual removal of the same.

Charles B. Reed, M.D., discussed **adherent placenta:**

If the placenta is not spontaneously delivered within two hours after the birth of child the condition is considered pathologic. The distinction must be sharply drawn between the simply "retained" and the "adherent placenta." The condition is more frequent in abortions than at term, but in the service of the Chicago Lying-in Hospital it occurs on an average in 1 to 500 labors. The mortality varies from 7% to 18%. Death from sepsis preponderates in the cases treated expectantly and in recent cases from hemorrhage.

The etiology is somewhat obscure. Among the causes attributed to the placenta are placentitis, syphilis, placenta succenturiata, placenta prævia, and abnormally thin placentas. The uterine causes comprise endometritis and atonia uteri. The frequent association of adherent placenta and inversio uteri is remarkable. In the collections of Lee, Beckmann and Stone (273 cases), the placenta was adherent in 44%.

In the uteroplacental connection it is assumed by many that an exudate is formed which becomes organized connective tissue, thus forming a firm connection. The evidence in support of this theory was greatly fortified by Neumann's contribution in 1896, with microscopic report of his case showing the intimate interlacing of the placental uterine connective tissue.

The results of retention if untreated are interesting. If partially detached, hemorrhage usually requires interference. If completely adherent it may remain for a period varying from a few months to a year, as in Gallant's case, and show few symptoms. Even a second pregnancy with placenta prævia may be superimposed. The fragment may become loosened and discharged or infected, and inflammation or hemorrhage require operation. Hartman and Toupet have studied the subject exhaustively and conclude that the fragment may result in a decidual endometritis which is relieved by curettage, or it may undergo sclerotic changes and remain. A benign polypus may form, or hydatiform mole, or even deciduoma maligna. Unless it develops pathologically the placenta-remnant in connection with the uterine wall does not grow.

Diagnosis.—Abdominal palpation gives two conditions. The uterus, large and soft, responds slowly to massage and is doughy to the touch; in the second form the uterus is hard and moderately contracted below the level of the navel, the latter is more commonly found in connection with simple retention. External hemorrhage may or may not be present. The cord may have been torn off in vain attempts to deliver placenta by traction. Revision of the uterine cavity by finger controls the diagnosis. Placenta succenturiata may confuse if the major part is delivered and the smaller part remains attached. Tarnier's sign must be considered in this connection, but it is not always available.

Indications for removal are considered (1) after abortion, (2) after labor. After abortion, if there is any hemorrhage, elevation of temperature, suspicious discharge or projecting fragments, removal should be immediate, otherwise it is justifiable to treat the case expectantly, being prepared to interfere. After labor manual removal is indicated when the usual methods have failed, or sooner if fever, hemorrhage, or exhaustion threaten the life of the mother. The external genitals are prepared as for a surgical operation, and vaginal douche of a 2% lysol is given. After the most careful attention to the nails, hands and arms, one hand, guided by the cord (if present), is passed up to the placental site and the placenta is carefully stripped from its base while the external hand secures vigorous uterine contraction. Deep anesthesia is necessary. If the fingers are not entirely successful the uterus should be tamponed with from 3 to 5 yards of iodoform-gauze, until the adherent tissue is loosened and thrown off. If delay is imperative for any reason, the uterus should be firmly tamponed. In case sepsis appears, vaginal hysterectomy is indicated in Dührssen's base.

Elevation of temperature is best controlled by quinin and diffusive stimulants. After removal, ergot may be given and uterus kept in contraction, the signs of hemorrhage looked for and discharge carefully watched. Strychnia or digitalin should be given to support the heart. If hemorrhage has been excessive, normal salt-solution to the extent of 1 to 3 quarts may be injected under the breasts, allowing 10 minutes for the infusion of each quart.

SOUTHERN STATES.

Medical College of Virginia.—Dr. John Upshur has resigned the professorship of Practice, to take effect at the end of the present session.

South Carolina Medical Association.—Dr. W. B. Porcher, of Charleston, S. C., has been elected president for the coming year.

St. Joseph's Hospital, Memphis, Tenn.—Dr. William Krauss has been elected visiting physician and Dr. F. D. Smythe gynecologist.

Centennial Anniversary of the Medical and Chirurgical Faculty of Maryland.—The Medical and Chirurgical Faculty of Maryland is the third oldest State society in the United States. The first meeting of the faculty was held at Annapolis June 3, 1799. Dr. Upton Scott, of Annapolis, was elected first president at this meeting. The centennial anniversary of the establishment of the faculty was fittingly celebrated in Baltimore April 25, 26, 27, and 28, 1899. The addresses and scientific meetings were held in McCoy Hall, Johns Hopkins University. After an invocation by His Eminence, the Cardinal Archbishop of Baltimore, the celebration was formally opened by Governor Lloyd Lowndes. Prof. S. C. Chew, president of the faculty, then delivered a masterly address in which he reviewed the progress of medical science during the century. A reception was then held by the faculty. A very attractive program had been prepared for the 3 succeeding days. The mornings were spent in attendance at special clinics held at the various hospitals in the city. In the afternoons the scientific meetings were held in McCoy Hall. Many most interesting papers were read by leading physicians and surgeons from various cities in the Eastern States. On Wednesday evening, April 26, the annual oration was delivered by Dr. W. W. Keen, on "The Debt of the Public to the Medical Profession." This has been published in the Journal, April 29, page 939. The annual dinner of the faculty was held at the Hotel Rennert on Thursday night. On Friday evening the business meeting of the faculty was held. The interest which the anniversary celebration had created among the physicians of the State was manifested by the enrolment of over 140 new names on the membership-list.

One of the most interesting features of the centennial was a collection of interesting exhibits, including (1) portraits, busts, and relics of founders and of distinguished deceased physicians of Maryland; (2) a literary and pictorial representation of the chief epochs in medicine; (3) a collection illustrating the textbooks and literature of the year of the founding of the faculty, 1799; (4) a collection of works illustrating the development of art in medicine. Of this exhibit we hope to have something to say at a later date. The anniversary celebration was in every way a most pronounced success, and the efforts of those who toiled and labored so faithfully to make it a success were amply rewarded.

Orleans Parish Medical Society, New Orleans, La.—At the meeting held April 22, 1899, Dr. E. M. Dupaquier read a paper dealing with **involvement of the heart and brain in a case that at first appeared to be a mild attack of acute articular rheumatism. Recovery. The occurrence of nausea in a case of pneumonic infection: Its prognostic value.**

Case I occurred in a strongly-built Italian, 45 years old, who had never been ill before. He was first seen 2 weeks after the onset of the disease; there was swelling of the right knee, with abarticular pains on either side of the left wrist, which presented a red spot the size of a silver dollar; the temperature was 102.4° F. A broad, thickly-coated tongue indicated derangement of the alimentary canal; no albumin was found in the urine. Ipecac was given to produce emesis, and rubinat water to move the bowels. Six grams of sodium salicylate was ordered given in the 24 hours in 3 doses, together with betanaphthol, the latter to correct the intestinal condition. In the way of nourishment milk alone was allowed. Improvement was noted on the second day, with diminution of the pains and fall of the temperature to normal; this was followed by a recrudescence on the next day. At this time the temperature was 102.5°, the arthritis of the knee more severe; there was rigidity of the neck, thought to be due to involvement of the fibrous tissues about the vertebral joints; the respirations were 30 to the minute, and the patient was slightly delirious. The pulse was weak, arrhythmic, 120 to the minute. While no abnormal sound could be heard, the apex-beat was ill defined, the heart-sounds were not clear; the precordia was the seat of pain; there was marked pulsation of the veins in the neck. In all likelihood pericarditis or endocarditis was about to manifest itself. Four-drop doses of the fluid extract of digitalis (given every hour) were substituted for the other medication, and counter-irritation, effected by means of the actual cautery, a half-inch button being used to make some 10 applications, was directed over the precordia, at intervals of ¾ inch. At the next visit, some 4 hours later, the heart was *in statu quo;* examination revealed a normal condition of the lungs and their coverings. The temperature had risen to 103°, while more active delirium, increased stiffness of the neck and injection of the conjunctivæ pointed to cerebral rheumatism, and to congestion of the cerebrospinal meninges. Resort was had to revulsive treatment. Four ⅛-grain tablets of elaterium were given at hour-intervals, causing free catharsis; the limbs were enveloped in mustard poultices. Stimulation with digitalis was kept up, while the vascular system was flushed out with large quantities of water given by the mouth. The mental condition soon improved; sweat poured from the skin. Under this treatment, the salient feature of which was the copious libations of water and milk (a gallon of each was taken daily for a week), recovery took place in the course of 12 days, the cardiac, cerebral, and articular symptoms having then disappeared entirely. A slight febrile movement persisted, soon done away with by the administration of quinin sulphate, and benzonaphthol with strychnin.

Dr. Dupaquier laid stress on the imperative necessity of withdrawing the salicylate on the occurrence of cerebral and cardiac complications, stating that these are often aggravated by this treatment, which neither prevents nor cures them.

Case II was that of an elderly female patient in whom a chill, followed by a rise of the temperature to 104° and nausea with vomiting were the prodromes of a pneumonic consolidation of the lower lobe of the left lung. In this case, the termination of which was fatal, the nausea and vomiting persisted throughout the course of the illness. Albuminuria, a rapid, weak, irregular pulse and signs of the invasion of the cerebral meninges showed the severity of the infection. In Dr. Dupaquier's experience the persistence of the gastric symptoms beyond the period of invasion indicates serious blood-changes; it should lead the practitioner to be very cautious in making his prognosis.

Dr. Hermann B. Gessner referred to an article published in the April number of the *Annals of Surgery* by O'Conor, of Buenos Ayres. Looking upon acute articular rheumatism as a surgical affection (he calls it "acute infective arthritis and cellulitis") this writer treats it by making incisions into the joints and surrounding cellular tissues and draining with gauze. He reports uniformly good results, with freely movable joints.

MISCELLANY.

Faculty of Medicine of Mexico.—Dr. Daniel M. Velez has been appointed assistant professor of ophthalmology.

Obituary.—Dr. William M. Kemp, New York, April 20, aged 53 years.—Dr. John M. Martin, of Boston, Mass., in London, England, April 19, aged 46 years.—Dr. Arnold Vandain, Tremont, N. Y., aged 70 years.—Dr. Charles Mason, Peekskill, N. Y., April 19.—Dr. C. D. Dake, Belleville, Ind., April 22, aged 50 years.—Dr. E. W. Leabo, Greenridge, Mo., April 19, aged 46 years.

The Association of American Medical Colleges.—The next annual meeting will be held in the Senate Chamber, Columbus, O., at 9 A.M. and 3 P.M., Monday, June 5, 1899. The morning session will be devoted to reading papers on educational topics, and the president's address; the afternoon session will be required for business. The program of the morning session has a paper on the elective system in medical schools, by Dean Dodson, of Rush Medical College, and a paper by Prof. G. C. Savage, of Nashville, Tenn., on the medical education of the South.

Our Losses in the Philippines.—The losses of our troops in the Philippines from August 6 are as follows:

Killed	214
Died of wounds	51
Died of disease	278
Total deaths	543
Wounded	1,223
Missing	16
Grand total	1,782

Rectal Specialists.—The following is the program of the first meeting of Rectal Specialists to be held at Columbus, Ohio, June 6–9:

The Importance of Giving Rectal Diseases Special Study, by Dr. Joseph M. Mathews, Louisville; Pruritus Ani, by Dr. James P. Tuttle, New York City; Surgical Treatment of Non-Malignant Stricture of the Rectum, by Dr. Joseph B. Bacon, Chicago; A Modification of Whitehead's Operation for Hemorrhoids, by Dr. Samuel T. Earle, Jr., Baltimore; The Proctoscope as a Factor in the Diagnosis and Treatment of Simple Ulceration of the Rectum, by Dr. Leon Strauss, St. Louis; A Consideration of the Various Forms of Ulceration of the Rectum, by Dr. Lewis H. Adler, Jr., Philadelphia; Rectal Carcinoma—Excision and Subsequent Colotomy, by Dr. B. Merrill Ricketts, Cincinnati; The Limitations of the Kraske Operation, by Dr. Charles C. Allison, Omaha; The Act of Defecation, by Dr. Thomas Charles Martin, Cleveland; Constipation Considered from the Standpoint of the Proctologist, by Dr. A. Bennett Cooke, Nashville; Paper and Exhibition of New Instruments, by Dr. S. G. Gant, Kansas City; Rectal Adenomata, by Dr. William M. Beach, Pittsburg.

Tuberculosis Among Convicts.—Dr. W. H. Blake, Physician Inspector of the Wetumpka Penitentiary, Ala., who has for years been collecting criminal statistics, calls attention to the alarming increase of consumption among convicts. He says the conditions of prison-life are specially favorable to the propagation of this disease. The death-rate from consumption among the total population of the United States is, according to our last national census, 11% of all deaths occurring. Of all deaths among State convicts in Alabama for the past 10 years 31.5% were caused by consumption. For 1895 and 1896 consumption caused 26% of all the deaths that occurred in the penitentiary of Florida. In the penitentiary of Virginia consumption caused 30% of all deaths in 1897. For 1896 and 1897 consumption caused 41.9% of all the deaths in the penitentiary of Mississippi, Dr. A. H. McCord, prison physician of the Rusk Penitentiary, Tex., says: "That fell destroyer, consumption, has again reaped its harvest, claiming 9 victims out of 19 dying from natural diseases."

American Medical Association—Section on Laryngology and Otology.—Following is the program for meeting at Columbus, O., June 6 to 8:

Address of Chairman, by Dr. Emil Mayer, of New York City; Recurring Membranous Pharyngitis, by Dr. J. O. McReynolds, Dallas, Tex.; Report of a case of Multiple Laryngo-tracheal Stenosis, by Dr. Thomas Hubbard, Toledo, O.; Tuberculosis of the Pharynx, with a preliminary report of Tuberculous Infection of the Tonsils and the lymphoid tissue of the Pharynx, by Dr. Clement F. Theisen, Albany, N, Y.; Fibroid Tumors of the Nasopharynx, by Dr. Wm. Scheppegrell, New Orleans, La.; Accessory Thyroid Tumors at the base of the Tongue, by Dr. J. Schadle, St. Paul, Minn.; Observations on the Asch Operation for Deviation of the Cartilaginous Septum, by Dr. Max Thorner, Cincinnati, O.; Some experiments in Throat Photography, by Dr. J. H. Coulter, Chicago, Ill.; The value of Muscle-training in the treatment of Vocal and Speech Defects, by Dr. G. H. Makuen, Philadelphia, Pa.; The Prognosis of Laryngeal Tuberculosis, by Dr. Robert Levy, Denver, Col.; The treatment of Chronic Croup, by Dr. Edwin Rosenthal, Philadelphia, Pa.; Lithemic Pharyngitis, by Dr. J. S. Stucky, Lexington, Ky.; Parasitic affections of the Pharynx, by Dr. E. O. Sisson, Keokuk, Ia.

Wednesday, June 7, joint meeting of the Sections on Ophthalmology and on Laryngology and Otology. Subject for Discussion.—The relation of Ocular Diseases to affections of the Nose and neighboring cavities.

On some points in the Symptomatology, Pathology and Treatment of the Sinuses adjacent and accessory to the Orbit, by Dr. Charles Stedman Bull, New York City; On Nasal Stenoses, in their relation to Ocular Disturbances, by Dr. D. Bryson Delavan, New York City; On Eye-Troubles, attributable to Nasopharyngeal and Aural Disturbances, by Dr. Joseph A. White, Richmond, Va.; On diseases of the Accessory Sinuses, in their relation to Diseases of the Eye, by Dr. J. H. Bryan, Washington, D. C.; Disease of the Antrum of Highmore: a study of 150 cases, by Dr. L. C. Cline, Indianapolis, Ind.; Necrosing Ethmoiditis, by Dr. W. W. Bullette, Pueblo, Col.; The relation of Nasal and Accessory Cavities and Dental Lesions, by Dr. D. Braden Kyle, Philadelphia, Pa.; The determining factor in the Symptomatology and Diagnosis of infective Sinus Thrombosis, by Dr. Fred Whiting, New York City; Report of a case of Metastatic and Brain Abscesses, following Suppurative Otitis Media, by Dr. D. Milton Greene, Grand Rapids, Mich.; Four cases of Otitic Cerebellar Abscesses, with Stereopticon Illustrations, by Dr. B. Alexander Randall, Philadelphia, Pa.; Suppurating Mastoiditis, with the report of a case, by Dr. J. H. Bryan, Washington, D. C.; Diagnosis and Treatment of Middle-Ear Diseases, with a new diagnostic symptom of Eustachian Stricture, by Dr. J. H. Faber, Dayton, O.; Restoration of the Deaf-Born, by Dr. N. M. Stapler, Macon, Ga.; Treatment of Hypertrophic Catarrh of the Middle and Internal Ear, by Dr. F. B. Tiffany, Kansas City, Mo.; Operative Interference in Chronic Suppurative Otitis Media, by Dr. L. S. Somers, Philadelphia, Pa.; Concerning the Complications of acute Purulent Otitis Media, by Dr. S. E. Allen, Cincinnati, O.; Extension Massage of the Ossicles, with a new Aural Masseur, by Dr. Hamilton Stillson, Minneapolis, Minn.; The conveyance of Infection through the medium of the Ear-Syringe: A Remedy, by Dr. F. C. Todd, Minneapolis, Minn.; Uncommon Causes of Pyogenic Infection of the Middle Ear, by Dr. Robert Sattler, Cincinnati, O.; The Anatomic Variations of the Nasal Chamber and associated parts, by Dr. M. H. Cryer, Philadelphia, Pa.; Further report on Submucous Linear Cauterization, by Dr. Norval H. Pierce, Chicago, Ill.; The Atomizer, and its use, by Dr. G. V. Woolen, Indianapolis, Ind.; Notes on some of the more recent remedies in Throat, Nose and Ear Practice, by Dr. S. G. Dabney, Louisville, Ky.; "Colds," by Dr. Ephraim Cutter, New York City; Headaches of Nasal Origin, by Dr. Carolus M. Cobb, Lynn, Mass.; Hypertrophy of the Turbinated Bodies, and their relation to Nasopharyngeal and Middle-Ear Inflammations, with deductions based upon 1,500 operations, by Dr. C. R. Holmes, Cincinnati, O.; Intranasal Angioma or Bleeding Polypus of the Septum, by Dr. W. E. Casselberry, Chicago, Ill.; Carcinoma of the Nasal Passages, with the report of a case, by Dr. J. S. Goodale, Boston, Mass.; Sarcoma of the Nasal Passages, by Dr. H. V. Wurdeman, Milwaukee, Wis.; Angioma of the Nose, by Dr. T. R. Chambers, Jersey City, N. J.; Adenosarcoma of the Septum, by Dr. A. R. Barker, Cleveland, O.;

Nasal and Aural complications in Epidemic Influenza, by Dr. Sargent F. Snow, Syracuse, N. Y.; Common Nasal Causes of Eye-Symptoms, by Dr. W. L. Grant, Fargo, N. D.; The treatment of Nasopharyngeal Adenoids, by Dr. Louis J. Lautenbach, Philadelphia, Pa.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service for the week ended April 29, 1899:

SMALLPOX—UNITED STATES.

			CASES.	DEATHS.
ALABAMA:	Tallapoosa Co. .	April 14	Prevalent.	
CALIFORNIA:	Los Angeles . .	April 15-22	6	
DISTRICT OF COLUMBIA:	Washington . .	April 27	1	
GEORGIA:	Savannah . . .	April 17	2 cases, origin Montgomery, Ala.	
INDIANA:	New Albany . .	April 15-22	2	
LOUISIANA:	Shreveport . . .	April 15-22	3	
"	New Orleans . .	April 15-22	9	
MASSACHUSETTS:	Boston	April 17-28	6	
MINNESOTA:	Minneapolis . .	April 9-15	1	
"	St. Paul	April 9-15	1	
NEW YORK:	Buffalo	April 20	1	
"	Elmira	April 15-22 . . .	1	
PENNSYLVANIA:	Allegheny Co. .	March 30-April 12,	4	
"	Cambria Co. . .	" " " "	1	
"	Blair Co.	" " " "	22	
"	Fayette Co. .	" " " "	20	
"	Somerset Co. . .	" " " "	48	
"	Washington Co.	" " " "	1	
RHODE ISLAND:	Providence . .	April 21	2	
TEXAS:	Galveston . . .	April 1-15	10	
"	Laredo	April 1-8	17	
VIRGINIA:	Newport News .	April 14-19	9	
"	Norfolk	April 13-26	41	
"	Portsmouth . .	April 13	10	

SMALLPOX—FOREIGN.

BELGIUM:	Ghent	April 1-8		1
BRAZIL:	Bahia	March 18-April 8 .	8	1
"	Rio de Janeiro .	March 3-10	1	7
CHINA:	Hong Kong . .	March 3-11	3	1
ENGLAND:	London	March 25-April 8 .	2	
GREECE:	Athens	March 25-April 8 .	62	32
INDIA:	Bombay	March 14-21 . . .		10
"	Calcutta	March 4-18		8
KOREA:	Seoul	March 11	Many cases and deaths.	
MEXICO:	Mexico	April 9-16	10	4
RUSSIA:	Moscow	March 25-April 1 .	20	3
"	Odessa	April 1-8	2	1
"	St. Petersburg .	March 25-April 1 .	16	3
"	Warsaw	March 18-April 1 .		5
TURKEY:	Constantinople,	March 20-April 10		22
"	Smyrna	March 12-26 . . .		1
URUGUAY:	Montevideo . .	March 11-18 . . .	1	

YELLOW FEVER.

BRAZIL:	Bahia	March 18-April 1 .	13	7
"	Rio de Janeiro .	March 3-10	91	58
MEXICO:	Vera Cruz . . .	April 13-20		4

CHOLERA.

INDIA:	Bombay	March 14-21 . . .		7

PLAGUE.

FORMOSA:	Tamsui	Feb. 22-March 8 .		63
INDIA:	Bombay	March 4-21		1128 deaths officially reported. Probably 1900.
"	Calcutta	March 3-18		188

Changes in the Medical Corps of the U. S. Army.

STRONG, First Lieutenant RICHARD P., assistant surgeon, is relieved from duty with the Twenty-second Infantry, and will report to the surgeon in charge of the first reserve hospital for duty.

DUDLEY, F. W., acting assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

MURTAGH, JOHN A., acting assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

BROWN, HENRY A., hospital steward, now at Angel Island, is relieved from further duty at that post, and will report on board the transport "Warren" for duty on that vessel.

SCHIMANN, OTTO, hospital steward, is relieved from further duty on the transport "Warren" and will report at Angel Island for duty.

GRAY, R. F., acting assistant surgeon, is, on account of illness, relieved from further duty on the transport "Warren" and assigned to duty at the U. S. General Hospital, Presidio.

WILLIAMS, ROBERT E., acting assistant surgeon, is relieved from further duty at Angel Island, and assigned to duty as surgeon on the transport "Warren."

EDIE, Major GUY L., brigade-surgeon, is assigned to duty with troops sailing on the transport "Warren," about the 18th inst., to Manila, P. I. Upon arrival at Manila Major Edie will report to the commanding general, department of the Pacific, for assignment to duty.

MCVEAN, W. A., acting assistant surgeon, now at the U. S. General Hospital, Presidio, is assigned to duty as surgeon on board of the transport "Hancock" during the voyage of that vessel to Philippine Islands and her return.

BARNEY, CHARLES N., acting assistant surgeon, will report for duty to the commanding officer, battalion of recruits and casuals, Presidio, as attending surgeon.

PEARL, FREDERICK, acting assistant surgeon, will report for duty to the commanding officer, U. S. General Hospital, Presidio.

JONES, R. FLEMING, acting assistant surgeon, now on duty with light Battery F, Fourth Artillery, in camp at the Presidio, is assigned to duty as attending surgeon on the steamer "Leelanaw," during the voyage of that vessel to Manila, P. I.

RAMSAY, GEORGE D., acting assistant surgeon, will proceed from Fort Hamilton to Fort Columbus, for temporary duty.

QUINTON, Captain WM. W., assistant surgeon, leave granted is extended one month.

HAYWARD, EDWIN P., acting assistant surgeon, will proceed to San Francisco, Cal., for assignment to duty.

HUNTER, Major RANDALL R., brigade-surgeon, is granted leave for two months on surgeon's certificate.

BAKER, CHARLES L., acting assistant surgeon, is relieved from further duty in the Second Army Corps, Camp Mackenzie, Ga., to take effect when his services can be spared, and will proceed to Washington and report to the Surgeon-general of the Army.

BRUNING, CHARLES, acting assistant surgeon, will proceed from New Orleans, La., to Havana, Cuba, for assignment to duty.

RAINOLD, M. W., acting assistant surgeon, will proceed from Savannah, Ga., to Havana, Cuba, for assignment to duty.

KNEEDLER, Major WILLIAM L., brigade-surgeon, U. S. V. (captain and assistant surgeon U. S. A.) is honorably discharged from the volunteer army to take effect June 30; is relieved from duty at Pinar del Rio, Cuba, and will return to his proper station, West Point, N. Y.

GREENLEAF, Colonel CHARLES R., assistant surgeon-general, will proceed so Savannah for the purpose of superintending the sanitation of the military camps near that city.

MCCLEAVE, THOMAS G., acting assistant surgeon, will proceed from New York City to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

NETTELBROTH, ALEXANDER, acting assistant surgeon, is relieved from further duty at Matanzas, Cuba, and will proceed to Fort Thomas.

SCHREINER, First Lieutenant EDWARD R., assistant surgeon, is relieved from further duty at Plattsburg Barracks and will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

LONG, CLARENCE H., acting assistant surgeon, will proceed from Gainesville, Ala., to Havana, Cuba, for assignment to duty.

Changes in the Medical Corps of the U. S. Navy

for the week ending April 29, 1899:

BARBER, G. H., passed assistant surgeon, detached from the Naval Academy May 1 and ordered to the "Monongahela."

HOLCOMB, R. C., assistant surgeon, detached from the Naval Academy May 1 and ordered to the "Monongahela."

Changes in the U. S. Marine-Hospital Service,

for the seven days ended April 27, 1899:

BAILHACHE, PRESTON H., surgeon, granted leave of absence for 30 days on account of sickness. April 24.

WHEELER, W. A., surgeon, granted leave of absence for 27 days from June 4, 1899. April 21.

BANKS, C. E., surgeon, to proceed to Vineyard Haven, Mass., New York, N. Y., and Baltimore, Md., as inspector. April 27.

PETTUS, W. J., passed assistant surgeon, to report to Chairman of Board of Examiners at Washington, D. C., on May 16, 1899, for examination to determine fitness for promotion. April 27.

MAGRUDER, G. M., passed assistant surgeon, to report to Chairman of Board of Examiners at Washington, D. C., on May 16, 1899, for examination to determine fitness for promotion. April 27.

KINYOUN, J. J., passed assistant surgeon, to report to Chairman of Board of Examiners at Washington, D. C., on May 16, 1899, for examination to determine fitness for promotion. April 27.

KINYOUN, J. J., passed assistant surgeon, relieved from duty as director of the Hygienic Laboratory, Washington, D. C., and directed to proceed, not later than June 1, 1899, to San Francisco, Cal., Quarantine Station, and assume command. April 27.

WERTENBAKER, C. P., passed assistant surgeon, to report to the Governor of Virginia for special temporary duty. April 21.

PERRY, J. C., passed assistant surgeon, to assume temporary command of the service at Port Townsend, Wash., during the absence of Passed Assistant Surgeon C. H. GARDNER. April 24.

ROSENAU, M. J. passed assistant surgeon, upon being relieved from duty at Santiago, Cuba, to proceed to Washington, D. C., and assume charge of the Hygienic Laboratory as Director. April 27.

EAGER, J. M., passed assistant surgeon, to proceed to Evansville, Ind., and Cincinnati, Ohio, as inspector, and to Louisville, Ky., as inspector of unserviceable property. April 22.

PARKER, H. B., assistant surgeon, to proceed to Santiago, Cuba, and report to Passed Assistant Surgeon M. J. ROSENAU, for duty. April 24.

STER, M. H., assistant surgeon, to proceed to the Brunswick (Ga.) Quarantine Station for special temporary duty. April 27.

MSDEN, L. L., assistant surgeon, is relieved from duty as Sanitary Inspector on the U. S. Transport "Logan" and directed to report to the medical officer in charge of the Savannah Quarantine Station for temporary duty. April 22.

MSDEN, L. L., assistant surgeon, to report at Washington, D. C., en route for Seattle, Washington. April 25.

MUS, CARL, assistant surgeon, to proceed to Norfolk and Portsmouth, Va., for special temporary duty. April 26.

BOARD CONVENED.

ard convened to meet at Washington, D. C., Tuesday, May 16, 1899, at 10 o'clock A.M., for the examination of Passed Assistant Surgeons to determine their fitness for promotion to the grade of Surgeon. Detail for the Board, Surgeon CHARLES E. BANKS, Chairman; Surgeon J. H. WHITE and Surgeon P. M. CARRINGTON, Recorder.

RESIGNATION.

IEELER, W. A., surgeon, resignation accepted, by direction of the President, as tendered, to take effect June 30, 1899. April 20.

Foreign News and Notes.

GREAT BRITAIN.

Major Roland Ross, I.M.S., well known for his investi- ions relative to the malarial parasite, has been elected turer in tropical medicine in the Liverpool School of pical Medicine.

Mr. W. Mitchell Banks, M.D. Edinburgh, R.C.S. England, Professor of Surgery in University lege of Liverpool, has had conferred upon him the norary degree of Doctor of Laws by Edinburgh University.

uccessful Action Against "A Female American ctor."—An action brought on April 18 at Manchester inst the "female American doctor," Mrs. Longshore-ts, for negligence and want of skill proved successful, the returning a verdict against her with damages £175.—*ncet.*]

he Chair of Pathology in Glasgow University, vacant the death of Prof. Coates, has been conferred upon Prof. ir of St. Andrew's, who has been for several years occu- l in the various departments of pathologic investigation, ll of which he has obtained considerable experience. chair is worth more than $5,000 a year, and the professor a holiday of several months.

he Health of Dublin.—The death-rate in Dublin, ch at the beginning of April had been from 31.6 to 32 per 0, rose in the third week of the month to 33.6. This ns that during the last week of March and the first three ks of April the rate of mortality in the city has averaged per 1,000, the rate during the same period in London g 21.2, and in Edinburgh 19.8. An increase in the death- among infants in Dublin is only partially responsible hese ominous figures, and it behooves the ancient capital reland to look closely into the matter. Dublin is at one the same time a fine and spacious city and a very dirty and it seems certain that not sufficient pains are taken he municipality to make it cleaner.

urface-Temperature of the Abdomen in Enteric er.—The *Lancet*, quoting the *Policlinico*, states that Pro- r R. Massalongo and Dr. S. Silvestri, of Verona, publish mmary of observations which they have made on the ace-temperature of the abdomen in enteric fever. All observations were made by themselves personally and with any specially constructed instrument, but with nary maximum thermometers having small thin bulbs, and so sensitive that the mercurial column became stationary in about 10 minutes. The thermometer being placed against the abdomen was covered with a thin layer of cotton-wool, and the whole was held in position with the fingers, so that the conditions as to pressure and radiation were as nearly as possible the same as when a temperature was taken in the axilla. Some experience of the method seems to be required, for their first observations, made several years ago, often gave discordant results; not so, however, with the later ones. Two or more thermometers which have been previously compared with one another may be used simultaneously. They found the surface-temperature of the abdomen in healthy individuals to vary between 36° and 36.4° C. (beteen 96.8° and 97.5° F.), being constantly from 0.4° to 0.5° C. lower than that of the axilla. In various diseases of the abdomen, such as acute and chronic enteritis, acute and chronic tuberculosis, appendicitis, perityphlitis, acute, subacute, and chronic peritonitis, it was, on the contrary, found that the surface-temperature of the abdomen was higher than that of the axilla. In enteric fever this was especially marked, the curve given by the surface-temperature of the lower region of the abdomen being in most cases higher than that of the axilla by 0.5° C. or more. The interval between the curves is greater at the beginning and end of the illness than during the intervening period, a feature which is useful firstly in the early diagnosis of a case of enteric fever, and second in judging of the danger of relapse after convalescence appears to have set in.

The Late Sir William Roberts.—The death of Sir William Roberts, which occurred on April 16, at his London residence, did not come as a surprise to any of his friends, who, indeed, have known for some weeks that his condition was a hopeless one. Sir William Roberts earned his great reputation as a physician in Manchester, where he was connected with the Infirmary Hospital for 34 years, first as resident medical officer and then as physician and consulting physician. He made his scientific mark by his original work on the functions of the kidneys and physiology of digestion and nutrition, and while a comparatively young man was invited to deliver several of the official lectures at the Royal College of Physicians of London—for example the Goulstonian lectures and the Lumleian lectures—and was also elected a Fellow of the Royal Society. Sir William Roberts had a somewhat unusual personality for a great scientific physician. The exuberance of his jocosity kept his eyes always twinkling and his mouth always smiling; his demeanor was unaffected to a point that was almost undignified; and his speech was strongly marked with an aggressive Welsh accent. Strangers might have taken him for a humorous gentleman-farmer. He was in reality a shrewd and penetrating observer of men and an untiring worker for their good, a great clinician and an ardent and successful searcher after scientific truth. He was also genuine in his geniality. This formed no mask to conceal the more austere phases of his character. He was from crown to toe a kind man as well as a learned one, and of his numerous pupils and friends there are fully as many able to give practical testimony to the one side of him as to the other. We may add that when we announced a week or two ago in the JOURNAL that Sir William Roberts had resigned his seat on the Commission for the reconstitution of London University we were informed that his public career had come to a close.

The Centenary of the Charter of the Royal College of Surgeons of England.—At the last meeting of the Royal College of Surgeons of England a report was received from a committee which had been appointed to consider the question of celebrating the centenary of the granting of a royal charter to the college. The charter is dated March 22, 1800, and the centenary would naturally be celebrated on the same date in 1900, but it is the intention of the college to put the ceremony off until June 30, 1900, the last day of June, being the termination of the college year. Occasion will be taken at the time to obtain a supplemental charter whereby the Council of the College can confer the honorary degree of the Fellowship of the college upon persons other than members, this being regarded by the college authorities as a much-needed amendment. Whether the members of the college who form the enormously preponderating number of the corporation and whose fees alone place it upon a fairly sound financial basis, will consider this particular way of celebrating the centenary of the granting of their charter a very happy one is doubtful. It does them no good, while there are several alterations in or additions to the charter that might be made to their distinct advantage. As a matter of fact the college is somewhat cynical in desiring to celebrate the centenary of its charter at all, for the history of that document is a discreditable one. At the end of the eighteenth century the old company lost its constitution by not conforming to its articles of association. A scheme was then put forward for reconstitution which passed through the House of Commons but to which the House of Lords, guided by the Lord Chancellor, refused sanction, because it did not propose to remedy the many abuses which had been previously rife. Those interested in maintaining the college upon its old corrupt basis had the wit to perceive, after their rebuff in the upper House, that this could never be done by any means which permitted the past records of the college to become public, so they dropped all Parliamentary agitation and requested George III to grant them a royal charter instead. In their charter they put all the old offensive regulations by which the college, its dignities, its funds, and its emoluments were to be held by a small and self-elected governing body and not to be shared in by the members. George III was badly advised and granted what they wanted. It is fair to say that since that day several innovations have given the rank and file of the college a somewhat better position than was originally designed for them, still, at the present time, the president and council of the corporation, who have complete control over everything, are not elected by the members but by the very small body of Fellows. Theoretically it is open to every member to become a Fellow, but practically only a very few men can spare the necessary time for extra study. If the college desire to celebrate the centenary of their charter in a just as well as a popular fashion, they should obtain powers to supplement it with a clause giving all their members a vote for their governing body.

CONTINENTAL EUROPE.

University of Cracow.—Dr. Alexander Rosner has been appointed professor of obstetrics.

University of Lemberg.—Dr. Stanislaus Bondzyuski has been appointed extraordinary professor of hygiene.

Sudden Death Under Nitrous Oxid.—In Leipzig recently a young American woman had a tooth removed under gas (unconsciousness lasting ¾ minute). After being awakened apparently all right, she sank back dead. The only explanation given is heart-failure. On her arm several punctures as of hypodermic injections of morphia were discovered.

University of Marburg.—Dr. Heinrich Bonho privat-docent in the University of Berlin, has been appoint extraordinary professor of hygiene.

A Clinic Centennial.—The Leipzig medical "Clinik has just celebrated its 100th anniversary. Busts of C. Wunderlich and C. Wagner were unveiled during the cer monies.

Sickness in the Bavarian Army.—From April 1894, to September 30, 1896, occurred 36,005 cases of sickne in the Bavarian army. Of these 1020 rendered the suffere unfit for service, and 33 patients died.

Sugar as a Stimulant.—Dr. Schaumburg, of Berl (army staff physician), reports that according to his expe ments, sugar (say 30 grams) increases the ability to wor since it goes into the tissues as nourishment so quickly, ar also because it has the power to remove the feeling of fatigu

Governmental Reward for Furnishing Ski Grafts.—In Stuttgart occurred recently the successf transplantation of the skin from the legs of a 16-year-o boy, Carl Frohnmüller, to those of his sister (burned acids). His bravery and self-sacrifice were rewarded by government medal.

Obituary.—DR. EUGEN SEITZ, formerly professor of cli ical medicine in the University of Giessen.—DR. THEODO NEUREUTHER, professor in the Bohemian University Prague.—DR. ALFRED GRAEFE, formerly professor of ophtha mology in the University of Jena.—DR. JOSEPH ENGE formerly professor of pathologic anatomy in the Universit of Vienna.

The **German Association Against the Misuse Spirituous Drinks** has issued a circular to the studen of Germany asking that the compulsion in the corps a vereins to drink beer be done away with. They put the pl on the ground of the much-boasted German Freiheit (li erty) of the students. Then they add that everyone kno how ill-fitted a student that has spent an evening at knei ing is the next day for fencing. This very diplomatic appe is signed by 262 university men, of whom 219 were former members of German student clubs.

Beer-Drinking by Children.—Stumpf, of Munic called attention in forcible language to the lamentable ha of the Müncheners of giving beer to their children. It is frequent occurrence, he states, to see children of two yea and even of one year, drinking out of the beer-mugs of the parents. In the women of Munich, the excessive consum tion of beer leads, among other disorders, to a huge fat-d velopment in the breasts; thereby the function of the orga is impaired, and it becomes necessary to resort to artifici feeding, with all its disastrous consequences. From the fi ures given by Stumpf one can form an idea of the appalli capacity of the Bavarians. In a population of 5,818,544 t annual per capita consumption of beer is 243 liters, or ov 250 quarts, representing an outlay of nearly $15 per annu or, for the whole population, an expenditure of $84,834,1 And this only for a single article—beer!

From a purely economic point of view, a reform of su conditions is necessary, and from the standpoint of nation character, the reform is imperatively demanded. The su cess of the temperance-movement in England and Ameri has served to encourage the German agitators. It is to hoped that the habits of the nation, which are probably eradicable, may at least be modified on a national basis that science and art may continue to reap the benefit of that is noblest and best in the German character.

Society Report.

[From our Special Correspondent.]

HE SEVENTEENTH GERMAN CONGRESS OF INTERNAL MEDICINE.

Held at Carlsbad, April 11–15, 1899.

After Wiesbaden—Carlsbad. Would it be possible to choose ore delightful places for a Congress than these? Carlsbad ith its beautiful surroundings, its handsome luxurious baths, wonderful fountains, its innumerable places of amusement id quiet enjoyment, would make even a doctor forget that ere was such a thing as sickness and death. True, it lies Bohemia, and the late German-Czechish disturbances were ot of a particularly inviting nature, but the organizers of e Congress did not fail to take this into consideration, for every program was the sentence, "Carlsbad lies in the tirely German region of northwest Bohemia." The rumor that Prague had been chosen as the seat for this year's ngress, but this was decidedly opposed by the secretary of e Congress, Prof. von Jaksch, and others of the Prague nicians. They contended that the troubles were too recent d had been too violent to risk a meeting there. Here erything was ideally prepared for the reception of the siting physicians, the townspeople themselves, with Mayor häffler at their head, vying with the Carlsbad scientists in eir endeavors to make things agreeable.

It was before the time for opening the season when the ctors arrived, but for their sake everything was set in mon so that they would miss nothing of what the city was at e height of the season. There was but one bad feature, at it rained persistently. Carlsbad is situated in a long, rrow valley running from north to south. The mountains the sides of the valley almost overhang the town and are vered with extensive forests of pine, fir, and beech, through ich are miles of walks and bridle-paths. There are from to 20 saline springs, the most famous of which is the prudel." The waters vary slightly in both composition d temperature, the Sprudel being the hottest with a temrature of 160° F. The cure consists in drinking the waters d in baths. The bath-houses are models of elegance, using ery appliance and kind of bath known, as spray-baths, ctric-water baths, electric-light baths, steam-baths, vaporths, cold-water baths, mud-baths, and various modificans of these.

The sessions were held in the large hall of the "Kurhaus," d among the participants were Professors Leyden, Senator, incke, Martins, Minkovsky, Schott, Hoffmann, Nothnagel, usser, von Jaksch, and others.

The Congress was opened with the President, Prof. incke (Kiel) in the chair. Count Coudenove, Governor Bohemia, delivered the address of welcome, in which he ended thanks to the medical profession for the improvent in the mortality-statistics of the State, calling atten n to the fact that while the percentage of deaths in hemia due to infectious diseases was 16% in 1888, in the st year it was but 6%. After the transaction of some gen l business the scientific part of the Congress was opened a paper on

nsufficiency of the Heart-muscle.—Prof. von Schröt (Vienna) said that in working, the normal human heart er employed all its power, but held some in reserve; but t this reserve-force was an individual force usually inher l. On this congenital specific energy usually depends the gnosis of valvular disease. With a functionally strong scle, valvular disease may be borne for years without nptoms, but if the reserve-force is small and extra de nds are made on it, insufficiency may become manifest hout even a visible anatomic lesion. The importance of genital weakness of the heart-muscle, he thought, had been sufficiently insisted upon. This weakness he does consider due to nervous causes, because the heart existed pulsated before ganglia were formed in it. In connec with this congenital weakness he observed that the rt experiences no feeling of weariness, and so it happens t many "who employ their muscles too much and their llect too little" in the different sports, as bicycling, ntain-climbing, etc., realize only too late the irreparable injury to the heart-muscle. On account of the power of compensation, a power not possessed in so high a degree by any other structure in the body, the heart finally answers the increased demand and hypertrophies; but this is a pathological condition which sooner or later leads to complete exhaustion of the organ. Besides an insufficiency due to overwork of a congenitally weak muscle, von Schrötter recognized an insufficiency due to nervous causes manifesting itself usually in tachycardia. He illustrated this by a clinical example of what is ordinarily termed "broken-heart." A woman, aged 36, felt so deeply the death of her husband, whom she had nursed through a long illness, that her only desire was to follow him. Although up to this time she had been perfectly healthy, she now began to decline, developed symptoms of heart-weakness, tachycardia, etc., and after a short period died. Investigations on the hearts of animals after inducing disturbances of the nervous system have yielded but little information.

Prof. Martins (Rostock) considered fatty infiltration and degeneration of the heart-muscle less serious than ordinarily affirmed. He believes he can prove that the heart-impulse occurs during closure of the valves. He called attention to the fact that in normal young people there is little or no apex-impulse, while weakened hearts frequently produce a diffuse, well marked one. From this he concludes that the normal heart performs its work without striking the chest-wall, in other words without friction, and therefore under the best possible conditions.

Prof. Schott (Nauheim) spoke particularly on the treatment of chronic heart-disease of youth. He especially called attention to the common seat of the lesion, while in advanced life arteriosclerosis led to a more common affection of the aortic valve, this in early life was rarely diseased. For treatment he employs baths, regulated diet, and exercise.

Discussion:—Prof. His (Leipsic) regretted the deficiency of knowledge as to the nervous mechanism of the heart. He described a phenomenon that he recently observed. For from 30 to 40 seconds the ventricles ceased to beat, the heart-sound, the impulse, and the pulse disappearing, but a rhythmic sound was audible over the auricles and a venous pulse was evident in the neck. The heart's contractions returned, but the contractions of the auricles continued more frequent than those of the ventricles for some time. Prof. Quincke (Kiel) claimed that by the Röntgen rays he had been able to see the ventricle fill, and then not empty itself completely. Dr. Grossmann (Vienna) advised that patients should not be allowed to leave the hospital too soon, since the demands of daily life soon brought them back to their original condition. It was particularly for patients afflicted with heart-trouble that convalescent homes were a necessity. Prof. Poehl (St. Petersburg) said that the products of cardiac exhaustion belonged to the xanthin group, but that they were more readily oxidized. In many cases of heart-disease the urine was excreted under a much reduced osmotic pressure, and it was possible that mineral waters might increase this pressure and so relieve the heart. A number of others were to speak on this subject, but the hour to close the session was at hand, and the discussion was closed.

Leukemia and Leukocytosis.—Prof. Löwit (Innspruck) said that so far we had sought the cause of leukemia in the blood-making organs, but by a new process of staining he had discovered in the blood during leukemia two forms of amebæ in cases of myelogenic leukemia,—one that he named hæmamœba leukæmiæ magna, and another in lymphatic leukemia, the hæmamœba leukæmiæ vivax. Though unable so far to cultivate these parasites, he has succeeded in transferring the disease to the lower animals, which dried after several months with all the symptoms and the invariable presence of the microorganism in the blood, both in stained and unstained preparations. On the ground of this finding he recommends a trial of quinin in leukemia, though his own experience in this direction is as yet too slight to draw conclusions from.

Prof. Minkovski (Strassburg) dealt with the subject of leukemia from the side of chemistry. He believes the examination of the cell-nuclei to be of great importance, but this is as yet unrealized because the connection between the results of the examination and the clinical symptoms are unknown. The study of the formation of uric acid has lately taken on renewed interest on account of its increase in leukemia and leukocytosis.

He differentiated leukemia and leukocytosis by clinical symptoms, and mentioned 3 forms of leukemia, common leukemia, acute leukemia, and chronic lymphemia. In the study of leukocytosis can be seen the value of therapeutics, since it is possible by different tissue-extracts, products of bacteria and drugs to increase or to lessen the number of leukocytes. The first one to draw attention to the treatment of leukemia by these means was Dr. Müller, who died a martyr to his study of the plague. It will not be long before Virchow's saying of 50 years ago, "I claim for the colorless blood-corpuscles a place in pathology" will also apply to therapy.

Discussion.—Prof. Goldscheider (Berlin) remarked on the significance of Löwit's discovery, but doubted the possibility of the transference of leukemia to the lower animals. Prof. Grawitz (Berlin) reported some interesting experiments on leukocytosis in animals. Dr. Kühnau (Breslau) spoke on "some renal changes in leukemia." Prof. Graus (Gratz) observed in his cases of leukemia an increase in fibrin-factors in the blood. Prof. Löwit closed the discussion by saying that he did not give his methods of staining and inoculation in extenso, because they would be shortly published, and from the publication there would be less likelihood of misquotations and misunderstandings.

[At the beginning of the afternoon session he demonstrated the hæmamœbæ microscopically. They were situated usually near the wall within the leukocytes, and were stained red, while the rest of the cell was blue.]

Diagnosis and Treatment of Aneurysm of the Aorta.—Prof. Schmidt (Frankfort) laid especial stress on Oliver-Cardarelli's symptom of tracheal tugging as an early sign of aneurysm of the aorta and recommended the habitual use of the Röntgen-rays. Out of 54 cases coming under his observation, 52 of which were in men, he found evidence of syphilis in but 16. In certain parts of Bavaria, where women did excessive physical work, he found aortic aneurysm as frequent as among men. In regard to treatment he recommended potassium iodid, rest in bed for about 8 weeks and "the starvation diet" recommended by Tufnell 30 years ago. In this regime the diet is cut down one-half and water is limited to 350 cc. daily.

Discussion.—Prof. Hansemann (Berlin) stated that in 64 cases of aneurysm met by him on the postmortem-table, he had found evidence of syphilis in 12. Prof. Senator (Berlin) believed the Röntgen-rays essential only in diagnosing aneurysm of the descending aorta. He detailed a case under treatment by himself in which he was following the method advocated by Carnot of injecting solutions of gelatin. Prof. Quincke (Kiel) thought the connection between syphilis and aneurysm, in view of the success attending the potassium-iodid treatment, was greater than the previous speakers seemed to admit.

Hyalin Degeneration.—Prof. Czerny (Breslau) said that hyalin degeneration resulted from the destruction of cell-protoplasm. It could be produced artificially by inducing suppuration. In cases of cachexia it changed into amyloid material, and in them it might also be carried by the circulation and deposited in and around the vessels—more especially those of the brain.

Diseases of the Gastrointestinal Tract.—Petersen (Heidelberg) gave the indications for surgical intervention in cases of nonmalignant disease of the stomach.

Prof. Ewald (Berlin) described a form of appendicitis coming on with general gastrointestinal disturbances without any local symptoms whatsoever. He detailed a case which had been treated for years as hysteria. The patient was finally operated on by Sonnenburg, who found adhesions, ulcerations and suppuration about the appendix.

Prof. Escherich (Gratz) and Jacobi (Berlin) spoke on the virulence and peculiarities of the bacterium coli communis.

Diseases of Kidney.—Prof. van Noorden (Frankfort) dealt with the treatment of chronic diseases of the kidney. In cases of contracted kidney he spoke strongly against milk, and alkaline mineral water-cures. All this liquid tended only to overburden the already diseased bloodvessels and compromise the heart.

The Origin of Fat in the Living Organism.—Dr. Rosenfeld (Breslau) claimed that albumin was not converted into fat, and so the only fat that carnivorous animals showed, was obtained from whatever small amounts of fat that might be mixed with the flesh. The vegetable feeders, on the contrary, showed much more fat, the fat being pr duced out of the carbohydrates. The fat of different an mals differed in accordance with the kind of fat consume or from what produced. Fish can be made to take o mutton-fat by feeding them for a long time with it. He als believes that the kind of human fat is determined by it origin, and that the fat of Esquimaux will give the chara teristics of fishblubber, and that of the Polynesians those cocoanut fat.

A New Bacillus for Syphilis.—Niessen (Wiesbade has cultured a bacillus from the blood of syphilitics, the i oculation of which into monkeys and pigs calls forth sym toms somewhat similar to those seen in the human being, peculiar rash of the skin and mucous membranes, swelli of the lymph-glands and finally fatal disease of the nervou system.

Gout and Uric-acid Formation.—Spitzer (Bresla claimed that investigations led him to believe that uric aci is not formed in the muscles, connective tissue, or the ki neys, but probably in the liver and spleen.

Discussion: Wiener (Prague) and Jacobi (Berlin) ind pendently of one another had reached the same conclusio

Albuminuria.—Prof. Pribram (Prague) claimed th albuminuria frequently occurs at intervals in pale, delicat rapidly-growing youths and maidens.

Tetanus Serum.—Blumenthal (Berlin) mentioned h earlier denial of the efficacy of tetanus-serum. Experimen in the meantime, in which he injected the serum direct into the brain, or into the cerebrospinal fluid of goat afflicted with the disease without effect, have strengthene his former opinion.

Arthritis deformans.—Weiss (Bad Pistyan) answere the question, "Does arthritis deformans occupy a distin place clinically?" He said that between it and chron articular rheumatism there existed no especial difference a regards beginning, course, or possibility of cure. He aske therefore, that it be omitted from the textbooks as an ind pendent disease.

During the third day's session a vote was taken for th president for next year, and the choice fell on Prof. vo Jaksch (Prague).

He Wanted to See the Microbes.—According to report in the *Evening News* a member of the Twickenha District Council has "gone one better" than the vestryma who suggested that it would be more economical to have tw gondolas on a piece of ornamental water than one, as a pai could be used for breeding purposes. At the Twickenha District Council, says our contemporary, the matter of con verting a settling-tank at the sewage-works into a bacteri bed for experimental purposes came before the meeting, an one of the members suggested that a glass screen should b placed at one side of the tank so that the members the council could watch the process. The chairman point out that if the suggestion were carried out it would be im possible to see anything. "But," said the member, "you ca see fish swimming in an aquarium!"—[*Lancet.*]

International Congress of Women.—We learn fro the *British Medical Journal* that an International Congress Women will be held in London this year, beginning June 2 and continuing till July 4. This Congress is under the au pices of the International Council of Women, which wi hold its quinquennial session June 28. The program divided into 5 sections. In the "Professional Section" th following subjects are proposed for treatment and discussio Professions: (*a*) Professions open to women; (*b*) effect upo domestic life of the admission of women, to the profession Medicine: (*a*) Training and qualifications of women doctor (*b*) women's work as doctors in private practice and und Government. Nursing: (*a*) The professional training an status of nurses; (*b*) the organization of trained nurse alumnæ associations; (*c*) the future organization of th nursing profession.

The Latest Literature.

British Medical Journal.

April 15, 1899. [No. 1998.]

1. Antenatal Therapeutics. J. W. Ballentyne.
2. A Systematic Bacteriological Examination of the Fauces in Scarlet Fever as a means of Preventing Postscarlatinal Diphtheria. G. C. Garratt and J. W. Washbourn.
3. A Case of Acute Tetanus Treated by Intracerebral Injections of Antitoxin; Recovery. William F. Gibb.
4. Cure of Morphin, Chloral, and Cocain Habit by Sodium Bromid. Neil Macleod.
5. Observations on Oxyuri Vermicularis in Children. Geo. F. Still.
6. Neurotic Ulcers of the Mouth (Stomatitis neurotica Chronica). W. Knowsley Sibley.
7. The Resistance of Rats to Diphtheria-Toxin. Louis Cobbitt.
8. Ipecacuanha in Dysentery. A. B. Dalgetty.
9. Chloroform Paralyzing the Respiratory Center before the Heart. Lim Boon Keng and T. Hill Jamison.
10. Threatened Death under Chloroform. R. J. Erskine Young.
11. Venesection in Cerebral Hemorrhage. Wm. Gladstone Cook.
12. A Case of Acute Gastroduodenitis. H. Hunter Woods.
13. Imperforated Anus; Operation; Recovery. R. Carmichael Worsley.
14. Hypodermic Medication in Skin-Disease. C. Butler Savory.
15. Notes of a Case of "Vanishing Tumor" of the Abdomen. T. E. Gordon.

1.—Ballantyne claims as part of the subject of **antenatal therapeutics** the treatment in and after labor of the morbid states arising during antenatal life. Intranatal therapeutics and the treatment of the fetus and embryo is mainly preventive, and germinal therapeutics is selective and preparatory. It is in the domain of surgery that the postnatal treatment of antenatal morbid stages has been most successful, as is illustrated in the successful repair of the many deformities. The medical treatment of antenatal morbid states has also been encouraging, but to a less degree. The successful treatment of congenital syphilis and the treatment of cretinism by thyroid feeding are well-marked illustrations. Rather wonderful results have been obtained in the branch of medical practice that deals with congenital defects and diseases of the nervous system, as shown by the effect of the medically regulated educational training upon the congenitally blind, the deaf and dumb, and the idiotic. There are certain important antenatal morbid states which fall into the hands of the obstetrician for postnatal treatment. He should always be capable of treating apnœa neonatorum, to recognize and treat fractures and dislocations and any perforations of the newborn, and be well versed in the treatment of the prematurely born. He should further be able to recognize the necessity of proper management of the infant during labor, both in the uterus and in the vagina n order to prevent injuries of various sorts. Registration of stillbirths should be insisted upon in order that an autopsy might be held in each case, which would do much to make the practitioner conversant with the appearance of stillborn nfants and elucidate the causes of intrauterine and intranatal death. Aside from this, fetuses of less than 6 months should be submitted to postmortem investigation by the medical man. It is possible to bring medicinal and hygienic nfluences to bear upon the embryo and fetus while still in utero, but it is necessary that this shall act first upon the mother. Antenatal treatment, therefore, is primarily maternal. The mechanism of transmission of medicinal substance through the placenta is as yet imperfectly known, but we know practically the beneficial effect upon the unborn infant of the administration of mercury, for instance, o the mother suffering from syphilis. Experiment has hown that the mercury is apparently transmitted not at all hrough the placenta, but is entirely stored up in its sub-tance. It is thus kept healthy, in consequence of which he rest of the fetal structures are benefited. Ballantyne recommends, with Fournier, the administration of mercury to the mother who is apparently free from syphilis, not for her sake, but in order to influence the unborn fetus, the victim of paternal syphilis. He further believes that this method might be well imitated in cases of tuberculosis, malaria, and lead-poisoning of the father. Potassium chlorate is beneficial in cases where there has been a tendency to the recurrence of abortion and premature labor. A pregnant woman should be protected so far as possible from the risk of infectious maladies. There are certain trades from which she must also be guarded, namely, working in lead or copper, tobacco factories and match factories, since abortion is not uncommon among women working in these industries. Alcohol should be forbidden during pregnancy. The better the hygienic conditions which exist during pregnancy the better developed and healthy will be the offspring. The strength of infants of the women who rest during the last 3 months of pregnancy as compared with those of women who have to work up to the very day of delivery are probably largely due to the fact that in them labor comes on at the full term and not prematurely. It is inadvisable on account of the possibility of maternal impressions for the mother to be subjected to unpleasant emotions or permitted to brood over disgusting or terrifying sights. It is justifiable to induce labor prematurely in those cases in which there has been shown in successful pregnancies a tendency for the child to be overdeveloped. There can be no doubt of the evil effects of the marriage of near kin or of incest, but marriages of consanguinity or of cousins, ipso facto, does not increase the risk of disease and anomalies. [s.m.h.]

2.—Garratt and Washbourn, from a bacteriologic examination of the fauces in scarlet fever, conclude that **postscarlatinal diphtheria** is due to the introduction of unrecognized cases of diphtheria into the scarlet-fever wards, and that this can only be obviated by systematic bacteriologic examinations of all cases on admission, and by a separation of those in whose throats diphtheria-bacilli are found. If Hoffman's bacillus, which they believe to have no direct causal connection with diphtheria, be excluded, the number of such cases should not be beyond the isolation-resources of most fever-hospitals. Moreover, absolute isolation does not appear to be essential. There should be some supervision of cases of rhinitis with diphtheria-bacilli in the nose, such as keeping them in bed while the discharge continues, although these cases do not appear to have given rise at the London Fever-hospital to faucial or laryngeal diphtheria, yet such an occurrence is quite possible. [s.m.h.]

3.—A lad aged 13 years sustained a severe crush and burn of his right hand. The wound became infected, and 10 days after the accident it was necessary to amputate 4 fingers at the metacarpal phalangeal joints. On the seventeenth day after the accident symptoms of **tetanus** appeared, and at this time the boy came under Gibb's notice. He administered chloral in doses of 10 grains every 4 hours during the first day. In the middle of the second day, the symptoms having grown rapidly more marked, 10 cc. of antitetanic serum was injected under the skin of the abdomen, and at 6 p.m. 8 cc. was injected into each frontal lobe, 4 cc. over the middle line and 4 cc. above the supraorbital ridge. For the operation a dental drill and ordinary toxic serum were used. The wound was closed by collodion without suture. At the same time 14 cc. was given hypodermically, and at 10.30 p.m. 10 cc. more was given hypodermically. During the course of this very violent attack of tetanus 71 cc. of antitetanic serum, divided into 5 doses, was administered intracerebrally, and 104 cc., divided into 7 doses was given, hypodermically. Improvement in the patient's condition was not evident until the ninth day after treatment had begun, which is a not uncommon occurrence in this mode of treatment. The unusually large intracerebral doses were given on account of the intense severity of the symptoms. Apart from a scarlatiniform rash over the abdomen, which lasted for 3 days, the injections produced no ill effect. The treatment of tetanus has in view: (1) The maintenance of the patient's strength; (2) controlling so far as possible the painful spasms by chloral; (3) restraining the development of the toxin in the blood by hypodermic injections of antitoxin; and (4) preventing the toxin from affecting the nerve-cells in the higher centers by intracerebral injections of antitoxin. In those cases in which the presence of bacilli is still suspected local operation may be necessary. [s.m.h.]

4.—McLeod gives the results of his use of **sodium bromid as a cure for the morphin, chloral and cocain habits.** The method of treatment is as follows :—Having taken the weight of the patient and discovered that there is nothing to contraindicate the treatment in the way of organic disease, the drug may be given in doses of 2 drams in solution every 2 hours for the first 2 days, and 1 dram during the third day. None is given after bedtime of the third day. Three ounces of the drug in all is usually sufficient. More, however, may be given to induce deep sleep, which may continue for 5 or 6 days and nights, during which time milk alone should be given in the way of nourishment. Every night and morning, or oftener if necessary, the patient should be placed on the commode to empty the bladder and bowel. During the 10 days following this sleep, speech, which is at first indistinct, and locomotion, which is very feeble, will improve, and the great confusion of ideas which exists, will gradually disappear. Delusions are frequent at the beginning of convalescence, memory is sluggish and sleep is frequently irregular. Solid food should be given as soon as it can be taken, and the bowels should be regulated; and as soon as locomotion is possible, exercise should be encouraged. Morphin and cocain should be gradually withdrawn within 3 days, the chloral may be cut off at once. Cure may be apparent in 3 weeks, but the patient should be observed for 3 weeks longer. An even, warm, temperature of the room should be maintained and warm, light clothing worn. The nurse should be on duty both day and night for the first 3 weeks. McLeod claims for this treatment: (1) the withdrawal within 3 days of even large doses of the drug causing the habit; (2) the certainty that this will cause no suffering; (3) the patient cannot deceive those dealing with him in the matter of secret administration, nor can he enlist after the third day the aid of attendants; (4) any physician with the aid of vigilant attendants can deal with the case in any hospital or private house, no special institution is needed; (5) there is no risk of substituting another drug-habit, and the craving will be lost whether the patient desires it or not. It is possible that the treatment is not without risk. It is a question of choosing between the apparent and temporary risk of the bromid and the more prolonged use of the morphin or other drug. Thus far the ultimate recovery of locomotion, memory, etc., in his experience, with one exception, has been quite satisfactory. This use of bromid has proved beneficial in an attack of acute mania and in a case of uncontrolable vomiting in a neurasthenic subject. [S.M.H.]

5.—Still, as the result of observations on **oxyuris vermicularis** in children, concludes, (1) that the appendix vermiformis is the common habitat of oxyuris vermicularis in childhood; (2) that the generally accepted view that every single ovum in the oxyuris vermicularis must be swallowed before it can be hatched is at least open to doubt, and there is a strong probability that the appendix vermiformis serves in some cases as a breeding-place for threadworms; (3) that the presence of threadworms in the appendix may cause a catarrhal condition therein, as shown postmortem by a swollen appearance from thickening of its wall; (4) that this swollen condition of the appendix due to threadworms is associated in some cases with pain in the right iliac fossa, which may simulate ordinary appendicitis; (5) that in the treatment of threadworms large injections must be used, and in view of the question of dislodging the worms from the appendix and their possible presence in the small intestine, injection should be combined with the administration of drugs by the mouth. [S.M.H.]

6.—Sibley reports 3 cases of **neurotic ulcers of the mouth,** all occurring in women. The patients were rather of the hysterioid or neurotic than of the insane type. The first case occurred in a widow, aged 74 years. She had her first attack in 1875, and the condition had persisted more or less constantly up to 1898. During many weeks the patient suffered excruciating pain from the ulcers. The tongue, and often the lips, were much inflamed and swollen, so that movement for speech or mastication was almost intolerable. The mucous membrane of the mouth and lips was very glossy, thin, and of a bluish tint, and covered with cicatrices of old ulcers. The tongue was usually covered with a thick, brown fur. There were no distinct dyspeptic symptoms.

The second case was in a single woman, aged 50 years. She had had several attacks of hysteromania, and presented all the signs of climacteric hysteria. She had been a sufferer from ulcers of the mouth at intervals for years. The attacks usually coincided with domestic worries. The ulcers were small, very painful and grayish. Sometimes 1 occurred, more frequently 2 or 3 or more, on the sides of the tongue, beneath the tongue, occasionally on the buccal mucous membrane, pharynx, palate, or mucosa of the lips. There was usually more or less stomatitis. The tongue was coated with a thick, pale fur, and there was some salivation, fetid breath and slight enlargement of the submaxillary glands. Formerly she generally had an outbreak of ulcers about the catamenial periods, and when these ceased or became irregular, hysterical symptoms accompanied by ulcers occurred at these times.

The third case occurred in a widow, aged 64 years. She had 13 children and a great deal of trouble during the last few years. Three years ago she developed ulcers of the type described, and has had them on the tip and sides of the tongue, and on the mucous membrane of the gums at intervals ever since. She frequently complained of a burning sensation in different parts of the tongue, even when no ulceration was evident. These ulcers, Sibley considers, are a distinct trophoneurosis, and altogether different from the common catarrhal or dyspeptic ulcer. They are usually brought about as the result of mental trouble. Medicinal treatment is of little avail. The only curative method is complete removal from home and its accompanying worries. Mountain air is preferable to sea air. [S.M.H.]

7.—Cobbett has made a study of the **resistance of rats to diphtheria,** from which he concludes, (1) the white or black and white rat of 100 grams weight is only relatively insusceptible to the action of the products of the diphtheria-bacillus, and succumbs to the subcutaneous injection of filtered cultures in quantities which are, weight for weight, from 1,500 to 1,800 times as great as those which suffice to kill guineapigs of 250 grams; (2) its tissues are but little affected locally by the injection of large quantities of filtrate, and have not been observed to suffer necrosis; (3) the serum of these refractory animals in doses of 10 cc., does not protect guineapigs against quantities of filtrate which are little greater than the minimum fatal dose. [S.M.H.]

8.—Dalgetty, in the **treatment of dysentery** in South Sylhet, India, adopts the following plan of treatment: (1) He applies a large mustard blister over the stomach; (2) gives 20 minims of tincture of opium; (3) 10 minutes afterward he gives 40 grains pulverized ipecac in 4 10-grain pills freshly made up; (4) the horizontal position is to be kept for 2 hours; (5) no food or drink is allowed within that time. This treatment is to be repeated within 8 hours if no improvement has taken place. If there has, then a smaller dose is given under the same precautions. [S.M.H.]

9.—Keng and Jamieson report the case of a Chinaman in whom they endeavored to resect the supraorbital nerve for supraorbital neuralgia. **Chloroform** was administered, and just as the corneal reflex had disappeared and the skin-incision was being made, the patient suddenly stopped breathing and his lips became livid. The pupils were not markedly dilated, the radial pulse was still palpable, but the heart-sounds were feeble and the cardiac impulse weak. After performing artificial respiration for 15 minutes the circulation improved, but it was only after the tongue had been forcibly pulled out that the patient drew a deep breath, facts which they consider to demonstrate that the respiratory centers ceased to act while the heart continued to beat. [S.M.H.]

10.—Young reports a case of **chloroform poisoning** in which the heart showed signs of failing, as evidenced by loss of the radial pulse, while the respiration was still quiet and regular, though somewhat shallow. [S.M.H.]

12.—Woods reports a case of intense **gastroduodenitis** as the result of drinking large draughts of cold water when heated. [S.M.H.]

13.—In this case of **imperforate anus** there was not even a dimple where the anus normally is. An inch incision was made from the coccyx forward, and through this incision dissection was carried upward. The bowel was found; it was then pulled down, opened, and sutured to the skin. An efficient anus finally resulted. [G.B.W.]

15.—The patient had been operated on for hernia and had had syphilis. Beginning with pain in left side and constipation he began to develop a **tumor** in his left flank. On examination it was found that the tumor extended to within 2 inches of the umbilicus, gave a dull note on percussion and only a very limited motion could be imparted to it from without. Four months after the tumor was first noticed a marked decrease in size was found and 2 or 3 months later no tumor was perceivable. [G.B.W.]

Lancet.

April 15, 1899. [No. 3946.]

1. An Oration on the Declension of Phthisis (Pulmonary Tuberculosis). Sir Hugh Beevor.
2. A Case of Myositis Ossificans Progressiva. Raymond Crawfurd and Harry Lockwood.
3. A Case of Malta Fever Treated with Malta-Fever Antitoxin. E. D. Fitzgerald and J. Hoggan Ewart.
4. A Case of Ruptured Tubal Pregnancy; Infection; Celiotomy; Large Injections of Saline Solution with Brandy; Recovery. C. Hamilton Whiteford.
5. The Contents of the Stomach in the Gastric Crises of Locomotor Ataxia; a Clinical and Chemical Study. Carstairs C. Douglas.
6. Hallux Valgus and Hammer Toe. W. J. Collins.
7. Notes on Some Cases Illustrating the Advantages of Partial Chloroform-Anesthesia. Lieut.-Col. E. Lawrie.
8. A Case of Adenitis in an Infant; Operation; Recovery; Allan C. Parsons.
9. A Case of Sarcoma of the Ovary with General Sarcomatosis of the Peritoneum; Necropsy. Frank Cole Madden.

1.—Beevor, in an exhaustive article illustrated by charts and tables, endeavors to point out that there has been a **marked declension of phthisis** and attempts to properly account for this change. There is a marked difference in the age-incidence of phthisis as compared with that of other forms of tuberculous disease, and that difference confirms the clinical experience that the common infection of the lymphatic glands in early life does not commonly lead to infection of the lung. Lung-resistance accounts for the occurrence as affected by age and sex. The growing lung is able to resist infection. In girls the lung develops earlier and more rapidly and is completed at the age of 15 years, while boys' lungs continue growing 2 or 3 years later, which leads, up to the age of 20 years, to a regular excess of phthisis in the girls and young women. Phthisis requires a specific germ and a susceptible lung for its development. The condition of the lung depends upon constitution and environment. Infection is quite subsidiary to other influences which create susceptibility. The declension of phthisis continues great in spite of hereditary susceptibility. It is to the many factors involved in the production of acquired susceptibility that the fall in the mortality of phthisis is largely due, more especially other disease, occupation, food, air and climate. The influence of these various factors is considered at length. [S.M.H.]

2.—**Myositis ossificans** is a very rare affection. The case of a boy 6½ years old with a good family history and personal history is reported. When first seen the right pectoralis major was ossified and fixed to the sternum, and there was a large number of hard masses in the dorsal region, presumably formed by ossification of the latissimus dorsi and trapezius muscle. Eight months later the ossifications of the back had increased in size and both shoulders and the right elbow were completely fixed. A thorough description of the condition is given with skiagraphs and photographs. [M.B.T.]

3.—Ewart reports a case of **Malta fever** in which the patient, through a series of relapses, was unaffected by any form of treatment. He determined to try **Malta-fever antitoxin.** Injection was made of 20 cc. of the serum on succeeding days. The day after the second injection the temperature became somewhat more elevated, but the patient felt well. It fell again on the following day, and ranged between 98° and 100° F. for several days. During this time a marked attack of urticaria developed, beginning on the abdomen at the point of inoculation. About a week after the last inoculation the temperature began to rise again, when 20 cc. more was injected. A serious reaction followed this injection, the temperature rising to 104.6° F. The patient looked and felt very ill. The urticaria was extreme, his joints were swollen and painful, his respirations quick, and he had a slight cough with tinged expectoration. He was thought to have a general urticaria involving the mucous membranes. These symptoms had subsided gradually by the end of a week. From this point the patient improved rapidly, and there was no recurrence of the fever. [S.M.H.]

4.—Whiteford reports a case of **ruptured tubal pregnancy** in which infection had occurred. Celiotomy was performed, and although the patient was much shocked, the intravenous injection of 8½ pints of saline solution with 1 ounce of brandy relieved the shock and enabled the emunctories to dispose of the poison. The patient recovered. [W.K.]

5.—Douglas, during the course of a study of the **gastric crises** in a case of early **locomotor ataxia,** in which much hematemesis occurred, made a number of analyses of stomach-contents. The conclusions reached from his studies were, (1) that during the crises the stomach secreted a large quantity of digestive fluid inferior in but slight degree to that poured out during health; (2) that there was no indication that this secretion was associated with hyperacidity or hyperchlorhydria; and (3) that, apart from the presence of blood, there was nothing in the fluid indicative of a true lesion of the stomach. That the gastric hemorrhage in this case was not due to a stomach-lesion was evident from the fact that the patient enjoyed excellent gastric health between the crises. The bleeding probably was from engorged or varicose veins around the cardiac end of the esophagus. [S.M.H.]

6.—A case of **hallux valgus** and **hammer-toe** is reported in which aseptic excision of the heads of the proximal bones was performed without division of tendons, with an excellent result. [M.B.T.]

7.—**Partial chloroform-anesthesia** is recommended because of the saving in time and chloroform and the absence of any possible danger. [M.B.T.]

8.—The case of a female infant, aged 2 years, is reported, from whose nasopharynx was scraped a large mass of adenoids with marked results as to the child's general and local condition. [M.B.T.]

9.—Madden reports a case of **sarcoma of the ovary** with general sarcomatosis of the peritoneum. Operation was performed, but the patient never rallied and died the next day. The postmortem examination showed a general involvement of the visceral peritoneum. [W.K.]

New York Medical Journal.

April 29, 1899. [Vol. lxix, No. 17.]

1. When to Operate for Appendicitis. Notes on Technics. Robert T. Morris.
2. The Technic of the Bottini Operation. Ramon Guitéras.
3. Report of a Necropsy in a Case of Akromegaly, with a Critical Review of the Recorded Pathologic Anatomy. Louis J. Mitchell and E. R. Le Count.
4. Prothymia: A New Faculty and its Localization. Wallace Wood.
5. A Summer Fallacy. Ramsay Macnaughton.
6. A Case of Chronic Inflammatory Induration of the Corpora Cavernosa. William R. Cochrane.

1.—Morris does not believe that operation is required in catarrhal inflammations of the mucosa of the appendix. Operation is recommended as soon as the diagnosis is made in cases of widespread inflammation; in cases of subsiding inflammation in order to avoid sudden exacerbations, tedious convalescence and postinfective peritoneal adhesions; also in cases of chronic **appendicitis.** He believes that the surgical death-rate under these conditions is lower than the medical death-rate, provided the surgical work is properly done. [M.B.T.]

2.—An extensive consideration of the anatomy and the pathologic conditions in **hypertrophy of the prostate** is given. **Bottini's instrument** and battery are carefully described. Before operation the apparatus should be arranged and tested, then the urine is drawn, the bladder is washed out with boric-acid solution and a urethral syringeful of 4% solution of eucain is injected through a catheter into the bladder. A syringeful of the solution is also thrown into the anterior urethra and held for a few seconds; the instrument is then introduced. In case there is difficulty in its introduction the patient is anesthetized, preferably with nitrous oxid; the handle of the instrument is then turned until the beak hooks downward and catches behind the prostate until it can be felt by the finger in the rectum, water is allowed to flow through the cooling apparatus and the current is turned on. Usually 2 cells and a current of 40 amperes is sufficient. The operator turns the wheel of the instrument slowly until an incision about 3.5 cm. long is made; the time required is 1 or 2 minutes. The beak of the instrument is then turned at right angles and caught behind the posterior margin of the lateral lobe and an incision 2.5 cm. long is made. A third incision is usually made through the roof of the prostate or the other lateral lobe. Urinary antiseptics and diluents are given with antispasmodics, if needed. Guitéras believes that this procedure exposes the patient to the least amount of danger, and gives greater relief than any of the other operations for this condition. [M.B.T.]

5.—Mitchell and Lecount conclude an exhaustive report of **the necropsy in a case of akromegaly** with a critical review of the recorded pathologic anatomy in the following words: (1) Cases of akromegaly associated with true tumor of the hypophysis are certainly not so numerous as has been heretofore supposed; (2) there is not as much constancy in the pathologic condition of the hypophysis as there is in the enlargement of the heart, the thyroid gland, or the sella turcica; (3) akromegaly does not depend, at least not solely, upon abolition of any function of the hypophysis; (4) a relationship between the thyroid gland and the hypophysis has already been amply proved; (5) it is not at all improbable that proliferation of the histologic elements of the hypophysis may be instituted in some cases by primary enlargement of the sella turcica; in other cases an edema or hemorrhage ex vacuo; (6) we have no reason for supposing that enlargement of the sella turcica must be as constant an occurrence in akromegaly as the changes in other bones, or that it might not take place from the same cause or causes. [S.M.H.]

6.—Cochrane observed a case of **chronic induration of the corpora cavernosa.** The indurated mass evidently consisted of a thickening of the tunica albuginea in the mesial line, including the septum, and probably to a slight extent the corpora cavernosa. The mass was firm and gave an elastic semicartilaginous sense of resistance when firmly grasped between the fingertips. There was no history of pain at any stage of the disease, which had existed for 8 weeks. There were no predisposing or determining etiologic factors, no history of traumatism, stricture, gonorrhea, or syphilis. Gouty diathesis was absent. The urinary examination was negative. [S.M.H.]

Medical Record.

April 29, 1899. [Vol. lv, No. 17.]

1. Insanity in Connection with Disease of the Ductless Glands. Allan McLane Hamilton.
2. Devious Manifestations of Epilepsy. Sanger Brown.
3. "The Temptation of Skill" (with Special Reference to Operative Gynecology). Eugene Coleman Savidge.
4. Pyelonephritis and Ulcerative Endocarditis as a Complication of Gonorrhea—The Gonococcus found in Pure Culture upon the Diseased Heart-valve. Henry W. Berg.
5. Tuberculous Peritonitis and Cancer of the Stomach Occurring Simultaneously in the Same Patient. J. Estill Miller.
6. Lymphosarcoma of the Neck in an Infant. J. H. Ryan.
7. The After-treatment of Cataract. J. G. Wishard.
8. Vicarious Menstruation. R. H. Rice.

1.—Hamilton discusses the **forms of insanity associated with disease of the thyroid gland.** He regards all these conditions as forms of autointoxication, or rather of deprivation of certain toxin-destroying substances elaborated by the organs. The forms that occur in exophthalmic goiter are melancholia and mania. The latter are often severe and lead to death. The cases seen by Hamilton always exhibited depression, followed by a period of irritability, restlessness, irrational behavior, and then a state of mental confusion. He has also examined a number of cases of melancholia for the presence of thyroid enlargement, and found it existed in a great majority. He reports the case of a woman who, 12 years ago, developed symptoms of neurasthenia with disturbance of menstruation and digestion; then she became querulous, irritable and suspicious, and had delusions of persecution. She finally improved, but soon re
lapsed, and is now occasionally violent. Shortly after th
neurasthenia had developed, the thyroid gland enlarged an
the eyeballs became prominent, and the symptoms of ex
ophthalmic goiter are now well developed. Myxedema i
also often associated with mental disturbance. Hamilto
calls attention to a case of myxedema reported by Hon
that he had observed. The patient had at first only a sligh
nervousness, and more or less resentment against her family
Later she had delusions, hallucinations, and finally almos
complete loss of speech. She finally died from exhaustion
No changes were found in the brain. It is not mentione
whether the thyroid gland was diseased or not. Hamilto
also records the case of a man whose intellect had been wea
from birth, and who ultimately developed slight delusions o
persecution. He developed symptoms of Addison's diseas
and died of asthenia. In one case of chronic insanity wit
erotic delusions, thyroid extract was administered with con
siderable improvement. In certain cases of hysteria th
administration of adrenal extract was also beneficial. [J.S.]

2.—Brown records a number of cases of **epilepsy wit
atypical attacks.** The first was in a woman of 25, wh
had had migraine with left amaurosis. This finally devel
oped into epileptic convulsions that were replaced in turn b
fainting spells, and ultimately attacks of grand mal. Th
second case was in a woman of 31, who had first had attack
of nightmare, in which she saw a specter of her mother
These were followed by attacks during which she could ne
see nor speak, but did not fall. The third patient had attack
of nausea and pain in the epigastrium, followed by momen
tary unconsciousness. These were repeated 3 or 4 times
year, and later she had attacks in which she fell to th
ground. Shortly after this she began to have, upon going t
bed, violent tremors of the legs, sometimes involving the ar
and jaws. These were associated with frequent attacks o
petit mal. The fourth patient, a girl of 20, had curious at
tacks in which she felt that her environment was but a repe
tition. These were followed by intense headache, lastin
often as much as an hour. Later there was an attack o
grand mal with tongue-biting. The fifth patient, a man
30, had been a pervert for 7 years. The first symptom wa
transient diplopia. This lasted for several years, when h
had an attack of grand mal. From time to time there wer
strong homicidal tendencies. [J.S.]

3.—Savidge discusses the value of surgery in the trea
ment of diseases of women, and believes that although **gy
necology is a new specialty** all honor should be paid t
those men who have built up, in our own time, an almos
perfect science of the diseases of women. The debt tha
woman owes to the surgical audacity of man is beyond com
putation. Disgusting troubles, heretofore hopeless, are no
cured as daily routine. Life-threatening, life-taking afflic
tions—perils formerly not even known to exist—can now b
diagnosed and removed by the hospital interne. The statis
tics on the single life-menace of ectopic gestation would b
enough to redeem the specialty, if it had accomplished noth
ing else. If we could assemble these women at Chickamaug
camp-ground and marshal them into an army-corps—thes
lives literally given to the world by the new specialty—gyn
cology would have militant numbers behind it when place
on the defensive, as it now undoubtedly is. [W.K.]

4.—A man 21 years old had had gonorrhea complicate
by slight articular rheumatism. During the attack he wa
found to have slight fever; the temperature gradually aros
from day to day with occasional remissions and severe chills
the patient's general condition became gradually worse
there were convulsions and unconsciousness, and finall
death followed. At the necropsy the evidences of **pyelo
nephritis** and **ulcerative endocarditis** were found
there was also evidence of a recent **pleurisy** of the rig
side which was probably a manifestation of the gener
gonorrheal infection. Inoculations from the blo
during the illness were made on various culture-media, b
no growth resulted. In the vegetations of the aortic val
diplococci were found which were decolorized by Gram
solution and which morphologically resembled gonococ
In the fluid from the pelvis of the kidney microorganism
were also found which were considered gonococci. [M.B.T.]

5.—A man aged 42 who had had symptoms of **tube
culous peritonitis** for some time was operated upon a
1 gallon of straw-colored fluid was removed from t

abdominal cavity. The peritoneum was thickened and studded with tubercles. The abdomen was closed without drainage and the patient's condition improved for some months when he was taken with pain in the stomach, dyspepsia and occasional vomiting of coffee-ground material. He failed rapidly and died about 3 months later from what s believed to have been **carcinoma of the stomach.** M B T.]

6.—An operation is reported for the removal of a **lymphosarcoma** about the size of an orange from the base of he left side of the neck of a female child, aged 20 months. M.B.T.]

8.—Rice reports a case of **vicarious menstruation,** he hemorrhage coming from between the teeth and from he roof of the mouth. The application of hot foot-baths nd a hot vaginal douche stopped it in about an hour and roduced a slight vaginal show of blood. [W.K.]

Medical News.

April 29, 1899. [Vol. lxxiv, No. 17.]

. Bacillus Icteroides and Bacillus Cholera Suis.—A Preliminary Note. Walter Reed and James Carroll.
. Cardiaphobia, or Heart-Fear. W. T. English.
. A Bacillus Resembling the Diphtheria Bacillus in All Cultural Characteristics, but not Producing Diphtheria Toxin. Louise Dudley Davis.
. An Experiment in Transplantation of the Entire Human Ovary. James H. Glass.
The Serum-Treatment of Diphtheria in the New York Foundling Hospital During 1898. W. P. Northrup.
A Case of Cholecystitis, with Stricture of the Ductus Choledochus. Frederick E. Easton.

1.—In studying the **bacillus icteroides and the bacil-** **ts X,** Reed and Carroll have found that the icteroides hen injected into dogs subcutaneously produces the same mptoms as the hog-cholera bacillus. The injection of the icillus icteroides produced no fatty degeneration of the liver. hen injected into guineapigs and rabbits the symptoms sulting were the same as those following injection of the g-cholera bacillus. Pigeons are resistant to both bacilli. ie bacillus icteroides causes an acute and often fatal infecn when fed to young hogs, producing an ulcerative colitis. orphologically and culturally the two differ in minor points ly, and the serum of an animal immunized to the bacillus eroides caused agglutination of the hog-cholera bacillus. so both are very resistant to cold, while cold stamps out llow fever. In concluding this preliminary report the thors assert a belief that the bacillus icteroides invades e tissues in yellow fever only secondarily and is a variety the hog-cholera bacillus. They believe the bacillus X beigs to the colon group, and is not identical with the bacillus eroides. [D.L.E.]

3.—The bacillus was isolated from 10 of 12 cases of irlet fever which became complicated with otitis media. ne of the cases showed any diphtheric symptoms, and in of them the bacillus was absent from the throat. The cilli were nonpathogenic to guineapigs excepting in one tance and this one specimen did not produce diphtheric ions of the tissues of the animal. Also a pig inoculated h 9 cc. of culture of this pathogenic organism and with c. of a 750-unit antitoxin died, while a control that had eived no antitoxin lived. The **bacillus** was found in the od of animals dead from inoculation with it, but it evitly did not form diphtheria-toxin or any strong toxin of own. [D L.E.]

.—Glass reports the **successful transplantation of e human ovary** for the relief of premature menopause. days after the transplantation the patient had a condition sexual erethrism continuing for several days. From this e she has continued to have a positive sexual impulse, l 16 days after the transplantation menstruation occurred, ing 2 full days, and she has menstruated irregularly since. the present time, 8 months after the operation, the patient apparently regained her mental and nutritive equilibm and says she is well, a statement borne out by her detment, good color and general healthful appearance. K.]

.—Northrup says justly that the fact that only 103 cases liphtheria appeared in the Foundling Hospital is strong evidence of the value of **antitoxin as a prophylactic.** No unfavorable symptoms occurred and the mortality was 12½%. Of the 13 fatal cases, 5 were under 1 year of age, 5 between 1 and 2 years, and the remaining 3 were under 3 years. Most of these had bronchopneumonia and all had grave complications. As an immunizing agent antitoxin was almost ideal. [D.L.E.]

6.—Two or 3 attacks of **acute biliary colic** associated with jaundice, and the ability to palpate the distended bladder, led to the diagnois of **cholecystitis** associated with gallstones. Operation was advised and carried out, and several gallstones removed. About 2 weeks after the operation another attack of biliary colic came on, and a second operation was performed. This time cicatricial stenosis of the duct was found, so that it was necessary to fasten the common duct into a new opening in the duodenum. The patient finally made a complete recovery. [G.B.W.]

Boston Medical and Surgical Journal.

April 27, 1899. [Vol. cxl, No. 17.]

1. Personal Experience in Modern Operations for the Relief of Prostatic Obstruction. A. T. Cabot.
2. Traumatic Cerebral Edema: Its Pathology and Surgical Treatment—A Critical Study. J. W. Courtney.
3. A Case of Diphtheric Laryngitis, Supplemented by Bronchopneumonia and Acute Nephritis in a Child Fifteen Months Old: Recovery. Francis E. Park.
4. Excision of the Tongue for Cancer. J. C. Warren.

1.—Cabot reports **operations for the relief of prostatic enlargement** as follows: Six cases of prostatectomy, 5 cases of orchidectomy, 1 case of unilateral orchidectomy, 4 cases of orchidectomy followed later by prostatectomy. The cases of prostatectomy gave much better results than those of orchidectomy, and Cabot seems warranted in saying that his "feeling is that prostatectomy offers a distinctly better prospect for relief than orchidectomy, and it is especially applicable in the cases in which the obstruction is due to the growth into the bladder of prostatic projections which encroach on the urethral orifice." [G.B.W.]

2.—Courtney, in this portion of his article on **cerebral edema,** says that the summing up of all the evidence simply serves to confirm the conclusions already advanced. [G.B.W.]

4.—Warren reports a case of **cancer of the tongue** operated on by an incision through the lip to chin and thence back along the jaw to the ear. A portion of the jaw was excised and so much of the tongue as was thought necessary. [G.B.W.]

Journal of the American Medical Association.

April 29, 1899. [Vol. xxxii, No. 17.]

1. The Medical Profession. William E. Quine.
2. Nostrums. H. C. Wood.
3. Sarcoma of the Thyroid Gland. Paul F. Morf.
4. Xeroderma Pigmentosum. Alembert W. Brayton and Arthur H. Bowen.
5. A Rare Affection of the Eye: Congenital Irideremia. Flavel B. Tiffany.
6. Retention-Cyst of Gallbladder. J. Henry Barbat.
7. Some Pathologic Conditions of the Ovaries that Cause Great Pain. George Halley.
8. Summer Care of the Tubercular. William Porter.

2.—On inquiry into the **sales of wholesale druggists** Wood finds that 58% were of patented and proprietary articles; at least 40% of the sales of the retailer are not connected with legitimate pharmacy. The **sale of nostrums is steadily increasing.** It is generally believed that the patent-medicine business yields great returns, but statistics seem to show that it is a speculative rather than a legitimate business, which does not give large returns for the investments in most cases. As to the cause of this condition it is estimated that 10% of the whole patent-medicine and proprietary trade is carried on through physicians, and there is a growing habit of prescribing proprietary medicines. The modern tablet is undoubtedly doing much to increase the use of nostrums and the tendency to polypharmacy. Physicians not only use such remedies but give certificates and commendatory letters, a thing which should not be allowed by the code of ethics. It is believed that a law recognizing the registration of medicinal formulas and making it requisite that the formula of patent medicines shall be printed on the package in which the medicine is sold might be enforced, if enacted, and that such a law might be of some benefit. [M.B.T.]

3.—Morf has been able to collect from literature descriptions of 39 **sarcomas of the thyroid gland.** Brief abstracts of the cases are given in tabular form. To this number he adds a case which occurred in a man aged 47. One year previous to entering the hospital he noticed a small swelling on the right side of the neck; for 11 months it increased in size slowly, then it began to grow rapidly; there was occasional dyspnea but no dysphagia and the voice was unchanged. An operation was undertaken and the tumor was removed, after which an excellent recovery followed. Microscopic examination showed the tumor to be a primary mixed-cell sarcoma. Four months later the patient returned complaining of dysphagia and dyspnea and a swelling was found at the inner end of the clavicle. Four days later he died of dyspnea. The main tumor-mass was about the size of a child's head and of the same variety as the growth which was first removed. Sarcoma of the thyroid gland is a rare disease, more common in countries where goiter is endemic; it is more common in persons affected with goiter, more frequent in males and occurs oftener late than early in life. [M.B.T.]

5.—The case of a girl, 12 years old, is reported in whose eyes there was complete **absence of all the iris** except a narrow ring at the ciliary border about 1.5 mm. wide. The condition of the pupil was not in the least affected by eserin or atropia. [M.B.T.]

6.—A woman, 29 years old, had had severe pain in the region of the gallbladder with **jaundice, constipation,** and **vomiting.** Her temperature was 103°, pulse 110. On opening the abdomen the gallbladder was found distended, thickened, inflamed and adherent. Palpation failed to reveal any calculus. On aspiration clear mucus was removed, showing that the cystic duct was completely occluded. The gallbladder was opened, 4 ounces of mucus was evacuated and a drainage-tube inserted. For the first 10 days no bile came through the wound; after this, bile began to flow in increasing quantities, the drainage-tube was removed and the wound closed completely. Since this time the patient has been entirely free from pain. A second case is reported in which the tube of the appendix was found adherent to a loop of the ileum giving rise to acute intestinal obstruction, which was relieved by operation. [M.B.T.]

8.—Attention is called to the northern lake-region of Michigan as a climate well suited for cases of tuberculosis and chronic bronchitis, during the summer months. [M.B.T.]

American Journal of Obstetrics.

February, 1899. [Vol. xxxix, No. 254.]

1. Acute General Peritonitis. RICHARD DOUGLAS.
2. Pelvic Neuritis, or Inflammation of the Pudic Nerve, in Women. WILLIAM O. MCDONALD.
3. Dystocia due to "Accidental Hemorrhage," with Clinical Notes of 4 Cases. By STANLEY P. WARREN.
4. Remarks upon the Use of Mammary Gland and Parotid Gland Desiccations in Gynecology. JOHN B. SHOBER.
5. Hydrosalpinx Complicated by Incomplete Abortion and Simulating Ectopic Gestation. ABRAM BROTHERS.
6. A Vesicovaginal Opening as a Means of Bladder-Drainage in Extensive Plastic Work on the Urethra. H. S. CROSSEN.
7. Three Operations upon Diabetic Patients. CHARLES P. NOBLE.

1.—Douglas discusses the **bacteriology of acute general peritonitis** which he believes occurs from traumatic or consecutive causes. In the former he embraces all infective inflammations arising from wounds of the peritoneum, whether accidental or operative, penetrating or nonpenetrating. Consecutive, secondary, or symptomatic peritonitis may be subdivided into two varieties: (1) peritonitis by continuity and (2) perforation peritonitis. He accepts, with slight reservation, the now almost universally conceded idea that acute general peritonitis is and must be septic—that is of bacterial origin. The confusion in terms which exists in the description of peritonitis, is due to the effort of the surgeon to adapt his clinical observations to the findings of the bacteriologist. [W.K.]

2.—McDonald believes, in a general way, that when a woman complains of **persistent pelvic pain** she has **neuritis,** no matter what else she may have. The great physical characteristic is the tenderness which exists in the soft parts covering the inner surfaces of the walls of the pelvis. He describes the best method of palpation to ascertain the condition of the pudic nerves. In his experience **pudic neuritis** is the most common disease of the pelvic organs of the adult woman. In a series of 50 cases he found inflammation of the pudic nerves to exist in 24, nearly 50%. He considers that this is the malady, the existence of which explains the fact that so many women suffering from pelvic disease fail to get well, no matter how long they may be treated. Nearly all the cases reported originated during the period of menstrual life; nearly all were in women who either had had children, miscarried, or aborted, or, having deviations of the uterus, had been subjected to rough treatment. McDonald believes that this affection is without literature, and that other investigators will note the same condition frequently, if it is looked for. [W.K.]

3.—Warren reports 4 cases of **labor complicated by unavoidable hemorrhage,** occurring in 1000 cases of delivery in private practice. The causation of these accidents is obscure. He speaks of albuminuria being present in these cases, and refers to 10 cases reported, 4 of which were accompanied with acute nephritis. The symptom vary with the amount of placental detachment, from tha condition of the patient in which the obstetrician feels onl intuitively that something is going wrong, but cannot prov it, up to a fatal collapse. In the 4 cases detailed, all wer multipara, and all had inertia uteri in varying degrees. Tw had the irregular outline of the uterus which indicates localized effusion and disturbed muscular coordination. All ha the peculiar restlessness and tension mentioned by Goodel and others. There was a large fetal mortality, only 1 chil saved. The flooding was continuous, not in spurts like tha of placenta prævia, and thereby diagnostic (?) of this specia condition. Coiling of the funis was another condition present. The rule for treatment and the one hope of closing th open mouths of the vessels lies in an immediate emptyin of the uterus in order to permit complete contraction an retraction to occur. [W.K.]

4.—Shober defines his method of employing the **mammary gland in cure of uterine fibroids.** The mo gratifying results were obtained in checking metrorrhagi and menorrhagia, and in diminishing the size of the tumo. A 5-grain tablet is composed of 2 grains of desiccated powder from the mammary gland of the sheep, and 3 grains excipient. The dose is from 3 to 6 tablets daily. The fu dose, or larger doses, produce cramp-like, contracting pain in the tumor. Positive results may be expected in from 6 t 8 weeks. No other treatment is employed except measur to keep the bowels regular, and occasionally tonic doses strychnin or nux vomica. The parotid gland has been use only in cases of ovaritis. Positive result cannot be expecte when there is associated disease of the tubes, such hydrosalpinx, pyosalpinx, and pelvic inflammatory diseas Prompt and lasting results have been obtained in selecte cases. The parotid-gland tablets are similar in strength the mammary-gland tablets, and prescribed in the san doses. [W.K.]

5.—Brothers reports an interesting case in which **incomplete abortion complicated by a hydrosalpin** was mistaken for ectopic gestation, as it simulated the latt condition very closely. The patient had severe pain, lanc nating in character, in the lower abdominal region, assoc ated with severe metrorrhagia accompanied by fainting-spell which could not be controlled; these symptoms, with t presence of a slightly fluctuating tumor behind the uterus the right side, made the diagnosis difficult. An operati was performed revealing the true condition, and the patie made an excellent recovery. [W.K.]

6.—Crossen reports a case of **practical destruction the urethra** in which he made a vesicovaginal opening f drainage during the time the plastic work was healing. considers this method of protecting the wound from the ir tation of urine, and of keeping the bladder at rest, will found advantageous in all cases of extensive plastic work on the urethra, especially when involving the region of the sphincter. [W.K.]

7.—Noble reports 3 **operations upon diabetic patients.** The accepted belief of the profession is that such patients should not be operated upon. In 2 of the cases reported no untoward symptoms attributable to diabetic conditions were observed. The third patient died of diabetic coma on the sixth day after the operation of vaginal hysterectomy for procidentia. [W.K.]

Annals of Surgery.

April, 1899. [Vol. xxix, No. 4.]

1. On the Management of Acute Traumatic Pneumothorax. Rudolph Matas.
2. Cholecystitis. A Clinical Review of 21 Cases. Lucius W. Hotchkiss.
3. A Modification in the Operative Method for Inveterate and Relapsed Cases of Talipes Equino-Varus. August Frederick Jonas.
4. Contribution to the Surgery of Empyema of the Thorax in Children. John Bion Bogart.
5. The Surgical Treatment of Acute Infective Arthritis and Cellulitis (Acute Articular Rheumatism). John O'Conor.
6. Report of a Case in which Halsted's Hammer was Used as an Aid to the Suture of the Common Bile-Duct. J. J. Buchanan.

1.—Acute traumatic pneumothorax, with pulmonary collapse, shock and asphyxia, is a danger in pulmonary operations which, until it is eliminated, will always prevent the performance of as successful surgery within the pleural cavity as is performed within the peritoneal cavity. It is impossible to say why that sudden free opening of the pleura with complete collapse of the lung should be followed by slight acceleration of pulse and respiration in some cases while other patients suffocate, gasp, and even die with the first rush of air into the pleura. Undoubtedly the most important factors in determining the gravity and urgency of the symptoms are the size of the opening and the suddenness of collapse. Extensive operations in the lower costodiaphragmatic culdesac are not so likely to be followed with bad results, perhaps because the diaphragm acts as an obturator and prevents a sudden filling of the pleura with air. Matas reports 3 cases of transpleural hepatotomy for abscess of the liver. The pleura was opened low down; air rushed in, but serious pneumothorax was prevented by immediate plugging with iodoform-gauze and then suturing the diaphragm of the chest-wall. No bad after-effects resulted. Native capacity for resistance to shock is a factor of importance. The mere suppression of the aerating surface of one lung is not incompatible with life or satisfactory respiratory capacity. Instantaneous fatalities can only be accounted for as the result of reflex inhibition of the nervous apparatus having its center in the medulla. The collapsed lung does not expand and this inertia surpasses the normal stimulation which the peripheral sensory nerve-fibers receive from the constant movement of the air in the lungs, and which is, perhaps, necessary to the respiratory reflex. An analogous change is noticed after section of the vagus. It is probable that the sudden suppression of one lung also inhibits the function of the other. Various methods have proved successful in counteracting the disastrous effects of acute pneumothorax. Sealing the external wound does good in all cases, but the relief is only partial. The most certain way of preventing evil effects is to obliterate the pleural cavity by fastening the lung to the parietal pleura by adhesions. To bring about this result the application of irritants and caustics, acupuncture and suturing have been resorted to; of these means suturing is the most desirable and effectual. The procedure that promises the most benefit in preventing pulmonary collapse is the artificial inflation of the lung and the rhythmic maintenance of artificial respiration by means of a tube in the glottis, directly connecting with a bellows. This method was introduced by Fell, of Buffalo, and, as the intubation-tube is used in connection with the apparatus, it is known as the Fell-O'Dwyer apparatus. All that is necessary is to get air into the lungs and to give it room and time to escape, the elasticity of the lung required in overcoming resistance to inspiration being amply sufficient to carry on expiration. [M.B.T.]

2.—Hotchkiss believes that while practitioners usually recognize the classic symptoms of biliary colic, **cholecystitis** in cases in which colic is absent or not a prominent feature, is often overlooked or incorrectly diagnosed. Physicians also frequently make a diagnosis of appendicitis in cases presenting well-marked symptoms and signs of acute inflammation of the gallbladder. He believes that the consensus of the best surgical opinion is in favor of operation for acute cholecystitis. Operation is certainly indicated in all cases of empyema of the gallbladder, in case attacks of biliary colic are repeated or in case a tender tumor is felt below the cartilage of the ninth rib. Hotchkiss has collected records of 21 cases occurring in the hospitals with which he is connected. Operation was performed in 12 cases with 4 deaths. Three of the patients had sepsis and general peritonitis before operation and the fourth died on the twenty-second day from complicating pneumonia. Of the non-operative cases 1 died, probably from general peritonitis, operation being declined. In all cases fever was a more or less marked symptom, there was a history of biliary colic and nausea and vomiting was a well-marked symptom in most cases. Chills, emaciation, jaundice, and constipation were other symptoms occasionally present. On physical examination local tenderness was noted in all cases and muscular rigidity in most cases, dulness over the gallbladder and increase of liver-dulness were noted in a few cases. The severity of the general and local symptoms corresponded fairly well to the severity of the case. [M.B.T.]

3.—In the treatment of old, inveterate, and relapsing cases of **talipes equino-varus** the following method is recommended: A triangular flap is made, beginning the incision slightly below the margin of the plantar fascia on the inner side of the foot on a line below and anterior to a point on the first metatarsal bone. A second incision begins over the astragaloscaphoid articulation, extending forward and slightly upward to join the first incision. The incisions include the subcutaneous tissue and fat. The inner fasciculus of the plantar fascia is divided diagonally. The remaining structures are divided as in Phelps' operation until the astragaloscaphoid capsule is reached; instead of dividing this an incision is made along the outer side of the foot over the head of the astragalus and the neck of the bone exposed, which is cut through with a chisel. The forward part of the foot can then be pushed inward without separating the astragaloscaphoid articulation. The equinus position may be relieved by subcutaneous division of the tendo-Achillis. The method is considered more advantageous in suitable cases than any heretofore employed. The triangular flap is not likely to slough on account of its broad attachment, and it fills the large wound more completely than any other form of flap. [M.B.T.]

4.—Bogart gives a careful study of the **operative treatment of empyema,** with notes on the primary and ultimate results, based on 23 cases treated by him. The disease occurs more frequently in children subject to bronchitis and generally follows pneumonia. In all cases of delayed or interrupted convalescence from pneumonia in children, empyema should be suspected. Males are more frequently affected. If not relieved by operation, spontaneous evacuation may be anticipated in 2 or 3 months, but it rarely results in cure. Because of its insidious development and the diversity of symptoms and signs the condition is frequently overlooked. Early aspiration for diagnostic purposes with prompt surgical treatment will materially shorten the duration of the disease and lower the death-rate. Resection of a single rib in the ninth posterior axillary line is advised with preliminary aspiration in case the amount of fluid is great. The drainage-tube should be large and not too long, and should not be removed until the cavity is obliterated by expansion of the lung and the discharge has ceased. The average time required for drainage is 3 to 4 weeks. A rise in temperature usually indicates imperfect drainage or the onset of pneumonia. Primary irrigation, curetment, and multiple resection are contraindicated in children. [M.B.T.]

5.—O'Conor reports 9 more cases of **arthrotomy and free incision for articular rheumatism** which he believes confirms his idea previously expressed, that this method of treatment is a specific in these cases. In all cases general toxemic symptoms disappeared on the fourth day after operation and no recurrence took place nor metastasis followed in any other articulation or in the heart. He finds that no disease responds more readily to operative treatment and he does not hesitate to open the joint in every case of acute or subacute infection so soon as the diagnosis is made. He believes that he was the first surgeon to advocate arthrotomy and drainage for all cases of traumatic hemarthrosis, gonorrheal arthritis, acute and chronic traumatic effusion, and chronic rheumatic effusion. This treatment has been successful in every case. He believes that the word rheumatism is a pathologic misnomer. He considers the disease an infective water-cellulitis and in no instance has he found any real arthritis. [M.B.T.]

6.—The case of a woman, 51 years of age, is reported who had her first attack of **biliary** colic 6 years before. For 5 years she remained in good health, then a second attack occurred, and 1 year later a third attack, and since this time the patient had never been well, and had attacks of acute pain every few days. Gastric disturbance was marked, the patient had lost 30 to 40 pounds, the skin was deeply jaundiced and there was intense itching, the liver was enlarged, but not tender. Upon operation it was found necessary to separate many adhesions between the liver and adjacent structures. The gallbladder was recognized after considerable search, and a hard mass was palpated in the duodenal extremity of the common duct. The field of operation was walled off with gauze pads, the common duct was incised and a calculus a little over a gram was extracted. No other stones were discovered, the incision was closed with 5 Matthew sutures of fine silk, using Halsted's hammer. A strip of gauze was carried to the side of the suture. The subsequent course of the case was uneventful and no bile escaped after operation. [M.B.T.]

Practitioner.

March, 1899. [Vol. lxii, No. 3.]

1. Oyster Fever. John William Moore.
2. On the Practical Value of Extensive Removal of Nerve-Trunks in the Operative Treatment of Trigeminal Neuralgia. William Rose.
3. A Case of "Henoch's Purpura." E. Clifford Beal.
4. On Some Complications of Gonorrhea in the Male. Herbert F. Waterhouse.
5. The Treatment of Locomotor Ataxia by Exercises. H. Campbell Thomson.
6. The Relative Frequency of Various Diseases in Work-House Infirmary Practice. Ernest Septimus Reynolds.
7. Note on the Use of the Persulphates in Surgery. Reginald H. Lucy.

1.—Ostreotoxismus, or oyster-poisoning, presents itself under 3 forms: (1) an acute **gastroenteric catarrh**; (2) as a **specific continued fever,** which is not typhoid, but which is probably due to ptomain-poisoning through absorption, and (3) as true **typhoid fever,** the oysters having acted in the capacity of hosts to the typhoid bacillus. (1) It commonly happens that within a few hours after unwholesome oysters have been eaten, an individual is suddenly seized with nausea, vomiting, purging, and anorexia, the attack resembling cholera nostras. After a few hours the patient recovers rapidly. (2) In a considerable number of cases a fever supervenes within a few hours of the toxic meal. This fever lasts a week or 10 days or a fortnight, and is accompanied by profound mental and bodily depression. It may terminate fatally by convulsions and coma, by cardiac failure, or by peritonitis. A case is cited in which the symptoms of the first 2 types were present, and were afterwards followed by true typhoid fever. [D.R.]

2.—Rose recommends the **extracranial operations in cases of trigeminal neuralgia,** reserving the intracranial operation for the most desperate cases. He prefers Thiersch's method of nerve-extraction by torsion, tearing it away from both its central and peripheral connections. He exposes the infraorbital foramen by a curved incision, the concavity looking upwards, made immediately over the foramen, which is situated on a line drawn from the supraorbital notch to the first bicuspid. To reach the sphenomaxillary fossa, the knife is entered below the external angular process, the incision is carried backward along the zygoma, down in front of the ear over the parotid region to just above the angle of the jaw, then curving forward for 2 inches. Division of the zygoma after drilling holes for subsequent wiring is frequently necessary. The connection of the masseter muscle is severed, the tendon of the temporal muscle is drawn back with a retractor, and the sphenomaxillary region is thus exposed. Sometimes it is necessary to cut off the coronoid process when it is so large as to obstruct further progress. The internal maxillary artery is sought out, doubly tied and divided, the fibers of the external pterygoid are rasped off the great wing of the sphenoid and the root of the external pterygoid process exposed. The nerve is identified by its white appearance and its direction. It is seized and steadily twisted so as to detach it as near the ganglion as possible, then it is pulled and twisted so as to draw it back through the infraorbital canal. The wound is then closed. The shock after the operation is usually not great, but subsequent interference with the movements of the jaw often follows after recovery, necessitating a second operation for its relief. Rose has performed 40 operations in this manner without a death, with very satisfactory results in relieving the severe pain. [M.B.T.]

4.—Waterhouse estimates that about 16% to 20% of all cases of **gonorrhea** suffer from one or more **complications.** The complications are thought to result usually from a mixed infection, more commonly with staphylococci. In the treatment of epididymitis, rest in bed is essential. The testes are smeared with glycerin and belladonna. Waterhouse finds aconite and tartar emetic very effectual in the relief of pain, but in case of very severe pain, leeches should be applied over the inguinal region. Seminal vesiculitis is considered much more frequent than is generally supposed. The characteristic symptom of a vesiculitis is a painful fluctuating tumor leading forward from the base of the prostate to one side of the middle line. Hemospermia (nocturnal emissions of blood-stained semen) is a diagnostic symptom when present. One case is reported in which the sphincter was stretched and the vesicle incised from the rectum with immediate relief. He states that **gonorrheal rheumatism** nearly always results from gonorrhea of the genital passages, but may follow gonorrheal conjunctivitis, even in children. It occurs in about 3% of all cases of gonorrheal urethritis; in 30% one joint only is affected. In the treatment, the salicylates and iodids he has found useless, and prefers tonics—iron, quinin, strychnin—and fixation of the joint in acute cases. Incision and irrigation are also sometimes useful. The joint should be fixed, wrapped in cotton and an elastic bandage applied. In extremely acute affections, Waterhouse has incised the knee-joint and washed it with a 3% solution of carbolic acid with excellent results. [M B.T.]

5.—Thomson thinks that the **treatment of locomotor ataxia by exercises** is most applicable to moderately ataxic cases progressing only slowly. In one instance he obtained considerable improvement in the handwriting of an ataxic patient by exercises directed to the upper limbs. [D R.]

7.—The use of **potassium persulphate** is recommended in the treatment of ulcers of the leg. A 0.5% solution in distilled water is used and the strength is gradually increased up to 2%. [M.B.T.]

Münchener medicinische Wochenschrift.

February 28, 1899. [46. Jahrg., No. 9.]

1. The Green Soap Treatment of Local Tuberculosis. Hoffa.
2. Chlorin-acne. Herxheimer.
3. Report of 14 Cases of Skull-trephining. Seydel.
4. On Mixed Infection in Anthrax. Frank.
5. Cases of Tetanus. Kollmann.
6. The Serumtherapy of Tetanus. Möller.
7. On the Fatal Termination of a Case of Tetanus Treated with Behring's Antitoxin. Werner.
8. Contribution on Debatable Points of Melancholia. (*Conclusion.*) Tecklenburg.
9. On the Use of Alcohol in Youth. Stumpf.

1.—Hoffa directs attention to the value of **inunctions of green soap in scrofulous conditions.** The remedy was first recommended by Kapesser in 1878, and afterwards by Kollmann. It should, of course, not be used to the exclusion of other measures. It is indicated in tuberculous spondylitis, in tuberculous disease of the hip, knee, ankle, and elbow, and in tuberculosis of the lymph-glands and the skin. The most striking results have been obtained in multiple tuberculous lesions of bones and joints. Kollmann's method of application should be strictly followed. Of great importance is the employment of the proper preparation of green soap (sapo viridis)—the best is the so-called sapo kalinus venalis. Hoffa uses that made by Duvernoy, of Stuttgart. From 25 to 40 grams of the soap is rubbed into the skin 2 or 3 times weekly, usually in the evening. The inunctions begin at the neck and proceed downward. In spondylitis the cast may be removed, the child laid on its belly, the inunction made, and the cast replaced. The soap remains a half-hour, and is then washed off with a sponge and warm water. As to the mode of action of the soap, Kollmann believes that the substance neutralizes the lactic acid in the system and increases the alkalinity of the blood. Others attribute the good effects to the influence of the massage or metabolism. [D.R.]

2.—Herxheimer reports the occurrence of a stubborn indurated and pustular **acne** in persons exposed to **chlorin-vapor.** The condition is analogous to iodin and bromin-acne. Treatment is very unsatisfactory. [D.R.]

3.—Seydel reports observations on 14 **operations** on the **skull.** Tuberculosis of the skull is a rare disease that develops very gradually, sometimes as the result of trauma or in the scars of old syphilitic lesions. The disease causes little discomfort, is of slow growth, and often much more destruction has taken place than would be apparent through the skin. The treatment consists in the incising of the skin and the thorough removal of all tuberculous bone. In cases of epilepsy, injury of the brain-cortex may have occurred without lesion to the skull, thus affording sufficient etiologic movement without any external signs of trauma. These cases, the author believes, are not to be benefited by operation. The patients which are helped by opening the skull are those in whom there is tumor, cysts, or traumatic extravasation located over a circumscribed motor center. Trephining to remove tumors of the brain or its membrane has not been attended with the success as has that for extradural hemorrhage or abscess in the brain; out of 100 cases only 3 were fitted for operation. Tumors developing from the skull of course are much more easily removed. [G.B.W.]

4.—Frank, in order to test the action of various disinfectants on anthrax, covered bristles bought in the open market with anthrax-spores, and exposed such bristles and silk-threads similarly covered with spores to the disinfectant. He found it impossible to disinfect the bristles, while the silk-threads became sterile. This led him to suspect that the bristles might originally have contained a **resistant form of anthrax-spore,** and this proved, on inoculation into guineapigs, to be the case. In the exudate, anthrax-bacilli were found, together with other bacteria, particularly a form of staphylococcus. Experiments were made on the effects of the latter organism, and various other bacteria which the author terms antagonists, on the course of anthrax-infection. When animals are inoculated with both anthrax and staphylococcus, the course of the disease was markedly different from that of pure anthrax-infection. It was generally slower, and the characteristic edema at the point of inoculation was lacking. Some of the animals survived after the double inoculation. The mice that recovered showed an increased resistance to infection with anthrax-bacilli and anthrax-spores from cultures, but not to inoculation with anthrax from the blood of an animal. The favorable influence of the "antagonist" is probably, the author thinks, the factor in promoting recovery from various forms of anthrax-infection in man. The bristles in which the spores had been found were not hair, but a vegetable fiber. How they became contaminated is difficult to say. [D.R.]

5.—Kollmann reports 3 cases of **tetanus** not treated with antitoxin. The first, one of moderate severity, recovered; the 2 others, both grave cases, died. The source of infection in cases 2 and 3 is interesting—the disease seemed to follow a bee-sting in the former; in the latter, the patient had used old dusty cloths as compresses on a leg-ulcer. [D.R.]

6 and **7.**—Möller and Werner record each a case of tetanus that ended fatally despite the use of antitoxin. [D.R.]

9.—See Foreign News, Continental Europe, this issue.

March 7, 1899. (46. Jahrg., No. 10.)

1. Is it Necessary to Isolate Angina-Patients? M. de Rochmont.
2. Upon Complete Amputation of the Breast in Cancer, with Following Skin-Grafting (Autoplasty). Assaky.
3. A Characteristic Symptom of Functional (Hysterical) Paralysis of the Extremities. R. v. Hoesslin.
4. Upon Massage of the Liver. P. J. Möbius.
5. Concerning Myxedema in Young Children. J. Lange.
6. A Case of Congenital Muscle-Deficiency in the Arms and Shoulders. Geipel.
7. Report of 14 Cases of Skull-Trephining. Seydel.

1.—To illustrate the **contagiousness of ordinary sore throat,** not of diphtheric origin, the author reports an **epidemic of tonsillitis** recently observed in the Altona Hospital. A woman suffering from acute articular rheumatism developed sore throat; after her, 17 other patients and a nurse, making 18, had tonsillitis of varying degrees of severity. The cases occurred in 5 wards, all on the same corridor. Cultures were made from the throats, but only the ordinary organisms, staphylococci and streptococci, were found; a few times a slender streptobacillus, nonpathogenic for guineapigs, was obtained. The dust of the infected wards contained only the bacillus subtilis. The occasional seriousness of throat-inflammations of a nondiphtheric nature was shown by the fact that during the epidemic described articular rheumatism occurred 3 times, and nephritis, pericarditis, endocarditis, and threatening heart-failure, each once. It is now the custom at the Altona Hospital to **isolate cases of angina.** [D.R.]

2.—Assaky considers Halsted's operation the preferable one for **carcinoma of the breast,** but he believes that too little skin is removed in most cases and that the remaining skin may be a source of further infection. After the removal of an extensive area of skin he makes two parallel, horizontal incisions from the upper and lower extremities of the wound, thus outlining a quadrilateral flap. These incisions are continued to the anterior axillary line of the opposite side, and two short vertical incisions are made from them toward the breast. It is possible by sliding this flap to cover the exposed surface. [W.K.]

3.—v. Hoesslin believes that he has discovered a **pathognomonic symptom** which will render possible the often difficult **differential diagnosis of functional and organic paralyses.** He employs two tests: (1) Resistance-movements with sudden suspension of resistance, and (2) investigation of the state of contraction of those muscles which during the intended movements act as antagonists. For the first test he requests the patient to flex or to extend the paretic limb while he himself offers a resistance proportionate to the degree of motor weakness. In paresis of a lower limb, *e. g.*, he asks the patient to extend the limb while he (Hoesslin) holds it free, the knee being slightly flexed. By means of pressure with the open hand the extension of the leg is resisted, but only to such a degree that the patient can readily overcome the resistance. While the patient is making the effort to extend the leg and to overcome the resistance, the counter-pressure is relaxed. In all forms of paresis due to organic lesions the limb, when released, is at once quickly jerked in the direction of the intended movement; in functional paresis this jerking movement does not take place. On the contrary, the motion of the leg is arrested the moment the resistance ceases to act, and is only continued after a short pause. The reason for this is that, in functional paralyses, an effort to perform a certain muscular movement with the paretic limb leads to a simultaneous contraction of the antagonistic muscles. This contraction of the antagonists inhibits or hinders the movement intended. On this account the author terms the phenomenon the **paradoxic contraction of the antagonists.** The demonstration of this contraction constitutes the second test in the differential diagnosis of functional and organic paralysis. While the patient tries to execute the commanded movement, the observer examines the state of contraction of those muscles which during the movement in question act as antagonists. If the muscles are strongly contracted, the paralysis is functional in origin. During 4 years v. Hoesslin has never met with an exception to this rule; whenever paradoxic contraction was present and whenever the jerking movement after suspending resistance was absent, the paresis proved itself to be functional (hysteric) in nature. The tests are easiest when the paralysis is incomplete. In case a limb is completely paralyzed, the tests may be made on another limb, since in persons with hysteric paralysis the muscles of the nonparalyzed limb are often weakened and give the reaction. The tests are naturally inapplicable when all 4 extremities are completely paralyzed, and when unconsciousness or great impairment of mentality renders the execution of a commanded movement impossible. But as it is rare for hysteric paralyses to affect all 4 limbs equally, the tests can generally be employed. [D.R.]

4.—Möbius has suffered for 7 years from pains in the middle of the abdomen, which were, by his physicians, referred to gallstones. That the liver was involved was shown by an enlargement of that organ. A Carlsbad cure and other agencies seemed of doubtful value; salicylic acid and salipyrin were able to cut short the painful attacks; but morphin hypodermically was the only remedy that actually controlled the pain. Latterly, however, Möbius has hit upon a simple method of treatment, which he designates **massage of the liver.** He inspires as deeply as possible, holds the breath at the height of inspiration, and then breathes out slowly. During the inspiration the liver descends 5 cm. When in a healthy state, the procedure causes no special sensation, but when an attack is approaching, he feels a pain, a drawing and jerking, apparently located at the thoracic vertebræ, and this sensation is followed by relief. The movements are best performed in a rocking-chair with arm-rests. The results of the method lead Möbius to conclude that **insufficient movement of the liver** predisposes to disease of that organ, or to gallstones. Women are most liable to gallstones, a fact for which the author finds 3 reasons: (1) Their costal breathing; (2) the pressure of the clothing; (3) the lack of large muscular movements. It is, therefore, not unlikely that insufficient action of the diaphragm is connected with the formation of gallstones. A regularly recurrent active pressure on the liver cannot be indifferent for the movement of the bile, but probably favors it. Yet it is likely that despite inactivity of the liver, gallstones do not occur unless some **toxic influence** is added. In Möbius' case this was furnished by an attack of influenza. He believes that the best means of **preventing gallstones is energetic diaphragmatic breathing** throughout life. Ordinary massage of the gallbladder, which has been recommended for gallstones, he considers useless and dangerous. "If anyone wanted to massage my gallbladder, I should advise him not come near me." He favors the use of morphin-injections in gallstone-pains, and thinks there is but little to fear regarding the morphin-habit. Furthermore, morphin has apparently another action besides the relief of pain. The attack seems to be cut short by it; many who receive a sufficient injection at night are relieved of their attack in the morning. [D.R.]

5.—Lange gives a description of the symptoms of **myxedema in early childhood** [sporadic cretinism], and reports two cases. The first is that of a female child with typical cretinoid features. It had been nursed at the breast for 14 months. Under thyroid treatment it improved considerably; the skin became more natural, it began to speak a little, but could not sit up unsupported. The second child, also a girl, had presented a swollen aspect since birth, and looked like a cretin. It improved also under thyroid medication, but died after an operation for prolapsus ani et recti. Regarding the diagnosis of congenital myxedema, the author calls attention to the marked fluctuation in the infiltration of the skin, and when this infiltration is absent, as it temporarily may be, the disease may be mistaken for rickets. A valuable diagnostic sign is revealed by the Röntgen-ray, which shows persistence of cartilage in the skeleton, especially in the epiphyses. A skiagram of one of the two cases—the child was 2¼ years old—shows complete absence of bone in the wrist. It has been maintained by some that the symptoms of sporadic cretinism cannot appear until the child has been weaned, as the mother's milk supplies the infant with the active principle of the thyroid gland. On the same reasoning the occurrence of congenital myxedema has been denied, as the placental blood is supposed to convey to the fetus the thyroid principle. But in one of Lange's children the disease was present, although the infant was at the breast 14 months, and in the other, according to the mother's statement, a general swelling was noted at birth. Why in some cases the disease develops first after weaning, in others is present at birth, is not known, but it is generally accepted that the causal disturbance is a congenital one. The first symptoms to improve under thyroid treatment are the body-temperature, the pulse, and the infiltration of the skin. The improvement does not always seem progressive in the congenital cases and those developing in the early months of life; cases developing later seem to offer a better promise. It should not be forgotten that the thyroid substance has a cumulative action. In one of the author's cases the drug was for a time well borne, then suddenly restlessness, pallor, insomnia, and rise of temperature and pulse developed. In the fatal case an autopsy revealed that the thyroid gland was present, but small; histologically, however, only fat and connective tissue were found. [D.R.]

6.—An interesting case of congenital absence of practically all muscles of the upper extremities and shoulders—the deltoids, suprascapularis, infrascapularis, serratus magnus, pectoralis major, biceps, triceps, and brachialis anticus were missing. There was also a congenital pes equinus of the right side. The patient was a young girl; by using both hands she was able to write. [D.R.]

7.—The greatest danger following **puncture wounds of the skull** is due to infection, either through the inflicting instrument remaining in the brain or by bacteria gaining entrance at the time of injury. Primary trephining is indicated in cases in which one of the meningeal arteries is supposed to have been wounded, or when pressure-symptoms exist dependent on depressed fragments. Secondary trephining should be done in cases in which abscess develops either superficially or deep in the brain-substance. [G.B.W.]

Berliner klinische Wochenschrift.

February 6, 1899. [36. Jahrg., No. 6.]

1. Upon Fixed Ideas. Tuczek.
2. Concerning the Substance Sensitive to Iodin in the Blood in Puerperal Fever. S. Kaminer.
3. Upon the Vaginal Cesarean Operation. A. Dührssen.
4. Remarks on the Therapy of Congenital Hip-dislocation through Bloodless Reposition. A. Lorenz.
5. On the Working Capacity of the Fatty-degenerated Heart. A. Hasenfeld and B. Fenyvessy.
6. Communication on the Treatment of Urogenital Tuberculosis. B. Goldberg.

2.—Kaminer, in 18 cases of **pyemia and sepsis,** observed the so-called **glycogen-reaction in the leukocytes** of the blood. In a case in which the symptoms pointed to suppuration in the region of the cecum or the right parametrium, the reaction was absent. Further study of the case showed it to be one of ruptured tubal pregnancy. In febrile affections, other than sepsis and pyemia, as typhoid fever, scarlet fever, and phthisis, the reaction was not obtained. It was present in a case of hemorrhagic diathesis, but not in one of bleeding from abortion; nor was it seen in leukemia, carcinoma, or mild diabetes. In a case of diabetic coma, intensely-staining bodies, chiefly extracorpuscular, were found. The reaction was absent in a case of albumosuria. In animals injected at the same time with substances increasing the leukocytes (*e. g.*, spermin) and with substances producing infection or intoxication, the reaction was found. Regarding the nature of the body reacting with the iodin, the author is noncommittal. By some observers it has been considered glycogen by others an antecedent of amyloid substance. The author has made some experiments to determine whether the appearance of the substance in the leukocytes is due to infiltration or to degeneration, and comes to the conclusion that it is due to the latter process. [D.R.]

3.—Dührssen advocates the **vaginal Cesarean operation** in abnormal conditions of the cervix or lower segmen of the uterus, such as carcinoma, myoma, rigidity, and stenosis; in conditions endangering the life of the mother, which may be relieved, such as disease of the lungs, heart, and kidneys; and conditions endangering the life of the mother in which death is imminent. He reports the second case in which he has performed this operation. A primipara, aged 25, was suffering from mitral insufficiency with incomplet

ompensation. Her pulse was small, there was orthopnea,
yanosis and great edema. The fetal heart-sounds were very
eak. The head was high up at the inlet of the pelvis and the
ervix was entirely closed. It was apparent that the woman
ould not survive the labor. An incision was made through
e perineum and vagina. The anterior vault of the vagina was
ext split with a sagittal incision and from this were carried
vo transverse incisions. The anterior wall of the cervix was
eed and the posterior lip was split by an incision which ex-
nded down 5 cm. into the posterior vaginal wall. The
eritoneum of the posterior culdesac was separated from the
ervix wall, then the hand was introduced into the uterus
id rapid version and extraction were performed with the
ightest difficulty. A well-developed female child was de-
vered. The placenta was quickly delivered and the wall of
e uterus closed with interrupted silk sutures and tam-
onned. The vaginal and peritoneal incisions were also
ickly closed with continuous catgut sutures. The entire
eration lasted 20 minutes. Pulse and respiration ceased
nmediately after the delivery of the child, and it was im-
ossible to revive the woman. [W.K.]

6.—Goldberg recommends **ichthyol in urogenital
berculosis,** and has employed it in a large number of
ses with good results. He gives from 10 to 70 drops of a
ixture of ichthyol and distilled water, of each 20.0, in water
rice daily after meals. The ichthyol can be given over a
ng period (and should be so given) without causing any
ntoward symptom. [D.R.]

February 13, 1899. [36. Jahrg., No. 7.]

The Indications for the Modern Radical Operation for Uncomplicated Hernia. J. Rotter.
A New Method for Easily Diagnosing Typhoid Fever. Piorkowski.
Tabes Following Injury. Tromner.
Concerning Hallucinations. Tuczek.
Concerning the Working-power of the Fatty-degenerated Heart. A. Hasenfeld and Bela v. Fenyvessy.

1.—The history of operation for **the radical cure of
ernia** is discussed and the success of the present methods
attributed in great part to the improvement in modern
eatment of wounds and in the technic of the methods of
eration. Operation is only justified in case danger to life
d health therefrom is not great, and when permanent re-
lts are sufficiently satisfactory. Out of 27 cases which were
erated upon by Macewen's method up to 1894, Rotter
und recurrence of the hernia in 18% of the cases. In 3
ses the method of operation was believed to have been at
ult, and in 2 it was due to wound-infection. Out of 67
ses operated upon by Bassini's method, and from which
has obtained reports a sufficient time after the operation,
ly one recurrence is reported. An investigation of litera-
re shows that permanent results may be expected in all
t 1% or 2% of cases by this method, which is believed to
more satisfactory than the results shown by any other
ethod. It is believed that the radical operation should be
commended, not only in incarcerated hernias, but also in
ose which are easily reduced and kept in place. The
eration should not be undertaken in patients suffering
om serious general diseases, in young children with small
rnias, and in patients over 60 years of age. The size and
riety of inguinal hernia is a matter of no great importance,
extremely large scrotal hernias, containing the greater
rt of the viscera, have been successfully operated upon by
ssini's method. [M.B.T.]

2.—On **urine-media** it is possible, as Piorkowsky has
own, to **differentiate the typhoid and the colon-
cillus.** The colonies of the latter have a sharp margin,
ile those of the former send out fine processes. The origi-
l method, consisting in the use of urine gelatin plates, was
ry slow; at present the author employs the following
edium: Normal urine collected for 2 days, of an alkaline
action (from decomposition), and of a specific gravity of
20, is mixed with 0.5% of peptone and 3.3% gelatin, boiled
one hour on the water-bath, and filtered at once without
e use of heat. It is filled into test-tubes, which are closed
th cotton, and sterilized at 100° C. in the steam-sterilizer
15 minutes; the sterilization is repeated on the following
y, but only for 10 minutes. On this medium the colon-
lonies when grown at a temperature of 22° C. at the end of
20 hours, are round, yellowish, finely granular, and have a sharp margin. Those of the typhoid-bacillus are threadlike, the threads radiating in a peculiar manner from a center. It is important that the plates be kept at a temperature of 22° C., as at a lower temperature the growth of the typhoid bacillus is less typical. Impression-preparations also show well the differences in the colonies of the two organisms; so do stab-cultures. The author has so far examined the feces of 4 typhoid patients—in all he was able to make a positive diagnosis of typhoid fever within 20 hours. [D.R.]

3.—Trömner reports two cases of **locomotor ataxia,** in which the disease seemed to come in **after trauma,** the symptoms predominating on the injured side. In neither case was it possible to exclude syphilis absolutely, especially not in the second. The author then lays down certain postulates that must be fulfilled before a given case of tabes can be considered traumatic in origin. Syphilis, exposure to cold, and physical overexertion, must be absent; the disease must develop immediately, or not long after a severe trauma, and must begin and must be most marked in the injured part.

5.—Hasenfeld and Fenyvessy, from their experiments on animals, in which they had produced an acute fatty degeneration of the heart with phosphorus, conclude that even marked degrees of acute fatty metamorphosis of the heart cannot be diagnosed during life, because the fatty change does not materially influence the function of the heart, nor does it produce any striking cardiac symptoms. The working capacity of the acutely-degenerated heart suffers but little, and the fatty organ is capable of responding like the normal heart both to ordinary and to increased demands. Just before death, however, animals poisoned with phosphorus show signs of complete loss of compensation, but even then the fatty heart can be stimulated by suprarenal extract. The heart-muscle poisoned with phosphorus is much more sensitive to lack of oxygen than the normal organ. The cessation of circulation in phosphorus-poisoning is, to a large extent, dependent on weakness of the vasomotors. Pregnant animals bear phosphorus-poisoning badly; the parenchymatous organs of the fetuses in the womb also succumb to fatty degeneration. The absence of signs of disturbance of compensation in cases of fatty degeneration of the heart in the experimental animals is explained on the ground that the unaffected muscle-fibers are able to do extra work. This illustrates anew the wonderful reserve-power of the cardiac muscle. The authors apply the results of their animal experiments to human pathology, and assert that moderate degrees of fatty degeneration cannot be diagnosed and that it is not warranted to attribute the frequently observed attacks of cardiac depression to fatty degeneration of the heart-muscle. They do not deny that there is a causal relationship between the fatty degeneration, so often noted at autopsy, and the disturbances of compensation seen during life, but hold that in the vast majority of cases the **fatty change is a consequence** and not a cause of the loss of compensation. It is brought about by deficient oxidation, which must attend the disturbances of compensation. In very advanced stages of fatty degeneration, the latter may be the cause of death, but such high degrees of fatty changes are rarely seen at autopsy. In concluding, the authors urge the importance of remembering that their results are based entirely on studies of parenchymatous changes in the heart; the significance of interstitial changes in disturbances of the cardiac function they do not deny. [D.R.]

Deutsche medicinische Wochenschrift.

March 9, 1899. [25. Jahrg., No. 10.]

1. Concerning the Insufficiency of Muscle-Tone in Tabes Dorsalis. Rosenbach.
2. The Diazo-Reaction and Its Clinical Significance. Michaelis.
3. Concerning Fractures of the Metatarsal Bones through Indirect Force (the Cause of So-called Swelled-Foot). Thiele.
4. X-ray Diagnosis. Dorn.

3.—Thiele, as a conclusion to his article, offers the following sentences: (1) **Fracture** of the **metatarsal bones** by **indirect** violence is a much commoner occurrence than the teaching of the various textbooks would lead us to believe. (2) The so-called "Fussgeschwulst" (tumor of the foot) is nothing more than a fracture of one of the metatarsal bones with its surrounding callus. The callus is generally either ring-formed or spindle-shaped. [G.B.W.]

4.—Levy-Dorn points out the difficulties which attend the making of correct diagnosis with the x-rays, and says that unless our methods are what they should be, we should not lay too much stress on what the radiograph shows. [G.B.W.]

Deutsches Archiv für klinische Medicin.

December 22, 1898. [Bd. 62, Heft 1 u. 2.]

1. Myofibrosis Cordis. Dehio.
2. Experimental Investigations upon the Mode of Origin of Suggillations in the Dura as a Result of Cooling; with a Contribution to the Pathologico-Anatomic Changes that follow Extreme Lowering of Temperature. Reineboth.
3. Diabetes Insipidus. Strübell.
4. The Morphologic Changes of the Heart in Chlorosis, as Shown by Clinical Observation. Gautier.
5. Unusual Types of Fever in Pneumonia. Japha.
6. Brief Communications. I. The Combination of Measles and Diphtheria. Kratzsch. II. A Contribution to Knowledge of the So-called Rötheln. Krehl.

1.—Dehio has undertaken the careful examination of the walls from all 4 cavities of the heart in 42 parts, representing a great variety of pathologic conditions. The method employed was to remove small fragments of a muscle from various parts of the heart at regular intervals. These were then hardened in alcohol, sectioned, and stained with alum carmine. Altogether from 80 to 100 preparations were made from each heart. In all the hearts of old people, certain characteristic changes were observed, that consisted of hypertrophy, dilatation of the walls, atheroma of the arteries, and sclerotic changes around the bloodvessels and in the pericardium and endocardium. In addition, there was a hitherto undescribed change consisting of a diffuse increase of the intramuscular connective tissue which Dehio names **myofibrosis of the heart.** This consists of an almost uniform increase of the connective tissue throughout the whole heart, infiltrating the muscular fibers, and associated with more or less degeneration of the latter. This change apparently begins somewhere about the age of 50, causes a certain tendency to cardiac insufficiency, and is apparently the result of a slow degeneration of the parenchyma produced by the arteriosclerotic changes of the coronary circulation, which are followed by a secondary hypertrophy of the intermuscular connective tissue. It also appears to be associated with hypertrophy of the muscle, particularly if there is at the same time more or less dilatation. In the most extreme cases, the bundles of muscles are widely separated. They lose the characteristic polygonal shape produced by mutual pressure and become more or less rounded. In these cases also, there is a certain amount of cellular infiltration about the capillaries, and the muscle-fibers show considerable degenerative changes, especially that known as vacuolar degeneration. If the myofibrosis has occurred independently of arterial sclerosis, the bloodvessels show few changes. In any event, the auricles are more seriously involved than the ventricles. A table is given in which the results of the examination of 23 cases is summarized. From this table, Dehio concludes that myofibrosis is absent or slight when hypertrophy and dilatation are not present. When there is only hypertrophy without dilatation, and compensation is undisturbed, it is slight. If the ventricle is greatly dilated, myofibrosis is invariably present, unless the changes are due to some congenital condition, when it is absent. The changes vary in the different cavities according to the degree of work that they are called upon to perform; thus in mitral regurgitation they are more pronounced in the left ventricle, and in mitral obstruction more pronounced in the right. It follows, as a result of this rule, that the changes in the auricles are always far more pronounced than those in the ventricles. It is probable that those hearts with marked myofibrosis, even when compensation appears to be perfect, are far less capable of standing unusual strain, and it may be said that in such cases the heart-muscle contains the conditions that predispose to later degeneration and atrophy which in turn are accompanied by further proliferation of the connective tissue. This is apparently the anatomic basis of those functional disturbances that are called fatigue and insufficiency of the heart. [J.S.]

2.—Reineboth has performed a variety of experiments upon rabbits for the purpose of determining the method by which **ecchymoses in the pleura** are brought about in cases of extreme reduction of the body-temperature. At first he endeavored to prove that the ecchymoses actually occurred during exposure, and in one of a number of experiments in which the pleura was exposed during immersion in cold water, ecchymoses developed under observation. The second method of proving that the effusion took place, not as a direct result of death, whatever the method might be, was to allow the animal to recover, and then note the character of the suggillations. It was found that under these circumstances the older lesions were of a dark-brown color It appeared that if the temperature was reduced from 37° to 32°, ecchymoses occurred. Various explanations have been suggested: (1) that it is due to the contractions of the vessels at the periphery, and in consequence central congestion (2) that it is due to a stimulation of the vasomotor center (3) that it is due to an alteration in the blood itself, this altered blood affecting either the nerve-centers or injuring the walls of the bloodvessels. As a result of a reduction of temperature, blood-pressure is actually increased, and it is observed that animals dosed with morphin before immersion showed fewer suggillations than those not so treated. On the contrary, animals to whom ergot had been administered showed more suggillations than usual, and it appears reasonable to conclude that there is an excitation of the vasomotor centers, that, in the beginning, is due to the thermal irritation of the cold water upon the surface. In regard to the changes in the blood, it was found that the red blood cells were diminished, sometimes more than one million per cmm., but not corresponding in any way to the enormous decrease in the hemoglobin, which frequently was diminished from 75% to 50%. This apparently was due in part to a temporary hemoglobinuria. Reineboth draws the general conclusions that the suggillations of the pleura are probably due to destructive changes in the blood, and to excitation of the vasomotor center, which causes a rupture of the fine subpleural vessels, which are congested as a result of peripheral anemia. It is possible that the mechanical conditions favo the occurrence of this change in the capillaries of the pleura In addition, he notes the following morbid conditions in many of the animals upon which the experiments were performed: atelectasis, pneumonic foci, thrombosis of the bloodvessels, embolism, and, in the urine, occasionally albumin and sugar. [J.S.]

3.—Strübell has undertaken some rather heroic experiments for the purpose of determining the effect of variou procedures upon the **excretion of urine in diabetes insipidus.** The first patient, a man of 26, had been passing a pathologic quantity of urine for about 1½ years. This contained neither sugar nor albumin, varied in specific gravity from 1000 to 1004, and in quantity from 9,000 to 19,000 cc. per day. During this period he had lost weight and power, but there were no indications of disease in any of the organs. In general he drank a quantity of water every day almost equivalent to the amount of urine passed. The deprivation of water could only be accomplished by locking the patient in a cell, and even then he contrived occasionally to obtain considerable quantities of liquid. During this period of thirst, which rarely exceeded 4 or 5 hours in duration, the patient became weak, haggard and almost pulseless, so that Strübell admits that he proceeded almost t the extreme limit. The quantity of urine was at first no markedly diminished, even when water was totally withheld Then it would gradually become less and secretion of saliv would cease. The blood became thicker, and even the tissues were called upon to supply the waste, so that the bodil weight rapidly decreased. Now, when water was given was almost immediately excreted instead of going to suppl the thirsty tissues, and only after a considerable period w the heart's action reestablished and the weight again increased. Investigation of tissue-metamorphosis showed th during the thirst-period the nitrogenous elimination w greatly decreased, and during the period when sufficient water was administered it markedly increased. During the thirst-period perspiration from the skin was also diminished. Inosit was not found in the urine in spite of repeated investigations. Finally, it was determined to test the effect of fever. This was produced by the injection of deutero-albumose in doses of 0.1 grm. beneath the skin. It usually caused an elevation of 2° C., or more, in the course of 5 or 6 hours, and was associated with diminished thirst and excretion of urine. When the temperature again became normal both symptoms reappeared. The same effects were also produced by administration of hot drinks or exposure to the hot-air bath. In the latter experiment the parodoxic observation was made that after profuse perspiration the thirst was diminished. The second patient had had polyuria from birth. The daily quantity of urine ranged from 11,000 to 15,000 cc., and varied in specific gravity from 1001 to 1006. The blood showed a condition of inspissation. The red bloodcells were over 5,000,000; the hemoglobin was 110%, and the solid constituents amounted to about 23%. When fluid was not allowed, the secretion of urine was greatly diminished, but the general condition of the patient remained good. If, after such a period of abstinence, water was given, the amount of urine excreted was greatly in excess of the normal, and then gradually declined. The elimination of nitrogen was increased, no inosit was found in the urine, and the amount of sensible perspiration was diminished. Strübell concludes that there are two forms of diabetes insipidus, one mild and one severe. In the mild form, the deprivation of water, aside from an unpleasant sense of thirst, produced no bad symptoms, even for long periods. In the severe form, deprivation of water gives rise to symptoms that certainly appear to threaten imminent death. The mild forms may be described as cases of tachy-urination, and the increased quantity is an abnormity rather than a disease. The fact that there is inspissation of the blood leads him to suspect that the primary lesion is not the increased thirst, as has been suggested by Nothnagel, but the increased excretion of urine. If the kidneys simply excreted an excessive amount of ingested liquid, the blood would show hydremia. A similar conclusion is also indicated by the condition of the other excretions and the tissues. The reason why fever diminishes the secretion is not known. [J.S.]

4.—Gautier has undertaken to determine the nature of the **clinical changes that occur in the area of cardiac dulness in the course of chlorosis.** In order to obtain as accurate measurements of the heart as is possible, he employed deep percussion, arguing that the area of absolute dulness only indicates the position of the edges of the lungs and not of the heart, and recorded all measurements in centimeters to the right or left of the midsternal line. The figures that he obtained on normal persons are for the right border, 4.5 c. to the right of the midsternal line; for the left, 9.5 c. Altogether 22 cases are recorded in tabular form and in practically all of them there was more or less enlargement of the area of cardiac dulness as obtained by deep percussion. In 2 the left border, however, did not extend beyond the left mammillary line, and these are therefore regarded as normal, although the total breadth of cardiac dulness appears to be greater than that usually obtained. It is important to determine the reason for the cardiac hypertrophy that evidently exists, and in some cases is very considerable. In 2 cases, the apex-beat was observed in the sixth intercostal space. If Virchow's theory, that in most cases of chlorosis there is a congenital narrowing of the aorta and great vessels, which is associated in more or less close etiologic relations to the disease, be accepted, the explanation of the enlargement of the heart is of course very easy. It is hypertrophied as a result of increased resistance against which it pumps, but more recent investigations have shown that this narrowness of the aorta does not necessarily occasion chlorosis. It may be found in a variety of other conditions, and is not always associated with hypertrophy of the heart. Clinically, there is reason to believe that there is slight dilatation, but only in proportion to the increased functional activity of the muscle-wall, for dyspnea rarely exists. Finally, the theory of congenital narrowness of the aorta appears to be overthrown by the fact that in cases of chlorosis that recover the heart returns to its normal size. In 5 of the cases that Gautier reports, this actually occurred. He admits, however, that in other cases the heart did not return actually to its normal size, and in some, even after apparent recovery, was as much enlarged as it had been during the height of the disease. Finally, he concludes that the causes of the dilatation and hypertrophy of the heart are dependent upon those that produce the chlorosis, but suggests that in this disease there is a decrease in the functional activity of the heart-muscle, so that the maintenance of the normal circulation is for this weakened muscle an increased effort and leads to enlargement. The condition is one of the best examples of transitory hypertrophy of the heart. [J.S.]

5.—Japha describes three types of **atypical fever** that may occur **in the course of pneumonia**—remittent, if the diurnal variation exceeds 1° C.; intermittent, when complete apyrexia alternates with paroxysms of fever; and, finally, the recurrent form, in which, after a prolonged period of apyrexia with disappearance of the physical signs, a new attack occurs. Forms of intermittent pneumonia may be associated with migration of the local lesions, and he reports a case in which there was an intermission on the fourth day, with a subsequent rise in temperature, associated with the development of a new focus on the left side. He reports, in addition, 4 similar cases. Eight cases are also reported in which the temperature-curve was markedly intermittent, descending below normal on the third, fourth, and eighth and tenth days, and showing considerable diurnal remission. These cases are frequently confused with malaria. It would be interesting, if sufficient data were at hand, to determine whether such typical forms of fever were due to infection by other microorganisms than the pneumococcus. Finally, he reports 7 cases in which, after apparent recovery, a new attack occurred. In only 1 case was it possible to make bacteriologic studies in this group, and in this tubercle-bacilli and influenza-bacilli were excluded, but the real cause of the disease not found. It is possible that such cases are due to incomplete immunization. [J.S.]

6.—I. Kratzsch reports an epidemic of **measles,** attacking 73 children, of whom 6 had at the same time **diphtheria.** Two recovered and 4 died, 2 in spite of tracheotomy. He suggests that in all cases of measles in which there are symptoms of laryngeal obstruction, antitoxic serum should be employed. II. Krehl is skeptical regarding the existence of rötheln, believing that many of the cases belong either to scarlet fever or to measles. He reports, however, 15 cases of an obscure exanthem that did not bear the least resemblance to scarlet fever, and 9 of the children had already had measles which had been diagnosed either by himself or Stinzing. The eruption of the disease and the symptoms appeared simultaneously, the latter appeared first in the face, and then spread to the legs, trunk, and limbs. Sometimes there were small blisters. Those situations on which pressure was greatest always showed the maximum amount of the eruption. During the convalescence there was neither discoloration nor desquamation. In one case the temperature reached 38.1° C. on the evening of the first day. None of the others developed fever. [J.S.]

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1. The Anatomy and Physiology of the Lower Portion of the Parietal Lobe. von Monakow.
2. The General Arrangement of the Provincial Asylum at Conradstein in Prussian Staargard, both Psychiatrically and Economically. Kroemer.
3. A Peculiar Familiar Arrest of Development, Particularly of the Motor Regions. Pelizaeus.
4. A Contribution to the Knowledge of Spinal Neurotic Muscular Atrophy. (Atrophia Muscularis Progressiva Spinalis Neuritica. Bernhardt.) (Progressive Neuritic or Neural Muscular Atrophy. Hoffman.) Siemerling.
5. A Case of Metastatic Carcinoma of the Inner Surface of the Dura Mater, and upon the Lower Roots of the Brachial Plexus of the Left Side, with Remarks Upon the Symptomatology and Diagnosis of Vertebral Carcinoma. Bruns.
6. The Dependence of Certain Neuroses and Psychoses upon Diseases of the Gastrointestinal Tract. Herzog.

7. A Case of Brain-tumor with the Escape of Cerebrospinal Fluid from the Nose. Wollenberg.
8. Further Remarks upon the Symptoms Exhibited by Persons who have Recovered from Hanging. Wollenberg.
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13. Exhibitionism. Seiffer.
14. A Case of Pontile Tumor. Link.
15. Contribution to the Knowledge of the Tumors Composed of Nervous-tissue. (Neuro-ganglioma Myelinicum Verum.) Haenel.

1.—Von Monakow contributes the first portion of an elaborate paper upon the **structure of the gyrus angularis and the gyrus supramarginalis.** Lesions in the latter are frequently associated with loss of the muscle-sense without disturbance of motility. Lesions in the former, particularly if on the left side, are frequently associated with conjugate deviation, mind-blindness, and occasionally pure alexia. His material consisted of serial sections from 2 brains of a 5-months' fetus, and from 1 brain of a 6-months' fetus. Serial sections through the brain of a newborn child and a 3½-months' old child; other series from the brains of a 2 and 3-months' old child, and finally, a series of sections through the brain of a monkey that had had the visual centers removed, and sections through adult brains with porencephalis and sclerosis. It is not possible to give a full abstract of the details of these results. In a 3½-months' old child's brain, von Monakow observed that the earliest portions to become covered with myelin, were the parts of the internal capsule derived from the optic thalami. He was able to determine definitely that fibers forming a part of the corona radiata, are derived from both of the gyri. The first pathologic case was that of a man who had had an hemorrhage into the pulvinar and the dorsolateral portion of the lateral nucleus of the thalamus. Six months before his death, the brain showed secondary degenerations through the posterior limb of the internal capsule into the white matter of the lower portion of the parietal lobe. The second patient had been injured during birth, with the production of a rather irregular imperfection in the skull on the left side of the head. He had always exhibited deficient intelligence, and there was distinct hypoplasia of the right side of the body. As he grew older he had frequent epileptic attacks, and finally died in status epilepticus. There was a large cavity in the left occipital lobe. As a result of careful microscopic studies, it appears that the posterior and lateral portion of the external geniculate ganglion sends fibers not to the parietal, but to the middle occipital gyrus. [The paper is unfinished. [J.S.]

2.—See editorial pages.

3.—Pelizaeus reports the case of a boy, 8½ years of age, who was born apparently healthy, but at the age of 3½ years was noticed to be distinctly less developed than his 5 brothers and sisters. The patient at this time was just beginning to speak, was uncleanly in his habits, made no attempt at spontaneous movement, but remained sitting in the corner of the room all day, but required support to sit up. Towards the end of the fifth year he began to creep, and at the end of the sixth year was able to walk, although very imperfectly. When examined at 8½ years, it was noticed that he was poorly developed, shy, not very intelligent, but understood what was said, and answered promptly. There were numerous scars upon the forehead, and the skull was tender to percussion. The teeth were imperfect, and the 2 middle incisors showed cup-shaped depressions. There were no disturbances of motion nor sensation; both patellar reflexes were somewhat increased, and the patient was unable to stand or walk without support. This case, with 2 others observed in "Hitzig's Clinic," apparently belong to a type of disease hitherto undescribed. It differs from the cerebellar ataxia of Marie, by the fact that the symptoms begin early in life and gradually improve; and Pelizaeus believes that it should be classed as a **family inhibition of development,** particularly affecting the motor regions. [J.S.]

4.—Siemerling reports the case of a boy, 20 years of age, whose hands and legs began to emaciate about the age of 7. This gradually extended to the thighs and arms, and from the age of 13, movement was no longer possible. Up to this time his intelligence had been normal, but a melancholic condition gradually developed. There were then fibrillary twitchings in the intercostal muscles, and reactions of degeneration in all. At the age of 20 the patient died in collapse. The microscopic examination of the tissues showed the presence of **degeneration in the posterior columns of the spinal cord,** most pronounced in the lower and upper dorsal region, and in the cervical region, limited to the medium portion of Goll's column. The ventral portion of the posterior columns was also involved. There was degeneration of the lateral columns posteriorly, and in part anteriorly, especially in the lower dorsal and lumbar regions. The cells of the anterior cornua and of Clark's columns, and the fibers in both roots, were degenerated. The anterior roots were also thinner than normal, but the posterior roots were apparently not involved. The spinal ganglia were nearly normal; some of the cells, however, were degenerated. The brain showed no changes. The peripheral nerves exhibited very marked degenerative conditions. These were more pronounced in the peripheral portions than near the spinal ganglia. Nearly all of the muscles were seriously involved, particularly those of the leg, which showed almost no trace of muscular tissue. Comparing the results of this case with those reported by other authors, it appears to be remarkable on account of the degeneration in the lateral columns, that, perhaps, was responsible for the contractures in the extremity. It is not worth while to theorize concerning the pathogenesis of the process, but Siemerling is rather inclined to believe that the primary lesion is situated in the medullary portion of the posterior roots. He admits, however, that it is not possible to exclude a primary localization in the spinal ganglia. [J.S.]

5.—Bruns reports a very interesting case of **metastatic carcinoma of the spinal cord,** situated upon the inner surface of the dura, a situation which he believes has not hitherto been recorded. The patient, a spinster of 69, had had the left breast amputated for cancer in 1890. In 1895 she noticed pain in the region of the lower roots of the left brachial plexus, and finally there developed a flaccid atrophic paralysis of all the muscles of the fingers and some of the muscles of the left forearm. At the same time there was myosis and contraction of the lid of the left eye. The pain continued upon the ulnar side of the left arm, but there was never any anesthesia. In the early portion of the year there had been an eruption on the skin, supplied by the first dorsal nerve and the eighth and seventh cervical roots. There were also some trophic disturbances, and the skin became glossy. A diagnosis was made of metastatic carcinoma involving the spinal column, situated chiefly on the left side and compressing the two lower cervicals and the first dorsal roots. At the autopsy the tumor-mass was found occupying the inner surface of the dura, which was considerably thickened, particularly just in the region of the eighth cervical root. The spinal cord was not in the least involved, and the bones of the vertebral column were entirely free. This tumor was distributed over the whole of the left half of the spinal cord in this region and also extended to the right side posteriorly. The seventh cervical, the eighth, and the first dorsal roots were invaded by carcinoma-cells, and almost completely degenerated. The examination of the spinal cord showed an area of secondary degeneration extending upwards between the columns of Goll and Burdach. Bruns calls particular attention to the fact that no similar case has ever been reported. He believes that the cancer-cells were conveyed from the original focus either by the blood or lymph-channels, and on account of the accurate localization of the growth, considers it an evidence of the exactitude of our knowledge of the functions of the lower cervical roots. He notes that sensory disturbances, aside from very slight pain, were not present, and explains this by assuming that the hypothesis of Sherrington,—that extensive anastomosis takes place between the sensory fibers of any 3 adjacent roots,—is not only true, but may be elaborated to include any 5 adjacent roots. The herpes zoster was of course due to the involvement by the carcinoma of the spinal ganglia-cells. He reports a second case in which the patient had symptoms of compression of the spinal cord, that is, paresthesia with total paralysis of both legs, and persistence of tactile sense, but loss of the pain sense. There were also neuralgic pains in both legs. The patellar reflexes were diminished. Later, the third dorsal vertebra became exceedingly prominent. The reflexes diminished very markedly, and anesthesia occurred, and gradually ascended. Curiously enough, there was apparently great resistance to the electric current in this part of the skin. When this was diminished it was possible to obtain normal contractions of the muscles. An autopsy was not obtained, but the case appears to be clearly one of metastatic carcinoma of the vertebral column. It is interesting to note that in spite of its high situation (third dorsal segment) the paralysis of the legs was flaccid, and the patellar reflexes gradually disappeared. This disappearance appeared to be coincident with the development of the anesthesia. A third case, also 5 years after amputation of the breast, showed girdle-pains and then paralysis of the legs with high paresthesia. Finally, the seventh dorsal vertebra became very prominent. In these 2 cases, the only other condition that might have been suspected was caries of the spine. A fourth patient, also 5 years after amputation of the breast, developed a kyphosis, and subsequently atrophy of the tongue, paralysis of the pelvic muscles, tachycardia, and other symptoms of bulbar involvement. At the autopsy, extensive carcinomatosis of the entire vertebral column was found, and several of the vertebræ had collapsed. In a few situations, carcinomatous masses had invaded the extradural space. It is possible, in some cases, to have difficulty before the collapse of the vertebræ, in excluding pachymeningitis cervicalis hypertrophica, particularly if there has been a previous luetic infection. Sometimes, until the vertebræ collapse, there may by no symptoms whatever, and the earliest indication of the disease is the development of a sudden paraplegia. He finally reports the case of a woman of 60, in whom this condition actually occurred, although on account of weakness of the legs and occasional neuralgic pains in the legs and hips, or possibly in view of the previous operation, the metastatic carcinoma had been suggested. Naturally metastatic carcinoma to the spinal column is more frequent in women than men. In 3 of the reported cases, the first symptoms of metastasis occurred 4 years after the primary growth had been removed. In one of the others, they first developed 5 months after the operation, and in the remaining one, immediately. One patient lived for 3 years after the first symptom, 3 of the others more than a year, and only 1 died within the limits named by Gowers. [J.S.]

6.—Herzog describes two forms of **neurasthenic symptoms** that appear to be **associated** either as a result or as a cause, with various **derangements of the gastrointestinal tract.** The first type consists of a state of extreme anxiety without any satisfactory cause. Often the patients believe themselves seriously ill, and particularly often complain of heart-disease. Very rarely is the stomach itself supposed to be out of order, and often they deny any symptoms pointing to that organ. The second group consists of patients who believe themselves suffering from heart-disease; they rarely exhibit marked anxiety, and aside from their hypochondriac condition, have only a slight degree of excitement. A third, perhaps less important group, consists of patients suffering from imperative concepts. Herzog reports 7 cases illustrating the first type; all of them suffering from subacute or chronic catarrhal conditions of the stomach or intestines. In nearly all cases the digestive disorder appeared to be the primary lesion, although it is possible that a general nervous condition formed its basis. Nevertheless, the patients, even when cured of their organic conditions, continued to be neurasthenic, and careful questioning showed that the nervous symptoms had existed for a long time. He reports *in extenso* the histories of 4 patients with the second type of nervous disorder. All suffered from hyperacidity, and the attacks of nervousness, or, as the patients believed, heart-failure, appeared to be associated with an increased arterial pressure and distention of the stomach. Sometimes they would suddenly awake from their sleep in such a state of fear and anxiety that they were compelled to get up and even leave the house. All the patients, however, were typical neurasthenics with the peculiar complication of more or less anxiety. The latter appeared to be the result of the influence of the dyspeptic disturbances. Occasionally cases of this nature feel no anxiety whatever, but have various paresthesias or pains in the region of the heart, a feeling of giddiness, shortness of breath, etc. Two cases of this nature are reported; one in a man of 67, the other a man of 23. The latter had distinct neurotic heredity; he suffered from a sensation of nameless weakness, and occasionally had palpitation of the heart. There was chronic constipation. In some cases where there is extreme atheroma of the aorta associated with gastric disturbances and neurasthenia, the patients appear to require almost continuous eructation. Herzog reports a case in which a woman with angina pectoris almost completely controlled the attacks by eating poorly-baked Graham bread that produced considerable fermentation. When this was discontinued, death occurred. In regard to the treatment of this condition, it is necessary to keep the intestinal tract clear, and of course adopt measures for the appropriate forms of gastrointestinal disease. The patients should also be kept quiet and, during the stage of anxiety, in bed. Bromids are frequently useful. The diet must be varied, according to the nature of the case, sometimes purely liquid food should be given, at other times, hypernutrition with solid food. Perhaps the best general method of treatment is the employment of oil clysters. Finally, when the local condition is improved, the patient must still be treated for the neurasthenic disturbances. [J.S.]

7.—Wollenberg reports the case of a man, 24 years of age, who, at the age of 17, developed symptoms of **intracerebral pressure** with rapid decrease in the visual power, particularly in the right eye. Later there was a peculiar percussion-note obtained over the right frontal bone; divergent strabismus, dilatation of the pupils, almost total blindness, and commencing atrophy of the optic nerves. A year later, occasional epileptic attacks occurred, particularly on the left side. The peculiar percussion-note was heard now over the left frontal bone. The gait was extremely and irregularly ataxic. The following year the epileptic attacks became more pronounced and frequent. About 2 years before death, fluid began to be discharged through the nose, especially through the left nostril. This apparently relieved many of the symptoms. The epileptic attacks became less frequent and the subjective symptoms were less severe. If, however, the flow of the liquid was discontinued, all the symptoms became worse, and the status epilepticus occurred. Finally the fluid ceased to flow. The pressure-symptoms increased and death occurred. At the autopsy there were adhesions between the brain and the orbital surface of both frontal lobes, particularly over the cribriform plate of the ethmoid. The right occipital lobe was also firmly attached to the bone. The brain weighed 988 grams, and showed the changes produced by moderate pressure. The lateral ventricles were enlarged, and at the anterior extremity of the right anterior horn there was a perforation that extended forward to that portion of the frontal lobe that was adherent to the bone. A similar perforation was found running from the left lateral ventricle. Two tumors were found in the right occipital lobe. Careful examination of the cribriform plate of the ethmoid showed the presence of four small holes, the largest one of which passed deeply into the labyrinth. All of these cavities were filled with cerebral substance that appeared more or less gelatinous. Water could readily be forced through the largest opening on the left side into the nose. It appears from this description that a communication may have existed between the lateral ventricle and the nose. The analysis of the fluid apparently indicated its cerebrospinal nature. Its specific gravity was 1007 to 1008. It contained a very small portion of albumin with a slight trace of Brenz catechin. Wollenberg collects a number of similar cases from the literature which he gives at great length. The microscopic examination of his own case showed a distinct continuation of the endyma along the communication from the ventricle to the nose above described. The brain-substance in the bone consisted of fibers in the midst of which were a number of evenly distributed minute nuclei. The tissue was very vascular. Unfortunately it could not be determined that the cavity was continous through this structure. Two explanations of this condition are possible: first, that the communication between the ventricles and the nose was acquired some time after birth, as a result of the tumors; second, that it is a congenital condition and forms an accidental complication of the other central disturbance. In the former case, it would be necessary to suppose that atrophy of the bone had occurred as a result of erosion by the Pacchionian bodies. If the latter is accepted, then we must assume the congenital defect in the bone, that is, a sort of frontal encephalocele. Wollenberg believes that the regular distribution of the holes in the bone indicate a congenital origin of the condition. In conclusion, he draws attention to the peculiar alteration in the percussion-note over the frontal bone, apparently caused by great thinning of the bone in this region, and to the gradual increase in the size of the head during the 7 years in which the symptoms were observed. [J.S.]

8.—Wollenberg reports the case of a man, 39 years of age, who, as a result of an attack of melancholia, attempted to commit **suicide by hanging.** It seems impossible that he could have been suspended more than 2 or 3 minutes, but at the end of this time his face was distinctly cyanosed, and he was apparently almost dead. After being cut down he had an occasional harsh respiration, but was entirely unconscious. The pupillary and corneal reflexes were abolished. The respirations 3 minutes later were only 12 per minute, and the pulse varied from 130 to 140. There were fibrillary twitchings in all the muscles. These soon changed to contractions of muscular bundles, and then of large groups of muscles, followed by tetanic convulsions with opisthotonos, deep respirations, and an indication of corneal reflex. These convulsive attacks recurred about every 2 minutes, and could be brought on by various external stimulants, such as shaking, sprinkling with cold water, etc. In the course of an hour the patient exhibited great motor restlessness; there were some inarticulate sounds; the pupils were greatly dilated, and did not react to light. He gradually became more quiet, and the next day showed only marked psychic disturbance, being completely disorientated, and having lost all memory of his attempt at suicide, although a previous attempt could be recalled. This retroactive amnesia appears to have been permanent, and Wollenberg considers it a very interesting and important condition. It is apparently produced only in cases in which unconsciousness has supervened, and is probably not hysteric in nature. The motor symptoms appear to have resembled those that occurred in a case reported by Möbius, and are probably automatic reflexes in nature, but resemble, upon superficial observation, hysteric conditions. [J.S.]

9.—Faklan reports the case of a girl of 16 years of age who **attempted suicide by taking** between 0.25 and 0.3 gram of **arsenious acid.** A portion of this was probably lost by the vomiting that immediately ensued. Eight days later the patient observed a peculiar fine rash over the whole body, and 15 days after the poisoning there was a miliary eruption over the thorax and abdomen. Later, the skin was deeply pigmented, and there was desquamation upon the palms of the hands and the soles of the feet. On the fifth day after the poisoning, weakness in both legs was observed, soon extending to the hands, until there was a paresis of all the limbs, with complete paralysis of certain groups of muscles. Within the course of 6 or 7 weeks the extensors of the thighs were most profoundly affected, and there was partial reaction of degeneration in the regions supplied by the perineal nerves, and in the adductors of the thumb. The station with closed eyes was extremely bad; the gait was ataxic; there was complete anesthesia of both feet and hands, and partial anesthesia of the legs and the forearms. The sensory symptoms progressed in proportion to the motor disturbance, and when the paralysis was most pronounced, had reached the middle of the thighs, although in the upper extremities it did not extend much above the wrist on the right side, and only involved a portion of the right hand. The nerve-trunks were everywhere tender. No symptoms indicating disturbance of the central nervous system were observed. Among other interesting symptoms was the cessation of menstruation and the persistence of tachycardia throughout the course of the case. The patient improved steadily, and ultimately recovered completely. [J.S.]

10.—Egger has undertaken to test the phenomenon first described by Mannkopf, who observed that **pressure upon the painful point,** either in cases of traumatic neurosis or neuralgia caused a sudden **increase in the frequency of the pulse.** Ordinarily, irritation of the sensory nerve stimulates the inhibitory center, and Shiff and Mantegazza have both stated that severe pain diminishes the frequency of the pulse. Egger made all his experiments with the sphygmochronograph, and was particular that during the experiments the subject made no movement with the arm. Fourteen healthy persons were first tested. Pain was produced by the use of a faradic current. In all cases, there was an increase in the rate of the pulse with a maximum of 53.7 per minute. This of course disposes of the theory of Mantegazza. A series of experiments were then made for the purpose of testing the effect of muscular contraction. The maximum increase when the arm-muscles were contracted was 24.8 per minute, and when a considerable movement was made 24.6. In one case contraction of the fists caused a very slight diminution. It was noted that the subjects that reacted least to pain reacted least to muscular contraction. Forced rapid respiration had apparently very little influence. If the respiration were held, and the expiratory muscles brought into action, a moderate increase up to about 10 beats occurred. Egger was now prepared to investigate pathologic cases. There were 2 cases of neuritis, 1 of rheumatism, 1 of periostitis, 1 of painful scar after amputation of the finger, 1 of fracture, 2 of tuberculosis of the elbow, 1 of sprained wrist, and 1 of rheumatism of the left elbow. In all these cases pressure upon the painful point caused a marked increase in the pulse-rate; the maximum being 21.5 beats added per minute. Finally, he gives in detail the histories of 21 cases in persons who believed themselves entitled to damages after injury, nearly all of whom had only subjective symptoms, and apparently were suffering from traumatic neurasthenia. Many of them had painful points, and in the majority of instances, pressure upon these produced increase in the pulse-rate. In more of the cases the painful points were not associated with any organic lesion. Three cases of hysteria also gave increase in the pulse-rate when pressure was made in places that had become tender through suggestion. Finally, a patient who had a sensitive heart, was stimulated by a strong faradic current with increase of the pulse-frequency. He was then told that the experiment would be repeated, but no current was employed, and no increase in the frequency occurred; although the patient exhibited every manifestation of fear. It follows that Mannkopf's phenomenon occurs as readily in purely nervous cases as in those in which the pain is based upon an organic change. Examination of a pulse-curve shows that the pulse not only becomes more frequent but the curve becomes shallower. In conclusion, Egger states that unless the sphygmochronograph is used the results are doubtful, as the fingers are not sufficiently delicate to appreciate the slight change in rate; that the degree of the increase after stimulation of the painful point depends largely upon the personal characteristic of the individual; but psychic influences, either in the form of emotional disturbances or other similar alterations, are relatively of slight importance; and finally the symptom is not pathognomonic for traumatic neurosis. [J.S.]

11.—Müller, after a very thorough review of the literature, attempts to give a **clinical description of moral insanity.** It is probably a congenital mental disturbance, the characteristic of which is the absence or diminution of the intellectual feelings and aims. In some cases the intellect is disturbed, and the patient is more or less of an imbecile; in others this does not appear to be the case, the patients having a high intellectual development. The symptoms appear in childhood, and are characterized by a peculiar lack of affection and obedience, a tendency to cruelty, a failure to perceive those elements of life which are commonly regarded as noble or beautiful. The patients have neither conscience in their conduct nor repentance for their misdeeds. They are egotistic, selfish, and irritable. They often show in early life various forms of perversion, which do not disappear, but rather become more complex with growth. Often these patients have most fantastic ideas or fail to perceive error in their normal relations. Sometimes they are extremely credulous, nearly always showing marked tendency to mendacity and swindling. A curious feature is the skill with which they frequently defend or excuse their misdeeds. Left to themselves, they usually lead the life of vagabonds or tramps. Their crimes are often apparently aimless; they steal not so much for the object stolen as for the perpetration of the act. Stigmata of degeneration are frequently present. The cause is generally supposed to be a tendency inherited from parents of neuropathic characteristics. It is possible, however, that diseases of the brain occurring in early childhood may be responsible for some instances. The diagnosis is to be made (1) by the fact that the changes are present in early youth; (2) the existence of a neuropathic ancestral condition; (3) the presence of certain characteristics that belong to the so-called hereditary degenerative insanities; (4) the existence of psychic or nervous anomalies; (5) the existence of certain deviations from the normal structure of the body; and (6) ntellectual abnormities. Physiologically, Müller concludes with an approval of Berze's belief that the condition is due either to an abnormally facile movement of the associations, that interferes with the fixation of perceptions and ideas and s associated with imbecility, or an early development of the critical faculty, that leads its possessors to deny authority, and, thereby, to lose the feeling of gratitude, filial affection, etc. The prognosis is usually unfavorable. The treatment consists essentially in the removal of such cases to suitable nstitutions, where they may be watched, and, as far as possible, improved by education. It must be remembered, that when, under such circumstances, the patient apparently improves in character, restoration to society is almost invariably followed by a relapse. The prophylaxis must begin with the parents. In general it may be said that if these are alcoholic, there is greater reason to expect moral insanity in he offspring. [J.S.]

12.—Boettiger accepts the definition of Jolly and Hitzig hat **hypochondria is a form of melancholy depres-ion depending upon a diseased alteration of the elf-perception in which the attention is directed continuously and principally toward the condition of the patient's own body.** He reports 4 cases. The irst a woman of 49, who complained that she did everything as if in a dream, disliked human society, had a sensation of omething solid in the brain, and seemed to herself to be lmost lifeless. The only subjective symptoms were inequality of the pupils, and a sluggish reaction to light in the left. The disease had begun suddenly at the age of 19. The sec-nd patient, a man 40 years of age, had suffered for 20 years rom a condition of anxiety that was almost unbearable. Everything seemed unnatural to him, he was afraid of men, nd had no pleasure in life. The third patient, a woman of 8, had suffered for 17 years. She seemed to go about in a ream, cared little for her surroundings, was anxious, de-ressed, and had a sensation as if her brain was diseased. Her condition was subject to marked remissions. During he exacerbations she was tolerant for alcohol. The fourth atient, a man 21 years of age, had suffered for 7 years. He ad always worked hard, and had various symptoms of an-sthesia. He also had the sensation as if always dreaming, elt anxious when compelled to go anywhere, and had attempted suicide. In none of these 4 cases were the common haracteristics of neurasthenia (exhaustion and irritability) resent. All suffered from a qualitative alteration of their erceptions; objects appearing larger or smaller, rounder or atter, than normal, and all suffered from more or less nxiety. This was of a rare, indefinite character that usually nvolved a feeling of hopelessness. In 2 cases the hypochon-riac condition was preceded by a brief period of maniacal xcitement. Boettiger reports a fifth case belonging, in con-radistinction to the preceding ones, to hypochondria of the ody rather than the mind of the patient. A woman 33 years f age had suffered for 2 years from transitory disturbance in he right half of the abdomen. From that period she also ad the subjective sensation of pregnancy. Although not eakminded, her intelligence was less than normal. Phys-al examination revealed nothing. A sixth case of the same ature was a woman 32 years of age, who, after inflammation the kidneys and a period of anxiety in regard to personal fairs, developed the delusion that she suffered from loco-otor ataxia. Boettiger summarizes his conclusions as fol-ws: Simple hypochondriasis is a disease in which the per-ption, either of the body or mind, appeared to be changed transformed and increased or diminished in intensity. At e same time, the patients lack interest in their surround-gs. The cause of these conditions is a functional process the brain, either primary or secondary to some other con-tion. A sharp distinction between hypochondriasis and eurasthenia exists, but the various forms of the former con-tion pass into one another by infinitesimal gradations. [J.S.]

13.—Seiffer reports 7 cases of a type of **sexual perver-on**, that is characterized by a desire to exhibit the sexual gans. The first, a theological student, had begun to mas-rbate in early youth, and later, in spite of the fact that he ept a mistress and was engaged to be married, he continued e habit and found that his voluptuous sensations were in-eased if he was watched by young girls. Physical examina-on showed the existence of aortic insufficiency and dilatation of the heart, and from time to time he suffered from attacks of failure of compensation, during which he was greatly excited. He had subsequently no recollection of his conduct during them. The remaining 6 cases occurred in men from 30 to 56 years of age, the manifestations in all being essentially a tendency to expose the genitalia before girls and young women. Of the 7 cases, 5 had doubtful traces of epilepsy, none were imbeciles, and in all except one, the exhibitions were repeated. Six subjects declared that they were unconscious of their acts. Six were also brought before the criminal courts; 2 were declared irresponsible, 1 as very probably irresponsible, and 3 as possibly irresponsible. In conclusion, Seiffer tabulates 86 cases collected for the literature, 11 of which concern women. The subjects were found in all strata of society, and were of nearly all ages. Among them, as among the cases reported, young girls seem to have been the favorite audience. [J.S.]

14.—Link reports a case that presented the following symptoms: Paresis of the left motor and left sensory branch of the trifacial, the left abducens, the lower branch of the left facial; some difficulty in the movements of the tongue, difficulty in speaking, and vertigo. There was also paresis of the extremities on the right side, with hemihyperesthesia of the whole of the right half of the body excepting the face. There was a subjective sensation of tearing in the left half of the face, and of burning in the whole right side of the body, but particularly in the extremities. The diagnosis was made of **disease of the left side of the pons.** As the symptoms had progressed gradually, the existence of tumor was suspected. The localization was made more accurately as follows: the right region of the fillet was particularly involved on account of the disturbance of sensation in the right half of the body. As there was no disturbance of vision, and, nevertheless, paresis of the left abducens, it was supposed that the tumor must lie anteriorly to the nucleus of this nerve, but involve some of the supranuclear abducens tract. The paresis of the left trigeminus was probably due to the involvement of the nucleus or the fibers proceeding from it, giving rise to symptoms of irritation. As the oculomotor was not involved, the anterior limit of the tumor must have been situated back of its nuclei. The disturbance of taste is explained by the existence of anesthesia of the left half of the mucous membrane of the mouth. The subjective sensation of burning in the right side of the body can only be explained by supposing that pain may have a central origin, a supposition that has already been made and confirmed by Edinger. [J.S.]

15.—Haenel reports a case of **brain-tumor situated in the white substance of the right hemisphere,** and having the characteristics of a degenerative round-cell sarcoma. Two small tumors were also found in the dura mater in the region of the right superior orbital fissure. The small tumor, which was not adherent to the bone, as was the other, consisted of fibrous connective tissue and nerve-fibers, among which were placed ganglion cells similar to those found in the spinal ganglia or the Gasserian ganglia. The other tumor in the dura was a papillary spindle-cell sarcoma. In many situations the dura also contained fatty tissue. In some places the vessels contained proliferated endothelium, so that altogether were found four varieties of tumors,—a round-cell sarcoma, a spindle-cell sarcoma, a neuroganglioma, and a lymph-endothelioma. The only explanation of the neuroganglioma is the assumption that it represents a congenital heterotopia. It had produced no symptoms of secondary inflammation. [J.S.]

Archives de Médecine Expérimentale et d'Anatomic Pathologique.

January, 1899. [11me Année, No. 7.]

1. Researches on the Histogenesis of the Tubercle and the Curative Action of Tuberculin. A. Broden.
2. Agglutination of the Bacillus of Nicolaier by the Serum of Normal, Tetanic, or Immune Animals. T. Courmont and Tullien.
3. Researches on the Micrococcus Tetragenus. F. J. Bosc and L. Galavielle.
4. Contribution to the Biochemic Study of the Genera Tetra-

genus and Staphylococcus. CH. ACHARD and L. GAILLARD.
5. Two Cases of Trophic Degeneration of Vessels Consecutive to Peripheral Neuritis. M. LAPINSKY.
6. The Peptones in the Organism. E. FIQUET.

1.—Broden deals with two problems—(1) the **genesis of the tubercle,** and (2) the **struggle of the organism against the bacillus in animals treated with tuberculin.** To study the first he found it most advantageous to follow the development of the tubercle in the omentum of guineapigs, dogs, and goats. The tissues were examined in the fresh state and by a multitude of special methods. Infection was produced by inoculation of tubercle-bacilli into the peritoneal cavity. This inoculation was followed by the appearance of an exudate which at first contained exclusively polymorphonuclear leukocytes having an active ameboid movement. After the second day, in case a small dose had been injected, and after the third or fourth in case the dose was large, the bacilli could no longer be found free—they were for the most part englobed in white cells, to a small extent in the fixed cells. Later the bacilli-bearing leukocytes disappeared and the bacilli were found only in the fixed elements. The omentum itself showed changes after 48 hours, consisting in a swelling and multiplication of the endothelial cells. These cells as well as cells from the deeper layers rapidly absorb the bacilli. They become swollen and multiply and furnish the neoplasm that constitutes the tubercle. The tubercle is more or less infiltrated or covered with polymorphonuclear leukocytes; the latter, however, conserve their motility and their other characters, and in no way enter into the constitution of the tuberculous granulation. The tubercle in the dog's omentum begins to be visible with the naked eye on the sixth day after inoculation.

The bacilli are found only in the cell-protoplasm, not in the nucleus, although certain appearances might suggest the latter. Usually the cells contain many bacilli, some as many as 30 or more. In addition to the bacilli the endothelial cells may also englobe white corpuscles, some of which themselves contain bacilli. Regarding the growth of the tubercle, Broden believes that it is brought about both by indirect and by direct division of the fixed cells. Which of the two methods shall predominate is governed by the degree of irritation, *i. e.*, by the quantity of poison injected.

In the second part the **influence of tuberculin** injected either before or after inoculation into the peritoneal cavity, is discussed. The author found that the **tubercles were better developed** in dogs that had been treated with tuberculin than in the check animals, from which fact the conclusion is drawn that the tuberculous neoplasm must be considered as a favorable local reaction, as a sign of energetic defense. This conclusion is corroborated by the results of the inoculation of goats; these animals are quite refractory, yet the tubercles always develop with great rapidity. In the dogs treated with tuberculin the multiplication of the tubercle-bacilli is arrested, the bacilli are few, take the stain poorly, and finally disappear. How is this beneficial action of tuberculin to be explained? There is no difference in the composition of the tubercles in treated and untreated dogs. The tuberculin does not seem to call into action any special factor—it merely reinforces, according to Broden, the powers of defense possessed against the bacilli by the organism, *i. e.* the ingestion of the bacilli by the fixed cells. [D.R.]

2.—Courmont and Tullien have investigated the **agglutinating power of the serum** of normal, tetanic, and immunized animals **on the tetanus-bacillus.** Their conclusions are (1) that the blood or serum of man, mouse, guineapig, rabbit, frog, dog (very sensitive animals), fowl, and tortoise, does not, normally, agglutinate the tetanus-bacillus. The blood or serum of the horse and the ass (very susceptible animals) always agglutinates the bacillus. There is then no relation between the immunity or the receptivity of an animal to tetanus and the presence or absence in its blood of the power of agglutinating the tetanus-bacillus. (2) The blood of certain persons and certain dogs has normally a feeble agglutinating power. (3) Tetanus-intoxication is not accompanied by modifications in the agglutinating property of blood. There can be **no serodiagnosis of tetanus.** (4) Immunization of the horse augments considerably the normal agglutinating power of the serum. (5) Immunization appears to influence the agglutinating power of th blood rather late. The serum of an ass, immunizing in dose of 0.0001, did not have an agglutinating power above th normal. (6) Immunization appears, when quite advanced to be able to create an agglutinating power in the blood o an animal (rabbit) which before was entirely devoid of suc power. (7) Tetanus-toxin is not agglutinated by antitetani serum. (8) The injection of antitetanic serum does not caus the development of the agglutinating power in the blood indeed, the agglutinating substance disappears in a larg measure from the blood of the injected animal. These observations show a close analogy, as regards agglutination between tetanus and diphtheria. [D.R.]

3.—The authors have isolated a **virulent micrococcu tetragenus,** in pure culture, from the contents of a gangrenous pulmonary cavity, and have carefully studied it morphologic and biologic properties. It thrives well on al ordinary media; grows slowly on gelatin, and does not coagulate milk; the aspect of the cultures, both in liquid and i solid media, is characteristic. Alkalinity favors the development of the organism; its temperature-optimum is 37° o 38° C. It is aerobic, but can live without air. Its morphology is extremely variable—it may appear as a diplococcus, as a triad, and as a tetrad, the last being the typica form. It is possible to follow the development from a coccu to a tetrad—the division may occur at once, the coccu dividing into 4 equal or unequal parts, or there may be a intervening diplococcus. The division can continue regularly or irregularly, triads and even zooglea-masses bein sometimes formed. The tetragenus is especially virulent fo white mice, gray mice, and guineapigs. In large doses it i also pathogenic for rabbits. It has but little virulence fo pigeons, and none at all for fishes and frogs. Injections i susceptible animals are followed by the formation of a grayish, viscid pus, and by a general infection characterized firs by hyperthermia and later by hypothermia, and by fibrino hemorrhagic processes. Intratracheal injections lead t bronchitis, bronchopneumonia, and massive fibrinous pneumonia. The virulence of the organism is increased b passage through the mouse and guineapig. Filtered cultures produce toxic effects varying with the dose and wit the animal. Attempts at **immunizing** animals by mean of the toxic products gave negative results. [D.R.]

4.—Achard and Gaillard isolated two varieties of tetragenus in pure culture—one, from the abscesses in a case o pyemia, the other, a chromogenic (yellow) organism, from variolous vesicle. Careful study showed that the two were entirely distinct in their characters, and that they are equall distinguishable from the pyogenic staphylococci. [D.R.]

5.—**The relation of vascular degeneration t nerve-lesions** has not received much attention. The firs to allude to the subject was probably Giovanni, who, in 1871 described atheromatous changes in the temporal artery of patient who had suffered for years from neuralgia, the vascular degeneration being on the neuralgic side. Lapinsk in the present article describes two cases in which change in the bloodvessels seemed to be secondary to nerve-lesion The first case concerns a wine-merchant, 34 years of age who complained of debility, pains, and paresthesias in a extremities. The limbs were also subject to suffusions, appearing suddenly within 24 hours and lasting for from 4 to weeks. The skin at the ends of the toes was much thickened and there was a gangrenous ulcer on the left great toe. Th muscles of the upper extremities were paretic. The extensors of the toes on the left side were paralyzed, and the othe leg-muscles were weak; there was some enfeeblement als on the right side. Tactile and thermic sensibility was diminished; also that of pain-sense. The muscular sense wa likewise lessened. The plantar reflexes were abolished, th tendon reflexes diminished, especially on the left side. Th pupils were normal, and the rectal and vesical sphincter were intact. The vessels presented interesting changes. Th pulse in the dorsalis pedis and posterior tibial arteries coul only be felt with difficulty; the walls of the arteries wer thickened and rigid; this was also the case in the brachia and radial arteries. The veins on the backs of the hand and feet were enlarged, tortuous and hard. The subcutaneous tumefactions were examined for bacteria, but with negative results. A little piece was then removed for study. Th cause of the tumefaction revealed itself as a suggillation extending along the bloodvessels and nerves. The connectiv tissue of the nerve seen in the section was normal in appearance, but the nerve-fibers themselves were almost completely destroyed. The arteries were much altered, the lumen of the larger ones being almost obliterated by a hyperplasia of the intima; the media was also thickened. The vasa vasorum were filled with blood and were surrounded by numerous layers of cells. The veins were thickened. From the history and the microscopic study, a diagnosis of **multiple neuritis,** endarteritis, and localized gangrene was made. Under voltaic baths the patient improved; the suggillations appeared more rarely, and some strength returned to the limbs. The second patient, a man of 51 years, complained of weakness, pains, and formication in the right leg, and a sensation of cold in the foot. The lower part of the right leg and foot were bluish-red and marbled in appearance, and in places on the back of the foot small suggillations were visible. On the sole of the foot a funnel-shaped gangrenous ulcer was found. The skin beginning 1 or 1¼ cm. from the borders of this ulcer was unaltered; the ankle-bones and joints presented nothing abnormal, and there was no evidence that the inflammatory process had extended from the ulcer along the subcutaneous tissue or the periosteum. The inguinal glands on the right side were swollen and indurated. Considerable wasting had occurred in the leg-muscles of the right side, and these muscles, those supplied by the right sciatic nerve, were distinctly paretic. A patch of anesthesia was found on the back and on the sole of the right foot. The right plantar reflex was absent, also the Achilles tendon reflex; the knee-jerks on both sides were well-marked. The dorsalis pedis artery on the right side was tortuous, rigid, and hard; the same was true of the anterior tibial artery. In the latter, pulsation could scarcely be felt, in the former not at all. The veins on the back of the right foot were enlarged, varicose, and indurated. The diagnosis was **neuritis of the sciatic nerve and degeneration of the arteries and veins** of the right leg. A month's treatment by voltaic baths produced only a slight amelioration in the symptoms. No histologic examination was made. The association of a nerve-lesion with disease of the bloodvessels in the 2 cases suggests 3 possible explanations: (1) The degeneration of the nerves was consequent on a primary vascular lesion; (2) the affection of the vessels and that of the nerves coincided by sheer accident, neither originating the other; (3) the degeneration of the vessels was consequent on the alteration of the nerves. The author adopts the last, chiefly because the localization of the vascular lesions corresponded perfectly with the distribution of the diseased nerves, and considers the sequence of events to have been as follows: First the affection of the nerves was followed by paralysis of the bloodvessel-walls, which led to an overfilling, and then to a change in length and width eventuating in dilatation and tortuosity of the vessels. The blood-pressure and rapidity of flow in the vessels was altered—the former became increased, the latter essened. The enlargement of the lumen, the slowing of the urrent, and the increased intravascular pressure constituted he etiologic factors in the disease of the vessels. [D.R.]

6.—See editorial in this isssue.

Revue de Chirurgie.

March 10, 1899.

An Experimental Study of Some Fractures of the Astragalus. J. Bastian.
The Results of Gastroenterostomy. (*Continued.*) H. Hartmann and M. Soupault.
The Clinical Value of Some Osteoplastic Operations. H. Solomovéci.
The Treatment of Hydatid Cysts. A. Posadas.
Surgical Intervention in the Mediastinal Space. P. Iv. Stoyanov.
The Treatment of Tumors and Cysts of the Mesentery. (*Concluded.*) P. Begouin.

1.—Bastian recognizes 3 principal modes of **fracture of he astragalus,** by inflection, penetrating wounds, and arachment; to this may be added avulsion. The first form is roduced by compression of the bone between 2 plane surfaces, and the fracture usually occurs near the neck of the bone; penetrating wounds even give rise to T, Y, or star-shaped fractures. In the third form of fracture portions of the bone may be torn away during certain forcible movements of the foot. Sometimes this gives rise to epiphyseal separation. Fracture by avulsion is really a form of inflection, different only in that the posterior portion of the bone is affected. Abstracts of a number of cases are given and the results obtained in 56 experimental fractures on the cadaver are given. [M.B T.]

2.—Very complete notes from 14 cases of **gastroenterostomy** are given, the conclusions from which were drawn in the part of the paper in the preceding month's issue. In all these cases there was recovery from the operation. In 7 cases the operation was undertaken for carcinoma of the pylorus and was followed by death at a more or less remote period. Six of the operations were performed for the relief of symptoms arising from gastric ulcer; in one case the ulcer had perforated, in 3 of the cases there was cicatricial stenosis of the pylorus. Cures resulted in all of these. An operation performed for the relief of nervous dyspepsia was without important result. [M.B.T.]

3.—The history of some of the more important amputations and resections is given, together with a resume of the opinions of various authorities as to their value. [M.B T.]

4.—Since 1896 Posadas has practised extirpation of the germinative membrane and immediate suture without drainage in all cases of nonsuppurative **hydatid cysts** in which complete extirpation was possible. He believes that this will be generally accepted as the operation of choice as soon as the results of such treatment are generally recognized. The treatment is not applicable in case there is adhesion to other important viscera, or in case the tumor is included within the parenchyma of organs whose physiologic function is indispensable. Examples of this kind are found in hydatid cysts of the neck and of the liver. In case the cyst is located in some organ which it is possible to extirpate or resect, such as the ovary, omentum or kidney, it is the preferable method of treatment. Deeply-seated cysts of the liver may be recognized after celiotomy by the whitish coloration of the tissue above the cyst. In the case of cysts up to the size of an ostrich egg, the germinative membrane may be excised without puncture. In the case of cysts of greater volume a trocar is inserted and the cyst is evacuated before the extirpation of the membrane. In cysts of long standing with rigid cartilaginous walls, excision is impracticable. The injection of ether, iodoform, glycerin or salt-solution is not regarded with approval in case of suppurating cysts or others in which it is impossible to extirpate, but marsupialization and drainage is recommended. Information is given in tabular form with regard to 46 hydatid cysts operated upon by extirpation of the membrane and primary suture during the years 1895, 1896 and 1897. [M.H.T.]

5.—The credit for the demonstration of the practicability of **operations within the mediastinum** is given to Nassilov, of St. Petersburg, who first made a careful study of the surgical anatomy of this region. For opening in the posterior mediastinal space he advocated an incision parallel with the vertebral column and 4 fingers' breadths from it. From the upper and lower end of the incision were made 2 horizontal incisions, thus outlining a quadrilateral flap with its base toward the vertebral column. Resection of the ribs then followed. In case it was desired to operate upon the upper half of the esophagus, this flap extended from a third to the sixth vertebra of the left side. The separation of the pleura offers no difficulty. Milton first proposed opening the anterior mediastinum. His incision extended from the thyroid cartilage to the ensiform cartilage, and the sternum was isolated and separated from the ribs by the costotome. Mediastinotomy has been performed 12 times for abscesses or lesions of the vertebræ. Nassilov's operation has been performed twice, once for carcinoma of the esophagus and a second time for cicatricial stenosis of the esophagus. Milton's operation has been performed but once, for mediastinal tuberculosis. In all there have been 15 operations. In 6 of them the results are not mentioned, in 3 cases death followed and there were 6 recoveries. [M.B.T.]

6.—Begouin completes his table of cases of tumors of the mesentery. There are 46 cases tabulated as to the age, previous history, principal symptoms, operation and results. [M.B.T.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.,

of Philadelphia.

Dyspepsia and a Diet.—Gillespie (*Edinburgh Medical Journal*, November, 1898) states that he has been surprised at the frequency with which patients come complaining of some fancied disorder of the stomach, who prove on investigation to be suffering primarily from the metabolic misdeeds of bacteria in the bowel. By humoring the stomach with rest, with milk in small quantities at frequent intervals, either in a natural condition or variously diluted and modified, thereby diminishing the number of bacteria admitted, or altering their species; by the use of calomel to destroy the bacterial forms in the contents of the duodenum and jejunum; of creasote, guaiacol, or other similar substances to deal with those in the ileum; and of salol to act on the microorganisms in the ileum and large intestine; by prohibiting all malt liquors and fortified wines; allowing, if stimulants are advisable, whiskey diluted to 4.5% of alcoholic strength (1 ounce with 10 ounces of water), or champagne in moderate quantities—by such measures a rapid subsidence of all the symptoms is promoted. Cheese is often of benefit in this condition, given on each occasion in such amounts as the stomach can comfortably deal with. If this marvelously adaptable organ (considering the persistent ill-treatment, lay and medical, meted out to it) can digest cheese in fair quantities, its use may be pushed.

Shakespeare was sensible of the attributes of cheese in the process of digestion, and alludes humorously to it in "Troilus and Cressida" (Act ii, scene 3), when he makes one of his characters exclaim: "Where, where?—Art thou come? Why, my cheese, my digestion, why hast thou not served thyself in to my table so many meals?"

Cheese is an excellent breeding-ground for many of the lowlier members of both the vegetable and the animal kingdoms. How can it, full of the organic agents of fermentation, check organic fermentative changes? Cheese undoubtedly possesses a considerable power of arresting or inhibiting those bacterial processes which are the actual agents in the production of intestinal dyspepsia, with its signs and symptoms—unless, indeed, it prove of too irritating a nature towards the mucous membrane of the alimentary tract. This power is due to the antagonistic properties of two classes of organisms.

Dr. Gillespie believes that the bacteria themselves form the pharmacologic basis of the cheese-prescription. The acids formed by these bacteria are inimical to putrefactive processes. The fermentation of the one class of organisms is incompatible with the fermentation caused by the other class.

To destroy the causal agents of intestinal putrefaction two methods are available—to forcibly drive them out of the bowel, or to inhibit their growth *in situ*. These two methods should be used together. The first needs no further notice. The second may be carried out by the use of antiseptic drugs, by dietetic control of the bacteria swallowed, or by measures taken to raise the proportion of free hydrochloric acid in the stomach to a strength sufficient to inhibit the growth of, or prove fatal to, microorganisms partial to alkaline media, whether the acid-affecting forms are hindered by it or no. The ordinary conditions present in the contents of the bowel bear witness to the greater supply and prowess of the acid fermentative agents. The reaction of the contents, save perhaps in a short portion of the lower end of the duodenum and upper part of the jejunum, probably is always acid, even if only slightly, in health—the cause, the metabolic processes of bacteria-producing organic acids as their natural output; the effect, a controlling influence over the growth of their kindred, but still rivals, the bacteria of putrefaction. The first class, as a rule, produce no poisonous substances, unless the alcohol they often form from carbohydrates be considered as such; the second class live largely on proteids, and, being extravagant by nature, use but little in support of their bodies, while manufacturing an excessive amount of unnecessary and innutritious substances to obtain that little.

According to the writer, calomel acts upon the bacteria in the stomach and in the higher parts of the small intestine, creasote and similar antiseptics most powerfully below the jejunum, while the action of salol does not become marked until the middle of ileum is reached.

Calomel and salol, then, may be regarded as antiseptics acting in different spheres of influence. Usually he begins with a small dose of calomel, followed by a saline purge; and begins on the following day with 8-grain doses of salol thrice daily. A fact with regard to calomel is that the production of mercuric perchlorid, which must be the form through which it exerts an antiseptic action, and for which it is indebted to the hydrochloric acid of the gastric juice, does not appear to be proportionate to the size of the dose of subchlorid. The transformation of a very minute portion of calomel into the perchlorid is quite sufficient for all antiseptic requirements. After commencement of the salol treatment, a dietetic program may be begun.

As to diet, the writer believes that the habit of laying down unalterable dietetic rules for indefinite periods—until the patient, maybe, gets well—leads to a practice of giving all patients the same diet and the same limitations. Each dyspeptic is different from all others. There is no doubt that many patients progress far more satisfactorily when they are entrusted with part of the responsibility for the proper conduct of their course of treatment and when encouraged by a hope of achieving a return to normal health partly by their own endeavors.

An Ointment for Sciatica.

℞.—Oil of turpentine }
Oil of gelsemium } of each.................. 5 parts.
White wax.. 2 parts.
Simple ointment.................. ....40 parts.
To be used locally. —*Riforma Medica.*

Ichthyol in Phthisis.—Schiele (*St. Petersburger med. Woch.*, March 4, 1899) urges the more general use of ichthyol in the treatment of phthisis. Even in advanced cases he is disposed to regard such treatment as very advantageous, since marked and rapid improvement in the condition of the patient followed its administration in every case. The beneficial action of the drug is, in the opinion of the author, due, first, to its recognized power in arresting the destruction of proteid substances in the human body; secondly, to its valuable antiseptic properties. The author does not vaunt it as a specific, nor does he deprecate the value of hygienic and dietetic treatment; however, he thinks in cases where the latter mode, or what may be still better termed the modern mode of treatment, cannot be carried out, the administration of ichthyol in a suitable combination with some expectorant, such as liquor. ammon. anisat., aq. laurocerasi, etc., and under special circumstances with the addition of morphin, will give as satisfactory results as the condition of the individual case will allow. Among the advantages of the drug are, according to the author: (1) that the organism is soon brought under its influence; (2) that it is followed by no ill after-effects, such as vomiting, catarrh, etc.; (3) that it may be rendered as little disagreeable to take as possible. These reasons make it preferable to creasote; moreover, as experience has taught, the administration of the latter drug in the case of greatly debilitated subjects, and especially when the disease is already far advanced, is not unattended by substantial danger to life.—*British Medical Journal.*

Cholelithiasis.—C. A. Hamann (*Pennsylvania Medical Journal*, April, 1899), in discussing the treatment of cholelithiasis states that operative interference should be resorted to:

1. *In the intervals* between the attacks if a patient has had, say, 2 or 3 attacks of considerable severity—just as in cases of recurring appendicitis one advises operation after 2 or 3 attacks. Unless it is necessary, owing to danger from perforation, one would prefer not to operate at the height of an attack.
2. Acute infectious cholecystitis should be operated upon—so, also, cases of infectious cholangitis—whether stones are suspected or not.
3. When the gallbladder is distended; when an empyema exists.
4. All cases of impacted stone.
5. When one or other of the various forms of biliary fistula is present, and when there is intestinal obstruction, resulting from the lodgment of a large biliary calculus.

The Hygienic Treatment of Chlorosis.—While rescribing pharmaceutical remedies the physician will not orget, so far as in him lies, to rectify such disadvantages of ife as he may be able to ascertain. Overpressure at school, nwholesome conditions of work or amusement, late hours, orry, tight lacing, are points to which his attention will be irected; yet while relaxing overwork, if any, he will be no ess alive to the evil of idleness or desultoriness. As much ime as possible should be spent in the open air and in such entle exercise as the strength and respiratory functions will ermit. Quiet horse exercise or cycling may be encouraged, nd some course of study which shall interest and discipline he mind and temper without fatigue. The patient should leep, if possible, with the bedroom window open; if this be revented by hard weather, the door must be open. A cold ath will probably prove more than the deficient heat-prouction can support, but the rapid application of the wet heet can usually be prescribed with advantage; this is better one in the forenoon 2 hours after breakfast, and, during the older months, in a room with a fire. Excessive cold (as we e in hemoglobinuria) seems to destroy the red corpuscles. f love-affairs harass the patient it should be remembered at marriage is no direct cure.

I have said that the deficient powers of heat-production ften forbid too bracing a line of treatment; in a bad case of hlorosis, one in which perhaps iron is not telling at once, e dissipation of heat and the expense of muscular activity ust be husbanded by a week or fortnight in bed. Such a easure often gives an impulse to the curative movement, d proves to be an economy of time in the end. The facial, stric, and other neuralgias, which may be prominent mptoms of the case, are usually relieved at once by this mple means. . . . As soon as the appetite improves d other graver symptoms begin to give way, change to the aside or to the hills may be advised; but cold, I repeat, is jurious in chlorosis, and at considerable altitudes the defiency of oxygen would be more and more sensibly felt.

It is of the first importance to overcome the common disste for meat. Girls will say that the entry of a dish of hot eat into the room makes them feel sick; kindly and adually this aversion must be overcome, and meat must ke its due place in the diet. Eggs and milk, if well digested, ill be included, and sweets and other kickshaws discouraged. reen vegetables are said to be useful for their chlorophyl; at y rate, they avert constipation. It is desirable, if a fair eal be taken, that nothing be offered between meals. We e pointedly asked in these cases of chlorosis whether cohol in any form is to be prescribed. Of itself, I believe at alcohol in no form is of direct service. It is possible, w and then, that a bad appetite may be coaxed into more tivity by a glass of stout, or of red wine and water; if so, e use of these aids is justified. Some young persons dislike re water; and indeed it is not well for these chlorotics to ink much with meals; half a tumbler of milk may be the ble drink, and three hours after meals a glass of hot water ll act beneficially both on the stomach and on the secrens. Careful mastication of the food is of great importance.

To test the blood not only for the number of red corpuscles d apparent hemoglobin-value, but also to ascertain whether ey are equal and of full size, is the only trustworthy means gauging the rate and degree of cure; a lowered pulse-rate, wever, is a sign of amendment, as is reacceleration of imnding relapse. Color generally returns to the face and adiness to the breathing long before the cure is established. J. Clifford Allbutt *in Allbutt's System of Medicine.*

The Treatment of Ozena by Cupric Electrolysis. P. McBride (*Edinburgh Medical Journal*, March, 1899) reports ases of ozena in which good results were obtained from pric electrolysis. Out of 8 patients 4 remained well for riods extending to 18 months. In 1 there was marked provement; in 1 apparent cure for some months, but en syringing had to be renewed; while in 2 there was only provement for a few weeks. The strength of the current ed varied from 3 to 10 milliampères, rarely exceeding the ter. Cocain was used in most, if not in all, and after ansing the nostrils, the copper needle, attached to the sitive pole, was inserted into the inferior or middle turbite—sometimes into the tissues lining the middle meatus, ile the platinum needle was passed into the septum. ually the patients complained of little pain, and did not experience disagreeable after-effects. One, however, suffered a good deal from neuralgia, swelling of the eye, and general disturbance for a day or two. As a rule, each sitting lasted about 10 minutes. The cases were not selected, but it is possible that a process of natural selection may have been brought about. They all occurred in out-patients, and it is conceivable that the majority of those who were benefited repeatedly presented themselves, while there may have been an opposite tendency on the part of those who received little relief.

These results prove that cupric electrolysis is a valuable therapeutic resource, probably the most valuable that has yet been suggested for ozena. The rationale of the treatment is still uncertain, but probably the formation of copper salts at the positive pole has at least as much effect as the electric current. The application of electrolysis to one nostril often produced benefit, temporary or otherwise, on both sides. This is in accordance with the experience of most other observers.

[The method of treating ozena by cupric electrolysis was just suggested by Jouslain, in 1892. In 1895, Cheval made the sensational announcement that he had cured 91% of his cases by this method, but a commission appointed by the Société Belge d'Otologie to report on the result in 7 cases submitted to Cheval for cupric electrolysis did not report a single cure (*Journal of Laryngology*, August, 1897). That the treatment by cupric electrolysis is followed by immediate improvement, causes a rapid disappearance of the odor, loosens the crusts and renders the parts more moist, has been well established by the experiments of many observers. While a genuine cure does not seem to have been affected in any case, yet the good results have persisted in many cases for periods ranging from 6 to 18 months.

Brindel (*Revue hebd. de laryngol.*, August, 1897) states that in 10 out of 30 cases neither odor nor crusts could be detected at the following periods after the last application: One, 11 months; three, 10 months; one, 9 months; one, 8 months; two, 7 months; one, 5 months; one, 3 months. Of the remaining 20 cases, 7 had received no benefit, while 13 were somewhat improved. The manner in which cupric electrolysis accomplishes its good results is still undetermined. The liberation of the copper salt (oxychlorid) in the tissues does not seem to exert a marked germicidal influence, since the microorganisms were found in the mucus in considerable numbers, after the operation, even in cases which had been much improved. Bayer and other observers believe that the improvement is to be attributed to a powerful stimulation of the sensory nerve-filaments in the nose, which induces a reflex trophic influence, thereby bringing about a more healthy state of the mucous membrane, and a less favorable soil for the development of microorganisms.]

Fleiner's Treatment of Hyperchlorhydria.—Olivetti states in the *Therapeut. Monatshefte* that he has investigated the results obtained by Fleiner's method of treating hyperchlorhydria. This consists in giving large doses of bismuth subnitrate ($2\frac{1}{2}$ to 5 drams), suspended in water, through the esophageal tube, when the stomach is empty, before breakfast. The whole course lasts 22 to 25 days, the total quantity of bismuth used being as much as 10 ounces. The writer's cases included those of hyperchlorhydria with evident ulceration, as well as some in which ulceration was presumably absent, and his investigations show that: (1) The treatment is well borne, and leads to a distinct subjective improvement, which lasts some time after discontinuing the treatment; (2) the improvement is not permanent, but lasts longer in cases accompanied by ulceration; (3) the bismuth has no distinct effect on the gastric secretion or movements. The secretion of HCl in hyperchlorhydria is also influenced but slightly, and the small decrease is not enough to account for the improvement in the other symptoms, such as pain and vomiting. These results are not in accord with those of Fleiner himself, who in one case observed a gradual reduction of HCl from 4 to 1 per 1,000, in another from 3 to 0.98, and in a third from 2.9 to the normal. To explain the disappearance of the painful symptoms and their speedy reappearance when the bismuth has passed into the intestine, Olivetti accepts Fleiner's theory that the bismuth forms a protective film on the surface of the mucous membrane, so that the abnormally acid gastric juice no longer comes into direct contact with it.—*Therapist*, April 15, 1899.

Original Articles.

MALARIA WITH TYPHOID FEVER.[1]

BY J. M. DA COSTA, M.D., LL.D.,
of Philadelphia, Pa.

MY experience has been much the same as that of those who have already addressed the College. The cases that I have had in the wards of the Pennsylvania Hospital as new cases, or seen soon after admission, numbered 65. Of these, about 30 of very grave character were admitted at one time. Yet, medically speaking, they presented nothing but what I have noticed in typhoid fever elsewhere, and nothing but what I remember to have observed in the Civil War. Compared with ordinary practice, I ought to except the greater tendency to thrombosis of the leg. It is, indeed, a remarkable fact that among the cases lately met with in soldiers at the Pennsylvania Hospital, in 135 cases of typhoid fever that were seen early, or were transferred to me at a late stage, I should have had 18 cases of thrombosis of the leg—in, therefore, 13⅓%. It is also a remarkable fact that the majority of these cases were double; of those that were single, more affected the left leg than the right leg, for only in 2 was this alone the seat of the lesion. Looking at the reports of the other cases in the hospital, we found that we had in all about 30 cases of phlegmasia alba dolens in 215 typhoid fever patients—nearly 14%. This is, I think, an extraordinary circumstance. I rarely go through a winter's term at the Pennsylvania Hospital without a case or two. But my own experience must be that of every Fellow present, that 1% or 2% of this complication is all that really happens in ordinary hospital practice.

Another point is with reference to the condition of the skin. There were 2 cases that presented symmetrical ecchymoses, in one almost exclusively confined to the ankles. This is a very rare complication. I do not mean simple blush, but ecchymotic spots. These two cases I examined closely for scurvy, both the gums and otherwise; but no signs of scorbutic taint were discernible, nor was there evidence of disease of the heart or the bloodvessels.

Of the 65 under my immediate control, 4 died—a little more than 6%. Of the 4 deaths, 1 occurred a few days after admission to the ward, in a man whose temperature, when he came from the hospital train, was over 106°; the second, after an intestinal hemorrhage followed by a severe pulmonary congestion; the third, from most extensive ulceration of the bowels, about 100 typhoid ulcers, small and large, being found in the intestines, in which there was more diseased tissue than healthy tissue to be seen; the fourth, on the seventy-second day, in a man in whom the fever process had been long over, but whom it was impossible to nourish. He reached an extreme state of emaciation, was a mental wreck, the fatuity being well marked, and he died completely exhausted.

The first 30 cases, all admitted simultaneously, and among whom every one of the deaths happened, were of very grave character; how grave may be judged from the fact that 28 of them were at the same time delirious. Nearly all came from Camp Meade. Among the recoveries were two in which the temperature reached over 106°.

The treatment pursued was by betanaphthol, about 3 grains every 4 hours, by meeting individual symptoms, by keeping the temperature down with sponging, and, so far as possible, by not disturbing the patient oftene than every 2 hours. Following in civilians the same treatment, very nearly at the same time or a little later, in the general wards of the Hospital, I had, among 61 cases, 6 deaths—nearly 10%—the variation in age being rather greater. The soldiers, therefore, picked young men, in good health previously, showed, notwithstanding the gravity of most of the cases, a considerably less mortality than was found among thos who generally seek relief in hospitals, and whose prio condition is not apt to be so good.

But, perhaps, the best contribution I can make to this instructive discussion is the proof of the not infrequen combination of malaria and typhoid fever. I have 1 cases of typhoid fever to offer, proved such by unmistakable clinical features, and in nearly every instanc by the Widal test, where the microscopical evidence o the malarial organism was found. In every case thi was of the tertian type or the æstivo-autumnal type generally the former; the activity of the ameboi movements is, in a number of the notes, specially commented on. I have the notes and the temperature sheets of the cases in my hand, but it would be tediou to read them in detail. I will, rather, give you a general analysis, and point out what they demonstrate They all have very much the same history. The case may or may not have had malarial chills before th typhoid fever; the great majority had not had chills They came, with one exception, from Camp Meade, nea Harrisburg, the exception being a case from Porto Ric But, on investigating the matter, I found that most o them had been sent to Camp Meade from Camp Alge in Virginia, a highly insalubrious and malarial cam It is nearly always a chill that calls attention to th malarial complication. The peculiarity of these chill is that they do not happen early in the fever malad indeed, in only one instance of the 10 was such th case. They came on late, and sometimes not until relapse. The chill is associated with, or rapidly followe by, marked temperature-rise and by sweating. It important to note, however, that we have these withou a chill, and only detect their meaning by finding th malarial corpuscle. Another peculiarity of these mixed cases—and it was demonstrated in every one of the 10—is their long duration; as a rule, they pass beyond the fourth week. In one instance the malarial corpuscle was found where there had been no chill and no marked or abrupt alteration of temperature in the long protracted case.

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[1] Remarks made in the discussion at the meeting of the College of Physicians, February 1, 1899, upon the subject of typhoid fever originating among the soldiers of the late war. See the PHILADELPHIA MEDICAL JOURNAL of February 25, 1899.

As the chills are the most striking manifestation of these mixed cases, I will state in detail how they happened in some of the 10 cases to which I am now calling your attention, a few of which had been originally under the care of my colleague, Dr. Meigs, who kindly permits me to mention them. In one patient, H. S., the first chill happened on the twenty-sixth day of the disease, the temperature rose to 103.6°, fell by the next day to normal, and rose again in the succeeding 24 hours to 103.6°. No malarial organisms were detected on examining the blood. The subsequent day he had two chills, in the first of which the temperature rose to 105.8°, in the second to 104.6°. The chills lasted an hour. After the second one the blood was examined, and a number of tertian plasmodia were found in active form, all intracorpuscular, and several pigmented. Placed on quinin, no more chills happened, and no organisms were to be seen in the blood. The convalescence continued uninterrupted except for a phlegmasia dolens of the left leg.

In the case of J. T., late in the disease, rises of temperature occurred, from normal to 100.8°, without chills; the malarial organisms of tertian type were found during these fever rises. In another case, F. S., there had been chills before admission to the hospital, but it is not certain that he had any before his attack of typhoid fever. Five days after admission he had a severe chill lasting two hours, during which the temperature rose to 106°. A microscopic examination of the blood showed the tertian form of malarial corpuscles in unusual numbers. In another case, I. L., the chill happened on the forty-seventh day of the disease, and lasted nearly an hour, the temperature rising from 99° to 105°; the fever was followed by profuse sweating and a drop of the temperature to 99°. The type of plasmodium of malaria was not well defined.

As a striking illustration of late appearance, I may cite the case of M. B., whose extraordinary temperature-sheet I now show you. You will see on it three distinct relapses, and it is a most curious circumstance that it was only in the third relapse, after the occurrence of a violent chill, that malarial organisms were found. This chill took place on the eighty-eighth day of the disease. You may be interested to know, further, that this patient had various complications, such as otitis media, stiffness of the muscles of the neck, and swelling of the knee. Reflecting on this and on the extraordinary duration of the case, and bearing in mind the remarkable observations recently made by Dr. Musser and Dr. Sailer on "Malta Fever," I had the blood examined for this disease. Dr. Thomas S. Kirkbride and Dr. Kneass most kindly undertook the investigation, but found Malta fever not to exist, while, repeating the Widal test, they got unmistakable evidence of typhoid fever.

We see, then, that these cases of mixed infection are distinguished not only by chills, but by long duration of the febrile malady; marked irregularities of temperature are also very suggestive of the coexistence of the morbid states. We ought, therefore, to examine for malarial corpuscles in every case of typhoid fever, not only where chills occur, but also where the fever is prolonged or irregular, or where there are frequent relapses. Moreover, some of the cases whose records I have here analyzed prove that we may not always at the first examination obtain the conclusive microscopic evidence. The coexistence of the two poisons is very strange; but the slow manifestation of the malarial symptoms shows the typhoid fever poison to be the overpowering one, and the malaria is for the time checked.

Cases such as I have referred to, even cases merely suspected, in which the fever persists for a long period, suggest the free use of quinin. From 16 to 20 grains of quinin daily, given for a few days, was generally found sufficient to break up the malarial complication; smaller doses were then continued until full convalescence. But in some cases much larger doses than those mentioned are required, or quinin is found to fail entirely. Thus, in a case seen with Dr. Potter in Germantown, in which the double infection was contracted in Porto Rico, over 30 grains were given for days without any marked impression being produced. The patient only recovered when Warburg's tincture was taken in dram doses 3 or 4 times daily. In some of the protracted cases quinin was used hypodermatically with benefit, given in the shape of the bimuriate of quinin and urea, in 10-grain doses every 24 hours, until the temperature became normal.

TWO CASES OF MORBUS HÆMORRHAGICUS NERVOSUS.

By WILLIAM PEPPER, M.D.,[1]
AND
ALONZO ENGLEBERT TAYLOR, M.D.,
of Philadelphia.

Case I.—The subject is a woman of 38 years. She is married, but has borne no children. She is a large, rather fleshy woman, in excellent nutrition. She has been constipated from infancy, and has been completely enslaved to purgatives and enemas. The constipation has seemed due to muscular impotence rather than to secretory disturbances. Her general health has been good. She is of a decidedly nervous constitution. At no time during the 10 years she has been under observation was she free from definite hysterical symptoms; she has had aphonia, vomiting, anesthesia, local spasms and palsy, and pseudoangina pectoris, to the last of which she has been particularly attached. The menstrual functions have never been normal, but the disturbances have been varied in nature,—at one period amenorrhea, at another, metrorrhagia, etc.

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[1] The report of these cases was prepared before the death of Dr. Pepper. He considered them most remarkable instances of nervous hemorrhage, and I am led to publish the records largely because of the interest he had taken in the cases and the importance he attached to them. One of the patients has remained under observation, and the report of that case includes the details up to the present.—A. E. T.

The first appearances of hemorrhages were about 6 years ago, although she claims an indistinct recollection of having had during her childhood a similar attack. The onset of the hemorrhages in each attack has followed a fairly uniform course. The first indications are systemic or visceral. Anorexia, perhaps with vomiting, headache, a feeling of great cold and of most pronounced depression have usually been the prodromes. Within 24 or 36 hours superficial pains appear in the areas to be involved. Then intense burning and itching set in in local areas. Neither at this stage nor later are there cutaneous signs; the skin is not flushed or hot to the touch, it is not raised or indurated, nor has any eruption ever appeared. Deep subcutaneous mottling accompanied by sharper pains gradually appears. These lesions soon present the typical appearances of subcutaneous ecchymoses. They are dark purple in color, and in the course of a few days pass through the changes of color seen in a bruise, and thus gradually fade. When first seen the lesions were suspected to have been self-inflicted bruises, but conclusions from later study were entirely opposed to such suspicion. As soon as the hemorrhages appear the systemic and visceral symptoms subside, but the mental depression persists until after the attack has subsided.

The localization of the hemorrhages has been very remarkable. When subcutaneous, the lesions were always symmetric. In various attacks we have seen symmetrical ecchymoses in the following areas: Forming a ring about the ankles; covering the inner aspect of the thighs; upon the deltoid regions; in the subclavicular fossæ; beneath the breasts; and upon the neck just below the angles of the jaw. The extent of the lesions was usually not larger than a dozen square inches, but upon the deltoid regions and on the thighs the hemorrhages in several instances occupied areas very much larger.

Internal hemorrhages have been of occasional occurrence and sometimes existed alone, while in other attacks they accompanied the cutaneous hemorrhages. Hemoptysis has been perhaps the most frequent form, and in this the blood was bright red, not profuse, and suggesting an origin above the alveoli of the lung. Bleeding from the nose has occurred several times. During the periods of hemoptysis the most careful examination could never discover any focus of bleeding in the nose, mouth, or throat, while at the same time abnormal physical signs in the chest were entirely absent. Bleeding from the stomach has been seen a few times, as was also bleeding from the rectum; the quantities of blood lost never exceeded a few ounces. Analysis of the gastric contents could not be made as the patient declined to allow the passage of a stomach-tube. Hemorrhages from the uterus were frequent, but these could not be distinguished from metrorrhagia, as the symptoms attending her "attacks" were often present during the menstrual period. Upon gynecologic examination the organs were found entirely normal. Curiously enough, while the subcutaneous ecchymoses were attended with local pains, the visceral hemorrhages were not.

An attack which clearly illustrated the nervous etiology of the phenomena was one provoked by fright. Upon an evening word was brought to her that her husband had been suddenly attacked with severe appendicitis, had been removed to a hospital, and would be operated on within 24 hours. She at once lost all control of her emotions and the next morning sent in haste for one of us. When seen, within 16 hours of the episode referred to, she presented symmetric ecchymoses covering the deltoid regions, was vomiting blood, was bleeding from the uterus, and there were minute extravasations beneath both conjunctivæ. When calmed by assurances of the favorable outcome of her husband's condition the bleeding from the mucous membranes ceased at once.

During none of the attacks has fever ever been present. The blood was quite normal, presenting only the slight reduction in hemoglobin so commonly seen in neurotic women; during the attacks it was in no wise demonstrably altered. Leukocytosis was never observed. The time of clotting was normal, both in and between the attacks. E aminations of the urine were entirely negative.

Joint symptoms were never observed, neither pain, sti ness, or enlargement. Hemophilia could be readily exclude It is clear that the case cannot be classed with the purpur as we know them. We have termed it "nervous" simp because the attacks seemed to spring directly from the ne vous system, because they appeared hysterical, but we d not pretend to say that the ultimate cause lay within th nervous system. No toxic cause could be even remotely su pected.

All treatment in this case has been entirely without effec

CASE II.—The patient is a woman of 27 years of age. Sh comes of excellent family stock. She is in no sense hyster cal; she is a brave, patient woman, and has borne her suffe ings with great fortitude. She has never presented any sig or symptom of hysteria. Up to the date of the onset of th condition to be described she was strong and healthy excep for the existence of constipation, which had existed sinc infancy and has throughout her life demanded the mos active medication.

The hemorrhagic condition began 6 years ago. The patien was not under our observation until the past 18 months; th symptoms which occurred before that time are known from the descriptions of the patient herself and of her brother who is a physician. The onset of the disease was by a peculiar swelling of the feet and ankles. It was quite hard would not pit on pressure, was pale in color at first and late appeared a deep red. It was at first diagnosed as giant urticaria, and later, despite the fact that it was not nodular, by competent dermatologists as erythema nodosum. This condition persisted for several months, but was intermittent in its manifestations. Soon the purpuric phenomena appeared and since then the erythema nodosum has been less and les prominent. She has at various times had hemorrhages from the stomach, nostrils, mouth, rectum, genital tract, from the kidneys, and into the skin. Upon one occasion gastri hemorrhages reduced her to the deepest stage of exhaustion from which recovery was not expected. She has upon several occasions had deep collections form in the muscles, and was upon one occasion rendered so helpless by them that she could not walk without crutches. She has never had any arthritic symptoms or signs. Fever has often been present and she has learned to look upon a temperature of 104° F with indifference, not allowing it to keep her in the house.

About 15 months ago she sought relief from a peculiar ulcerative stomatitis. Her entire buccal mucous membrane one tonsil, the larger part of the surface of the tongue and a part of the pharyngeal mucosa were ulcerated and presented a gray, ragged appearance and exhaled a most fetid odor. There was extreme pain, and swallowing was almost impossible. She had a moderate irregular fever. She described the origin of the stomatitis by explaining that the ecchymoses which she had so often seen upon the skin had formed in the mouth with the same symptoms which occurred when they appeared on the skin; directly afterward the ulceration appeared. The necrosis appeared so severe that bone-disease was suspected, and Drs. John Ashhurst Jr., and H. W. Wharton were called in consultation. The most careful examination by them failed to reveal any signs of bone-disease. The submaxillary glands were somewhat enlarged, an obviously secondary lesion. Cultures were made from the necrotic areas, and showed a mixed culture in which staphylococci predominated; the bacillus diphtheriæ and streptococci were not present. This stomatitis had been present for 5 months and had resisted all treatment. During these months cutaneous hemorrhages had been of frequent occurrence. Urinary studies for albumin, casts, sugar, the etherial, preformed and neutral sulphur, phosphates, urea and uric acid gave normal results.

Immediately upon the administration of thyroid extract the ulcerations healed, the fever passed away, and within a few weeks she was apparently well.

From that time to the present she has had but few attacks. For 6 months, while upon thyroid extract, she had complete freedom (a new experience to her since the disease first set in). The attacks which have since occurred have been mild in character and have yielded promptly to thyroid extract, continuous administration of which cannot, however, be maintained on account of the loss of flesh it occasions.

The symptoms attending the attacks are characteristic. The first signs may be general malaise, anorexia, or insomnia. The first local symptoms are a burning pain and some deep hyperesthesia. Within a few hours ecchymoses form and gradually spread. They are usually symmetric, and have been seen upon the shoulders, arms, the infraclavicular regions, and upon the thighs, and she states were previously very extensive. These ecchymoses are very tender on pressure. They fade like a bruise and leave a stain which lasts for several weeks. Fever has been present in some attacks, absent in others, while, on the other hand, fever has been often present apart from the attacks. The spleen and lymph-glands have never been enlarged, leukocytosis did not exist during one attack in which a blood-examination was made. Arthritic implication has been carefully watched for, but has never occurred. Upon two later occasions the opportunity was presented for observing the onset of the buccal ulcerations. The first appearance, several hours after a burning pain in the area, is the formation of a superficial submucous hematoma. The blood apparently clots, for the mass becomes quite hard. Necrosis of the mucous membrane then occurs, suppuration sets in within the hematoma, which breaks down and discharges its contents into the mouth. Obviously the infection is probably coincidental, the proximity to the buccal cavity with its varied bacterial flora accounting for the infection. One of these formations occurred deep in the pharynx, and before it ruptured occasioned alarming symptoms of obstruction.

Upon several occasions violent earache has set in, but no collections have ever formed within the ear. The hemorrhages from mucous membranes have been very few since the use of the thyroid extract.

The most recent attack illustrates, as did the episode described in the history of the first case, the essential relation of profound nervous shock to the attacks. Being informed by hearsay that her brother was sick in a distant city, she telegraphed to ascertain his condition, and was informed in return that he had diphtheria. Within 2 hours ecchymoses appeared upon both shoulders. Upon one previous occasion, several years ago, an attack was induced by a shock. During the past winter she passed through an attack of influenza accompanied by fever, general pains, extreme prostration, bronchitis and the most profuse night-sweats. During this illness a few ecchymoses appeared. She made a perfect recovery, though convalescence was slow.

Particular description must be made of the effect of thyroid extract. The last patient says: "It has made a new woman of me." As stated, comparative freedom from the attacks has attended its use, and a few large doses will appreciably shorten and moderate an attack. The gland seems to act very vigorously upon her metabolism, since it induces rapid loss of weight. Under its use the constipation has become much less pronounced. In previous years she has taken as a dose from 6 to 10 compound cathartic pills U. S. P. and other purgatives in similar doses, but with unsatisfactory results; since taking the thyroid extract, 10 m. of the fluid extract of cascara sagrada and 10 m. of the tincture of nux vomica are sufficient to produce a normal daily evacuation. Her general health and strength have been most notably improved, and she has returned to an active life, with indulgence in bicycle-riding and other outdoor exercises. Her circulation has been improved, her color is brighter, and her appetite has been restored to its natural vigor. Such results attending the use of thyroid extract may be seen in widely different conditions apparently in no wise related to the group of myxedematous diseases. In some instances they seem related to an action of the gland upon the nervous system, and in other cases to an influence upon metabolism. An excellent illustration of the metabolic action of thyroid extract is seen in the description by Moraczewski of a case of leukemia in which metabolism was characterized by a marked nitrogen-retention; placed upon thyroid extract the elimination of nitrogen was augmented, and the general symptoms of the patient were promptly lessened.

Despite the early diagnosis of the condition in this case as erythema nodosum the appearances within the past year have not been typical. The prolonged duration, the absence of arthritic manifestations, of lymphatic enlargements, and of tonsillitis, the presence of hemorrhages from the mucous membrane, and the fact that the lesions contain free blood and are not nodes of vascular dilatation, are all different from typical erythema nodosum. That it may be an aberrant case is of course possible. Since, however, the chief symptoms are the hemorrhage and the conditions which precede, attend and follow it, we consider it best to class it with the nervous hemorrhages.

We know nothing of the pathogenesis of nervous hemorrhages, and these cases are reported simply to add to the clinical history of a phenomenon whose pathology remains to be studied. The action of the thyroid gland in one case suggests strongly that metabolic disturbances may be present. The negative results of urinanalysis do not speak against this view, since we cannot presume that a simple study of the salts, urea, and uric acid would necessarily throw light upon even a purely metabolic disease.

REPORT ON THE CONDITION OF THE SECOND ARMY-CORPS,

From September 29, 1898, to March 17, 1899.[1]

By LIEUT.-COL. A. C. GIRARD,
Chief Surgeon Volunteers.

To the Surgeon-General, United States Army:—

I have the honor to submit herewith the report of my office as Chief Surgeon of the Second Army-Corps from September 29, 1898, date of my last report, to the present date, when the troops of the Second Corps are about mustered out. A recapitulation of the state of affairs at the date of my last report will serve to better understanding of the work of the office of the Chief Surgeon.

The Second Army-Corps was then camped at Camp Meade, Pennsylvania, upon rolling ground extending into the hills of the Susquehanna. The Corps had been moved to that place by rail from Camp Alger, the movement beginning August 16, and terminating early in September.

Upon my recommendation the camping grounds on the first level of the Susquehanna banks, which had been selected by the Commission ordered to examine camping-grounds for the Second Army-Corps, were not used for camps, as malaria is prevalent on the bottom of the river. Subsequent experience showed that this precaution was effective in protecting the command against malarial diseases.

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[1] Published by the courtesy of the Surgeon-General of the United States Army.

The camp extended from the third bench into the hills, and as the ground was very much broken the camp-sites were considerable distances apart, and the whole camp covered in the neighborhood of 10 miles. The camp was laid out with great care by the Engineering Department, giving full distance between tents, large company-streets, and, what I consider a very important innovation, placing the kitchens at the side of the camp opposite to the location of the privies, thus rendering more difficult access to the food by the flies which might carry infection from the privies. The sanitary precautions with regard to the care of the privies which had been instituted at Camp Alger were carried out in a vigorous manner—a sentinel at each privy requiring individual covering of fecal matter. In order to add to the military supervision of this important sanitary measure, I detailed a contract-surgeon to visit as many privies each day in camp as he could, and to submit a written report of any violation of orders concerning their care. A communication was written by me to the Adjutant-General, whenever any laxity in that respect was observed, and the regimental commanders were taken to task by the Commanding-General.

In order to guard against any possible infection of the water-supply, which by this time had been distributed by pipes in each camp, and to train the troops to the use of filters, which in case of foreign service would have to be relied on greatly in the purification of the water-supply, the use of filters was continued in all of the camps, each company having a set under the care of a reliable man and under the general supervision of one of the medical officers of the regiment; in order to insure intelligent use of the filters and prevent neglect in that respect I had an efficient medical officer detailed as inspector of filters, who was to visit as many regiments as he could each day, and make me a daily report of his work; the same officer was to satisfy himself as to the condition, handling, and preparation of the food in the companies.

In spite of all these precautions typhoid fever became more and more prevalent, especially as a number of regiments, which took the place of others mustered out, came from camps where typhoid fever was prevalent; as, for example, the 15th Minnesota upon its arrival in camp sent at once 40 cases to the Division Hospital, most of which eventually developed typhoid fever. The division-hospitals were becoming overcrowded and a double problem had to be met; one was to give the men proper care, and the other, in view of the rumored removal of the Second Army-Corps to the southern camps later in the fall, to avoid having a large number of sick who could not be moved with the command and, in that climate, neither could be left in camps.

I, therefore, systematically transferred all typhoid cases as soon as diagnosis could be made, under authority of the Commanding-General, and with permission of the Surgeon-General, to civil hospitals at Harrisburg, Lancaster, Norristown, Pottstown, Pottsville, Yorktown, and to the large hospitals in Philadelphia, all of which institutions from a sense of patriotism opened their doors and solicited the sick from Camp Meade.

I equipped two passenger-cars as hospital-cars and made a regular detail of medical officers and men of the Hospital-Corps upon the Pennsylvania road, and later in the same manner on the Reading road. While in the commencement of this gradual evacuation of the sick, hospital-trains were sent out by the Red Cross Society and the National Relief-Commission, this became less necessary, as I had at my command the facility of moving 48 patients a day. The shipping o these patients, the proper care for their clothing, preparatio of descriptive lists, and necessary lists of patients, and t prevent any mishaps by delay in the return of the cars an in transferring the patients upon their arrival to the different hospitals, required a constant careful supervision, wit which I found I could entrust no one and which greatly taxe my energy. I made a daily trip to the division-hospital and saw each patient, unable, of course, to make a diagnosis but thereby succeeded in impressing upon the medical officers an expectation of constant supervision, consequentl no delay in shipment of the cases in the early stages, an the proper care in the shipment. I have no doubt in thi manner many lives were saved.

In order to take care of the typhoid cases, which ha either entered on the second stage, on being transferred t the division-hospitals, or those who were unable to bear th railroad journey, I gradually enlarged the Red Cross Hospital, which had been kindly tendered by the Associate Red Cross Society of Philadelphia. The nurses in this hospital had been carefully selected by the Society, and their work and services were of a superior character and many live were saved thereby.

By steadily pursuing this course, at the time the Second Corps was ordered to the South, the hospitals were vacated and no sick had to be transferred.

About this time another problem appeared—the enlargement of regimental hospitals with a view to their being more useful as detention or emergency hospitals and susceptible of still greater enlargement should the regiments, when in foreign service, be camped at separate stations. It was no small task to supply this equipment, as the medical officers of the regiments had not learned yet to distinguish between the supplies of the Quartermaster and Medical Department, and correct requisitions were difficult to obtain. I had unfortunately no trained division-surgeons as yet, and, in order to carry out the plans of the Government, had to deal directly with the regiments, if I wanted to have orders carried out; this greatly increased my work, which already was onerous, by the shipment of the patients. The medical-supply depot was of the greatest assistance to me in this respect, as the division-hospitals would have been absolutely unable to provide the equipment, or plan far enough ahead to obtain them in due time.

The next problem presenting itself was to provide for the sick in Southern camps and have everything ready on the arrival of the troops. For this purpose Major J. L. Powell, who had shortly before reported at the corps, and Major J. L. Phillips who had wound up the First Division-Hospital, which had been left with the sick of the corps at Camp Alger, were ordered to the South to superintend the construction of pavilion-hospitals at Augusta and Greenville, where the larger number of troops were to be camped. I sent a carload of medical supplies and equipments to each of these hospitals, with a number of men of the Hospital-Corps to make the necessary preparations, and to the smaller camps, such as Summerville, Columbia, and Athens, sufficient tentage to establish brigade-hospitals on box-frames.

In order to provide the sick of the regiments with the necessary comfort on the road, as the trip was to last 3 days, I had a passenger-car in the third section of each train stripped of the seats and equipped with the beds of the regimental outfit. Under orders of the Commanding-General I inspected each train before it left the station, which was very fortunate, as with the usual carelessness of the voluneers the order for the equipment of the hospital-cars had ither not reached the regimental surgeons or, whenever ossible, an erroneous construction being put upon it.

I was directed to provide a medical officer for each section f the trains, a necessary measure which entailed consider-ble work, since, on account of the lack of administrative bility in brigade and division surgeons, I did not have the ecessary information as to the needs of the regiments, many f which had but two medical officers; and again I had to eal directly with the regiments. Only one section of a train as overlooked in this arrangement, through the carelessness f the regimental medical officer in not reporting to me the bsence of one of his surgeons, but no mishap resulted from his oversight.

Prior to entering upon the move I had all the hospital-ents, as rapidly as they were vacated, sent to a tannery in iddletown to be disinfected by boiling in its vats, and no ents were taken South infected with typhoid. In like man-er I had all the blankets in the hospitals which had been sed with typhoid cases sent to a steam-laundry in Harris-urg and properly steamed.

Having been informed that the Third Division was going to e organized with headquarters at Athens and that a divi-on-hospital building had been erected there, I caused a full quipment of medical supplies, ambulances and horses, with sufficient detail of medical officers and men of the Hospital-orps to be sent there.

The camps in the South were as much superior to ose at Meade as these had been to those at Alger. In a ort time kitchens, mess-halls, wooden privies, and store-ouses were erected. The same sanitary supervision was ntinued as in the camp at Meade, and very few cases of phoid fever appeared thereafter among the troops. Shortly ter the arrival at headquarters in Augusta I was ordered to company the Commanding-General on an inspection tour the different camps of the Corps, and found as a rule the gimental hospitals fully equipped and well managed, while e records had been more or less defective for some time. y duties being much lighter since I was relieved of the cessity of personal supervision of the camps and the super-sion of the transfer of the sick, I could pay more attention enforcement of correct records and proper military cor-spondence, and by the time the regiments were mustered t the administrative part of their duties had been fairly ll mastered by the regimental medical officers.

The Third Division being under orders for Cuba, at the ne only composed of 3 regiments, I caused a full equip-ent for a division-hospital to be shipped to Savannah, and d 100 men of the Hospital-Corps, who unfortunately were cruits and had not yet received any training (a matter ich could not be helped, as all the trained men were eded for the sick of the Corps), to accompany this hospi-l. Under instructions of the Surgeon-General to increase e regimental equipment of the troops going to Cuba to 50 ds, I had a separate car-load of supplies sent from the rps supply-depot to meet each of the regiments on their rival in Savannah, so that each regiment would find its uipment and be able to ship it on its steamer. It happened at only the 202d New York went to Cuba, while the other egiments were to be mustered out. I therefore had the o car-loads destined for these regiments turned over to the pply-depot in Savannah.

All this happened soon after our arrival in the South, and I was ordered by the Surgeon-General to discontinue the rps supply-depot, I divided the 6 months' supplies which had been accumulated, among the division and brigade hospitals and closed the depot.

HOSPITAL-CORPS.

About the time this report begins the Hospital-Corps had been so reduced by muster-out of regiments and disinclination to transfer from the 12 new regiments which had joined the camp at Meade, that a great part of the work at the division-hospitals had to be performed by details from the regiments.

A recruiting detail had been ordered to Minneapolis, Minn., and as the recruits were coming in too slowly to replace the constant drain caused by discharges, a second recruiting party was sent to Buffalo and later to Columbus, to enlist for the Hospital-Corps desirable men from mustered-out volunteer regiments. In this manner, shortly after our arrival South, recruits for the Hospital-Corps arrived in considerable numbers, and in order to give them the necessary instruction prior to their entering upon duty in division-hospitals, or regiments, as the number of the sick of these hospitals was small, I organized again, with the approval of the Commanding-General, the School of Instruction which had been started at Camp Alger and had been broken up by the necessity of employment of the Corps Reserve Ambulance Company, with which this school was started, in the hospitals at Bristow, Fort Myer, and Meade. This school gradually comprised about 250 men, and was at first under my immediate control, with a number of acting assistant-surgeons as instructors in first aid, litter-drill, and nursing. I succeeded in securing the detail of Major Edgar A. Mearns, brigade-surgeon, United States Volunteers, assistant surgeon, United States Army, as commandant of this school, and under his zealous and intelligent supervision the instruction became so well systematized that in about a month a number of the men could be graduated. In order to impart to the line of the army information as to the purpose of this school and to raise the feeling of self-esteem and professional pride in the members of the Hospital-Corps, I made this first graduation an occasion of solemnity, with public exercises in a hall, which had been kindly tendered me by the Young Men's Christian Association in Augusta, and distribution of certificates of graduation by the Commanding-General. Of this class a number of men were sent to Manila and others assigned for practical instruction at the bedside to the division-hospitals under the supervision of the trained female nurses.

Meanwhile other recruits arrived, the instruction of the school was continued, and it will be able to leave as a legacy of its work, ready for assignment, 250 men, of whom a large number will prove very competent nurses.

During my administration 1,727 men of the Hospital Corps were received, transferred, or enlisted, of whom at the present date not more than 150 are in the division-hospitals, the remainder being either transferred or discharged. This does not include those who, after enlargement of the regimental details, were transferred from the regiments and immediately assigned to them. Quite a number of men (the exact figures are not accessible to me) contracted typhoid fever and a small percentage died.

FEMALE NURSES.

During the days of Camp Alger Miss Barton offered the Commanding-General female nurses for work in the division-hospitals. I refused this assistance, partly because I was then under the belief that we were preparing for active service, and female nurses would be too much of an impediment in operations in the field. I was not then very much impressed with the advantages of nursing of this character, and I never had had any experience with it. I learned better when I compared the work of the female nurses in the Red Cross Hospital at Meade with that of the men of the Hospital-Corps in the division-hospitals. At that time the advantages of female nurses became more generally recognized throughout the Army, and when the Surgeon-General informed me that female nurses could be employed in Southern hospitals I availed myself, however to a limited extent, of this opportunity and used the nurses more as instructors and superintendents of wards than was done in most army-hospitals at that time.

There was still an expectation of active service, and as the Hospital-Corps had been recruited up to the full allowance, I deemed it of greater importance to have them benefited by the training of these nurses than to do simply the menial work, while the nurses attended to the sick. I therefore did not deem more than 10 or 12 female nurses desirable for each division-hospital, and found that the number was sufficient.

As a rule their behavior was satisfactory and their work commendable, but they were an expensive luxury, as they received more wages than the men of the Hospital-Corps and required much waiting on.

WORK IN OFFICE.

Applications for discharge, certificates of disability, weekly and monthly professional reports, monthly personal reports, inquiry for missing men, claims for lost property, accounts for washing and disinfectants, requests of acting assistant-surgeon for annulment of contracts, and large numbers of miscellaneous papers have kept this office working at full capacity, and at no time could the work have been completed in ordinary office hours.

Watching for regular rendition of reports and notices to delinquents caused endless correspondence; especially was this the case in the monthly reports of sick and wounded and personal reports, the latter of which I ordered sent to my office in order insure their receipt in the Surgeon-General's office.

I continued to the very last the scrutiny of certificates of disability by reexamination through medical boards commenced in the early days of Camp Alger, and believe that thereby not only was justice done to the men, but the interests of the Government as to pension claims were protected.

In order to add to prevention of fraud hereafter and increase the meager information supplied by the reports of sick and wounded, I ordered in the division-hospitals, from the very commencement of my administration, clinical histories to be kept on separate sheets for each patient with particular reference to the history of the disease or injury. These sheets on the discharge of the patients were ordered to be filed alphabetically by regiments to facilitate scrutiny by the Pension Bureau in eventual pension claims. Unfortunately, with the lack of subordination usual among volunteers, some surgeons thought to improve on my system and had the clinical histories kept in books, which will greatly delay the search of these records.

I had a monthly tabulated statement of subsistence sent to my office from each regimental and division-hospital and found that the average cost daily of each patient in the former is 27 cents and in the latter 48 cents.

I also had the corps medical-supply officer, prior to closing up, prepare a tabulated statement of monthly issues of expendible articles to regimental hospitals; as this comprises about 40 regiments the mean will prove a valuable basis in eventual revision of the field supply-table. The compilation was not completed yet when the supply-officer was sent to Havana, but it will probably soon follow this report.

The health of the command has been steadily improving Systematic efforts were continued by me in bringing about complete protection against smallpox by liberal vaccination —the instruction being that every man who had not been vaccinated since his service in the army was to be vaccinated. The result has been that, while some 30 cases of smallpox have appeared in the city of Augusta since arrival of the Corps, only one man became infected and he was a recruit of the reserve ambulance company, who had been vaccinated on arrival, but unsuccessfully, the vaccine matter being inert from being kept too long, as a like result in other cases proved. This man was sent with a special nurse from his company, who had had the disease, to the smallpox hospital in Augusta, where he is recovering. The hospital in the reserve company was carefully disinfected—the inmates who had been exposed isolated in a separate tent—and the whole company quarantined for 2 weeks. This quarantining is still kept up at the date of this report and no more cases have appeared.

Measles and mumps had appeared in isolated cases all over the camp, but by careful isolation and disinfection spread was prevented, with the exception of the 35th Michigan, where the former disease became epidemic. Under the instructions of the Commanding-General I made a sanitary inspection of the regiment and found that proper precautions had not been taken to prevent the spread of the measles which was rectified on my report. The disease had, however become so general that the results were not so satisfactory as desired, the regiment having been recruited in country districts offering too much unprotected material for infection It is believed, however, that the spread of the disease has been hemmed in.

CONTRACT SURGEONS.

During the month of October, boards of medical officers were convened in the divisions for the examination of the contract-surgeons, under the instruction of the Surgeon-General, approved by the Secretary of War. Quite a number resigned under various pretexts (evidently afraid of the examination), others were found deficient and their contracts annulled. These boards were convened from time to time to examine new men, who were appointed to fill vacancies

Under the order that no regiment should be left with less than two medical officers, it was frequently found necessary to supply the place of regimental surgeons with contract surgeons. This order made the former rarely available for hospital-service and necessitated the contract employmen of between 20 and 30 of the latter class.

As a rule, they adapted themselves with great credit to the most varied assignments, in addition to their professional duties, such as property officers in command of hospital-corps companies, as sanitary inspectors, as executive officers, and by their zeal and efficiency raised themselve in the esteem of the volunteer medical officers who, in the early days of the war, did not consider them good enough to share in their mess.

I recommend that this class of medical officers be placed on the same footing as acting assistant-surgeons of the Navy by a warrant issued by the Secretary of War, so as to indubitably establish their military status.

As to the state of health of the command, it was steadily improving from the date of commencement of this report, as will be seen from the following statement of admissions to the division-hospitals:

	First Division.	Second Division.
October	687	668
November	253	264
December	146	147
January	141	114
February	138	149

The greater rate of disease in February is due to the appearance of measles.

ACUTE INFLAMMATION OF THE TYMPANIC CAVITY.[1]

By S. MacCuen Smith, M.D.,
of Philadelphia.

Clinical Professor of Otology, Jefferson Medical College; Surgeon-in-charge Ear, Nose, and Throat Department, Germantown Hospital.

Increased facilities for a better knowledge of the ear and its diseases, especially in the matter of diagnosis and treatment, have advanced otology and its allies, rhinology and laryngology, to a position of prominence not exceeded by other departments of medicine. Moreover, the modern technic of operative otology has rendered less frequent the many serious complications incident to diseases of the ear, and at the same time has enabled us to relieve many of these complications with commendable promptness and precision.

So long as we retain all the blessings and advantages of our special senses, it is doubtful if we fully understand and appreciate the grim suffering of those deprived of the functional activity of one or more of Nature's special endowments. Unfortunate as is the oss of hearing, especially in infants and young children, there are other questions of equal importance resulting from deafness which are worthy of serious thought. The normal development of the moral and ntellectual faculties are to a large degree dependent upon the proper functioning of the organ of hearing; so, also, is the power of speech. Contrary to general beief, deaf-mutism is not a distinct disease, any more han symptomatic pain or a rise of temperature could be regarded as an entirely separate ailment. From some disease or defect of the ears, congenital or otherwise, there is an absence of hearing, without which peech can not be acquired, since we learn to talk by mitating those about us. Manifestly, therefore, this absence of hearing precludes imitation. For the same reason, and in a similar manner, the intellectual faculties remain in a perpetual sleep, while the moral side of life inclines towards degeneration rather than quiescence. The loss of hearing in children between and 6 years of age may, likewise, result in their becoming mute; not that the inability to articulate is aused by any functional or pathologic condition of the larynx, but solely from the fact that in the absence of hearing the child soon forgets how to talk. As a matter of fact, we should remember, in this connection, that the organs of phonation and articulation are usually normal, even in congenital deaf-mutes. These remarks are made chiefly in support of the importance of what I may term the ethics of otology.

In the consideration of acute diseases of the middle-ear cavity, preventive medicine naturally occupies a conspicuous place; not that we should expect to prevent the acute process from making itself forcibly manifest, but certainly no reasonable doubt can be entertained as to the effective available means to promptly abort or modify the acute disease in its incipiency. By timely attention it will be possible to confine the acute disease to the stage of hyperemia, thus obviating suppuration; or, if acute suppuration be present, prompt treatment may prevent it from becoming chronic, avoiding the chief cause and danger of serious or even fatal complications.

The perplexing question as to prompt relief for acute aural diseases arises from the lack of proper appreciation of such conditions. So long as parents view with indifference the ear-diseases of their children, or actually believe that certain diseases of the ear are beneficial, so long must we expect the perpetuation of these aural diseases, most of which are preventable, and which, in this country alone, destroy about 10,000 lives annually.

The solution of this problem is difficult and yet important. The dissemination of information so likely to benefit or conserve good health would seem naturally to devolve upon the various Boards of Health, as the recognized official advisers and exponents of all matters relating to the public weal, especially in the prevention of disease. Would it not be a fitting work for this Society, as a matter of charity to humanity, to inaugurate a movement that would bring to public notice the danger of neglecting simple primary diseases of the ear, and provide the proper instructions necessary for their immediate care? I believe the future beneficial results would almost rival those of vaccination, as many hundreds of lives would unquestionably be saved each year.

Acute inflammatory conditions of the middle ear are usually subdivided into various forms, their distinction depending upon the character and site of the infection, the method of involvement, etc. Such a classification, however, is liable to cause confusion, and furthermore is not necessary for an intelligent understanding of acute diseases of the tympanum. For clinical purposes it is sufficiently accurate to include all acute diseases of the middle ear under two heads, the acute nonsuppurative, and the acute suppurative; keeping in mind the fact that the acute suppurative is simply an advanced stage of the acute nonsuppurative variety, and that chronic suppurative otitis media generally results from a neglected acute suppurative inflammation of the tympanic cavity. In other words, the entire clinical aspect of inflammatory conditions of the ear, as commonly seen, can be briefly stated to occur as follows: (1) Hyperemia and swelling of the mucous lining, with accumulation of the consequent hypersecretion; (2) rupture of the distended membrana tympani, with escape of confined exudate; (3) continuation of the discharge, finally becoming chronic. Prompt treatment of the first stage usually prevents its passing into the second; so also can the second stage frequently be relieved or modified by prompt and efficient care.

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[1] Read by invitation, before the West Branch Medical Association, at the annual meeting in Williamsport, Pa., January 10, 1899.

The most common cause of acute otitis media is the extension by continuity of a catarrhal inflammation from the throat or nasopharynx. Children especially are very susceptible to the influence of cold, sudden atmospheric changes, or a draught of air striking the side of the head, all of which are common causes of earache. The careless employment of the nasal douche, and the pernicious habit of "sniffing up" salt water or other solutions, for the relief of some existing nasal catarrh, are prominent factors in the causation of this disease. Surf-bathers are especially liable to have water enter the mouth and nostrils, and in an effort to expel it they force some fluid into the tympanic cavity, and this frequently excites an inflammation. The intimate nerve-connection of the tympanum and teeth frequently causes an otitis media from dentition in children, and from defective teeth in adults. The infectious fevers, such as measles, diphtheria, and scarlatina, often involve the middle ear in a destructive inflammation that is primarily purulent. It may also occur in the course of bronchitis tuberculosis, pneumonia, syphilis, cerebrospinal meningitis, typhoid and puerperal fever. Probably no other single cause has been so productive of acute otitis media as the epidemics of la grippe, so prevalent in recent years. The cases resulting from this disease have been characterized by much more active and severe inflammation, greatly intensified suffering and pain, with a persistent tendency to resist treatment, and an especial predilection to mastoid implication.

Ventilation of the middle ear is an essential requisite for preservation of the functional activity of that organ. This can be accomplished only by free and unobstructed nasal respiration. The importance, therefore, of a careful examination of the nose and nasopharynx in all diseases of the ear is obvious. It will often be the means of detecting the presence of growths or other pathologic conditions, the correction of which will render patulous an unobstructed eustachian tube, and remove the cause of an otherwise intractable otitis media.

Recent bacteriologic investigations demonstrate beyond question that the quantity, and especially the quality, of the discharge are all important factors in considering the prognosis of individual cases. Generally speaking, a discharge without fetor has been considered harmless, and, therefore, in most cases has received little or no attention, except for cosmetic purposes. While the published observations on the pathology of the putrefactive changes within the ear have been confined to the researches of only a few investigators, sufficient information has been gained from the recent discoveries in microbiology to establish the fact that a nonfetid discharge from the ear frequently contains large quantities of pathogenic cocci, and may, therefore, be highly infectious and dangerous to life. In fetid discharge it is true that cocci are also found, but they are of the diplococcus variety, and the bacilli, which are also present, largely predominate. Experience has shown that the presence of streptococci in discharge from the ear must be viewed with considerable apprehension, from the fact that their erosive action causes speedy destruction of the soft parts, which is quickly followed by rapid disintegration of the bone-structure, thus exposing the interior of the skull to an infection that is dangerous to health, and may become destructive to life. Any one suffering from a suppurative otitis media, be it in the young or old, whether acute or chronic, fetid or not, of the continued or recurrent form, is in constant danger of grave and even fatal complications. Many apparently unaccountable cases of fatal coma are explained by the fact that an old cerebral abscess, which has already lasted weeks or months without giving rise to any definite symptoms, suddenly perforates the retaining wall and bursts into the ventricular or subarachnoid space.

In an acute inflammation of the tympanum there is first hyperemia, then swelling, and consequent hypersecretion from the mucous lining of the eustachian tube, tympanum, and mastoid cells. In severe cases there is more or less ecchymosis and peeling off of the macerated epithelial lining. The swelling of the tube has a tendency to confine the inflammatory secretions within the cavity of the middle ear, and to strangulate by pressure the veins and lymphatics that pass from the tympanic cavity to the nasopharynx. If the eustachian tube remains sufficiently patulous to admit of a more or less free drainage, the inflammation will not go beyond the seromucous or catarrhal stage; but if the tube fails to drain the tympanum, the inflammatory product undergoes fatty degeneration, the tension increases (due to the progressive accumulation of fluid), the lining membrane becomes macerated, and ulceration occurs. It is at this stage of the disease that immediate treatment becomes so imperative; the pressure is great, and hourly increasing; the pain is intense; mastoid and intracranial complications are imminent—the condition resolving itself into the question of what structure has the greatest power of resistance. Finally the increasing tension reaches a point where something must give way to provide for the escape of the confined exudate; and fortunately, in such neglected cases, Nature has wisely provided that the membrana tympani will usually rupture of its own accord when the pressure from accumulated pus reaches the danger-point.

Considerable pain and tenderness over the mastoid and occipital regions are frequently seen in the more active or purulent cases. With the exception of slight redness of the drumhead, not much change is seen in the membrane in mild or catarrhal cases; on the contrary, in the more active or purulent cases, the membrana tympani is intensely congested, swollen, and bulging to the extent of entirely obliterating its distinctive marks and features. In children, high fever, delirium, vomiting, and convulsions may occur early in the disease, symptoms which will suggest meningitis. These, however, frequently subside quickly; but should the improvement not be prompt the prognosis is serious. Delirium in adults is rare, but when it is present, and especially if there is prolonged pain after free drainage has been established, the condition should be regarded as serious, and immediate efforts be made to discover and remove the cause. A dull, persistent headache, vertigo, impaired memory, and peevishness, with little or no rise of temperature (it may be subnormal), suggest an abscess of some part of the brain, more frequently the temporo-sphenoidal lobe. If the temperature is high (although it may be only one or two degrees above normal), with chilliness or marked rigors, face flushed, eyes congested, photophobia, vertigo, nausea and vomiting, and later, delirium, jerking of the limbs, oscillation of the eyeballs, and general muscular twitching, infectious meningitis may be diagnosed with certainty. When a child frets and cries persistently, and the cause cannot be otherwise located, an examination of the ears will frequently reveal the difficulty, and suggest means for prompt relief.

In order that the probable gravity of a severe inflammatory condition of the middle-ear cavity may be fully appreciated, it is well to keep in mind its intimate connection with adjacent structures. A continuation of the skin of the external auditory canal, which in a modified form acts as its periosteum, forms the outer layer of the membrana tympani; a continuation of the mucous membrane of the throat and nasopharynx extends up through the eustachian tube into the middle-ear, forming the mucous lining or periosteum of the tympanic cavity. This same structure covers the ossicles, extends into the mastoid antrum, and forms the inner layer of the drumhead. By remembering these anatomic relations, the readiness with which an inflammatory disturbance of the throat and nasopharynx can extend (by continuity of structure) through the eustachian tube, and produce either a catarrhal or an infectious otitis media, will be appreciated. In like manner it is possible by continuity to produce a myringitis from an inflammation of the external auditory canal. The carotid canal (which conveys the carotid artery) forms the anterior wall of the tympanic cavity; the jugular fossa (which contains the bulb of the jugular vein) constitutes the floor of the tympanum; and a part each of the temporosphenoidal lobe, and the lateral lobe of the cerebellum, are in direct contact with the middle ear. With these vital structures forming the boundaries of the middle ear, with the walls of the tympanum always thin, and the roof frequently absent, it is surprising that necrotic involvement does not cause a higher mortality than is now recorded.

The treatment of acute inflammation of the tympanic cavity will largely depend on the cause, stage and severity of the attack. If the origin is catarrhal, and treatment is instituted during the stage of hyperemia, the inflammation will be arrested and confined to the seromucous or nonsuppurative stage. If, however, this early care has not been given, the case will likely progress to the stage of suppuration, and rupture of the membrana tympani. The presence of deep-seated pain, increased by pressure over the tragus, calls for immediate bloodletting in front of the tragus. For this purpose I would strongly urge the use of the artificial leech, on account of its convenience and efficiency; one or two cylinders of blood (or its equivalent, three or four Swedish leeches) should be extracted.

If bloodletting can not be resorted to in young children, a blister will answer a fairly good purpose. The application of either dry or moist heat will give much relief in incipient cases; the first can be applied either by the hot-water bag, or by the bag of hot salt; the latter by instillations of a hot saturated solution of boric acid, the ear to be protected by a piece of cotton placed in the external canal, and worn for some time after the pain has subsided. The nasopharynx should be carefully examined, and treatment applied to correct any abnormal condition.

Small doses of calomel and soda should be administered, until free purgation is established. A coryza tablet, composed of atropinæ sulph. gr. $\frac{1}{600}$, acid. arseniosi et strychninæ sulph. āā gr. $\frac{1}{240}$, morphinæ sulph. gr. $\frac{1}{100}$, quininæ sulph. gr. $\frac{1}{10}$, camphoræ gr. $\frac{1}{4}$, should be taken every hour until a decided dryness of the throat is produced; then continue every two or three hours, for two or three days. Salol and phenacetin, or antipyrin will be of service in appropriate cases, especially if there is a rheumatic tendency, or if the pain is severe.

It is assumed that if the patient is seen before suppuration has occurred, every effort will be made to arrest or modify the disease without surgical intervention. If, however, the disease does not yield to the treatment outlined, and the pain continues, with or without bulging of the membrana tympani, the membrane should be immediately incised, the point of election usually being the posterior inferior quadrant. As it is possible for the pus to be confined either to the superior or inferior portions of the tympanic cavity, it is best to incise the membrana tympani at the most dependent point, always bearing in mind that the object to be accomplished is the free evacuation of fluid from the middle-ear cavity. The drumhead should never be punctured, but, on the contrary, a free incision should be made, always extending it down to the inferior surface of the canal, so as to insure good drainage; otherwise the suffering and danger incident to confined pus will continue. Care should be taken that the incision shall not interfere with the ossicles, and that it shall be done under proper antiseptic precautions.

Syringing of the ear should not be employed in acute suppurative otitis media, unless there is some special indication for its use. The discharge should be removed by cotton twisted on an applicator, some hydrogen peroxid instilled, and allowed to remain in the canal for 4 or 5 minutes; then dry the canal with cotton, introduce a small strip of iodoform gauze, and place a small plug of absorbent cotton exterior to the gauze, to catch the discharge. This dressing should be renewed daily for a week, when the case should begin to improve, and thenceforward will require less frequent dressing.

After the acute symptoms have subsided, it is well to rid the tube and middle ear of any retained pus by Politzer's method of inflation, to be repeated about once a week, if found necessary.

ON A SOURCE OF DANGER TO RÖNTGEN-RAY EXPERIMENTERS.

By M. I. WILBERT, Ph.G.,
of Philadelphia.
Director of the Laboratories for Photography and Skiagraphy, and Chief Apothecary to the German Hospital.

Much has been said and written in the past 3 years as to the possible danger of injuries following an exposure to the Röntgen-rays. On the other hand, very little or no attention has been drawn to the possible injurious effects that may be in store for the operator, or experimenter, who, day after day, for hours at a time, is confined in the usually small and poorly ventilated apartment called a Röntgen-ray laboratory.

The irritating atmosphere and the odor surrounding an excited induction-coil are usually ascribed to ozone, and this from time to time has been accused of causing more or less alarming symptoms. In persons habitually using induced currents for experimental purposes, even before the advent of the Röntgen-rays, the deleterious effects of ozone, generated in this way, had been noted, especially in Germany, where experiments in this line of electric research have been carried on extensively for years.

The introduction of the Röntgen-rays has increased the number of induction-coils in daily use by thousands, with a corresponding increase of operators, and a decided increase in the average amount of time devoted to experimenting. Many of these experimenters have observed and noted the irritating properties of the atmosphere in a Röntgen-ray laboratory. The larger and more efficient the coil, the more irritating the atmosphere. Dr. George Rosenfeld, in a book on "Diagnosing Diseased Conditions by Means of the Röntgen-ray," while speaking of the deleterious effects of ozonized air, says: "Large quantities of ozone in atmospheric air will produce a highly-poisonous mixture, the persistent breathing of which is highly injurious; this is readily proven by the great number of individuals who, after repeated exposure to Röntgen-rays, or who, being in the room in which Röntgen-ray exposures are being made, complain of headaches caused by the disagreeable odor of ozone. The chronic headaches and other symptoms, often complained of by physicists, are all due to this same source." He also suggests that a large amount of sparking could be avoided by the use of properly insulated conductors.

In this country comparatively little interest has been taken in the production of ozone, for commercial or even experimental purposes, as a consequence of which the odor and taste of ozone are comparatively unknown to a great many people. If we pass the current from a small induction-coil through a Siemens tube, or any instrument built especially for the purpose of converting oxygen into ozone, we will rapidly fill the surrounding atmosphere with an odorous gas, that has a more or less metallic taste, and produces a sense of fulness, but is not markedly irritating or disagreeable; differing in this respect very distinctly from the supposed ozone, produced in connection with the passing of a highly-induced current through a vacuum or Crookes tube.

In what respect, then, does this changed atmosphere differ from ozonized air?

The difference can be easily and plainly demonstrated if we take into consideration the cause and effect of several well-known phenomena. The visible spark of electricity is due to the incandescence of gases; the temperature developed by the passing of a high-tension electric current through air is one of very high degree, owing to the resistance offered by air under normal conditions. It has been known for many years that nitrogen is a combustible gas, or, in other words, that at a sufficiently high degree of temperature nitrogen will combine with oxygen to form oxids of nitrogen. I have not been able to find the original reference, but text-books on chemistry for 30 years or more have stated that if an electric spark be passed through a confined portion of air, red fumes of nitrogen tetroxid are formed; these in the presence of water are decomposed and absorbed with the formation of nitric acid.

Sir William Crookes, in 1892, exhibited before the Royal Society an experiment on "the flame of burning nitrogen." While this was widely published at the time, it created very little or no comment.

The discharge of electricity in air during a thunderstorm also produces nitric acid; this in turn combines with the ammonia present, forming ammonium nitrate.

ccording to some text-books on chemistry as high as parts in a million of ammonium nitrate have been iscovered in the water precipitated during a severe understorm. These generally accepted and well- nown chemical phenomena may readily be reproduced connection with an induction coil. If, for instance, e take a vacuum tube that has been punctured and ss the current from the secondary of an induction il through it for a few minutes, we will find that the r rapidly changes color, and the tube ultimately be- mes filled with bright orange-red fumes of nitrogen troxid. These fumes dissolve readily in water, and e resulting solution will give the characteristic reac- ons for nitric acid.

Then, again, the air surrounding an induction coil is etty much in the same electric condition that the mosphere is during a thunderstorm. Being highly ectrified, it contains, probably, a large proportion of one, which in turn has a great affinity for oxidizable ses. The sparks passing between terminals and leak- g from conductors heat the neighboring gases to, or rhaps even above, the ignition point of nitrogen. It llows, therefore, that every passing spark converts a rtain amount of nitrogen gas into its corresponding ids. This can be easily demonstrated by putting a all quantity of a dilute solution of potassium or dium hydrate in a flat glass tray, and exposing this the neighborhood of an active induction coil for veral hours. If we test the solution after such posure we will find that it has lost considerable of alkalinity and now contains an appreciable amount nitrates.

It may be of interest to relate a few of the readily rformed experiments that were made. If into an in- rted bell jar, a Wolff bottle, or a closed tube we in- t 2 terminals and connect them to the secondary of induction coil, so that the spark will pass freely tween the terminals, then turn on the current for 5 10 minutes, we will notice a gradual change in the or of the air enclosed within the bottle or jar. At same time there is also developed a very high gree of heat, so much so that if the bottle or jar be all it will be too hot to hold with the hands.

The colored gas enclosed in the bottle or jar is readily solved in water. If we dissolve it in a dilute solution otassium hydrate, to which a few drops of phenolph- ein solution have been added, the red color produced the latter will be discharged, showing the presence of a ng acid. If we repeat the experiment, and dissolve resulting gas in distilled water, then test portions of resulting solution with sodium salicylate and sul- uric acid, or with a solution of diphenylamine in phuric acid, we will in each instance observe the racteristic color reaction for nitric acid. These ex- iments can be readily duplicated, and are highly eresting in showing the amount of nitrogen that may fixed in a comparatively short time. I might add here that a coil excited by an alternating current seems to be fully 4 or 5 times as efficient, in this respect, as one excited by a direct current. This is probably due to the greater number of interruptions in the primary, in case of the alternating current.

The deductions to be drawn from these observations are obvious. Ozone may or may not be a desirable addition to the atmosphere; when, however, this supposed ozonized air contains a large admixture of the oxids of nitrogen, there can be absolutely no doubt as to the possible danger of inhaling such a mixture for any length of time. Nitrous and nitric acid fumes have an irritating action on the mucous membranes, especially of the throat and nose, causing the secretion of a yellow, watery mucus, and giving rise to a constant desire to cough. Air containing only a small proportion of brown fumes is said to produce chronic disease of the respiratory organs if inhaled for a considerable length of time. When taken internally for a considerable length of time, nitric acid has an effect on the gums somewhat resembling that of mercury. The gums become tender, bleed readily and the teeth are loosened. This same condition can readily be and has been produced by the persistent and prolonged inhalation of nitric acid fumes.

To recapitulate briefly,—when we pass an electric current through an induction coil, we electrify the surrounding atmosphere, thus producing more or less ozone. This ozone has great affinity for oxidizable gases. Electric currents of high tension being forced through air heat nitrogen to or above its ignition point, when it will readily unite with the ozone or oxygen present, forming oxids of nitrogen, a mixture of which is certainly highly injurious when inhaled persistently or even repeatedly at short intervals. The only suggestion I have to make in this respect is to thoroughly ventilate the rooms in which skiagraphs are being taken. Instead of the small, dark, stuffy corners usually used, provide a room with a plentiful supply of fresh, wholesome air. The operator will thus avoid coughing, headaches, and a whole series of more or less serious ailments that may follow.

A NEW TEST FOR MORPHIN.

By A. M. KOTZEBUE, Ph.G.,

of Louisville, Ky.

It is well known that molybdenum forms with a number of organic compounds combinations which show more or less of a blue color. While experimenting recently in the laboratory of organic chemistry of the Kentucky University medical department, Louisville, under the direction of Professor Henry H. Koehler, a number of strikingly delicate reactions were noticed which molybdenum formed with various alkaloids. It proved that morphin could be detected by the procedure to be described, in dilution of one to one million, and thallin could be detected in at least one to one million five hundred thousand. This test I think will be of considerable corroborative value. The material for this test must of course be absolutely pure. The water to be used must be distilled water, crystal clear, and must not have been exposed to the vapors of ammonia. The phosphomolybdic acid used by me was the guaranteed reagent of Merck in 10% solution.

If to a quantity of pure water morphin be added to the extent of making a solution of one to one million, and then two drops of the solution of phosphomolybdic acid introduced, an exceedingly delicate, hardly perceptible, yellowish white precipitate will be formed as with all alkaloids. If we now further add to this, say a half-dram of strong aqua ammonia C. P., a decidedly blue solution will be produced, best seen by placing an 8-ounce graduate or bottle containing the solution upon a sheet of white paper.

Thallin behaves similarly, only the reaction in this case is more delicate, showing the blue color up to a dilution of almost one to two million. Any of the salts of morphin or thallin can be used for this reaction. Under like conditions atropin, strychnin, quinia, quinidin, cocain, caffein, pilocarpin, hyoscin, and cinchonidin fail to give any remotely similar color-reaction.

A slight color-reaction was noticed with digitalin, convallamarin, codein, hydrastin, and aconitin. Unfortunately the detection of morphin in urine by this method is impossible, as phosphomolybdic acid gives with normal urine a beautiful ultramarine blue solution.

I do not find in any authorities any mention of this particular test, and, simple as it is, the result is so striking that further investigation should be encouraged.

HAT-PIN IN MALE BLADDER.

By HERMAN B. SHEFFIELD, M.D.,

of New York City.

L. D., 34 years old, a roofer by trade, had gonorrhea with consecutive stricture about ten years ago. The stricture required occasional dilations by means of sounds. In order to save the physician's fee the patient attempted to treat himself, and whenever urination became difficult he was in the habit of introducing a hat-pin into the urethra and keeping it there for ten minutes. On December 2, 1898, after a night of intoxication, he introduced the pin in the usual way. To his dismay the point slipped from his tremulous fingers and all of his attempts to withdraw the pin proved futile. Six hours after the accident the patient called to see me. The pin point could be felt right under the skin at about one-quarter of an inch from the junction of the scrotum and penis, in the inferior groove of the corpus cavernosum and corpus spongiosum. The patient thought that the pin had traveled in all directions before reaching that spot. The meatus urinaris was clogged with a little blood, and the urine, which coul be passed with but slight pain, was also mixed wit blood. Not realizing at the time what difficulties such case could involve, I made a small incision over the pi point, and taking hold of it I pulled the pin till it head neared the surface. I then enlarged the incisio and withdrew the pin. After washing and dressin the wound antiseptically, I advised the patient to go t bed; this he did not do. In the evening he came agai feeling well and pleased. Upon examination I foun that about two drams of blood had collected aroun the glans penis. In order to prevent fibrous union introduced into the urethra a soft rubber cathete No. 6, once a day for three successive days. Th temperature was never above 101° F. Within a wee the wound healed and the patient has had no urinar obstruction since.

The pin was $7\frac{1}{2}$ inches in length, its head about inch in diameter. It was quite black and rusty, esp cially at the insertion of the shaft into its head.

It is certainly remarkable that under these cond tions the patient escaped septic infection. This cas tends to strengthen my belief that the bladder is we capable of taking care of itself if not interfered with b the physician.

Ausset (*Echo Méd. du Nord.*, January 22, 1899, 3me Anné No. 106) reports the case of a child, aged 18 months, that wa suffering from **vomiting, diarrhea and advanced ca chexia.** The child was the son of a toper; was brought u without especial rules for feeding; and presented marke symptoms of rachitis. He had been vomiting for 15 day not being able to keep anything on his stomach, and wa much emaciated. The diarrhea was not marked, the patier having 3 or 4 soft, yellow stools daily, slightly tinged wit bile. There was some fever on admission, but the tempera ture and the general condition became better as the chil was under treatment, until he had been in the hospital fo 16 days, when he suddenly developed an ecchymotic eru tion involving the right hand, forearm, and the lower half the arm. The scrotum, the inner part of the thighs, and th hepatic region were also involved. The surface of the bod was markedly chilly, although the central temperature wa high. Death rapidly supervened. Inoculations of the hear blood at the autopsy revealed nothing; the ecchymoti spots increased after death; there was a small tuberculo nodule at the right apex which did not involve the surroun ing lung; there were several hard, hypertrophied bronchia lymph-nodes, in the centers of which there was beginnin caseous degeneration and tubercle-bacilli; but these lesion were limited in extent and could not account for the cachexi The heart presented a degeneration of the myocardium; th liver was in the course of fatty degeneration; the mucou membrane of the stomach was thicker than normal. Th small intestine measured 4.6 m. and the large intestine mea ured 0.85 m. The length of the child was 0.73 m. Th length of the intestine was, therefore, nearly 8 times th length of the child instead of 6 times its length, which normal. The mucous membrane of the intestine was re dened in places, and toward the end of the large intestin the follicles were very prominent; the entire length of the i testinal mucous membrane was covered with mucus, an revealed small ulcerations when removed. The arteries an veins of the right upper extremity were normal. The autho considers this to be a case in which a chronic gastroenterit with advanced intestinal cachexia had engrafted upon it subacute infection that produced a rapid death; the hen orrhagic phenomena were probably due to the subacute i fection, and belonged to the group called **purpura fu minans.** [J.M.S.]

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The Prophylaxis of Beriberi.—Beriberi has come to be looked upon as a multiple neuritis, the origin of which remains undiscovered. It has long been thought to be due to some deficiency in the food, or possibly to be a form of intoxication, and improvement has usually followed change in diet. Practical confirmation of this view is afforded by the recent experience of a French army medical officer in Siam, who observed a severe epidemic brought to an abrupt termination by the addition of a generous amount of fatty matters to the dietary. Some weeks later an even more severe epidemic among the inmates of a penitentiary was similarly influenced by a like regulation. It has further been found that beriberi has not reappeared in the Japanese Navy with its previous frequency since a rearrangement of the naval ration. The disease may thus be compared with scurvy, both being preventable along corresponding lines.

Concerning "Collaborators" and "Editorial Staffs."—There lies before us a so-called medical journal which is devoted in about equal proportions to the exploitation of the editor's insane vanity, the cunning advertisements and worthless articles of the advertising doctor who secretly owns the journal (and who pays the deficits), and the stupid advertisements of diploma mills and the worst sorts of quack curealls. On the front cover are the names of the "editorial staff," among them several names of men with good or fair reputations. To one of these we wrote inquiring if it was by his consent that his name had been so used. His reply, stated with a good deal of force and indignation, is that his name is thus used against his posiive orders. We suspect others would return similar answers. The habit of bolstering up useless publicaions by the use of names of men as *collaborators* and *members of the editorial staff*, when these men take no part whatever in the editorial conduct or preparation of the journal, and especially when they have not authorized this use of their names, is a pernicious one nd should be stopped. It is an appropriate time to quit lying in medical journalism.

Disgrace not Disgraceful.—One of the strangest and saddest psychologic facts, and one that seems daily to ecome more glaring, is this—that men are not ashamed of disgrace. The advertising doctor, the medical politician, the professor using college and hospital for personal ends, the office-hunters,—these and their fellows we have ever with us. Catch one of these doing the most outrageous things, let his secret vice and sins, by accident or design, be published all over the land, let a man be proved by his own words and writing a briber, honor-seller, liar, drunkard and what not,—he still not only faces the world unashamed, but he announces himself a candidate for office, continues his criminal methods, and—what is worse—seems to suffer little in the estimation of his "friends." If he can escape the law, or professional dismissal, no matter what the facts may be, he affects to disregard dishonor. It is indeed fast becoming a point of pride to escape the professional and legal consequences of evil while reaping the temporary rewards. This mephistophelean cunning is too manifestly becoming the ideal of character. The ethical and psychologic facts on which rest honor and self-respect with decent men, are laughed at, and Reynard's cunning is considered of sole importance. In this riot of social and political debauchery it behooves us, as a profession, to hold to the ancient way of self-respect. If we accept the popular fashion we are, as a profession, undone.

The Prophylaxis of Tuberculosis.—The annual reports of the Bureau of Health of the city of Denver for the years 1897 and 1898 illustrate the good work that can be done by a well-organized and well-directed body, and they appear opportunely as a rebuke to and a condemnation of the political methods that have led to the removal of the efficient Health-Commissioner under whose supervision most satisfactory results were brought about. Among interesting matters taken up was a collective inquiry as to opinions with regard to the communicability of tuberculosis and the means to be taken to prevent its dissemination. A majority of the 235 replies agreed in the communicability of tuberculosis and in the practicability of its restriction; were in favor of reporting and registering cases, of furnishing the patient with an educational leaflet giving information as to the care of the expectoration and the secretions, to be issued by the health-board, and of disinfection by the health-officers of all apartments in which tuberculous patients have lived; and approved of the present plan of requesting the public by placards not to spit upon the sidewalks or on the floors of public buildings or conveyances. A large number (108) favored making the spitting on floors of public conveyances and on sidewalks a nuisance and misdemeanor, punishable by fine; 163 opposed the placarding of apartments occupied by tuberculous patients in tenements and lodging-houses.

Hypnotism and the Cigaret-Habit.—Some persons contend that the cigaret-fiend is irreclaimable. To such pessimistic folks we can now say gladly that a remedy has been found in hypnotism. Dr. Quackenbos, of New York, claims that by this means he has cured a boy of cigaret-smoking, and, better yet, has incidentally cured him also of the bad habit of stealing. Which of these two crimes is the greater Dr. Quackenbos does not say; and we ourselves have no desire to place them on the same plane of moral obliquity. Our readers can make their own choice. We merely wish to call attention to the fact that, according to Dr. Quackenbos, this deep-rooted habit (cigaret-smoking) has yielded in his hands to the therapeutic influence of hypnosis. The most striking case was in a degenerate who had smoked three packages of cigarets a day. He had also been a professional thief, and yet within one week he claimed that his kleptomania and his mania for cigarets had both left him. This is a triumph of mind over matter; a demonstration that hypnosis reaches further down than merely to suggest ideas; that, in other words, it can influence the emotions and even the instincts and appetites. This is a more profound effect than is usually attained. We should like to know whether the cure is permanent.

The claim to cure bad habits with hypnotism, however, is by no means new. Voisin treated dipsomania in this way, and Wetterstrand and others have claimed good results, not only in nicotinism, but also in morphinism and chloralism. So the method is worthy of serious consideration, even though it is not so novel as the newspapers would have it appear from Dr. Quackenbos' interesting case.

The "most unique" medical journal it has ever been our pleasure to read is the April number of the *North American Medical Review.* We prophesy that single copies of this number will in the future command remarkable prices, although the "Ed." avows that the *Review* has 10,000 "bona-fied circulation." It would require many dollars to buy the copy we have. At the first glance we supposed the typesetters were guilty, or perhaps that a facetious editor had intended a sort of practical joke. A little more study proved that the profession had the rare good fortune of being presented with a solemnly-intended farce of the most exquisite quality. Almost every sentence is a flashing gem of English through which science, philology, and psychology shine with lights that surely never were on land or sea. To choose the best is impossible, and quotations would be deprived of the value of the setting. "The Class of '78," its president, its "poetry," its "pedigrees," etc., seem to have been much in the mind of the editor, whose marvelous discovery of a cure for tuberculosis is "helarded" in a circular. "Each member of the staff is *requsted* to forward their pedigree similar to Dr. ———'s in character also a photograph." We earnestly hope the "requst" will be granted, but we fear that a discreet silence may henceforth come over all things editorial of the *Review*, or such cataclysmic change that the profession will be deprived of a source of enjoyment precious beyond estimation. There are about nine "professors" in the list of the editorial staff, and we most sympathetically pity them when they read this astonishing product of medical scholarship and journalism,—and especially when they read the advertisement in it of the Chicago diploma mill which guarantees **"justice to undergraduate doctors, dentists, and pharmacists, etc.,** and degrees without personal attendance, 'in their respective profession.'" The advertisement of "Vril" should also be carefully read.

Medical Inspection of Schools and School-Children.—There can be no doubt that a good deal of disease is disseminated through the medium of the public schools by means of children suffering from transmissible disorders of one kind or other. Sometimes the illness is not recognized at all by parents or teachers, and infection is spread broadcast; sometimes attention is attracted to symptoms, but their nature is not appreciated; and sometimes, through indifference, neglect, or ignorance, sick children are permitted to attend school, or convalescents are permitted to return before danger of transmission has passed. Further, disease and suffering may be entailed upon the pupils of a school through defects in drainage, ventilation, lighting, heating, etc. All of these matters should be made the subject of systematic supervision and inspection at the hands of competent persons, and they are so, in part or in whole, in some large cities of both hemispheres. In Philadelphia, however, they do not receive so much attention as they deserve, although that city was a pioneer in the field. From the last annual report of the Public Education Society of Philadelphia we learn that as a result of its efforts, and with the cooperation of the Board of Public Education, 15 assistants of the Chief Medical Inspector have each visited daily two schools in their respective districts and have had referred to them all cases seeming to warrant exclusion from school on account of illness. In this way 1,464 visits to about 350 schools were made during the 13 school-weeks from October 6, 1898, to February 4, 1899, and many sick children sent home, the number, however, diminishing progressively. The good thus already accomplished should be a powerful incentive to renewed and sustained efforts in the same direction, and the agitation should not cease until a daily medical inspection of each school and of its pupils is enforced. It is time that communities and municipalities learned the economy of disease-prevention.

A State Reformatory for Women.—Rev. J. L. Milligan, Chaplain of the Western Penitentiary and Secretary of the National Prison Association, advocates the establishment in Pennsylvania of a special prison or reformatory for women. He points out that although there are but 20 female convicts in the Western Penitentiary and but about 35 in the Eastern Penitentiary, there are very many other women in the county jails and workhouses of the State who are serving short sentences. This criminal element is thus quite a large one in Pennsylvania. Chaplain Milligan claims that a more satisfactory and thorough reformatory work among women convicts could be done in a separate prison. All these female prisoners, now scattered hrough the State, could be aggregated in a large estab- ishment somewhere near the center of the State, and his institution could be specially fitted and adapted or its work. Chaplain Milligan's reasons for advocating uch a jail are not given in detail, but we can readily magine that they are good ones. The female criminal lass should have a different environment from that vhich is inseparable from a prison for men. They hould have a rather different regime and discipline, nd especially a different class of attendants. The roblems presented in their reformation, and especially n fitting them for a reentrance into ordinary social elations, must be special and distinct from those pre- ented in the case of male convicts. We can even uppose that a special reformatory for women might scape in a sense some of the opprobrium that attaches the ordinary jail and penitentiary, which bears ith relentless force on women convicts. If it is a hard ate for a man to be an exconvict, it is a harder one for woman. The stigma of the penitentiary seems to ing to her skirts more tenaciously, and to obstruct her rogress towards a useful and honorable life. With the dvance of sociology the more humane ideas seem to revail in penology, and it is recognized that jails are ot intended merely to wreak the vengeance of society pon evil-doers, but are intended even to enlighten and form. Reformatories for women have been estab- shed in New York, Massachusetts, Ohio, and Indiana, id it is in order for Pennsylvania to follow suit.

An Autopsy is not a "Mutilation."—Judge Au- nreid, of Philadelphia, recently decided that a ver- ct for damages would not stand against a hospital, cause the institution had no capital stock and was ot organized for the purpose of making profit. The se was one in which a woman brought suit against the erman Hospital to recover damages for the shock to r sensibilities caused by a postmortem examination the body of her mother without, it is alleged, the plaintiff's consent. The case is paraded in the newspapers with all the grewsome details of which the public is so fond, and even the sympathies of the court seem to have been successfully invoked, although not to the extent of permitting an injustice to be done to the hospital. The judge, for instance, conceded that it was an "outrage" for the hospital-authorities to hold an autopsy and "mutilate" a body without the consent of the relatives, but at the same time he ruled that the property of the hospital could not be diverted from the trust imposed by the donators to the institution. He therefore directed the jury to render a verdict for the defendant, and this was done.

We might have more sympathy with such cases, if we were not so well acquainted with hospital-work and the claims and needs of scientific medicine. A relative whose wounded feelings can only be assuaged by a verdict for money against a charitable institution, is not one with whom we shall weep. The exaggerated story of "mutilation," which is usually told in such cases, is only fit for the populace. An autopsy, of course, as any rational man might know, can only be performed by making incisions into the body. If the brain is to be examined the skull-cap must be sawed off, and if the thoracic and abdominal organs are to be inspected an incision must be made "from the throat down." Such incisions, properly done, on a dead body, do not constitute a "mutilation;" and even though they are done without consent (which we by no means advise or advocate) they should not, and according to Judge Audenreid, do not constitute grounds for mulcting a hospital. To "mutilate" means to maim or to cripple, and a corpse cannot very well be maimed or crippled. Such a use of words is a great abuse of rhetoric, just as the payment of damages in such a case is, according to Judge Audenreid, an abuse of money.

Official Experts.—We have seen the draft of a proposed act of Assembly to regulate expert testimony, which was published in the *Legal Intelligencer* several months ago. We do not know who is the author of the act, or who are backing it, or what its prospects are of becoming a law. As, however, it is evidently in line with advanced thought on this subject, and, moreover, seems to emanate from a legal, not a medical, source, it is especially significant.

In brief, this act calls for the appointment of one or more experts by the Court. But such appointment is only to be made on petition of one or the other party to the suit, and, as we understand it, by mutual agreement. The experts are to be chosen by the Court, either from names selected by the parties to the suit, or by the judge himself; or even, in some cases, two experts are to be chosen by one or other of these methods and a remaining expert is then selected by these two. In cases in which such official experts are appointed, the parties shall not have the privilege of calling their own experts as heretofore; but in cases in which no official experts are called, then the old method of each party calling his own experts shall prevail. In other words, the new rule permits the creating and choosing of a board of experts to be entirely optional and by mutual agreement. This, in itself, we think, defeats the purpose of the whole act, and would inevitably lead to a resumption of the old practice with all its solecisms and abuses.

An admirable provision, however, of this act, is that the official experts shall not, under penalty of fine or imprisonment, make known their opinions to either party, or to any person, before the trial. They must either be present at the trial, or must read a copy of the testimony, before giving their opinion. They are not to be called by, or to sit with, either party, or help him to prepare his case, but are to be called during the trial at a time determined by the Court. They may, however, be cross-examined by either party. They may suggest to the court questions to be asked witnesses, but such suggestions may or may not be accepted by the Court at its discretion. Either party has the privilege of moving to strike out an official expert's opinion on the ground of incompetency—a question to be decided, of course, by the Court, subject to exception and appeal.

A most important section in this proposed act is the one abolishing the use of hypothetic questions, and requiring experts (whether "official" or not) to base their testimony on facts.

These official experts are to be paid by the county, or at least the money is to be advanced by the county, which can, in some instances, reimburse itself from the party to whom are adjudged the costs. This means, practically, that the county guarantees the fees—and in most criminal cases would really pay them.

It will be seen that the general aim of this act is to put expert testimony on a higher plane than it at present occupies. It gives the expert in fact a semi-judicial character. It is an ideal scheme—but whether it would be a practical one may be questioned. We think it could only be so if it were made obligatory in all cases—because, so long as it is made merely optional, lawyers and experts will doubtless prefer the old methods for the purpose of making both jury-points and fees. We shall be interested in watching the fate of this proposed act.

The Latest Cerebrospinal Surgery.—Dr. H. D. Rolleston and Mr. H. W. Allingham have recently reported (*Lancet*, April 1, 1899) a case of alleged cerebrospinal meningitis treated by laminectomy and incision of the dura mater. As the case has been favorably criticised by several journals on this side of the water, and hence may lead some of our progressive American surgeons into similar fields of enterprise, we think it worth while to call attention to what we consider the weak points in both the diagnosis and the treatment of this truly remarkable case.

As for the diagnosis, we fail to be convinced that the case was one of cerebrospinal meningitis as that disease is ordinarily understood, *i. e.*, an infection of the pia-arachnoid by a pus-making organism, probably the diplococcus intercellularis of Weichselbaum. It is necessary to read carefully the original report to appreciate fully the force of this criticism, but enough may be gathered when it is said that the patient did not have any characteristic eruption or any local or general palsies. There were, it is true, rigidity of the neck, deafness, and evidently some form of infection marked by fever, prostration, and a tendency to coma. As the patient, however, was being treated with chloral and bromids his stuporous condition, masking his true state, may have been partly due to drugs. The only eruption was the one caused by the iodids, with which also the patient was rather heroically treated. There was notably a greater range of temperature after the operation than before it—a fact which suggests that there may have been some additional infection by way of the operation-wound. In all operations into the dural sac this is a distinct risk. There was no choked disk. No urinalysis is reported. Taking this rather meager clinical-picture as a whole, we think it is too much to claim, in such a grave matter as establishing a precedent, that the patient had a true cerebrospinal meningitis.

As for the treatment, we feel still less satisfied to accept this case as one that is worthy of establishing a precedent. In the first place, for some inexplicable reason, no proper bacteriologic examination was made A little of the fluid, "soaked up in cotton wool," as it escaped from the open wound, was examined, with negative results. It may be true, as claimed by the reporters of this case, and as stated by Councilman o Boston, that the diplococcus is difficult to demonstrate or cultivate; but this surely is no excuse for a failure to properly search for it and every other organism in a case in which the conditions were so favorable, and the urgency so great. A little flocculent lymph and a clea cerebrospinal fluid, in which no pathogenic organisms were found, do not make for a diagnosis of an infectiou meningitis. Finally, the surgical procedure, in ou judgment, was quite inadequate to drain the contents o the cerebrospinal axis if this had been infected by a pusmaking organism. In every case of cerebrospina meningitis the seat of the worst infection is the pia arachnoid, and the most copious products of this infec tion (pus, lymph, and even blood) are beneath the pia arachnoid. How this space can be thoroughly drained throughout the cranium as well as spinal canal, by a incision merely into the *dural* sac, we fail to perceive Considering how this conjoint membrane is in clos contact with the brain, dipping deep into every fissure forming innumerable adhesions by way of the blood vessels, and thus dividing this space up into innumerable channels and recesses, it is difficult to conceive how an incision through the dura, which, of course, would not reach this pia-arachnoidal space, would effect drainage.

These points are not elucidated by Rolleston and Allingham, but they are the vital points for criticism in their case. The fact that their patient recovered is, finally, in our opinion, the best evidence yet that he did not have purulent cerebrospinal meningitis.

Marriages Among the Deaf in America.—In a recent valuable publication[1] Dr. Edward Allen Fay, Professor of Languages in Gallaudet College and editor of the *American Annals of the Deaf*, details the results of an inquiry into the results of marriages of the deaf in America, with especial reference to the questions whether such marriages are more liable to result in deaf offspring than ordinary marriages, whether the liability is greater when both parents are deaf than when one only is deaf, or among certain classes of the deaf than among others, and whether marriage is likely to result more happily between two deaf persons than between one who is deaf and one whose hearing is preserved. These questions have already been made the subject of study by a number of investigators, but the conclusions reached are not in accord.

The present investigation was undertaken under the auspices of the Volta Bureau and was prosecuted in conunction with the eleventh census of the United States, Dr. Fay being appdinted special agent for the collection of statistics relating to the deaf. Those individuals are included in the study for whose benefit "schools for the deaf" are intended—those so deaf from birth, childhood or youth that they cannot be educated in common schools.

The total number of marriages of the deaf in the United States and Canada, one or both partners being deaf, concerning which trustworthy returns, more or ess complete, were received, was 4,504. It appears hat marriage is more common among the deaf in America than in Europe. The number of marriages in each decade of the present century has increased from in the first to 1,017 in the ninth. There is a greater endency on the part of the deaf to marry one another ather than hearing persons, as a result of the law of natural selection.

While sterility is but little if at all more common as result of marriages among the deaf than among the hearing, the proportion of children born to the former is slightly smaller, but this latter fact may be dependnt upon conditions not directly related to the deafness. Sterility is, however, more common when both parents re deaf than when only one is deaf, and the proportion f children born is slightly smaller under the former condition than under the latter. Sterility is, further, somewhat more common after marriages among the congenitally deaf than after marriages among the adventitiously deaf, although the proportion of children born to the former is slightly larger than that born to the latter. This disparity is thought to be due to the fact that the congenitally deaf marry earlier than the adventitiously deaf.

A much larger proportion of the marriages among the deaf result in deaf offspring than do the marriages among hearing persons, and the proportion of children born deaf is greater in the offspring of deaf than in those of hearing parents, although marriages of deaf persons are far more likely to result in normal children than in deaf children. A smaller percentage of marriages result in deaf offspring, however, when both parents are deaf than when only one is deaf, and the proportion of children born deaf is smaller under the former than under the latter conditions, perhaps in consequence of consanguineous marriages.

Marriage among the congenitally deaf results far more commonly in deaf offspring than marriage among the adventitiously deaf, and the proportion of children born deaf is far greater under the former than under the latter conditions. These manifestations appear somewhat more pronounced when one of the parents is congenitally deaf and the other a hearing person. The number of deaf children born to parents adventitiously deaf also is greater when one is deaf and the other a hearing person.

Of all married deaf (including hearing partners) a larger proportion have deaf relatives (not including descendants) than have married persons in general, and the number of deaf relatives is larger than that of hearing relatives, especially among the congenitally deaf, while among the adventitiously deaf the number of hearing relatives is larger than the number of deaf relatives. Of the hearing partners in marriage a larger number have deaf relatives, though they have a larger number that are not deaf.

Among both the congenitally and the adventitiously deaf the percentage of marriages resulting in deaf offspring and the percentage of children born deaf are almost invariably highest when both parents have deaf relatives, are next highest when one parent has deaf relatives and are least when neither parent has deaf relatives. The proportions are not affected by the fact that one of the parents may be a hearing person.

The proportion of marriages resulting in deafness and the percentage of deaf children resulting from such marriages are much greater when the parents are consanguineous than under ordinary conditions; and this is so whether one or both are deaf, although the more pronounced when one parent is a hearing person. Consanguineous marriages among the deaf are more likely to result in deaf offspring when neither of the parents is congenitally deaf than when one or both are so. In consanguineous marriages among the deaf the percentage of marriages resulting in deaf offspring is larger when one or both parents has other deaf relatives besides the other parent than under the reverse conditions.

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[1] Marriages of the Deaf in America. Published by the Volta Bureau, Washingon, D. C., 1898.

The percentage of divorces and separations is far less after marriages in which both the partners are deaf than when only one is deaf.

Suggestions to Writers: No. 27. Confusion in the Use of the Term "Skiascopy."—Dr. Edward Jackson, of Denver, Colorado, writes us as follows:—"The PHILADELPHIA MONTHLY MEDICAL JOURNAL (March number) accepts and employs the word 'skiascopy' as meaning 'examination by either skiagraph or fluoroscope, or by both.' The word was coined by M. Egger, and introduced 15 years ago to designate the examination of the refraction of the eye by the movements of the light and shadow in the pupil, giving in a single word an equivalent for *shadow test*, *fantoscopie retienne*, etc. With this meaning the word has been adopted in every European language, and has for years been more generally used than any other to designate this important method of diagnosis. It may have been suggested in connection with the examination by means of the x-rays, in ignorance of its previous meaning. But if such use of it has your approval as an editor and lexicographer, I wish you would state the reasons that to your mind justify the introduction of such confusion into the language, especially in the matter of indexes, catalogs and bibliographies. We had a specimen of such confusion when the same procedure was called 'keratoscopy'; and the *Index Medicus* classed it under 'Diseases of the Cornea.'"

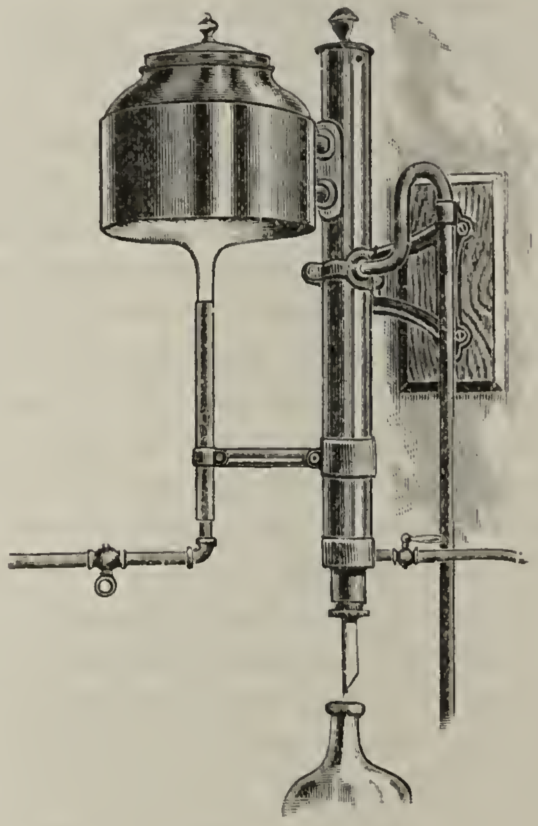
We do not quite agree with Dr. Jackson in saying that we accepted and used the word *skiascopy* in the criticised manner. One of our contributors did so, and we can be blamed only in permitting it. But we heartily assent to Dr. Jackson's criticism. One word cannot be used for two such different things as this word is now made to cover. We suggest that as *skiagram* and *skiagraph* are used for "the finished printed picture" made by means of the x-rays, why should not the examination either by the skiagraph or the fluoroscope be called *skiagraphy* or *fluoroscopy*, respectively? *Skiascopy* would thus remain for the original and proper purpose. If the x-ray folks refuse to give up their stolen word the ophthalmologists may have to get on with *retinoscopy*. The acceptance of words by the public, even of science, is not a matter of law or of logic. It is largely a matter of whim and luck.

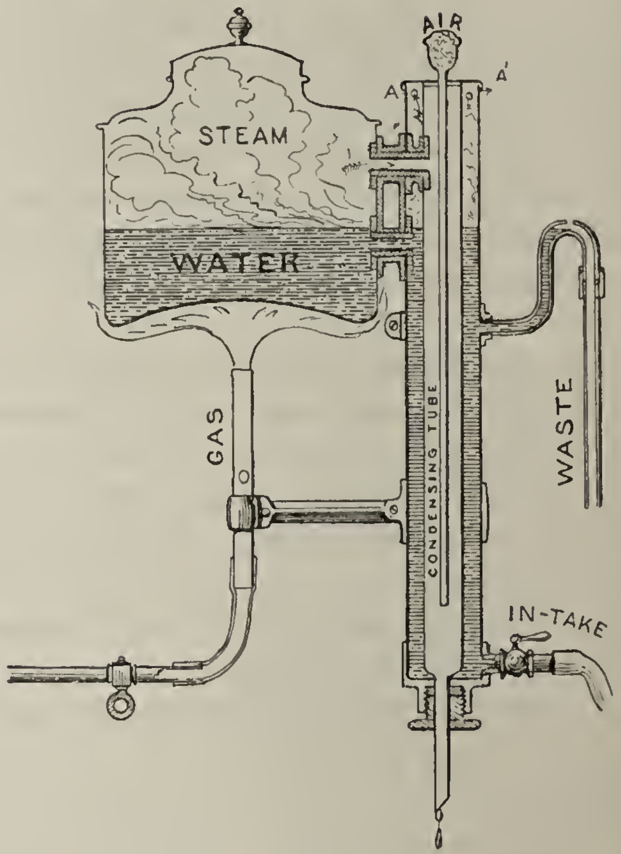
The Philadelphia Monthly Medical Journal for April has been sent to subscribers this week. The contents are as follows:—

1. Clinical Diphtheria: A Summary of Investigations concerning the Diphtheria-Bacillus, the Toxin and Antitoxin of Diphtheria, including the Diagnosis, Prognosis, and Treatment of the Disease. By JACOB R. JOHNS, M.D., of Philadelphia.
2. Hydrophthalmus: A Bibliographic, Clinical, and Pathologic Study. *Illustrated.* By WALTER L. PYLE, M.D., of Philadelphia.
3. Strontium: A Study in Physiologic Therapeutics. By HORATIO C. WOOD, M.D., and JOHN P. ARNOLD, M.D., of Philadelphia.
4. Appendicitis. By CHAS. J. WHALEN, M.D., of Chicago.

Special Article.

THE STERILIZATION OF DRINKING-WATER.—THE PARMELEE AERATING WATER-STILL.





ON March 18 we called attention to a device which at a moderate cost would enable every family to obtain sterilized water. We are glad to know that this great public need, so important for the health of the entire community, has spurred inventors, and that henceforth it will be inexcusable for anyone to drink or use impure water. We give to-day a brief description of another device for supplying distilled or boiled water, which, like the one previously described, is inexpensive, can be used in any household, and which seems admirably adapted to secure the end in view.*

Cold running-water is received at the lower end of upright tube and circulates in an outer chamber to and into a large retort, overflowing from the bent tube. An inner condensing tube passes from top to bottom of this cold-water chamber, receiving vapor from the large upper connection of the retort, which is kept boiling by means of a Bunsen burner. When the water is condensed it runs from the mouth of the tube into the bottle, or ice-cooler. In order to restore the condensing water to a natural and palatable taste an air-tube passes through the condensing tube sterilizing the air and has free access to the vapor while condensing.

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* The cuts and description have been kindly supplied by the Parmelee Aerating Water-Still Co., 109 South 11th St., Philadelphia.

The overflow is always boiling hot, caused by its passing around the condensing tube and runs out at the rate of from 6 to 8 gallons an hour; it can be collected as desired. Condensed water drips or runs hot or cold from the condensing tube according to the amount of cold running water passing around it at the bottom of the upright tube. It distills at the rate of 4 quarts an hour, and supplies from 6 to 8 gallons of boiled water free of expense while distilling, thus producing boiled water in quantity and two forms of distilled water, hot or cold.

It is needless to add that distilled water must be germfree, but testimonials are given by chemists and experts as to the effectiveness of the machine in delivering water free from all impurities.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending May 20, 1899:

Wednesday, May 17—College of Physicians—Section on Otology and Laryngology.

Thursday, May 18—College of Physicians—Section on Gynecology.

Dr. Louis T. Kennedy, of Pottsville, has been appointed by Governor Stone, deputy quarantine physician at the port of Philadelphia.

State Board of Health of Pennsylvania.—The forty-second regular meeting was announced to be held in Harrisburg, May 11.

Dr. Edgar F. Smith, professor of chemistry in the Scientific Department of the University of Pennsylvania, has been elected viceprovost of the University, and has also been honored by election to membership in the National Academy of Science.

Bucks County (Pa.) Medical Society.—The semiannual meeting was held May 3, at Doylestown. Dr. H. A. Hare, of Philadelphia, delivered an address on the complications of typhoid fever, and Dr. J. M. Baldy, an address upon uterine displacements.

A complimentary dinner is to be tendered to Dr. John Guiteras, who recently resigned his professorship in general pathology and morbid anatomy in the University of Pennsylvania, prior to resuming the practice of medicine in Havana, Cuba. The friends of Dr. Guiteras tender him the dinner as a mark of their affection and esteem, and in recognition of his professional attainments and his ardent patriotism. The committee in charge of the arrangements of the dinner, which will take place at the University Club, May 24, consists of Drs. H. C. Wood, W. W. Keen, George E. de Schweinitz, Edward Martin, William Osler, J. William White, H. A. Hare, and J. H. Musser.

College of Physicians.—Abstract of the monthly report of the honorary librarian, library of the College of Physicians of Philadelphia, April, 1899:

Number of visitors to the library	428
Number of books consulted in the library	816
Number of books taken out	209

Books, pamphlets and journals received:

General	library,	200	volumes,	137	pamphlets,	4,744	journals:
Lewis	“	5	“	“	“	“	“
S. D. Gross	“	5	“	“	“	“	“
		210		137		4,744	

Accessions, 180 volumes. Duplicates, 30 volumes.

Donors, General Library, 38.

Vital Statistics of Philadelphia for the week ending May 6, 1899:—

Total mortality		477
Children under 5 years of age		134
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis		59
Pneumonia 48, congestion of the lungs 2		50
Heart-disease 24, inflammation of the heart 6, fatty degeneration of the heart 4, neuralgia of the heart 4		38
Nephritis 25, uremia 9		34
Apoplexy 22, paralysis 5		27
Typhoid fever	167	26
Inflammation of the brain 22, congestion of the brain 3		25
Marasmus 16, inanition 8		24
Gastroenteritis 18, cholera infantum 6		24
Convulsions		18
Senility		16
Carcinoma 12, tumor 4		16
Diphtheria 14, membranous croup 1	74	15
Casualties 12, burns and scalds 2		14
Cerebrospinal meningitis	15	11
Scarlet fever	39	2
Bronchitis 6, intestinal obstruction 6, erysipelas 4, suicide 3, teething 2, cirrhosis of the liver 3, diarrhea 3, dropsy 3, appendicitis 3, abscess 2, anemia 2, cyanosis 2, dysentery 2, hernia 2, pleuritis, 2, poisoning 2, gastric fever 1, remittent fever 1, tetanus 1, pertussis 1.		

College of Physicians of Philadelphia.—At a meeting held May 3, Dr. A. A. Eshner presented a communication entitled: **Some reflections upon cellular physiology and pathology.** He defined life as the manifestation of the activity of the cell, which, if expended in a proper manner, represents the condition of health. Perversion of this activity, through influences acting from either within or without, leads to disease, while permanent inhibition results in death. Normal cellular activity implies a proper relation between waste and repair, the replacement of used-up and wornout material by fresh nutritive pabulum, and the elimination of the products by disintegration. Failure in either of these processes, as well as defect in quality of the nutritive pabulum, gives rise to derangement of metabolic equilibrium, resulting in inanition or intoxication. The derangement of nutrition is attended with alteration of function, which in turn increases the nutritive disturbance. Morbid nutritive perversion may arise from changes taking place within the body or result from the operation of agencies introduced from without. Disease may further be caused by physical agencies of extraneous origin; and as a result of the invasion of microorganisms and the unfolding of their activity. Derangements of nutrition may, if profound or if long maintained, give rise to structural alterations, and these in turn to organic changes. The principles enunciated were applied in explanation of the inflammatory process, of immunity and cure, and of other normal and morbid states.

Dr. De Forest Willard read a report, prepared by himself and Dr. S. M. Wilson, of a **Case of ovarian cyst of thirty-five years' duration; patient dying of influenzal bronchitis at 74 years of age.** The woman had been subjected to repeated tappings, often large amounts of fluid being removed at varying intervals.

Dr. William J. Taylor read a report of **Two cases of operation for perforation in typhoid fever.** In both, operation had been performed within a few hours of the recognition of the complication, one patient dying at the conclusion of the operation and the other 21 hours later. A plea was made for earlier diagnosis and the necessity for promptitude in operation was emphasized.

Pittsburg (Pa.) Academy of Medicine. — At a meeting held April 24, Dr. W. B. Ewing reported **for diagnosis** the case of a man whose leg had been swollen from the knee to middle of the calf for 3 weeks. It was not edematous, but the parts were firm to the touch. There was a peculiar discoloration of slight intensity to the skin. The patient said that he had no pain. When examined he had a temperature of 99.5°. The other leg was slightly affected also. There was no involvement of the joint in either leg, and no explanation for the phenomenon was to be found.

Dr. J. E. Willets reported a case illustrative of the **average coroner's verdict.** Ten days after he had done a double iridectomy for glaucoma, the patient, an old lady, jumped out of the window. Dying 3 weeks later, the coroner's verdict was "death from mental exhaustion!"

Dr. E. B. Heckel read a paper on **Diabetic cataract.** The various definitions used by writers were given, and attention drawn to the real meaning of the word cataract—a tumbling down. This term was applied to the condition by the ancients because they thought that something fell down in front of the eye and obstructed vision. The logical definition of cataract is simply an opaque lens, qualifying adjectives being added to indicate the kind or degree of opacity. Diabetic cataract, the prototype of constitutional cataract, is an opaque lens occurring in diabetics and with diabetes as the causative agent. The mature diabetic cataract has no peculiar physical characteristics. It occurs in from 1% to 25% of cases of diabetes, according to the statistics of various observers. The cause and nature of its development are still *sub judice.* The most plausible explanation seems to have been offered by Knies, who attributes it to autointoxication, the nutritive changes in the lens resulting from the presence of toxic agents circulating in the blood, rather than from the presence of sugar. With modern methods the extraction of the lens in these cases is practically without danger. The writer reported one successful case, and referred to 5 others recently reported by Dr. Randolph, of Baltimore. The case reported was in a Jewess, 17 years old, who had had diabetes for several years. A slight opacity of the right lens was noted in January, 1898, and this by March had become completely opaque. A preliminary iridectomy was done and the lens extracted May 20, 1898. Recovery was prompt and uneventful. The lens weighed 0.25 gram and when shaken up and dissolved in distilled water, yielded the reaction for sugar with copper used as Haines' solution. In discussion, Dr. J. C. Thompson stated that he had seen and operated on but one case. He mentioned the fact that Nettleship states that some of these cases get well without operation. Dr. J. E. Willets said that diabetic cataracts are now operated on with impunity, and agreed that the etiology was still obscure. A lens removed from a diabetic girl, 10 years of age, failed to respond to tests for sugar. The cataract is probably due to autointoxication or malnutrition. An opaque lens produced by the injection of sugar into the vitreous differs from the cataract found in diabetics. Closing the discussion, Dr. Heckel remarked that if a few grains of salt are placed in the conjunctival sac an opaque condition of the lens results. This is due to the hygroscopic properties of the salt. Sugar in the blood probably acts in the same manner. Spontaneous cure of these cases takes place in incipient diabetic cataract only.

Dr. P. J. Eaton related the wanderings of a case of **locomotor ataxia** as illustrating the credulity of the average lay mind.

NEW YORK.

Gouverneur Hospital, New York. — Dr. Henry Mann-Silver has been transferred from the medical to the surgical visiting staff.

Dr. Linn Emerson, Jefferson, '97, interne in King's County Hospital, Brooklyn, 1897 and '98, now located at Oxford, Chenango Co., N. Y., disclaims all responsibility for certain patent medicines made in Newark, N. J., under the names of "Dr. L. Emerson's bowel and liver tonic," etc.

The Tree-planting Bill Vetoed.—The bill providing for the establishment of a system for the cultivation of trees in the city streets, which was so heartily indorsed by the medical profession as an important sanitary measure, has been vetoed by Mayor Van Wyck on the ground that it gave too much latitude to the Department of Parks.

Strict Quarantine Now.—The Health Officer of the Port of New York, Dr. Alvah H. Doty, put into effect on May 1 the close restrictions required by law regarding vessels from ports south of Cape Henlopen. They will be detained until 5 days shall have elapsed since leaving a tropical port. The baggage of soldiers returning from Cuba on transports must be disinfected.

No State School of Public Health in New York.—The bill appropriating $50,000 to establish, equip, and maintain for the first year a State School of Public Health in the City of New York, under the control of the University of the City of New York, passed the Assembly, but died in committee in the Senate. It met the same fate as many other bills which carried appropriations with them.

The Committee on Transportation of the New York County Medical Association is arranging for rates, train-service, etc., for the **Columbus meeting of the American Medical Association** to be held June 6, 7, 8, 9. Those intending to go, and desiring to take advantage of such arrangements as may be made, will kindly address, as soon as possible, Dr. Parker Syms, Chairman of Committee, 50 West 47th Street.

Mrs. Lathrop's Cancer Hospital.—Mrs. Rose Lathrop, the daughter of Nathaniel Hawthorne, has been working for the past 3 years with a view to relieving the sufferings of those afflicted with cancer. To this end she first took a course of training in the New York Cancer Hospital, and then took up her residence in the tenement districts. With the aid of friends she has at last succeeded in renting an old four-story dwelling down in Cherry Street, and has opened it as a hospital for this class of patients.

Women Nurses in Military Hospitals.—In her annual address at the nurses' convention, Mrs. Hunter Robb stated that experience had shown "that those who do the country's fighting and suffer for their flag do not, in their hour of need, receive such good care as many a worthless tramp is thought to be entitled to in civil hospitals." She added that the bill before the last Congress, to provide for the establishment of women nurses in military hospitals, had met with unexpected opposition from the National Red Cross Society.

Nurses' Convention.—The convention met during the past week in the New York Academy of Medicine, under the presidency of Mrs. Hunter Robb, of Cleveland, Ohio. A number of papers were presented, bearing on the general welfare of those constituting the trained nurses of the United States and Canada. A subject of more general interest was hat forming the theme of a communication by Miss Mary Vightman, of the Visiting Nurse Society, of Philadelphia, , c., "How to Bring Skilled Nursing to People of Moderate Ieans."

Coroner's Juries Abolished.—On April 28 Governor Roosevelt signed a bill which abolishes the coroner's jury in ll counties of the State except those containing cities of the rst class (New York, Kings, and Erie). It gives the coroner ull power to hear testimony, give decisions and issue warants for arrests, and makes him a much more important nd responsible functionary than formerly. The law is one f the results of long-continued efforts to lessen the evils of, nd to simplify the system of, the coroner's office in New ork State.

A Proposed Doctors' Trust.—The other evening, at ne annual dinner of the Alumni Association of the New ork Homeopathic Medical College and Hospital, the toastmaster, Dr. John E. Wilson, suggested that they form a trust r the purpose of enforcing the collection of their bills from ose who were able, but unwilling, to pay. The suggestion as received with tremendous applause and enthusiasm. Ie declared, by way of explanation, that it was a well-known ct that the physician was the last person to be paid by the rdinary individual, and that if he brought suit for the money stly due him, he was practically ostracised.

Blackmailing the Druggists.—It is reported that a rge number of pharmacists on the east side have been made e victims of a blackmailing scheme. Two men, named rthur Rawlings and Dominick A. Benedictes, have been rrested for their part in the game. Their plan was to present a prescription signed either "Dr. Buck" or "Dr. Henessy," calling for a mixture of calomel, muriate of ammoium, and sodium bicarbonate, and when it had been mpounded, to inform the druggist that he was liable to rest for putting up a mixture which would result in the rmation of such a deadly poison as corrosive sublimate. hey would add that they were inspectors for the Board of harmacy, but would allow the matter to drop in payment f $5.00 for "hush money." The secretary of the board, earing of this, complained to the chief of police, and subseuently one of their would-be victims had them arrested on charge of attempted blackmail.

An Objectionable Measure.—The following bill has assed both houses of the Legislature and is now in the ands of the Governor:

N ACT AUTHORIZING THE PRACTICE OF MEDICINE BY CERTAIN PERSONS.

The People of the State of New York, represented in Senate and Asnbly, do enact as follows:

SECTION 1. All persons who shall have held the rank of a commisoned officer, in the capacity of a surgeon, in any regiment or batlion organized or furnished by the State of New York, whether it as mustered into the service of the United States of America durg the late war with Spain or not, and who shall have graduated om a medical college in the State of New York and have received liploma therefrom, shall not be required to pass a regent's examition, but may apply directly for examination by the State Board Medical Examiners.

SEC. 2. This act shall take effect immediately.

Though it was opposed by the University of the State of ew York, the principal medical societies of the State and ysicians generally, sentiment carried it through both ouses with a good margin of votes. It is a measure general application, but introduced in the interests of two men, d makes a break in the general laws passed, after prolonged forts, to create a high standard of medical education in the ate.

Post-Graduate Hospital Overpaid by the City.—According to a report just sent to the Mayor by the Commissioners of Accounts, the New York Post-Graduate Medical School and Hospital received, in 1898, $20,505 in excess of the sum to which it was justly entitled. The report makes the rather startling allegation that "It appears to be the practice in all hospitals in this city to consider the endowment of a bed as a donation to the hospital, instead of being for the benefit of some poor patient." The city is consequently charged for the treatment of the patient as a free patient—in other words, the hospital is paid twice. The corrected number of days of free treatment is stated in the report to have been 11,236, for which the city paid $25,000, or $2.22½ per day. The commissioners compare this daily rate with the 40 cents per day allowed by law to the Mt. Sinai Hospital, and the $1.00 per day allowed to the New York Polyclinic Medical School and Hospital. Figuring on a basis of 40 cents per day, and 11,236 days of free treatment, they estimate that the city should only have paid $4,494.40, instead of $25,000. The report recommends that the controller ask the corporation counsel for an opinion on the matter.

Another Floating Hospital.—The St. John's Guild, which has for many summers done such excellent service in saving infant lives, is to be congratulated on the acquisition of another floating hospital. It was launched at the shipyard at the foot of Clinton Street, Brooklyn, on May 3, with novel and attractive ceremonies. The special feature of the occasion was the adoption of the Japanese custom of substituting for the breaking of a champagne-bottle over the bow the liberation of carrier pigeons. This part of the ceremony was in charge of the Secretary to the Japanese Consul, T. Takasu. At the moment when the vessel slid down the ways, a bugle sounded, and Miss Catherine C. Dodge, the niece of Mrs. Juilliard, severed the cord which liberated the pigeons from their cage, and exclaimed, "I name thee Helen C. Juilliard." Up to this time six of the "Vermont's" carrier pigeons had been confined in a spherical cage, which was suspended from the bow of the vessel and was decorated with flowers. As soon as liberated, the pigeons carried the news of the launching to the Brooklyn Navy Yard. Just as they sped away with the news, six flags, the gift of former Mayor Strong, were flung to the breeze. Besides the Union Jack, the national flag, the Red Cross and the insignia of St. John's Guild, there were two large red flags, one bearing the words "Floating Hospital" and the other the name of Helen C. Juilliard, who had donated $32,000 to the construction of the vessel. The new floating hospital has a length of 250 feet and a tonnage of 680. She will make her first trip on July 10. It is intended that this vessel and the sister ship, the "River Belle," shall make trips up and down the East and North Rivers respectively, touching at Brooklyn as well as the Borough of Manhattan, and then taking the little ones, as usual, down into the lower bay. Each trip costs $250, but it means that one thousand human beings are taken from the stifling tenements and given a day's outing; they are provided with the noonday meal; the desperately sick children are furnished, when necessary, with comfortable quarters in miniature wards, and with excellent bathing facilities on board, and last, but not least, skilled physicians and nurses are constantly on hand, caring for this great load of suffering humanity.

Buffalo Academy of Medicine.—Section on Medicine.—At a meeting held April 11, DR. A. E. DIEHL presented a paper upon **Hereditary syphilis.**

He reviewed the statistics showing in the neighborhood of 80% of all habitual fetal deaths to be due to syphilis. He stated that the vast majority of children born of syphilitic parents show evidences of the disease in the first 3 months. He believes that quoted cases of late appearance are simply those in which early manifestations have been overlooked, as unlike tuberculosis the affected are born with the disease and not with a tendency; in cases of apparent healthy children careful examination will show wide variation from the norm in the direction of incomplete development, and the early advent of epidermal irregularities. He considers the presence of pemphigus-like bullæ to be the most common evidence, and if found upon the palms and soles, where they usually make their first appearance, to be almost conclusive evidence of the presence of syphilis; he believes that children so affected seldom live. He went carefully through all the various eruptions, comparing them with those of acquired syphilis and other skin-diseases, and pointed out the often great difficulty of differentiating pemphigus neonatorum from that of syphilis, and ordinary impetigo pustules from those of lues, when both occur in the same child. As to prognosis, he believes it is always bad, and that when eruptions appear early the prognosis is very bad. Treatment in later cases may avail, but usually but postpones the end. In discussion Dr. Blaauw called attention to the use of cobalt-blue glass in demonstrating skin-eruptions of syphilis not patent to the naked eye. Dr. Hopkins was of the opinion that congenital syphilis made one immune to the disease if subsequently exposed to infection. Dr. Grosvenor believed that the people should be educated by use of tracts to avoid marriage if syphilitic, and that legislation should compel the recording of syphilitic cases and the prevention of their marriage. Dr. Renner thinks that congenital syphilis must present signs in some way as those do who are never aware of the primary sore.

Dr. William C. Krauss read a paper entitled **nasal and cranial diseases.**

The writer reviewed the intimate anatomic relations of the nasal chamber to the brain by way of the cribriform plate and emphasized his belief that this plate was a ventilator of the brain, there being an interchange of gases through it; he called attention to the maldevelopment found upon the side of the brain in which occlusion of the nasal passage existed, which produced a sort of mental debility; he called attention to the remarkable mental brightening through removal of hypertrophied tonsils and adenoids, and other nasal operations in which good free nasal respiration was secured, as proof of the brain-ventilation by way of the nasal passage. He then went into the bacteriology of the nasal chambers and the relation thereof to the cause of cerebromeningeal inflammations, closing by advising the daily cleansing of the nose with an aseptic fluid, believing it to be as essential a matter of toilet as the daily cleaning of the teeth.

Buffalo Academy of Medicine—Surgical Section.—At a meeting held April 4, Dr. Roswell Park read a paper upon **Acute osteomyelitis.**

He began by tracing the history of the subject, showing for how long a time it had been unrecognized and then described by various writers under different names. He emphasized the importance of the subject and the frequency with which the condition was diagnosed as acute rheumatism until finally it came into the hands of a surgeon familiar with the lesion. In a general way he spoke of the many surgical conditions regarded by the general practitioner as rheumatism which were not such at all. He insisted upon the fact that no rheumatic lesion, as such, ever suppurates, and that, on the contrary, these lesions are actively pyogenic, even from the hour of their inception. Allowing for topographic differences, the disease which most strongly resembles acute osteomyelitis is acute appendicitis, since in both conditions alike there occur infection, thrombosis, coagulation, necrosis, suppuration or gangrene, or both. The bone-marrow may die just as quickly as the appendix, and with equally disastrous general results, unless incision be promptly made. So also with less acute lesions of each form, down to the chronic forms in which operation is a matter of election rather than of necessity. A bone-abscess imprisoned within sclerosed walls and giving the patient occasional trouble is quite similar in its pathologic relations to a previously irritated and altered appendix bound down within tight adhesions. That osteomyelitis is a typical infection he made clear, describing briefly the various kinds of infection, more particularly the common varieties, those due especially to the staphylococci, streptococci, pneumobacilli, colon-bacilli, and more briefly those due to the pyocyaneus, typhoid and other bacilli. He epitomized the clinical symptoms which are most conspicuous with each of these forms, and then gave the ordinary clinical phenomena attending the acute cases. In this connection also he emphasized the role played by both exposure and fatigue in predisposing tissues to infection, mentioning the most common ports of entry of the infecting organisms, drawing a parallel between the clinical side of the matter and the results of certain experiments where animals ordinarily immune are made subject to infection as the result of artificial exposure or exhaustion. After drawing attention to the fulminating character of some of these cases, as, for instance, those in which death may occur within 36 hours from the inception of the disease, he insisted upon the more than wisdom, the urgency, of making these cases surgical in the very beginning and upon the necessity for free incision and opening of the medullary cavity, by which prompt course all the possible dangers of total necrosis and gangrene of the limb, or of slower multiple abscess-formations may be usually avoided. He closed his paper with a brief rehearsal of the unfortunate sequels of the disease when not so recognized and treated, including the necroses, the ankyloses, the dislocations, deformities and impaired growth of bones which had been thus affected.

Dr. Chauncey P. Smith reported a case of **Stokes' modification of Gutti's supracondyloid amputation of the femur.**

The Alumni Association of the Medical Department of the University of Buffalo held its twenty-fourth annual session April 25. Dr. Z. J. Luck, of Warsaw, gave a presidential address entitled **Professional union.**

He showed the weakness of the medical profession by the division and subdivisions of fealty to societies, and advised the gathering of forces into one national society, which would be powerful enough to wield a beneficent influence upon the profession and upon the nation. He scored the multiplication of medical schools, and hoped the time would soon arrive when a national standard would make entrance to our profession sufficiently difficult that our sect would never be subject to derision as in the past.

Dr. William C. Taylor, of Buffalo, read a paper entitled **Prophylaxis in obstetrical practice.**

He discussed the advantages of a knowledge of family and personal history, of the early making of a physical examination, of the careful advice to the pregnant woman concerning the general hygiene, of repeated and careful examinations of the urine, of the care of the breasts and nipples, of asepsis before and after labor, of preventive treatment for hemorrhage, and of the careful search for and early repair of lacerations. In discussion, Dr. Matthew D. Mann emphasized the points on asepsis, the care to prevent laceration, and the methods for their repair.

Dr. William G. Bergtold, of Denver, Col., read a paper on **Human hemoglobin in high altitudes.**

He gave statistics, discussed laboratory methods and their clinical application. The discussion was opened by Dr. Charles G. Stockton, who spoke of the advantages to the clinician of a knowledge of such studies and their correlation. Dr. Albert E. Woehnert agreed with the essayist in his determinations and the use of the specific gravity method to determine the hemoglobin value. Dr. A. L. Benedict criticised the method as inaccurate and believed in a method whereby the exact value of the iron in the blood could be determined by chemical means.

Dr. John H. Pryor, of Buffalo, read a paper entitled **The relative death-rates of cancer and consumption.**

This was a study of the health-board statistics relative to these diseases, wherein the author severely criticises the statements recently published that if during the next 10 years the relative death-rates are maintained it will be found that 10 years hence there will be more deaths in New York State from cancer than from consumption, smallpox, and scarlet fever combined. DR. HENRY R. HOPKINS in discussion emphasized the hereditary side of these great scourges, while DR. DELANCEY ROCHESTER emphasized again the lax method of handling consumption and emphasized the stern necessity of educating the public to the infectious nature of it. DR. GEORGE A. BLACKHAM believes that while much is due to germs too much is being laid to their door while oblivious and neglectful of other essential and necessary hygienic precautions. DR. H. R. GAYLORD spoke from the standpoint of the pathologist and scientist and entertained the idea that the near future would develop a parasitic cause for cancer.

DR. GEORGE M. FOX, of New York, read a paper entitled, **The diagnostic features of cutaneous syphilis.**

This was profusely illustrated by stereopticon views from his own collection. In discussion DR. CHARLES CARY called ttention to the often difficult recognition of many of the esions in cases in which imperfect treatment had been iven. DR. ERNEST WENDE said that the skin-lesions of yphilis were so characteristic that only the neophyte need be mistaken, that the history was never necessary, as a posi-ive diagnosis could be made from the appearance of the esions.

New York Academy of Medicine.—At the meeting held May 4, DR. W. GILL WYLIE read a paper entitled, **Anemia as observed in gynecological practice, with some practical suggestions as to diagnosis nd treatment.** He called attention to the fact that girls, fter the age of ten years, led a widely different life from boys, specially as regards the disproportionate mental training which they receive. This was to be deplored, for it was just t the time when they were developing into womanhood. He firmly believed that the mental faculties were often eveloped at the expense of the physical, and that as a re-ult of this the genital organs were often ill-developed. In-irectly the nervous and digestive system suffered. In these acts were to be found food for thought regarding the etiology f chlorosis, that disorder of the blood which was almost en-rely confined to young women. When chlorosis developed ater, it would usually be found that the genital organs had een tardy in their development. In connection with the iagnosis and treatment of anemias in young women, he ad found it extremely valuable to place the patient for everal days on an exclusive diet of peptonized milk, having rst thoroughly emptied the whole digestive tract by a mix-ure of castor oil administered three times a day. By this mode of preparation it often became comparatively easy to etect the presence of a gastric ulcer, or of a proctitis, thus earing up the source of the anemia. It should be borne in mind that the dark-colored stools indicative of ulcer of the omach sometimes occurred intermittently. By the same method of examination he had succeeded in ascertaining the ource of the anemia in an interesting and somewhat ob-cure class of cases, *i. e.*, in cases in which anemia was as-ociated with frequent nausea, tenderness or pain in the pigastrium, and sometimes also in the region of the vermi-rm appendix. In 9 cases of this kind he had succeeded in ving complete relief by operation, the latter revealing an ppendix the proximal end of which was cone-shaped, and hose mucous membrane was thickened and ulcerated. When blood was unavoidably lost at operation, it should be e rule to at once make good this loss by adequate saline fusions.

DR. THOMAS S. SOUTHWORTH read a paper on **The pres-nt status of our knowledge of chlorosis.** He ad-sed dividing anemias into two great groups, primary and condary anemias, and subdividing the primary anemias to (1) pernicious anemia, and (2) chlorosis. The chief haracteristic of chlorosis, he said, was the great diminution the percentage of hemoglobin, but it was also distinguished almost uniformly occurring in women and at about the ghteenth year. The physician should not lose sight of the art played by poor cooking, poor food, hurried meals, long ours of work in ill-ventilated apartments, and change of imate on the production of chlorosis. Quite early in the disease the digestion became impaired, and the dyspnea, which was usually a troublesome symptom, increased in severity in proportion to the diminution in the hemoglobin. The venous hum in the vessels of the neck was usually most distinct on the right side, and various murmurs were usually audible over the heart. The more diffused were the latter the greater the probability of the existence of cardiac dilatation. Although there was no increase in the total number of white corpuscles, there was sometimes a relative increase in the lymphocytes. In the management of cases of chlorosis it was well at the outset to disabuse the mind of the notion that it was compassed by the routine or haphazard administration of iron. The digestion would always require attention, and the cutaneous and general circulation would need stimulation in most instances. The diet should be simple and nutritious, consisting largely of milk, raw meat, and eggs. The mooted question as to whether inorganic iron was directly absorbed into the blood was still undecided, but certainly the efficacy of such ferruginous preparations could not be gainsaid. The weight of opinion and experience seemed to be distinctly in favor of giving massive doses of inorganic iron, carefully guarding against constipation by the use of cascara and salines. Arsenic would assist the action of the iron, and strychnin and digitalis, by improving the general circulation, would promote the patient's feeling of well-being. Above all, the treatment of chlorosis should be persisted in until the percentage of hemoglobin approximated the normal. In the discussion, DR. M. MANGES said that in uncomplicated cases of chlorosis forced feeding need not be feared. Rest was obviously beneficial, as Oliver had demonstrated that when at rest a much greater quantity of blood circulated through the arteries. DR. JAMES EWING said that in differentiating between chlorosis and secondary anemias it was well to remember that the anemia in the former was entirely out of proportion to the discoverable cause, and that the most characteristic feature was the great destruction of the hemoglobin. He thought the cause of chlorosis would eventually be found to be some disorder of the intestinal tract leading to destruction of the hemoglobin. DR. LEONARD WEBER said that a good proof that a given case was not one of true chlorosis was to be found in a tardy response to judicious treatment, although one could hardly expect to effect a complete cure in many instances inside of several months. The best remedy was a reliable form of Blaud's pill. DR. EUGENE C. SAVIDGE said that when young anemic girls menstruated profusely, he did not hesitate to tampon them at the menstrual period, in order to prevent as much blood-loss as possible.

NEW ENGLAND.

The Bowditch Club, composed of the younger members of the Harvard Medical School faculty, has recently been organized, and named in honor of Dr. Henry P. Bowditch, the school's well-known professor of physiology. At the meeting last Friday evening papers were presented by Prof. H. H. Clayton on "Kite-flying at the Blue Hill Observatory;" by Dr. E. W. Taylor on "The Relation of Clinical and Laboratory Work in Neurology," and by Dr. Beyer on "The Influence of Exercise upon Growth."

The bacteriological department of the Boston Board of Health is conducting some experiments regarding the nature of the bacteria found in the mouth-pieces of telephones. Dr. Hibbert W. Hill, superintendent of the city laboratory, used the same swabs on the telephones that are sent out for the taking of diphtheria-cultures. The swabs were used on serum-tubes for cultures, and then shaken up in distilled water, and the resulting mixture was used to inoculate guineapigs. The serum-tubes showed a great variety of bacteria, but none of them, so far as examined, seem to be pathogenic. None of the pigs have yet become sick, and enough time has elapsed to exclude everything except tuberculosis. Dr. Hill believes three months must elapse before it can be safely stated that none of the inoculations will produce tuberculosis. He will give the results of the test in detail as soon as it is completed.

A new medical library building in Boston is engaging the energies of a large number of energetic practitioners there. The present rooms, at 19 Boylston Place, were 25 years ago adequate and satisfactory, and when Dr. Oliver Wendell Holmes gave the dedicatory address he little thought a new location would be required so soon. But the library has grown, and desirable neighbors have been supplanted by objectionable ones, so that a new building must be secured.

The library to-day is surpassed in number of volumes by only 3 medical libraries in this country, those of the Surgeon-General's Office, at Washington, the Academy, in New York, and the College of Physicians, in Philadelphia. Owing to the care taken in its selection and to its admirable system of indexing, it is said to be one of the best working libraries in the country. It contains 30,310 bound volumes and 26,000 pamphlets. It has a rare collection of portraits and busts, many of which are now in the Boston Art Museum for safekeeping.

The committee on selection of site for the new building is Dr. J. B. Ayer, Dr. Arthur H. Nichols, and Dr. Walter L. Burrage. The association already has a lot containing 10,000 feet, purchased some years ago, in anticipation of a need for new quarters, but the character of that locality now makes it undesirable to build upon. The committee has recommitted two lots, one on the Fenway, that is, on the park system, and the other a house already occupied as a private school on Marlboro Street, the most conservative residential thoroughfare in the city. A new building on a new site is the other alternative, and this will be accepted. The plans contemplate a three-story building, with a small hall on the first floor, the Holmes reading room on the second, and a large hall on the third, with book-rooms on every floor. Administration, reception, and committee rooms will have suitable space, and the directory for nurses, connected with the library for the past 20 years, will have convenient quarters. The estimates for a building range from $75,000 to $100,000, and for the lot from $20,000 to $30,000. The net assets of the society are $55,608, and of this, $40,000 would be available for building. The present officers of the library who constitute the committee to raise funds are: president, Dr. David W. Cheever; vice-president, Dr. Frederick I. Knight; secretary, Dr. O. F. Farnsworth; librarian, Dr. James R. Chadwick; executive committee, Drs. C. P. Putnam, John Homans 2d, J. W. Farlow, Morton Prince, Walter L. Burrage.

CHICAGO AND WESTERN STATES.

Railroad Rates to the Columbus Meeting of the American Medical Association.—The following circular has been issued by the Western Passenger Association:

Rate.—One lowest regular first-class normal tariff (not temporarily reduced) fare, plus $2 for the round trip from Association territory, Utah and east to Columbus, Ohio, and return, except that from points from which the local one-way rate to our eastern gateways is less than $6, rates be made on the basis of fare and one-third for the round trip to such gateways added to rate of one first-class fare for the round trip tendered therefrom, provided that where such one and one-third fare to Chicago is $2 or less, fifty cents additional be added for return transfer.

Dates of Sale.—From points in Eastern Committee territory, tickets to be sold on such dates as will enable passengers to pass through the eastern gateways of this Association on June 2, 3, or 5, 1899.

From points in Trans-Missouri territory east of the eastern State lines of Colorado and Wyoming, tickets to be sold June 1, 2, and 4, 1899.

From points in Colorado and Wyoming, tickets to be sold May 31, June 1 and 3, 1899.

From points in Utah, tickets to be sold May 30, 31, and June 2, 1899.

Note.—Central Passenger Association Lines request that the sale of our tickets be so regulated as to require presentation at their gateways on June 2, 3, or 5, 1899, dates of sale authorized by them.

Limits of Tickets.—Tickets to be good for return passage leaving Columbus up to and including June 13, 1899. All tickets to be limited to continuous passage in each direction, going trip to commence date of sale, and return trip date of execution.

Form of Ticket.—Regular iron-clad signature form of ticket providing for execution by the agent of the terminal line at Columbus to be used for this occasion. Exchange orders sold for this occasion must require execution by the agent of the terminal line at Columbus.

American Surgical Association.—The following is the provisional program of the meeting to be held in Chicago, Ill., May 31, June 1 and 2:

President's address: "The Technic of Laryngectomy." Executive session. Reports of committees. The Surgery of the Spanish War: *a.* The First-Aid Package in Military Surgery, by N. Senn, Chicago; *b.* The Battleship in War, by N. M. Ferebee; *c.* The Organization and Equipment of Military Field Hospitals, by George R. Fowler, Brooklyn; *d.* The Effects of the Modern Small-arm Projectiles as Shown by the Wounded of the Fifth Corps, by C. B. Nancrede, Ann Arbor, Mich.; *e.* Notes of Wounds by Bullet and Shell among Spanish and American Troops in the Puerto Rican Campaign, by Clayton Parkhill, Denver. Appendicitis: *a.* Should every case be operated on as soon as the diagnosis of appendicitis is made? *b.* Should the appendix be removed in every case? by M. H. Richardson, Boston; The Technic of Intestinal Anastomosis, by Robert F. Weir, New York; Clinic in the Upper Amphitheater, Rush Medical College, conducted by Drs. Senn, Owens, and Fenger. The Technic of Intestinal Anastomosis (continued): *a.* Demonstration of Intestinal Anastomosis by Means of a New Forceps, by Ernest Laplace, Philadelphia; *b.* Demonstration of the Right-angle Continuous Suture, by H. W. Cushing, Boston; Demonstration of a new and simple method for obtaining the urine separately from the two kidneys in either sex, by M. L. Harris, Chicago. Care of the Surgeon's Hands: *a* Disinfection of the Hands of the Surgeon and his Assistants for and During Operations, by F. Lange, New York; *b.* Care of the Surgeon's Hands, by Prof. Dr. Theodor Kocher, Berne; Nephrectomy vs. Nephrotomy, by Joseph Ransohoff, Cincinnati; Report on Study of Tumors, by Roswell Park, Buffalo, N. Y. Executive session. Some Unusual Cases of Appendicitis, with Complications, by A. Vander Veer, Albany, N. Y.; Ligatures, Sutures, and Suture Materials, by Charles K. Cole, Helena, Mont.; Dislocation of the Cervical Vertebræ, by Solon Marks, Milwaukee, Wis.; Primary Myxo-Sarcoma of the Omentum and Peritoneum—Report of a case treated by laparotomy and extirpation—Secondary and fatal generalization throughout peritoneum with myxomatous ascites, by Rudolph Matas, New Orleans; Perineural Fibroma, involving the entire sciatic nerve-sheath and deep femoro-popliteal fascia. Extirpation of tumor and popliteal vessels. Recovery, with loss of toes and heel covering from sloughing, by Rudolph Matas, New Orleans; The Cure of Rectal Stricture by Operation, by L. M. Tiffany, Baltimore; Gunshot Wounds in Civil Practice, with Cases, by W. L. Estes, South Bethlehem; Mixed Sarcoma of the Pons Varolii, by S. H. Weeks, Portland; Hydatid of the Gallbladder, by R. H. Harte, Philadelphia; Fractures at the Base of the Skull, followed by Recovery, by Dudley P. Allen, Cleveland; Accidental Wounds of the Urinary Tract during Operations for Appendicitis, by Charles A. Powers, Denver; Forcible Correction in Pott's Disease, by E. H. Bradford, Boston; Hernia, following Operations for Appendicitis, by F. B. Harrington, Boston; A Method of Treatment for the Restoration of Entire Tibiæ Necrotic from Acute Osteomyelitis, by H. W. Cushing, Boston.

Conversazione (informal), Auditorium Hotel, 8 to 10 p.m., Tuesday, May 30.

Banquet, Thursday, June 1, at 8 p.m., at the Athletic Club, No. 125 Michigan Avenue.

Headquarters, Auditorium Hotel.

Officers and Standing Committees, 1898-99:—President, Dr. W. W. Keen; Vice-Presidents, Drs. A. Vander Veer and Solon Marks; Secretary, Dr. Herbert L. Burrell; Treasurer, Dr. George R. Fowler; Recorder, Dr. DeForest Willard; Council, Drs. L. McLane Tiffany, Phineas S. Conner, J. Collins Warren, President, Secretary, Treasurer, and Recorder, *ex officio*; Committee on Annual Meeting, Drs. J. Ewing Mears, J. W. Elliott, President, Secretary, Recorder, and Chairman of Committee of Arrangements, *ex officio*; Delegates to the Association of American Physicians and Surgeons for the Washington meeting in 1900, Dr. Wm. M. Mastin, Alternate—Dr. F. H. Gerrish.

Standing Committees:—Publication Committee—Recorder, Secretary, and Treasurer, *ex officio*; Committee on Necrology, created in 1884, Drs. J. Ewing Mears, Phineas S. Conner, and Clayton Parkhill; Committee on Standard Nomenclature and Study of Tumors, created in 1895—Drs. Roswell Park, W. S. Halstead, J. Collins Warren, and F. S. Dennis; Committee on International Congress of Surgeons, created in 1895—Drs. W. W. Keen, N. Senn, Robert F. Weir, and J. Collins Warren, C. H. Mastin; Committee on Medico-Legal Relations of the X-rays, created in 1897—Drs. J. Wm. White, P. S. Conner, DeForest Willard, N. Senn, and Herbert L. Burrell; Committee to confer with National Organizations as to Advancement and Protection of Research Work, created in 1898—Drs. Roswell Park, N. Senn, and Herbert L. Burrell; Committee of Arrangements, Drs. N. Senn, John E. Owens, and Christian Fenger.

Chicago Medical Society.—At a meeting held May 3, Dr. John Ridlon read a paper upon the **Mechanical treatment of hip-joint disease.**

He stated that the treatment of hip-disease is practically a purely mechanical problem; operative treatment is not demanded by more than 1% of cases that are subjected to even moderately effective mechanical treatment. We are of the opinion that operative treatment should only be resorted to as a life-saving measure, because the best results of operative treatment are inferior to the poorest results of mechanical treatment.

A consideration of some of the symptoms are necessary r an intelligent understanding of the theories of mechan-al treatment: At the onset of the disease the thigh becomes exed, abducted, and rotated outward, into the position hich one naturally assumes when the weight is thrown pon the other leg. As the disease advances and the joint ecomes more sensitive the thigh becomes more flexed, and om abduction and outward rotation passes to adduction nd inward rotation, the position which one assumes when rotecting the limb from injury. Involuntary muscular asm carries the limb into the position of deformity and tains it there until structural shortening of all of the soft arts effectively immobilizes the joint; then recovery takes lace, but with the limb in the position of deformity. Dur-g all this period of progress from slight restriction of mo-on to complete false ankylosis the only tendency of move-ent is toward flexion, with abduction or adduction, never ward extension or hyperextension. If, then, the possible otion in the direction of flexion and adduction, or abduc-on, be restrained by artificial means, the joint is thereby fectually immobilized.

It is the function of a normal joint to permit of motion nd bear weight. In disease nature effects a cure by reliev-g the joint of these functions more or less effectively for a me. The involuntary muscular spasm and structural ortening of the soft parts abolish motion and the position deformity relieves the joint of weight-bearing to a very eat extent. By mechanical measures we imitate nature, nd aim to more effectively immobilize the joint and relieve from weight-bearing, and at the same time to do this with e joint free from deformity. Immobilization is had by a tentive splint of some form, and protection from weight-aring is had by axillary or ischiatic crutches or by recum-ncy in bed.

The simplest form of treatment is the plaster-of-paris lint and recumbency. If plaster-of-paris be used, it should tend from the ankle to axilla, and it should be applied only hen the deformity has been as fully corrected as possible. bsolute recumbency should be insisted upon, for so long as e joint shows sensitiveness to reasonable manipulation. fterward the patient may be allowed up with axillary utches and a high shoe on the other foot. The simplest lint is known as the Thomas splint.

The question of traction is a somewhat vexed one; per-ps a fair statement would be something like this: A posi-e continuous traction-force can be had by any of the action-splints up to about 10 pounds when used during cumbency; but continuous traction is not possible by any the traction-splints when used as an ambulatory appara-s; continuous traction is positively indicated in only a all percentage of cases; in a still smaller number traction ds to the pain and may fairly be considered harmful; in e vast majority of cases it is neither indicated nor contra-dicated, but proves a very useful addition to our other eans of immobilization; intermittent traction such as is d during locomotion is positively harmful so long as the nt is exquisitely sensitive; later on it is difficult to de-onstrate that it is of any special harm, while the use of e splint as a perineal crutch has very many positive ad-ntages.

Illinois State Medical Society.—The following is the ogram of the forty-ninth annual meeting to be held at iro, Ill., May 16, 17, and 18:

TION I.—Practice of Medicine, Medical Specialties, Materia Medica, and Therapeutics.

ddress, "Therapeutics, Past, Present and Future," by George F. Butler, cago; The Country Doctor, by S. C. Hall, Omaha; Indigestion: Its Causes, ects and Results, by C. G. Reagan, DuQuoin; Intestinal Antisepsis, Physio-c and Therapeutic, by W. F. Waugh, Chicago; Stomatitis Materna, by J. neck, Mt. Carmel; Variations in Malarial Manifestations, by C. D. Center, ncy; Atypical Malaria in Children, with a Case in Point, by Rosa Engle-1, Chicago; Some Aspects of Chronic Bright's Disease, by A. R. Elliott, cago; The Treatment of Uremia, by A. R. Edwards, Chicago; Further Ob-vations of Tube-Casts, by I. N. Danforth, Chicago; Alkalinity of the Blood Its Physiological and Pathologic Relations, by J. H. Salisbury, Chicago; ents and Methods Used in Alkaline Medication, by J. A. Patton, Chicago; Alkaline Treatment of Rheumatism and Allied Conditions, by Ellen H. se, Canton; Lithemia, by A. M. Beale, Moline; Erythromelalgia, by W. J. ly, Shelbyville; The X-ray in the Diagnosis of Brain Lesions, by A. Church, cago; A Newer Pathology of Epilepsy, by D. R. Brower, Chicago; Surgery, Suggestion in Treatment of Hysteria, by T. B. Keyes, Chicago: Psycho-sical Culture, by W. Xavier Suddith, Chicago; Psychology vs. Medicine, by . McAnally, Carbondale; Diagnosis of Locomotor Ataxia, by H. T. Patrick, cago; Anterior Poliomyelitis, by E. Wing, Chicago; Review of Work Done Treatment of Mastoid Disease, by N. H. Pierce, Chicago; Are We Advancing the Times? by G. H. Rice, Sandoval; Thymic Asthma, by M. P. Hatfield, cago; Treatment of Tuberculosis, by Edwin Klebs, Chicago; Diphtheria, with Some Notes on the Modern Serumtherapy, by W. F. Matson, Monticello; Treatment of Scarlet Fever, by H. S. Worthley, Elwood; Rational Therapeutics, by R. H. Henry, Peotone; Mental Sanitation, by R. Dewey, Wauwatosa; Direct Massage in the Treatment of Glaucoma, by J. A. Pratt, Aurora; Chronic Ophthalmia: Some Observations as to Its Cause and Treatment. Also the Relation of Chronic Ophthalmia to the Causation of Cataract, by L. J. Schifferstein, Effingham; Post Hoc, Propter Hoc, by W. J. Chenoweth, Decatur; The Experience of a Country Doctor with Appendicitis, by C. B. Brown, Sycamore; Chlorosis Aortica, Report of Case and Exhibition of Specimen, by Robert H. Babcock; The Influence of Biological Research on Surgery and Medicine, by W. J. Fernald, Rantoul; Rachitis, by S. W. Hopkins, Walnut.

SECTION II.—Surgery, Surgical Specialties, and Obstetrics.

Address, "The Surgery of the Puerperium," by Denslow Lewis, Chicago; Puerperal Surgery, by Bertha Van Hoosen, Chicago; Premature Detachment of the Placenta, with Report of Two Cases, by E. B. Gilbert, Geneseo; Diagnosis of Ectopic Gestation Before Rupture, by C. E. Manierre, Chicago; The Use of the Curette in Puerperal Sepsis, by G. L. Eyster, Rock Island; A Case of Vesicular Mole, by Carl E. Black, Jacksonville; Symphysiotomy, with Report of Two Cases, by H. McKennan, Paris; Eclampsia—Causation and Pathology, by C. B. Reed, Chicago; Eclampsia—Diagnosis and Clinical Course, by F. B. Earle, Chicago; Eclampsia—Treatment, by J. B. DeLee, Chicago; Cyanosis Neonatorum, by C. E. Paddock, Chicago; The High-Forceps Operation, by C. S. Bacon, Chicago; Maternal Impressions, by H. F. Lewis, Chicago; Tumor of Sclera, by C. P. Pinckard, Chicago; Eye Strain and the Diagnosis of Ametropia by the General Practitioner, by C. D. Westcott, Chicago; Surgery of the Eye-Muscles, by J. E. Colburn, Chicago; Malignant Tumors of the Eye, by W. H. Wilder, Chicago; Operative Treatment in High Degrees of Myopia, by Allen T. Haight, Chicago; On the Value of Certain Mechanical Methods of Treating Granular Lids, by C. A. Wood, Chicago; Middle Ear and Mastoid Operations for the Cure of Chronic Otitis Media, by W. L. Ballenger, Chicago; Otomycosis, by E. T. Dickerman, Chicago; Dangers of Intrauterine Treatment, by J. B. Bacon, Chicago; Implantation of the Ureters in the Lower Bowel as Preliminary to Removal of the Bladder, by F. H. Martin, Chicago; Pelvic Reflexes, by Byron Robinson, Chicago; Complete Prolapse of an Ovarian Tumor Through the Anus, Operation, Recovery, by J. A. Baughman, Neoga; Operative Treatment of Retroflexion of the Uterus, by W. H. Rumpf, Chicago; Stricture of the Anus Due to Orificial Surgery, Successfully Treated by a Plastic Operation, by E. C. Dudley, Chicago; Do the New Methods of Hæmostasis in Surgical Work Signify that the Conventional Ligature is Doomed? by H. P. Newman, Chicago; Results of Modern Vaginal Operations, by Emil Ries, Chicago; Uterine Scrapings and Their Microscopical Diagnosis, by Maximilian Herzog, Chicago; Caput Obstipum Musculare, by M. L. Harris, Chicago; Major Anatomical Weak Points of Surgical Areas, Illustrated by Dissected Specimens, by W. T. Eckley, Chicago; Peritoneal Adhesions, by T. A. Davis, Chicago; What is Eczema? by Joseph Zeisler, Chicago; A Classification of the Factors of Error in Diagnosis, by W. H. Allport, Chicago; The Use of Schleich's Mixture, for General Anesthesia, in One Hundred and Ten Operations in the Nose and Throat, by W. K. McLaughlin, Chicago; Resume of Herniotomies, by L. A. Greensfelder, Chicago; Radical Operation for Inguinal Hernia, by F. A. Jefferson, Chicago; 400 Herniotomies by the Imbrication Method, by E. Wyllys Andrews, Chicago; Adipose Tissue as an Etiologic Factor in Hernia, by A. H. Ferguson, Chicago; The Galvanocaustic Treatment (Bottini's Operation) of Senile Enlargement of the Prostate, by F. Kreissl, Chicago; When Shall we Operate? by C. W. Hall, Kewanee; The Surgical Treatment of Hematemesis from Gastric Ulcer, by a New Method, by D. N. Eisendrath, Chicago; Alveolar Sarcoma of the Rectum, Operation, Recovery, by E. M. Sutton, Peoria; Diseases of the Pancreas, by F. E. Wallace, Monmouth; Surgical Treatment of Movable Kidney, by A. E. Halstead, Chicago; Kidney Fixation by Lumbar Pocket, by L. L. McArthur, Chicago; Adrenal Tumors of the Kidney, by Bayard Holmes, Chicago; Operations for the Removal of Kidney-Stones, by A. D. Bevan, Chicago; Kidney Complications following Operative Procedure, Suggestions as to Prophylaxis and Treatment, by E. M. Brown, Chicago; Drainage and Irrigation of the Pleura in Empyema, Conflict of Methods and Opinions among Eminent Surgeons, by Edmund Andrews, Chicago; Report of some cases in Gallbladder Surgery and their Sequels, by J. E. Allaben, Rockford; Operative Treatment of Exophthalmic Goiter, by Karl Doepfner, Chicago; Goiter, by A. I. Bouffleur, Chicago; The Nonsurgical Treatment of Goiters, by D. R. MacMartin, Chicago; Common Errors in Diagnosing Follicular Appendicitis as Typhoid Fever, Report of Three Cases, by J. L. Wiggins, East St. Louis; Why and When Shall We Operate for Appendicitis? by W. F. Grinstead, Cairo; A Successful Mechanical Method of Treating Sciatica—the Hodgen Splint with Demonstration, by C. C. Hunt, Dixon; Treatment of Dislocations of the Hip in Children, by A. C. Wiener, Chicago; Amputation at the Hip-Joint for Sarcoma. Report of Case and Presentation of Patient, by Carl Wagner, Chicago; Two Affections of the Knee-Joint, Gonorrheal Synovitis. Loose Body in the Joint, by Geo. N. Kreider, Springfield; The Surgeon's Interest in Rheumatism, by F. W. Jay, Chicago; The Treatment of Accidental Wounds of the Male Urethra, by E. J. Senn, Chicago; The Ambulatory Treatment of Fractures, by Chas. D. Lockwood, Chicago; Fracture of the Neck of the Femur, by J. N. Bartholomew, Chicago; Bilateral Mammary Carcinoma, by Reuben Peterson, Chicago; Observations in Three Hundred Tonsillotomies, by J. H. Coulter, Chicago.

SECTION III.—Etiology, State Medicine, and Medical Jurisprudence.

Address, "Progress in the Prevention of Disease," by A. R. Reynolds, Chicago; Prevalence and Fatality of Alcoholic Inebriety, by G. W. Webster, Chicago; Nervous Complications and Medicolegal Relations of Alcoholic Inebriety, by D. R. Brower, Chicago; Prevention of Tuberculosis, by A. C. Klebf, Chicago; The Medicolegal Aspect of Bright's Disease, by Columbus Barlow, Robinson; A Drop of Water, by H. C. Fairbrother, East St. Louis.

The following are the officers:—President, T. J. Pitner, Jacksonville; first vice-president, Harold N. Moyer, Chicago; second vice-president, J. T. McAnally, Carbondale; permanent secretary, Edmund W. Weis, Ottawa; assistant secretary, W. F. Grinstead, Cairo; treasurer, George N. Kreider, Springfield.

Cleveland Medical Society.—At a meeting held April 14, an address upon **Inflammations of the ovary,** was delivered by DR. FERNAND HENROTIN, of Chicago.

At a meeting held April 28, DR. M. D. STEPP reported a case of **gunshot wound of the abdomen.**

After receiving the wound the man appeared to be paralyzed in both the right arm and leg for about 12 hours. As there was no shock and the direction of the wound gave some evidence of only a parietal course, a surgeon was not called for 12 hours. There was then some serum with fecal odor exuding from the wound, but there was no fever or other evidence of septic absorption. On operation four ragged wounds of the small intestine were found, with fecal matter scattered throughout the peritoneal cavity. After cleansing the wounds they were sewn up with interrupted coaptation sutures, over which were placed Lembert sutures, and the abdominal cavity was then flushed with sterile water, filled with normal saline solution, and closed up except for a drainage-tube. Recovery was uninterrupted, saline infusions being used once or twice for the extreme thirst and scanty urine. In the discussion Dr. A. F. House criticized the use of the drainage-tube as unnecessary. Dr. W. H. Humiston said he has discarded drainage altogether in abdominal work, and that his mortality-percentage has been decreased by it. When there is oozing from torn adhesions he uses the Mikulicz tampon. Dr. F. E. Bunts cited cases showing the necessity of thoroughly exploring both stomach and intestines in wounds of the abdomen to see that no opening is overlooked. He also thought the drainage-tube unnecessary.

Dr. W. E. Bruner reported a case of **septic thrombosis of the cavernous sinuses** occurring in a male, aged 40 years, and following the drawing of a tooth and opening of an alveolar abscess.

In this patient, 5 days after the operation on the tooth pain developed, and redness and swelling about the right eye. Upon admission to the hospital he had marked proptosis, enormous dusky-red swelling, general septic appearance, profuse sweats, and a temperature of 104°. Free incisions into the orbit failed to reveal pus. Involvement of the antrum of Highmore was excluded. Three days later the process began in the left eye and in 2 days was as severe as on the right. Chills recurred daily with marked fluctuations of temperature. Ophthalmoscopic examination showed dilated tortuous veins, several retinal hemorrhages, and slight swelling of the right disc. The tongue was dry and coated and the breath fetid. Septic pleurisy and pneumonia developed at the base of the right lung, and there was severe diarrhea. There was some pus in both orbitis now, but no edema about the face nor over the mastoid. His mind was clear almost to the last. The swelling about the right eye disappeared and then that about the left. The duration of the case was 20 days. Unfortunately the family positively refused permission for a necropsy. Dr. H. G. Sherman noted the rarity of involvement of the cavernous sinuses and questioned the possibility of an early diagnosis in the case. After involvement of the second eye it was not so difficult. He noted a recent case in which, along with the sinus thrombosis, there was thrombosis of the facial and other related veins. Dr. C. A. Hamann had watched Dr. Bruner's case and pointed out the track of the infection from the alveolus through the pterygoid plexus of veins, through the foramen of Vesalius into the dural veins and the cavernous sinus. The fluctuation of temperature was characteristic. In answer to a question of Dr. Yarian, Dr. Sherman said that in meningitis the temperature was likely to be very stationary. Dr. H. S. Upson thought that in septic meningitis, as in other septic processes, the temperature tended to be irregular. He drew attention to the importance of being able to make a differential diagnosis between sinus thrombosis and cerebral abscess. Dr. F. E. Bunts had watched the progress of Dr. Bruner's case and thought that the gradual bulging of the eye, the septic infection, and the prompt involvement of the other eye made a clear diagnosis. He described a case of bulging of an eye complicating facial erysipelas, which, however, subsided. Dr. A. R. Baker thought there could be no question as to the accuracy of the diagnosis and reported a case of sinus thrombosis which had been for two weeks treated as typhoid fever. Dr. C. J. Aldrich noted a case which began with sore throat, followed by a tonsillar abscess which was opened under the sternomastoid. Sinus thrombosis developed and necropsy showed the track of the infection along the veins. Dr. C. F. Hoover reported a case of cardiac hypertrophy with dilatation and myocarditis, which suddenly developed tremendous edema of the eyelids, leading to a diagnosis of sinus thrombosis, but necropsy disclosed absolutely no lesion to account for the symptoms.

Dr. Charles H. Browning, of Oberlin, reported a case of a boy who died with the classic symptoms of **acute yellow atrophy of the liver**. There was no suspicion of phosphorus-poisoning.

Necropsy showed a liver in a marked state of acute degeneration, but when sections reached the pathologist they were structureless and nothing positive could be made out. Dr. W. T. Howard showed a culture made on blood-serum from the fluid from the base of the brain of a case of epidemic cerebrospinal meningitis, which consisted of small discrete colonies of diplococci which much resembled gonococci. They were not streptococci, staphylococci, or the *diplococcus lanceolatus*. This organism answers perfectly to the appearance and cultural characteristics of the *diplococcus intracellularis meningitidis* which was described by Weichselbaum in 1885 as occurring in cases of epidemic cerebrospinal meningitis. For the last year or two cases of this disease have occurred in Boston and Baltimore. This case was indigenous in Cleveland. Curiously enough this organism is not so virulent as the other organisms which cause meningitis. It is surprising how few of the organisms are found in a fatal case. Dr. Moreheims, of Lakeside Hospital, gave the clinical history of the case. Temperature rose at night and was normal or nearly so in the morning. There were no disturbances of special sense. There was great pain in the head and back of the neck, and the blood-count showed great leukocytosis. Otherwise the man hardly seemed at all sick. For an hour or so 24 hours before death his muscles were perfectly rigid and he could be lifted in one piece, as it were. He had a convulsion just before death. The duration was 60 hours from the time he walked into the hospital complaining of headache. Dr. P. M. Foshay drew attention to the studies of Rogers, Hamilton, and Brodie, in the *Lancet* for October 22, 1898, describing an epidemic among the Kaffirs of South Africa, which began with an acute infectious rhinitis and developed into either pneumonia, parotiditis, dysentery or cerebrospinal meningitis and was marked by the finding, postmortem, of diplococci closely resembling those of pneumonia, in whichever situation the disease settled. Dr. R. J. Wenner reported finding a pure culture of a diplococcus in the fluid from a lumbar puncture in a case of meningitis, which closely resembled the pneumococcus.

Dr. W. H. Humiston reported the removal of a hard **cystic ovary** from a case of aggravated neurasthenia with prompt and permanent relief of the constitutional symptoms. He also reported a case of pelvic disease in which were found at operation a **hematoma** of the right ovary with the fimbriated extremity of the tube agglutinated to it. The feature of interest was the finding of gonococci in the uterus, the tube, the fimbria and the hematoma showing clearly the path of infection.

SOUTHERN STATES.

The Louisiana State Board of Medical Examiners has made public the results of the examination held May 1 and 2. Seventy-eight graduates (5 colored) applied for licenses to practice: Of these 13 (2 colored), or 16⅔%, failed to make the necessary percentage.

Medical and Chirurgical Faculty of Maryland.—The following are the officers elected for the ensuing year at the centennial anniversary meeting held in Baltimore, April 25, 26, 27, and 28: President, Dr. Clotworthy Birnie, Taneytown; vice-presidents, Drs. Samuel Theobald and David Streett; Treasurer, Dr. T. A. Ashby; Secretary, Dr. J. Williams Lord.

The Medical Department of Tulane University held its annual Commencement Exercises, May 3, graduating 11 students in pharmacy and 85 in medicine. There were 102 applicants for the M.D. degree, of whom 17, or 16⅔%, ere unsuccessful. Willoughby E. Kittredge, A.B. (Tulane), .D., was valedictorian, speaking on "The prevention of isease in man," while the annual address was delivered by rof. Edwin Anderson Alderman, D.C.L., president of the niversity of North Carolina, who discussed the conditions—ndustrial and social—existing in the South at this time.

The Charity Hospital of New Orleans has received n addition in the shape of the Richard Milliken Memorial ospital for Children, formally dedicated May 4. This an-ex, on the erection and furnishing of which $101,000 was pent, contains 8 wards, with a total capacity of 160 patients, esides special rooms for the dressing of surgical cases, for e application of electricity, for orthopedic work, a steriliz-g-room, dressing-room, and waiting-rooms, a sunroom, and n operating-room provided with galleries for the accommo-ation of medical onlookers. The building is provided with ppropriate water-supply, heating apparatus (indirect radia-on), and means of ventilation. Addresses were made by layor Walter S. Flower on behalf of the donor, Mrs. Rich-rd Milliken, and by Dr. E. S. Lewis, vice-president, and ov. Murphy J. Foster, ex-officio president, of the Board of dministrators of the Charity Hospital.

The following resolution was passed at the meeting the Medical Society of the State of Tennessee, held in ashville, April 11, 12, and 13:

> WHEREAS, At the meeting of the American Medical Association in enver last June, there was introduced and passed a resolution that ereafter no member of a faculty of any medical college, not requir-g attendance on 4 full courses of lectures before graduation, and graduates of such schools shall be permitted to register, at any eeting of the Association, either as delegate, permanent member, member by application; and
>
> WHEREAS, This resolution is in conflict with that part of the Con-itution which defines membership in either of these capacities;
>
> *Be it therefore resolved*, That it is the sense of the Tennessee State edical Society that the resolution should be declared null and void the Judicial Council of the American Medical Association.
>
> *Be it further resolved*, That any attempt, at the coming meeting of e American Medical Association, to amend the Constitution in at part defining membership, without allowing the colleges of the uthern Medical College Association to graduate students that have ready matriculated, at the end of the third course, would be both fair and unjust, since between students thus matriculated and e colleges there is an implied obligation that should not be olated.

The society claims that the unfairness of such action as as attempted at Denver is more apparent in that the uthern Medical College Association had already before em, awaiting final action, an amendment to their consti-tion, making requisite 4 graded courses of lectures before aduation, which amendment was adopted in December st, at the Memphis meeting.

MISCELLANY.

Obituary.—DR. JOSEPH J. KIRKBRIDE, a graduate of the niversity of Pennsylvania, class of '72, and for years phy-cian to the out-patient department of the Pennsylvania ospital, Philadelphia, May 4, aged 57 years.—Dr. W. W. OLDING, superintendent of the Government Hospital for e Insane at Washington, May 6, aged 68 years.—DR. ILLIAM PARKER BOWSER, Brooklyn, N. Y., May 6, aged 49 ars.—DR. WILLIAM ARTHUR GORTON, superintendent of e Butler Hospital for the Insane at Providence, R. I., May —DR. WILLIAM E. KISSANE, Brooklyn, N. Y., April 26, aged years.—DR. B. M. RAKESTRAW, Hicksville, Ohio, April 25, ed 81 years.—DR. LESLIE GILLETT, Beatrice, Neb., April 28, ed 63 years.—DR. DAVID A. HENGST, formerly of Pittsburg, ., in Denver, Col., April 23, aged 48 years.—DR. GASTON C. ORDIS, at Plattenville, La., May 1, aged 52 years.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service during the week ended May 6, 1899:

SMALLPOX—UNITED STATES.

			CASES.	DEATHS
ALABAMA:	Mobile	April 29	1	
CALIFORNIA:	Los Angeles . .	April 22-29	1	1
DISTRICT OF COLUMBIA:	Washington . .	April 28	1	
FLORIDA:	Jacksonville . .	April 23-30	9	
ILLINOIS:	Chicago . . .	April 17-29	2	
LOUISIANA:	New Orleans . .	April 22-29	16	1
"	Shreveport . . .	April 22-29	2	
MARYLAND:	Baltimore . . .	April 30-May 2 . .	2	
MASSACHUS'TS:	Boston	April 17-26	9	
MICHIGAN:	. . .	April 22-29	Present at two places — Benton Harbor and Kalamazoo Township.	
NEW MEXICO:	Las Cruces . . .	April 27	Many cases.	
NEW YORK:	Buffalo	April 29	1	
OHIO:	Cincinnati . . .	April 21-28	15	2
PENNSYLV'A:	Erie	May 2	1	
"	Pittsburg	April 22-29	1	
TEXAS:	Del Rio	April 18	1	
"	Galveston	April 15-22	8	
VIRGINIA:	Newport News .	April 25-May 1 . .	4	
"	Norfolk	April 25-May 2 . .	4	1
"	Portsmouth . . .	April 25-May 2 . .	15	
WASHINGTON:	Spokane	April 22-29	2	

SMALLPOX—FOREIGN.

BRAZIL:	Rio de Janeiro .	March 11-24 . . .		11
CHINA:	Hong Kong . . .	March 11-25 . . .	4	3
COLUMBIA:	Barranquilla . .	April 1-8	2	
ENGLAND:	London	March 8-15	3	
FORMOSA:	Tamsui	Feb. 10-March 10 .	88	2
GREECE:	Athens	April 8-15	16	5
INDIA:	Bombay	March 28-April 4 .		10
"	Calcutta	March 18-25 . . .		6
"	Madras	March 11-25 . . .		1
KOREA:	Seoul	March 11-18 . . .	Present.	
MEXICO:	Chihuahua . . .	April 8-22		3
"	Mexico	April 16-23	16	5
NICARAGUA:	Bluefields . . .	April 15-22	1	
RUSSIA:	St. Petersburg .	April 1-15	30	8
TURKEY:	Constantinople .	April 10-17		10
"	Smyrna	April 8-15		1

YELLOW FEVER.

BRAZIL:	Rio de Janeiro .	March 10-24 . . .	112	88

CHOLERA.

INDIA:	Bombay	March 28-April 4 .		3
"	Calcutta	March 18-25 . . .		17

PLAGUE.

FORMOSA:	Tamsui	Feb. 10-March 10 .	201	123
INDIA:	Madras	April 18-24		1

Changes in the Medical Corps of the U. S. Navy for the week ending May 6, 1899:

DRENNAN, M. C., medical inspector, ordered to additional duty at the marine recruiting rendezvous, Philadelphia, Pa. April 28.

BRAISTED, W. C., passed assistant surgeon, detached from the Naval Hospital, Newport, R. I., and ordered home to be ready for orders for sea duty.

SNYDER, J. J., assistant surgeon, detached from the "Wabash" and ordered to the Naval Hospital, Newport, R. I.

GIHON, A. L., medical director, retired, granted leave for one year, with permission to leave the United States.

STEELE, J. M., surgeon, ordered to temporary duty at the recruiting rendezvous, Baltimore, Md. April 29.

PALMER, S. B., assistant surgeon, detached from the "Annapolis" and ordered home.

GARTON, W. M., assistant surgeon, detached from the Naval Hospital, New York, and ordered to the "Annapolis."

GATEWOOD, J. D., surgeon, ordered to the Bureau of Medicine and Surgery for temporary duty. May 2.

GRAVATT, C. U., medical inspector, detached from the "New York," and from duty as fleet-surgeon of the North Atlantic Squadron, and ordered home to wait orders. May 3.

FITZSIMONS, P., medical inspector, detached from the "Brooklyn" and ordered to the "New York," as fleet-surgeon of the North Atlantic Squadron.

HARMON, G. E. H., surgeon, detached from the "Amphitrite" and ordered to the "Brooklyn."

EDGAR, J. M., surgeon, detached from the "Richmond" and ordered to the "Amphitrite."

Lumsden, G. P., surgeon, detached from the "Franklin" and ordered to the "Richmond."

Dickson, S. H., surgeon, detached from the "Massachusetts" and ordered home to wait orders.

Byrnes, J. C., surgeon, detached from the Norfolk Navy Yard and ordered to the "Massachusetts."

Olcott, F. W., passed assistant surgeon, ordered to the "Texas."

Costigan, G. D., assistant surgeon, detached from the "Indiana" and ordered to the Naval Hospital, Chelsea, Mass.

Elliott, M. S., assistant surgeon, detached from the "Texas" and ordered home to wait orders.

Payne, J. H., assistant surgeon, detached from the Naval Hospital, Chelsea, Mass, and ordered to the "Indiana."

Changes in the U. S. Marine-Hospital Service, for the seven days ended May 4, 1899:

Wheeler, W. A., surgeon; department letter of April 21, 1899, granting Surgeon Wheeler 27 days' leave of absence from June 4 1899, amended so that the said leave shall take effect from May 5, 1899. May 4.

Wheeler, W. A., surgeon; department letter of April 20, 1899, accepting the resignation of Surgeon Wheeler, to take effect from June 30, 1899, amended so that said resignation shall take effect May 31, 1899. May 4.

Brooks, S. D., surgeon, relieved from duty as member of board convened to meet at San Francisco, Cal., May 2, 1899, for the examination of candidates for appointment as assistant surgeon in the service. May 3.

Magruder, G. M., passed assistant surgeon, granted leave of absence for 14 days. April 30.

Perry, T. B., passed assistant surgeon, detailed as member of board convened to meet at San Francisco, Cal., May 2, 1899, for the examination of candidates for appointment as assistant surgeon in the service. May 3.

Wertenbaker, C. P., passed assistant surgeon, to rejoin station at Wilmington, N. C. May 3.

Hastings, Hill, assistant surgeon, relieved from duty at Seattle, Wash., and directed to proceed to Astoria, Oregon, for the purpose of establishing a United States Quarantine Station at or near that point. April 28.

Russell, H. C., assistant surgeon, relieved from duty at Louisville, Ky., and directed to proceed to Cairo, Illinois, and assume temporary command of service. May 1.

Parker, H. B., assistant surgeon, detailed as quarantine officer of the port of Santiago, Cuba. May 2.

Lumsden, L. L., assistant surgeon, to proceed to Seattle, Wash., and assume command of service. April 28.

Anderson, J. F., assistant surgeon, granted 30 days' extension of sick leave from May 1, 1899. April 29.

Fricks, L. D., assistant surgeon, relieved from duty on U. S. transport "Sedgewick," and directed to assume temporary command of service at Savannah, Ga. May 4.

Kerr, J. W., assistant surgeon, to proceed to the San Francisco Quarantine Station and report to the commanding officer for temporary duty. May 3.

Scott, E. B., hospital steward, to report to acting assistant surgeon in charge, Savannah Quarantine, for duty and assignment to quarters. May 2.

Comfort, N. C., hospital steward, relieved from duty at Cincinnati, Ohio, and directed to proceed to Louisville, Ky., and report to commanding officer for duty and assignment to quarters. May 1.

Changes in the Medical Corps of the U. S. Army.

Devereux, J. Ryan, acting assistant surgeon, will proceed to Governor's Island and report to commanding general, department of the East, for duty.

Roberts, D. M., acting assistant surgeon, will proceed to Governor's Island and report to commanding general, department of the East, for duty.

Rind, R. C., acting assistant surgeon, will proceed to Governor's Island and report to commanding general, department of the East, for duty.

Watkins, V. E., acting assistant surgeon, will proceed to Governor's Island and report to commanding general, department of the East, for duty.

Pedlar, A. J., acting assistant surgeon, is relieved from duty at the U. S. General Hospital, Presidio, and assigned to duty at the post hospital at that post.

Reifsnyder, Joseph C., acting assistant surgeon, en route to the Philippine Islands, is assigned to duty on the transport "Morgan City," during the voyage of that ship to Manila, P. I.

Williams, John M., acting assistant surgeon, now on duty at the U. S. General Hospital, Presidio, is assigned to duty as attending surgeon on board the transport "Morgan City," during the voyage of that vessel to the Philippine Islands and return to this port.

Turnbull, Major Wilfred, brigade-surgeon, is relieved from duty in the department of Santiago, and will proceed to Havana, Cuba, reporting to the commanding general, department of Havana, for duty.

Wilcox, Captain Charles, assistant surgeon, is granted leave for one month from June 9.

Owen, Major William O., surgeon, is honorably discharged to take effect June 30.

Owen, Major William O., surgeon, now at San Francisco, Cal., will proceed to St. Louis, Mo., and assume the duties of attending surgeon and examiner of recruits.

Bevan, James L., acting assistant surgeon, is relieved from further duty at St. Louis, Mo., and will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Furbash, Charles L., acting assistant surgeon, is relieved from duty on the hospital ship "Missouri," and will proceed to Havana, Cuba, and report to the commanding general, division of Cuba, for assignment to duty.

Shaw, Captain Henry A., assistant surgeon, now at Worcester, Mass., on sick leave, is relieved from further duty at Savannah, Ga., and also from duty and station at Fort Snelling, Minn., and will proceed to San Francisco, Cal., and report at the U. S. General Hospital for duty.

A board of medical officers, to consist of Major George E. Bushnell, Major Edward C, Carter and Captain Edward L. Munson, surgeons, is appointed to meet at the army dispensary, Washington, D. C., May 4, for the purpose of making a physical examination of Hugh Bullock, a candidate for appointment of second lieutenant in the U. S. Army.

Banister, Captain William B., assistant surgeon, now on duty as acting chief surgeon, Second Army Corps, Augusta, Ga., is relieved from further station at Fort Keogh.

Kennedy, Captain James M., is relieved from duty pertaining to the muster out of troops at Augusta, Ga,, and will proceed to the Presidio and report to the commanding officer, Fourth Cavalry, for duty, to accompany that regiment to Manila, P. I.

Davidson, Wilson T., acting assistant surgeon, will proceed from Brackett, Tex., to Havana, Cuba, for assignment to duty.

Guiler, Robert W., acting assistant surgeon, is relieved from duty at Camp Mackenzie, Augusta, Ga., and will proceed to Havana, Cuba, for assignment to duty.

Wells, Daniel D., acting assistant surgeon, is assigned to U. S. Military Hospital No. 1, Havana, Cuba, for duty.

Wilcox, Lieutenant-Colonel Timothy E., chief surgeon, leave granted him is extended to include July 31.

Hooper, Vernon J., acting assistant surgeon, now at Savannah, Ga., will report to the commanding officer, U. S. transport "Sedgwick," at Savannah, Ga., for duty.

Foreign News and Notes.

GREAT BRITAIN.

The will of the late **Sir John Struthers,** Emeritus Professor of Anatomy in the University of Aberdeen, has just been made public and contains some thoughtful bequests to Scotch medical institutions. Sir John Struthers leaves to the University of Edinburgh, where he so long worked, £500 to found an anatomical lecture, and his stock of anatomical drawings, many of them made by his own hand; £100 to the Edinburgh Royal Infirmary in memory of his association as a resident medical officer and, later, as a member of the board of management; and £500 to the University of Glasgow to found a prize for original or special work in anatomical research.

Dr. Thomas Nedley, who died in Dublin at the end of April, was a well-known Irish character. He had a large private practice, which he enjoyed nearly until his death, in his eightieth year, and also held such important public appointments as surgeon to the household of the Lord Lieutenant of Ireland, medical officer to the Irish Educational Board, and medical officer to the Dublin Metropolitan Police. But it was as a wit and a *raconteur* that he was especially known. As a conversationalist he seemed to have stepped straight from the pages of Lever's novels, and he was unequalled, even in Dublin, the city of bright conviviality, for his qualities as a diner-out.

The Royal College of Physicians of London.—At the last meeting of the college the following gentlemen were elected into the select body of the Fellows: Dr. S. A. M. Copeman, Dr. W. J. Hadley, Dr. Henry Handford, Dr. P. Horton-Smith, Dr. Cyril Ogle, Dr. A. Ransome, Dr. W. H. R. Rivers, Dr. W. J. R. Simpson, Dr. W. V. Snow, and Dr. H. R. Spencer. Of these gentlemen Dr. Ransome is widely known r his excellent work upon the treatment, preventive and medial, of phthisis, and the fact that he has not for some ne past been a Fellow, will come as a little surprise to the ofession; while Dr. Copeman's election is a very proper cognition of the value of his researches into vaccination. t Dr. Spencer's name has the most significance in the list, r he is obstetric physician to University College Hospital, d of recent years the Royal College of Physicians of Lon- n has not chosen obstetricians to become Fellows, oosing to regard the trend of their special work and its actice as surgical rather than medical.

he Liverpool School of Tropical Diseases.—The casion of the opening of the Liverpool School of Tropical seases was taken full advantage of by the energetic gen- men concerned in the promotion of the new institution. e school was inaugurated on April 22, by Lord Lister, o delivered a long and important address upon the ad- ntages that would accrue to the nation by such an addi- n to its medical service. After the opening ceremony a nquet was held at the Adelphi Hotel—as familiar a spot any in England to Americans—under the chairmanship Mr. Alfred L. Jones, to whose munificence the school es its origin. At this banquet Lord Lister, Sir Richard orne, Principal Medical Officer to the Local Government ard; Dr. W. Selby Church, the recently elected President the Royal College of Physicians of London; Professor chael Foster, the Secretary of the Royal Society; Sir Wil- m Broadbent; His Excellency F. M. Hodgson, C.M.G., the vernor of the Gold Coast, and a large number of distin- ished medical men, officials, and citizens whose responsi- positions make the study of tropical diseases an impor- t subject to them were present, and the proceedings were h as to justify every hope for the success of the school.

he Conservative Surgeon and the Ungrateful tient.—An English surgeon has recently been the de- dant in an action for damages brought against him by a ient who had been his groom, and who alleged against late master unskilful professional treatment. The story s follows: The groom was thrown out of the dog-cart and tained a compound fracture of the arm. His master de- ed to try to save the limb and did so, but the union was y faulty, and the patient was so disappointed with the re- t that he made an attempt to obtain pecuniary compensa- n for wrongful treatment and neglect. The jury found a st sensible verdict for the defendant, a result with which medical men will agree; for medical men know how y impossible it is to foretell with anything like certainty at will be the result in a case of bad compound fracture a limb. The old-fashioned routine in such cases was am- ation. Then the patient knew the worst that could hap- to him at once. He accepted the inevitable and was erally grateful to the operator whose skill had relieved of a member which he was assured would be no longer ny use to him. Now, in these days of antiseptic surgery, ould be flat malpractice to amputate a limb because the es were fractured and exposed, if no other reasons for outation were present. In fact, unless the main vessels nerves are destroyed, or the whole limb mashed or disin- ated, it is almost always the surgeon's duty to be con- ative. It is well that, where any circumstance points he probability of a bad result, the surgeon should re- nber to warn the patient or his friends. Then, if later e is much inevitable deformity, a loss of movement, or the end the limb has to be amputated, he will be held of blame.

The Parasite of Cancer.—A paper read recently before the Royal Society by Mr. H. G. Plimmer, Bacteriologist to St. Mary's Hospital, London, upon certain organisms isolated from cancer and their pathogenic effects upon animals (see *Lancet*, March 25, 1899, and PHILADELPHIA MEDICAL JOURNAL, April 15, 1899), has evoked in Great Britain deep interest in, as well as considerable discussion upon, the question of the parasitic origin of malignant disease. Dr. William Russell, lecturer on pathology at the school of medicine of the Royal College of Surgeons and Physicians of Edinburgh, has therefore done well in publishing a resume of medical knowledge on the subject, so that the credit for original work may be given to those to whom it is due. Dr. Russell says in the columns of the *Lancet* that it is to investigators in Italy that the medical world is indebted for the best experimental work in this direction, and gives the honor and credit in the first place to Professor Francesco Sanfelice. Professor Sanfelice is director of the Institute of Hygiene in the Royal University, Cagliari, and his communications were made to the *Zeitschrift für Hygiene*, of 1890, 1895, and 1896, and the *Centralblatt für Bakteriologie* for 1895 and 1898. Dr. Russell speaks with magnanimity as well as authority, for in 1890 he published in the *British Medical Journal* a paper entitled "A Characteristic Organism of Cancer," which described organisms which he believed to be the parasitic entity of cancer, and which he described provisionally as fuchsin-bodies. Whether Dr. Russell was a little sanguine or no is not of much consequence, but the fact remains that his observations and results, as well as those of Mr. Plimmer, fit in well with the recorded work of Professor Sanfelice; so that there is reason to hope that prolonged investigations in similar directions may lead to more positive results.

The Complications of Appendicitis.—At the meeting of the Medical Society, of London, held on April 24, an interesting paper was read by Mr. Betham Robinson, assistant surgeon to St. Thomas's Hospital, upon certain complicated cases of appendicitis in which the abscess in connection with the appendix was attended by suppuration later in the neighborhood of the liver. Gravity, the effect of the recumbent position, and the anatomic relations of the peritoneum to the ascending colon may favor the spread of inflammation towards the liver, and in 4 cases which came under Mr. Robinson's care, a collection of pus formed in the right hypochondrium in the space bounded by the inferior surface of the liver, the upper part of the right kidney, and the hepatic flexure of the colon. In the first case a semi-purulent fluid collection was found beneath the liver and was opened by an incision running down into the loin, when the patient recovered at once. In the second case an incision in the right iliac fossa had let out a quantity of offensive pus and the appendix had been found embedded in adhesions, but with no perforation. A week later half a pint of pus was evacuated from below the liver, and although there was a little jaundice, recovery was uninterrupted. In the third case the liver-dulness was much raised about 3 weeks after the evacuation of pus in the right iliac region, while signs of fluid were present at the base of the right lung. Exploratory measures showed the liver to have dense adhesions on both its upper and under surfaces, but no pus was freed. Eventually a portion of the tenth rib was removed, when foul pus was discovered in a localized cavity, and after prolonged convalescence the patient was discharged much improved. In the fourth case the patient, after exhibiting signs of appendicitis, developed a small abscess below the costal margin and just without the rightrectus muscle, while a fecal fistula also formed. Here the pus had evidently burrowed upward along the colon as well as downward. Mr. Robinson's paper led to an interesting debate, in the course of which he was considerably complimented by members of the society who had seen similar cases for his thorough way of dealing with difficult surgical problems.

CONTINENTAL EUROPE.

University of Rostock.—Dr. Martius, director of the medical clinic, has been appointed ordinary professor of medicine.

University of Kiel.—Prof. Ernst Friedrich, of Leipzig, has been appointed director of the newly elected clinic for diseases of the ear.

A hospital-ship has been presented to the **Austrian Red Cross Society** by the Barons von Reinelt. The ship is completely equipped and has accommodations for 102 sick and wounded.

Addison's Disease in a Negro.—At a recent meeting of the Société medicale des Hôpitaux de Paris, Thibierge presented a negro suffering with Addison's disease. The patient had formerly suffered with syphilis, and now presented extreme weakness, more marked pigmentation of the skin than normal, and particularly a remarkable pigmentation of the mucous membrane of the cheek.

New Drugs and their Uses in the Hospitals of Paris.—The Assistance Publique of Paris, according to the *Lancet*, has just published a list of drugs which hospital physicians are authorized to prescribe for their hospital patients. Some of these can only be ordered under certain restrictions —that is to say, they can be ordered once after giving notice to the chief medical officer, but if it is wished to repeat the prescription this can only be done through the Drug-committee on the application of the principal medical officer. Among such drugs are bromoform, di-iodoform, orthoform, iodol, jambul, phloroglucin, piperazin, protargol, rubine, and salophen. Some drugs are absolutely forbidden, such as eucain, thallium acetate, Koch's tuberculin, and ovarin. It is somewhat curious that essence of fennel is forbidden while essence of cinnamon is allowed.

The Consumption of Alcoholic Beverages in Europe.—According to statistics presented to the Antialcohol Congress recently held at Nantes, France of all the European nations consumes the largest amount of alcohol. Her requirements reach 14.19 liters of alcohol at 100° yearly for each inhabitant; the Belgians and Germans consume yearly 10.50 liters per head, the English 9.25 liters, the Italians 6.60 liters, the Swedes 4.50 liters, and the Canadians 2. If it is true that the birth-rate diminishes in proportion that alcoholism increases, the decrease in the French population is explained by the existence of an important factor. Increase in insanity has also coincided with the increase in alcoholism. In 1838 there were from 14,000 to 15,000 patients in the lunatic asylums, now there are 100,000. Suicides which have their origin in alcoholism are also becoming more frequent. In the North department these suicides have increased sixfold.

MISCELLANY.

A Research Institute for India.—A scheme has been started in Bombay, according to the *British Medical Journal*, to found a Research Institute in India which will supply a technical education of an advanced character. The scheme has been arranged down to its minutest details, even to the number of assistants and professors to be allotted to each department, and the initial outlay and annual expenditure carefully reckoned. The result of the total calculations is that some 15 lakhs of rupees are required to start the institute on the contemplated scale, and a further annual outlay of 3 lakhs of rupees to keep it up—allowing a wide margin for variations in estimates and accidents of various descriptions, upwards of a crore of rupees (100 lakhs, or $5,000,000). Turning to the point of how the sum is to be raised, a most promising start has already been made owing to the generosity of Mr. Jamsetjee N. Tata, who has offered a property representing a capital of 30 lakhs of rupees as a nucleus for the scheme, which is deserving of all success and should be literally aided.

Obituary.—Dr. Gustav Albert Hullman, actively identified with medical politics, in Halle, April 3, aged 73 years. —Dr. Lambert von Babo, formerly professor of chemistry in the University of Freiburg in Baden, aged 81 years.—Dr. Jonquiere, formerly professor of medicine in the University of Bern, aged 76 years.—Dr. Theodor Neureuther, professor of medicine in the Bohemian University of Prague, April 14, aged 57 years.—Dr. G. L. K. Zedelius, a prominent German medical man in Shanghai, aged 46 years.—Dr. Schorstein, a prominent hydrotherapist in Odessa, aged 81 years. —Dr. Ramon Felix Gapdevila y Ferrar, formerly professor of clinical medicine in the University of Madrid.—Dr. Anastasius Zinnis, professor of diseases of children in the University of Athens.—Dr. Jules Girard, professor in the Medical School of Marseilles.—Dr. Alfred Wolisch, founder of the first Röntgen Institute in Galicia, Austria, Lemberg, April 20, aged 32 years.—Dr. Franz Karis, assistant in Professor Schrötter's clinic for internal medicine, Vienna, April 23, aged 44 years.—Dr. Jallet, formerly professor of obstetrics and gynecology in the Medical School of Poitiers, aged 73 years.

The Jigger in Bombay.—According to the *Lancet*, 12 patients are suffering from jigger in the Goculdas Tejpal Hospital, Bombay, the disease having been newly imported from British East Africa. Jigger is a very minute flea and the disease is caused by the fertile female which burrows under the skin. Any part of the body may be attacked, but the feet are usually infested mainly between the toes and near or under the toenail. The presence of the insect under the cuticle is at first marked only by a minute black spot which may be invisible without a magnifying glass, especially in a dark skin. The parasite soon enlarges to the size of a small pea by development of the egg-sac, which when mature looks like a drop of pus beneath the cuticle, with the body of the flea as a black spot in the center. If left alone the sac bursts and the eggs escape. Severe pain attends the presence of the parasite, and troublesome ulceration may follow. Captain Kilkelly, I. M. S., first reported that jigger had firmly established itself at Mombassa, and when his regiment was voyaging to Bombay no less than 26 cases occurred. He thinks that there is no reason to doubt the probability that this insect will establish itself in India. There are Government resolutions regarding the measures to be taken to prevent the importation of jigger into India, and the attention of civil surgeons and others has been drawn to them. It is important to treat promptly cases in which the abscesses have not burst, in order that the chances of the flea's eggs being scattered may be diminished by breaking the egg-sac before it has reached maturity.

Society Report.

[From our Special Correspondent.]

ASSOCIATION OF AMERICAN PHYSICIANS.

Fourteenth Annual Meeting, Held at Washington, D. C., May 2, 3, and 4.

First Day.

At the opening of the fourteenth annual meeting of the Association of American Physicians, held in the Arlington Hotel, Washington, D. C., May 2, 3, and 4, the president, Dr. G. Baumgarten, of St. Louis, delivered the **introductory address,** in which he mentioned the reasons underlying the organization, and the objects and scope of the Association, and referred feelingly to the death, during the past year, of Dr. William Pepper, of Philadelphia.

Dr. J. P. Crozer Griffith, of Philadelphia, read a paper entitled **Congenital idiopathic dilatation of the colon.** Dilatation of the colon may be either congenital or acquired. The latter variety is commonly due to chronic constipation; the former results either as a consequence of some form of stenosis or it may be a congenital idiopathic dilatation, without discoverable organic cause. A review of the literature was presented, a series of well authenticated cases being first analyzed, and then mention made of another series of cases regarded by some as instances of idiopathic dilatation of the colon, but regarded by Dr. Griffith as properly to be excluded from this list. A personal observation was narrated, and a review made of the symptomatology, diagnosis, and treatment of the condition.

Dr. R. H. Fitz, of Boston, read a paper entitled **The relation of idiopathic dilatation of the colon to phantom tumor.** He reported a series of cases suggesting the organic relation of certain cases of phantom tumor and advocated resection of the sigmoid flexure in the treatment of cases. In the discussion, Dr. William Osler, of Baltimore, presented some photographs of patients whom he had observed with idiopathic dilatation of the colon, and stated that the first patient had been operated upon, and did not die as had been erroneously reported in Rotch's book on Pediatrics. The patient improved markedly, as did also another patient who was operated upon. Another case was cited to illustrate the fact that the condition may disappear spontaneously. Dr. Abram Jacobi, of New York, mentioned the desirability of careful necropsy-studies in order to elucidate the subject, and suggested the possibility of an imperfect development of the muscular coat of the colon being the basis of the condition.

Dr. James Tyson, of Philadelphia, read a paper entitled **A case of presystolic mitral murmur associated with systolic tricuspid murmur and jugular pulse,** which will be published in a future number of the Journal. After the description of the case, the mechanism of the production, the quality, the conduction, and the recognition of the mitral presystolic murmur were discussed in detail. Descriptive diagrams were also exhibited. In the discussion, Dr. E. G. Janeway, of New York, stated that as a consequence of considerable study of mitral stenosis, he was convinced that a mitral presystolic murmur may be heard at the angle of the left scapula in at least one-third of all the cases. Dr. J. P. C. Griffith referred to a paper he had presented at the association-meeting some few years ago in which he reported 5 or 6 cases in which mitral presystolic murmurs were very widely distributed.

Dr. Frederick P. Henry, of Philadelphia, reported a case of **mitral stenosis with fever (nonmalarial) of relapsing type.** He stated that quotidian and certain forms of intermittent as well as a continued fever resembling typhoid are well recognized as symptomatic of endocarditis, but that so far as he is aware no case has been yet reported in which fever of the relapsing type and nonmalarial in nature, occurred as symptomatic of endocarditis. He employed the term to indicate a fever recurring at intervals of about one week, and reported a case that he had observed. In the discussion Dr. W. W. Johnston, of Washington, referred to a case in which at intervals of about 8 days there occurred attacks of fever which were nonmalarial in nature, and exhibited some peculiar temperature-charts. No note relative to the condition of the heart was made, but there was nothing revealed upon examination of the blood to account for the fever attacks. Dr. W. H. Thomson, of New York, stated that he considered that the condition of intermittency warranted the presumption that this was connected with the life-history of some microorganism. Dr. Bond, of Richmond, Ind., asked if there had been any gastrointestinal lesion in Dr. Henry's case, and Dr. Henry responded that there had not.

Dr. Alfred Stengel, of Philadelphia, read a paper entitled: **The immediate and remote effects of athletics upon the heart.** He stated that athletics habitually cause some dilatation of the cardiac chambers at the time of indulgence in a trying sport. The degree of dilatation is more marked in young and inexperienced athletes than in those well trained. Occasionally, acute dilatation, sufficient to cause marked symptoms, is observed. Under these circumstances, a trained athlete may recover compensation within a few days. The effect of continued indulgence in severe sports is the development of some cardiac hypertrophy, and athletes who have thus enlarged their hearts frequently suffer symptoms of overcompensation, at least during some years after they have ceased to indulge in athletic exercises. He advocated that all young men should be carefully examined before they be permitted to indulge in such sports and that while in training they be under strict medical supervision. In the discussion, Dr. Arthur V. Meigs, of Philadelphia, stated his belief in the degenerative nature of cardiac hypertrophy, and said that as a result of the examination of a considerable number of hearts he was convinced that such hypertrophy never subserved a useful purpose. Dr. C. F. Folsom, of Boston, stated that ill effects sometimes result from unwarranted muscular exercise, but that most of the ill effects are traceable to the damaged hearts of those entering athletics or to the want of medical supervision of those in training. Dr. William Osler emphasized the frequency of a systolic murmur in the pulmonary area of young athletes and others, and said that this was frequently a cause of the rejection of applicants for life-insurance, when in reality it was of no pathologic significance. Dr. George Dock, of Ann Arbor, stated that athletes with a pulmonary murmur are often capable of a great amount of muscular work, and that this is well illustrated in the case of football players and in some of the volunteers during the late war.

Dr. A. R. Cushny, of Ann Arbor, read a paper entitled: **On the interpretation of pulse-tracings,** an attempt to interpret clinical pulse-tracings in terms of the results of animal-experimentation. He stated that there is little in the literature indicative of whether irregularity of the pulse is referable to disease of the auricle or ventricle, or both. He detailed his personal experiments, stating that when the dog's heart is exposed and the ventricle stimulated with single electric shocks, each stimulus that falls during the nonrefractory period is followed by an abortive systole, which is sometimes sufficient to cause a distinct pulse in the arteries, but often fails to do so. The auricle is not affected by the stimulus and continues to beat in its usual rhythm. The next contraction of the ventricle after the abortive systole is induced by an impulse descending from the auricle as usual, and therefore takes place at the exact time at which a contraction would have occurred had there been no abortive systole. The interval between this beat and the last normal one is therefore exactly double the pause between two ordinary contractions. If a sphygmographic tracing be taken, the pulse appears to miss one beat, and the intermission is found to be exactly twice as long as the interval between two ordinary elevations of the tracing. If the auricle be stimulated instead of the ventricle the result at first appears the same, the ventricle contracts prematurely owing to the artificial impulse descending from the auricle, and there is either a very small undulation in the sphygmographic tracing or a complete intermission. If the duration of this intermission be measured, however, it is found to be less than double the pauses between two ordinary pulsations. In this way the examination of the sphygmogram of the dog enables immediate determination as to whether the stimulus was applied to the ventricle or to the auricle, for in the first case the intermission is exactly twice as long as the ordinary interval between two pauses, while in the second case, it is invariably shorter. Some consideration will show that the first proposition is true for any intermission of the pulse, due to ventricular disorder; that is, any intermission of the pulse that is due to the ventricle only, must be equal to twice the ordinary pause. Any intermission that is of shorter duration must accordingly be due to the disordered action of the parts of the heart above the ventricle which determines the pulse-rhythm. In cases of heart-disease hitherto examined, the sphygmogram very often showed intermissions, which indicated that the ventricle alone was at fault, while in many others it was clear that the intermission was due to disorder of the rhythmic parts of the heart. In some cases the pulse was so irregular that no certain conclusion could be drawn in the matter. The accurate measurement of the pulse-tracing in irregularity of the heart thus affords a means of diagnosing with considerable probability whether the ventricle or the rhythmic part of the heart is at fault. Tracings exemplifying the results of the investigations were exhibited. In the discussion, Dr. George Dock presented the heart of one of the patients of whom Dr. Cushny had taken pulse-tracings. He stated that the patient had had double aortic and probably relative mitral incompetency with loss of compensation, anasarca, and distressing pulmonary signs. The striking nonresponse to treatment was very marked. At the necropsy there was, in addition to the conditions already mentioned, excessive dilatation of the right auricle. The stretching was so marked that in many places the wall was reduced to the thin serous coats. This and several other cases that he had observed suggested that possibly protracted loss of compensation was due to such stretching of the auricle. He emphasized the importance of devoting attention to the study of pulse-tracings and the condition of the auricles. Dr. Abram Jacobi stated that he now understood the variations in intermittency of the heart in many diseased conditions, particularly exhausted and fatty hearts,—those in which the intermittency is complete being due to ventricular disorder, those in which it is incomplete to auricular disorder. He spoke also of the comparative rarity of auricular as compared with ventricular disease. Dr. Cushny stated that he found the auricular intermission in about one-half of the cases examined, but could not state whether the auricle was diseased less frequently than was the ventricle. It is quite possible that the intermittency of the auricular type was due in some of the cases to inhibition.

Dr. J. J. Putnam, of Boston, read a paper prepared by himself and Dr. J. Collins Warren, of Boston, entitled: **A contribution to the subject of the clinical history and surgical treatment of tumors involving the spinal cord.** He reported first a case of intradural fibroma, which had given rise to typical symptoms of injury of the nerve-root and cord. These consisted, in the beginning, of pain in the lower abdomen and legs. At the end of 6 months there developed paralysis of motion and sensation of the Brown-Sequard type, exaggerated kneejerk, ankle-clonus, difficulty in controlling the bladder, etc. The pain at this time was both spontaneous and provoked by defecation. A diagnosis was made of tumor involving the ninth dorsal segment. At the operation this diagnosis was confirmed and an almond-sized tumor readily removed. The patient was much improved by the operation and is now able to walk well with the assistance of a cane. The interest in the case centered in the wide distribution of the pain, the increase of the pain by defecation and distention of the intestines by gas, and the disturbance in sensibility, which was less in the sacral than in the lumbar distribution. The second case was one of intramedullary tumor of long standing. The patient had been operated upon first in 1891, but no tumor was found. For a time after the operation the patient improved, but then grew much worse. A second operation was performed at the site of the former one, and a considerable amount of cerebrospinal fluid permitted to drain off for some time. The pain, which had formerly been excessive, ceased entirely and has not returned after 1½ years. The third case was one of sarcoma of the cervical vertebra that seemed to have originated in a trauma. The symptoms of cord-compression were marked, there being at first difficulty in locomotion and in moving the arms, without much disturbance of sensibility. Later the patient became confined to bed, and a protuberance was noticeable in the pharynx. Operation was undertaken when the patient was almost moribund, and a portion of the growth removed. Upon microscopic examination it was found to be a giant-cell sarcoma. A review of the reported cases of operation for the relief of tumors involving the spinal cord was then detailed with particular reference of the prominent clinical manifestations and operative technic.

Dr. M. Allen Starr, of New York, read a paper **on tabes,** in which he stated that the most recent conception of tabes is that it is a degeneration of the sensory neurons. The sclerosis is thus a secondary alteration, a proliferative change to supply a defect of degeneration. There are several kinds of sensory neurons, and any may become involved in tabes. As a matter of fact, there are but two that are preeminently affected, and it is thus possible to speak of a spinal type and an optic type of tabes. Of 300 cases but 30 were of the optic type. The types are distinct in onset and course, though both may later present manifestations of the other. The spinal type may be acute and rapid in its course, or it may be chronic and often remain stationary for some years. Blindness is naturally the earliest and most prominent manifestation of the optic type. The treatment of the disease differs somewhat according to the type, but the first essential is the general nutrition of the patient. The general nutrition and strength of the patient must be built up by a generous amount of easily digested food, moderate stimulation, exercise short of fatigue, baths and massage. By thus improving the general health of the individual, the nutrition of each neuron is enhanced and the degenerative process counteracted. Antisyphilitic treatment should be postponed until the general condition of the patient is improved, when it may frequently be employed with great utility. Fraenkel's movements are also of value if systematically carried out. Codliver-oil, glycerophosphates, arsenic, and tonics are of the greatest benefit. In the discussion, Dr. J. J. Putnam spoke of some of the indications for the employment of hydrotherapeutic measures and gymnastic exercises. Dr. Wharton Sinkler, of Philadelphia, confirmed Dr. Starr's clinical and therapeutic observations, directing particular attention to the paramount importance of building up the nutrition of the patient. He spoke also of the commonly disastrous consequences of large doses of the iodids. Dr. W. H. Thompson concurred with Dr. Starr in his division of the disease into two types and also in his therapeutic directions. He spoke of the value of the actual cautery over the spine in girdle-pains, and of the relief afforded by a "red pepper patch" when placed over various painful localities. Dr. C. F. Folsom spoke of the value of massage and gymnastics, and stated that in the administration of the iodids the patient must be carefully watched, as these salts are often of doubtful utility. If, however, they are well borne, they often facilitate the building-up process. Dr. B. Sachs, of New York, concurring in Dr. Starr's clinical and therapeutic observations, said that it must not be overlooked that some cases diagnosed as tabes are undoubtedly cases of spinal syphilis, and that in these antisyphilitic treatment is of value. Thus early in a case the question of the institution of such treatment requires careful consideration. Dr. Charles Cary, of Buffalo, N. Y., stated that the ill effects attending the use of the iodids may often be obviated by their administration two hours after meals. Dr. E. G. Janeway, of New York, mentioned the improvement in cases of chronic syphilitic fever following the mixed treatment, and cited a case of presumable incipient tabes similarly improved. The article will be published in the Journal.

Dr. J. B. Herrick, of Chicago, read a paper entitled: **On Kernig's sign in meningitis.** He narrated his personal observations regarding the value of the sign first described by Kernig in 1884 and revived by Netter in 1898—an inability to extend the leg when the thigh is flexed at a right angle with the body. He had observed 19 cases of meningitis with 6 necropsies. The sign was present in 17, absent in 2. The latter were seen shortly prior to death, and the examination was not trustworthy. In most cases the sign was merely confirmatory of the diagnosis, but in some cases it was of distinct value. In one case of typhoid fever, though the sign was present there was no other clear evidence of meningitis. The patient died from perforation, and the necropsy revealed a meningitis due to the staphylococcus pyogenes aureus and the bacillus typhosus. In 100 other cases, it was absent in 98 and present in 2—one of extradural hemorrhage and one of gonorrheal arthritis with contractures. No satisfactory explanation of the phenomenon has been advanced—it is not due to increase of intracerebral pressure. In the discussion, Dr. William Osler stated that he had observed the sign in cases of epidemic cerebrospinal meningitis, but that it was hardly of any service in diagnosis. It might, however, be of value in obscure cases. Dr. J. P. Crozer Griffith offered evidence of the positive value of the sign; he had not observed it in any conditions other than meningitis.

Dr. James C. Wilson, of Philadelphia, read a paper entiled: **On astasia-abasia, with a case.** He presented a historical reference to the literature of the subject and reported a personal observation in detail. His patient was a emale, aged 24 years, of neurotic inheritance. She was in good health until she had an unsatisfactory love-affair. Subequently she suffered with bath pruritus, and one night was much shocked by the receipt of a telegram. The next day he complained of subjective sensations of pain and prickng in the limbs, but while in bed or when sitting there were no disturbances of either motion or sensation. Attempting to tand, however, she was unable to do so, there occurring arious irregular contortions of the lower limbs, with comensatory movements of the upper extremities to maintain quilibrium. Under treatment consisting principally of fardism and massage, she improved somewhat. She was then aught to stand anew and made rapid improvement. Later he had distinct hysteric manifestations with which the ormer attack was undoubtedly associated. The discussion was participated in by Drs. Jacobi, Thompson and Henry.

Dr. J. K. Mitchell, of Philadelphia, reported **a case of amily periodic paralysis.** He stated that prior to his eport but 3 undoubted case of like kind had been reported n America, and but about 16 in Europe. His patient was a oy, aged 18 years, who at irregular intervals would be more r less suddenly attacked with paralysis. The attacks often ome during the night, the patient awaking with total paralsis, complete abolition of the skin, muscle, and tendon eflexes, loss of faradic and galvanic irritability, unaltered ensibility, and impaired mind and speech. Examinations f the urine, feces and blood, for long periods of time, yielded egative results; in particular, no ptomains could be isoated. Similar attacks are hereditary in the family of the atient's mother, in which 5 cases are known. The consistncy of the manifestations in the attacks is of interest, as ell as the condition of the heart, there being a systolic murmur in the pulmonary area. Treatment is of no avail. he condition was thought to be autotoxic; the formation of he toxins uncontrollable. Two poisons were considered to e produced, one or the other predominating in the individual ttacks. One was thought to have an action upon the perpheral nerves and muscles; the other on the spinal cord. he attacks are probably hysteric, not the equivalent of an pileptic seizure. In the discussion, Dr. J. J. Putnam stated hat he had observed an almost analogous case.

Second Day.

Dr. W. W. Johnston, of Washington, read a paper entled: **The continued fever of epidemic influenza.** e referred to the meager literature on the subject, and eported his observations of a number of cases. He stated hat the onset of the disorder might be sudden with marked atarrhal manifestations, that these may subside, that the mperature may then slowly rise again, and not attain the ormal for 14 or 16 days. Occasionally it resembles typhoid ver. When the temperature reaches normal, the patient is ot well, as fever may continue for some time. He reported ne observation in which the fever continued for 67 days, nd another for 104 days. Several charts were exhibited howing that the early part of the fever-curve resembles at of typhoid fever, but that the latter part does not, there eing long-continued slight oscillations. In contradistinction other infectious diseases with long-continued fever comonly dependent upon some complication, these cases reveal ormal hearts, lungs, etc., except weakness of the heart obably due to myocarditis the result of the continued tion of the toxin. Manifestations of cardiac dilatation metimes supervene. It is especially difficult to differenate the condition from enteric fever and tuberculosis. eatment should be supportive, especial attention being devoted to the condition of the heart and the nervous system. For the latter morphin is most serviceable.

Dr. Victor C. Vaughn, of Ann Arbor, read a paper entitled: **Some remarks on typhoid fever among the American soldiers in the recent war with Spain.** The paper was the result of an investigation into the causes of the introduction and spread of typhoid fever in some of the regiments encamped in this country. It was stated that the true number of cases of typhoid fever was not contained in the official reports, the nature of many undoubted cases being masked by the diagnosis of malaria in many cases of protracted fever in which examination of the blood showed the absence of any malaria hematozoa, by the diagnosis of indigestion (the mortality from which in some regiments was 15%), by the diagnosis in other regiments of dengue, and again of enteric fever as distinguished from typhoid fever. It was evident from the investigation that the majority of the men were infected when they reached the camps. More than 90% of the volunteer troops affected at Chickamauga were infected when they reached that camp. Some were infected in their State camps; others brought the infection from their homes. There was no evidence that the water-supply was infected prior to the arrival of the troops. In some cases in which the same water was partaken of by the inhabitants of the neighboring town and the encamped soldiers, the latter were affected with typhoid fever, the former not. It was concluded that water-infection played a very insignificant role in the spread of the disease among the troops. It was equally clear that infection came through an improper disposal of fecal matter and urine. It was impossible to walk through some camps without soiling one's shoes with fecal matter. Over this flies swarmed and subsequently infected the food. Previous intestinal disorders seemed to have little effect in causing an attack of typhoid fever, but many of the intestinal disorders diagnosed otherwise were undoubtedly typhoid fever. Another potent factor in the spread of the infection was the fact that the disease was often far advanced before its real nature was recognized. Methods for the proper disposal of fecal matter were recommended, and care in the selection of medical officers, as well as the delegation of more authority to them, were earnestly recommended. In the discussion, Surgeon-General Sternberg deprecated the occurrence of typhoid fever among the soldiers, stating that it was attributable in large part to the nonappreciation on the part of the regimental officers to what they were content to designate the "fads" of the doctors relative to sanitation. In addition, the spread of the disease was to be ascribed to the nonrecognition on the part of the physicians of the true nature of many cases of disease, and to the nondisinfection of excreta. The inadequacy in point of numbers of the medical department even in time of peace was also commented upon. He stated also that although most of the medical officers of the volunteer army were equal to the average physician of their neighborhood, most of them had to learn even the rudiments of camp-sanitation, and he advocated that the medical schools should devote more attention to hygiene. Dr. Francis P. Kinnicutt, of New York, detailed some experiences at Montauk Point and in the New York hospitals, mentioning the inefficient sanitary measures. He advocated greater knowledge and greater power on the part of the medical officers. Dr. George L. Peabody, of New York, stated that Dr. Vaughn's paper was a great indictment of the medical officers and advocated the distribution of the paper among these officers and the adoption of a requisite to subsequent appointment that all applicants for the position of assistant surgeon in the army be required to familiarize themselves with the paper. Dr. George Dock narrated some experiences, particularly at the Sternberg General Hospital, and exhibited several instructive charts. He spoke of the lamentable lack of knowledge of the clinical course of typhoid fever on the part of many of the medical officers coming from civil life. A great amount of quinin had been given to many of the patients with mistaken diagnosis, and although the cases continued the diagnosis was not altered. The protracted cases, almost without exception, were instances of typhoid fever. Dr. Abram Jacobi deprecated the appointment of incompetent regimental surgeons by the Governors of States and the necessity of their acceptance by the Surgeon General. Dr. D. W. Prentiss, of Washington, asked if any ill effects had been observed from large doses of quinin. Dr. Dock replied that sometimes such had been observed and sometimes not. Large doses at times seemed to depress the mind and disorder the stomach. Dr. S. Solis Cohen, of Philadelphia, spoke of a Pennsylvania regiment in which satisfactory sanitary measures had been ordered by the regimental surgeons and faithfully carried out by the regimental officers and no typhoid fever developed. In other regiments sanitary measures were not carried out and typhoid fever developed. He also spoke of the occurrence of mixed typhoid and malaria infection. In camp all cases of fever should be considered typhoid fever until proved otherwise. If a case of fever does not yield to two hypodermic injections of 15 grains each of the double hydrochlorate of quinin and urea, it is not malaria. Dr. Vaughn stated that the average medical officer in the volunteer army was as good as the average surgeon, but that he is powerless to prevent or cure disease unless the line-officers follow his directions, and this the latter are often not disposed to do.

Dr. William H. Welch, of Baltimore, reported a case of **general hemochromatosis,** the second case of the kind reported in the literature. The patient was a man, aged 25 years, who died of typhoid fever. He had had a deep bronzing of the skin that was thought to indicate Addison's disease and such was the diagnosis. At the necropsy there were found the ordinary lesions of typhoid fever, and a diffuse intense pigmentation of all the organs, more marked in some than in others. There was extreme cirrhosis of the liver, which was dark reddish-brown in color. The pancreas was extremely cirrhotic and pigmented; the spleen large and soft from the typhoid fever, and the pulp somewhat obscured from the pigmentation; the heart, brownish and flabby, and evident pigmentation of the stomach and intestine. There was cloudy swelling of the kidneys, pigmentation of the lymph-glands, especially the retroperitoneal lymph-glands, and moderate pigmentation of the adrenals, especially in the outer zone of the cortex. The adrenals were otherwise normal. On microscopic examination there was seen a deposit of brownish-yellow pigment in the cells of the liver, almost all cells of various kinds being affected, except possibly those of the hepatic artery. The pigment was of two kinds, the hemosiderin and hemophosin, the latter being less abundant than the former. The lesions, both of pigmentation and cirrhosis, were more marked in the pancreas than in the liver. Here and there in the liver there was unquestionable degeneration of the parenchyma-cells, and this seemed related to the pigmentary deposits. The pigmentation of the spleen was more marked in the pulp than in the Malpighian bodies. In the stomach and intestines the pigment was especially hemophosin, especially that in the muscular coats. The lymph-glands were excessively pigmented, the sinuses being at times very much affected. There was but little pigment in the kidney. The heart was deeply pigmented, the pigment being the same as that in brown atrophy but more excessive. It did not react to iron. There was little pigment in the lungs. In the skin, in the epidermis the pigment was confined to the rete layer; in the corium, it was especially about the bloodvessels and sweat-glands. That in the coils of the sweat-glands was iron-free; the other contained iron. The characteristic feature of the case was the widespread pigmentation of the various organs. The presence of diabetes in such a case was considered accidental and when it develops it is likely to prove fatal within a short time. The pigment, of course, originates from the hemoglobin; but as there was no noteworthy anemia, there must be considerable regeneration. The destruction of the erythrocytes, however, does not entirely account for the condition, and something else must be taken into account, but what this is, is unknown. It was thought that the affection is a morbid entity, and that there is probably something in the body that acts upon the parenchyma-cells leading to the deposition of the pigment. It is not likely that all the pigment is formed in the liver and then transported to the other organs. The cirrhosis of the liver and pancreas is secondary to the blood-condition, to the alteration of the parenchyma-cells, and the diabetes is merely a manifestation of the cirrhosis of the pancreas. The diagnosis of the condition may be assisted by the excision of a portion of the skin and microscopic examination. In the discussion, Dr. William Osler spoke of Hanot's cirrhosis of the liver and of his (Hanot's) recognition of a bronzed type. He presented a patient, a man, aged 48 years, who 4 years ago began to get a little dark. Since then he has continued to become still darker and to have recurring attacks of purpura. There has also been some loss of flesh. Lately enlargement of the liver and spleen have been recognized, and the condition is considered likely to be similar to that described by Dr. Welch. Dr. J. George Adami, of Montreal, referred to a similar case occurring in a woman whom he had observed, and stated that the muscular coats of the intestine are likely to be first affected.

Dr. J. H. Musser, of Philadelphia, read a paper entitled: **Further notes of a case of Malta fever.** The case was first reported in the Philadelphia Medical Journal, December 31, 1898. Following the previous report that patient had fever reaching 104° and 105° for a period of 8 days. Afterward there were diarrhea and some blood in the stools that was thought to come from the colon. Later the temperature fell somewhat, but continued undulating for 123 days. There was never any response to the Widal reaction for typhoid fever, but the serum-test with the micrococcus melitensis was positive.

Dr. S. J. Meltzer, of New York, read a paper entitled: **Otitis media in lobar pneumonia of children,** which will be published in a future number of the Journal. He reported a number of cases, the patients varying from 8 months to 8 years, in which earache was the predominant initial symptom of an attack of lobar pneumonia. During the course of the pneumonia the earache diminishes, and never outlasts the crisis. Otoscopic examination is unsatisfactory; suppuration rarely supervenes. Reference was made to the fact that whereas frequent mention is made that otitis media may occur in catarrhal pneumonia, nothing is stated with reference to its association with lobar pneumonia. He has observed this so frequently, however, that he feels justified in making a diagnosis of pneumonia on the first day in a case commencing with high fever, frequent breathing, and earache. This earache was formerly considered an instance of sympathetic pain, but latterly he has thought it due to a simultaneous infection of the lung and ear with bacteria. In the discussion, Dr. Abram Jacobi stated that inasmuch as Dr. Meltzer seems to make the diagnosis of otitis media upon the presence of pain alone, and cases in which suppuration does not supervene cannot be proved to be instances of otitis media, he would suggest that the earache is a symptom of an angina that is followed by pneumonia. Dr. Francis P. Kinnicutt, of New York, asked if the frequency of otitis in children dying of other causes did not militate against the probability of their being a causal relationship between otitis and pneumonia. Dr. Jacobi further stated that the mere presence of bacteria in the middle ear does not constitute of itself disease, as the middle ear, especially in children, is so readily accessible to all sorts of bacteria that may gain access to the pharynx. Dr. T. M. Rotch, of Boston, stated that suppurating otitis is frequent in young infants dying of other causes, and that otoscopic examination does not seem so difficult to one experienced. Dr. Meltzer stated that he had been induced to undertake this study because of the absence of statements relative to the occurrence of otitis media in lobar pneumonia, whereas it is frequently mentioned that such complication may attend catarrhal pneumonia. He also thought that of recent years it had been determined that conditions of the middle ear with secretion and bacteria were really inflammatory.

Dr. F. A. Packard, of Philadelphia, read a paper entitled: **Endocarditis of tonsillar origin, with a report of 5 cases.** He stated that the paper was the result of an attempt to adduce some collateral evidence of the infectious nature of acute rheumatism. He reported 5 cases of endocarditis, all of which had been preceded by an attack of tonsillitis. The minutiæ of the physical signs were detailed to insure the correctness of the diagnosis of the endocarditis. In 2 of the cases it was certain that prior to the attack of tonsillitis the heart had been sound, and it was presumable that such was also the case in the other instances. Mention was made of the frequency of such cases, and also of the occurence of other members of the so-called "rheumatic series" after tonsillitis. It was stated that such tonsillitis and endocarditis are not rheumatic, but that the endocarditis is rather due to an infection by bacteria gaining access to the body through the tonsils or to the toxins of such bacteria. In the discussion Dr. James Tyson spoke of the frequency of nephritis originating in an attack of tonsillitis. DR. W. S. THAYER, of Baltimore, stated that the fact that the tonsils may serve as the port of entry for severe general infections is well illustrated by a case of acute fatal streptococcus infection that he had observed. DR. W. S. THOMSON cited a case of suppurative tonsillitis followed the day after rupture of the abscess by pleuritis, pericarditis, ulcerative endocarditis, ecchymotic spots, and death on the seventh day. DR. GEORGE DOCK spoke of the manner in which various kinds of infection become operative, and cited a case of so-called rheumatic iritis and pleuritis, developing after an attack of tonsillitis.

DR. GEORGE DOCK read a paper entitled: **A case of fatal epistaxis with a study of the blood.** The patient, a man, aged 37 years, was admitted to the hospital on account of severe nosebleed, which had been almost persistent for 5 weeks prior to admission. While in the hospital this recurred, leaving the patient weak and nervous, but without much loss in weight. Examination of the heart, lungs, and abdomen gave negative results. Local examination failed to reveal the cause of the bleeding. Despite constantly renewed plugging, and other treatment, the hemorrhages continued. Examination of his blood on the first occasion revealed hemoglobin 25%, erythrocytes 1,200,000 per cmm., leucocytes 13,000 per cmm. Later, the number of erythrocytes fell to 360,000 per cmm.; ecchymosis, edema, icterus, diarrhea developed and the patient died of pulmonary edema. At the necropsy there were found a small endothelioma of the turbinated bones, fatty degeneration of most of the organs, etc. Especial interest attached to the great number of nucleated red blood-corpuscles in the blood and the moderate leukocytosis (48,000). The nucleated red corpuscles included all varieties, and varied in proportion from time to time. At times they numbered 2,800 per cmm., and they presented variations in structural and tinctorial peculiarities. Poikilocytes were rather uncommon, but degenerated forms and shadows were observed. There were great alterations in the proportions of the various forms of leukocytes. Mononuclear eosinophiles were always present, as were also basophiles in small number. At one time there were 9% of Ehrlich's myelocytes. In the discussion, DR. W. S. THAYER stated that his observations revealed normoblasts in great number in certain cases, and said that though good prognostic significance was commonly attached to them, other accompanying signs are necessary to justify a favorable prognosis. DR. ALFRED STENGEL stated that no especial prognostic significance can be attached to the presence of normoblasts; their presence does not exclude pernicious anemia; they merely indicate regeneration of the blood. DR. WILLIAM OSLER cited a case of epistaxis occurring in a young adult, proving nearly fatal, and associated with most remarkable superficial varices and angiomas, which also often gave rise to hemorrhages.

DR. J. GEORGE ADAMI, of Montreal, read a paper prepared by himself and DRS. MAUD E. ABBOTT and F. J. NICHOLSON, entitled: **On the diplococcus-form of the colon-bacillus.** He stated that in the course of a study of a long series of livers, both cirrhotic and otherwise, he had in the specimens examined with scarce an exception encountered larger or smaller numbers of minute bodies and the more these had been studied, the more convinced had he become that they are bacteria. At first they were regarded as causative of cirrhosis, but since they have been detected in apparently normal livers they cannot be regarded as specific of any disease. From several cases of cirrhosis of the liver there had been obtained either a vigorous or what is now regarded as an attenuated growth of the colon-bacillus, while after intravenous inoculation of adult rabbits with 48-hour broth-growths of the stock-culture of colon-bacillus, the livers showed minute diplococcus forms in enormous numbers. The work of the present communication was divisible into 2 portions: (1) On the production of a diplococcus-form of the colon-bacillus outside of the organism; (2) on the diplococcus-form of the colon-bacillus within the tissues. The various methods whereby the colon-bacillus was caused to revert to the diplococcus-form were detailed. The greatest change was obtained by culture for 24 hours in broth rendered 1.5° acid according to the method recommended by the committee of bacteriologists of the American Public Health Association, to which 2.5% lactose had been added. As a result of experiments upon rabbits it was concluded (1) That the colon-bacillus injected into the circulation is rapidly taken up by the liver and kidneys; (2) that within 15 minutes after inoculation some bacilli have already been ingested by the endothelial cells in the liver and that the process of ingestion may continue until these cells are full of bacilli; (3) that in the process of ingestion the bacilli are broken up into shorter lengths and that these short bacillary forms may within the endothelial cells present themselves as two deeply staining dots and may thus resemble diplococci, though it would appear from future events that these two deeply staining dots are firmly attached by a firm non-staining material; (4) that already within 2 hours, the modified bacilli may be discharged outwardly from the endothelial cells and be taken up by the underlying liver-cells; (5) the exact stages of this discharge have as yet not been capable of being followed. In the liver-cells the modified bacilli are to be recognized as small diplococci of a size varying from that equal to the diplococci seen in the endothelial cells down to points of extreme tenuity. Evidently these forms are undergoing destruction. They lose their power of staining and if the destruction be not too rapid they assume a brownish tinge. The cause of this latter is not determinable, but it is observed in unstained sections, and studies of human livers indicate that not a little of the fine pigmentation common in the liver-cells is brought about by the existence in these cells of these minute elements of bacterial destruction. Similar alterations were observed in the kidneys. Assuming the correctness of his conclusions, he thinks that the liver possesses the most important function of taking up and destroying bacteria, more especially the colon-bacilli, which have gained admission through the portal blood, while the kidney possesses a like power of destroying bacteria circulating in the general systemic blood.

A paper entitled: **The organism of a case of blastomycetic dermatitis,** by DR. LUDVIG HEKTOEN, of Chicago, was read by title.

DR. JAMES STEWART, of Montreal, read a paper entitled: **Tumors involving the hypophysis,** which will be published in a future number of the JOURNAL. He reported two cases illustrating the characteristic local manifestations of tumor-formation in the region of the hypophysis. The first case was in the person of a woman, aged 35 years. The symptoms consisted of headache, vomiting, and temporal hemianopsia. Later, with infiltration of the ethmoid and sphenoid cells, there ensued hemorrhage from the nares. There were no symptoms of akromegaly or other forms of nutritional disturbance. The patient died 20 months after the onset of symptoms. Examination of the growth revealed it to be a perithelial angiosarcoma of the pituitary body. The second case was that of a man, aged 42 years. The symptoms, which extended over a period of 9 years, consisted of right temporal hemianopsia, profound anemia (2,100,000 erythrocytes per cmm.), and a general condition not unlike that seen in myxedema. There were no alterations in the osseus tissues. Examination after death showed the growth to be an endothelioma of the base of the brain, causing pressure on the chiasm and obliterating the pituitary body. In the discussion DR. M. ALLEN STARR narrated a personal observation similar to Dr. Stewart's.

DR. W. S. THAYER, of Baltimore, demonstrated an **akromegalic skeleton.** The patient was a woman, aged 41 years. The akromegaly was associated with goiter, and a tumor, probably adenomatous in character, of the pituitary body. In the discussion, DR. WILLIAM OSLER commented upon the intensity of the headache with which the patient suffered. As revealed by the necropsy this was unattended by marked pressure. DR. J. J. PUTNAM suggested that in some cases the persistent and intense headache is associated with interstitial alterations in the bones of the skull.

A paper entitled: **The application of thyroid extract in the treatment of a cerebral neoplasm,** by DR. STARLING LOVING, of Columbus, Ohio, was read by title.

THIRD DAY.

DRS. F. PFAFF, of Boston, and J. J. PUTNAM, of Boston, read a paper entitled: **Experimental research disproving the theory that paraxanthin-poisoning is a cause of migraine.** They had made careful analyses of the urine of 5 patients with typical migraine and 7 with migrainous epilepsy, in addition to examining the urine of a large number of patients in the county jail and various hospitals. It was stated that Dr. B. K. Ratchford, of Cincinnati, had based his opinion as to the presence of paraxanthin in his "final fluids" upon the results of physiologic experimentation, and this was considered faulty. As a consequence of their experiments and research they concluded that there is no difference in the amount of paraxanthin in the urine of healthy and unhealthy persons, and that Dr. Ratchford's conclusions could not be substantiated. It was thought that the ill effects found by Dr. Ratchford by injecting his "final fluids" into lower animals were dependent upon the presence of some impurities, particularly the ammonia-salts and other inorganic compounds. In the discussion, DR. B. K. RATCHFORD stated that he had depended for the identification of the paraxanthin in his "final fluids" upon inoculation-experiments and various approved chemical tests. He considered the condition a leukomain-poisoning, and his later experience confirms him in the correctness of this view—that the xanthin-bodies are related etiologically to migrainous conditions. Precisely similar experiments with the urine of normal individuals and that of patients with migraine revealed the latter toxic and the former not so. The toxin was considered paraxanthin. If his tests were unreliable, then the query, What is the toxin? As the "final fluids" were in reality found to lose some of their toxic properties when deprived of their ammonia impurities, it was thought that ammonia compounds of the xanthin-bodies were the etiologic factors in migraine. This conclusion was stated to point to the inactivity of the liver in this condition, and this view was confirmed by the beneficial effects of therapeutic measures directed to that organ. DR. C. A. HERTER, of New York, considered that the burden of proof rested with Dr. Ratchford. Experiments that he himself had undertaken with the urine from migrainous patients yielded negative results. DR. PFAFF doubted that ammonia-compounds of the xanthin-bodies could rightly be held answerable for the migraine.

DR. C. A. HERTER, of New York, read a paper entitled: **The action of hepatic, renal, and other cells on phenol and indol, under normal and pathologic conditions.** He had conducted experiments with 26 animals, the object of the research being the determination of the action of living cells, especially the hepatic, renal, muscle and nervous elements upon phenol and indol. These aromatic bodies being formed in the intestine in conditions of health and disease, a special interest attaches to their study. Two methods were employed in the research. In one, given weights of the normal liver, kidney, muscle, brain and blood were minutely divided and then brought into contact with a known quantity of phenol or indol in watery solution. After permitting the cells to remain in contact with the aromatic bodies for a period of time, varying from one to several hours, in different experiments, the entire mixture was subject to distillation. The distillate containing phenol or indol was then treated by means of suitable reagents, and the quantity of the substance recovered by means of distillation was then compared with the quantity recovered from a control-distillate of phenol or indol. It was found that the distillate recovered from the liver contained less phenol than that from any other organ, and much less than that obtained from a control-distillate. Thus it was made clear that a certain amount of phenol is in some way transformed by contact with the living cells. The blood and brain were found to possess only a slight transforming action. The kidney was found to act energetically, but less so than the liver. The muscle occupied a position intermediate between the liver and kidney on the one hand, and the blood and brain on the other. Similar results were obtained in the case of indol, but they showed less regularity than those obtained with phenol. It is not clear how such activity on the part of the cells should be interpreted. Similar activities have been attributed to the action of an oxidizing ferment. It is evident, however, that the action of a ferment is incompatible with the observation that the action of strong acid, absolute alcohol and boiling water only slightly diminishes the activity of the cells. Potatoes were found to have an action similar to the cells; egg-albumen gave no action, nor did gelatin. A second method of study was pursued in another series of observations. In these phenol and indol were introduced intravenously in varying amounts. The animals were quickly killed, the organs triturated, and promptly subjected to distillation. These experiments justified the conclusion that the cells of the liver are more active than those of the kidney, muscle or brain, in removing the aromatic substances from the blood, in effecting their rapid transformation. Another series of observations were made with organs of animals placed under different pathologic conditions, such as prolonged anesthesia, poisoning by alcohol, poisoning by ricin, poisoning by morphin, and in staphylococcus septicemia. These experiments indicate that some pathologic conditions are capable of directly reducing the ability of the liver-cells to transform phenol and indol. Similarly it was found that the liver-cells in cases of fatty and cirrhotic livers were incapable of exerting their normal activity. In no case, however, was this capacity to act upon phenol and indol entirely abolished. Considerable activity remained when the liver was the seat of the most advanced structural alterations in its cell-elements. It was thought that when phenol passes into the body it is loosely held by the protoplasm of the cells, and that during this time it does not give its reactions and does not exert its toxic action. It was also thought that this activity of the liver-cells is but one expression of a property that may be exerted with regard to other aromatic bodies, and possibly also with regard to nonaromatic bodies.

DR. F. FORCHEIMER, of Cincinnati, read a paper prepared by himself and DR. R. W. STEWART, of Cincinnati, entitled: **On the toxicity of the urine.** The observations detailed were based upon the study of the urine of 10 patients suffering with various forms of gastrointestinal autointoxication, 14 other patients, and 154 animal inoculations. It was found that urine is less toxic to mice than to rabbits, and that different animals react differently to different doses. It was also found that fresh urine, filtered fresh urine, and boiled urine, are nontoxic; that boiled urine becomes toxic the longer it is kept; that boiled urine to which boracic acid has been added also becomes somewhat toxic, and that fresh urine becomes toxic the longer it is kept. The toxicity of the urine was thought dependent upon the formation of toxins by bacteria.

DR. T. M. ROTCH, of Boston, reported a case of **perforation of the stomach by a foreign body in an infant 7 weeks old.** The child was suddenly attacked with abdominal pain and vomiting. Peritonitis developed, and on the fourth day celiotomy was performed, and the peritoneal cavity irrigated, no cause for the peritonitis being detected. The child died 3 days later. At the necropsy there was detected a minute perforation of the stomach in which a small thread was found.

A paper entitled: **A small aneurysm of the descending arch of the aorta; x-ray examination confirmed by autopsy,** by DR. F. H. WILLIAMS, of Boston, was read by the secretary, DR. HENRY HUN, of Albany, N. Y. The patient was a man, aged 37 years, in whom there existed an aneurysm of the innominate artery, and, as revealed by x-ray examination, an aneurysm of the descending arch of the aorta. The latter was not determinable by the ordinary methods, nor did the outline of the heart, as revealed by the x-ray, correspond with the area of cardiac dulness as determined by percussion. Attention was directed to the discrepancy, as often determined by Dr. Williams, between the outline of the heart as indicated by percussion and that seen by the fluoroscopic screen.

The following papers were read by title: **An experimental study of pancreatitis,** by DR. SIMON FLEXNER, of Baltimore; **Peculiarities of the eruption in typhoid fever,** by DR. J. M. DA COSTA, of Philadelphia; **Types of the lithic-acid diathesis,** by DR. I. N. DANFORTH, of Chicago; **Individualization in the bath-treatment of patients ill with typhoid fever,** by DR. S. SOLIS COHEN, of Philadelphia.

The following were elected members of the association: Honorary member, Dr. Israel T. Dana, of Portland; active members, Dr. J. B. Thatcher, Dr. Walter B. James, and Dr. William H. Park, of New York; Dr. R. C. Cabot, Dr. Morton Prince, and Dr. J. H. Wright, of Boston; Dr. John S. Ely, of New Haven; Dr. L. F. Barker, of Baltimore; and Dr. W. G. Johnston, of Montreal.

The following were elected officers for the ensuing year: President, Dr. E. G. Janeway, of New York; vice-president, Dr. William H. Welch, of Baltimore; recorder, Dr. I. Minis Hays, of Philadelphia; secretary, Dr. Henry Hun, of Albany; treasurer, Dr. J. P. Crozer Griffith, of Philadelphia; councillor, Dr. William T. Councilman.

The Latest Literature.

British Medical Journal.

April 22, 1899. [No. 1999.]

1. An Address on the Dangers of Delay. A. W. Mayo Robson.
2. The Prognosis and Treatment of Acute Intussusception. George Heaton.
3. Peritonitis as a Cause of Increased Peristalsis in the Rectum and in other Parts of the Intestine. Charles W. Cathcart.
4. Two Cases of Operation for Perforating Gastric Ulcer. Robert Jones.
5. Exostosis of the Vertebral Border of the Scapula; Removal. H. Betham Robinson.
6. Second Attack of Syphilis. C. Mansell Moullin.
7. The Sleeping Sickness. A. T. Ozzard.
8. Influenza and Otitis Media. W. R. H. Stewart.
9. Case of Rupture of Uterus Treated by Abdominal Section; Recovery. Arthur Holdsworth Davis.

1.—Early operation is urged in the treatment of all orms of carcinoma; early and complete removal is not simply palliative, but has been proved to be curative. Robson advocates the removal of every tumor of the breast at an early stage and reports that he has repeatedly removed scirrhus from patients who had had simple adenoma for years. He has also operated for epithelioma of the cervix in a number of cases, and for sarcoma of the rectum, and the patients have remained well years after. Intermenstrual hemorrhage or hemorrhage after the menopause always demand careful and immediate attention. Tuberculous peritonits in its early stage with effusion is curable by abdominal section and drainage. The opening may be made under cocain-anesthesia and need not be any bigger than to admit the finger. If not operated upon early, matting of the intestines and viscera, intestinal obstruction, caseation of glands, suppuration and other roubles which frequently end fatally are prone to occur. After considerable experience Robson is convinced that early operation, undertaken as soon as appendicitis is diagnosed, would be followed by a far greater percentage of recoveries han is now usual. He has never regretted early operation. Statistics from various countries by many observers show he frequent association of gallstones and primary carcinoma of the gallbladder and liver. All cases of tumor of the gallbladder should be regarded with suspicion. It is believed hat **earlier operation** in these cases will lead to **more satisfactory results.** When the profession realizes that out of 6 patients with perforated gastric ulcer can be saved by immediate operation, a large number of lives will be aved that are now needlessly sacrificed. It is estimated that 2 or 23% of cases of typhoid intestinal perforation could be aved by early operation. Vomiting a little time after food, hirst, and rapid emaciation should lead to an examination or dilated stomach; obstruction of the pylorus may be dependent on malignant diseases or upon some simple removable cause. Pylorectomy to be successful must be performed arly. If operated upon before great size is attained there is almost complete absence of danger from ovarian tumors, but as a result of delay 4% or 5% of cases result fatally. Myoma of the uterus is becoming more generally recognized as not a harmless growth. Sarcomatous or carcinomatous degeneration frequently occurs, breaking down and sloughing may give rise to septic troubles, or complications may arise from pressure on nerves, the ureters, kidneys, and ectum. If no trouble is caused it is considered safe o wait, but as soon as there is inconvenience, or a tendency to grow, operation should be performed without waiting. [m.b.t.]

2.—The **diagnosis of intussusception** is not a matter of great difficulty. It is a more common occurrence in hildren. The presence of blood and mucus with rectal tenesmus, together with a sausage-shaped tumor, generally ead to correct diagnosis. Less than 2% recover after gangrene and spontaneous suppuration of the bowel. The success or failure of treatment lies with the physician and genral practitioner rather than the surgeon. Early recognition and prompt operation will save a majority of patients. The disadvantages of the old treatment by enemas are the risk from overdistention and impossibility of determining whether the bowel has been completely reduced; and the greatest drawback is, that valuable time and golden opportunity are allowed to pass. Immediate celiotomy and reduction of the invagination of the intestine is the treatment of choice. Four cases of ileocecal intussusception, with abdominal section, are reported, with only one death. [m.b.t.]

3.—Physicians are so familiar with **paralysis of the bowel** in acute appendicitis that they are apt to think that increased action of the bowel can hardly be due to the same cause, acting under different circumstances. Three cases are reported of pelvic peritonitis, pelvic abscess, and gangrenous perirectal abscess in which this condition was present. [m.b.t.]

4.—A girl of 19, who had had occasional attacks of dyspepsia, was taken with great pain and extreme tenderness over the abdomen with a rapid pulse. Three hours after the onset of the acute symptoms operation was begun. A **perforated ulcer** was found in the anterior surface of the **stomach** and a little below the lesser curvature at the pyloric end. It was closed with Lembert sutures, the abdomen was irrigated and the wound was closed without drainage. An uneventful recovery followed. In a second case a woman aged 21 was suddenly seized with violent abdominal pain and vomiting, with a weak pulse and rigid abdominal muscles. On opening the abdomen the colon and stomach were found coated with lymph and adherent to the liver. Perforation was found in the anterior surface nearer the cardia than the pylorus. The perforation was closed with a silk purse-string suture and further by Lembert sutures, the abdomen was irrigated and gauze drain inserted. There was more or less fluctuation of temperature after the operation, and on the fourteenth day the patient suddenly developed coughing and expectorated foul-smelling pus. She was anesthetized, and the old sinus was explored but no pus was found. Pus was found by aspiration in the left hypochrondrium and was evacuated after free incision, and the cavity was well washed out. The patient suffered severe collapse and died the evening after the operation. At the necropsy the left lung was found adherent to the diaphragm and a small hole entered the lung-tissue perforating the diaphragm; this hole opened into a cavity bound by the diaphragm, the colon and the stomach. [m.b.t.]

5.—A girl, 9 years old, had had an **exostosis of the scapula** nearly all her life. Until a short time it had not caused pain or inconvenience, nor had it grown. The tumor was situated on a vertebral border just above the inferior angle. It was removed by saw and gouge and a good recovery followed. [m.b.t.]

6.—Moullin had under his care a young man showing a typical **Hunterian chancre upon the corona.** The secondary manifestations of **syphilis** occurred 6 months after; all the symptoms disappeared under a prolonged course of treatment. Two years and 6 months after this infection the patient developed another chancre, situated close to the site of the former. All of the secondary manifestations followed, as after the first infection. The second attack was a little more severe and persistent than the first. He believes second attacks of syphilis are much commoner than is usually thought, having observed several instances himself. [s.m.h.]

7.—Ozzard has never met with a case of **sleeping sickness** in British Guiana and consequently cannot agree with the paper recently published by Dr. Ferguson in the *British Medical Journal.* He thinks it probable that Ferguson has confused advanced cases of ankylostomiasis with cases of sleeping sickness. These cases may show many of the symptoms of sleeping sickness, entirely because of the extreme anemia of the brain. [s.m.h.]

9.—Davis reports a case of **rupture of the uterus and vagina** occurring during labor. The rent was about 3 inches in length, beginning in the roof of the vagina anteriorly, and extending obliquely upward from left to right through the wall of the uterus. Operation was performed; the muscle-wall closed by interrupted catgut-sutures, the peritoneum by continuous catgut. The abdomen was irrigated with saline solution, all clots removed, various cavities carefully sponged, and the incision in parietes closed in layers. The patient made an uninterrupted recovery. [w.k.]

Lancet.

April 22, 1899. [No. 3947.]

1. Epithelioma of the Penis and its Treatment. Jonathan Hutchinson, Jun.
2. On the Pulsus Paradoxus, with Special Reference to its Occasional Occurrence on One Side Only. Thomas Harris.
3. Certain Points in the Pathology of the Pericardium. Harold L. Barnard.
4. Notes on a Case of Unilateral Optic Neuritis. Charles Higgens.
5. A Criticism of the More Commonly Employed Tests for Albumin in Urine. P. J. Cammidge.
6. A Second Case in which Recurrent Mammary Cancer Disappeared after Treatment by Oophorectomy and Thyroid Extract. G. Ernest Herman.
7. Bromid of Strontium in Epilepsy. Anthony Roche.
8. Shot-firing Accident; Amputation of the Forearm without an Anesthetic; Recovery. Montague D. Makuna.
9. A Case of Enteric Fever with Ulceration and Perforation of the Gallbladder; Necropsy. J. Anderson.
10. A Case of Tetanus Successfully Treated with Antitetanic Serum. Lewis Marshall.

1.—**Epithelioma of the penis** is a rare affection; its rarity often leads to mistakes in diagnosis at a time when treatment might be successful. It is mistaken chiefly for venereal sores. The growth is confined to the first inch of the urethra, while sarcoma may be located at any part. Two varieties are met with, the flat ulcer and the cauliflower growth. The condition is generally associated with phimosis and is very rare among Hebrews; there is generally foul-smelling, blood-tinged discharge and induration under the prepuce. The discharge should be examined under the microscope. Stained with menthyl-blue, cells of large size with nuclear proliferation are seen. The growth tends to ulcerate through the prepuce. In nearly all cases it occurs after 50, and its duration is usually over 3 months; in primary chancre the patient should have developed a rash within this time. In the treatment of this condition a stump of the penis should be left if possible. The more extensive operations involve great risks and the ultimate results are unfavorable. In operating, a dorsal flap should be reflected sufficiently long to cover the whole penis; a catheter is passed so far as the tourniquet which surrounds the base of the organ and both corpora cavernosa are divided; the urethra is dissected back ½ to 1 inch in front of the corpora cavernosa, and is slit up, everted and sutured to the margin of the skin. All bleeding vessels must be carefully tied. Retraction of the urethra and stricture are results much to be dreaded, but no stricture will form if the urethra is drawn well upward. [M.B.T.]

2.—The **pulsus paradoxus** as seen in indurative mediastino-pericarditis, is supposed to be distinctly different from that which is met with physiologically and under various other conditions. Some authors, for instance, believe that it differs so much from similar pulse-phenomena that it may be regarded as pathognomonic of this condition. Harris believes that while it may possess characteristics which are important as distinguishing it from the pulsus paradoxus met with in other conditions, they are not so important as is generally thought. He reports a typical case in which the only marked paradoxic pulse was found in the left radial and left brachial arteries. There appear to be extremely few observations on the occurrence of the pulsus paradoxus as a unilateral phenomenon. Harris's case was one of indurative mediastino-pericarditis, with dilated heart, bronchitis, general anasarca and ascites, chronic peritonitis, expiratory swelling of the veins of the neck, and pulsus paradoxus, more marked in the arteries of the left than in those of the right arm. The subject of the condition was a girl aged 16 years. During the 2 years and 4 months that she was under observation she always presented practically the same pulse-characteristics. The only changes occurring were those apparently due to gradually increasing feebleness of the circulation. At the beginning of this period the left pulse was very much more irregular than the right and was clearly associated with the respiratory act. When the patient took a deep breath the pulse of the left radial became quite imperceptible. There occurred at the same time an occasional very slight change in the right. Deep inspiration also affected the left brachia pulse. No difference was detected between the arteries i the other parts of the body. The tracing of the left radia showed a very much greater irregularity than did the tracin of the right. When a deep inspiration was taken the puls of the left radial became completely obliterated and th sphygmogram showed no pulse-wave whatever during th deep inspiratory act. The effect upon the right was ver slight, especially when compared with the left. When deep inspiration was taken and the breath held at the end o the act, the pulse in the left radial gradually returned, th successive beats getting larger and larger until after th breath had been held about 25 seconds, when the individua waves were nearly as high as during ordinary breathing The effect of a similar act upon the right radial was ver slight. There was no essential difference between the tracings taken recently and those taken when the patient firs came under observation.

The cause of the pulse in the vessels of the left arm being affected by the inspiratory act while those of the right ar very slightly influenced is difficult to determine. In th postmortem examinations which have been made unde these conditions there has been observed a relative difference in the size of the orifice of one subclavian as compared with the other, which is probably an important feature in the production of the type of pulse in question. The condition may also be accounted for by the presence of adhesions giving rise to narrowing of the left subclavian during inspiration, while not affecting the innominate trunk of the righ side.

After this article was completed the patient referred t died. An autopsy was held and it was discovered that ther was no difference in the size of the lumen of the vessel supplying the arms, or at least that it was quite insignif cant. There were a great many adhesions around the main vessels. While it could not be demonstrated that they wer different on the two sides it is probable that they were. Th important elements in the production of the unilatera paradoxic pulse in this case were probably the greater length and the narrow lumen of the left subclavian artery as compared with the length and lumen of the innominate artery the adhesions in the mediastinum more readily causing a kink of the narrow subclavian than of the innominate artery. . [S.M.H.]

3.—According to Barnard when a large quantity of venou blood is driven into the right heart the **pericardium** supports the heart so as to prevent overdistention. It prevent dilatation beyond a certain point at which the walls of th heart are thick enough and strong enough to empty themselves at each recurring systole. The pericardium, in othe words, bears to the heart-muscle the same mechanic relatio as the leather case does to the inside case of a footbal When the pericardium becomes inflamed it softens and i may be inferred that any sudden exertion or effort, especiall a cough, will distend the heart with blood and cause it t press against the pericardium and so dilate it. Barnard believes that a pericardium so dilated cannot retract, and tha the heart within it will not in future receive support when i becomes engorged with blood, and that every effort wi throw the heart out of gear, dilating its cavities and rendering its valves relatively incompetent, and so producing cyanosis and breathlessness. It is of the utmost importanc therefore that pericarditis should be recognized early an that the most absolute rest be maintained until the inflammatory materials have organized into firm fibrous tissue. I is hard to explain how pericardial effusion can exert a sufficient pressure to dilate so tough a membrane as the pericardium without collapsing the thin auricles and preventing th ingress of venous blood. The venous blood must be introduced into the arteries at a higher pressure than that of th pericardial effusion, or it could never enter. That the pressure of the pericardial effusion must be high is equally certain, since it is capable of dilating so inextensile a membrane. This high venous pressure is probably obtained b the violent working of the respiratory force-pump driving gush of blood through the abdomen from the right hear into the lungs at each inspiration, and forcing it once mor from the heart into the aorta at each painful expiration. I is a struggle on the part of the skeletal muscles to maintai the circulation through the heart in spite of the stranglin effect of the pericardial effusion. The terrible dyspne aused thereby tends to become progressively worse and orse. The fluid wedge of blood driven through the comressed heart by the spasm of the abdominal muscles and he aspiration of the lungs acts across the incompressible ffusion of the softened pericardium, stretching it still more nd more and making further room for fresh effusion. This ype of dyspnea therefore seems an imperative call for opertive interference and the release of the effusion which is rangling the heart, for the pericardium so progressively ilated will probably not again contract so as to support the eart, even if the effusion be absorbed. Barnard investigated is matter experimentally by ligaturing a small rubber tube the pericardium of an animal, and producing conditions milar to those described by the injection of warm oil into e pericardium. The same symptoms of extreme dyspnea ere produced and promptly relieved upon the withdrawal f the oil, indicating that similar relief would follow the moval of the effusion in these cases of extreme distention. he operation of tapping the pericardium should be the open ethod, since it is often difficult to differentiate between a idely dilated heart and a pericardial effusion. [S.M.H.]

5.—Cammidge discusses the following **tests used for e detection of albumin in the urine:** heat, heat d acetic acid, heat and nitric acid, cold nitric acid (Heller's st), potassium ferrocyanid and acetic acid, sodium-chlorid lution and acetic acid, Robert's brine test, salicylsulphonic id, trichloracetic acid, picric acid, Esbach's solution, Mailrd's reagent, Tanret's reagent, Spiegler's reagent, acetic id in the cold, and acetic acid in the urine diluted with 2 3 volumes of distilled water. He concludes as follows: me of these are more delicate than others and show very inute traces of albumin, but all react with one or more subances other than albumin in such a way that mistakes are ble to be made unless the particular fallacies of the method nployed are remembered and guarded against. Generally e more delicate the test the more liable one is to make istakes in this way. Nucleoproteids are the most common d most constant source of error. It is important that they ould be carefully distinguished. Large amounts indicate catarrhal condition of the mucous membrane of the urinary act, especially of the bladder. Uric acid is liable to cause me confusion in those tests in which strong acids are emoyed or in very concentrated urine even with the weaker ids, but if the fact is borne in mind, and in doubtful cases e urine is suitably diluted, the difficulty disappears. Resin ids give a precipitate with several of the reagents, but they cur so rarely that little difficulty is likely to arise from this use. Of all the tests so far introduced, salicylsulphonic id is, according to Cammidge, the most convenient and est from objection. It may be carried about either as a lid or as a saturated solution in a drop-bottle, and is applied once to the urine, direct, without heat or any special apratus. By means of it all forms of albumin and most almoses are precipitated at once, the latter being readily stinguished by their solubility on heating. It acts in acid and kaline urines equally well, and does not precipitate phosates, urates, uric acid, bile, alkaloids, or drugs. In delicacy stands between Heller's and the heat and acetic acid tests. is great delicacy may, however, be counted as an objection, r quantities of albumin too small to be of pathologic imrtance may be shown, especially on standing. The most rious objection is the readiness with which nucleoproteids e precipitated, as at present we have no means of readily stinguishing this precipitate from that caused by albumin. e best check on these two fallacies is obtained by the use Heller's cold nitric-acid test in doubtful cases. The secdary ring given with nucleoproteids by this test is readily cognizable, and by diluting the urine with water any doubt set at rest. The inferior delicacy of Heller's test guards e against giving undue importance to a mere trace of almin. [S.M.H.]

6.—Herman reports continued improvement in a case eviously reported, in which **oöphorectomy** had been rformed for recurrent mammary cancer, and adds a secd case in which oöphorectomy and the administration of yroid extract were followed by good results. He believes e evidence shows that greater benefit results from the **mbination of oöphorectomy with thyroid exact** than from either of them separately, and that this ethod will give results that have not been approached by y other treatment of recurrent mammary cancer. [W.K.]

7.—Roche, in the **treatment of epilepsy,** after having obtained a clear idea of the conditions and surroundings of the patient, explains to him in detail the regulations regarding diet, stimulants, and mode of life. He then administers strontium bromid, at first in small doses, gradually increasing the dose to the point at which it will in the particular case control the attacks. It is necessary to explain to the patient that the fits may recur at some time and that in any case the medicine must not be left off or omitted for any cause. It should be ascertained whether the attacks are more frequent at any particular time of day and a larger dose should be given about half an hour before that time, and a second smaller dose 12 hours later. He generally begins treatment with 1 dram a day, giving 40 grains at the most threatened period and the other 20 grains 12 hours later. He usually gives it in an infusion of quassia. If the fits recur under the 1-dram dose, it should be increased to 1½ drams. He has frequently given so much as 3 drams a day for weeks and has never seen any symptoms of poisoning. The bromid rash is sometimes troublesome, but 2½ minims of arsenical solution in each of the 2 doses generally controls it. If the patient finds no inconvenience from the dose, except the rash, it should be continued for an indefinite period. It should always be carefully seen to that the medicine is pure, and that the druggist does not substitute the potassium salt for the strontium. He has used this in a considerable number of cases and has never met with a carefully investigated and persistently treated case in which the number of attacks has not materially diminished, and he has seen many cases in which there has been no return of the attacks after an interval of so long as 4 years, the patients continuing the medicine. [S.M.H.]

8.—A man, 25 years old, had his hand and the lower third of his forearm shattered by a colliery explosion. His arm was amputated while he was in a condition of unconsciousness from shock, and a good recovery followed. [M.B.T.]

9.—Anderson had under his care a sailor who, when admitted to the hospital, gave a history of having been ill with cough and pain in the chest for 3 weeks. He had worked almost up to the time of admission. On examination he had all the signs and symptoms of typhoid fever. The attack was fairly severe, the temperature-range was high, several intestinal hemorrhages occurred during the course of the attack, some of which were quite severe, and he had all the physical signs of pneumonia. Ten days after admission he complained of pain in the upper part of the abdomen and of tenderness on palpation of the spleen and liver. Two days later he was very weak and still complained of abdominal pains, but there were no signs of peritonitis. He sank rapidly, and died 3 days later. The autopsy showed congestion of both lungs, but no consolidation. There was no general peritonitis, and the intestines were only moderately distended. The spleen was enlarged and soft, the stomach and pancreas normal, the liver-substance was also normal. On examination the gallbladder showed numerous ulcers, the largest being about ½ of an inch in diameter and of varying depths. One near the summit had some slight peritoneal adhesions over it; one located near the origin of the cystic duct had perforated, and a small **localized peritoneal abscess** had formed about it, being about 3 inches long by 1½ inches broad, and bounded by the gallbladder, the right lobe of the liver, and the pyloric end of the stomach, with the lesser omentum. The walls of this abscess were stained a greenish yellow with bile, as were also the ulcers in the gallbladder. These ulcers were oval or circular in shape and were not limited to any one part. The edges were not thickened but undermined. There was some peritonitis over the site of each of the ulcers. There were numerous typhoid ulcers in the last 2 feet of the ileum, some reaching to the peritoneum and some exposing the transverse muscular coat. In some cases the Peyer's patches were swollen and red, and sloughs had been separated; there was some reddening and ulceration at the upper part of the colon. During the whole illness there were no symptoms to particularly draw attention to the gallbladder, and there was no evidence of a perforative peritonitis. [S.M.H.]

10.—Marshall reports a case of **tetanus** of rather mild type occurring in a girl aged 12 years. It developed 2 weeks after a severe burn of the right arm. The patient was treated by the antitetanic serum together with potassium bromid and chloral hydrate. The first injection was given on the second day. During the course of the attack 110 cc. divided into 12 doses was administered. The patient made a good recovery. [S.M.H.]

New York Medical Journal.

May 6, 1899. [Vol. lxix, No. 18.]

1. Report of a Case of Removal of the Gasserian Ganglion with the Second and Third Divisions of the Fifth Nerve, Hartley-Krause Operation. John F. Erdmann.
2. Gastrodiaphany in the Infant. Henry Koplik.
3. The Treatment of Syphilis. Boleslaw Lapowski.
4. The Prevention of Hay Fever. Edward W. Wright.
5. Gold in the Treatment of Anemia and Malnutrition. J. P. Sheridan.
6. Position in Sleep. A Principle in Neurological Therapy. William Browning.

1.—A farmer, 53 years old, with a good constitution and family history, and no history of specific disease, had suffered for 3 or 4 years with **trigeminal neuralgia.** He had taken the usual and unusual remedies and used electricity with only partial and temporary relief. Six months previously, portions of the supraorbital, supratrochlear and intraorbital nerves were excised with considerable relief, lasting 4 months, but the suffering returned, affecting mainly the lingual and ophthalmic branches. For 10 days the pain had been so severe that the patient was unable to take solid food. **Extirpation of the gasserian ganglion** was undertaken, following the typical Hartley-Krause method. Profuse hemorrhage following the raising of the flap was arrested by gauze packing. The dura was nicked and profuse flow of cerebrospinal fluid occurred, and as the dura was raised from the base free hemorrhage occurred, again necessitating packing. The nerves were cut and the distal ends pushed through the foramina, while the proximal ends were used to make traction on the ganglion; the ganglion was apparently entirely removed. The patient made a good recovery and was discharged in care of his physician, 6 days after the operation. The entire left side of his face was anesthetic and free from pain. Seven weeks after the operation his left eye was enucleated for corneal ulceration. Owing to the anesthesia of the cornea, dust was blown into the eye and not felt, and thus injury resulted. While observing the ordinary precautions his eye had remained in normal condition. [M.B.T.]

2.—Koplik tninks that in **gastrodiaphany of the infant's stomach** we have a means of diagnosis which when properly applied will be of much value. The thinness of the abdominal walls admits of a much more distinct picture than is possible in the adult's stomach. Finding modifications of the existing gastrodiaphanes undesirable for use in the infant's stomach, he has devised an instrument applicable to this age. In all cases thus far examined by the instrument, the pylorus has been quite constantly found in the midline in young infants, in a few cases behind the liver, but as a rule just beneath the border of the liver. The stomach lies horizontally with the greater curvature beneath the ribs on the left side, the picture is unobstructed by the normal spleen. The pylorus and greater curvature can be mapped out. The instrument is chiefly valuable as a means of determing the exact size of the stomach and possibly the condition of the pylorus. It is most useful in infants under 6 months of age, but can be used up to the twelfth month. It should be used only in extreme cases. [S.M.H.]

3.—Lapowski, in discussing tne **treatment of syphilis,** says that the safest guides in the administration of mercury to a syphilitic patient are the action of mercurial preparations upon the syphilitic virus and their effects upon the human organism. The first requirement may be fulfilled, first, by killing the specific agent and neutralizing its toxin, from a direct and antiparasitic action; second, by increasing the defensive power of the human organism by stimulating the functions of the organic elements to produce an antitoxin, and thus, in an indirect manner, to enable the system to overcome the depressing tendencies of the syphilitic poison. Mercury does not, however, act as a direct antiparasitic. The effects upon the human organism depend upon the amount of mercury introduced into the circulation, and consequently the best method of giving it is that which administers the largest amount of mercury in the safest manner. The best way to introduce mercury would be by fumigation, but this method is too dangerous to be of service. The same objection is made against soluble intravenous injections. The administration of mercury by the mouth is objectionable because the mercury is absorbed by the venous system of the portal vein and deposited in the liver to be discharged again into the intestinal canal. A very small amount is carried by the general circulation to other organs. Hypodermic injections of mercury are open to the following objections: (1) The occurrence of purulent abscesses, (2) the infliction of pain, (3) our incapacity to regulate absorption and to control elimination of the mercury when once it is in the system, and lastly, the danger of lung-embolism from injecting some of the mercurial mixture into the vessels. Its use should be limited to very urgent cases where a quick and strong action is desired. According to Lapowski there is but one method which meets all of the demands, and that is inunction. Its greatest objections are uncleanliness, and the exposure of the patient's malady. As mercury is absorbed mostly by the lungs and only partly by the skin, by this method the system is mercurialized rapidly and thoroughly. While other methods act quicker than inunctions the effect is not lasting. Inunctions are useful in all stages. This method is the safest of all. While the amount of mercury artificially introduced cannot be definitely measured or determined, one can always cut off the supply at the slightest sign of danger, and in the pleasantest way for the patient. Before putting a patient under the influence of mercury, his excretory organs should be examined to ascertain whether or not they are capable of eliminating the absorbed mercury without injury to their normal functions. As to the choice of ointments, in order to avoid skin-eruptions, the blue ointment should be free from rancid, irritable ingredients. The metallic mercury in the ointment must be reduced to extremely fine particles in order to facilitate its entrance into the circulation. The blue ointment of the United States Pharmacopeia is the best preparation. As the benefit derived by ointments is mostly due to inhalation of mercury by the lungs one should select such a time and place, and adopt such a manner of application as will insure to the patient the best possible chance to inhale the mercurial vapors. The hour of retiring, in a room at an even temperature, will best answer this purpose. The extent of skin to be taken in in the application should be sufficient to insure a large surface for vaporization. It is advisable to measure out the amount of ointment required for each application and place it in a separate box to be kept as a guiding dose for the patient. There is no special contraindication for the use of mercury. Other methods may be used as adjuvants or in persons with hairy skins or diseases of the skin in which the surface is affected. In these latter cases the bag application can be advantageously used. In the malignant stage of syphilis mercury in any form is inadvisable. Here iodin-preparations, alone or with quinin, are valuable. The effect produced by iodin is due to the stimulant action of iodin *in statu nascendi* upon the general functions of the tissues. The indications for its use in syphilitic manifestations are when the patients have a tendency to fatty degeneration and to pus-formation as gummata, hypertrophied papules of the early period, or primary ulcers of a gummatous appearance. It is useful also in early syphilitic affections or in organs not accessible to direct examination, as in the latter instance it is impossible to determine whether the symptoms are due to changes characteristic of the early or late stages of syphilis. It is best administered in large doses in the form of potassium iodid in solution well diluted taken immediately before meals. The disagreeable taste can be counteracted by a mint-drop in the mouth or by some mint-water. It is always important not to limit the treatment to the use of iodin alone, but to give the so-called mixed treatment. The safest way of accomplishing this is to administer iodin for a certain period—2 or 3 weeks—and then after an interval of 5 or 6 days proceed with the mercury, as the iodin will be eliminated by the time the mercury comes in contact with the internal tissues. It is advisable in cases where albuminuria or cylindruria occur simultaneously with an early syphilitic eruption to place the patient under the influence of iodin and abstain from introducing mercury into the system. Potassium iodid, hot-air cabinet-baths, special attention to the diet, will suffice until the improved condition of the urine indicates more active treatment. When albuminuria or cylindruria found in a late syphilitic patient, with or without syphi- tic manifestations, outside of potassium iodid in combina- on with hot-air cabinet-baths, mercury can also be used hen by exclusion of all other etiologic factors the cause of e affection of the kidney can be ascribed to syphilis. If e eliminative functions of the kidney are found impaired a pregnant syphilitic woman mercury must not be used, the slightest form of mercury-poisoning, together with the ndition of the stomach and intestines in pregnancy, will roduce abortion. When the kidneys do not show any signs impairment, inunctions are advisable. When malaria is sociated with syphilis, quinin in combination with iodin ill be of more use than mercury. Exclusive of the use of ercury and iodin, resort to the mineral springs and hot and ld water are of value. Surgical intervention is sometimes ecessary in cases of syphilitic lesions of the bones. The ecessity of proper hygiene and diet should be impressed pon the patients. The milk-diet is especially desirable in e first months of manifestations of syphilis. In the local eatment of accessible syphilitic lesions asepsis is most im- rtant. Irritation of any sort should be avoided. Exposed cer in case of dry chancre should be covered by means of mercurial plaster. The local action of calomel is excellent the earlier syphilitic manifestations, but the patient ould be strongly impressed with the possibility of trans- itting the disease to others. In mercurial stomatitis, boiled ater with or without borax or soda bicarbonate is useful. In vere cases the sovereign remedy is 10% iodoform gauze uffed in the pockets of the mouth. Lapowski advises ainst the excision of the primary lesion. The early treat- ent, that is prior to the secondary eruption, is of no value. e ideal end of treatment is to stop when the disease is red. The cases of reinfection which one sees frequently ported are probably not cases of reinfection, but the manifestation of the old condition, or due to failure in ab- rption. Lapowski does not consider the disease absolutely rable. The chronic intermittent method of treatment has advantages over the symptomatic plan of treatment. .M.H.]

4.—Wright recommends for the **prevention of hay ver,** (1) a sojourn in a district where there are no exciting uses; (2) the use of medicines adapted to the elimination uric acid, xanthin, and hypoxanthin (which substances considers to have an irritating influence on the small rves that control the size of the bloodvessels when present excess in the system), and a mode of life conducive to the evention of the storing up of these substances; (3) the cor- ction of any lesion of the nares and the strengthening of e resisting power of the mucous membranes to pollen other irritants, thus making it immune against the ex- ing causes by nasal massage. This consists in a gentle ction of all the nooks, crannies, and surfaces of the inte- r of the nose, and more particularly over the usually nsitive areas, that part of the septum opposite the middle rbinate and that part of the soft palate just behind the ptum. It is sometimes necessary to use a very weak solu- n of cocain in fine spray before such massage can be plied. For the treatment of an attack of hay-fever ortho- m and suprarenal capsule promise well. [S.M.H.]

6.—Browning observes that people sleep either with the ad on an ordinary thin pillow and bolster, thus lifting it t slightly and constituting the normal position, or with the ad higher than this standard, or with the head without the lows and thus below the standard. The second method is opted by persons leading active mental lives and whose ain-vessels are overfilled, and the third method is adopted persons whose condition induces a state of **brain- emia,** such as neurasthenics, an excess of mental and rvous depression, sufferers from simple melancholia, ane- cs, chlorotics, etc. [S.M.H.]

Medical Record.

May 6, 1899. [Vol. lv, No 18.]

Some of the Objections to the Neuron-Theory. Stewart Paton.
The Third Hitherto Undecided Disease of the Ovary: Myxomatous Degeneration. Mary A. Dixon-Jones.
Intussusception in an Infant Nine Months Old; High Rectal Injection; Recovery. P. Northrup.
4. Appendicitis or Salpingitis with Complications, and a Report of Some Unusual Cases. Thomas H. Hawkins.

1.—Paton contributes a long article upon the neuron-theory, considering particularly the influence of recent work by Apathy, Bethe, and Nissl. Of these, it is of course well known that Nissl has contributed nothing to the direct elucidation of the fibrillar hypothesis excepting theoretic considerations. Paton argues that most of the evidence for the anatomic independence of the nerve-units depends upon the pictures obtained by Golgi's method. He urges that this method is only valuable for the purpose of obtaining a rough outline sketch of the topography of the nervous system, and Golgi has never admitted that direct communication does not exist. He assumes, as established beyond question, the existence of the intercellular and intracellular fibrils as first clearly described by Apathy. They cannot be artifacts, because they are obtained by various methods of staining. Paton claims that the chief contention against Apathy's views is in regard to the existence of protoplasmic ridges between the cells, but this he holds to be irrelevant, for the real question is, whether the fibrils pass from one cell to another, and communicate and form an intercellular network. He does not believe that these fibrils develop in the ganglion nerve-cells, and apparently holds to their origin from the neuroglia-cells, as suggested by Apathy. The fact that fibrils pass from one cell to another, apparently, according to his idea, completely does away with the old neuron-theory. [The recent criticism of v. Lenhassek's upon Bethe's views, seemed to have settled for the time being their value for the overthrow of the neuron-theory. Bethe has certainly never demonstrated the passage of fibrils from one ganglion-cell to another. Apathy claims to have done so in the ganglion-cells of the snail, but a skilled microscopist who examined his specimens, told me that he was unable to detect these fibrillar connections. It is a mistake to believe, as seems to be assumed by the opponents of the neuron-theory, that the latter implies that there is neither an anatomic nor functional connection between the nerve-cells. The former has never been satisfactorily demonstrated, but a mere consideration of, for example, the superior and inferior motor-neurons suffices to indicate that a transference of energy in some form or other, either, as Dercum believes, by direct contact, or by a sort of induction, necessarily occurs. It is also, I think, an error to argue that the Golgi method can only be used for rough topographic studies. At present, it is the only method, and an exceedingly satisfactory one, for the elucidation of the finer anatomy of the protoplasmic processes, and Bethe's work certainly has not shown that it is seriously at fault, but rather, in many respects, confirms discoveries already made by the silver impregnation. J.S.]

2.—Dixon-Jones discusses **myxomatous degeneration of the ovary.** In microscopic examination of over 100 ovaries she has found but 5 or 6 marked instances of myxomatous degeneration. She believes that she has presented a third hitherto undescribed disease of the ovary, and has demonstrated by repeated examinations that degeneration has a withering and blighting effect upon every structure of the organ. [W.K.]

3.—Northrup reports the case of a child 9 months of age who suddenly awakened crying from an afternoon nap. One and one-half hours later the physician noted that the patient was pale, apathetic, and relaxed. A **sausage-shaped tumor** was found lying just below the costal border. An enema brought away some fecal matter, mucus, and blood, but did not alter the appearance of the tumor. Four hours later water was injected from a height of 3 feet at a temperature of 108°. The first injection was negative, and after enough water had been introduced to embarrass the action of the heart, it was allowed to escape. The second injection was, however, more successful, for during ejection the sausage-shaped tumor disappeared, and has not returned for 3 months. The case resembles that of an infant 7 months old, previously reported by Neff. [J.S.]

4.—Hawkins discusses the **complications of salpingitis and appendicitis,** and reports interesting cases. Frequently the appendix is perfectly healthy, but firmly attached by adhesions to the side of the uterus or to the fallopian tube or ovary. In other cases the uterine adnexa are infected from a diseased appendix. He details the history of 4 unusual cases. [W.K.]

Medical News.

May 6, 1899. [Vol. lxxiv, No. 18.]

1. On the Use of Antistreptococcic Serum in Infections by the Streptococcus. A. T. Bristow.
2. Unusual Localizations of Tuberculosis. Aldred Scott Warthin.
3. Eclampsia from the Surgical Standpoint. George L. Broadhead.
4. A Case of Instrumental Rupture of the Uterus. John O. Polak.

1.—Bristow records the following **cases treated by antistreptococcic serum** : Three of erysipelas, 7 of streptococcic inflammations of the hands and forearms, one similar condition of the leg, one suppuration of the knee-joint, one of postoperative pneumonia, and one of acute gangrene of the foot with lymphangitis and phlebitis. He also gives a resume of his study of the literature concerning antistreptococcic serum. The larger portion of this emanates from Marmorek himself, and he believes that a striking reduction in the mortality followed its use in erysipelas. The results of others in erysipelas have always been favorable, and in the cases here reported the serum seemed to influence the course favorably. In 275 cases of scarlet fever, in which it has been used, it does not seem to have had satisfactory influence upon the course except when the the disease was complicated by streptococcic infection. It has been used in 201 puerperal cases; the results are not wholly favorable, but this Bristow attributes largely to the fact that it has been used in too small doses, and too late. The dose he advises is about 10 cc., and 60 cc. to 100 cc. should be used in a day, if necessary. He does not believe there is evidence that definite ill effects have ever followed the use of the serum. [D.L.E.]

2.—Warthin reports a **combination of sarcoma and tuberculosis occurring in a wart of the skin** which took on malignant growth, and when removed proved to be sarcoma, but there was some extension into the tumor-tissue of a tuberculosis of the skin. Twice he has seen tuberculosis and carcinoma combined in the mammary gland; in one case the combination was present in the axillary glands also. He records one case of primary tuberculosis of the mamma, one of primary tuberculosis of the nose, the same condition of the lobe of the ear, and a primary tuberculous ulcer of the heel. One instance is given of primary multiple tuberculosis of the brain. In one case he found tuberculosis of a Graaffian follicle, once of the placenta. In 20% of the fallopian tubes examined, he found tuberculosis, and the final case reported is one in which symptoms of intestinal obstruction came on in a man of 67. An artificial anus was made and the patient recovered entirely, and since normal bowel-movements occurred through the rectum, resection of the colon and closure of the artificial anus was carried out by Nancrede. The wound closed, but soon broke down again, and had not become fully healed when the patient left. At times he had discharge of blood and pus with his stools. He died outside the hospital, and the cause of death was unknown. When sections were prepared from the artificial anus it was discovered unexpectedly that there was tuberculosis, chiefly at the union of the skin and intestine. The source of infection was unknown, but it was thought probable that the original symptoms were due to tuberculous stenosis of the colon, the disease subsequently causing infection of the artificial anus by the bacilli in the feces. [D.L.E.]

3.—In cases of **eclampsia** occurring during pregnancy, but prior to labor, Broadhead advocates emptying the uterus under aseptic precautions as the best and safest plan of treatment during the first few months of pregnancy. The cervix is dilated and the product of conception removed with the curet. After the first few months, if the cervix be soft and yielding, manual dilatation with delivery by version or forceps may be used. If the cervix is unyielding, the membranes are ruptured and several bougies are introduced. In cases in which the attack comes on during labor the progress of labor should be hastened so much as possible. [M.B.T.]

4.—Polak reports a case of **instrumental rupture of the uterus,** occurring during dilatation of uterus prior to curetage. The instrument went through the uterine wall, causing a rent near the right cornu. The abdomen was opened and gauze packed into the uterine cavity from above, and the uterine wound closed with interrupted sutures of catgut. The patient recovered. [W.K.]

Boston Medical and Surgical Journal.

May 4, 1899. [Vol. cxl, No. 18.]

1. The Abuse of Medical Charity: The Passing of the "Charity" Hospital and Dispensary. Agnes C. Vietor.
2. Cases of Dislocation of the Os Magnum. Samuel L. Abbot.
3. Inversion of the Uterus. H. E. Marion.
4. A Case of Chronic Intestinal Obstruction. Frank A. Higgins.
5. A Case of Double Popliteal Bursitis, One Bursa Containing Movable Cartilages. G. H. Monks and F. B. Lund.

1.—Vietor gives a number of quotations from authoritative documents showing the injury to the poor by the abuse of the dispensary and hospital charitable services. She believes that, in considering a **remedy for the present condition of parasitism,** it should be remembered that medical advice is a marketable commodity, that every member of the community should make provision for sickness, and that free medical service should be offered as rarely as free food or other necessities. She considers the provident dispensary system, that is the insurance against sickness by the payment of a small fee on the part of each member of the association, as the best solution of the question. She believes that the present hospital system is bad, inasmuch as it entices patients away from the physicians, who lose the fee and the experience which would be gained in treating the case, and then insists that the members of its staff shall treat the patient for nothing. [J.S.]

2.—The case of a young woman is reported who had received an injury due to bending the left wrist forcibly backward. On examination, swelling and redness were seen; the parts were tender on pressure, but the swelling felt harder and less rounded than ganglion. A diagnosis of **dislocation of the os magnum** was made. By extending the hand the deformity disappeared, and the Bond splint with a bandage to the elbow was applied. After a month the bone was found firmly fixed, but tenderness remained for 6 months. Three similar cases are reported. [M.B.T.]

3.—Marion discusses the frequency, etiology, symptoms, diagnosis, and treatment of **inversion of the uterus,** and reports 2 cases occurring in his own experience. The cases had these conditions in common: Both women were slight in stature, one delicate and very anemic, the other far from being robust. Both were primiparæ. Both were under the influence of ether. Both children were living, and there was nothing remarkable about their respective umbilical cords. In neither was there undue haste in the removal of the placenta. In both there was excessive hemorrhage, due to the inversion. In both combined (Credé) and slight traction was practised. In both immediate replacement was performed before even mention was made of the accident to anyone, thus avoiding any undue excitement. [W.K.]

4.—Higgins reports a case of **chronic intestinal obstruction.** The patient had had numerous attacks of severe constipation, and during the fourth attack, about one month before being seen by Dr. Higgins, she had been given *one pound of clear, metallic mercury.* This resulted shortly after in a number of profuse evacuations, and in the expulsion of the mercury. She apparently suffered no deleterious effects from this unusual dosage, and the bowels continued to move every 3 or 4 days for a short time. The trouble recurred, and an operation for relief was performed. The axis of the colon was changed and the bowel sutured to the abdominal wall. The bowels moved voluntarily afterward, and the condition was relieved. [W.K.]

5.—A laborer, aged 60, who had suffered from chronic arthritis affecting the knee, had a noninflammatory tumor, the size of an English walnut, on the back of his knee. On incision the tumor was found to be an **enlarged bursa** of the inner side of the **semimembranosus tendon,** and when dissected out it was found to be connected with the kneejoint. The wound was sutured and prompt recovery followed. From a similar location on the other leg a bursa was removed which contained 3 cartilaginous bodies, one the size of a walnut. An excellent recovery followed. [M.B.T.]

Journal of the American Medical Association.

May 6, 1899. [Vol. xxii, No. 18.]

l. Nondiptheritic Pseudomembranous Rhinitis. J. PRICE-BROWN.
2. Multiple Primary Carcinoma. ALDRED SCOTT WARTHIN.
. Vesical Calculus in the Female. T. J. HAPPEL.
l. Adherent Placenta. CHARLES B. REED.
. Why is the Profession Poor in Purse? and How to Remedy it. C. H. REED.
. Trachoma Toxins and Antitoxins. E. F. SNYDACKER.
. The Medical Profession. WILLIAM E. QUINE.
. Catarrhal Laryngitis. HENRY R. SLACK.

1. In conclusion Brown again expresses his belief that ondiphtheric **pseudomembranous rhinitis** sometimes, hough rarely, occurs. It is probably as frequent as prinary nasal diphtheria. On clinical examination it is imossible to distinguish it from genuine diphtheric disease. wing to possible mistaken diagnosis isolation in all cases hould be imperative until bacteriologic examination can be nade. [M.B.T.]

2.—The case is reported of a woman, aged 45, who had oticed a swelling in the right ovarian region 4 months preiously. Exploratory operation was performed and the right vary was removed, the patient dying 4 days after the operaion. At the necropsy numerous metastases were found in he pleura, peritoneum, omentum, mesentery and retroperioneal glands. There was primary colloid carcinoma of the gallbladder associated with gallstones. The ovary, which vas removed, was affected with **adenocarcinoma.** A econd case is reported, occurring in a woman 59 years old vho began to be troubled with severe constipation 3 weeks efore admission; 9 days after entering the hospital she had severe attack of abdominal pain with the sensation of omething breaking. Celiotomy was performed and the ablomen was found full of feces, but on account of the condiion of the patient, operation had to be interrupted and leath occurred in a few minutes. At the necropsy, perforaion of the colon was found which had followed acute obtruction of the sigmoid flexure, caused by constricting denocarcinoma of the intestinal wall. There was also prinary adenocarcinoma of the gallbladder associated with holelithiasis, and polypoid growths were found in the endonetrium, within the bladder and gallbladder. In each case here was a decided difference in the anatomic structure nd different histogenesis was clearly evident. About $\frac{9}{10}$ of ll cases of primary gallbladder-carcinoma are associated vith gallstones, as was found in these cases. [M.B.T.]

3.—Four cases of **vesical calculus in the female** are eported. In the first case a stone measuring 4 inches in ircumference was removed by suprapubic cystotomy from he bladder of a feeble anemic child 5 years old. Death folowed 72 hours later. In the second case a small calculus vas removed from the meatus by mouse-tooth forceps. The hird case occurred in a woman 65 years old. The calculus vas removed through an incision in the vagina; the fistula ad closed 8 weeks later. The fourth case also occurred in n elderly woman who had had chronic cystitis, and the stone vas removed through vaginal incision. Happel believes hat the vaginal route is much to be preferred over suprapubic operation, even though the stone be large, because of he facility for natural drainage. [M.B.T.]

4.—The literature of **adherent placenta** is discussed at onsiderable length. Four cases are reported in which nanual removal of the placenta was undertaken after Credé's nethod had been thoroughly tried without avail. Recovery ccurred in all cases. [M.B.T.]

6.—As the result of a series of experiments on animals, nydacker expresses his belief that trachoma antitoxin has pecific and curative action in the early stage of the disease. M.B.T.]

8.—A prescription containing chloral with potassium romid and ammonium bromid dissolved in cinnamon-water highly recommended in the treatment of catarrhal larynitis. [M.B.T.]

Archives of Pediatrics.

April, 1899. [Vol. xvi, No. 4.]

. Fevers of Children; Their Significance, Their Diagnostic Value and Antipyretic Treatment. SAMUEL S. ADAMS.
2. Tracheocele. J. PARK WEST.
3. Black Tongue: With Photograph of a Case and Brief Consideration of its Etiology. WILLIAM S. GOTTHEIL.
4. Polyuria and Incontinence of Urine; Symptoms of Adenoids. FRANCES HUBER.
5. Irrigation of the Bowel in Fermental Diarrhea. JOSHUA C. HUBBARD.
6. Spontaneous Dislocation Outwards of the Right Knee-Joint in an Infant 11 Months Old. J. W. BALLANTYNE.
7. Case of Streptococcus Milk-Infection. GEORGE WOODWARD.

1.—Adams discusses the subject of **fevers in children.** The particular causes of fever are: (1) Physiologic ferments acting independently of bacteria; (2) the presence in the system of substances which are the product of microorganisms not in themselves pathologic; (3) poisons which are the result of specific infections. These poisons possess certain qualifications: (1) The power of life; (2) the ability to multiply to a limited extent; (3) the power of affecting the organism as a whole, and (4) the power of conferring upon the individual a condition of immunity. It follows, therefore, that an elevation of temperature in the child indicates, as a rule, some pathologic condition. It is possible by careful observation in most instances to determine the pathologic condition which produces the elevation of temperature in the child. It must be borne in mind, however, that very slight disturbances oftentimes produce a very marked rise in temperature, and that on the other hand, the most violent and fatal disorders of childhood sometimes are accompanied by a low range of temperature. The condition of the temperature therefore is not an index of the severity of the disease. In children the temperature is subject to sudden and violent rises, to marked irregularity, and to remissions. These are often accounted for by the occurrence of mixed infections. In most diseases there exists an initial stage, the fastigium, and the stage of defervescence, but frequently these stages are ill defined. It is these irregularities in the diseases of childhood which should cause the physician not to pin too much faith upon the one symptom of fever. By the daily excursion is meant the temperature taken in the 24-hour period; it is the difference between the maximum and minimum temperature for this length of time. Its significance is great; it is important as a guide to both prognosis and diagnosis. It matters not how high the temperature is in childhood if there are no corresponding evidences of cerebral disturbances. In the treatment of all acute infectious diseases, one must determine the effect of the high temperature upon the individual child rather than base the treatment on the height of the temperature alone. In taking the temperature it should be a constant practice to cleanse the thermometer in the presence of the parents or the nurse both before and after using it. The best results can be obtained by taking the temperature of an infant in the rectum. Great harm is frequently done by the use of internal antipyretics in the treatment of fevers. Antipyrin is a most dangerous drug in the hands of even the most skilful. Phenacetin is one of the safest of the internal antipyretics, but should always be given judiciously and only in those cases in which a rapid reduction of the temperature is required. Its use should be accompanied by free stimulation. The method of reducing temperature by the external application of cold is not only the most beneficial, but the most stimulating to the various systems. It may be done by means of a cold pack, the application of an ice-bag to the head or of the ice-coil to the abdomen, but far better is the so-called Brand method, which is applicable to all pathologic conditions. The free use of water and free ventilation of the sick-room and the bathing of fever patients constitutes the most valuable part of the treatment. In the use of the bath, a temperature of from 95° to 100° is the most desirable. It should be continued for about 10 minutes and the patient should be subjected to continuous friction during all of this time. [S.M.H.]

2.—West had brought to his notice a child, 20 months old, which was in a perfectly normal condition, aside from a **swelling in the neck.** There was no history of a similar condition in any branch of the family. The child had never been previously ill, had never suffered from any prolonged coughing, vomiting, or straining, or anything to account for the trouble. At the age of 15 months there was noticed a swelling ¼ of an inch in diameter, a little to the left of and just below the level of the larynx. At the age of 20 months the swelling was the size of a hen's egg, well separated from the larynx and trachea and in the same position as when first observed. It was smooth and did not fluctuate nor crepitate. It had a soft, gaseous feeling when the child was quiet, and became tense when she was disturbed. Continued pressure during rest caused three-quarters of the swelling to disappear, but it immediately returned to the former size on the removal of the pressure. It was apparently covered by a distinct smooth membrane about ⅛ of an inch in thickness. The tumor did not fluctuate on ordinary respiration. Deep inspiration reduced the tumor by one-half. On deep, prolonged, or restrained expiration, as when crying, it was increased to double its usual size, and two more swellings connected with it appeared, one in the center of the neck just below the larynx, an inch in diameter, the other immediately above the original swelling, 1½ inches in diameter. These caused an increase of from 9 to 11¼ inches in the circumference of the neck. Percussion over the tumor gave a tympanitic note. There were no auscultatory signs. The child was not inconvenienced in the slightest manner by the presence of the swelling. Changes in the size of the swelling were made with great rapidity and without any sound. The larynx retained its natural position and the thyroid was of the normal size. The voice and cry were not changed. The case was considered one of **tracheocele.** [S.M.H.]

3.—Gottheil had under his care a boy aged 2 years, who was in perfect health, save for the fact that he had a **black tongue.** This condition had existed since he was a baby, but had temporarily disappeared on 2 occasions under treatment. When seen, the dorsum of the tongue was covered by a dark greenish-black streak, commencing abruptly immediately in front of the circumvallate papillæ and extending down almost to the tip. It was ¾ of an inch wide posteriorly, gradually narrowing anteriorly. The mucous membranes were normal on the balance of the tongue and elsewhere throughout the mouth. The black streak was slightly elevated and its surface had a gelatinous appearance. It ended in a rather abrupt margin on either side. The rest of the tongue was not even coated. There was no hypertrophy or any threadlike excrescences. The blackness was most intense in the center of the streak. The only subjective symptom was dryness of the mouth. The microscopic examination of the scrapings showed normal epithelial cells of various kinds, detritus, and small round spore-like bodies, which made up almost all of the fragments removed. These bodies were large, irregularly oval, semitransparent, and showed a fine gray color under the lens. There were no pigment granules observed in them or about them. Occasionally they were rounded, apparently surrounded by a thickened capsule, stratified and partially disintegrated. Especially was this so in specimens examined some time after removal. The cells were disconnected from each other, were not arranged in series, and there was no mycelium. Some of the oval bodies showed hemispherical projections, but none showed cells in active proliferation. A mouth-wash of a saturated solution of soda hyposulphite removed the discoloration, temporarily perhaps, in the course of a week. This affection is apparently quite harmless but rather uncommon. [S.M.H.]

4.—Huber has observed **polyuria and incontinence of urine** as not infrequent **symptoms of adenoids.** The adenoids cause mouth-breathing, which induces thirst, and the child drinks large quantities of water to quench the thirst. The natural result is a large increase in the amount of urine secreted and passed. Probably a truer explanation is found in the changes of the blood in the lymph-circulation and in the brain induced by the lesion in the nose. The blood becomes surcharged with carbon dioxid or there is a deficiency in the amount of oxygen. The cerebral circulation is interfered with by the obstructive lesion in the nose. In consequence many products of cerebral tissue-metabolism accumulate in the brain to produce the symptom-complex to which the term **aprosexia** has been applied. Such children are dull, stupid, and backward, lacking in general innervation. They fail to pay attention to their wants, and as the higher inhibitory reflexes are less acute the bladder-reflex is not respected and incontinence follows. If the general nutrition is improved, the tone of the muscular and nervous system restored and the morale of the patient developed, removal of the obstruction in the nose will be followed by a decided improvement in health. [S.M.H.]

5.—In cases treated at the Boston Summer Hospital, Hubbard used **lavage** only in very severe cases or those seen early. In the later and less severe cases as much of the bowel was washed out as it was possible to reach from below. This was done by a large-sized rubber catheter and a fountain-syringe, the syringe being held at about 3 feet above the baby. The baby was placed in the lithotomy position with the hips raised. After the water is introduced it should be removed by breaking the connection between the syringe and the catheter, this as soon as the baby begins to strain. The irrigation does good particularly by cleansing, therefore it is of slight consequence what fluid is used. In most instances the catheter can be introduced its full length. The process cleanses not only the part of the bowel reached by the catheter, but, by starting up the peristalsis, empties the intestine higher up. Irrigation not only lowers the temperature, but quiets the restless babes, some even going to sleep during the process. [S.M.H.]

6.—Ballantyne had brought to his notice a well-nourished, healthy-looking infant, aged 11 months. It was normal in every respect save for the condition of the right knee. For some time every now and again a peculiar change takes place in this knee, which is accompanied by a slight creaking sound. This occurs especially when the right foot is pressed against the left leg, and most often when the child is struggling and restless. It was thought by the mother to have been a congenital condition. When the right leg was grasped in a position of nearly full extension and the upper end of the tibia pressed outward, **partial dislocation** took place. It could be clearly felt that the head of the tibia moved outward until its projection appeared on the outer side of the knee-joint, and a corresponding depression upon the internal aspect. There occurred eventually a dislocation outwards at the head of the tibia. It was easily returned and the infant apparently suffered nothing during the process. Evidently it was this condition which occurred spontaneously when the boy pressed the inner border of the right leg against resisting surfaces. The only seeming abnormity in the right knee-joint was that the external condyle of the femur projected somewhat less than normal. The lower limbs did not differ from each other in shape and size. There was no tendency to club-foot. The only family taint existed in the father. He was born with a condition of extensive nevoid hypertrophy. The mother had a small nevus on her left arm. This condition of the knee-joint was necessarily associated with a large degree of relaxation of the ligamentous structures of the joint, and especially of the crucial ligaments. The treatment consisted in fixation o the joint by a retention apparatus in order to permit contraction of the ligaments should such a tendency exist. [S.M.H.]

7.—Woodward, in following the investigations of the Philadelphia Board of Health in their endeavor to **isolate cows yielding a pus-containing milk,** observed the following circumstance: A woman presented to the milk-inspector a sample of milk of her houshold-supply, stating that whenever she drank it she became deathly sick. A microscopic examination of the milk showed many pus-corpuscles and streptococci. The sale of this milk was stopped within the city limits. The veterinarian who investigated the herd, consisting of 17 cows, found among them one Jersey, with firs calf, giving bloody milk from the left anterior quarter of the udder, and one graded Alderney giving pus from the righ posterior quarter of the udder. [S M.H.]

Wiener klinische Wochenschrift.

March 9, 1899. [12. Jahrg., No. 10.]

1. Upon Early Diagnosis of Pregnancy. R. V. Braun-Fernwald.
2. Contribution on Dermoid Cysts, or Tumors, in the Pelvic Connective Tissue. L. Luksch.
3. Report of Surgical Cases. J. Preindlsberger.

1.—An extensive review of the literature on **early diagnosis of pregnancy** is given. Aside from the subjective symptoms the softening of the body of the uterus and the change from its normal form to nearly a spherical one, i onsidered the sign of greatest importance. The bluish discoloration of the vulva and of the mucous membrane of the agina, as well as the softening of the vaginal portion of the ervix, is considered of no significance. Of almost as little alue are the possibility of squeezing colostrum from the east and the rhythmic contractions of the uterus. It is elieved that a fairly positive diagnosis of pregnancy may be ade during the first few weeks by observation of the change the form of the uterus and its softer consistency. [W.K.]

2.—A woman, 39 years old, who had been healthy up to 8 ears before operation, had suffered from sacral pain and onstipation following a difficult instrumental labor. She ad been obliged frequently to use cathartics and occasionly to be catheterized. Seven years previously a tumor had een noticed back of the anus and after 22 days of severe ain the swelling broke and considerable pus was discharged. There had been more or less ill-smelling foul disarge from the vagina ever since this time and the opening the skin had occasionally broken open. On admission to e hospital a tumor was felt, extending from the pelvis upard to the umbilicus. Its surface was rounded and smooth, was not movable and there was indistinct fluctuation by ctal examination. The tumor was located in the hollow the sacrum and it had pushed the rectum toward the left d forward. At the operation 2 small **cysts** were enucleed from **near the top of the coccyx.** The large cyst as fixed and opened and about a liter of fluid of pea-soup nsistency with bits of caseous material mixed in it was scharged. The entire cyst-wall was dissected away and e cavity packed with iodoform-gauze. An uneventful revery followed. [M.B.T.]

3.—Two cases of temporary **resection of the upper** w according to Langenbeck's method are reported, both the extirpation of tumors of the nasopharynx. A good covery followed in each case. [M.B.T.]

March 16, 1899. [12. Jahrg., No. 11.]

1. The Anatomy of Atrophy of the Optic Nerve in Diseases of the Central Nervous System. A. Elschinig.
2. Disease of the Nares as a Cause for Chronic Dacryocystitis. Benj. Rischawy.
3. A Case of Neuralgia of the Spermatic Nerve; Resection of the Spermatic and Ilio-lumbar Nerves. Julius Donath and Fidelis Hultl.

2.—The importance of diseases of the nares as a cause for cryocystitis is emphasized, and 13 cases of this kind are orted. [M.B.T.]

3.—A man, 23 years old, who had had epididymitis 4 years viously, and who had suffered continuously since that e, was admitted to the hospital for the severe unbearable n in the testicle which prevented him from attending to work, and which had resisted all forms of medicinal atment. There was no suspension of pain upon pressure, the pain was not influenced by position. Owing to the erity of the pain an operation was considered advisable. incision was made curving downward and forward from eleventh rib to the middle of Poupart's ligament. The itoneum was separated away until the common iliac ery was exposed. Both branches of the genitocrural ve were easily recognized and a piece 6 or 7 cm. long was ected from the external spermatic nerve and from the -lumbar nerve. An uneventful recovery followed, and patient was completely relieved from his pain. Histoc examination showed no abnormal condition of the ve. [M.B.T.]

March 23, 1899. [12. Jahrg., No. 12.]

- Glycosuria in Pregnancy. H. Ludwig.
- Isolated One-sided Paralysis of the Trochlearis. S. Klein.
- Methodical Hearing-practice in Schools for Deafmutes. M. Brunner.

.—Ludwig has carried out a series of 100 examinations he urine of healthy pregnant women with the object of ermining the **frequency of the occurrence of sugar the urine during pregnancy.** The reduction-tests ehling, Trommer, and Almen-Nylander, the fermenta-test, the phenyl-hydrazin-test, and the polariscope were in making the determinations. The women were of an age age of 20, and the examinations were made in the 11 weeks of pregnancy. In 31% of the cases no trace of sugar was ever present; in 12% traces of sugar were obtained from 1 to 3 times by the fermentation-test alone; and in 46% traces of sugar were found which did not respond to the fermentation-test; and in 10% of the cases there were traces of sugar which responded to all the tests. An extensive table is given in which the results from day to day are shown, and the literature of the subject is reviewed. [W.K.]

2.—A girl, 10 years old, fell on the ice striking the back of her head. She was not seriously hurt, and continued on her way to school. On her arrival she began to see double, and had to be conducted home. Aside from the **double vision** there was no other symptom. The diplopia was most marked in the lower half of the visual field, and was most annoying to the patient when she went down stairs, much less so when going up stairs. The double images were homonymous and stood above and beside each other, that of the left eye being lower and to the left. The vertical distance was increased by withdrawal of the candle, especially the more the latter was carried down to the right side. When carried over to the left, the images approached each other until they met and vision became single. There was evidently a **paralysis of the superior oblique of the left eye;** by a suitable prism it was possible to overcome this readily. No evidence of other ocular palsies was present; the urine was normal. In view of the fact that the diplopia came on so soon after the injury, Klein concludes that the latter was the cause of the former—that the trauma produced a small hemorrhage in the nucleus of the trochlearis-nerve. The case is rare, apparently unique. The prognosis is considered good, as a hemorrhage so small as the one responsible for the paralysis is likely to be absorbed. [D.R.]

3.—Brunner defends the use of **methodical exercises for the relief of deafness** as recently described by Urbantschitsch. (See Philadelphia Medical Journal, April 15, 1899.) [D.R.]

Centralblatt für Gynäkologie.

January 28, 1899. [23. Jahrg., No. 4]

1. Intraperitoneal Vaginal Fixation of the Uterus for Retroflexion. Sigmund Gottschalk.
2. Case of Inversion of the Uterus Operated upon by a New Method. F. Westermark.
3. Spontaneous Healing of Extensive Lupus of the Face after Extirpation of Tuberculous Tubes and Ovaries. L. Seligmann.
4. A Reply to Kossmann's Article. J. Pfannestiel.
5. Some Remarks about the Use of Steam in the Uterine Cavity. Ludwig Pincus.

1.—During the past year Gottschalk has operated on 14 patients, performing **vaginal fixation after celiotomy.** In all cases there has been a permanent reposition of the uterus, or a return to its normal mobility. There was in no case interference with the function of the bladder, and the patients were all free from the symptoms which had troubled them previously. [W.K.]

2.—A case of **inversion of the uterus** is reported occurring in a woman 26 years old. Manual reposition was found to be impossible, also reposition with the aid of forceps. A transverse incision was made in the vault of the vagina, and after opening the peritoneum the left index-finger was carried into the uterus. The posterior wall of the uterus was slit up and reposition was then easily and rapidly effected. The uterus was then brought into position with the fundus downward in the vagina, the anterior wall looking forward; the incision in the posterior wall was united by a row of sutures, the uterus was placed in its normal position, and the vaginal opening into the peritoneal cavity was then closed. [W.K.]

3.—A woman of 40 suffered from **pain in the abdominal cavity** for six years, together with lupus of the face. On opening the abdominal cavity adhesions to the intestines and the omentum were separated and an intraligamentous, tuberculous, tubo-ovarian tumor was removed. A periproctal abscess was opened and green, foul-smelling pus evacuated. The pelvis was packed with iodoform gauze, drainage being carried out through the vagina. On the seventh day drainage was entirely removed; on the sixteenth day the patient left the bed and had an uninterrupted convalescence, during which the lupus healed completely. [W.K.]

5.—Pincus criticises the communication from the Treub clinic which appeared a short time ago. The steam is used only in those cases in which curetment is contraindicated. The best results are obtained from its use for a short time and with a high temperature. The steam is used under high pressure so that it comes in contact with all parts of the uterine cavity. If used in this way such bad results as were reported will always be avoided. [W.K.]

February 4, 1899. [23. Jahrg., No. 5.]

1. The Lever Hemostatic Clamp for Gynecologic Operations. Leopold Thumim.
2. Resection of the Ovary. R. Gersung.
3. A Case of Pseudohermaphroditism.
4. The Treatment of Incarcerated Pregnant Uterus with the Elastic Balloon

1.—Thumim describes the somewhat complicated **lever-clamp** by means of which he claims to have found it possible to arrest arterial hemorrhage without the use of ligatures or permanent clamps. Brief reports of 31 cases and various operations are given in which this instrument was successfully used. [W.K.]

2.—Gersung mentions a number of cases in which he has performed **partial extirpation of the ovary.** The conditions in which this is possible are simple cysts and dermoids in which is no question about the nature of the growths. Resection is contraindicated in carcinoma, papillary cystoma, and superficial papilloma. [W K]

3.—The case of a Jewish woman, 27 years old, is reported who had a rudimentary penis or hypertrophied clitoris located on the perineum in the middle line just below the vulva. There could be no doubt as to the sex in this case as the patient had just been delivered of a normal male child. [W.K.]

4.—A sextipara, 34 years old, was taken with a swelling of both legs, constipation, and bladder-symptoms during the fifth month of pregnancy. On examination an **incarcerated, partially reflexed uterus** was found which it was impossible to replace by the ordinary means. There were evidently broad adhesions of the perineum in the Douglass culdesac. After all other means had been tried, a colpeurynter was inserted in the vagina. The next day the woman passed urine spontaneously, the uterus was felt above the pelvis and the pregnancy went on without further difficulty. [W.K.]

Münchener medicinische Wochenschrift.

March 14, 1899. [46. Jahrg., No. 11.]

1. The Results of Intraperitoneal Injection of Butter on Guineapigs. R. Grassberger.
2. Upon a Further Case of Tænia Nana (Hymenolepsis). Röder.
3. Trauma and Tuberculosis. Urban.
4. A Case of Necrosis of the Pancreas. Morian.
5. Upon the Bloodless Dilatation of Phimosis in Small Boys. Schilling.
6. A Case of Puerperal Metastatic Panophthalmitis. Saradeth.

2.—Röder reports the discovery of the **eggs of tænia nana** in the stools of a girl 2½ years of age. Although a cure took place, the parasite itself was not seen. The case is only the second one recorded in Germany, and it is quite remarkable that the first had been observed in Cologne and that the patient in the second case had for a time lived in that city. [D.R.]

3.—A large fresh **wound is seldom infected by tubercle-bacilli,** whereas small unimportant abrasions, hang-nails and such insignificant injuries quite often become tuberculous, as, for instance, "anatomic-tubercle" occurring in janitors of dissecting-rooms. The bacilli may lie dormant in the body for years, until some accident furnishes the proper soil for their growth. It is interesting that in animals infected with tubercle-bacilli and in whom bones had been broken and joints dislocated, their joints became infected, but the broken diaphysis remained free. [G.B.W.]

4.—Morian reports a case of total necrosis of the pancreas with hemorrhagic infarction of the greater part of the organ, the head alone being free. The patient, a woman, 44 years of age, presented the symptoms of acute cholelithiasis and in accordance with this diagnosis was operated on. A few stones found in the gallbladder were removed and drains inserted. However, 4 weeks after the onset of the disease, the patient died and at the postmortem gangrene of the pancreas was found. [G.B.W.]

5.—Schilling has proposed gradual dilatation for the cure of phimosis of young children. The orifice is first dilated with bogies and afterward manually. Subsequent dilatations are necessary every 10 to 12 days for 3 months. Ten cases so treated resulted in recovery. [G B.W.]

6.—Saradeth reports a case of metastatic **panophthalmitis** beginning on the twenty-first day after labor. The patient had had signs of septic infection and on the twenty-second day a putrid discharge from the genitalia developed. After a severe illness she finally recovered with the loss of the right eye. [G.B.W.]

Centralblatt für Chirurgie.

April 22, 1899. [26. Jahrg., No. 16.]

1. A Method of Plastic Operation for Ectopia of the Bladder. Max. Rutkowski.
2. Drainage of the Bladder. O. Zuckerkandl.

1.—Maydl's operation for **ectopia of the bladder** by the use of a flap covered with skin has the disadvantage that the layer of epidermis and scar-tissue acts as a foreign body in the bladder, and, moreover, there is an entire lack of muscular fibers aiding in equal contraction of the bladder-wall, which is part of its natural function. A case is reported in which this **operation** had been performed with an unsatisfactory result on a 12-year-old boy. There was an opening the size of a gulden above the symphysis through which urine escaped. An incision was made in the middle line, extending to the upper wall of the bladder and a loop of the ileum 6 cm. long was resected from the intestine with its mesentery attached and the proximal and distal ends of the main intestinal tube were united by double row of silk sutures. The bladder-wall was freed from the abdominal wall and the section of intestine, which had been cut open in a longitudinal direction near the attachment of the mesentery, was sewed by continuous suture into the defect of the bladder-wall, a catheter passed into the bladder through the urethra and fastened in place. The operation lasted 1½ hours and the patient suffered from but slight shock. The wound healed by first intention and the result was ideal. [M.B.T.]

2.—Zuckerkandl criticises the method of **draining the bladder** recently suggested by Maczkowski, and expresses his belief that the method of drainage suggested by von Dittel is much simpler and equally satisfactory. [M B.T.]

Centralblatt für innere Medicin.

January 28, 1899. [20. Jahrg., No. 4 and 5.]

1. The Origin and Significance of the Eosinophile Cells of the Tissues and the Blood. Stanislaus Klein.

1.—The case which gives rise to this report was observed 5 years ago, in a man 63 years of age. He had been operated on for hemorrhoids, and pleurisy appeared later; he was transferred to the medical clinic, and found to have a hemorrhagic exudate in the right pleural cavity. He died 2 weeks later, and there was found a recent hemorrhagic pleurisy on the left, together with the bloody pleural effusion in the right cavity. The case was considered to be sepsis. Examination of the blood in this case had shown a marked anemia, and both in the blood and in the exudate a high degree of eosinophilia. At the first examination the eosinophiles in the exudate had been 74.4%, in the blood 12.5%. At the last examination two weeks later they had increased 2% in the exudate, but were up to 40% in the blood. He then details 2 cases previously reported by Harmsen, in which there were conditions of the blood resembling those in his case, the eosinophiles appearing first in large numbers in the bloody exudate and later becoming largely increased in the blood itself. After an elaborate study of these cases Klein decides that the presence of eosinophile leukocytes in inflamed areas or in any tissues altered by disease is not a

nptom of some specific action, but is the result of extrava-
ion of blood, or of imbibition by the tissues of more or
modified hemoglobin. These leukocytes are not abso-
ely new products and are not pathologic, but are simply
result of alteration of other leukocytes, probably neutro-
iles, which have taken red blood-corpuscles or hemoglobin
o themselves, and from the iron present in them have
duced eosinophile-granulation in place of the old neutro-
iles. This is, he believes, purely a physiologic function
l large numbers of eosinophiles are merely the result of
escape of a large amount of blood into the tissues. He
ieves that the tissues are the sole seat of their formation,
l that they are formed locally. He considers that their
ly diagnostic value is an indication of the occurrence of
ravasation of blood somewhere in the tissues. [D.L.E.]

February 11, 1899. [20. Jahrg., No. 6.]

1On Inspection with Oblique Illumination and on the
Movements of Shadows. Karl Walz.

.—The paper is chiefly for the purpose of emphasizing
fact that oblique illumination of objects makes percepti-
many slight prominences such as are otherwise not to be
n. For instance, the movements of the pulse-wave may,
h oblique light and careful attention, be observed in a
ght prominence of the skin overlying the artery, and this
een to follow the wave of the pulse. Walz states that he
been able to observe even the secondary waves in the
lse, and he believes that the observation of shadows is a
tter of marked importance, and one that deserves more
ention. Some of the changes that he has been able to
erve are: Various alterations in the impulse of the heart;
lsation in abnormal positions over the thorax and the
lomen; pulsations of the veins, the liver, etc.; the move-
nts communicated from thrills caused by valvular lesion
the heart; increased peristalsis; the movents of the fetus
the gravid uterus; the waves of the fluid in ascites, and
merous other conditions which are detailed. [D.L.E.]

February 18, 1899. [20. Jahrg., No. 7.]

n the Influence of Sugar upon Muscular Exhaustion.
Josef Prantner and Robert Stowasser.

.—The authors carried out their experiments upon them-
ves. They took 30 gm. of grape-sugar on certain days, and
alternate days took controls of a similar tea-infusion, to
ich .25 mg. of dulcin had been added to make the taste
ilar to that of the sugar-solution, so that there might be
effect of suggestion in altering their results. As a result
y found that always, after taking the sugar, they had
rked increase in their muscular power, and there was
ays a noticeable decrease in the feeling of muscular ex-
istion after effort. They also investigated the question
finding the changes that resulted in the metabolism of
teids without sugar, and when sugar was given, while
ng exactly the same muscular exercises in both periods.
results were striking; in one case, for instance, the
rogen excreted daily in the urine fell from between 21 and
gm. to 19 gm., and later to 17 gm.; and after increase of
sugar it fell even to 15 gm. In another instance it fell
n 21 gm. finally to 16 gm., only 30 gm. of sugar causing
this decrease, so that the sugar seems to have caused a
ention of almost its own weight of body-proteids. [D L.E.]

Archiv für Verdauungs-Krankheiten.

December 31, 1898. [Bd. 4, Heft 4.]

1 n the Alternating Relation Between the Gastric and Intestinal Functions. Jos. Wiczkowski.
2 n the Diagnosis of Carcinoma of the Cecum, Tuberculosis of the Cecum, Tuberculous Perityphlitis, and Tuberculosis of the Ileum. Obrastzoff.
3 lembranous Enteritis and its Treatment. Max Einhorn.
4 oncerning the Question of Tetany with Dilatation of the Stomach; with, Also, Certain Remarks Upon the Early Diagnosis and Early Operation of Carcinoma of the Stomach and Upon the Restitution of the Gastric Functions After Resection of the Pylorus. Albert Albu.

.—The investigations consisted first in determining the
dition of the gastric functions in certain cases that were constipated before and after giving them purgatives. It was found that gastric functions were always most marked when those of the intestine were most sluggish—that is, with the constipation, the gastric secretions were highest. The contrary was true in cases that had diarrhea. With free bowel-movements, the gastric functions were low. When astringents, such as opium or bismuth, were given, the gastric functions became much increased. This work confirms previous publications of similar nature. [D.L.E.]

2.—The cases of **carcinoma of the cecum** were of ordinary character and nothing new is noted. As to tuberculosis of the cecum, 5 so-called cases are here reported, but upon unsatisfactory grounds, chiefly the discovery of tubercle-bacilli in the stools of individuals who had tuberculosis of the lungs. The claim of the author to be able to palpate with exactness practically the whole of the large intestine and even some of the small intestine is again advanced. A case of perityphlitis was so diagnosed merely because there was induration about the cecum, and the patient had tuberculosis of the lungs. Obrastzoff naively states that since there were no tubercle-bacilli in the stools, this could not be tuberculosis of the mucous membrane. Therefore, it must be pericecal tuberculosis. [D.L.E.]

3.—See this Journal February 4, 1899, page 258.

4.—The case reported is of importance and interest because of the treatment and the result. It occurred in a man of 34, who had had gastric disorder for some time. Owing to his emaciation, the dilatation of the stomach, the low acidity, and the absence of other organic disease, the diagnosis of carcinoma was made, in spite of the fact that under narcosis no tumor could be felt. Lactic acid appeared later in the gastric contents. The patient had repeated attacks of what was evidently tetany, and this diagnosis was confirmed by Oppenheim. Therefore resection of the pylorus was advised and carried out. This portion of the stomach was found thickened and rough, and the glands in the neighborhood were already somewhat involved. After the operation his tetany was found to have vanished, and never returned so long as he was observed. Albu believes that **operation should be advised in all cases of gastric tetany,** since he claims that the tetany is due to intoxication from the putrid material in the stomach. Fleiner has given directly the opposite advice, since his own patient was operated upon and died from the shock of the operation. Albu believes, however, that this was the result of complicating diseases of the heart and kidneys and not necessarily the effect of operation upon a patient with tetany. Albu's seems, however, to be the only case in which operation has been successful, though it has not been infrequently done. As to early diagnosis and operation, the former should be considered established and the latter advised if together with other symptoms there is a continuous decrease in the free HCl, and constant lessening of the motor power of the stomach, even though the HCl has not vanished and been replaced by lactic acid. In this case, after the operation (4 months up to the time of the report) the stomach constantly regained some motor power, and although the HCl had not returned, the lactic acid had vanished. This is similar to results obtained by others in a number of cases. Rather curiously, in this case, the carbohydrates were badly digested, even after the operation, and in spite of the low acidity, large masses of bread and other starchy substances being found after test-meals, even when the proteids were readily digested. [D.L.E.]

Deutsche Zeitschrift für Chirurgie.

February, 1899. [Bd. 50, Hefte 5 u. 6.]

22. A Case of 15 Spastic Inflammatory Strictures of the Intestine of Tuberculous Origin. Hans Strehl.
23. Tumor of the Small Intestine (Lymphangioma) Found at an Operation for Femoral Hernia. v. Hopffgarten.
24. A Contribution to the Malformation of the Extremities. Ernst Pagenstecher.
25. Extravasations of Blood on the Head in Consequence of Compression of the Thorax. Georg Perthes.
26. Relation of Appendicitis to Disease of the Female Genital Organs. O. Hermes.

27. Radical Operations for Carcinoma of the Larynx done by Kocher since 1890. Fr. Rutsch.
28. A Case of Cancer of the Ear, Treated by Resection of the Petrous Portion of the Temporal Bone. Hermann Heyer.
29. The Bloodless Method of Treating Congenital Dislocation of the Hip. H. Petersen.
30. A Case of Umbilical Fistula of the Bladder in an Adult. Cure by Resection of the Vertex of the Bladder. Ewd. von Meyer.
31. Tongue-Forceps and Tongue-Hooks. Egbert Braatz.
32. A Case of Tearing Off of a Large Piece of the Os Calcis. Neuschäfer.

22.—Strehl reports a case of **multiple tuberculous strictures of the intestine,** the history being as follows: Woman unmarried, 29 years old, admitted to hospital May 10. Tubercle-bacilli were found in the sputum. A firm almost immovable tumor, the size of a man's fist, was felt occupying the ileocecal region. At the operation the tumor was easily found, but there were also 14 distinct constrictions at different portions of the intestine present, so that resection offered no hope of success. May 25th the patient died and the postmortem diagnosis was tuberculosis of the lungs and intestines with moderate constriction of the gut caused by tuberculous ulceration and tuberculous peritonitis. [G.B.W.]

23.—A **lymphangioma** as the contents of a **femoral hernia** is a rare pathologic occurrence. A married woman, 45 years old, presented herself with a swelling just below Poupart's ligament on the right side, which was diagnosed as a femoral epiplocele. At the operation the true state of affairs was discovered and a tumor was removed from the intestine necessitating the suturing of a wound in the gut 2 cm. in length, which was caused by the excision of the growth. The patient made a good recovery. Examination of the tumor showed it to be a lymphangioma. [G.B.W.]

24.—A case of **malformation** of the **upper extremities** showing on the right side, entire absence of radius and ulnar, the much deformed hand being attached directly to the humerus. On the left there was a bone running the whole length of the arm, having a bony projection 22½ cm. below the acromion. On the end of this, the hand consisting of 3 fingers and 2 or 3 metacarpal bones was placed. [G.B.W.]

25.—Perthes reports 2 cases of extensive **extravasation of blood on the head following crushing injuries to the thorax.** In both cases there was ecchymosis of the conjunctiva, with complete temporary loss of sight. The conclusions he draws from these cases are, that it is possible to have extensive extravasation of blood on the head and neighboring structures, in consequence of injury to the thorax, without the slightest trauma of any kind to the head itself. The cause of this happening is the enormous increase of venous blood-pressure due to compression of the thoracic organs, and the limitation of the ecchymosis to the head is due to veins of this region not possessing valves. [G.B.W.]

26.—Out of 1,577 cases of **appendicitis** collected, only 40% were in women. This is explained by the better nourishment of the appendix in the female due to an artery coming through the ligamentum appendiculo-ovaricum. Inflammation may spread from the appendix through 2 paths—extraperitoneal or intraperitoneal. And very often, as an extraperitoneal route, the suppuration extends by means of the ligamentum suspensorium ovarii (ligamentum appendiculo-ovaricum), and therefore appendicitis must be considered as an important etiologic factor in the production of parametritis. The abscess may spread to the pelvic cavity, as a continuous inflammatory process, or it may develop as a separate abscess not connected with the original suppurating focus. The former of these 2 ways is by far the most important, the abscess in the pelvis being, as a rule, easily traceable to the ileocecal region. The diagnosis between the ordinary parametritis and that developing in consequence of an appendicitis is often very difficult, and is generally arrived at by palpation, revealing a mass extending toward the spina ossis ilii, and by the history of the development of the case. In treating these cases of pelvic abscess of appendicular origin, the abscess-cavity should be opened through an abdominal incision and the wound packed. Primary resection of the appendix is not recommended. Besides the acute conditions, there sometimes exist pelvic disturbances
dependent on chronic appendicitis, most prominent amor
them being painful menstruation, irregular menstruatio
uterine catarrh, and pain in the lower abdomen and over th
sacrum. [G.B.W.]

27.—Rutsch reports 12 cases of **radical operation fo
carcinoma of the larynx,** done at Kocher's clinic sin
1890. Three other cases were sent to Kocher for operatio
but, for different reasons, no radical operation was done o
them. Of the 12, there were, 1 total extirpation, 6 remova
of one side, 3 small partial excisions, 1 thyreotomy with exc
sion of the soft tissues and 1 pharyngotomy with removal of th
epiglottis. One patient is free from return of disease after 4
years, another after 2½, and 4 more after 10, 7, 6, and
months respectively. Out of the 12 cases one patient die
immediately after the operation from pneumonia. Anoth
died 14 days after the operation from pneumonia and sti
another 9 months after the operation in consequence of
pneumonia, though dulness of the apexes of the lungs of th
later one was diagnosed before the operation. Of the 6 cas
free from return of the disease only 2 retain the continuo
canula. The other 4 breathe easily and all swallow withou
the slightest hindrance. The experience of Kocher's clini
points towards the more conservative operations, *i. e.*, remo
ing only the diseased tissues, but removing them thoroughl
[G.B.W.]

28.—The patient, with **cancer of the ear,** was 67 yea
old, and had twice undergone operations for the relief of th
disease. The only portion of the pinna of the left ear remai
ing was the extreme periphery, and this was reddened an
infiltrated. The disease had extended posteriorly, to the ma
toid process, and the posterior and inferior walls of the a
catus were entirely wanting. The operation was briefly a
follows: Incision of the soft tissues was carried around bu
well removed from the disease-focus. The enclosed so
structures were removed and it was seen that the disease ex
tended into the temporal muscle. The posterior two-third
of this muscle, with the zygoma and with the coronoid pro
cess of the mandible, were consequently removed. A fe
glands were also taken away. The squamous portion of th
temporal bone was then chiseled through, the dura lifted u
and piece by piece the petrous portion was removed wit
Tuer's forceps, until only the tip of the pyramid was left.
small portion of the wall of the lateral sinus was also take
away. Complete cicatrization of the wound took place afte
several months. Twice, later in the history of the case, ther
was return of the cancerous growth, necessitating 2 mor
operations. The patient is living. [G.B.W.]

29.—The **bloodless method of treating congenital dislocation of the hip** is divided into reposition an
retention. *Reposition*—In children from 1 to 1½ years of ag
manual strength will suffice to pull the head of the femu
downward, but in older children some form of machine i
necessary. Petersen describes an apparatus which allows o
the following uses: (1) Extension of both sides, (*a*) for an
desired size, (*b*) with complete control of the amount o
strength exercised, (*c*) in any desired degree of abduction
(*d*) with some variation of flexion of the hip, (*e*) with freedom of rotation of the femur, (*f*) with uncovering of the
hip to allow of manual manipulations. (2) Quick accomplishment of the extension; application of manual movements on the same table. (3) The easy application of the
plaster-of-paris bandage in any desired position. The method
of procedure is: first extension, for a child 6 to 7 years old, 3
to 60 kg., then abduction-rotation and manual manipulation
Various injuries may follow these maneuvers, among which
may be mentioned bruising of the genitalia, rupture of the
muscle of the thigh and fractures of the femur and its head.
Also lameness from injury to nerves may result. Schede's
method of manipulation consists in extension with direct pressure on the head of the femur and is in contradistinction to
the circumduction method of Paci and Lorenz. The following are cardinal rules advanced by Lorenz, whereby
complete reduction of the dislocation may be diagnosed (1)
trochanter has been returned at least near Rose-Nélaton's
line; (2) the striking prominence of the trochanter has disappeared; (3) the groove which previously existed at Poupart's ligament is filled out by a prominence which may be
felt midway between the anterior superior spine of the ilium
and the pubic symphysis; (4) the head seems to be firm in its
position when pressed upon; (5) if the head is redislocated, it
can be reduced with a perceivable snap. When these rules

il to give a definite idea of the relation of the parts, öntgen rays are to be used. Besides the cases of com- lete reduction we have 2 more classes, those in which a artial reduction has resulted (transposition) and a third ass of entire failure. Of 124 cases, there were 109 reposi- ons, 10 transpositions and 5 failures. With children in all ccept 2 complete failures, reposition was obtained. *After- eatment*—First immediate fixation with plaster-of-paris. ter when the casts are changed a slight amount of exten- on is necessary while the exchange is being made. In lected cases where the head appears fairly firm in the new cket some form of brace may be used instead of the plaster st and various are the forms of apparatus which have been vented, some even with rotating movements. Often in re- oving the casts some malposition of the head is found, cessitating replacement, though with great rarity is the head und to have gone clear back to its original congenital posi- n. The length of treatment is from ½ to 2½ years. After e casts are taken off very often there is considerable stiff- ss of the hip-joint, and sometimes an outward rotation ists which in rare instances can only be overcome by an teotomy. [G.B.W.]

30.—At the age of 23 the patient suddenly noticed the ssing of urine through his umbilicus and on examination ere was found a complete **umbilicovesical fistula.** At operation the fistula was found running free in the ab- minal cavity and not connected with the abdominal wall cept at the umbilicus, and also the fistula consisted of an ngated bladder. The peritoneum covering the upper rtion of the bladder was dissected free and the umbilical g with the bladder-wall, extending for about 3 cm. in each ection, was removed. The edges of the bladder were then ited and the peritoneum sutured over them. The patient de an uninterrupted recovery. [G.B.W.]

Deutsche Zeitschrift für Nervenheilkunde.

March 9, 1899. [Bd. 14, Hefte 3 and 4.]

A Case of Akromegaly. Wittern.
Examination of the Spinal Cord in Cases of Pernicious Anemia, Sepsis, and Senility, with Remarks upon the Changes found by the Marchi Method in Acute Diseases of the Spinal Cord. Nonne.
Nervous Disease and Literature. Oppenheim.
Contribution to Progressive Muscular Atrophy. Bregman.
A Case of Racemose Arterial Angioma of the Brain, with Remarks upon the Structure and Origin of Formations Containing Brain-sand. Emanuel.
Anatomic Changes in a Case of Tabes with Necrosis of the Jaw. Laspeyres.
(I) The Pathogenesis of the Motor Paralytic Equivalents of the Epileptic Attack. Higier. (II) Addenda to the Article on "The Question of the Changes in the Peripheral Nerves in Chronic Disease of the Bloodvessels." Lapinsky.

he numbers correspond to those in the *Zeitschrift*, and volume numbers.]

.—Wittern reports a **case of akromegaly** in a man 52 rs of age, who, in his youth, had suffered from severe dache in the supraorbital region, and from constipation. character had been normal, his bodily strength excep- al. The first symptoms were observed in 1886, although certain that the disease had begun earlier than this. earliest change was the enlargement of the feet, then of power, followed by pain, alteration in character, and r, paresthesia. In 1893 vertigo began, and has recurred uently since then. There has been persistent insomnia, esthesia, particularly in the left hand, and a feeling of in the leg. Since 1893 there has been a diminution in al power, taste, and smell. The symptoms were charac- tic. The face, hands, and feet, were greatly enlarged, head bowed, and the back kyphotic. The internal organs eared normal. A series of measurements made in 1894 repeated in 1898 are given, which shows that practically he parts have increased more or less in size. Wittern sifies the case as belonging to the chronic form of slowly ressive course without exacerbations. The most im- ant results of comparative measurements are the increase in the size of the lower jaw, the accentuation of the kyphosis, and, as an isolated condition, the apparent atrophy of the tongue, which decreased from a breadth of 6 cm. at the tip to 3.25 cm., and from 7 cm. in the middle to 5.5 cm. The greatest increase in size in the extremities appeared to occur in the soft parts. [J.S.]

9.—Nonne reports a number of cases of **progressive pernicious anemia,** either the idiopathic or secondary form, in which he was able to make a microscopic examination of the spinal cord. These he has compared with a number of cases in which some noxious element was circulating in the blood, in order to find out whether similar changes were thus produced in the central nervous system. The first 6 cases of anemia showed no changes, or only those so slight that they could be disregarded. The seventh, a man in a state of extreme anemia, showed beginning degeneration in the posterior columns, similar to those observed in beginning myelitis and a myelitic focus in one side of the lumbar cord. The eighth case was negative. The ninth showed two small foci, one in the cervical, and one in the dorsal region, and by Marchi's method numerous degenerative fibers in all the columns. The vessels were normal. In the tenth case, one of typical pernicious anemia, there were various symmetric foci in the cervical region, apparently associated in their distribution with altered bloodvessels. The eleventh case was similar in diagnosis and lesions. The twelfth case, one of nephritis with secondary anemia, also showed isolated foci in the cervical and lumbar portions of the cord. In 2 cases the gastric mucous membrane was examined, and showed the characteristic changes of chronic atrophic gastritis. In 3 cases of acute galloping miliary tuberculosis, degenerated fibers were found in all portions of the spinal cord. In 4 cases of ulcerative endocarditis no changes were found. In 1 case of chronic septic pyemia, alterations in the nerve-cells by the Marchi method and diffuse degeneration of the nerve-fibers were noted. In another case with a similar diagnosis, hemorrhages with destruction of tissue were found in the spinal cord. In a third case of similar nature, lesions similar to those found in acute myelitis surrounding the bloodvessels were discovered. In 10 cases of senile cords, it was found that the neuroglia was considerably thickened in the posterior columns, the bloodvessels increased in number, and their walls thickened. In many cases, the myelin sheaths and even the axis-cylinders had been destroyed by the proliferated neuroglia, but the changes in the nervous tissues always appeared to be associated with the bloodvessels. Nonne admits that although he has used the term myelitis frequently in the description of the lesions, they did not always properly come under that category, that is to say, the changes peculiar to the inflammation were not invariably present. There was no round-cell infiltration nor inflammatory alterations in the bloodvessels themselves. Compound granular cells were, however, almost invariably present, indicating the acute nature of the process. He summarizes his results as follows: (1) the changes in the spinal cord in fatal cases of anemia are not systematic, but should be regarded as acute disseminated myelitis; (2) the foci exhibit a local association with the bloodvessels; (3) it is probable that a noxious material is carried to the cord by the bloodvessels, and this acts upon the nervous tissue; similar changes are found in old age; (4) even in advanced cases, the gray matter may escape involvement; (5) if diseased, it is not primarily effected, that is to say, it and the white matter are involved as the result of a single cause; (6) the diffuse character of the degeneration in these conditions justifies the conclusion that there is a trophic alteration, and not a functional injury of the nervous element; (7) the greater part of degenerated fibers are found in the posterior roots and the anterior commissure. [J.S.]

10.—Oppenheim calls attention to the deplorable **tendency in modern literature to deal with medical subjects.** Frequently the articles are inaccurate, but when accurate they often convince patients, apparently suffering with similar symptoms, that their condition is incurable, and thus greatly complicate and render more difficult the work of the physician. Finally, he reproaches members of the medical profession for their frequent and extensive investigation of sexual subjects and their tendency to ascribe to these the cause of many forms of functional nervous disease. [J.S.]

11.—Bregman reports a number of cases of various types of **progressive muscular atrophy.** The first, in a man of 53, presented the following curious group of symptoms: Atrophy of the muscles of the left hand, arm, and shoulder, with considerable interference with movement of the right hand, arm, the right forearm to an extreme degree, and the right shoulder. There was no tenderness of the muscles or nerves, and marked reduction in the electrical irritability of the muscles, but no reaction of degeneration. Sensibility was everywhere normal. The kneejerks were increased, and the pupils failed to contract to light, being of the Argyll-Robertson type. The condition had lasted for about 6 years. This case does not appear to belong to any of the hitherto recognized types. The absence of reaction of degeneration, and the very slight development of fibrillary twitchings in the muscles indicate a myopathic form; but the rapid development, the commencement in late life, and the involvement of the cranial nerves, rather indicate spinal involvement. The second patient, a man of 23, had first noticed weakness of the right shoulder. This rapidly increased, and in the course of 2 years the patient was absolutely incapacitated for work. The muscles of the upper and lower limbs, except the legs, were extremely degenerated; there were contractures, and movement was almost totally impossible. The patient was able to stand. His gait, however, was somewhat stiff, and the body was held bent backwards. The knee-jerks were lost on both sides. Bregman classifies the case as belonging to the brachio-scapulo-humeral type of dystrophia. The third patient, a girl of 17, was the only one in her family who had ever had muscular disease. There was some weakness of the muscles of the eyeball, particularly in gazing upwards. The right shoulder, arm, and forearm were involved, but the muscles of the hand escaped. The left arm and legs were normal. The electric reactions showed no qualitative alteration. The case belongs to the type of Dejerine-Landouzy, and resembles the second. The fourth patient, a boy of 19, was one of 7 children, of whom 2 others had suffered from the same condition. His circulation was poor, the hands and feet were extraordinarily large. The muscles of the upper extremities were weak, and the movements imperfect. The movements of the lower extremities were also poorly performed. The knee-jerks and the tendo-Achillis reflex were lost. There was marked fibrillary twitching. The electric reactions are not given. The case belongs to the hereditary type of Leyden-Möbius. The fifth patient, a boy of 11, was one of 6 children, an elder brother having died of the same disease. In both, the first symptoms appeared in the eighth year of life. The muscles of the face were not involved. The upper extremities were extremely emaciated, and their movements were very imperfect. The feet were in the equinovarus position, and the movements of the lower extremities were also poor, the patient being unable either to stand or walk. Sensibility was normal, and there was no reactions of degeneration. The case evidently belongs also to the Leyden-Möbius type. There was, however, a slight tendency to pseudohypertrophy in the muscles of the calf and thigh. The sixth patient, a man 24 years of age, had noticed weakness in his legs for 2 years followed by emaciation. The muscles of the forearms are also weak. There was no reaction of degeneration to electricity, but diminished electric irritability. The kneejerks were normal. The tendo-Achillis reflex was absent. There was no tenderness of the muscles and nerves. Bregman classifies this case as belonging to the peroneal type of Tooth, that is, the neurotic form of muscular atrophy described by Hoffmann. [J.S.]

12.—Emanuel reports the case of a man, 36 years of age, who noticed in early life violent palpitation of the heart. Later, he developed epileptic convulsions, beginning with pains in the left arm. Finally exophthalmos and edema of the face appeared. There were choked disc, progressive dementia, continual headache, unconsciousness, and death. At the autopsy, huge hypertrophied veins were found passing from the pia to the longitudinal sinus. The vertebral arteries were abnormally wide, and a large **racemose angioma** was found in the right temporal fossa. Microscopically, it consisted of dilated veins, and with thickened walls, the alterations being chiefly in the intima. The tumor had pressed upon the nerve-substance and caused extensive softening and degenerative changes. Through it, in all directions, were considerable quantities of **brain sau**
Emanuel collects a number of cases of this form of tum
from the literature; in some of them all three coats of t
vessels were altered, in others only the intima and medi
Clinically, racemose angiomas are characterized in nearly a
cases by the extreme cardiac palpitation that has no appare
cause. In his own case, all the other symptoms were due
the situation of the tumor involving the nervous syste
He concludes his paper with a description of the formati
of brain sand. This is found chiefly in the pineal body a
the choroid plexus. In the latter, it apparently begins
areas of hyalin degeneration lying between the epitheliu
and the bloodvessels. Often in this situation the later a
surrounded by a zone of hyalin tissue that has not shared
the calcareous infiltration. In the pineal gland, this zone
never present. In the latter organ, calcareous infiltrati
occurs in masses of hyalin degeneration that take place
the connective tissue. [J.S.]

13.—Laspeyres reports the case of a man, 48 years
age, who 20 years previously had had a luetic infectio
Symptoms of **locomotor ataxia** had existed for sever
years. When admitted to the hospital, the characterist
symptoms of the disease were well developed, and there w
very pronounced ataxia. A year later, the symptoms we
not nearly so severe. The pupils reacted slightly to ligh
and the ataxia of the legs was only indicated. There wer
however, in addition, the symptoms of aortic insufficienc
Previously the patient had lost all the teeth of the upper ja
without pain. During the stay in the hospital, there w
necrosis of the hard palate, and of the superior maxilla
bone in the region of the right molars and premolars, givi
rise to a communication with the antrum of Highmor
Various sequestra were discharged, but finally the lesio
cicatrized. About a year later, the patient died of cardi
insufficiency. At the autopsy, there was found a characte
istic alteration in the posterior columns, and, in addition,
curious alteration in the pia mater and in the vessels it co
tained, consisting of a thickening of the intima and t
adventitia with marked diminution in the lumen of the ve
sels. The case is interesting, particularly on account of t
theory of Obersteiner and Redlich, who have ascribed loc
motor ataxia to pressure upon the posterior roots, as the r
sult of a meningitic process. In addition, the gangli
Gasseri and the nucleus of the ascending root of the t
geminus in the medulla were carefully studied by the Nis
method, but no changes were found in the cells. There wa
however, in the former ganglion, a rather marked round-c
infiltration in the connective-tissue septums. [J.S.]

14.—Higier reports the case of a child, 8 years of ag
who at the age of 3 had had inflammation of the brain wi
convulsions, followed by permanent paralysis of the le
hand. Later there were attacks of unconsciousness chara
terized by an intense pallor, followed by a state of drea
confusion. A few months before the observation, the chi
developed **paroxysmal paralyses** of the left arm or bo
left extremities, not associated with unconsciousness, b
sometimes accompanied by parasthenic sensations. The
attacks were repeated four or five times in the course of t
day. The individual attacks lasted from 10 to 12 second
Higier believes that they represent explosions of inhibito
activity from the cortex, and stand for true epileptic attack
He calls attention to the experiments of Sherrington a
others, who have proved that inhibitory impulses to t
opposing muscles accompany every discharge of motor for
from the cortex. He explains his own case by supposi
that the intensity of the irritation is so weak that the co
traction of the involved muscle-complex is not produce
but the diminution of the tone of the antagonistic groups
accomplished. [J.S.]

Zeitschrift für orthopädische Chirurgie.

[Band 6, Hefte 3 u. 4.]

16. The Normal and Pathologic Anatomy of the Juveni
    Spinal Column. W. Schultess.
17. A Rare Case of Scoliosis Neuromuscularis Ischiadic
    Chr. Fopp
18. Flatfoot, its Diagnosis and Treatment. A. Schanz.
19. The Pathologic Mechanics of a Kneejoint with a Co
    genital Luxation of the Patella. Hans Spitzy.

20. Care of the Cripples and the Cripple-Homes of Germany. Leonard Rosenfeld.
21. Further Contributions to the Pathology of Complete Scoliosis. Joseph Hess.
22. The Pathogenesis of Bone-Deformities. Prof. Cesare Ghillini.
23. The Surgical and Orthopedic Treatment of Little's Disease. P. Ridord and P. Bezançon.

[The numbers are volume-numbers and correspond to those in the *Zeitschrift.*]

16.—Schultess reports the results of his studies on **curvature of the spine** in young people. He made a plaster-cast of a healthy spine of a girl 15 years of age, in whom there was a slight lateral curvature. In connection with this study of the spine as a whole he made individual examnations of each particular vertebra. His main results are briefly: (1) proof of the existence of flattening of the bodies of the vertebræ by the aorta; (2) anatomic proof that the torsion occurring at the top of the scoliosis is toward the concave side; (3) proof that there is a symmetry of motion, meaning that bending of the spine is limited toward the concave side; (4) proof that the static and dynamic forces work together in the building out of the form of the body, but in a different manner, and thus far they should be separated. [G.B.W.]

17.—Fopp reports a most interesting case of **scoliosis.** The patient, a well-built athletic young man, developed, after exposure, severe boring pain in the right groin, which exended down the right leg. Treatment did not relieve it, and gradually he got in the habit of sparing the right leg by eaning to the left, so throwing the weight of the body on the eft leg. For 2 years or more the patient sought by medicines, gymnastics, massage, baths, and other means, to traighten himself and to relieve his pain. For a few months at a time he would occasionally obtain relief, but sooner or ater the whole trouble would come back. Examination of he patient showed rather marked atrophy of right leg. Standing with both feet together and flat on the floor, there was slight tilting of the pelvis forward, and in this position he spine, in the lumbar and lower dorsal regions, showed a light curvature with convexity towards the right, and in the upper dorsal and cervical segment there was a compensatory urve with the convexity toward the left. The left shoulder was a little higher than the right, the head a little inclined owards the right; the crest of the right ilium stood forth prominently, and in the dorsal portion of the body there were he signs of torsion. Other positions of the body more r less changed these symptoms. There was tenderness ver the lower lumbar regions on both sides and over the istribution of the sciatic nerves on both sides. The diagnosis was made of disease of both sciatic nerves, and of the neighboring nerve-trunks just above them, with consequent hanges in the form and position of the spinal column. The treatment consisted in applying an electric current down the ciatic nerve, various forms of exercise, and a corset worn when resting. Great benefit was obtained, though not an bsolute cure. [G.B.W.]

18.—Schanz says that **flatfoot** cases make up 15% of his atients, and he believes that the condition is very often overooked by the ordinary practitioner. The first symptom noiceable in beginning pes planus is rapid tire of the affected oot, then comes hypersensitiveness of the sole, and finally bsolute lameness forces the patient to consult a physician. The first subjective sign is a slight outward rotation, being ue partially to rotation of the femur and partially to abducion of the fore foot on the middle foot. From this on there s a gradual change of the form of the foot until the typical es planus is developed. In the treatment of flatfoot the undamental idea is to give support to the arch of the foot, nd this may readily be done by flatfoot-soles modeled with he proper shape out of sheet celluloid. Massage is often of reat value. These methods of treatment are better adapted or incipient cases; in old long-standing flatfoot more radical rocedures may be necessary, such as manual reposition of he arch under deep anesthesia and then putting the foot up n a plaster cast. [G.B.W.]

19.—Spitzy reports a case of **congenital luxation of he patella.** The patient, when seen, was a girl 10½ years ld. There was outward rotation of the leg and foot with inward rotation of the femur. The patella lay on the outer side of the outer condyle connected with the also displaced tendon of the quadriceps femoris and the patellar tendon. The treatment consisted in tenotomy of the flexor tendons and straightening of the leg, manual replacement of the patella and a plaster cast. The patient finally had a very useful limb. [G.B.W.]

21.—Hess presents two questions: (1) Is there such a thing as pure **scoliosis?** (2) If the scoliosis changes to what forms does it change? And after quite an elaborate study gives the following answers: Pure scoliosis may exist as such, for out of 86 observations 60 kept strictly to the lateral curvature. Through the proof of the persistence of the scoliosis, the classification is justified which places pure scoliosis in a class of its own and not as the incipient form of some other curvature. [G.B.W.]

Revue de Médecine.

March 10, 1899. [49me Année, No. 3.]

1. Hemorrhagic Variola—Its Causes, its Nature, and the Visceral Lesions Accompanying it. F. Arnaud.
2. A Form of Motor Disturbance of the Stomach and Intestine, Called Gastroplegia and Enteroplegia. I. Grundzach.
3. Vesical Asthma. A Contribution to the Etiology of Asthma which Occurs in Aged Individuals in Association with Incomplete Evacuation of the Bladder. Pawinski.
4. Paresthesia and Intention-tremor of Both Legs persisting 6 Years. Remlinger.

1.—In his service in contagious diseases, Arnaud has seen 63 cases of **hemorrhagic variola** among the 800 cases of variola which he has had under his care. Clinically, he notes the occurrence of a violaceous coloration of the upper eyelid as the prodromal sign of the hemorrhagic form of the disease, and one upon which he lays a good deal of stress. Of the 63 cases, only 7 recovered, and 6 of these 7 were of the secondary form of variola hemorrhagica, that is, the disease did not begin with a hemorrhage eruption. The primary hemorrhagic form was with one exception always fatal. His own service was with the women only, but comparing it with that of Coste in the men's wards, he found that the hemorrhagic form occurred somewhat more frequently in women. There was a relative immunity in infancy and adolescence; this he attributes to the fact that young subjects had been vaccinated more recently. Some writers have endeavored to prove that vaccination rather predisposes to hemorrhagic smallpox; to this his figures are entirely opposed. Up to the age of 15 years the hemorrhagic form affected exclusively unvaccinated subjects, and as the age increased the vaccinated individuals became affected somewhat; but the number of individuals who had been revaccinated and were attacked with the disease made less than $\frac{1}{10}$ of the grand total. He shows by the postmortem examinations, in those cases in which they were undertaken, that those who had been vaccinated and who had died subsequently of hemorrhagic smallpox always had some grave change in their internal organs, or some other abnormality predisposing to great gravity of the disease. Examples of this are seen in the fact that one patient had severe endocarditis, another was in the sixth month of pregnancy, and aborted during the disease; another had an old paraplegia. These 3 were the only subjects of hemorrhagic variola who had been previously revaccinated, and among a number of those who had been vaccinated but once, similar grave defects were noticed. Alcohol was found active in predisposing to this form of the disease, as were pregnancy and the puerperal state; and menstruation and the menopause were also believed to predispose, and he has especially noticed that in several cases in which the disease appeared during menstruation, there was a preliminary violaceous rash of distinctly petechial character in the hypogastric and inguinal regions. He believes this is a premonition of the occurrence of hemorrhagic smallpox. Pulmonary tuberculosis predisposes to the disease, as does convalescence from acute diseases; malaria, especially the chronic cachexia of this disease, and syphilis seemed to have some effect. Organic disease of the heart was observed in 5 of the 63 cases, and Bright's disease was noted in 6 instances. Many changes that are observed in the viscera are believed to be due largely to infectious diseases which have occurred previously, such as typhoid fever, pneumonia, and the like. They certainly, however, give a special tendency to the disease. [D.L.E.]

2.—The paper is chiefly a review of the work previously done by Grundzach and others upon this subject. He especially draws attention to the occurrence of **paralysis of the bowel after operation,** the paralysis in his belief being due to shock and being comparable to that which occurs after a severe blow. He then discusses the occurrence of acute paralytic dilatation of the stomach after laparotomy, and as diagnostic of this condition he gives the following symptoms: ballooning of the epigastric region; accumulation in the stomach of the aliment introduced and the fermentation of the food; vomiting, often of but slight quantities for several days, when large amounts are likely to be expelled owing to the recovery by the stomach of its muscular power. There is a sensation of fulness in the epigastrium, feces and gas are not passed, the urine is diminished in amount, the pulse accelerated and thready, the respirations rapid and superficial, the temperature depressed, and collapse is pronounced. The diagnosis is made by examination of the stomach, and if necessary the introduction of a stomach-tube and the discovery of large amounts of stomach-contents. The condition usually terminates by recovery after vomiting enormous quantities of fermenting and putrefying food. Some cases have terminated in death. There is a somewhat irrelevant discussion of the general subject of shock. Grundzach decides that this is due to nervous shock and not to local infection of the peritoneum, although there does not seem to be any definite proof of this through investigation. He believes that while shock is usually considered as dependent chiefly upon disturbance of the cardiovascular and respiratory functions, there should also be included in the etiology a disturbance of the mechanism controling the actions of the stomach and intestine. The treatment of the condition is chiefly the evacuation of the stomach if food has already been taken; better still to restrict the food entirely from the beginning of such a condition; to adopt stimulation,to wash out the stomach if vomiting is severe, and to use rectal alimentation. [D L.E.]

3.—Pawinski reports 5 cases which occurred in aged patients, all of them showing evidence of arteriosclerosis and weakness of the cardiovascular system, and a number of them had attacks resembling angina pectoris. The essential feature of the case was that they had severe attacks of **asthma** which came on almost solely at night, and that in all these instances the use of catheter disclosed a certain degree of **retention of urine,** and the evacuation of the bladder caused the entire disappearance of the dyspnea with surprising rapidity. The two theories which may be brought forward to explain this dyspnea are reflex action and autointoxication, the latter is the one to which Pawinski inclines. He believes that the urinary toxicity should be studied in such cases. In all these instances there was a free excretion of urine, and the symptom which directed his attention to the bladder was the fact that all the patients were obliged to micturate frequently at night, though there were no evidences in the urine of cystitis. This difficulty was not experienced during the day, and its occurrence at night when the patients are at rest is in direct contrast to the conditions with vesical calculus. It results from the greater difficulty in emptying the bladder when the patients are at rest in a horizontal position. [D.L.E.]

4.—The case occurred in a man of 40, a native of Tunis; the interesting points in the case are that it began with paresthesia of the right arm, subsequently of the right leg; these two members then showed intention; subsequently there was tremor of the lower lip; there was never any tremor of the left side. The tendon-reflexes were exaggerated, more markedly on the right; the visual acuity was diminished owing to optic neuritis; the speech was slow, and so monotonous that Remlinger pathetically remarks that he frequently had to request the patient to stop recounting his troubles since the monotony of his tone often put him to sleep. The case had persisted for six years, with some exacerbations and occasionally slight improvement. There were no stigmata of hysteria. [D.L.E.]

Revue Mensuelle des Maladies de l'Enfance.

February, 1899. (Tome xvii.)

1. Loose Shoulder in the Infant. R. Froelich.
2. Subacute Nephritis; Anuria; Death. M. Vergeley.
3. Suppurating Arthritis of the Left Knee and a Focus of Osteomyelitis in the upper part of the Left Tibia in a Nursling. Albert Mouchet.

1.—Loose shoulder in the infant is caused by paralysis of all the articular muscles of the shoulder joint. There results an atrophy of the shoulder, an extreme elongation of the articular capsule, and absolute helplessness of the arm, which hangs passively by the side. It occurs almost exclusively in the beginning in infants. It is tolerably frequent and due to various causes. Froelich reports 2 cases; the first patient, aged 6 years, when 3 years old, developed a paralysis of the right arm in the course of a febrile disease. The arm emaciated rapidly and in spite of all treatment, no amelioration was produced. The general condition of the child was good and the lesion had remained stationary during the past 3 years. There was an absolute loss of function of the right arm with excessive relaxation of the articular capsule, resulting in a loose shoulder-joint. The lesion seemed to be consecutive to a spinal infantile paralysis dating from the third year. There was no hope of restoring the contractility of the muscles by electricity or massage. The question was one of remedying the uselessness of the member. In raising the head of the humerus and fixing it against the head of the acromion it is possible to create an attachment between the scapula and humerus and thereby utilize the movements imparted to the scapula by the trapezius, rhomboideus, etc. By flexing the forearm on the arm at the same time one is able to render useful for purposes such as eating and writing the persisting movements of the fingers and wrist. This can be accomplished either by operative fixation of the shoulder and elbow joints or by the application of an orthopedic apparatus which fixes the humerus and flexes the forearm. The latter procedure was resorted to in this case. The second case related to a boy aged 4 years. His right arm was paralyzed as the result of a fall which was followed by slight swelling of the shoulder. The arm hung powerless by the side in a position of light pronation. The shoulder was very atrophied and the acromion prominent, with a marked depression between it and the head of the humerus. On the head of the humerus there was an osseous prominence, probably the trace of a displaced epiphysis. This condition of paralysis of the articular muscles with loose shoulder in this instance was due to traumatism, probably resulting in epiphyseal separation. Electrical treatment tried for some time was without effect. An apparatus was then applied which fixed the arm against the humerus and permitted a flexion of the forearm on the arm. The movements of the fingers and wrist were thereby rendered useful. In loose shoulder, the muscles being paralyzed, the weight of the arm tends to drag the head of the humerus from the acromion. The capsule stretches persistently, lengthens more and more and the space between the articular surfaces increases. The arm hangs helpless. The causes of this affection are various. The obstetric paralyses sometimes cause it and it frequently occurs as the result of traumatic epiphyseal separation. It may result from direct blows on the articulation or on the brachial plexus. Spinal infantile paralysis and traumatism are the two most constant etiologic factors. The symptoms are always the same and very characteristic. The condition occurs almost always in infants, affecting chiefly the right arm. It hangs limp by the body, the hand in light pronation. There is a marked difference between the size of the healthy and diseased shoulder. The latter is atrophied and its acromion very prominent. Under the acromion there is a marked depression. There is a prominence at the head of the humerus, the arm is emaciated, the forearm and hand are almost normal. On palpation one finds no muscular tissue. Only the skin, cellular tissue and bone remain. The finger is readily introduced between the acromion and the head of the humerus to a distance of several centimeters. On shaking the thorax the arm executes a pendulum movement. All active movement of the arm is lost. It appears elongated; but when the head of the humerus is replaced in its articular fossa there is a little difference in favor of the healthy arm. The electric excitability of the muscles is lost or very much diminished. The sensibility is normal. There is total and absolute atrophy, or partial only, of the deltoid, biceps, brachialis anticus, the supraspinatus nd infraspinatus, a neuritis of the nerves which innervates hem. As a consequence of the atrophy, the periarticular nuscles relax and elongate progressively from the capsule. The diagnosis of the affection is easy. The prognosis is grave. Its course is progressive. The atrophy increases nore and more; the distance between the acromion and the umeral head augments; the muscles of the forearm finally trophy; the hand hangs incapable of executing any movenent which may utilize its action. The grave prognosis nakes necessary a line of treatment which will either cure he affection or at least improve the condition of functional owerlessness of his arm. In the beginning, to prevent trophy and favor the return of the muscles to their normal unction, massage, local hydrotherapy, and especially elecrolysis by continued and induced currents, form the best ombination of remedies, and a great number of cases are hus successfully treated. If these measures fail, the arm hould be fixed in its normal position either by means of a rosthetic apparatus or by means of an operation for fixaion, an operation, the immediate and remote results of hich are far from being completely favorable. Bony ankysis is not necessarily obtained. Wolf, in doing this operaon, contents himself by reuniting the humeral head and e glenoid cavity without destroying any portion of the artilage, abandoning completely the idea of an osseous nkylosis, which he considers as absolutely impossible. The eparation of the acromion and the head of the humerus is onsequently apt to recur. The application of an orthopeic apparatus, of course, secures no permanent result, but ccomplishes quite as much as the surgical intervention, nd is therefore the preferable form of treatment. [S.M.H.]

2.—Vergely observed a case of **subacute nephritis** in patient aged 28 months. The child had had a mild attack of easles in March, from which she apparently made a perfect covery. In the month of August she was taken to the ashore where she played in the sand in her bare feet durg many hours of the day. Until the middle of September e seemed very well. At this time she became depressed, d lost her appetite. Some days later her face was swollen. here was considerable albumin in the urine. Three or 4 ys later the swelling had disappeared; she was passing 300 to 1,400 grams of urine, and seemed much better, when ddenly she began to vomit her nourishment. Her stools came more frequent, yellowish and contained curds of milk. er lungs were normal. Her heart's action was rapid; her domen was swollen, and the liver seemed enlarged; she s pale, her skin transparent, and slightly cyanosed. Durg the next few days she vomited 4 or 5 times during the y. Her stools were somewhat less frequent. An analysis the urine showed considerable albumin, a small quantity acetone, epithelial and hyalin casts, an excess of indican, pecific gravity of 1004, and a strongly acid reaction. The arrhea continued; the child had marked thirst and took ry little nourishment. She was ordered a warm bath, 38° , for five minutes morning and evening. Within a few ys, without any convulsion and without crying, she sudnly fell into a condition of coma, and 5¼ hours later e respirations were irregular and the child was entirely conscious. There was no radial pulse. The respirations came diaphragmatic and irregular without assuming the eyne-Stokes type. There were some convulsive moveents in the arm, in the right leg, and the face. The eyes re turned inward, the pupils much contracted. Later the nvulsions ceased and the pupils dilated; the respirations came slower and in a short time ceased entirely. Vergely ught the condition was due to the fact that the kidneys nained in a condition of marked susceptibility to cold er the attack of measles, and that the exposure at the shore stirred up the kidney-lesion. In spite of the lack nutrition caused by the diarrhea and uremic vomiting, exterior aspect of the infant was not changed. She med to be well nourished. It was hard to believe the ld in as imminent danger as she was. Some 5 or 6 hours ore her death she played with her grandmother and did show any prostration other than from loss of sleep. is character of death seems an unusual termination in s condition. Another symptom which has been little rerked upon was the intense thirst which was present. The es of nephritis, acute, with a fatal and rapid termination, not very frequent under conditions such as those here orded. No necropsy was permitted. [S.M.H.]

3.—In this case of **suppurating arthritis,** the child, at the age of a month and a half, was noticed to have a swelling in the left knee with redness of the overlying skin. There was some heat on palpation. The condition was increased by the following day and the child was irritable and cried constantly. The skin was hot and the rectal temperature 39°. The left leg was flexed at right angles to the thigh. Any attempt to straighten it caused great pain. The knee was increased in size, being swollen on each side of the patella and in the popliteal space. There was distinct fluctuation in these regions. The overlying skin was bluish and the integuments edematous. There was no inguinal adenitis. There was no trace at any place of cutaneous excoriation. There was no impetigo and no intestinal disturbance. Arthrotomy of the knee was practised immediately by external incision. There was at once an abundant flow, at first serous but latter yellowish, containing clots. A rubber drainage-tube was introduced and a wet dressing applied. Two days later the local condition was good. The child took the breast and the bottle well, and ceased to cry. The temperature was normal. A week later when the child was brought to have the dressing renewed he was fretful and feverish with a temperature of 39.2° C. When the dressing was removed there was noticed on the left tibia on its superior internal part a reddish tumefaction of the size of a nut. It fluctuated distinctly. The arthrotomy wound was nearly healed. The tibial abscess was incised and an abundance of yellowish pus escaped, after which there was seen on the internal surface of the tibia a little point deprived of periosteum. The bone was trephined and packed with iodoform gauze. About 3 weeks later the wound of the knee was almost healed, but a month latter a very noticeable quantity of pus escaped through the drain which had been retained. The fistula was explored and found to extend to the femur, where the bone was somewhat denuded. The femur was trephined, in the course of which the bone was fractured. A dressing of cotton-wool, splints and zinc was applied to keep the bone in place. Following this, all the wounds healed and the bone was firmly united in the course of 5 weeks. The bacteriologic examination of the pus from the various abscesses gave a pure culture of streptococcus. [S.M.H.]

Sundry French Journals.

1. Early Diagnosis of Carcinoma of the Lung by Histologic Examination of the Sputum. Paul Claisse. (*Gaz. Heb. de Méd. et de Chirur.*, January 19, 1899. 46me Année, No. 6.)
2. New Studies on the Nature and Treatment of Asthma Brügelmann. (*Rev. Heb. de Laryngol., d'Otol. et de Rhinol.*, January 21, 1899. 20me Année, No. 3.)
3. Cheyne-Stokes Respiration Due to Cardiac Insufficiency and Cerebral Ischemia. Maurice Rabé. (*Paris Thesis*, 1898, No. 488.) (*Gaz. Heb. de Méd. et de Chirur.*, January 22, 1899. 46me Année, No. 7.)
4. Acute Enterocolitis in Children with Grave Complications, Dry Cholera. V. Hutinel. (*Sem. Méd.*, January 25, 1899. 19me Année, No. 4.)

1.—The presence of neoplastic masses in the expectoration in the course of carcinoma of the lung has been noted in several instances. Claisse has recently been able to establish the **diagnosis of malignant disease of the lung** by this method. In one of the cases, the microscopic examination of the sputum made the diagnosis possible before the stethoscopic signs had appeared. These expectorated carcinomatous masses are ordinarily very small and are easily missed unless the sputum is dropped into a large vessel filled with water, when the small particles may be picked out as the bulk of the expectoration falls to the bottom of the dish. Thionin is the most useful stain for differentiating between the carcinoma-cells and the cells of necrotic tissues. In the discussion Ménétrier said that he had found the carcinoma-cells in a case of primary carcinoma of the lung and in a case of secondary carcinoma accompanying tuberculosis of the lung. [J.M.S.]

2.—Brügelmann believes that **asthma** is produced only by an alteration of the respiratory center of the medulla. He divides all cases of asthma into two classes, reflex and toxic. In the **treatment** of the condition, after topical applications to all asthmogenic points, he believes in the "asthmatic education." The asthmatic education consists of all forms of suggestion from the simple exhortation to hypnotism. The tepid douche is highly recommended and after that the factor in the treatment that is the most highly recommended is pneumotherapy. By the inhalations of compressed air the author finds: (1) An amelioration of the breathing with return of the bodily forces; (2) cure of catarrhal symptoms and a dilatation of atelectatic areas in the lung; and (3) an excellent psychic effect. The patients should be encouraged not to cough; they should be assured that there is no peculiar liability for them to contract cold; they should be encouraged to take their normal diet. [J M.S.]

3.—Rabé calls attention to the fact that there are other functional perturbations that add to the clinical picture of the neurosis known as **Cheyne-Stokes breathing.** (1) Psychomotor disturbances have been observed during the period of apnea. The inhibition of these centers varies from simple dulness to complete unconsciousness. (2) Psychomotor disturbances have been observed during the stage of hyperpnea. The return of the respirations is accompanied by the return of the cerebral functions, and sometimes, a few seconds before the end of the pause, this return is indicated by slight convulsive movements involving the muscles of the face or of the ends of the limbs. The return of the respirations, again, is sometimes calm, and with each successive respiratory movement there will be a progressively increasing convulsion of the upper extremities. Instances have been recorded in which there was an attack of acute mania in this stage of the phenomenon. In some cases there is no relation between the convulsive phenomena and the respiratory movements. (3) Ocular and pupillary disorders have been recorded by several authors; such as conjugate oscillation of the eyes with alternate contraction and dilatation of the pupils. This nystagmus may occur either during the stage of apnea or of hyperpnea. The pupil becomes punctiform with the last inspiration and dilates with the first inspiration, to become gradually contracted during the stage of respiratory activity, and again punctiform at the beginning of the pause in the cycle. Sometimes the pupil loses its power of reacting to light, again the dilatation and contraction take place with great rapidity, and even extrinsic and intrinsic muscular disturbances may occur in the same period of the cycle. (4) Those who have studied the disturbances of sensation of the body during the Cheyne-Stokes cycle have noted the diminution or abolition of general sensibility during the period of apnea, with a return to the normal sensibility during the period of hyperpnea. Terrien has recorded a case in which there was intermittent anesthesia during the pause in the respiratory movements. (5) The reflex phenomena due to disturbance of the function of the spinal cord are not constant. (6) The symptoms due to disorder of the circulatory apparatus have been affirmed by some and denied by other authors. It seems as though the radial pulsations were more frequent during the stage of apnea than during the period of hyperpnea and that they might go so far as complete cardiac pause. Further, during the pause and during the period of increased pulsations there will be marked arterial hypotension with irregularity and intermittance; on the contrary, during the stage of polypnea, if the radial artery loses in frequency it gains in regularity and in volume, and it is in a state of hypertension. These changes are not constant, however. The phenomenon of Cheyne-Stokes is symptomatic of cerebral insufficiency and may be considered as a simple respiratory delirium. It is seen in the course of many affections, but it indicates one of two classes of disorders: intoxications or circulatory troubles. Uremia, typhoid fever, diphtheria, influenza, variola, cholera, acute affections of the respiratory tract, morphin-poisoning, and poisoning by the bromids, are some of the infections in which the phenomenon has been noted. Meningoencephalic lesions, tumors of the cerebellum, chronic hydrocephalus, softening of the brain, general paralysis, tuberculous meningitis, epidemic cerebrospinal meningitis have been accompanied by the Cheyne-Stokes breathing on account of the mechanical action of the pathologic lesions accompanying the disease. The phenomenon is also seen in cardiopathies with or without valvular lesions. In these conditions it is not necessary that the kidneys should be involved. Arteriosclerosis affecting any of the cerebral arteries, and especially if accompanied by cardiac asystole or by cardiac insufficiency is sufficient to give rise to the phenomenon in question. The prognosis is not necessarily fatal. The associati of morphin and digitalis is the treatment of choice. [J.M.

4.—Enteritis, in itself, is not a serious disease, but it ma open the way for the development of well-marked infection the effects of which are seen on all the tissues of the bod particularly on those of the central nervous system. Hut nel describes 2 cases of **acute enterocolitis** in childr that were followed by **grave symptoms.** After giving t clinical histories of the cases, he goes on to describe the i fections following upon attacks of this disease. The childre that are ordinarily attacked by an infectious process e grafted upon an attack of enterocolitis have been weane and, indeed, large children may be infected. The cases mo frequently occur in cities, and the children attacked a usually those of rich parents in whom there is a distin nervous and arthritic tendency. All the patients seem have been well cared for and well nourished, or, in som cases, too well fed; the latter is an important point. Som children have been overfed because they were growing em ciated, while others eat to excess because they are naturall gluttonous; almost all are habitually constipated or, at leas have irregular and insufficient stools. The residual su stances that accumulate in the large intestine form an exce lent medium for the development of microorganisms a for the formation of toxins. The exaggerated developme of the abdomen seen in these cases is an indication of a sta nation or of an imperfect digestion of the alimentary su stances in the intestine. There are usually no well-marke rachitic symptoms. The appearance of grave complication is usually preceded by one or more attacks of illness, to whic little importance is credited, and which prepare the way f the more serious infection. These attacks consist of sligh symptoms of indigestion, with vomiting, fetid diarrhea, an fever, accompanied by mucous or bloody stools, and followe by marked fatigue. Sometimes several weeks or even se eral months may intervene between the primary attack an the subsequent ones, but usually it will be found that th digestion and the nutrition have not been perfect in the i terval. The beginning of the attack is usually mild, chara terized by loss of appetite, vomiting, fever, abdominal pai and diarrhea. Up to this point there is nothing alarming i the condition, and the disease is diagnosed as simple acut enterocolitis. Following this apparently mild disturbanc the aspect of the patient will suddenly change, and gra symptoms will appear that will sometimes point to the o currence of poisoning, and, at other times, will impress th physician as being an affection of the nervous centers. Th vomiting will increase in frequency until the gastric intole ance is absolute, the vomitus consisting of greenish mucu mixed with blood. The stools will be putrid at the begin ning, then mucous, membranous or bloody. The eyes wi become hollowed, surrounded by a brownish-red ring, th nose pinched and cold, the lips red and dry, the extremiti clammy and cyanotic, and sometimes cramp will be note The spleen will rarely be increased in volume; the liver i usually slightly enlarged and painful on pressure; the urin may contain albumin; the heart's action may be quite irreg ular; convulsions and cerebral excitation have been note Various forms of cutaneous eruption have been seen, an sometimes this manifestation is purpuric in character. Ulce ations of the oral mucous membrane and broncho-pneumon have also been noted. The author attributes the pathogen sis of these conditions largely to chronic constipation, and h thinks that the streptococcus frequently plays an importan if not a predominant, role in the cases. In the treatment the condition the first indication is to prohibit the use of a fermentable substances as articles of diet; intestinal lavag castor oil and calomel are indicated for the cleansing of th intestinal tract; moist, hot compresses for pain, tepid cold baths for the fever, the bromids and chloral for cer bral excitation and insomnia, and sometimes antipyrin an opium. Large injections of neutral saline solution are onl recommended if the prostration is extreme. After the attac has lost its intensity and convalescence has been establishe the diet of the child should be carefully supervised; ric water, albumen-water, barley-water, and chicken-broth, wi be found useful, and gradually the normal diet may be r turned to. Milk should form the basis of the diet for week or even months after the attack; eggs and fish are not alwa well digested. Abdominal massage is advised for the cons pation following the attack. [J.M.S.]

Practical Therapeutics.

Under the charge of
A. A. STEVENS, A.M., M.D.,
of Philadelphia.

Persistent Rheumatism.

℞.—Sodium iodid		4 drams.
Wine of colchicum		4 drams.
Ammoniated tincture of guaiac.	of each	7 drams.
Fluid extract of coca.		
Fluid extract of cimicifuga		6 drams.

Teaspoonful three times a day. —*Phila. Polyclinic.*

The Uses of Electricity.—W. Aldren Turner, M.D., F.R.C.P. (*Clinical Jour.*, February 8, p. 263), writes as follows:

Prognosis.—In a case of ordinary peripheral facial paralysis electrically examined on the tenth day, three types may be met:

1. *Paralysis plus normal faradic irritability of the paralyzed muscles.* Recovery will take place in from 2 to 3 weeks. This is common in slight degrees of facial paralysis, but it is not found in the severer alcoholic and lead neurites.

2. *Paralysis plus diminished faradic irritability, plus the reaction of degeneration.* This is common. But there may be oss of faradic excitability in the orofacial muscles while it is partly retained in the oculofacial group. Recovery takes place in from 6 weeks to 2 months.

3. *Paralysis plus loss of faradic irritability plus the R. D.* Recovery takes from 3, 6, to 9 months. If at the end of 6 weeks the faradic reaction is beginning to come back, recovery will ensue in about 3 months. If at the end of 3 months the faradic reaction has not returned, a guarded prognosis as regards time or ultimate complete recovery is to be given.

Treatment.—Electricity is used (1) to maintain the nutriion of paralyzed muscles while the nerve is undergoing repair; (2) to relieve pain and spasm; (3) to promote the general nutrition of the body, more especially the neuromuscular system.

In paralysis that form of electricity should be used to which the muscles respond. In types 1 and 2 faradism hould be employed; in type 3 galvanism. But there is a useful method known as the combined galvanofaradic method. By means of a simple arrangement, the de Watteille table, both faradism and galvanism may be applied at he same time. In type 2 this would probably be the most atisfactory form. Electricity in muscular paralysis, should e applied once a day, perferably combined with massage. n a case of alcoholic paralysis affecting the legs, for intance, electricity may be given in the morning, massage in he evening. It is well to continue the electricity until the muscles present a reaction equal or almost equal to that of ealth.

In severe cases of trigeminal, intercostal, and brachial euralgia, and in other forms of pain, electricity is of great ervice. Galvanism is the form to be used, the anode being pplied over the painful area, the other electrode at the back f the neck. If the pain is severe, the patient should be rovided with a battery, and allowed to apply the electricity hen the pain comes on. The electricity should be applied 3 times a day if necessary.

Faradism should be avoided in spasm, such as facial or istrionic, and in rigidity and spasticity, such as in hemilegia, lateral sclerosis, and after myelitis. It only increases he rigidity. Use galvanism, for it tends to reduce spasm.

The third use of electricity is to increase the general nutrion of the neuro-muscular systems. For this purpose it hould be combined with massage. For instance, in neurashenia faradization in the ordinary way is not of much serce, but there is a method of applying faradism which is of rvice, namely, the faradic bath; the water of the bath beomes one of the electrodes, the electricity affecting the hole cutaneous surface. It is soothing and at the same me invigorating. But massage should be carried out as ell.

Another method of increasing the general nutritive condion of the body is by galvanofaradism. It is applied to the general skin-surface; but this, again, should be combined with massage. Finally, there are two practical points. Always test the strength of the current on yourself. Use the weakest current which will produce the required effect, whether faradic or galvanic.

—*Medical and Surgical Review of Reviews.*

The Medical Treatment of Typhoid Fever.—Stewart (*Montreal Medical Journal*, February, 1899) in discussing the treatment of typhoid fever first alludes to serum-therapy, concerning which he is of the opinion that while it apparently has been effective in the disease as it is met with in susceptible animals, still it has been disappointing when applied to counteract the disease in the human subject. The Woodbridge treatment is decidedly condemned. As the typhoid bacilli are not present in the intestinal canal prior to the breaking-down of the lymph-tissue, it is impossible for antiseptics to reach them except through the blood, and it is, of course, vain to expect that any medicinal agent that we know of can exert a germicidal action in the organism collected in the lymph-tissues. Of the antipyretic drugs antipyrin, phenacetin, and lactophenin are the most popular, but their action is much inferior to that of the cold-bath. Statistics are universally favorable to this method of treatment. The mortality at the Red Cross Hospital, Lyons, was 7.3%; that of Hare, in the Brisbane Hospital, in Queensland, 7.84%; that of Wilson, in the German Hospital, Philadelphia, 7.8%; that of Osler, in Johns Hopkins Hospital, 7.8%. The mortality of 408 cases of typhoid fever treated in the Royal Victoria Hospital in Montreal, since its opening in January, 1894, was 4.4%. In 9, or exactly one-half of the fatal cases, death was caused by perforation and hemorrhage. Stewart believes that death from perforation and hemorrhage is more frequent under the Brand than other methods of treatment. Relapses, however, are not more frequent under the Brand treatment. Relapses occur in from 3% to 13% of cases. Of Stewart's 408 cases relapses occurred in about 8%. Hemorrhage was the cause of death in 3 of Stewart's cases. For this complication he recommends the application of a Leiter's coil over the abdomen, and elevation of the foot of the bed. Opium should be given in sufficient quantity to cause either slight drowsiness or contraction of the pupil. In 6 of the 18 fatal cases death resulted from perforation. In these cases operation at the earliest moment is recommended. Keen has collected 83 cases with 18 recoveries. [Platt (*Lancet*, February 25, 1899) reports 3 cases of his own with one recovery, and adds 17 others to Keen's series, making a total of 103 operations, with 21 recoveries.] Stewart advocates a milk or liquid diet, but states that satisfactory results with a more liberal dietary have been obtained by Shattuck, of Boston, and by Barr, of Liverpool.

William Sydney Thayer (*Progressive Medicine*, March, 1899) alludes to a paper by Bushuyev, of Kiev, Russia, in which the more liberal feeding of patients during typhoid is strongly advocated. He cites the fact that most of those who object to liberal feeding base their objection, not so much on the insufficiency of the digestive juices as on the danger of hemorrhage or perforation; but the changes resulting in perforation rarely appear suddenly; they come on gradually. They are so distant from the stomach that by the time substances, even though hard to digest, reach these areas, they are so far changed that one can hardly imagine that they could actually injure the intestine. One never hears of the perforation of a tuberculous ulcer by food. Bushuyev knows of nothing to support the view held by some that injury to the intestinal walls by solid food might provoke a reentrance of the bacilli and an increased frequency of relapses. In a series of 80 cases treated by Bushuyev, and placed on a diet consisting of white bread, boiled meat, cutlets, eggs, soup, milk, wine and tea, the mortality was 10%. In a series of 74 cases treated in the same military hospital, by his colleague, Sartsievich, the diet consisting of milk and soft-boiled eggs, the mortality was 12.1%. During the year 1897, under a liberal diet, Bushuyev lost 26 out of 318 patients, or 8.2%. In commenting upon this paper, Thayer writes: "While one cannot but feel that this is the article of an enthusiast, yet both reasoning and the figures are such as to make us reflect. Is it not more than likely that many cases of typhoid fever suffer from too restricted a diet? Bearing in mind the long course of fever through which the patient must pass, the dangers to which he is exposed not only from exhaustion and the accidents peculiar to typhoid fever, but especially from the various secondary infections to which he is so easy a prey at the end of his long period of fever and fasting, our main object should be to keep up his general nourishment by every means in our power, obviously if a more liberal diet than that afforded by the purely liquid regimen could be assimilated, the patient's strength would hold out materially better. In diphtheria or pneumonia or febrile tuberculosis do we not make every effort to induce the invalid to take as much as he can bear of a simple, easily absorbable and nourishing diet? And yet in typhoid fever we are restrained by a vague fear that any departure from the customary regimen is, for some reason or other, dangerous. What ground have we for this fear? The ordinary answer is the quotation of a case in which, after a long course of fever with a much restricted diet, some indiscretion has produced a sudden rise of temperature with alarming symptoms. An indiscretion in diet may produce such symptoms in any condition of severe physical exhaustion, but the reviewer has never seen anything to suggest that this is more common in typhoid fever than in any other similar condition. And those observers who in recent years have intelligently adapted the diet to the patient have only good reports to make. Such observations as those of Shattuck and Bushuyev are the best proofs that there is no special condition in typhoid fever which contraindicates rational liberal feeding. Bearing in mind the frequency of intestinal lesion we should, of course, avoid substances which leave an undue residue, but that the general course of the case would improve, that convalescence would be quicker, that lives would actually be saved, if, as Shattuck says, we paid more attention to our treatment of the patient than to that of the disease as such, the writer is convinced."

Whooping-Cough.

℞.—Bromoform	48 drops.
Almond oil	5 drams.
Tragacanth	½ dram.
Gum arabic	1 dram.
Cherry-laurel water	1 dram.
Water to make	3 ounces.

The bromoform is first added to the oil. One dram of the emulsion equals two minims of bromoform.

Protargol and Argonin in Purulent Ophthalmia in Children.—Peck (*Pediatrics*, Vol. vii, p. 129, 1899) claims the following advantages for these compounds over the older silver salts in treating the purulent ophthalmia of children: (1) Quick destruction of the gonococcus; (2) the earlier disappearance of the secretion and of the inflammatory process; and (3) the more prompt restoration of the injured cornea and other tissues to the normal. Both argonin and protargol are silver proteid compounds, the solutions of which cannot be precipitated by albuminous fluids. Protargol is a yellowish powder, readily soluble in cold or hot water, and both the powder and the solution keep well. Argonin contains 4.2% of silver. It is a white powder, readily soluble in slightly warm water, but the solution is turbid, and decomposes if exposed to too much heat. When so decomposed, it is very irritating. Silver nitrate contains 6.35% of silver, and hence occupies a middle position in this respect between protargol and argonin. A clinician who had used 2% solutions of argonin claimed: (1) That it killed the gonococci in a short while; (2) that even in solutions stronger than a 2% it had but little tendency to set up inflammations; and (3) that it had no caustic properties. Protargol is more powerful, and should not be used in greater strength than from ½ to 2%. Peck found that the gonococcus disappeared in from 2 to 4 weeks. Under this treatment he found less ulceration of the cornea with protrusion and imprisonment of the iris, an earlier disappearance of all inflammation, a quicker eradication of the gonococci, less pain to the patient, and more prompt restoration of the injured cornea and conjunctiva. In preparing solutions of argonin he uses 10 parts of cold water and 1 part of argonin. This is vigorously shaken in a flask until a uniform mixture is obtained, when sufficient boiling water is added to make a 3% solution. In preparing a solution of protargol a paste is first formed with the powder and water and then sufficient water is added to make it from .25% to 2%, as desired. It is essential in treating these cases to have skilled nursing. If one eye only is affected the other must be protected by a cover that leaves only a small space for ventilation in the lower and outer region. For the newly born the cover should be of lintine covered with sterilized cotton and gauze and smeared with collodion. The protected eye should be inspected every second day, and the infected one handled from behind the patient's head. The lintine should be kept on ice and changed every one or two minutes for one hour without intermission, after which the intermission may be lengthened to one, two or three hours, night and day without abatement. The eyeball and conjunctival sac should be irrigated with a warm saturated solution of boric acid, and the parts kept clean, and as free as possible from secretion. In two or three weeks the disease should be controlled, and all gonococci should have disappeared. Sodium chlorid, cocain, atropin, eserin, and other allied substances used as anodynes for the eye can be administered in conjunction with protargol. Albuminous substances present in the secretions do not decompose it. It is the only silver compound known that is not affected by dilute hydrochloric acid. In suppuration of the lacrimal sac, styes, etc., the pus-formation is more quickly checked by protargol than other agents he had tried. Three cases are cited as evidence of what he asserts.

Organotherapy in Gynecology.—Dorland (*Therapeutic Gazette*, April 15, 1899) from his own experience and a review of the literature of the subject concludes that:

1. The ovaries, in common with other glandular organs in the body, exert an occult, but very positive, influence upon the general organism.
2. When this influence is removed, either by the natural atrophy of the glands at the climacteric, by destruction of the ovarian stroma from pathologic processes, or by extirpation of the organs, there results a series of distressing phenomena, including hot and cold spells, nervous and mental manifestations, and neuralgic attacks.
3. The administration of ovarian substance or of the extract of ovarian tissue is promptly and very generally followed by a marked amelioration of these symptoms.
4. The average dose required varies from 2 to 5 grains of the extract administered thrice daily.
5. Excessive doses of the remedy will be followed by cardiac and nervous manifestations necessitating a diminution in the dose administered, or a complete, though temporary, change of treatment.
6. In some cases there appears to be developed a tolerance to the remedy whereby its effects are diminished in intensity. For this reason it is better to begin with small doses and gradually increase the amount as may be indicated in the given case.

Pruritus of Senility.—Parisat (*Treatment*, April 27, 1899) employs the following treatment in pruritus senilis: The bowels are kept well open, and the patient is put on a milk diet, and benzo-naphthol is prescribed (the total daily amount being 1 dram). Within 24 hours improvement is noticed, and the most obstinate cases are rapidly cured.

Gastralgia in Hysteric Females.—In hysteric females I have obtained good results from the prolonged use of the valerianates, combining with them iron and arsenic, thus:

℞.—Zinc valerianate	18 grains.
Quinin valerianate	27 grains.
Iron arsenate	2 grains.

Sig.—Make into 18 pills; one after meals.

—Anders' *Practice of Medicine*.

The Treatment of Barlow's Disease; or, Infantile Scurvy.—Baron (*Münchener medicinische Wochenschrift*, xlv, 565 and 598, 1898) favors the view that this disease is an infection which readily attacks anemic, rachitic and debilitated children. Such a supposition renders explicable the various therapeutic successes, thus, for example, the favorable influence of salol, the fruit-juices, rich in vegetable acids (lemons and oranges), and lastly that of fresh yeast (a teaspoonful 3 times daily). The administration of green vegetables is, therapeutically, very active, due to the fact that the salts they contain are, in their total conbinations, very similar to those which exist in the blood, and their use should also be retained, for the reason that they permit a certain change in diet.—*Pediatrics*.

Original Articles.

LITHEMIA.[1]

By B. C. LOVELAND, M.D.,
of Clifton Springs, N. Y.

LITHEMIA, otherwise known as uricacidemia, the rthritic or rheumatic diathesis, is a condition which nderlies about half of the functional troubles which arass humanity, besides being at the root of a very rge proportion of the graver troubles which sooner or ter cause the death of the victim. Hence, in the few oments at my disposal, it will be possible only to give passing glance at a few of its more important mani- estations, and suggest a few underlying principles hich may, on the one hand, prevent its development, r, on the other hand, arrest its progress, and in a easure, at least, relieve the sufferer, or prolong his ears of usefulness.

Perhaps it will be well to give one of the standard efinitions of lithemia, so as to make very plain the bject under discussion. The following is taken from ould's *Medical Dictionary:* "Lithemia, modified gout. condition in which, owing to defective metabolism of e nitrogenous elements, the blood becomes charged ith deleterious substances, principally, perhaps, of the ic-acid group, although their exact chemic nature is t determined."

According to my observation, there are two distinct visions or classes of lithemics, and in each of these asses may develop all, or nearly all, the various enomena which characterize the condition. The two asses I have called the plethoric, or over-nourished; d asthenic, or poorly nourished. It will be the pur- se of the paper, before giving the general dietary, anagement, and conclusions, to give something of a mparison of these two types, or classes, with the incipal manifestations of each.

The plethoric lithemic is a person of robust habit, of ddy complexion, usually with a hearty appetite, in- ned often to be a little over weight, frequently prone exercise insufficiently. The varieties of manifesta- ns most common in this type are neurasthenia, cere- al hyperemia, spinal congestion, biliousness, so-called k or bilious headache, insomnia, and melancholia. l these belong to the list of functional ills. If the ndition is continued, it is the proper ground for the velopment of inflammatory rheumatism, arterial de- eration, apoplexy, paralysis, chronic interstitial phritis, diabetes, sclerosis of the liver, or general erial fibrosis; and among the lesser ills, tonsillitis, insy, gout, inflammations of the mucous membranes, luding rheumatism, boils, and gravel, or renal lithia-

A volume could be written upon almost any one of above conditions, if we were to go in an extended manner into symptoms, diagnosis, course of development, and treatment, but my remarks will be confined to a few conditions of the system as demonstrated by an examination of the blood and urine in these classes. Without going into general descriptions, the amount of urine in this class of patients is usually below 3 pints or 2 quarts in 24 hours, with a specific gravity from 1024 upwards, sometimes ranging as high as 1035, or 1040; is free from sugar or albumin, unless serious change has taken place in some important tissue of the body; it may contain some uric acid, occasionally contains calcium oxalate; is darker than the normal, light amber color; is frequently strong in odor, and often irritating to the mucous membrane in passing.

The blood in this class of cases is usually high in specific gravity, over concentrated as regards hemoglobin, ranging from 95% to 120%, corpuscles count from 5,500,000 to as high as 7,000,000 or more. The corpuscles are usually well formed and well nourished, the coagulability of the blood being quite marked. It differs here considerably from the density of the blood found in some chronic diabetics, in whom the fluids are so constantly thrown off through the kidneys, for in them the blood is uniformly thick, or concentrated, but the concentration is not in the even proportion that we find in the simple plethoric lithemic. Of course, it is plain to be seen, in such cases as have just been described, that the blood, overcharged with the ingredients easily demonstrated, such as hemoglobin and corpuscles, would be also overcharged with albuminoids and other elements, including the earthy salts and uric-acid group of compounds. For this reason, lithemia plays a most important part in that excess of solid matter in the body which marks a person as *old*, no matter what his years, for the main difference between an old man and a young one is the difference in the proportion of fluids and solids in his tissues. It will be seen, moreover, that with organs in perfect order for assimilating an ordinary amount of food-material, and excreting the broken-down products, with the blood in the condition described, the processes of assimilation and excretion are handicapped by the over-ingestion; in other words, the organs of the body can take care of, and properly work off, and cast off, an ordinary wholesome amount of material, but when given more than ordinary healthy organs can digest and throw off, the consequence is not only an accumulation of food materials, so that imperfect assimilation follows, but also an imperfect elimination; and thus the system becomes surcharged with the uric-acid elements which are the products largely of imperfect assimilation and which are regarded as the cause of the various maladies described under this heading.

Of course, it is easy to see the way out of this condition when the organs are still normal or healthy, no degeneration having taken place, the great point being to ascertain just when that condition does exist; and, in this connection, comes the importance of examining both the blood and the urine in all cases of the functional disorders, even though mild, which I have mentioned in the beginning of this list. The first physical landmark which may be noticed as pointing towards the condition of lithemia, the fingernails, is often overlooked. As they are farthest from the center of circulation, the excess of earthy substances will appear here first, when all the organs are sound and the trouble may be entirely remedied. Hence, it is always wise to examine the nails as to their smoothness and brittleness.

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[1] ead before the Medical Society of the State of New York, 1899.

Finding the condition to be a plethoric lithemia, of course, we may regulate each patient's diet and exercise accordingly, giving less albuminous foods, more water, more exercise, and cutting off from the cereals, vegetables, or fruits, any particular food-substance which is the special cause of indigestion. This management, in a large number of the cases above referred to, will be quite sufficient (if the patient can be induced to be strictly obedient) to correct the evil, and prevent the development of any of the long chain of ills which so frequently follow in this condition. It may be necessary, however, if the saturation of the system with uric-acid elements is sufficiently marked, to use some mild alkaline measures, in addition to the dietary ones, and in this case, the particular alkali is not nearly so important as the fact that it is an alkali. It is simply for neutralizing the present accumulation, and sodium salicylate is one of the best. This class of patients, having strong digestive apparatus, can usually take it well diluted with water, with little difficulty.

The plethoric class will stand almost any limitation in diet, and frequently all that will be required is to prescribe 2 quarts of water a day, and a vegetable or largely vegetable diet, possibly allowing fish and white meat of poultry; but if the case is one of long standing, a permanent change in the diet must be insisted upon.

In the asthenic, or poorly nourished type of lithemia, we have above all the other diseases the condition called rheumatic gout, rheumatoid arthritis, arthritis deformans, or the other name applied to the same condition, progressive articular rheumatism. Besides this we sometimes have chronic gouty degeneration of the kidneys, one type of the so-called Bright's disease. We have catarrhal troubles of the mucous membranes, either the bronchial, the nose, the uterus, and, I may say, the eyes. We also have some forms of muscular rheumatism in which there is lameness or soreness of the muscles without actual inflammation or fever, and under that type comes lumbago. Neurasthenia also is often an outgrowth of the uric-acid diathesis, either plethoric or asthenic.

Rheumatic gout is deserving of an entire paper by itself, and in the few words which can be said here, no justice can be done it, except to say that it is a condition essentially affecting the asthenic. In fact, th whole class of asthenic, or poorly nourished lithemi are essentially different from the class I have describe in the beginning of this paper, but either class ma develop the characteristic arterial degenerations.

In the first class the assimilative organs are in goo order to digest the usual or ordinary amount of foo materials and the ordinary variety, and the lithemi is the result of overloading the system.

In the second class, the assimilative processes of th body are so feeble that the ordinary amount and variet of food cannot be assimilated, and the consequence i that, only a portion being assimilated properly, th remainder, imperfectly assimilated, produces an ove charging of the system with the lithemic products, an an impoverishment of the system in some nutritive el ments as well. For instance, in the case of the plethori lithemic, we will find the blood to represent, in ou examination, hemoglobin from 90% up to 100% 120%, and the corpuscles ranging from 5 to 7 or eve 8 millions, or more, to the cubic millimeter, th proportion of red and white corpuscles not being muc disturbed.

In the asthenic lithemic, we will find the colorin matter reduced to somewhere from 65%, or even lowe to 75% or 80%, rarely so high as 90%, and the corpuscl in the neighborhood of from $4\frac{1}{2}$ to $5\frac{1}{2}$ or even 6 million to the cubic millimeter. The proportion of red co puscles will not be much disturbed so far as numbe go in relation to the white corpuscles, but they ar poor in quality of hemoglobin, and often smaller i size than normal. In the average case, however, this class, there is no irregularity in the form of th corpuscles, but they seem to be simply poorly nou ished.

In the examination of the urine in these cases, w find as a rule that there is a diminution in the entir quantity of fluid excreted in 24 hours, and if our i vestigations are carried further, they will show a dim nution to a slight degree below the normal of the entir urinary solids. It is customary, however, to find thes patients passing urine of a specific gravity higher tha normal, ranging from 1024 to 1035 or 1040. If w inquire into their habits, we find them to be usuall sedentary, and, in a great number of cases, the sedentar habits have been acquired late in life, at least whe the adult period has been reached. It will also appea that this condition is much more common at, or shortl following, the menopause.

A few cases develop in students who get into har and confined sedentary life, having been taken fro farms or out-door occupations, and who have had thei habits of life quite suddenly changed, especially in case in which, for any reason, the student finds the nece sity of working his way through, as the saying goe and curtails to some extent his nutrition in so doin One thing which applies universally to all cases, I ma ay, is that they never drink water to any extent, as I ave found in asking about the habits of several hunreds of such cases, and this applies equally well to he plethoric and asthenic types. I have never found ut two people of this class who professed to be free sers of water, and on inquiring definitely how much ney used, they replied that they used 5 or 6 glasses day.

In endeavoring to relieve this type of trouble, we ust use a very different line of diet and mode of treatent and medication than we do in the plethoric type. oses of alkali are indicated, but must be smaller and ontinued over a longer period, a period of possibly vo years. The use of water must be maintained in uantities not less than 3 pints or 2 quarts in 24 hours, s a habit for life. The diet in such cases may contain considerable amount of nitrogenous food, or only a oderate amount, according to the patient's condition f nutrition. As a rule, however, it is wise to confine e diet to lamb, mutton, white meat of chicken, fish, d eggs; and milk may be used in these cases accordg to our judgment in reference to the amount of nuition the patient needs. In all these cases it will be ell to avoid sweets entirely, to use white bread spargly, to use vegetables in abundance, but to select refully those which the patient is able to digest, and gest thoroughly; and in this place it may be said at potatoes will not disagree with some, and will with hers, and the same may be said of other starchy foods. he grains and vegetables, if digested, agree with all these patients. Fruits, as a rule, may be taken with punity, and it may be said with benefit, with the exption of such acid fruits as the sour kinds of grapes d plums, strawberries, and tomatoes. The acidity of e pie plant is injurious in many cases. In whatever et is prescribed, the greatest care must be given to e digestion and assimilation, that nothing should be ven in any instance which will produce acidity of the omach, or indigestion, for any such condition increases e lithemic state.

Here may be noted the curious instance of two men om I know, whose experience is this: The one will ve a touch of rheumatic trouble if he eats potatoes ce or twice a day for 2 or 3 weeks, but he can eat eat in practically any quantity he desires, with imnity. The other can eat potatoes 365 days in the ar, and 3 times a day, with no kind of trouble of eumatic character, but will feel the beginning of that ouble if he eats meat in any ordinary quantity 3 times lay for very many days.

The explanation of such a state of affairs seems to that the assimilation of the starchy foods in the one se is deficient, and in the other, normal; that the alassimilation taking place in the starchy foods in the e case is passed over into the albuminous foods, and at the lithemia resulting is from what might be led the secondary malassimilation affecting the albuminoids, for it is evident that no uric acid can come from the malassimilation of starchy foods.

In either type, the plethoric or asthenic lithemic, the digestion must not be overlooked, as it is an important factor in determining the production of uric acid.

One thing should be mentioned in relation to the asthenic type: too much bathing is bad for the patients. They should use less bathing, but a great deal of friction to the surface, and a great deal of exercise.

The plethoric type often improves rapidly on a course of hot bathing and flushing with water, and it is on such cases that many of the *hot springs* make their record of remarkable cures, but the same treatment anywhere would be equally successful.

Not so the asthenic cases. Hot bathing may give temporary relief in rheumatic gout, but it must be employed with great caution, and in all varieties of asthenic lithemics. External remedies, to be of any service, must be such as help to promote tissue-change, or cell-metabolism, such as massage, electricity, cool bathing followed by friction, oil rubbing, etc.

Obstinate as many of these cases of the asthenic type seem to be, very much can be done for them if sufficient patience and perseverance be employed.

THE USE OF QUININ IN MALARIAL HEMOGLOBINURIA.

By C. C. WARDEN, Ph.B., M.D.,
of Nashville, Tenn.

In malarial districts the practitioner has frequently to deal with hematuria or hemoglobinuria in their various clinical aspects. In no condition, perhaps, is there to be found wider therapeutic latitude or such extreme diversity of opinion regarding the value of any given agent as there is concerning the use of quinin for this condition, and it is not surprising that the physician is frequently embarrassed in selecting the wisest and safest course to pursue. Some recent contributions to medical literature have served rather to intensify some of the difficulties than to throw light on the situation.

Koch has traveled south for the purpose of studying malaria and its various manifestations, but got no further than Italy before he came to the conclusion, which he had the temerity to announce, that "blackwater" fever was nothing more or less than quinin-poisoning. This assertion has deservedly brought forth a storm of criticism and opposition, and apparently the whole subject of the relations of the drug to bloody urine has thereby been again thrown open for discussion.

Perhaps the first question which would naturally arise is this—Does quinin itself ever produce hemoglobinuria in a person suffering from malaria? In the consideration of this question we are confronted with the fact that quinin causes bloody urine sometimes in an individual remote from malarial influences, who may have a peculiar idiosyncrasy for the drug. It will not be denied that such instances are comparatively rare, but they must be admitted to record. Stillé, Brunton, and others say that toxic doses of quinin produce irritation of the genitourinary tract. Hare corroborates these views and adds that poisonous doses cause nephritis. All, however, lay stress upon the fact that very large doses are required to produce such a condition.

It may be argued that not all cases of supposed malarial hematuria are demonstrated to be due to parasitic influence. Frequently the clinical evidences of malaria are taken as sufficient evidence alone and the microscopic proof omitted. There is considerable tendency to diagnose hematuria as malarial on prima facie evidence, just as many irregular fevers bear the brand of malaria without accurate confirmation. My experience has taught me that some cases of hematuria in the far north, where malaria may be practically eliminated, very closely resemble those associated with the remittent fevers further south. We have exposure to cold followed by chill and elevation of temperature which runs a brief remittent course, the initial symptoms being accompanied by hematuria. Miners, in sweaty garments, rapidly transferred from an underground temperature of 50° or 60° F. to a surface-temperature anywhere from 0° to —20° F. are not infrequently victims of such disturbance. The history of course makes the matter clear, and under no circumstances would one entertain the idea of a malarial cause.

We have then those cases of hematuria due to causes altogether outside of malaria. The ingestion of certain drugs may bring on attacks. Then there are cases, paroxysmal in character, found everywhere in malarial districts and in regions also where malaria is never seen. It will appear, consequently, that positive demonstration of the parasites must be made in order to distinguish such cases from those undoubtedly due to malarial influence, such as the types that occur during and after the paroxysm of malaria, those associated with the remittents and the hemoglobinuric fever of the tropics, very probably parasitic in origin. The so-called postmalarial hematuria in many cases will undoubtedly be found due to causes altogether outside of paludism. For an observer to state that quinin causes or aggravates hematuria in a case of true malaria, which he is watching, very careful discrimination is necessary. Simply because quinin has been given to control a paroxysm and hematuria develops, it does not necessarily follow that the drug produces the symptom. Neither should quinin be condemned because bloody urine persists after its exhibition in cases in which the hematuria and initial paroxysm are synchronous. The burden of proof rests with the demonstration that quinin given to a malarial patient hitherto uncinchonized is followed by hematuria, which disa pears and returns with the withdrawal or continuanc of the drug. Such positive cases, it may be said, ar rare.

Karamitsas maintains that repeated attacks of ma laria may produce a condition in which quinin bring on bloody urine, and reports 7 or more cases. Toma selli says that he has seen cases of prolonged intermi tents become subject to attacks of bilious hematuri fever whenever quinin was given. It is not state whether the exhibition of other drugs produced similar effect.

Karamitsas reports in detail a case to show that 2 grains of quinin produced bloody urine, the case up t the time of administration having run a normal febril course. He did not repeat the quinin. He said th patient was very pale and had distinct yellow discolo ation of the conjunctivæ. The quinin was given at th summit of the pyrexia in initial 5-grain dose, and wa followed by hematuria before the second dose wa given. Such a case is of no value as affording positiv proof of the cause of the hematuria.

Rizopoulos, in Greece, Du Chassaing, of Guadaloup and others claim to have seen cases in which quini caused hemoglobinuria, and these observers are sup ported by Pampoukis and Chomatianos. Faginoti re ports a case of quinin-hematuria, Rivet and Dasse give instances of vesical hemorrhage due to its use, an Cachere reports incontrovertible cases. Some of thes observers, however, attribute the effects to idiosyncras and predisposition to the drug, due to prolonged ma larial disease and otherwise. Hare made an investiga tion in 1892 and found the profession in the South abou equally divided, some claiming that quinin produce hematuria, others maintaining that it cured the dis order.

When we come to consider the "blackwater" hemo globinuric fever, which Koch regards as quinin-poison ing, one confronts very interesting conditions. Whethe the cause of the trouble be parasitic, as many contend or not, we are as yet unable to assert. Wheaton prove that the morbid anatomy of blackwater and parox ysmal hemoglobinuria is identical, the difference bein clinical, and depending on regional environment. I was Tomaselli, of Catania, who probably originated th present discussion in regard to the relation of quini to hemoglobin. He doubtless misinterpreted the fac that moderate doses of quinin may excite hemoglobin uria in persons who have previously contracted black water fever and who still bear it in a latent form Sambon, of Naples, says that quinin in large dose never brings on hemoglobinuric fever in a health individual nor in malarial patients who have neve had hemoglobinuria. Besides, blackwater fever ha manifested itself spontaneously in persons who hav never taken quinin. He combats the idea of idiosyn crasy by saying that in regions where blackwater pre ils quinin may excite a paroxysm in some who have ntracted the disease, but in regions where blackwater absent, it never brings on an attack in anyone. The ual history of patients who are victims of quinin- emoglobinuria, he points out, is as follows:

A man has repeated attacks of malaria which readily eld to cinchonism. Suddenly, in place of an ordinary roxysm, the onset of blackwater takes its place. uinin appears to augment the symptoms and may ing on new paroxysms when subsequently adminis- red. Then the blackwater subsides and the drug in rger doses utterly fails to bring on another attack. discretions and excesses in drink and diet are equally tent with quinin in bringing on an attack. Moffatt, Uganda, says that in his seven years' experience all al cases of malaria, including hemoglobinurics were ose in which quinin was for some reason withheld or ministered in small quantities. He reports 9 cases blackwater fever treated with quinin in doses nging from 20 to 120 grains in 24 hours. There re 2 fatal cases and these were attributed to tardy ministration of quinin. Crombie, in India, contro- rts Koch's statement by saying that in India, where laria is constantly treated by quinin in doses rang- ; from 20 to 90 grains daily, hemoglobinuric fever unknown.

Let us now review some of the opinions regarding use of quinin in malarial hemoglobinuria. Oliver no hesitancy in giving quinin wherever bloody ne appears. Roberts advocates its use. Tyson orts a case of this nature in which quinin effected a e and recommends exhibition of the drug as in cases remittent malaria, 16 to 20 grains in anticipation of exacerbation or paroxysm. Anders indorses the use quinin where malarial causes are apparent. Thayer s not believe that quinin affects hematuria as such, acts favorably only when it serves to remove the se. He is of the opinion that the drug never rtens an attack once begun, but serves to prevent a urrence.

Ianson quotes the Plehns as concluding that the g should be withheld in hemoglobinuric fever and arently inclines to this view himself. Burney Yeo ocates the use of quinin. Hare's investigations led to believe that quinin is often useless and even mful in the bloody urine of malarial origin, yet he that there may be circumstances in which the drug ld be used; as, for instance, when the hematuria urs with the paroxysm, or when the attack is pro- ged, denoting that the malaria is destroying the cor- cles independent of the chills; and in the severe oglobinuric fevers. He maintains, however, that useless to give quinin after the hematuria has un.

will be well to remember in this connection that blood-destruction in the vessels during malaria con- es so long as the parasites are present, and does not, like in hematuria, yield spontaneously. This condition is equally as dangerous as the nephritis or the factor causing the bloody urine, and it would seem advisable from that fact alone to administer a drug that is specific in its action and is able, therefore, to check the hemolysis. To withhold quinin until the hemoglobinuria shall have subsided is useless, since meanwhile the cause to be removed is neglected. Rather than refuse quinin entirely because of an existing hemoglobinuria it would be better to observe the blood-changes and give the drug in moderation, less than half a dram daily, so long as the parasites indicate its use. To go so far even as to push quinin in large doses during dangerous paroxysms until the patient is thoroughly cinchonized would be wise, as is demonstrated by the beneficial results obtained in severe cases, in which hemorrhages exist elsewhere, with jaundice and bilious vomiting as prominent symptoms, and in cases of blackwater fever.

There is little or nothing to prove that quinin is ever harmful except in cases of pure quinin-hemoglobinuria. Some contend with Thayer that when hemoglobinuria occurs in the middle of an attack when quinin has been given, it is well to withhold its use. As to this it is better again to judge by the state of the blood entirely. The possibility of an idiosyncrasy must be borne in mind, it is true, but the possibility also of the symptoms being due to quinin, partially, need not demand the cessation of medication. It may be wise to diminish the dose of quinin in persons who have been taking it in very large quantities. Bastianelli gives the following rules:

1. If hemoglobinuria occurs during the paroxysm and parasites are found, use quinin.
2. If parasites are not found, do not use quinin.
3. If quinin has been used before the hemoglobinuria begins and there are no parasites, discontinue the quinin.

These observations, I think, point towards a well-established truth that the exhibition of quinin should depend upon the results of blood-examinations. It is not claimed that quinin shortens the duration of hemoglobinuria; but on the other hand, it is maintained that in cases in which the parasites are present there is no condition, barring a dangerous idiosyncrasy, that necessitates its entire withdrawal.

With regard to quinin in so-called cases of postmalarial hematuria and in the cases in which bloody urine occurs after remote attacks of malaria, there is nothing to indicate its use unless parasites are found.

It is to be hoped that the recent discussions on this question may aid the profession by throwing a broader light on the field, and serve as an incentive to accurate methods of diagnosis, whereby the difficulties attending the administration of quinin may be dispelled, and many of the sources of error in observation successfully eliminated.

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ETIOLOGY OF SCARLET FEVER.

By W. J. CLASS, M.D.,

of Chicago.

Scarlet fever being a typical contagious disease, it is in accordance with the views of modern medicine to consider a specific microorganism as its causative factor. Reasoning from this standpoint a large number of bacteriologists have at different times sought to isolate and establish the identity of the germ in question. Notable among the experiments conducted with this end in view were those of Klein and Crajkowski.

Klein, in a large number of cases, isolated a streptococcus which he considered as the causative factor. This germ is also considered by a number of French observers to be the cause of scarlet fever. Crajkowski in 1895 reported that he found in 15 cases in which he examined the blood of scarlet-fever patients, a diplococcus present in comparatively small numbers, seldom more than one or two in a microscopic field. This diplococcus does not stain by Gram's method, and in general stains feebly and quickly loses its color. Cultures were obtained in bouillon and upon solid media, but not in gelatin. The development is said to be slow and the colonies resemble small drops of dew not more than one-third to one-half of a millimeter in diameter. The culture is pathogenic for mice, but not for rabbits. Crajkowski does not claim that the etiologic relation of this diplococcus to scarlet fever has been demonstrated.

From the failure of the various careful scientists who took up this work to find a specific germ either in the scales or in the secretions from the throats of scarlet-fever patients, I have deduced that the fault lay with the culture-media employed, as it is a well-known fact that some germs are very selective in this respect. In working on the subject under consideration, keeping this point in mind, I conducted my experiments accordingly. After numerous failures, I finally succeeded in finding a culture-medium on which I have been able almost invariably to obtain both from the scales as well as from the throats of scarlet-fever patients the growth of an organism which presents such characteristic features, both in morphology and growth, that I feel almost convinced it is the specific germ scarlet fever.

Morphology.—It is a diplococcus resembling a ve large gonococcus as ordinarily seen in slides made fro fresh cultures. The two segments of which it is compose are very close together. This biscuit-shaped appearan is best shown in specimens that have been but lightl stained; in these there is also noted a transverse li running through each half of the organism, giving the appearance of a tetrad. This appearance is, hov ever, not constant; especially in older cultures in whic the organism frequently presents itself as a diplococcu both segments of which are perfectly globular. Tl lancet-shaped forms, exemplified by the pneumococcu are, however, never met with. Usually, unless i spreading the culture on the slide it is rubbed ver hard, these cocci appear in bunches of from 10 to 5 which is due to the large amount of glutinous intercel ular substance by which they are united. Strept coccus-forms are occasionally, though rarely, met wit as are also single cocci. The size of these germs vari considerably, but they are always very much larg than the ordinary pus-cocci. They possess no capsul and have no independent motion.

Staining.—Specimens derived from pure cultur were stained with a number of the anilin stains. With watery solution of methylene blue very pretty pictur were obtained, especially when the stain was only le in contact for a very brief period. Carbol-fuchsin als stains well, as also does Bismarck brown and Pitfield flagella stain. The germ does not, as a rule, stain ver deeply. Stained with Gram's stain it is decolonized b the iodin solution, not, however, to the same extent the gonococcus, the fully developed germ retaining th stain better than the evolutionary forms.

Biological Characters.—The culture-medium o which this germ grows is prepared as follows: Glyceri agar-agar is prepared according to the method usuall employed; to this is added about 5% by weight black garden-earth, which has been rendered sterile b interrupted heating. The garden-earth is first drie thoroughly, then sifted through a very fine hair-siev until it is reduced to a fine powder, all particles gravel, sand, etc., being removed. It is then mixe with sufficient bouillon to form a thin paste. This boiled for an hour, enough sterile bouillon being adde from time to time to replace that evaporated by boiling it is then set in a warm place for a few days to allo the spores found in the earth to develop. It is the again boiled for an hour, after which it is again set asid for a few days. This procedure has to be repeate until no growth is developed; it is then added to th agar-agar. This mixture is also put in a warm plac for a few days to see if any germs develop; should th be the case, the mixture is boiled for an hour and agai tested.

On this medium the scales of a scarlet-fever patien re placed with a sterile platinum loop and the tubes ut in an incubator, the temperature of which is kept t about 35° Centigrade. Within 48 hours to one week mall whitish-gray semi-transparent colonies will appear long the track of inoculation and around the scale. 'hese colonies are isolated at first, but subsequently oalesce. Their diameter varies somewhat, but in eneral it is about 1 mm. On taking up some of the iaterial of which the colony is composed with a platium loop, it is seen to be glutinous, being drawn out ı threads. This phenomenon, however, only occurs ı fresh cultures which have been grown on a moist iedium. In old cultures, or when the medium is very ry, the color of the growth becomes darker and it loses s viscidity. On agar-agar and glycerin agar-agar there no growth. On gelatin the result is also negative. ouillon is not clouded by the germ and they aparently do not multiply in it. On agar-agar to which hosphates have been added there is a meager growth. On the bloodserum furnished by the health-departıent for the diagnosis of diphtheria there is a growth, ıt it is much more meager than on the culture-medium escribed by me. The reason why the germ has not en noticed when examinations were made with bloodrum, is probably due to the fact that other germs hich are always present on the scales, grow so much ore abundantly than the diplococcus that their esence is overshadowed, while on my medium the plococcus grows almost to the exclusion of all other ganisms.

Milk did not appear to be affected by the diplococcus, though they apparently multiply in it. On potato ere was no growth.

Pathogenesis.—Rabbits and guineapigs were inocuted by subcutaneous injection of a pure culture by arification and the inoculation of the wounds proiced and by injection into the abdominal cavity witht producing the slightest results. The negative results the subcutaneous injection showed that the germ is pus-producer, at least not in the species mentioned. This germ was cultivated by me from the scales of out 30 cases of scarlatina, also from the angina accomnying scarlatina. It was also found in several cases of gina in families in which there was scarlet fever with ıption in one member. The patients from whom the lture was taken showed no rash. Lastly it was found cultures taken from the throats of children who were althy at the time the culture was taken but who had en exposed to scarlet fever. In a number of these a h subsequently developed, from the scales of which germ was obtained. Other animals than those menned are at present being experimented on by me.

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he Lacaze Prize.—The Paris Medical Faculty has arded the Lacaze prize for the best contribution to the dy of typhoid fever to Dr. Widal, Professeur Agrégé of the dical Faculty. The value of the prize is £400.

CALCULOUS PYELITIS, WITH COEXISTING BILIARY CALCULI AND PRESENCE IN THE BLOOD OF ESTIVO-AUTUMNAL ORGANISMS.

By RICHARD J. MAUSS, M.D.,
of Washington, D. C.

I cite this case as one of exceptional interest from the presence of malarial organisms. The instances in which calculous kidney disease is mistaken for malarial poisoning are many—and I therefore report this case as being of possible diagnostic value in future similar conditions.

Mrs. C., aged 42, had in 1884 undergone two perineorrhaphies involving the sphincter and rectal wall, a peritonitis being the sequel of each operation. In the following year a perineorrhaphy was again necessary after a birth. During the operation a perirectal abscess was discovered, which also necessitated operative measures. A long illness, covering a period of 15 months, followed, which was diagnosed as septic fever and as being a sequel of the operation. The patient apparently recovered from this illness, although "a rigor would appear occasionally."

The health of the patient continued fairly good until 1891, when she succumbed to epidemic influenza, which developed a persistent bronchitis, lasting about three months. A period of health then intervened until January, 1896, when she suffered an attack of peritonitis, lasting until April of that year. A urinalysis proving negative, a gynecologist among others was consulted, who strongly advised an ovariotomy, which was agreed to by the patient and her family. The operation was performed in another city, and the ovaries and tubes, though reported by the operator as being free from disease, were removed, and peritoneal adhesions which were found were broken up, the patient being discharged as relieved of her sufferings.

On her return from the sanatorium the preexisting condition recurred, with a peritonitis lasting several weeks, having all the old symptoms much exaggerated. These paroxysms were all ushered in with a rigor, followed by a slight elevation of temperature, with intense abdominal pain and tenderness, tympany, with a persistent nausea. Proctitis occurred later, varying in course from 5 days to several weeks. The pain was always distinctly abdominal and was invariably followed by a proctitis.

These attacks recurred with increased frequency, when in October, 1898, the rigors having developed into distinct chills, with an elevation of temperature of 3° or more, quinin was given with good result. The nausea and rectal diarrhea, however, proving as persistent as in former paroxysms, the drug was discontinued, its administration not being practicable either by mouth or rectum. The chill and fever, however, recurring with daily frequency, and the colitis having been meanwhile corrected October 31, the quinin was again resumed by rectum, with an immediate cessation of these symptoms.

During this time a hydronephrosis having developed, with renal pain and lasting several days, a urinalysis was made, which showed: Reaction, slightly acid; color, straw; turbid; odor, negative; specific gravity, 1005; sediment, moderate; solids by specific gravity, 13½ grms. per liter; urea, 0.35% (about one-half the minimum normal quantity); phosphates, neutral, alkaline, earthy; uric acid, not in excess; albumin, $\frac{1}{8}$%; bile pigment, none; sugar, none; blood, none; crystals, none; casts, none; pus, in small quantity; bacteria, no tubercle-bacilli; cells, flakes of pavement-epithelium, also some large round and caudate cells.

November 2, as a therapeutic test, the quinin was discontinued, but the chill and fever recurring that day, the drug was resumed, with, as before, an abeyance of these symptoms. Further urinalyses showed a greater specific gravity, varying from 1006 to 1011, with sediment, chiefly pus, varying by volume from — 1% to + 1% with a slight trace of albumin in each specimen.

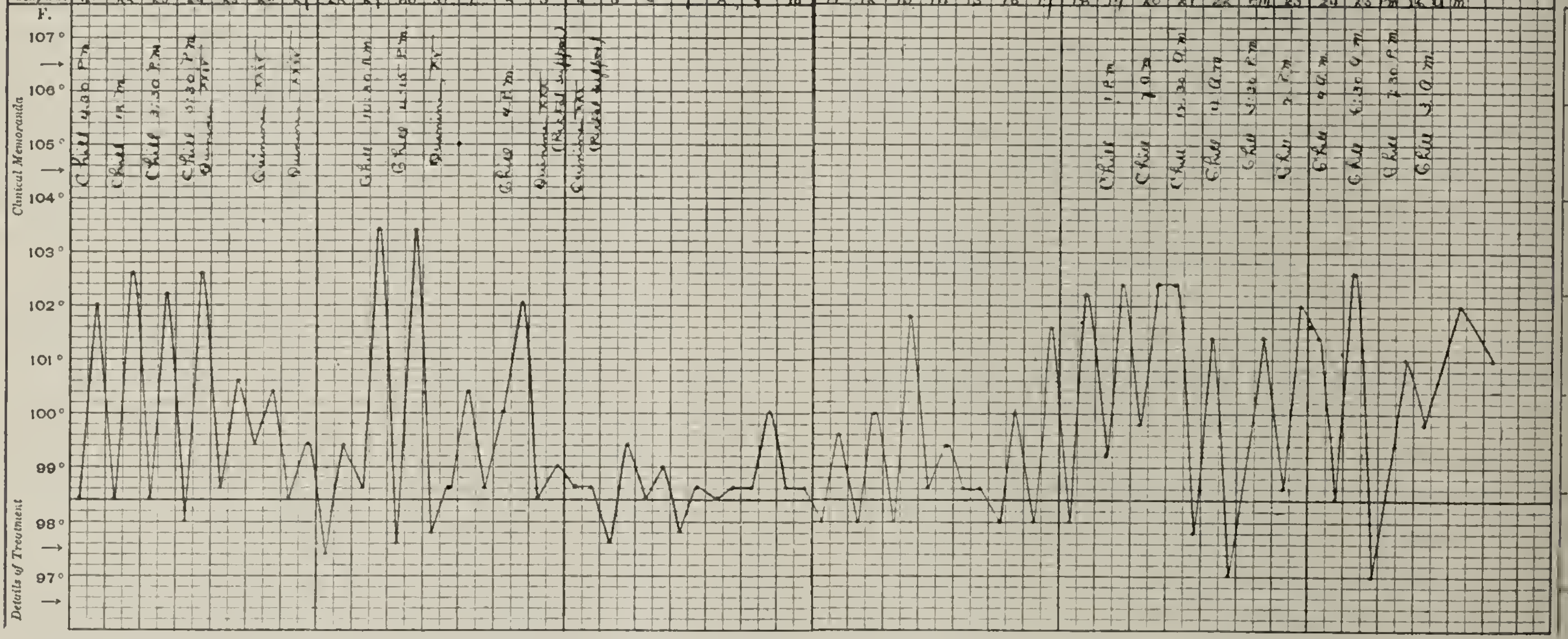
The antimalarial treatment was continued until November 4, the patient then being in a state of cinchonism. From that time her condition assumed a favorable aspect, nourishment, principally liquids and semi-solids with stimulants, being freely given and assimilated.

November 19, the chill and fever recurred, and quinin not aborting these symptoms, a blood-examination was made by Dr. William B. French, which showed the presence of estivo-autumnal organisms. The quinin being again resumed, but still with negative results, it was discontinued and attention given entirely to fostering the strength of the patient; it being necessary from the extreme irritability of the stomach to administer all nourishment by rectal enemas. The chills recurred with greater frequency and severity, 2 and 3 paroxysms occurring in the 24 hours and lasting from 15 minutes to 1½ hours. The mental faculties were unusually clear and active, and the patient was conscious to within a few moments of her death, which finally resulted on the morning of November 26.

The necropsy was performed November 26 by Dr. William B. French, with pathologic report as follows, by Prof. D. S. Lamb:

The specimens received November 28, 1898, from Dr. French, had been in a 5% solution of formalin since the evening of the 26th.

The liver was about normal in size and shape, flabby; there was marked portal congestion; the lobules were pale, and there probably was some fatty degeneration. The hepatic and cystic ducts were patulous; the common duct was not included in the specimen, but must have been patulous because the biliary canals were not dilated. The gall-bladder was of the usual size, and contained 3 large and 3 small faceted calculi (no doubt cholesterin), and a little greenish, stringy bile. There was no perihepatitis, pericystitis, cholecystitis, nor peritonitis.



The spleen was somewhat enlarged, of normal shape; capsule was somewhat puckered as if the spleen had been still larger; there was some congestion, but no perisplenitis.

The conditions were almost exactly the same in each kidney. The weight of each was about 8 ounces; or about half again as large as normal; the substance was tough. The capsules had been removed, and the very uneven surface showed no tearing, so that the capsules could not have been adherent from inflammation. Therefore there had been no perinephritis. The left ureter had not been brought with specimens. The cortex was pale, and not at all or very little diminished in substance. The pyramids were somewhat flattened at the apices, and mottled red and white. The infundibula were much dilated and distended with turbid fluid, doubtless urine and pus, and flocculi and sediment, soft and brownish, probably altered clotted blood and urinary deposits; the mucous surface showed red injection. The pelves were each blocked with a brownish calculus encrusted with soft recent deposits. The fat in the hilum of the kidney was increased in amount, and firm; and the ordinary loose connective tissue around the vessels was increased and indurated. In the infundibulum of the left kidney were many faceted, brownish calculi, about the siz of pinheads.

The right ureter was perhaps a little dilated, but wa patulous and without local contractions or dilatations, and there was no surrounding inflammation. There was no apparent evidence of suppuration of the biliary ducts.

It would appear from the history of this case that the several attacks of peritonitis so-called were really paroxysms of renal colic, and that a calculous nephritis had been present since and possibly prior to 1884. These facts, together with the obscurity of the symptoms and the long period of suffering endured by the patient, make the case one of extreme interest from a diagnostic standpoint. That this condition was not discovered nor even suspected by the several attending physicians (the patient having consulted, during the years stated, men of the several larger cities deservedly at the head of their profession) emphasizes the occasional complete obscurity of symptoms of calculous kidney disease; and the frequent occurrence of this condition in practice makes any contribution to this subject a matter of universal interest.

The early perineorrhaphies with resultant hypersensitiveness of vagina and rectum in the line of suture, were a source of permanent annoyance and suffering, and may perhaps have diverted the attention of both the patient and the physician from any renal symptoms which may have been present.

That the symptoms, except during the last few months of the illness, should have been so deceptive, being those of an ordinary peritonitis, causes a doubt of the necessity for some of the many ovariotomies and appendectomies performed. When, as is frequently the case, in operating for these disorders, the appendix and ovaries are found to be in a healthy condition or only partly diseased, it leads to doubt whether the symptoms preceding these operative measures are really primarily due to a diseased condition of these organs or surrounding peritoneum, or to some other diseased ondition not suspected, and to be brought to light only n the postmortem table.

Aside from the interesting complications of the case, the absence of symptoms of hepatic disease. This probably accounted for by the complete impaction f the gallbladder with large calculi, the hepatic ducts aving shown no pathologic indication of the passage f a stone. Still, it frequently happens that hepatic or iliary calculi may be present without distinctive clin-al symptoms.

An interesting feature of the case lies in the coexist-ng renal and hepatic calculi, these cases evidently eing of rare occurrence; the only similar case of record eing that noted by Jacquemet.[1]

It might not be amiss to note that when a persistent ecurrent peritonitis is met, with a negative urinaly-s, and a difficulty in diagnosis, and in which, as in e present case, an exploratory incision is hardly stifiable, or from other causes inadmissible, skiagraphy ight be resorted to with good results, as advocated in recent contribution by Leonard.[2] In any event, the se of the Röntgen-rays would probably clear an itherto impenetrable clinical atmosphere and possibly e the means of saving the life of the patient.

HYSTERICAL MUSCULAR PARADOX.

By CHARLES J. ALDRICH, M.D.,
of Cleveland, Ohio.

cturer on Clinical Neurology and Anatomy of the Nervous System, College of Physicians and Surgeons; Neurologist to Cleveland General Hospital and Dispensary; Visiting Physician to Cleveland General Hospital; Neurologist to Cleveland City Hospital, etc.

ANYONE that would inflict a new name on the word-ardened medical literature of the nineteenth century ust show good cause for his act. But he who con-ives a descriptive, technical, and comprehensive term r an homologous group of symptoms or phenomena ay be pardoned, and if his creation is happily apt, e may be rewarded by its retention in the language of e healing art. I have coined the term "muscular aradox" for two sufficient reasons:

First, because we have nothing short and expressive designate the phenomenon of hysteria which is char-terized by paralysis or weakness of a muscle or group muscles for one purpose and not for another.

Thus, a short time ago, a man consulted me regarding pain along the front part of the thigh, and a difficulty walking. The origin of the pain was obscure. It as not confined to the distribution of any particular erve-branch or trunk. The disordered locomotion emed to arise from a lack of power in the extensors the leg and upper thigh-muscles, which prevented s advancing the limb to take a step. Yet while lying own he could readily and powerfully flex the thigh the abdomen and extend the leg. This apparent inconsistency was a perfect type of "Hysterical Muscular Paradox," and its presence in this case made plain other puzzling facts.

Second, because this phenomena of hysteria seems to contravene known laws of muscular action, thus constituting a genuine paradox.

It has long been noticed that hysterical people would manifest marked weakness or paralysis of a muscle or group of muscles in the performance of certain acts, while the same muscle or group could be used with vigor in the performance of some other action.

Babinski[1] described a patient who could use the legs for absolutely nothing but standing and walking. I have observed a man who could, while lying in bed, kick and perform all of the movements of the lower limbs with quickness and power, yet could neither stand nor walk. "In the same general category belong those patients who cannot walk, but can climb trees, or 'go on all fours,' or jump along with both feet together, or hop on one leg."[2] I once examined a patient who was supposed to have a paralysis of the right leg, who, while ascending the stairs, put the leg in question on the upper step and *dragged the well limb up to it*, and so on up the stairway, while, as is well known, in organic palsy the paralytic leg is the lagging member.

The syndrome which Blocq[3] fully described under the name of astasia-abasia, should rarely be considered as a nosologic entity, but rather the exhibition, in a high degree, of the "muscular paradox" which obtains so frequently in hysterical affections. In this disease of formidable name coordinate movements of all the members are possible while in a lying posture only, and are totally lost when an attempt is made to stand or walk.

In Mendel's clinic I saw a man suffering from hemiplegia, who came in on crutches, shoving the disabled foot along, held out in front of him, instead of swinging it forward as in an organic hemiplegia. This bizarre gait alone stamped the case—hysteria.

In Professor Ferrier's clinic I saw a woman hobble in on crutches with her foot in a sling. When she volunteered the information that she was paralyzed on one side, Ferrier immediately pronounced the disability hysterical, and added that when hemiplegics come on crutches or with the leg or foot in a sling, their disease is of functional origin.

Gower[4] has called attention to the peculiarities of the hysterical hand-grasp in hysterical weakness of the upper extremities. When the hand attempts to grasp strongly it fails to flex on the wrist as it invariably does in an organic paralysis.

Dr. Patrick,[5] of Chicago, describes a feature of the

Bull. Soc. Anat. de Par., 1850, xxv, 138.

PHILADELPHIA MEDICAL JOURNAL, August 20, 1898.

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[1] Babinski: *Soc. méd. des hôp.*, July 8, 1892.

[2] Patrick: Diagnosis of Hysteria, *N. Y. Med. Jour.*, February 15-22, 1896.

[3] Blocq, *Arch. de neurol.*, 1888.

[4] Gower: Published Lectures.

[5] Patrick: *loc. cit.*

hysterical hand-grasp, that I have never seen elsewhere mentioned. The hysterical patient grasps almost exclusively with the forefinger and thumb. "Now if the examiner places his fingers in the hand of the patient from the ulnar side, allowing them to reach no further than the metacarpal bone of the index finger, the patient will be found to grasp with the last three fingers, which were before apparently powerless." Observation convinces me that this is a reliable and valuable test.

It would be a work of supererogation for me to take up these cases, so briefly touched upon, and in detail point out the "paradox" in each. It is too apparent in all. Not all instances of "muscular paradox" are so readily discerned as in the cases mentioned. Many must be searched for. In the examination of a case of suspected hysteria, for the purpose of detecting "muscular paradox," we are to proceed much as we would to detect a simulator in some inconsistency.

The patient, while in bed, is required to perform movements which will in succession call into action all of the muscles of the extremities. If none of these movements seem to contravene our knowledge of muscular action, we should then afford, by exercise of our own strength, some resistance to these actions. While it is impossible in this short paper to go into these tests in detail, one or two will be ample to demonstrate the mode of procedure applicable to all.

In hysterical paraplegia or weakness of the lower limbs, the quadriceps extensors are to be tested as follows: Requesting the patient to keep the leg rigidly extended and to resist with all power its flexion, you are to grasp the ankle firmly, and with the other hand in the popliteal space attempt to flex the leg on the thigh, noting the while the amount of strength used by you to overcome the quadriceps extensor. Now place the leg so that it forms with the thigh an angle of about 90°, and, with the hands in the same position as before, request the patient to extend the leg with all power against the resistance offered by the hand on the ankle, noting as before the relative strength of the extensors. Here, as you readily perceive, we have put the one muscle to the performance of two distinct actions which require for their perfect performance the normal contraction of but one muscle, yet we are surprised to note that the amount of strength used on the part of the examiner to resist the execution of one of these acts may be double that required to inhibit the other.

This constitutes a type of the muscular phenomena embraced within the title of this paper, and I am sure that in hysterical affections of the limbs you will find this paradoxical condition with a convincing constancy.

The hamstring muscles, the flexors and extensors of the ankles, in fact any muscular group, may be tested in a similar manner, varied of course to suit their individual positions and actions.

CONVENIENT ANTISEPSIS.

By COMEGYS PAUL, A.M., M.D.,

of Philadelphia.

Facility, convenience, efficacy, and accuracy a always to be desired when possible. Every decade investigation brings us closer to them. Very simp means often obtain equal results with a conservation energy. If a thing can be as well done by one mov ment it is a useless expenditure of force to use two more movements in its accomplishment. The econom of time and labor effected by ingeniously contriv machinery not only places products within reach of th poor, that hitherto were afforded only by the rich, bu multiplies the avenues by which the artisan and th workingman find a means of livelihood. May I us an illustration known to most editors and publishe and to many writers? The Belknap machine for ad dressing and preparing wrappers for pamphlets, circu lars, etc., does the work of 40 men, and yet, by way compensation, it requires about that number to keep supplied with work.

Convenience and economy of time are as desirab for the surgeon as for other busy workers in the ar and sciences, and my object now is to offer a simpl means of antisepsis in the operative procedure. Th surgeon's present procedure in preparing antiseptic co ditions for an important operation is generally as follow

He washes his hands thoroughly with hot water an soap, scrubs his nails and then laves the hands in solution of bichlorid or other antiseptics. This involv two separate and distinct processes; the soap may co tain septic matter; it is difficult to wash the soa entirely from the skin, thus leaving an additional sub stance to be disinfected.

The swarms of bacteria of diverse kinds, the fung bacilli and cocci are generally recognized. The severa ways to combat the germs of infection are, accordin to Gerster, as follows:

1. Remove them by mechanical means, washing scrubbing, etc.
2. Kill them by germicides.
3. Prevent their development and growth.
4. Modify their virulence by attenuation.
5. Counteract the poisonous effects of the product of their metabolism by antidotes; and
6. Rendering the body capable of resisting attacks.

Dr. C. Schimmelbusch, in his "Aseptic Treatment o Wounds," directs the surgeon to make this preparation

> "In von Bergman's clinic, following Fürbringer's directions, the hands of the surgeon are disinfected in the following manner:
>
> "1. The skin is scrubbed with soap in water as warm a possible for at least a minute.
>
> "2. It is then carefully dried and rubbed with sterilize towels, or pieces of gauze, particular attention being paid t the creases and folds of the skin, which are cleaned with wire brush. The space under the nails is the part that i richest in germs (Fürbringer, Mittman, and Prindelsberger) and therefore requires special care.

'3. The skin is rubbed with a piece of sterilized gauze and % alcohol for about a minute.

'4. It is then washed and rubbed with towels and in 1 in 00 solution of sublimate."

How awfully clean our German friends are! They at the Dutch.

Then follows an Englishman, C. B. Lockwood, F.R. ., who directs "to prepare the skin, shave, then scrub, d treat the epithelium, sweat and grease with ether."

Finally, Prof. Arpad G. Gerster, "Septic and Anti- tic Surgery," *N. Y. Polyclinic*, directs: "The hands d forearms, especially the finger-nails of surgeons d assistants, should be well scrubbed in hot water th soap and brush for 5 minutes; likewise the region body of the patient to be operated on, after carefully ving off the hair. Then immerse the hands in the rosive sublimate lotion for one minute. Gerster es on to state that Kimmel's recommendation of en soap (potash and soft soap) is excellent on ac- nt of its solvent properties. Rings, especially those ving stone settings, should never be worn by the sur- n. Bangles and bracelets should not be tolerated female nurses.

The design of this paper is to propose an equally ective means of antisepsis without the complicated cesses involved in the directions of these quoted horities.

For some time I have used a pure castile soap com- ed (ground) with acetanilid. The proportion is 15 ts of acetanilid to 100 parts of soap, making an anti- tic and deodorizing soap-powder, instantly soluble warm water. The soap, being already rendered an- ptic by this combination, needs no further prepara- n to begin its germicidal work. We have a sub- nce absolutely free from poison in any shape, which oves the necessity of a second washing.

Acetanilid, $C_6H_5NHC\ H_3O$, is a stable compound, isting the actions of acids and alkalies at ordinary perature. For some time it has been used at the nsylvania Hospital as a substitute for aristol, iodo- n, etc. It is odorless and deodorizing, and it is mless in this combination. When used as a simple vder it is known to have produced signs of systemic soning when too generously applied to suppurating l fresh surfaces. The medical journals of recent e have begun to notice and detail accounts to this ct.

n its combination with a pure castile soap it has ided advantage over mercuric chlorid and carbolic d, as both of these are rendered inert when combined h oils, soaps, etc.

Dr. W. A. N. Dorland writes me that he has used tanilid for 3 years in all his abdominal sections, pri- e and hospital cases, as a dry dressing for the incision, has had much satisfaction, no suture-abscesses, and, n one exception, primary union. In his clinics at Pennsylvania and Polyclinic hospitals he uses equal ts of acetanilid and calomel dusted on chancres and chancroids, "odor and discharge quickly disappearing and the sore drying up in a few days." Recently he began using acetanilid and boric acid for cervical erosions and vaginal leukorrheas.

Edward F. Grün, M. R. C. S. England, and L. R. C. R. London, *Lancet*, June 12, 1897, says: "Since early in 1891 I have taken every opportunity to test the value of acetanilid as a dressing for wounds, and the result of my experience is that for convenience, reliability and general utility there is *no antiseptic drug equal to it.* It has only to be tested thoroughly under fair conditions to become universally accepted as the dressing for wounds *par excellence.*" In 5 cases quoted all healed without formation of pus, the majority by first intention, although the operations described were often performed under conditions which rendered antiseptic precautions most difficult. These cases were compound fracture of a metatarsal bone, amputation of the forearm, strangulated hernia, removal of the breast for suppurating cancer, and amputation of a leg.

I would not be understood as advocating the combination of castile soap and acetanilid as a surgical *dressing.* Its obvious advantages are convenience and effectiveness as *a wash* in preparing the surgeon's hands and the skin of patients for operation, and *as a wash* for ulcers and superficial wounds.

THE NECESSITY OF FORCE IN THE TREATMENT OF COLLES' FRACTURE OF THE RADIUS.[1]

By JOHN B. ROBERTS, M.D.,
of Philadelphia, Pa.

THIS paper is presented to call attention to the fact that it usually requires a great deal of force to fully reduce the ordinary fracture of the lower end of the radius. Much has been written on the pathology and treatment of this injury, but sufficient stress has not been laid on the need of force—great force—to fully replace the lower fragment. This fragment is driven backward by the impact of the hand against the ground when the patient falls and sustains the injury. The displacement is nearly always accompanied by entanglement of the two fragments with each other, or true impaction of the dorsal edge of the upper fragment and the cancellated tissue of the lower fragment. Very generally the physician or surgeon who sees the case (and I include the word surgeon advisedly) fails to apply sufficient power, while setting the fracture, to disentangle the pieces of bone, and the backward displacement is not overcome. As a result the so-called silver-fork deformity is only partially corrected, or not corrected at all, and the patient has a prolonged convalescence with neuralgic pain, edema, and stiffening of the fingers. If, on the other hand, the amount of power applied is great enough, the lower fragment will be detached from the upper and driven forward into its place, so as to restore the concavity of the palmar surface of the lower end of the radius and make the dorsal surface practically level. Then there will be little pain or discomfort, and no marked or prolonged edema or stiffness of the fingers.

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[1] Read before the Philadelphia County Medical Society, March 8, 1899.

It would, perhaps, be well if fractures of the lower end of the radius were treated by laying the patient's arm flat on the table and, after covering the dorsal surface with a folded towel, striking a good blow on the back of the wrist with a heavy wooden mallet. This would compel the practitioner to employ force enough to drive the lower piece of bone into position, which the average man seems afraid to do with his hands.

These statements are made—in fact this paper has been prepared—because last month I had under my care at the same time two cases in which I was obliged to refracture a united but unreduced Colles' fracture of the radius. One was a woman who had broken the bone six weeks before, and had gone for treatment to the dispensary of one of the largest Philadelphia hospitals; the other was a woman who had been treated for nearly four weeks in the wards of one of the college hospitals of this city. In neither case had the fracture been reduced, and the deformity to the wrist and stiffness of the fingers were as would be expected under such circumstances.

By bending the bone across my knee I ruptured the bond of union, put the fragments in better position and have had a satisfactory convalescence.

I do not want to be understood as saying that I advocate a blow from a wooden mallet as the best method of reducing these fractures; but I use the illustration to show that it requires unusual force to accomplish the necessary replacement of the fragments. The physician has the needed strength in his own hands, but ordinarily he does not use it. Sudden flexion of the wrist, with great pressure upon the back of the lower fragment, will nearly always crush the piece of bone into place. This gives great pain, but anesthesia can be employed if preferred. The setting is done so suddenly that usually no ether is necessary. When the prominence on the back of the arm, caused by the backward displacement of the lower fragment, does not disappear, the effort at reduction must be repeated. On rare occasions it may be well to bend the hand and lower fragment strongly backward, to disentangle the fragments, before making flexion and pressure to push the basal fragment forward.

As soon as all practitioners adopt these forcible manipulations to set the fracture and abandon the dangerous Bond's splint, little will be heard of unsatisfactory results and long periods of disability in Colles' fracture. The reduction, which is the essential of treatment, is the step usually neglected. A straight splint on the back of the wrist, a moulded splint fitting the palmar surface, or a wristlet of adhesive plaster applied around
the lower end of the radius is the proper treatment a
reduction. The reduction must be accomplished
force, except in the few cases where there is no displa
ment. Then it will be found that the following c
clusions are true:

1. Fracture of the lower end of the radius is one
the most satisfactory of all fractures to treat.
2. The patient, as a rule, has little discomfort af
the first 24 hours, except from the disability and t
annoyance of the sling and dressing.
3. Stiffness of the fingers and wrist-joint is seld
present to any marked extent after a week.
4. Deformity after treatment is usually so slight as
be unnoticeable to the average observer, except in ca
in which there has been marked comminution of t
lower fragment.

Ectopic Gestation Complicated by Appendicit
—Elbogen (*Prager medicinische Wochenschrift*, March 2, 189
The case of a quartipara, 34 years of age, is reported, w
was brought to the hospital with a diagnosis of perityphlit
The abdomen was distended and sensitive to pressure, a
there were resistance and slight fluctuation in the region
the appendix. Vaginal examination determined the pr
ence of an enlargement in the region of the ovary. Fi
days after admission the area of dulness had increased, flu
tuation was more marked, there was vomiting and increa
of pain. Suddenly the woman collapsed; the pulse was 1
small and irregular, and she became very pale. An incisi
was made in the right inguinal region and immediately
opening the abdomen a large mass of blood gushed fort
Iodoform gauze was quickly packed into the wound and
incision was made in the median line, through which t
gestation-cyst was found and removed. After its remov
and after hemorrhage from the inguinal region had be
entirely arrested a thickened and inflamed appendix w
found and removed. The further progress of the case w
uneventful. [M.B.T.]

Proprietary Disinfectants.—Harrington and Pear
(*Journal of the Boston Society of Medical Science*, March, 189
have carried out a series of experiments to determine t
efficacy of 12 commonly used disinfectant preparation
comparing the results with those from the use
formol, carbolic acid, and cresol as test materials. Typho
cultures, stools from a typhoid case, the membrane fro
diphtheria, the sputum of pulmonary tuberculosis, and a
thrax cultures were used. All of the preparations were su
ject to the same conditions. Three of the preparatio
were universally unsuccessful in all cases and a fourth w
nearly useless. Of all the agents tried the only ones whic
were uniformly successful were the preparations containi
cresol, and the 1% solution of formol. [M.B.T.]

Spontaneous Separation of the Appendix.—J.
Hutchinson (*Montreal Medical Journal*, March, 1899) repor
a case in which he operated during the interval upon a ma
who had had 5 mild attacks of appendicitis. On openi
the abdomen the appendix was found completely separat
from the cecum without any escape of intestinal conten
having taken place and without the formation of an absces
The appendix had been constricted off by an adherent str
of omentum. The patient made a good recovery. [M.B.T

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The easy descensus averni in touching morbid sexualism, even by medical men, at least the fatality that seems to attend the literary treatment, has frequently been illustrated. Publishers of such books have often had their fingers scorched, and authors have had theirs badly burned. A circular lies before us in which the names of physicians who have played with the fire are of quoted in plausible support of a device for the cure impotence, and of the doings of a commercial company for the sale of the wonder-working machines. The character of the company is shown by the fact that the circular is headed and addressed to physicians, that the instruments cost several hundred dollars, and that the physician is paid large percentages of the money obained for recommending patients. Neither medical cience nor the medical profession should be held in any way responsible for this sort of thing.

"The Ideal Sight-Restorer" is the name of a device given us by a patient who had wasted $10 in its purchase. Two patients, we are assured by an ophthalmologist of our acquaintance, owe to this unconscionble device the affliction of retinal detachment, one of he most hopeless of diseases encountered by us. The avage humbuggery of the deviser is shown in saying hat the mechanism consists in two hollow cups placed ver the eyes, the air from the cups being exhausted by means of a rubber bulb connected with them. The ffect upon the ocular structures can readily be magined. Some years ago a scoundrel fleeced thouands of people and injured many eyes by an opera-lass sort of a thing in the walls of which was concealed l of mustard or some such intensely irritating volatile ubstance. The poor patients thought their tears nd pain were proofs of therapeutic power. If the law annot be brought down upon these precious scamps, hysicians may help somewhat to prevent their success y care and effort in the education of their patients. It is pity the newspapers and magazines, those "educators the public," cannot be prosecuted for inserting such dvertisements.

A relation of socialism and bossism to medine is brought to light by the action of the Governor Pennsylvania in cutting off one and one-half million ollars from the appropriations for educational puroses, while at the same time no such reduction is made in the appropriations to private and politically favored hospitals, homes, special schools, etc. There is in this a particularly exasperating injustice in the fact that citizens who privately support institutions in whose policy and management they believe, must, by the State appropriations, also contribute to rival institutions whose policy and management they do not like. We believe physicians are among the most patriotic and public-spirited of citizens, and precisely for this reason we think they feel the deep wrong and injustice of sacrificing the public-school system to the support of hospitals, medical colleges, and similar institutions. It is bad in the long run for the profession and for the community. In the political degradation to which we have fallen we wish the medical profession could have kept itself blameless and nonparticipating. The support of our hospitals, colleges, and semipublic charitable institutions by just and clean methods is highly desirable, but not when the entire system of public education is crippled or sacrificed; and the people draw the logical deduction that the profession is in collusion with corrupt bossism.

Nonsecrecy Encouraged.—The editor of *Merck's Archives* has in his May issue two announcements which we are glad to see. The first is the offer of 10 prizes amounting in all to $500 (1 of $100, 2 of $75 each, 3 of $50 each, and 4 of $25 each) for the 10 best articles upon a remedy or on the therapeutic management of a disease. Last year when our Journal instituted what we hope may become a widely copied custom, and again when the awards were made this year, we were struck by the emphatic unanimity with which the medical journals of the country did *not* say a word about the matter. Under certain circumstances silence is quite as instructive as speech. Our prize-competition proved, as we think, of excellent service to medicine, and we trust that this one of *Merck's Archives* may also be most successful, because the plan is worthy of all encouragement, and is beyond objections except perhaps by the envious. The second announcement to which the editor calls attention is the establishment in his journal of a department for a full and extensive collective investigation of remedies offered the profession. The noteworthy feature of these investigations is that they will consider only remedies of nonsecret nature,—"of known composition and known origin." Such a department and work has been carried on for some time by the *American Gynecological and Obstetrical Journal*, and we trust that in its similar field may come valuable service to practical therapeutics and the elimination of the disgrace of nostrums from medicine.

Homeopathic Incantations.—Sensible homeopathists should hasten to rid themselves of those childish adherents who seize public occasions to galvanize into a semblance of life and seriousness the dead prejudices and issues of the past. It is hard to imagine nonsense more "tommyrotic" than that in the column-long newspaper report of the valedictory address recently delivered to the graduating class of Hahnemann College of Philadelphia. We had hoped that such silliness had long ago been abjured by men pretending to be teachers. We do not believe the great majority of homeopathic physicians believe in it. Every sentence with the everlastingly repeated words "new school," "old school," "allopathic," "bigotry," "intolerance," etc., etc., sounds as if quoted from any one of ten thousand editorials and addresses printed in homeopathic journals during the last hundred years. What a pity that some of the synonyms of *dogmatism, bigotry, dominant school*, and the rest, are not used, merely for variety's sake. Surely a prayer-wheel with these sacred words attached and diligently whirled for an hour in the public highway would be a labor-saving device. How slim must be the mental resources of orators when young graduates are ushered into their careers by such squeaks from ancestral tombs. The more absolute the freedom of the ghosts, the more utterly they pass from our concern or desire to influence them, the shriller become the pathic shrieks against "allopathy," and the more fondly is hugged the sorry delusion that they are martyrs of "bigotry." Instead of summoning them from uneasy graves, wise homeopathists should strive to lay the ghosts of ancient controversies.

Newspaper Medicine.—Inaccuracy in newspaper reports of whatever kind is not unheard of, but in reports of medical matters it is the general rule, even in our cleanest and most reliable journals. An example is the reports of the wonderful operation of dissecting out the internal jugular vein for the first time in the world's history, that have of late been going the rounds in the daily papers. In the last few years the internal jugular has been tied, opened, and washed out (and in some cases dissected out), in hundreds of cases for thrombosis extending from the lateral sinus. This is well known to medical men; yet it is heralded as a new and wonderful operation. At first thought it may seem a matter of small moment to medical men whether the general public is informed with regard to the advances of medical science or not, but we believe it is of more consequence than is generally believed by physicians; for the more that intelligent people come to know of the splendid achievements of modern medicine and surgery, the less likely it is that they will waste their money on quacks and impostors. The semiquack method of inviting reporters to medical events for the purpose of exploiting the selfish interests of schools and individuals should receive the severest condemnation from reputable medical men, who, if they would, could act to some purpose through medical societies. It would seem worthy of the consideration of those in charge of reliable daily papers, of which, fortunately, there still remain a number, that they employ an honorable, conscientious physician to look over the material pertaining to medicine which is submitted for publication, and to furnish occasional news-notes and editorials on suitable subjects of general interest.

Editor and Publisher Disagree.—The *New York Times* of last Sunday contains the following editorial:—

> Without finding any fault with the efforts now making by the Health Board to punish Mrs. Mary Miller for trying to substitute witchcraft for medical science, one still may hazard the opinion that the board is using its heavy guns on ludicrously minute game and allowing noxious beasts much more deserving of attention to ravage the helpless flocks without interference. The Miller woman hardly counts. The number of her possible victims is already small, and it is rapidly growing smaller. Her powers for evil extend only over the densely ignorant and the grossly superstitious. She has no false philosophy of life, does not pretend to have established a new religion, and is simply a squalid sorceress surviving beyond her time and with almost pitiful unconsciousness of her own absurdity, circling for the last time a social eddy where she will soon sink out of sight forever. Different, vastly different, are the well-dressed and in a sense fairly educated exploiters of credulity and suffering that move at a higher level, degrading all whom they do not kill outright and extorting from their dupes more hundreds of dollars than Mrs. Miller and her like get pennies. To jail or fine her is right enough, but she should be attended to last, not first.

To all of which we agree, but to which we would add, that of all "the noxious beasts that ravage the helpless flocks without interference," of the many "well-dressed exploiters of credulity and suffering that move at a higher level, degrading all whom they do not kill outright, and extorting from their dupes more hundreds [should have said *thousands*] of dollars than her like get pennies,"—of all these scorned folk, the *New York Times* is itself a most conspicuous example. The very issue containing the foregoing bit of smug hypocrisy contains columns of atrocious advertisements that every physician knows do infinitely more harm than all the Mrs. Millers and Mrs. Eddys that ever taught or practised medical humbuggery. The editor of the *Times* should institute legal proceedings against his publisher!

License to Practise Medicine Includes Right to Practise Dental Surgery—so the Supreme Court of Rhode Island has decided in the test-case of the State *vs.* Dr. Horace P. Beck, of Newport, a graduate of both the

Departments of Medicine and Dentistry of the University of Pennsylvania. Dr. Beck located at Newport and registered with the Rhode Island State Board of Health in accordance with the law regulating the practice of medicine. He included in his work the practice of dental surgery, and was indicted at the instance of the Board of Registration in Dentistry for unlawfully practising dentistry without a certificate from and registry with his Board. By the decision of Judge Tillinghast the State's demurrer to the defendant's plea that by virtue of the certificate of the State Board of Health he was qualified to practise medicine and surgery in all its branches upon all parts of the human body, including he teeth, was overruled, the plea sustained and the indictment quashed. According to the Court :

> "A physician is one who practises the art of healing disease and of preserving health; a prescriber of remedies for ickness and disease. He is presumed to be familiar with he anatomy of the human body in its entirety; to undertand the science of physiology and the laws of hygiene, and o be able to minister, as far as may be, to the relief of pain, disease and physical ailments of all sorts and kinds whatsoever. And while it is true that many physicians devote hemselves entirely to some branch of the medical profession or which they have made special preparation, yet the fact hat they have first qualified themselves generally for the practice of medicine and surgery in all its branches, and obained a license to pursue such practice, must be held to enitle them to operate upon the teeth and jaw, as well as upon other parts of the human organism, unless the statute now under consideration clearly prohibits them. . .
>
> "Dentistry is now a well-recognized branch of surgery. A entist is a dental surgeon. He performs surgical operations upon the teeth and jaw, and, as incidental thereto, upon the esh connected therewith. His sphere of operations, then, s before intimated, is included in the larger one of the physiian and surgeon."

This interpretation is in accordance with the opinion ecently expressed by Justice Dean, of the Supreme Court of Pennsylvania, in sustaining the right of a medical college to confer degrees in dental surgery, and with the specific exemption expressed by legislation nacted in the States of Connecticut, Louisiana, Maine, Michigan, Mississippi, New Hampshire, North Carolina.

The Case of Ward vs. St. Vincent's Hospital.—Last year we noticed this case in these columns. At hat time a verdict had been rendered in the trial court n New York in favor of the hospital, on the ground hat it was a charitable institution and negligence was ot proved. The case has some similarity, therefore, o the recent case against the German Hospital, in this ity, in which Judge Audenreid directed a verdict in avor of the hospital on the ground that the trust-funds f a charitable institution could not be diverted for the ayment of damages.

The circumstances in the Ward case, however, were ecidedly more aggravating. The plaintiff, a woman, ntered the hospital as a pay-patient for the purpose of undergoing an operation. She paid $25 a eek for her room and $3 a day for a trained nurse. While the patient was still under ether the nurse, who as not a graduate, but merely a pupil in the hospital, placed a hot-water bag against the patient's leg and caused a severe burn, which was more than two years in healing and required ultimately another operation, and has resulted, it is alleged, in permanent disablement. The Supreme Court of New York, by Mr. Justice Barrett, has now reversed the decision of the lower court in an opinion in which it holds that a charitable hospital corporation that accepts a "pay" patient under an express contract to furnish her with a competent skilled trained nurse may be held liable in damages for personal injuries sustained by the patient through negligent conduct of the nurses furnished, on the ground of breach of such contract. This decision will have the effect of remanding the case to the lower court for a trial by jury. What the verdict of a jury will be we, of course, cannot predict, but we are chiefly interested here in noting the establishment of an important principle of law as applied to charitable hospitals that have a "pay" department.

The decision of the New York Supreme Court, it will be noted, is directly against the position of Judge Audenreid in the case of the German Hospital, in which a woman sued for damages because of an unauthorized autopsy on the body of her mother. The principle is the same, although the circumstances are different. The case of Miss Ward will excite more sympathy than the latter, because the plaintiff alleges that she has received irreparable injury. We cannot undertake *in extenso* to discuss the merits of the case, but merely note the facts. It does seem, however, to be both law and justice to hold a hospital, which in such a case is certainly working for profit, responsible for failure to conform to its contract. We distinctly disclaim any intention of prejudging this particular case, which is yet to be tried before a jury, and with the full details of which we are not familiar. We think it important, however, to call the attention of hospital authorities and attendants to the fact that the Supreme Court of a neighboring State has decided that a charitable hospital, if it accepts pay, is working for a profit and can be held liable just as any other corporation can be held. The two cases, moreover, neatly illustrate the fact that courts differ with each other on fundamental points, just as experts do occasionally when on the witness-stand.

The adulteration of foods has become a public disgrace and danger, and stringent laws against the crime, coupled with an energetic execution of them, are demanded in every State of the country. The recent testimony before the Senate committee in Wisconsin has so deeply aroused the country that in order to secure an accurate and authoritative report we asked Professor A. S. Mitchell to epitomize his testimony for us. This he has kindly done, and we reproduce it herewith:—

> My testimony before the Senate Committee on Food Adulteration was in substance as follows:

That as chemist of the Wisconsin Dairy and Food Company for the past four years, I had been engaged in investigating the character of the foods on the market. That before the passage of a State food-law extensive adulteration of spices, sirups, honey, flavoring-extracts and baking-powder was being practised. That special previous laws had done much to control similar adulteration in vinegar and dairy-products.

That adulteration might be discussed under two general heads. The adulterants may be simply fraudulent, or they may be injurious or deleterious; the injurious substances generally being used simply for coloring, or for masking fraudulent sophistication, or as chemical preservatives. That in my opinion the rapidly increasing use of preservatives was a menace to public health and should be regulated.

That in former days foods were preserved by aid of sugar, vinegar, and salt, all of which are proper constituents of food, or were kept by boiling, or the use of ice. That at present chemicals were not only purchased under their own names for use in foods, but that antiseptics were placed upon the market under fanciful titles and accompanied by false and misleading statements of their properties.

Quart packages of "Freezine" and "Special M Preservaline" were shown the Committee, with the false statements on the label of the former, stating that it acts the same as ice, and that as it is a gas it escapes and leaves nothing in the milk, and that it cannot be detected by the chemist. The substances were stated to consist wholly of solutions of formic aldehyd. Its properties and uses were then described. I stated that other similar preservatives were on the market, and were much used by milkmen, especially in warm weather, and by those shipping milk by rail to the large cities. I gave it as my opinion that it did not "act like ice," that it was a powerful antiseptic, and deleterious in any amounts, and that its use was highly objectionable; that if cleanliness was exercised in the care of milk and it was properly aerated and cooled, its use was not necessary. "Cream Albumenoid," consisting of gelatin, boric acid, and borax, was shown as sold for use in "improving" cream. "Laketone," a solution consisting of sulfonated anilin yellow, used for coloring milk and cream, was produced and discussed.

The very common use of salicylic acid for preserving cider was referred to. (I have found grape-juice of a standard make and recommended for the use of invalids with weak stomachs, to be heavily salicylated.)

The use of salicylic acid in bottled beer was referred to.

I stated that in my opinion a desirable policy would be to prohibit the use of all deleterious substances in all amounts except in such cases as the substances were necessary ingredients in the manufacture of the product. For example, where there is a choice of yellows for butter-colors, flavoring-extracts and confectionery, harmless vegetable colors must be used in preference to the brighter and more penetrating coal-tar colors.

I then showed preparations of sodium sulfite intended for use in chopped meat and hamburger steak. "Rosaline," a colored mixture of borax, niter, and salt, sold for use as a sausage color and preservative, was shown.

After a somewhat lengthy discussion of jellies, sirups, baking-powders and various food-products, I strongly recommended national food legislation and the establishment of a National Food Commission.

Such a commission would not only prevent the sale of injurious and deceptive goods, but it and the national law would serve as a model for State legislation, tending to uniformity in the various States. As it is at present, while the State officers can reach and control the manufacture of food-products within the State, they cannot reach dishonest manufacturers shipping goods in from the neighboring States, but are forced to hold the retailers responsible.

It is hardly necessary to add our most cordial approval of the suggestion of the appointment of the establishment of a National Food Commission.

Suggestions to Writers, No. 28. Solid-word Compounds. The dictionary-makers have been able to reach no uniformity in their recommendations concerning the compounding of words, and have seemed to pride themselves upon their differences. There is thus the most lamentable confusion and contradiction in the usage even of the best writers. A thousand rules are jeered at by the makers of another thousand, and everyone is left to follow the promptings of whim and caprice. In this state of affairs medical literature must show the same confusion, and he would be a brave man who would attempt dogmatically to formulate a set of unyielding laws and rules. In general, however, it may be said that the tendency of custom and the dictates of common sense are more and more uniting to run words together in solid form when there is fusion of idea or thought to be conveyed, and especially when either of the two components cannot stand alone as a separate English word. Thus, *ilio-* and *broncho-* are not separable English words and the hyphen is expunged in *iliostomy*, *iliofemoral*, *bronchorrhea*, *bronchopneumonia*, etc. There is no more need of the hyphen in *anti-toxin* than there is in *anti-pathy.* The function, indeed, of the hyphen, seems very often to be that of a sort of stopgap, or a kind of sop thrown to the Cerberus of conservatism which will not allow the complete fusion of two etymologic elements, and "to save its face" conservatism holds for a few years to the hyphen. It is a good rule to kill a hyphen whenever seen, unless thereby clearness of meaning is also killed. In the following illustrative list we advise that these and words similarly conjoined be spelled as given,—*i. e.*, without hyphenation or space:—

adenosarcoma
afterbirth
afterbrain
almshouse
angioneurosis
angiosarcoma
antemortem
antialbumin
antisyphilitic
antitoxin
armpit
arthroempyesis
backache
backbone
backset
backslide
balneotherapy
basioglossus
bedbug
bedridden
bedroom
bedside
beefsteak
biconcave
biconvex
bimanual
bellyache
birthmark
bittersweet
blackberry
bleareye
blepharophimosis
blindworm
bloodletting
bloodroot
bloodshot
bloodstream
bloodvessel
bloodworm
bloodwort
blowfly
blowpipe
bluestone
boneblack
boneset
boroglycerid
breadstuff
breakdown
breakbone (fever)
bricklayer's (itch)
brickmaker's (anemia)
bronchopneumonia
buttermilk
cardiopneumatic
careworn
catgut
cerebrospinal
cesspool
cheesecloth
chickenpox
childbed
childbirth
childlike
chorioretinitis
choroidoretinitis
chylopericardium
climatotherapy
clubfoot
clubhand
coltsfoot
cottonseed
counterextension
counterirritation
cowpox
crosseye
culdesac
dacryocystitis
dairyman
dayblindness
dermatoneurosis
dextrorotatory
earache
earthworm
eightfold
electrocautery
electromassage
enterocolitis
enterogastritis
eyebrow
eyelash
eyelid
eyepiece
eyesight
faceache
fibrocartilage
fingerbreadth
fireproof
flaxseed
fleabite
footnote
footprint
foregut
forebrain
forearm
forehead
foreskin
fourfold
frostbite
gallstone
galvanocautery
galvanopuncture
gastroenteritis

guineapig
guineaworm
gumboil
guncotton
gunshot
aircloth
airpin
amstring
andbook
andbreadth
arelip
eadache
eadlight
eadpiece
eartburn
emothorax
ipjoint (adj.)
orsehair
ourglass
umpback
unchback
ysteroneuroses
deomotor
lecolic
liofemoral
liopectineal
ncoordination
ndoors
nfraclavicular
nfracostal
nterparietal
ntracapsular
chiorectal
junoileostomy
neecap
neejerk
neepan
ryngotracheotomy
vorotatory
fetime
mestone
ckjaw
adhouse
madman
melanocarcinoma
microorganism
midwife
musculospiral
myxosarcoma
nearsightedness
neuroepithelium
neuroretinitis
nightblindness
nightclothes
nightdress
nightmare
nitromuriatic
northeast
oilcloth
onset
ophthalmoblennorrhea
osteoarthritis
outbreak
outbuilding
outdoor
outflow
outgo
overlay
pneumopericardium
portwine (adj.)
postmortem
poorhouse
pseudocyesis
pseudocroup
pseudoganglion
psychophysiology
puffball
quicklime
quicksilver
rainfall
ratsbane
rawhide
retropharyngeal
retrovaccination
ringworm
roundworm
runaround
scaldhead
scleroskeleton
seashore
seasick
seaside
seatangle
shotgun (prescription)
silkworm
skullcap
silkwormgut
smallpox
splayfoot
stavesacre
stiffneck
stomachache
sunburn
sunlight
sunshine
sunstroke
supravaginal
tablespoon
tapeworm
teaspoon
thermocautery
threadworm
threefold
thrombophlebitis
tonguetie
toothache
typhomalaria
typhomania
underclothes
underfeed
uterogestation
uterovaginal
vulvovaginal
watercourse
waterway
wordblindness
worddeafness
wryneck
xanthocreatinin

Faith-Cure Healers in the Toils of the Law.—ast week, Coroner Banning, who is a practising phy- ician in Mount Vernon, N. Y., announced that he would ake a thorough investigation into the death of Mrs. harlotte Barguet, the wife of a retired merchant. The roner is an old friend of the family. He wrote across e face of the death-certificate that her death had een caused "through Christian Science and neglect d general anasarca." She was 67 years of age, and ad been ill several months, but had had no medical tention. Her husband, one daughter, and one son ere, like herself, followers of Mrs. Eddy, the founder Christian Science. This son, Liston Barguet, Jr., is graduate of Christian Science. The other son, Pascal Barguet, as well as other members of the family, had faith in the teachings of this school, and endeavored, t without avail, to have their mother receive compe- nt medical attendance. She was attended by Mrs. arence Fowler, one of the Christian Science practi- ners. The two physicians who made the autopsy stified at the inquest that she came to her death by ute pleurisy, and that medical science would have en able to prolong her life indefinitely. The cor- er's jury brought in the following verdict: "That in so aiding, abetting, and encouraging the deceased, said individuals (meaning the healer and the son and daughter of the deceased) were guilty of culpable negligence, which the public welfare requires should be stopped, and we earnestly recommend that necessary steps be taken to accomplish that end." The coroner held Mrs. Fowler and the son in $1,000 bail each to await the action of the grand jury. Mrs. Fowler testified that she had received the title of "C. S." from the Brooklyn Institute of Christian Science, and had paid $100 for it. When asked to describe the condition of her patient at her first visit, she gave the following intelligible answer: "She was in a discordant condition, that is, not a harmonious condition." She also admitted that Mrs. Barguet was coughing incessantly, but stated that Christian scientists did not pay any attention to bodily ailments. After much difficulty, District Attorney Andrews succeeded in learning that Mrs. Fowler's "treatment" consisted in sitting down in the sick-room for about 15 minutes with her eyes shut, and amid silence, after which she read from the Psalms, chatted a little, and kissed the sick person. The district attorney has announced his intention of asking the grand jury on May 22 to indict these people for manslaughter in the second degree. It is estimated that there are 125 Christian scientists in Mount Vernon.

A still more important case, from a legal point of view, is that of a little girl named Lizzie Kranz, who was attended by another "sympathetic healer," a Mrs. Mary Miller, of 313 E. 12th Street, New York, and, as a result, it has been necessary to amputate her limb instead of her foot. The girl was suffering from gangrene of the leg, which Mrs. Miller proceeded to treat by making incantations and "passes" over the limb; applying salt water to the blackened foot and giving the child "rosemary tea to drive out the poison." She calmly stated that she could have cured the child if called in two weeks earlier, that this was her first failure, and she charged $3.50 a visit. An eye-witness, it is said, is ready to testify that this practitioner of the healing art divine received a total of $52 for her services. Although she depends a good deal upon a book of incantations by "Albertus Magnus," she was too ignorant to know that the child's leg was really gangrenous, and hence had not been able to select the exact sentences which the truly great Albertus indicated as especially potent in curing gangrene; she had instead selected a sort of shotgun prescription "to alleviate pain." The incantation reads, in part, as follows: "Our dear Lord and Redeemer, Christ, suffered much boils and wounds. They fester not, they pester not, nor suppurate. . . . . Holy is the man who all sores and wounds can heal." As this woman prescribed remedies, and accepted fees, the proper authorities were not long in bringing her to the bar. She was held for the Court of Special Sessions on the charge of practising medicine without a license.

These are the latest of a long series of cases which have excited so much attention and interest that Colonel Murphy, president of the Board of Health, has sent a letter directing the assistant sanitary superintendents of the various boroughs to use all possible means to discover and locate persons practising medicine without a diploma, and in this connection to secure the cooperation of the medical societies. He stated subsequently that these instructions applied to the Christian Scientists, and that was his purpose in issuing them. There are it is said about 100 Christian Scientist practitioners in New York and Brooklyn, and they challenge the Board of Health to do its worst, asserting confidently that their constitutional right of religious liberty cannot be contravened, and that they can and have successfully treated pneumonia, cancer, consumption, and other severe ailments.

We most heartily commend the action of President Murphy and the medical societies that are supporting him. It is a disgrace both to the medical profession and to American civilization that we have been so long negligent of this pestiferous craze. When so many people can so utterly renounce intelligence and the laws of self-preservation as to indulge in this fool's delusion, it shows that the community is not fitted for medical freedom and must be protected by law from its own delusional follies. The medical societies of every city should see to it that the laws against unlicensed practitioners are put into action.

Editor and Reader No. 22.—One of many testimonials is reproduced below as a little indication of the suspicion with which journalistic promises are naturally viewed by physicians, and also as a proof that in holding to what we think our duty we are finally justified. We may improve the occasion to say that during the past year we have also received several letters criticising our course in admitting certain particular advertisements. These letters we think we showed the writers were based upon errors of fact and inference. For instance, an advertised preparation, or the use of its name, may change ownership, the former owners being justly blamed for secrecy or some other inethical conduct, while the present owners are entirely blameless. Or again, a firm may have been consciously or unconsciously guilty of reprehensible conduct and may promise absolutely to stop this on condition of our continuance of the advertisement.

The following pleasant letter was received last week by our business manager:—

> I have waited some time to see if you would keep your promises *in re* your Journal, and in particular as regards publishing it *for the profession* instead of doing as all your competitor weekly journals are—for the benefit of patent-medicine men and other frauds on the profession and on the community. As an earnest of my satisfaction I enclose check for $6.00 covering two years' subscription from this date. You may use this letter as you see fit to persuade the profession to help you as you deserve.
>
> Yours sincerely,
>
> Egbert H. Grandin.
>
> New York, May 12, 1899.

Dr. C. S. Middleton, of Philadelphia, has been appointed by Mayor Ashbridge to be Director of Public Charities and Corrections.

Correspondence.

THE TOXICITY OF STRYCHNIN.

By J. B. TODD, M.D.,

of Syracuse, N. Y.

To the Editor of The Philadelphia Medical Journal :—

On March 10, 1899, L. C., a male child, aged 20 months, accidentally swallowed a tablet containing $\frac{1}{20}$ of a grain of sulphate of strychnin. The child was seized with convulsions and died within an hour. An autopsy was held, but nothing abnormal was found except that the pia mater was highly congested with venous blood. I report this case, because from reading Dr. John V. Shoemaker's article in your issue of April 22, and that of Dr. A. D. McConachie, in your issue of May 6, the impression is given that strychnin is not so toxic as it is generally believed to be, and so this case is given as an antidote. But who knows the accuracy of dosage in strychnin-tablets?

742 South Burch Street.

THE VOLUNTEER MEDICAL OFFICERS NOT TO BLAME.

To the Editor of hhe PhiladelpTia Medical Journal :—

Your reporter rather missed the point of my remarks in the discussion upon Dr. Vaughan's paper at the meeting of the Association of American Physicians. It seemed to me that the paper and the remarks of Surgeon-General Sternberg, if unqualified, tended to put unmerited blame upon the volunteer medical officers. I therefore called attention to facts clearly stated by both Dr. Vaughan and Dr. Sternberg, but not emphasized, and apparently dropped out of sight in their conclusions; namely, that the policing of camps was the work of the colonels of the various regiments and not of the surgeons, who could only advise. Hence the unsanitary conditions described were to be ascribed not to the ignorance or inexperience of the volunteer medical officers, but to the neglect or incapacity of the line officers, and the latter should be the ones censured, if any. To prove this, I cited the Second Pennsylvania, in which Colonel Porter and his officers cooperated with Drs. Bergen and Packard, and as a result there was no typhoid in the regiment, and only 2 cases of any kind of sickness.

In comment upon the report that there had been no malaria in the American camps, I quoted the cases of mixed infection (malarial and typhoid) demonstrated in all the Philadelphia hospitals—one of my own cases coming from Fernandina, several of Dr. DaCosta's from Camp Alger, and so on. This matter is one of great importance. The medical profession should not allow the volunteer medical officers to be made scapegoats. The Surgeon-General did all he could in the face of the evil political influences with which he had to contend. No one desires to impute blame to him or to the regular army surgeons for circumstances beyond their control, and if beyond their control surely not within the control of the volunteer officers. The real fault lies with authority higher than the Surgeon-General.

That mistakes in diagnosis were made by both regulars and volunteers I do not doubt; but I have heard it said that sometimes the diagnosis of typhoid was suppressed under orders. That the Surgeon-General would give or countenance such orders no one will believe. I certainly do not believe it. It is certainly hard to believe that even the Secretary of War would commit himself to such orders—of course keeping the Surgeon-General in ignorance. It is hard to believe that camp commanders would give such orders. I therefore do not vouch for the truth of the rumor; nor would I repeat it were it not that military censorship is doing many strange things these days—strange at least to a free people—and hence this may be among the possibilities.

It is to be hoped that Drs. Vaughan, Reed, and Shakspeare will not only be able to get at all the facts, but will also be permitted to report them; that the beef-investigation methods will not be allowed to influence either their report or its publication. The profession have confidence in the Surgeon-General and his commission, and therefore they expect all the facts without fear or favor.

Yours very truly,
Solomon Solis Cohen.

THE COMPARATIVE EFFICIENCY OF WET AND DRY SURGICAL DRESSINGS.

By ROSS HALL SKILLERN, M.D.,
of Philadelphia.

To the Editor of The Philadelphia Medical Journal:—

It is remarkable what differences of opinion exist when this subject is brought into discussion. While probably there exists a point where all of our most prominent authorities agree, yet in finer detail how great is the disagreement. One man will lavish his praises unstintingly on one certain dressing, while others, though not contending it is entirely wrong, will see no particular benefit in its use and employ almost a diametrically opposite course. Again, we visit the several dispensaries of our city and once more we see the wide differences. A person receiving a contused and lacerated wound will be taken to one of the nearest hospitals; after the wound is dressed he will obtain a transfer to another hospital dispensary near his home. The chances are the dressing now put on will be different from the original one, yet both may be entirely correct in the opinions of the surgeons of the two hospitals. Agreeing that both dressings are correct, yet one must be superior to the other, even if in an infinitesimal proportion. There are undoubtedly some injuries which do better under a dry dressing than under a wet one and vice versa, but I do not think any wound will do particularly well when treated alternately with both wet and dry. When it is possible to obtain an aseptic, or almost aseptic wound, or one that can easily be made aseptic, when the loss of tissue is very slight and the edges can be accurately brought together, and one has good reasons to expect union by first intention, a dry dressing, such as a dusting-powder and dry sterile gauze is undoubtedly superior to a wet one, but these cases are nearly always incised wounds, or the result of an operation performed by the surgeon himself. Again take a wound in which a large boil or carbuncle has been incised; this may have been accomplished under all antiseptic precautions and the wound be perfectly sterile, yet in this case I think a moist bichlorid dressing vastly superior to any dry one yet invented. In this case we always have a clean surface, the gauze absorbing the discharge, and if dressed every day a comparatively aseptic wound. I say comparatively, because it is now pretty generally conceded that both of these complaints are of microbic origin. On the other hand, a dry dressing will adhere to the wound with more or less pain and irritation of the part on removing, the surface will be unclean, covered with pus and blood, more time will be consumed in cleaning the part preparatory to a fresh dressing, with subsequent irritation and bleeding, and it will take a longer time to bring about resolution. In contused, lacerated and crushed wounds a wet dressing for the first week or two until all the dead parts have sloughed away, then when granulation is about to begin, a good dusting-powder, such as iodoform or aristol, applied every two days, will yield excellent results. Occasionally one sees a wound in which the pus has burrowed, forming sinuses. Obviously the only procedure to adopt here would be one in which every suppurating part could be reached and thoroughly cleansed. If the sinuses are superficial, laying them open along their entire course would be the proper method; whereas, if they lead into the deeper parts, such as under muscles or down to bone, thorough flushing out with a strong solution of bichlorid of mercury and packing rather loosely with iodoform gauze to allow drainage would give good results. A punctured wound, when one may have reason to suspect infection such as caused by a rusty nail, etc., will do better under a moist dressing. It not only keeps the parts aseptic, but the surrounding tissue soft and pliable, so that the mouth of the wound will not close up and retain the forming pus which sooner or later must come out. If a dry dressing is applied with a dusting-powder, in all probability the mouth of the wound will be occluded, closing in the pus and subsequently necessitating a free incision to prevent septic infection. In wounds of the scalp there is nearly always infection both on account of the great blood-supply, the vessels being superficial, and on account of the hair catching and holding the dust in close proximity to the wound. The pus nearly always burrowing in these cases, a thorough flushing out with a solution of bichlorid and good drainage, with a dry dressing, give the best results. To summarize:

1. A dry dressing is superior to a wet one in incised wounds.
2. In contused and lacerated wounds a wet dressing should be employed for a week or two, followed by a dry one.
3. In carbuncles, boils, and infected wounds a wet dressing is indicated.
4. When pus has burrowed and sinuses exist, packing and a dry dressing are preferable.
5. In deep punctured wounds with a small orifice, a wet dressing is best.
6. In all wounds of the scalp, whether infected or not, we should use a dry dressing.

Antistreptococcic Serum in Puerperal Infection.—W. L. Robinson (*Virginia Medical Semi-Monthly*, March 10, 1899) reports 7 cases of severe puerperal infection in which he has used antistreptococcic serum without a death. He has also used the serum in 4 cases of postoperative infection, and in a case of erysipelas, with very striking results. [M.B.T.]

Resection of the Sympathetic Ganglia of the Neck for Epilepsy.—Karl Beck (*Chicago Medical Recorder*, April, 1899) reports 3 cases in which he has performed resection of the sympathetic ganglia of the neck for real epilepsy of long standing. In all cases there was immediate decrease in the number and violence of the attacks, but a gradual return to the previous condition. [M.B.T.]

Tuberculin in Life Insurance Examinations.—B. Van Sweringen (*Medical Examiner*, April, 1899). Tuberculosis in some form is the most dreaded enemy of all life insurance companies. In view of the fact that early recognition of phthisis by physical signs alone is a difficult matter and that the injection of tuberculin is not attended by any deleterious effects its injection is suggested as a routine practice for diagnostic purposes. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending May 27, 1899 :—

Wednesday, May 24—County Medical Society.
Thursday, May 25—Pathological Society.

Rush Hospital for Consumption.—The new wards were last week formally opened and transferred to the trustees, the address being delivered by Dr. James Tyson.

Camden (N. J.) District Medical Society.—At the annual meeting held last week, the following officers were elected : President, Dr. W. S. Jones ; vice-president, Dr. J. F. Leavitt ; secretary, Dr. Paul M. Mecray ; treasurer, Dr. Joseph L. Nicholson ; historian, Dr. Harry Sherk ; reporter, Dr. John G. Doron.

Laboratory of Hygiene, University of Pennsylvania.—The south wing of the laboratory of hygiene is being torn down for the purpose of enlargement and improvement. The new addition will be twice as large as the old one. The first floor will be devoted entirely to a large lecture-room, with a seating capacity of 200, making it possible to accommodate an entire class at one hour. The second floor will also be used as a class-room for the study of elementary bacteriology in the undergraduate courses, in both the medical and dental departments. The building will be ready for occupancy at the beginning of the next academic term.

Veterinarians Visit the Mayor.—A delegation of veterinary surgeons, including Drs. Hoskins, Marshall, and Pearson, called upon Mayor Ashbridge to consult about purposed improvements in the methods of inspecting milk and meat. They suggested that instead of confining the examinations of milk to chemical tests as to the percentages of fats, etc., there should also be examinations to disclose the presence of impurities and injurious microbes. They expressed themselves as favoring the use of skim milk as a food, provided it is sold under proper restrictions to avoid fraud. They thought that there are not enough inspectors to insure the poor against sales of improper meats. The surgeons were requested to formulate recommendations and present them to the Mayor.

Jefferson Medical College Alumni Association.—The annual dinner was held at the Art Club, May 15. Dr. A. H. Hulshizer presided, and Professor H. A. Hare acted as toastmaster. Former United States Minister William Potter, president of the board of trustees, responded to the toast to that body. Provost C. C. Harrison, of the University of Pennsylvania, replied to the sentiment, "Our Sister College," Professor William L. M. Coplin to "Medical Teachers and Medical Teaching," and Professor Howard F. Hansell to "The Reunion of the Class of 1879." The toast, "The Jefferson Hospital," was responded to by Medical Director Dr. Joseph Neff. The officers of the association for the coming year are: President, Dr. A. H. Hulshizer; corresponding secretary, Dr. Thomas G. Ashton ; recording secretary, Dr. Wilmer Krusen ; treasurer, Dr. W. M. Sweet, and chairman of the executive committee, Dr. Orville Horwitz.

Jefferson Medical College.—At the seventy-fourth annual commencement, held May 15, diplomas were awarded to 85 students who had successfully passed the required examinations. The address was delivered by Judge Mayer Sulzberger. Special prizes were awarded to the following students : Undergraduate Joseph Benjamin Horinstein, of Pennsylvania ; William R. Lockett, of Tennessee ; Peter Martin Keller, of Michigan ; Undergraduate Philip Atlee Sheaff, of Pennsylvania ; B. Franklin Royer, of Pennsylvania ; William Nicholas Lackey, of Tennessee ; Joseph Powell Wimberly, of North Carolina ; Charles Henry Williams, of Michigan ; Elmer John Farnham, of Maine ; Francis Mortimer Cleveland, of New York ; Samuel Wesley Perry, of Pennsylvania ; John Elnathan L. Vansciver, of New Jersey ; Edwin Russell Kennedy, of Ohio ; Scott W. Lau, of Pennsylvania ; I. M. D. Fulton, of Michigan ; Sydney James Smith, of Texas ; Cassius Marion Shepard, of Ohio ; H. Stephen Smith, of Texas ; Estell Budd Lewis, of Pennsylvania ; Charles Clifton Royce, of Pennsylvania. The honorary degree of LL.D. was conferred upon Dr. Nicholas Senn, of Chicago, and Rev. Dr. Robert H. Neidy, of Connecticut.

Vital Statistics of Philadelphia for the week ending May 13, 1899 :—

Total mortality		427
Children under 5 years of age		92
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis		54
Pneumonia 48, congestion of the lungs 2		50
Heart-disease 33, fatty degeneration of the heart 4, neuralgia of the heart 4		41
Nephritis 34, uremia 5		39
Diarrhea 14, gastroenteritis, 11, cholera infantum 5		30
Typhoid fever	153	22
Apoplexy 13, paralysis 8		21
Casualties 13, burns and scalds 6		19
Marasmus 5, inanition 6, debility 4		15
Diphtheria 14, membranous croup 1	77	15
Convulsions		12
Senility		12
Inflammation of the brain 10, congestion of the brain 2		12
Carcinoma 8, sarcoma 1, tumor 1		10
Cerebrospinal meningitis	10	7
Scarlet fever	45	2
Smallpox	4	0
Peritonitis 6, cyanosis 6, bronchitis 5, septicemia 5, dropsy 4, pleuritis, 4, abscess 3, cirrhosis of the liver 3, erysipelas 3, pericarditis 3, insanity 3, suffocation 3, pertussis 3, alcoholism 2, drowned 2, gangrene 2, appendicitis 2, intestinal obstruction 2, sclerosis 2, teething 2, atheroma 1, congestion of the bowels 1, gallstones 1, hemorrhage 1, hernia 1, cystitis 1, intussusception 1, mania a potu 1, rheumatism 1, shock 1, sore mouth 1, suicide 1, tetanus 1, unknown 1, gunshot wounds 1.		

Pathological Society of Philadelphia.—At a meeting held May 11, DR. M. P. RAVENEL read a paper on **The resistance of bacteria to cold.**

He detailed a brief synopsis of the literature of the subject, and related the results of some experiments that he had himself undertaken, particularly with reference to the resistance of bacteria to the influence of liquid air. He concluded that cold, even of great degree, cannot be relied upon as a disinfectant. The discussion was participated in by DRS. W. M. L. COPLIN, DAVID RIESMAN, ALFRED STENGEL, and M. P. RAVENEL.

DR. JOSEPH SAILER reported a case of **melanotic mixed-cell sarcoma of the cauda equina.**

The tumor was discovered accidentally at the necropsy ; clinically there was said to have been pain in the legs and back, staggering gait, frequent micturition, and absent knee-jerk on one side. The frequent micturition was explained by a pyonephrosis. Among the caudal nerves there was detected a tumor 4 cm. in length, 1 cm. in thickness, and 7 mm. in its lateral diameter. It rested upon the cord, but did not invade it. It was encapsulated, pigmented, and contained hemorrhagic foci. Microscopically it was seen to be a mixed-cell sarcoma. There were no changes in the cord-columns or nerve-roots. There was, however, degeneration of various types in the columns of the lumbar cord, and a diffuse gliomatosis of that region. Only 2 other instances of primary melanotic sarcoma of the cord are noted in the literature, and probably only 4 of secondary melanotic tumor have heretofore been reported.

Dr. J. H. Lloyd reported a case of **amyloid disease of the liver and kidneys of 8 years' duration.**

The patient was a girl, aged 18 years at the time of her death. She had been under observation at least 8 years, suffering with advanced hip-joint disease, which developed when she was 3 years of age. For a considerable period of time there was marked improvement in the clinical manifestations of the amyloid disease of the liver and kidneys. In the discussion, Dr. W. G. Spiller commented upon the great number of amyloid bodies in the spinal cord from the same patient.

Drs. T. S. K. Morton and W. G. Spiller reported a case of **tabetic arthropathy of the ankle-joint.**

The patient was a man, aged 60 years, with manifestations of tabes. The joint-affection developed suddenly, and subsequently the joint became purulent, and the leg was amputated. The patient made a good recovery. Some reference was made to the nature of these arthropathies, and to the literature bearing upon the operative treatment of such cases. In the discussion, Dr. A. Ferree Witmer exhibited a photograph of a tabetic patient with arthropathies of 5 joints—both ankles, both knees, and one elbow. Dr. David Riesman spoke of having seen the patient some time ago, and of being then under the impression that the joint-affection was tuberculous. He asked if the joint had yet been carefully dissected. Dr. Spiller stated that he had not yet dissected the joint, but felt confident that it was an instance of tabetic arthropathy. He would, however, carefully study it and report the result of his examination at a subsequent meeting of the Society.

Dr. J. S. Brister reported a case of **carcinoma of the rectum with extensive involvement of the liver.**

Drs. J. M. Cruice and C. P. Stackhouse reported a case of **subdiaphragmatic abscess** in a patient aged 25 years. It was thought that the abscess originated from a suppurative appendicitis, or from a gastric ulcer.

Dr. J. P. Arnold presented a specimen of **croupous pneumonia** from a patient who also had typhoid fever.

Dr. David Riesman presented a specimen of **emphysema of the lungs with excessively large bullæ.**

Dr. Joseph Sailer exhibited a microscopic section of a **semilunar ganglion.**

NEW YORK.

Dr. Tarleton H. Bean has been appointed, by Commissioner-General Peck, director of Forestry and Fisheries of the United States Commission, to the Paris Exposition of 1900. Dr. Bean was for several years the very efficient superintendent of the New York Aquarium, a position abolished for political reasons.

Danger in Bromo-Seltzer.—Dr. Henry G. Piffard, of New York, in testifying before the Pure Food Committee the other day, took occasion to caution against the use of bromo-seltzer on the supposition that its ingredients were practically harmless. He emphasized what had already been brought out in the analysis in the well-known Adams poison case, that it was customary to add a considerable proportion of acetanilid. Dr. Piffard added that he believed that the practice of adding this dangerous ingredient was becoming widespread, and cited a recent case of poisoning from this source occurring in the practice of a medical friend.

Dr. Tracy's Death.—The sudden and mysterious disappearance from the sanitarium at Saranac of Dr. Robert S. Tracy, of New York, has already been noted. It occurred on the evening of April 1, and it was supposed that while returning from a social party, at the village on that night, he had fallen into some water or been lost in the snow. The forests and streams were thoroughly searched, but no trace of him found. On May 11 his body was found in Lake Flower. He was only 27 years old, and the son of J. Evarts Tracy, of the law-firm of Evarts, Choate & Beaman, and a grand-nephew of former Senator William M. Evarts. He had only been in the mountains since the Christmas holidays.

New York State Medical Association—Fifth District Branch.—The fifteenth annual meeting will be held in Wurzler's Building, 315 Washington Street, Brooklyn, N. Y., May 23. The presidential address, to be delivered by Dr. J. D. Bryant, will open the discussion on malignant disease. The discussion will be continued as follows: Dr. Edward K. Dunham, The Nature of Malignancy in Neoplasms; Dr. L. Grant Baldwin, Malignancy in the Female Genito-urinary System; Dr. Jonathan Wright, Remarks on Malignant Disease of the Nose and Throat; Dr. Max Einhorn, The Early Recognition and Management of Malignant Disease in the Digestive System; Dr. J. W. S. Gouley, Malignant Disease in the Male Genitourinary System; Dr. William B. Coley, The Treatment of Inoperable Malignant Tumors.

A Man's Death Attributed to Tight Lacing.—May 10, Charles F. Stewart, one of the leading men, socially, in Passaic, N. J., was found dead in bed. He was 36 years old, and was supposed to be in excellent health. The evening before, he had participated in an amateur theatrical performance, taking a part in which he had been compelled to wear stays and skirt. His acting was well received, but towards the close he seemed fatigued. At the close he complained of feeling distressed, and appeared apprehensive, but went home and to bed, and nothing further was thought of it until he failed to answer repeated knocks at his door the next morning. It is supposed that his exertions at the rehearsals and at the first public performance, together with the wearing of the corsets, had precipitated an attack of apoplexy.

American Climatological Association.—The sixteenth annual meeting of this association was held in the New York Academy of Medicine, May 9 and 10, under the presidency of Dr. Beverley Robinson, of New York. Twenty-five interesting and unusually practical, scientific papers were read, and, owing to the admirable arrangements and conduct of the meeting, ample time was allowed for the discussion of many of them. Instead of meeting, according to custom, on 3 days, the third day was devoted to a tour of inspection of the Loomis Sanitarium for Consumptives at Liberty, N. Y. This was especially fitting in view of the deep interest that the late Dr. A. L. Loomis took in the work of this association. Through the courtesy of the New York, Ontario & Western Railroad, a special train of parlor-cars was provided for the party, and everything was done by the railroad, by the Medical Board of the Sanitarium, and by the physician in charge, Dr. J. Edward Stubbert, to both entertain and edify the visitors. Guests to the number of 70 availed themselves of the hospitality extended so freely, and many returned to their homes with clearer and more settled notions regarding this sanitarium in particular, and of the advantages of Liberty in general as a place of resort for tuberculous patients. After dinner had been served, Dr. Beverley Robinson made a few remarks, in which he feelingly alluded to the founder of the institution, and called upon all present to rise to their feet in memory of the departed. He was followed by Dr. Henry P. Loomis, who spoke of his father's labors in climatology, and especially for the welfare of consumptives, and of the experience that had gradually led him to select Liberty as the site for this sanitarium. The guests were then divided into small parties, and each in charge of a nurse was escorted around the grounds and cottages. The general plan is to have a cottage consist of 4 bed-rooms, a bath-room, and a sitting-room, and to provide not only ample ventilation, but plenty of piazza-room, so that, whether in the morning or afternoon, it is possible for the patients to remain out without being too much exposed to the sun. The air of the place is pure and bracing, and sunlight is abundant and to be had for the asking. The altitude of Liberty is 1800 feet, and that of the sanitarium is 2300 feet. A friendly rise in ground affords excellent protection from violent winds. The sanitarium is situated about 2½ miles from Liberty, but this would not be a special drawback were it not for the very bad roads of that region. It is to be hoped that along with the education of the people of that county in matters pertaining to public sanitation—an education which must necessarily advance rapidly with such a progressive institution as the sanitarium—they may be led to see the crying need for better and more scientifically built highways.

NEW ENGLAND.

Boston Lying-In Hospital.—Dr. F. S. Newell will succeed Dr. C. W. Townsend, resigned.

Plans for a new surgical building for the Massachusetts General Hospital were last week placed in in the hands of the trustees, and they will doubtless be promptly approved. The new structure, which is to be one of the most complete and thoroughly equipped in the State, will include a handsome operating amphitheater, and 4 smaller operating-rooms. There will also be an etherizing-room, a recovery-room, and a complete sterilizing plant.

Thurber Medical Association, Milford, Mass.—At a meeting held May 4, the exercises took the form of a **symposium on rheumatism,** with especial reference to the treatment. Papers were read by Dr. W. W. Browne, of Blackstone, on the **Rheumatic diathesis**; by Dr. N. C. B. Haviland, of Holliston on **Acute articular rheumatism**; by Dr. M. W. Knight, of Milford, on the **Chronic forms of rheumatism**; and by Dr. William L. Johnson, of Uxbridge, on the **Alleoloidal (dosimetric) treatment of rheumatism.** The discussion was general.

Clinical Meeting at Massachusetts General Hospital.—Illustrated communications were made a special feature of interest at the clinical meeting of the Medical Board of the Massachusetts General Hospital. Dr. John Homans illustrated with lantern-slides numerous cases of fracture; Dr. E. G. Cutler occupied 20 minutes in showing skiagraphs of aortic aneurysm, and Dr. J. H. Wright traced by means of slides the development of the malarial parasite. Dr. Arthur T. Cabot showed cases of nephrectomy and resection of the intestine and a radiograph of a case of renal calculus. Dr. M. H. Richardson presented an instructive communication on "Resection of the Sigmoid Flexure."

The Society for Medical Improvement, Boston.—At the last meeting Dr. John J. Thomas reported 2 cases of **fracture of the vertebræ with resulting injuries to the cord.**

His conclusions after macroscopic and microscopic examinations were, that the cord might seem to be intact, the dura and cord unbroken, to superficial inspection, and yet upon microscopic investigation the evidences of a transverse lesion quite manifest. He related that operative intervention in such cases is seldom beneficial.

Dr. John Lovett Morse read a paper entitled **renal complication of the acute diseases of infancy.**

He had examined the urine after catheterizaton of over 70 infants who were suffering from gastrointestinal disturbances. His conclusions were that in acute diarrheal diseases of children, there are more or less degenerative changes in the kidneys and that these changes are due to toxins, and that inflammatory changes are rare. As a result of these degenerations albumin is not infrequently found in the urine. The presence of albumin and casts was not dependent on any other than the enteric symptom and were not regarded as a basis for a bad prognosis. True nephritis in such cases is very rare.

Massachusetts State Censors' Examination.—The Censors of the Massachusetts Medical Society held their semi-annual examination last Thursday in the several districts of the State. The written paper was the same all over the State, and comprised answers to the following questions:

1. Describe the ankle-joint.
2. Hemorrhoids: varieties, causes and treatment.
3. Functions of the sympathetic nervous system.
4. Describe the cardiac affections connected with rheumatic fever.
5. Postpartum hemorrhage: causes and treatment.
6. Gonorrhea in the female: parts affected and after-results.
7. Etiology of the principal forms of dropsy.
8. How is diphtheria-antitoxin prepared? Describe the method of its administration.
9. Variola: diagnosis and treatment.
10. Dyspepsia: principal causes: dietetic and medicinal treatment.

Beside the written test, each candidate was examined orally in therapeutics, theory and practice, surgery, physiology, anatomy, and obstetrics and gynecology. In the oral work the standard varies greatly in different districts—in Boston being quite severe, and in many other places perfunctory.

No Special Dispensation for Osteopaths.—The medical event of the present session of the Massachusetts legislature has been the attempt of the osteopaths to secure a special dispensation, relieving them from examination in certain subjects by the State Board of Registration in Medicine. The bill was entitled "An Act to Authorize the Practice of Osteopathy," and based its plea for exemption from examination in medicine and in surgery on the ground that "the system, method or science of treating diseases of the human body, commonly known as osteopathy, is hereby declared not to be the practice of medicine by drugs." It asked that any graduate from a regularly conducted school of osteopathy should be subject to an examination "of an elementary and practical character, embracing the general subjects of anatomy, physiology, pathology, obstetrics, and the practice of osteopathy." The holder of a certificate was not, however, "to prescribe or use drugs in his practice, nor perform major or operative surgery." The bill asked further that an osteopath be placed on the Board of Registration.

Naturally such a bill met with most resolute resistance on the part of regular practitioners. Remonstrances poured in upon the Committee of Public Health. Four hearings were given at the State House, and the petitioners received an amount of advertising which their final defeat hardly neutralized. The advocates of osteopathy claimed among other things that "as the fingers of the blind are trained to read the letters of the alphabet through several thicknesses of cloth, so the fingers of the osteopath, passed over the surface of the body, seldom fail to detect the slightest disarrangement of the human mechanism." Acute infectious diseases were held to be cured by the same magic touch. It was said that osteopaths contend that "diphtheria is caused by contraction of the muscles of the neck and thorax as well as by those of respiration. These interfere with the circulation and produce inflammation of the larynx, bronchial tubes, and throat. This disease, even in its most malignant forms, succumbs to osteopathy." The Committee on Public Health reported unanimously against the bill, and osteopaths must still pass the regular State examination.

CHICAGO AND WESTERN STATES.

Chicago Laryngological and Climatological Society.—At a recent meeting, Dr. E. Fletcher Ingals was elected president, and Dr. T. Melville Hardie, secretary.

University of Michigan.—The annual commencement of the University of Michigan will take place on June 22. Besides the usual antecommencement ceremonies, the medical department will have a special program for its friends and the alumni, an unusual number of whom have signified their intention of being on hand. All the laboratories will be opened on June 19, 20, and 21; demonstrations will be made on special subjects in anatomy, histology, pathologic anatomy, pharmacology, bacteriology, and medical electricity, and clinics will be given in each clinical branch. These exercises will not interfere with those of the general program or with each other.

University Medical College, Kansas City, Mo.—According to the *Kansas City Medical Index-Lancet*, several new members have been added and other changes made in the faculty of the University Medical College. Dr. A. H. Cordier becomes professor of abdominal surgery; Dr. C. W. Dulin, professor of pathology; Dr. B. L. Sulzbacher, professor of histology; Dr. Chas. E. Wilson, professor of anatomy; Dr. B. C. Hyde, chief demonstrator and adjunct professor of anatomy; Dr. Jabez N. Jackson, professor of principles and practice of surgery; Dr. J.W. Perkins, professor of principles and practice of surgery; Dr. H. C. Crowell, professor of diseases of women; Dr. M. B. Ward, professor of clinical gynecology; P. H. Young, Esq., professor of medical jurisprudence. The other members of the faculty were unanimously reelected.

Chicago Medical Society.—At a meeting held May 10, Dr. Joseph Zeisler presented a case of **pityriasis rubra pilaris** (Devergie.)

He gave a short historical sketch of this disease with special reference to lichen ruber. While believing that Kaposi's lichen ruber acuminatus is identical with the above-named dermatosis, he considers this as totally different, both clinically and pathologically, from lichen planus. The patient, a young man of 23, had been affected since his early childhood, and exhibited in a marked way the chief characteristics of the disease, viz.: large areas of erythrodermia; a branny desquamation on many of these places; exaggeration of the natural folds and furrows in the affected regions; horny, punctiform, blackish plugs on the dorsal surface of the hands, chiefly the first phalanges, and also the ulnar side of the back of the hands, corresponding to the follicles of lanugo hairs; hyperkeratotic scaly patches over the knees and elbows; absence of itching; mucous membranes free. The differential diagnosis was fully discussed. The pathology was considered and illustrated by excellent microscopic sections.

SOUTHERN STATES.

Georgetown University, Washington.—At the graduation exercises of the School of Medicine, held May 15, the address to the graduates was delivered by Dr. J. Madison Taylor, of Philadelphia.

Medical Department of Tulane University, Louisiana.—Dr. Wm. Perkins has been appointed Assistant Demonstrator in the Laboratory of Operative Surgery, vice Dr. T. F. Richardson, who resigned to enter the Marine-Hospital Service.

Johns Hopkins Hospital Medical Society.—At a meeting held Monday, May 8, Dr. Welch presented a very interesting communication on **Pulmonary thrombosis and embolism with hemorrhagic infarction of the lungs.**

A specimen was shown in which there was a thrombus plugging the main branch of one of the pulmonary arteries and its branches. Since Virchow's memorable article such thrombi have been regarded as being of embolic origin. Occasionally the embolus can be distinguished from the thrombus proper. The plugs in the medium and smaller branches of the pulmonary artery are more interesting. They are usually derived from thrombi situated in the right auricle or in the apex of the right ventricle. A thrombus from one of the auricles of the heart was shown which demonstrated beautifully the ribs of Zahn, which are really the ends of the columns of platelets and leukocytes which give thrombi their coral-like structure so well described by Aschoff. Pulmonary emboli are not uncommon after operations which apparently heal without suppuration. Notwithstanding the fact that there is no infection of the wound, these emboli are generally regarded as being infective. In a certain percentage of cases of plugging of the pulmonary artery and its branches there is no evidence of an embolus. As a result of pulmonary thrombosis or embolism, hemorrhagic infarction of the lung is common. The infarction is not always hemorrhagic. In rare instances it may be white or anemic. Hamilton and Grawitz explain the hemorrhagic character of the infarction on the view that the blood escapes into the bronchus and is then aspirated into the air-cells. Virchow, although he referred to embolism of the pulmonary artery or its branches as the possible cause of hemorrhagic infarction, was not a strong supporter of this view. Some have held that the plug in the artery is secondary to the infarction. Those in the pulmonary veins undoubtedly are; but those in the arteries are not secondary. Hamilton and Grawitz hold that pulmonary infarctions are not necrotic. This view is not correct, however. Necrosis, commencing in the center and spreading towards the periphery, does actually occur. Dr. Welch thinks that the attacks recently made on the embolic theory of pulmonary infarction have only tended to strengthen it. If one systematically and carefully examines the branch of the pulmonary artery leading to the area of infarction he will almost invariably find a plug in the vessel.

Dr. Kelly reported three operative cases before the Society. The first was that of a woman with **extensive syphilitic ulcer of the rectum.**

She was successfully operated on after 19 unsuccessful attempts had been made elsewhere to relieve the condition.

The second case was a patient who had suffered from **extensive carcinoma of the uterus.**

Vaginal hysterectomy had been performed in a new way. An incision was made in the anterior wall of the vagina; the bladder was then separated from the vagina and the fundus of the uterus caught with forceps and drawn down through the vaginal incision. The uterine vessels were next tied and the uterus divided into halves. The half that was easier to remove was then excised and subsequently the more difficult half was removed. The ureters were catheterized before the operation. Dr. Kelly believes that this method of performing hysterectomy will be the one he will adopt in the future.

The third case was a woman who had a very pendulous abdomen resulting from a **diffuse lipomatosis of the abdominal wall.**

For the patient's relief a large portion of the abdominal wall, measuring 85 cm. in length and weighing 7,450 grams, was removed.

Dr. Bloodgood reported on the advisability of **early operation in tuberculous hip-joint disease.**

A man had recently come under his care, who, for four months, had complained of pain in and stiffness in the hip-joint. Tuberculosis was suspected and an operation performed. Rather extensive disease of the joint-capsule and head and neck of the femur was found. Complete eradication of the diseased bone was carried out and the subsequent treatment for such cases adopted. In two months the patient was able to walk about apparently healthy and without joint-symptoms. In a second case, a young girl, aged 15, rest and fixation had been carried out faithfully in the hospital at intervals for four or five years. The patient recently returned to the hospital still complaining of pain in the hip-joint. Operation was decided upon and there was found a healed tuberculous abscess beneath the fascia lata of the thigh. There was no evidence of disease of the head of femur. Had this patient been operated upon 8 or 9 years ago the chances are that she would have been relieved of that many years of suffering and inactive life. The patient since the operation has not suffered any pain and there are good chances of a complete recovery. Dr. W. B. Platt, in discussion, also strongly advocated early operation in tuberculosis of the hip-joint.

MISCELLANY.

American Climatological Society.—At the recent meeting held in New York, the following officers were elected for the ensuing year: President, Dr. A. Jacobi, New York; vice-presidents, Dr. R. H. Babcock, Chicago; Dr. J. W. Brannan, New York; secretary and treasurer, Dr. Guy Hinsdale, Philadelphia; council, Dr. S. E. Solly, Colorado Springs; Dr. James B. Walker, Philadelphia; Dr. E. Fletcher Ingals, Chicago; Dr. E. O. Otis, Boston; Dr. Beverly Robinson, New York.

Obituary.—Dr. Marcus W. Allison, Hagerstown, Md., April 28, aged 56 years.—Dr. Merritt A. Boas, a member of the faculty of the College of Medicine and Surgery, St. Louis, April 28, aged 46 years.—Dr. J. Marion Mathes, Sullivan, Ind., May 5, aged 58 years.—Dr. Leon A. Schaeffer, Kansas City, Mo., May 1, aged 57 years.—Dr. Llewellyn Beaver, Reading, Pa., May 2, aged 84 years.—Dr. John S. Helm, Peru, Ind., May 1, aged 73 years.—Dr. Francis Brodske, Racine, Wis., April 30, aged 38 years.—Dr. Charles Weber, Reading, Pa., May 1, aged 74 years.—Dr. Gaston C. Bordis, Plattenville, Pa., May 1, aged 52 years.—Dr. George H. Williamson, Delphos, Ohio, May 1, aged 45 years.—Dr. M. B. Ferguson, New London, Conn., May 6, aged 60 years.

Changes in the Medical Corps of the U. S. Navy

for the week ending May 13, 1899:

Rosenbleuth, J. C., passed assistant surgeon, orders assigning to "Newport" modified; ordered to the "Vermont,"

Wise, J. E., medical inspector, detached from the Asiatic Station and ordered to the Naval Hospital, Yokohama, Japan, for treatment; thence home to wait orders.

Young, L. L., passed assistant surgeon, sick leave extended two months.

Rogers, F., surgeon, detached from the "Buffalo," directed to be examined for promotion May 15, and ordered home to wait orders.

Rosenbleuth, J. C., passed assistant surgeon, detached from the "Vermont" and ordered to the "Buffalo."

Blakeman, R. S., assistant surgeon, detached from the "Buffalo" and ordered home to wait orders.

DeValin, C. M., passed assistant surgeon, detached from the "Brooklyn" and ordered home to wait orders.

Grove, W. B., assistant surgeon, detached from the "Vicksburg," when put out of commission, and ordered to the "Brooklyn."

Furlong, F. M., assistant surgeon, detached from the "Seindia," when put out of commission, and ordered to the "Independence" temporarily.

Changes in the U. S. Marine-Hospital Service,

for the seven days ended May 11, 1899:

Murray, R. D., surgeon, granted leave of absence for 15 days from June 4, 1899. May 11.

Peckham, C. T., surgeon, when relieved from duty at New Orleans, La., by Passed Assistant Surgeon J. A. Nydegger, to rejoin station at Pittsburg, Pa. May 8.

Peckham, C. T., surgeon, to proceed to Neville Island, Pa., for special temporary duty. May 8.

Vaughan, G. T., passed assistant surgeon, detailed by the Secretary of the Treasury as delegate to represent the Treasury Department at the meeting of the International Tuberculosis Congress at Berlin, Germany, May 24 to 27, inclusive. April 27.

Nydegger, J. A., passed assistant surgeon, to rejoin station at New Orleans, La. May 6.

Stewart, W. J. S., passed assistant surgeon, to proceed to Nantucket, Mass., for special temporary duty. May 10.

McMullen, John, assistant surgeon, upon being relieved from duty as sanitary inspector on U. S. transport "Buford," to report to the medical officer of the service at the U. S. Immigration Depot New York, N. Y., for temporary duty. May 9.

von Ezdorf, R. H., assistant surgeon, detailed as inspector of quarantines. May 9.

Heiser, V. G., assistant surgeon, detailed by direction of the President, for duty in the office of the United States Consul at Naples, Italy. May 6.

Heiser, V. G., assistant surgeon, upon being relieved from duty at the Immigration Depot, New York, N. Y., to report at Washington, D. C., for instructions preliminary to departure for Naples, Italy, for duty. May 8.

Hobdy, V. C., assistant surgeon, relieved from duty at the Reedy Island Quarantine Station aad directed to proced to Stapleton, Staten Island, N. Y., and report to medical officer in command for duty and assignment to quarters. May 10.

Corput, G. M., assistant surgeon, granted leave of absence for 7 days. May 11.

BOARD COVENED.

Board convened to meet at Detroit, Michigan, on May 20, 1899, for the physical examination of Surgeon John Godfrey, M. H. S. Detail for the Board: Surgeon H. W. Sawtelle, Chairman; and Passed Assistant G. M. Magruder, Recorder.

Changes in the Medical Corps of the U. S. Army.

Owen, Major W. O., brigade-surgeon, is relieved from duty in the department of the Pacific and will proceed to San Francisco, Cal., reporting by telegraph to Surgeon-General U. S. Army.

Poindexter, Captain Jefferson D., assistant surgeon, in addition to his other duties, is assigned to duty as acting brigade-surgeon, Third Brigade, Second Division, relieving Captain G. D. DeShon, assistant surgeon.

Webber, First Lieutenant Henry A., assistant surgeon, is relieved from duty in the department of the Province of Havana and Pinar del Rio, and will proceed to Puerto Principe, Cuba, for duty.

Anderson, John B., hospital steward, is relieved from duty in the department of Matanzas and Santa Clara, and will proceed to Havana, Cuba, reporting on the hospital ship "Missouri," for assignment to duty.

Gibson, Major Robert J., surgeon, is assigned to duty at Angel Island.

Raymond, Captain T. U., assistant surgeon, is charged with the duty of meeting all transports and main steamers entering San Francisco from Manila and Hong Kong, and of procuring a correct and complete list of all military passengers on these vessels, for immediate transmission to headquarters department of California. He will be responsible that all the sick are transported to the U. S. General Hospital, Presidio, and that no enlisted men in the service of the United States are permitted to leave the vessels until interviewed by him to ascertain their condition, and directed where to report under their orders.

Greenleaf, Colonel Charles R., assistant surgeon, will proceed from Savannah to Atlanta, Ga., on business pertaining to the inspection of the medical supply depot at that place, and the U. S. General Hospital at Fort McPherson, and on completion of this duty will return to Savannah, Ga.

Quinton, Captain William W., assistant surgeon, is relieved from further duty in the department of Santiago, and on the expiration of his present leave will proceed to Havana, Cuba, for assignment to duty.

The following-named officers are detailed to represent the medical department of the Army at the annual meeting of the American Medical Association, to be held at Columbus, Ohio, June 6 to 9: Lieutenant-Colonel Benjamin F. Pope, D. S. G.; Major Wm. B. Davis, surgeon; Captain Merritt W. Ireland, assistant surgeon. Major Davis and Captain Ireland will proceed to Columbus in time to reach there on or before June 6, and upon the adjournment of the association will return to their proper stations.

Ford, First Lieutenant Joseph H., assistant surgeon, is relieved from duty at U. S. General Hospital, Savannah, Ga., and will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Fauntleroy, First Lieutenant Powell C., is granted leave for 10 days. May 10.

Kemp, First Lieutenant Franklin M., assistant surgeon, is relieved from further duty in the Philippine Islands, to take effect when his services can be spared, and will then proceed to Fort Hamilton for duty.

Pilcher, Captain James E., assistant surgeon, now at Savannah, Ga., is relieved from station at Fort Crook.

Purviance, Captain Wm. E., assistant surgeon, is relieved from duty at the U. S. General Hospital, Fort McPherson, and will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Hartung, Henry, hospital steward, hospital ship "Missouri," will be sent to Governor's Island, for assignment to duty at a post in New York Harbor.

Health-Reports.—The following cases of smallpox, yellow fever, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service during the week ended May 13, 1899:

Smallpox—United States.

			Cases.	Deaths
Alabama:	Mobile	May 5	2	
District of Columbia:	Washington	May 11	No new cases.	
Florida:	Jacksonville	April 29-May 6	7	
Georgia:	Savannah	May 9	4	
Illinois:	Chicago	April 29-May 6	1	
Indiana:	Evansville	April 29-May 6	9	
Kansas:	Emporia	May 6	4	
"	Garnett	May 6	1	
"	Kansas City	May 8	32	8
Louisiana:	New Orleans	April 29-May 6	5	
"	Shreveport	May 8	1	
Maryland:	Baltimore	April 29-May 6	2	
Massachus'ts:	Boston	April 29-May 6		1
Michigan:	Benton Harbor,	April 29	Present.	
"	Kalamazoo Twp.	April 29	"	
Minnesota:	St. Paul	April 29	1	
Ohio:	Cincinnati	April 28-May 5	15	1
"	Cleveland	April 29-May 6	16	
Pennsylv'a:	Erie	May 2	1	
"	Johnstown	April 29-May 6	1	
"	Steelton	April 22-29	1	
Rhode Island:	Providence	May 10	1	(seaman)
Tennessee:	Nashville	April 28-May 6	1	
Texas:	Galveston	April 22-29	5	
"	"	April 29-May 6	7	
"	Laredo	April 15-22	3	1
Virginia:	Newport News	May 6-8	2	
"	Norfolk	May 5-11	20	
"	Portsmouth	May 5-11	10	
Washington:	Spokane	May 6	5	
Wisconsin:	Milwaukee	April 29-May 6	1	

Smallpox—Foreign.

Belgium:	Antwerp	April 15-22	4	2
Brazil:	Bahia	April 8-15	2	1
"	Rio de Janeiro	March 24-31	6	4
China:	Hong Kong	March 25-April 1	4	1
Columbia:	Barranquilla	April 8-15	4	
Egypt:	Cairo	April 1-8		1
Greece:	Athens	April 15-22	15	4
Mexico:	Chihuahua	April 29-May 6		1
"	Mexico	April 23-30	10	2
"	Vera Cruz	April 20-27		1
"	" "	April 27-May 3		2
Russia:	Moscow	April 1-15	18	7
"	Odessa	April 15-22	6	1
"	Warsaw	April 1-15		8

Yellow Fever.

Mexico:	Vera Cruz	April 21-27		2
"	" "	April 22-May 3		10

Plague.

Arabia:	Aden	April 7	One case of plague on steamship Caledonia from Bombay.	
China:	Hong Kong	March 11-25	9	7
"	" "	March 25-April 1	7	9
India:	Bombay	March 27-April 4		892
"	Calcutta	March 18-25		138

American Gynecological Society.—Program of the Next Meeting.—The twenty-fourth annual meeting will be held at Philadelphia, May 23, 24, and 25. The session will be held in the Hall of the College of Physicians, corner of Thirteenth and Locust Streets. The profession is cordially invited to attend:

May 23, morning session at 9 o'clock. Roll-call, reception of guests, etc. Address of welcome by Dr. Edward L. Duer, of Philadelphia. Early Abdominal Section for Fibroid Tumors, with a Tabular List of All Operations Prior to 1865, by Charles P. Noble, of Philadelphia; Etiology of Non-malignant Rectal Stricture in Women, by Reuben Peterson, of Grand Rapids, Mich.; Sixty-five Consecutive Abdominal Sections without Death; with Clinical and Pathological Reports, by Hunter Robb, of Cleveland; A Case of Spondylolisthesis, with Demonstration of the Pelvis, by J. Whitridge Williams of Baltimore. Afternoon session at 2.30 o'clock. Report of the Committee on Antistreptococcic Serum in Puerperal Sepsis, by William R. Pryor, of New York; Report of a Case of Kraurosis Vulvæ, by J. Montgomery Baldy, of Philadelphia; Inversion of the Uterus, by B. Bernard Browne, of Baltimore; Thrombosis Following Celiotomy in Aseptic Cases, by Henry C. Coe, of New York; Clinical Data Bearing Upon Tubercular Peritonitis, by Egbert H. Grandin, of New York; The Avoidance of Infection Following the Operation for Complete Tear of the Recto-vaginal Septum and The Localization of Obscure Pain in the Side, by Howard A. Kelly, of Baltimore.

May 24, morning session at 9 o'clock. Is a Sloughing Process at the Child's Navel Consistent with Asepsis in Childbed? by Robert L. Dickinson of Brooklyn; Surgical Treatment of Acute Puerperal Sepsis, with Special Reference to Hysterectomy, by H. N. Vineberg, of New York; The Abuse of the Curet in Puerperal Fever, by Robert A. Murray, of New York; Experience in the Use of Tuffier's Angiotribe in Intrapelvic Surgery, by Clement Cleveland, of New York; The Use of Compression Forceps in Salpingo-oophorectomy and Hysterectomy, with Remarks upon the Angiotribe, by I. S. Stone, of Washington; President's address at 11 o'clock. Afternoon session at 2.30 o'clock. Vaginal Celiotomy, by A. Lapthorn Smith, of Montreal; The Treatment of Broad Ligament Cysts by Vaginal Incision and Drainage, by T. J. Watkins, of Chicago; Surgery of the Ovaries and Tubes per Vaginal Incision, by William H. Wathen, of Louisville; Surgery of the Ovaries, by Fernand Henrotin, of Chicago; Remote Results of Shortening the Round Ligaments by Vaginal Section, by Henry T. Byford, of Chicago; The Scope of Vaginal Work, by J. Riddle Goffe, of New York. Executive session at 5 o'clock.

May 25, morning session at 9 o'clock. Tuberculosis of the Kidney as an Indication for Nephrectomy, by Edward Reynolds, of Boston; Abdominal Operations for Conditions Complicating Typhoid Fever, by J. Wesley Bovée, of Washington; Management of Surgical Injuries to the Ureters, by Beverly McMonagle, of San Francisco; Use of Iodoform Gauze in Pelvic Disease of Women, by William R. Pryor, of New York; Conservative Gynecology, by Seth C. Gordon, of Portland, Me.; Report of the Committee on the Use of Mammary and Thyroid Extracts in Solid Tumors of the Uterus, by Wm. E. Moseley, of Baltimore. In memoriam: Dr. Theophilus Parvin, by William H. Parish of Philadelphia; Dr. James H. Ethridge, by Fernand Henrotin, of Chicago.

American Medical Association—Section on Ophthalmology.—The following is the program:

Addresses by Invitation, "Advances in the Surgical Treatment of Strabismus," Dr. Edmond Landolt, of Paris; "Some Points in the Symptomatology, Pathology and Treatment of the Sinuses Adjacent Accessory to the Orbit," Dr. Charles Stedman Ball, of New York City; "The Rise of Ophthalmic Surgery in the United States of America," Dr. Charles A. Oliver, of Philadelphia; Aluminium Spheres as a Substitute for Glass Balls in Mules' Operation, D. C. Bryant, Omaha, Neb.; Treatment of Trachoma by Cupric Electrolysis, George F. Keiper, Lafayette, Ind.; Fractures of the Orbital Plate of the Frontal Bone, with Report of Cases, J. O. McReynolds, Dallas, Tex.; On Seeing the Capillary Circulation in One's Own Retina, C. E. Norton, Lewiston, Me.; Uncommon Expressions of Ethmoidal Sinus Disease and its Ocular and Orbital Symptoms, Robert Sattler, Cincinnati, Ohio; Subjectoscope or Some Subjective Visual Sensations, Hamilton Stillson, Seattle, Wash.; Nutrition of the Crystalline Lens and its Relation to Cataract Formation, Lewis Stricker, Cincinnati, Ohio; Excessive Myopia: When Should We Operate and How? Andrew Timberman, Columbus, Ohio; Quinin Blindness in a Young Child, H. Moulton, Fort Smith, Ark.; Nasal Stenoses in their Relation to Ocular Disturbances, Bryson Delavan, New York City; Eye Troubles Attributable to Nasopharyngeal and Aural Disturbances, Joseph A. White, Richmond, Va.; Diseases of the Accessory Sinuses in their Relation to Diseases of the Eye, J. H. Bryan, Washington, D. C.; Cyst of the Iris Following Iridectomy for Cataract Extraction, S. C. Ayers, Cincinnati, Ohio; Relation of Accessory Cavities to Ocular Affections, C. R. Holmes, Cincinnati, Ohio; Ocular Manifestations of Arteriosclerosis, with Report of Cases, Charles H, Beard, Chicago; Pathologic Influence of Antral Cystitis in Lachrymonasal and Ocular Lesions, S. Lewis Ziegler, Philadelphia, Pa.; Analysis of Cases of So-called Chronic Glaucoma, with Special Reference to the Visual Field, Geo. E. de Schweinitz, Philadelphia, Pa.; Operative Treatment of Chronic Glaucoma, Alex W. Stirling, Atlanta, Ga.; Whether to Operate in Glaucoma Simplex: An Analysis of 16 Cases, Robert L. Randolph, Baltimore, Md.; A Clinical and Pathologic Study of a Case of Hemorrhagic Glaucoma, Wm. Campbell Posey, Philadelphia, Pa.; Significance of Certain Rare Forms of Ametropia, S. D. Risley, Philadelphia, Pa.; Management of Cases of High Anisometropia, Edward Jackson, Denver, Col.; Astigmatism After Cataract Extraction, C. F. Clark, Columbus, Ohio; On Very High Astigmatism, T. B. Schneidemann, Philadelphia, Pa.; Surgical Treatment of High Degrees of Myopia, H. V. Wurdemann, Milwaukee, Wis.; Experiences of Secondary Capsular Operations, J. M. Ray, Louisville, Ky.; National Recognition of Eyestrain Reflexes, Geo. M. Gould and Helen Murphy, Philadelphia, Pa.; On Variations of the Cylinder Axis (Torsion of the Globe) in Distant and Near Fixation, W. Franklin Coleman, Chicago; Radical Cure of Vernal Conjunctivitis, L. Webster Fox, Philadelphia, Pa.; The Papillitis Accompanying Brain Tumor, John E. Weeks, New York City; Some Questions Arising During the Treatment of Migratory Ophthalmia, Adolf Alt, St. Louis, Mo.; Some Clinical and Pathologic Notes on Migratory Ophthalmia, Harold Gifford, Omaha, Neb.; The Question of Operation on the Injured Eye in Sympathetic Ophthalmia, Robert Sattler, Cincinnati, Ohio; Value of Cycloplegia in Optometric Examinations, C. M. Culver, Albany, N.Y.; Why the Negro Does Not Suffer from Trachoma, W. M. Cowgill, Paducah, Ky.; Demonstrations of Moist Specimens Showing Relations of Accessory Sinuses to Orbit, C. R. Holmes, Cincinnati, Ohio; Concerning Bacteriology of Acute Catarrhal Conjunctivitis, C. A. Veasey, Philadelphia, Pa.; Report of a Case in Which Both Eyes Were Lost From Intraocular Hemorrhage After Cataract Extraction, Albert R. Baker, Cleveland, Ohio; Secretion and Exudation Considered as a Factor in Diseases of the Eye, John W. Wright, Columbus, Ohio; A Case of Convergent Strabismus Measuring Sixty-two Degrees (Observed in the Clinic of Dr. Edmond Landolt) and its Management, William B. Meaney, Louisville, Ky.; Mucocele of the Newborn, Clark W. Hawley, Chicago; Phorometer or Maddox Rod; Which? Alvin A. Hubbell, Buffalo, N. Y.; A few Thoughts Indicating a Causative Connection Between the Uric-acid Diathesis and Astigmatism Against the Rule, Louis J. Lautenbach, Philadelphia, Pa.; Report of a Few Cases of Retinal Disease Following Febrile Affections that Attacked the U. S. Troops in Porto Rico During the Recent Campaign, W. K. Rogers, Columbus, Ohio; Relation Between Glaucoma and Detachment of the Retina; With Report of a Case, Allen C. Haight, Chicago; Relative Frequency of Iritis in Syphilis and Rheumatism Observed in 300 Cases, Randolph Brunson, Hot Springs, Ark.; Electrocautery in Affections of the Lids and of the Cornea, Flavel B. Tiffany, Kansas City, Mo.

American Medico-Psychological Association (late Association of Medical Superintendents of American Institutions for the Insane).—The following is the program of the fifty-fifth annual meeting to be held in the Waldorf-Astoria Hotel, New York, May 23, 24, 25, and 26:

May 23.—Address of Welcome, Rt. Rev. Henry C. Potter; Address of Welcome on behalf of the Medical Profession of New York City, Dr. E. G. Janeway; Response by President, Dr. Henry M. Hurd; The Practical Value of Prophylaxis in Mental Disease, Dr. A. B. Richardson, Massillon, O.; Progress in the Clinical Study of Psychiatry, Dr. Edw. Cowles, Waverley, Mass.; The Imagination in Relation to Mental Disease, Dr. R. H. Chase, Frankford, Philadelphia; Remarks on Contagion and Infection in Insanity, and Measures of Prevention, Dr. Richard Dewey, Wauwatosa, Wis.; The Role of Wound-Infection as a Factor in the Causation of Insanity, Dr. A. T. Hobbs, London, Ont.; The Puerperal Insanities, Dr. H. A. Tomlinson, St. Peter, Minn.; Relations of Renal Disease to Mental Derangement, Dr. W. L. Worcester, Danvers, Mass.; Paretic Dementia—Its Etiology, Dr. Sanger Brown, Chicago; Differential Diagnosis of Paretic and Pseudo-Paretic States, Dr. A. W. Hurd, Buffalo; Lesions of the Intro-Cortical Vessels in Brain Syphilis and Paresis, Dr. Henry J. Berkley, Baltimore; Vocation and Paretic Dementia, Jos. G. D. Rogers, Logansport, Ind.

May 24.—Our Work and Its Limitations, Dr. E. C. Runge, St. Louis; The Legal versus the Scientific Test of Insanity in Criminal Cases, Dr. Carlos F. MacDonald, New York; The Psychology of Criminals and a Plea for the Elevation of the Medical Service of Prisons, Dr. J. B. Chapin, Philadelphia; Some Inconsistencies, Legal and Medical, about Insanity, Dr. J. T. Searcy, Tuscaloosa, Ala.; Judicial Errors in Lunacy, Dr. George Villeneuve, and Dr. E. P. Chagnon, Longue Pointe, Que.; Annual Address at the Academy of Medicine, Dr. Frederick Peterson, New York.

May 25.—Thyroid Extract—Its Place in the Therapeutics of Insanity, Dr. William Mabon and Dr. W. L. Babcock, Ogdensburg, N. Y.; Reflex Irritation with Especial Reference to Eyestrain—A Factor in Nervous and Mental Disease, Dr. Chas. A. Drew, State Farm, Mass.; Ephemeral Mania, Dr. T. J. W. Burgess, Montreal; Disorders of Sleep among the Insane, Dr. Theo. H. Kellogg, New York; The Boarding-Out Treatment of the Insane in America, Dr. G. Alder Blumer, Utica, N. Y.; The Nature and Principles of Psychology, Boris Sidis, M.A., Ph.D., New York; The Physiological and Morphological Basis of the Retraction Theory, Dr. Ira Van Gieson, New York; The Retraction Theory from Psychical Standpoint, Dr. William A. White, Binghampton, N. Y.; The Internal Structure of the Ganglion-Cell, Dr. Stewart Paton, Baltimore; The Desirability of Close Connection between Psychological Laboratories and Hospitals for the Acute Insane, Dr. Samuel B. Lyon, White Plains, N. Y.; The Pathology of Epilepsy with an Introduction to a New Treatment, Dr. Chas. G. Hill, Baltimore; The Public Care of the Epileptic in Massachusetts, Dr. Owen Copp, Palmer, Mass.; The Treatment of Epileptics in Colony, Dr. J. Frank Edgerly, Oakbourne, Pa.; The Palates of Idiots, Dr. Walter Channing, Brookline, Mass.

May 26.—Hospital Dietary, Dr. F. C. Hoyt, Mt. Pleasant, Ia.; Inhibition of Speech and Writing, Dr. Richard Dewey, Wauwatosa, Wis.; A Review of the Literature Published for the Instruction of Nurses in Institutions for the Insane, Dr. W. D. Granger, Bronxville, N. Y.; Metaphysics, Dr. H. C. Eyman, Cleveland; The Importance of Better Cooperation and Organization Among Private Hospitals for the Insane, Dr. J. J. Kindred, Astoria, N.Y.; Christopathy—A Glance at the Neuropathic Side of Christian Science, Dr. C. H. Hughes, St. Louis.

The following are the officers: President, Dr. Henry M. Hurd; vice-president, Dr. H. A. Gilman; secretary and treasurer, Dr. C. B. Burr; auditors, Drs. H. A. Tobey and C. G. Hill. Councilors for three years: Drs. J. W. Babcock, J. P. Wade, C. W. Page, and L. C. Mead. Councilors for two years: Drs. J. T. Searcy, F. C. Hoyt, T. J. W. Burgess, and H. C. Eyman. Councilors for one year: Drs. Edw. Cowles, G. Alder Blumer, W. M. Edwards, and Jos. G. Rogers. Committee on arrangements: Drs. Peter M. Wise, B. Sachs, A. E. MacDonald, Sam'l B. Lyon, Frederick Peterson, Henry M. Hurd, *ex-officio*, and C. B. Burr, *ex-officio*.

Foreign News and Notes.

GREAT BRITAIN.

Mr. J. Y. W. MacAlister, librarian of the Royal Medical and Chirurgical Society, who in his official position has known intimately every prominent medical man in London for some years, is employing his experience in writing a collective **biography** of the principal members of the British medical profession of the nineteenth century.

The Medical Register.—"*The British Medical Register* for 1899 has just made its appearance," writes a correspondent on May 3d. "This tardiness of publication would not seem to be due to any particular care in the compiling of the official roll of the profession if the *Lancet's* claim to have found the names in it of 21 dead men in 21 minutes is accurate."

The Royal Society of Edinburgh.—At the last meeting of the Royal Society of Edinburgh an interesting paper was read by Dr. Carlier upon the changes that occur in the cells of the newt's stomach during digestion. The paper was an elaborate study of cell-physiology and proved among other things that digestion began at the upper end of the stomach and passed in a wave down to the lower end, while there was an interval of from one and a half to two hours between the beginning of the secretion in the upper and lower ends. Dr. E. W. W. Carlier is lecturer on experimental physiology and histology in the University of Edinburgh.

Sir Henry Ackland, late Professor of Medicine at Oxford University, and one of the most venerated and picturesque personalities at that seat of learning, has just published an eloquent appeal to the public begging them to found in Oxford a perfect institution for instruction in sanitary science, so that the value of the medical missionary's work in India may be recognized and enhanced. As a matter of fact, the work of missionaries is received somewhat coldly in England, and it will need all Sir Henry's enthusiastic eloquence to raise much money to endow any system of religious proselytizing. But the need of an institution at Oxford for the teaching of sanitary science should of itself, without reference to missionary work, suffice to open the purse-strings of the public.

The Royal Society of London.—Among the candidates for election into this exclusive body, whose names have been recommended by the council for favorable acceptance, are three medical men, Dr. H. Head, Dr. E. H. Starling, and Professor Windle. Of these, Professor Bertram C. A. Windle is the best known to persons outside the closer rings of science. He is Professor of Anatomy and Dean of the Medical School of Mason University College (the Birmingham Branch of Victoria University), and is the author of a "Manual of Surface Anatomy," an excellent treatise, and of many erudite papers on anatomical and embryological subjects. Dr. Starling, who is lecturer on physiology at

Guy's Hospital, is an authority on his subject, especially on the chemico-physical side of it. Dr. Head has done some good neurologic work.

The Liability of the Prescribing Chemist.—For many years there has, in different parts of the United Kingdom, been a growing feeling among medical men that the chemist takes too much upon himself; that he, in fact, encroaches upon the province of the medical man by giving with the remedies which he dispenses advice which should only be given by a qualified medical man. Any case, therefore, in which a chemist gets into trouble through a mischance following upon his prescribing is sure to obtain considerable publicity. The case of Coleman *vs.* Coldwell & Co., which has just been decided in the High Court, was a typical one. A child was taken to a dispensing chemist with ringworm. The chemist prescribed a mercurial ointment, but omitted to write down how the ointment was to be used. The mother of the child put the ointment on a piece of rag and placed the rag upon the eruption and left it there until severe inflammation was set up; and when this occurred brought an action against the chemist for negligence. The defence was that the mother had been told merely to smear a little ointment on the diseased patch with a handkerchief and then to wipe it off again. The judge held that it was a proper case to come before the High Court because of the importance of the principles involved; and the jury considered that, whatever might be the verbal directions, negligence was proved by the absence of written instructions. The child was therefore awarded £5 as damages; and though the case was not one for exemplary penalty, the verdict may deter some prescribing chemists in their too adventurous career.

The Prince of Wales' Hospital Fund for London.—The secretaries of this fund published during the first week in May an urgent appeal for subscriptions and donations to enable them to distribute at least £50,000 this year to the metropolitan hospitals. To enable the Fund to do this a very large sum—some £30,000 or so—is still required, and in the opinion of many it is doubtful if it will be forthcoming. The impetus of Queen Victoria's Diamond Jubilee, in honor of which it will be remembered the Fund was started by her eldest son and heir, wanes each year. Londoners are not certain that the charity started so auspiciously two years ago will be a very long-lived one. It would be a thousand pities if the Prince's Fund were after all to fail, as it has been the means of securing already a very large addition to the revenues of the hospitals, but if the income can only be kept up by persistent begging the applications will gradually but surely come to be regarded as a nuisance, and the answers to them will become less and less satisfactory. Some people, and not those who know least about the subject, think it would be wise if the Prince's Fund were amalgamated with the Metropolitan Hospital Sunday Fund. This latter Fund has been in existence 26 years, and has distributed a million of money. It has become an *annual* institution, while the Prince's Fund remains in the popular mind a *special* institution connected with the Diamond Jubilee. At the present moment the two funds work in opposition, though professing not to do so. In the first week in June the appeal of the Hospital Sunday Fund will go out. How can its results be other than affected by the appeal of the Prince's Fund sent out to practically the same people one month earlier? But if the two funds worked together, if the enormous influence of the Prince of Wales and the aristocratic prestige connected with his fund were added to the honorable history and popularity of the Hospital Sunday Fund, the public might contribute a resulting total larger than the two separate totals and of a more stable nature.

CONTINENTAL EUROPE.

University of Kazan.—Dr. Kazem-Bek Mirza has been appointed extraordinary professor of medical diagnosis.

University of Dorpat.—Dr. Werner Zoege von Manteuffel has been appointed extraordinary professor of surgery.

University of Geneva.—Dr. Aime Pictet has been appointed professor of biologic chemistry, toxicology, and pharmaceutic chemistry.

University of Cracow.—Professor Kader, of Breslau, has been offered the professorship in surgery and the directorship of the surgical clinic.

A contribution amounting to about $75,000 has been donated by Baron Heyl zu Herrnshein, a National Liberal member of the Reichstag, Berlin, toward furthering the movement for the erection of sanitariums for tuberculous patients.

A Hospital and Home for Cats.—The daughter of Claude Bernard has established and is maintaining, just outside of Paris, a hospital and home for cats. This is a partial recompense to that animal for the number sacrificed by her eminent father.

University Students.—The number of students at the largest ten universities in the world is as follows: Paris, 12,047; Berlin, 10,306; Madrid, 6,143; Vienna, 5,710; Naples, 5,103; Moscow, 4,461; Budapest, 4,407; Munich, 3,997; Harvard, 3,674; St. Petersburg, 3,615.

A University for Women in Moscow.—A gentleman named Astrakoff, a well-known engineer lately deceased in Russia, devised 1,000,000 roubles to be devoted to the foundation of a university for women in Moscow. A medical faculty will be included among the departments. The Russian government has voted to contribute 3,000 roubles yearly toward the maintenance of the institution.

Russian School-Children's Teeth.—The Russian Public-Health Society has appointed a committee, under the presidency of Dr. Limberg, for the organization of a regular system of dental inspection and treatment in schools not only in St. Petersburg, but throughout the empire. As a preliminary step the committee has sent out a circular of questions to all heads of schools of the lower and middle grades, and to all practitioners having medical charge of such schools.

The Association of French Chemists has appointed a committee to arrange for the erection of a monument to the French chemist and apothecary, Pelletier (born 1788, died 1842), second director of the school of pharmacy at Paris, and to Caventon (born 1795, died 1877), professor of toxicology at the same school, because they, in the year 1820, were the first to obtain quinin from the raw bark. The monument is to be unveiled in 1900 at the international pharmacist congress in Paris.

The Secouristes Français is a society which aims at instructing the general public in rendering first aid to people injured in accidents whilst awaiting the arrival of the doctor. This society was founded 6 years ago by M. Alb. Rousselet. It is recognized to be of public utility, therefore it can legally accept bequests made to it. There are in the Seine department more than 30 sections of Secouristes Français, each directed by a medical man. At Caen and Laon there are also Secouristes Français. The same society in existence at New York was founded by a Frenchman.

The Food of the German Soldier.—The German soldier used to be given only 2 meals daily, breakfast and dinner. The latter meal was given at 11 o'clock in the day, and from that hour till breakfast the following morning he had nothing to eat except what he was able to provide out of his own pocket. January 1, 1897, however, a step forward was made, and the soldier was given 2 evening meals in the week; the further additional meal for the remaining 5 days has now been granted, and for the future the German soldier will be served daily with a substantial evening meal.

The 24th Convention of the German Association for the Promotion of the Public Health will meet in Nürnberg on September 13–16. The subjects are: (1) Lighting from the hygienic standpoint, Prof. Dr. Crismann, of Zurich; (2) Need of greater cleanliness in small shops where food is sold, Prof. Dr. Hein, of Erlangen; (3) Importance and duties of school-physicians, Geh. Oberschulrath Dr. Schubert, of Nürnberg; (4) Measures against the smoke nuisance in cities, Baudirector Prof. v. Bach, of Stuttgart, or Ingineur Haier, and Stadrath Otterman, of Dortmund.

As a sign of the times Prof. Erb's remarks at the opening of his clinic (Heidelberg University) are interesting. He would have his students understand that the success of the physician is growing more and more difficult. Three factors are active in this: The Krankenkassen with their poorly-paid doctors; the growing quackery ("Curpfuscherei"); and the increased requirements demanded by the growing intelligence of the world, and by the advances in medical knowledge. Formerly the physician was the important social factor in his community; now he has to contend with many rivals. Speaking of the importance of his department he said that nine-tenths of the cases coming before the general practitioner are of *Innere Medicin.*

The Paris Hospitals.—M. Napias, Director of the Public Assistance, in his report on "Les Services des Établissements Hospitaliers," makes the following statements: The number of beds is utterly inadequate to the demands upon them. The sick and indigent population has increased, while the number of beds has remained stationary. A great many of the hospitals are in imminent danger, owing to their condition, of falling to pieces; others are solidly built, but are thoroughly insanitary; others are solid in some parts of the buildings, whilst in other parts are falling into decay. M. d'Echérac declares that these facts cannot be contested. The Pitié Hospital, the old Hôtel-Dieu Hospital, Saint Antoine, Cochin, Andral, Aubervilliers, Saint Louis, Broca, La Salpêtrière, etc., prove their truth.

Convention of German Physicians.—The annual congress was held in Dresden, April 22. On the question of whether the convention favored or not the free election of physicians in the Krankenkassen, 107 delegates, representing 12,065 votes, were for, and 29 delegates, with 1,538 votes, were against the resolution. This does not seem to settle the matter here, for there is still much discussion and dissatisfaction, both with the existing state of affairs and with the proposed remedy. Geh. Sanitätsrath Dr. Wallichs, of Altona, opened a discussion as to changes in the law governing insurances of life and health, but the convention was averse to the proposals. Geh. Rath Prof. Eulenberg brought up the subject of quackery ("Curpfuscherei"), and the convention voted to appoint a commission of 5 to recommend to the government the necessary amendments to the existing laws. Nothing was done in the matter of putting all accident-stations in the hands of approved physicians.

Disinfection of Flats in Paris.—According to the *British Medical Journal,* the Sanitary Council of the Seine discussed at a recent meeting Dr. Le Roy des Barres's report on the necessity of making compulsory the disinfecting of flats after every removal. The landlords would thus be rendered responsible. At present, disinfection is not legally prescribed, even in cases of illness included in the list of notifiable diseases. It is true that the municipal disinfecting service is constantly applied to by people wise enough so to act without compulsion, but the very large section who have not this wisdom can spread infection around them. The sanitary commission of the fifth arrondissement, in order to guard against the danger that threatens those who occupy dwellings not disinfected by outgoing tenants after illness of an infectious nature has occurred, demands that disinfection of all dwellings shall be compulsory after illnesses even of a doubtful character. M. Le Roy de Barres, admitting the desirability of such a law, nevertheless, in order to obtain some improvement, advises compulsory disinfection after each case of notifiable illness.

The Respectable Age of Calot's Method of Forcible Straightening of the Spine in Pott's Disease.—The *British Medical Journal* states that in the *Archives Orientales de Médecine et de Chirurgie* for March

"Dr. Voronoff, of Cairo, quotes some passages, and reproduces illustrations from the Latin translation of Avicenna's *Canon Medicinæ,* published at Venice, 1562, which show that the forcible straightening of the spine in cases of Pott's disease, recently introduced as a new method by M. Calot, is as old as the tenth century, possibly older; for Avicenna, whose span of life is indicated by the dates A.D. 980–1036, does not claim the method as his invention. The following passages show the procedure adopted by the Arabian physician. In angular curvatures, the operator, fixing the patient's body with his knees, pressed forcibly on the projecting part:

> In illa (*s.c.* gibbositate) quae est ad anteriora extorta, spes est parva . . . illa vero quae est ad posteriora, indiget ut genibus teneantur vel amplectentur sicut operantur balneatores et onerent vel aggravent super eam cum fortitudine.

The surgeon sometimes stood on the patient's back:

> Aut faciat ipsum jacere super ventrem suum et stet super eum cum calcaneis suis.

He even made forcible pressure with a heavy pestle. Forcible extension was also made with primitive-looking apparatus of a fearsome kind, pressure at the same time being made on the hump with the hand; in refractory cases a man sat on the patient's back:

> Quod si fuerit nobis necesse sedere super ipsum, faciemus illud et non timebimus aliquid."

In this connection it is interesting to note that Ridlon and Jones, in the PHILADELPHIA MEDICAL JOURNAL, Vol. ii, page 167, state that this method, which is here attributed to the tenth century, was practised by Hippocrates (460–357 B.C.) and by Galen (130–200 A.D.), and continued in vogue for more than 1300 years.

The annual Congress of German Psychiatrists was held in Halle, April 22. Privat Docent Dr. Hoche, of Strassburg, spoke on the **present status of the neuron-theory.**

The theory in its present form is 8 years old; Waldeyer said that the nervous system was made up of countless units lying against each other, whose interaction causes excitation. The present attack on the theory does not concern the fact that the unit appears in the development, but does contest the unit-theory as applicable after development. While no general verdict can be given, the speaker maintained that the original idea can no longer be maintained; but that the neuron-development has not been disproved; that the experience of histologists and physiologists with their experimentation compels us to hold fast to the trophic and functional individuality of the neurons,—which does not prevent the surrender of the idea of their histologic individuality.

Dr. Voight, of Berlin, spoke on **Projektionsfaserung of the cerebrum,** confirming in general Flechsig, but casting doubt on the latter's evaluation of the brain-periphery. Dr. Falcklam, of Lübeck, presented a case of **compression-myelitis of the lower cervical and upper dorsal cord.** Dr. Bruns, of Hanover, discussed "Erkrankung" of the **optic nerve in the early stages of sclerosis.** In 70 cases of sclerosis, 30 showed plainly an affected sight Sehstörung). Since this affection comes very early in the disease, and also very regularly, the speaker regarded the act important for diagnosis.

Dr. Weygandt, of Heidelberg, spoke on **psychic exhaustion through hunger and loss of sleep.**

> By means of a long series of experiments was established hat hunger has but a slight exhausting effect; but that it id affect the perception and memory. Loss of sleep has a reater and indeed a general effect. The animals killed hrough loss of sleep in the experiments showed great disortions and changes, and principally in the brain. In conlusion, the speaker demanded that children be allowed eep not only sufficiently long, but also as regular as posble.

The Assistance Publique of Paris.—The *Lancet* ates that in the month of December, 1896, the Municipal ouncil asked the prefectoral administration to prepare an estimate showing the minimum sum necessary for the thorugh carrying on of the various departments of the Assistnce Publique. This report calls for a total of over 72,000,000 . distributed as follows: (1) New buildings—(*a*) hospitals or adults; hospitals with 500 beds on the right bank, 7,700,00 fr.; rebuilding the hospital of La Pitié, 500 beds, 5,500,000 .; rebuilding and enlarging the Aubervilliers hospital, 600,000 fr.; rebuilding and enlarging the Broussais hospital, 500,000 fr.; a special hospital on the left bank for skin-iseases and syphilis of 1000 beds, 11,000,000 fr.; rebuilding he Broca Hospital, 1,650,000 fr.; total, 37,950,000 fr. (*b*) hildren's hospitals for general diseases; rebuilding and imroving a hospital of 376 beds, 3,760,000 fr.; erection outside aris of a hospital of 200 beds for children suffering from uberculous bone-disease, 1,060,000 fr.; total, 4,820,000 fr.) Infirmaries: Brevannes, improvement and construction a building for 1,400 beds, 4,660,000 fr.; La Rochefoucauld, nlargement, 1,000,000 fr.; total, 5,660,000 fr. (*d*) General rophylaxis against tuberculosis, 4,300,000 fr. (*e*) General xpenses, construction of a central laundry, 2,000,000 fr.; of central linen store, 500,000 fr.; total, 2,500,000 fr. (2) Reairs and improvements: Adults' hospitals, 6,531,000 fr.; hildren's hospitals, 837,000 fr.; infirmaries, 799,000 fr.; aison de retraite, 562,000 fr.; sundry expenses, 189,000 fr.; otal, 8,918,000 fr. (3) Renewals of linen, 1,500,000 fr.; reerves for unforeseen expenses, 6,414,000 fr.; total, 7,914,000 Grand total, 72,062,000 fr. The adoption of this budget ould allow of the establishment of 2,810 new beds, of hich 1,600 would be in infirmaries and 1,210 in hospitals. present many beds in the hospitals are occupied by hronic cases owing to want of room in the infirmaries, so hat this new scheme would set free a number of beds for acute cases. If the Municipal Council adopts this program, as probably it will, the Prefect of the Seine will ask for powers to issue bonds to produce the sum of 75,000,000 fr. The expenses and repayment of the loan will be provided for by a special rate.

The Bavarian Code of Medical Ethics.—The *British Medical Journal* states that a committee of the Medical Councils of Bavaria, appointed for the purpose, has recently drawn up a code of medical ethics. The general principles set forth are the same as those accepted by members of the medical profession in all civilized countries. It is considered contrary to medical etiquet for a practitioner to sell drugs or apparatus, to sell a practice, or to serve as an intermediary in such negotiations, to seek to get patients through midwives, bath-attendants, etc., to publish testimonials and thanks from grateful patients, to publish reports of medical cases otherwise than in professional journals, to prescribe advertised medicines "notoriously inefficacious," to "cover" unqualified practitioners, to be present at operations by persons not belonging to the medical profession. Consultation is permitted with any practitioner eligible for membership of the Medical Councils and "remaining within the province of scientific medicine." Punctuality at consultations is insisted upon. If the consultant fails to appear within 15 minutes, the practitioner in charge prescribes. The consultant, in the absence of the practitioner in charge, must go away without examining or prescribing unless the case be urgent, and if he lives at a distance, when he may examine and leave a written statement of his opinion for the practitioner in charge. The consultant must on no account put on any air of superiority, and must not criticise the previous treatment. In case of disagreement a third practitioner must be called in, or if this cannot be done the practitioner in charge must state the case to the family, and leave them to decide. If no understanding can be come to the consultant must retire, after stating his reasons. As regards fees, local medical societies should fix a tariff which shall be binding on all their members; there may be special tariffs for towns or for particular districts, but these must be accepted by the local society. Contracts with corporations, insurance societies and establishments must be approved by the society, which may refuse to sanction them when the fees are lower than those in use. Rebates may be made in the case of poor patients, but every reduction of fees must be formally intimated at the time of settlement. The practitioner should not treat gratuitously any patient in a position to pay. Applications for appointments, public or private, must never be accompanied by offers of reduction of fees or by depreciation of other candidates. Medical practitioners and their families should be treated gratuitously. A practitioner should do duty for a professional brother in case of short illness or absence, but this is not made to apply to confinements or operations.

The Morphology of the Blood as Related to Pathologic Alterations of the Liver.—In a recent number of the *Archives Russes de Pathologie de Medicine et de Bacteriologie*, Wlaeff states that:

> The function of the liver in hematosis is not yet completely elucidated; moreover, the diagnosis of diseases of the liver present, at times, real difficulties. For a solution of this first problem and as an aid to the clinician he has, for the past eight years, conducted a series of observations in the laboratories of Prof. Pasternatzki (St. Petersburg) and Prof. Metchnikoff (Pasteur Institute, Paris), upon the blood of patients (adults) suffering from different diseases of the liver. Parallel experiments were made upon animals. Be-

fore setting forth the results of these researches, the author wishes to call attention to the white globules. Nearly all authors (Ehrlich, Auskoff, Gabritchewsky) are agreed upon the following grouping in normal blood of the white globules: (1) lymphocytes, 30%; (2) intermediary forms of the white globules, 10%; (3) neutrophiles (polynuclears), 60 to 70%; (4) eosinophiles, 0.5% to 0.2%. In making a comparative study of the blood, in diseases of the liver, the spleen, pernicious anemia, ulcerative endocarditis, septicemia and cancer of the stomach, it is constantly observed that the blood, in hepatic diseases, presents modifications quite special as to the number and morphology of its elements. These lesions are much more striking when the pathological process is farther advanced. After an examination of the blood, the clinician can make a diagnosis of any disease of the liver, thus excluding diseases of other organs and differentiating between the particular hepatic malady, *i. e.*, cirrhosis, hydatid cysts of the liver, catarrhal jaundice, cancer of the liver, pernicious anemia, etc. When a hydatid cyst is located in the liver at some distance from the biliary canals and larger bloodvessels, the blood possesses very little that is abnormal. In cirrhosis of the liver the number of red globules is diminished from 5 to 3 millions, the number of white globules is slightly augmented, however, never surpassing 20,000. Instead of 90% to 95% of hemoglobin, only 50% to 60% is found. The percentage of lymphocytes and of the intermediary forms of the white globules fall to 12% (25% to 30% normal) of the former and 3.5 (9% to 10% normal) of the latter, polynuclears 80% and 5% of eosinophiles (maximum). These morphological modifications are still more marked in **malignant tumors** of the liver. In these cases the lymphocytes are but 4%. Intermediary white globules 2.6%. The polynuclears mount up to 93%. The eosinophiles have a variable oscillation, below the normal. The number of white globules vary between 16,000 and 50,000; at times the red globules fall below 1,000,000. The percentage of hemoglobin and the specific gravity of the blood are much diminished. In pernicious anemia the observer will find a marked diminution in the number of white globules. Their morphology, however, shows no change. In pseudoleukemia the number of leukocytes at times falls far below the normal, the number of red globules is lowered and the nucleated red globule is frequently observed; the proportions of the different groups of leukocytes present little similarity to that of leukemia. The principal difference between pseudoleukemia and a malignant tumor of the liver consists in the striking augmentation of the white globules in the former, whereas in the latter disease there appears a large number of nucleated red globules. At the commencement of an attack of leukemia (splenic) before the liver is much invaded, the percentage of lymphocytes, as well as the intermediary white globules and eosinophiles is increased, at the same time the percentage of polyneuclears is decreased. As the disease progresses and in proportion to the invasion of the liver and interference with its function the percentage of lymphocytes falls and that of the polynuclears rises. The literature of this subject, the experiments conducted by him upon animals, and the constant encounter of the same morphologic modifications of the blood in the different diseases of the liver, lead him to the following conclusions: There exists in the liver a compression of the blood contained in the inferior vena cava and that from the abdominal organs, that favors an intimate and rather prolonged contact of the globules and the hepatic cells. These cells are pouring into the blood the injurious principles and at the same time drawing from the blood the elements necessary for their life and function. Upon the other hand, the necessary hepatic contribution to the proper life and complex function of the blood is deranged. This harmonious action of the liver being interfered with and the injurious elements in the blood no longer eliminated, abridges the life of the red globules and arrests the successive transformation of the white globules. In the pathology of leukemia the possibility of the formation in the adult of blood-globules by the endothelial cells of the capillaries of the liver, is admitted.

MISCELLANY.

The Sultan and His Surgeon.—The *Frankfurter Zeitung* relates an extraordinary story about Emin Pacha, the Chief Surgeon to the Sultan of Turkey. He is said to have been charged, on information given by his wife, plotting against the Sultan. Although it is generally b lieved that the lady's action was prompted by the wish for separation from her lawful spouse, it is thought likely tha Emin Pacha will be condemned to lifelong banishment.

Obituary.—Mr. Jabez Hogg, London, April 23, aged 8 years. He was the first president of the Microscopical Soc ety, vice-president of the Medical Society of London, a fello of many learned bodies, for over 25 years one of the surgeon to the Westminster Ophthalmic Hospital, and a frequen contributor to medical literature. He will be well remem bered for his work on "The Microscope," the first edition which was published in 1854, and the fifteenth during th present year.—Dr. Carlo Minati, sometime lecturer on ob stetrics and recently professor of the history of medicine i the University of Pisa.—Dr. LeSourd, editor of the *Gazet des Hôpitaux*, Paris.

Medical Progress in Siam.—The *British Medical Jour nal*, quoting the *Times*, states that in a recent article a cor respondent records gratifying improvement in the genera condition of the Siamese kingdom. In Bangkok some at tempt has been made at sanitation in deference to the per sistent advice of English health-officers; roads have been cu and trees planted; latrines have been put up and refuse col lected, and improved hospital accommodation provided But there is no water-supply, and in this great city of mor than 400,000 inhabitants the people have to drink the pol luted and often brackish river-water. Thousands of lives ar every year sacrificed to the Menam waters. There is a Bel gian physician to the King of Siam, but the health-officer are British. Progress, it is believed, would be more rapi but for two chief causes: (1) the multitude of advisers wit which the King has surrounded himself, and (2) the masse of Asiatics who have been admitted to foreign protection.

The Treatment of Leukorrhea by Injections o Yeast.—Landau (*Deut. med. Woch.*, March 16, 1899) ha found injections of yeast into the vagina of great value i leukorrhea, especially that form due to chronic gonorrhea He has employed this treatment in 40 cases, and claims tha in more than half all traces of discharge ceased after one o two applications. In a few cases there was considerabl improvement, in and a few cases there was none. Ordinar brewer's yeast was employed, diluted sufficiently with wate so as to pass through a gonorrheal syringe. From 10 cc. t 20 cc. were thrown into the vagina, a tampon being then in troduced, and the fluid allowed to remain for 24 hours. Thi injection was repeated every two or three days, and con tinued for one or more weeks. No unpleasant effects wer noticed, except in a couple of cases, in which itching wa excited which was relieved by soda-injections. The autho offers the following explanation of the good effects of th yeast: (1) The crowding out of the organisms producing th leukorrhea by the overgrowth of the yeast fungi. (2) The consumption of nutrient substances necessary to the exist ences of the offending organisms. (3) The direct action o the metabolic products of the yeast-fungi.

Treatment of Epidemic Cerebrospinal Menin gitis by Inunctions of Unguentum Credé.—Schrime (*New Yorker medicinische Monatsschrift*, vol. x, No. 11, 1898 reports 9 cases of epidemic cerebrospinal fever in which h employed successfully inunctions of unguentum Credé. Case in which the treatment was not begun until grave symptom appeared recovered, and in no instance was there left behin defect of special senses. One ounce of the ointment wa rubbed in daily for 3 days, and one-third of an ounce at eac relapse. In addition hot-water bags were applied to th spine, antiseptic applications were made to the nasophar ynx when possible, and small doses of trional were adminis tered when there was much restlessness.

The Latest Literature.

British Medical Journal.

April 29, 1899. [No. 2000.]

1. Eye-Complications of the Acute Specific Fevers. Percy Flemming.
2. Vaccination and Smallpox in the Italian Army. Ridolfo Livi.
3. Pemphigus Contagiosus. N. Gordon Munro.
4. Malaria and Pregnancy. F. H. Edmonds.
5. Eczema Treated by X-rays. C. Thurstan Holland.
6. Obstinate Hiccough. W. Bezly Thorne, Harold Gurney, and E. Mansel Sympson.
7. Dislocation of the Radio-Carpal Joint. J. D. Macalister.
8. Excision of Breast Scirrhus; "Recurrence" Nearly 12 Years Afterwards. Herbert Snow.
9. Operative Treatment of Distended Small Intestine in Acute Obstruction and in Acute Peritonitis. C. Hamilton Whiteford.
10. Hemorrhage from the Bowels in a Case of Granular Kidney. Allan I. Petyt.
11. Case of Cystic Disease of the Breast in a Boy Aged 3 Years. D'Arcy Power.
12. Colotomy, Simple and Complicated.

1.—Flemming considers the various modes in which **infection of the eye** may take place. More commonly the conjunctiva becomes inflamed, as a part of the general catarrhal condition, or the inflammation may spread by continuity of structures. The involvement of the deeper structures he believes is due to the absorption of toxins, but there is also, in addition, an explanation to be found in the proximity of other infected fossæ. Thus infection and suppuration in one of these might readily penetrate the thin septum of bone that intervenes and give rise to direct infection. The same depressing effect of fevers that renders the patient liable to the infection of organs such as the lungs acts upon the eye as well. The neglect of these late inflammatory conditions, for the most part superficial in the first instance, leads to destructive inflammation of the deeper tissues of the eye. Their early detection and the application of appropriate prophylactic measures will in almost every instance prevent serious injury. The hemorrhagic tendency that is noted in many of these fevers may bring about impairment of vision, either by producing retinal hemorrhage or possibly atrophy of the optic nerve may follow hemorrhage into its sheath. Any injury or exhaustion of the nervous system may disarrange the centers of coordination and the excessive strain on the weakened centers may produce a squint. A pseudoglioma may result from an infective otitis media which has resulted from an exanthemata. The acute Bright's disease, which may occur with any of these fevers, may result in retinal complications, which may appear as sequels of the disease. The author then describes the various lesions found in the specific fevers and details their method of treatment, which in general is based upon the aseptic and antiseptic principles of ophthalmic surgery. [c.l.l.]

2.—Livi, from a statistical study on **vaccination and smallpox** in the Italian army, points out that smallpox was more prevalent when vaccination was not so general than it is at the present time, and that never-vaccinated individuals have the greatest rate of successful vaccination, while the least rate always belongs to the variolated. He notes a regular augmentation in the general proportion of successes in vaccination in the years from 1867 to 1897, due partly to the improvement in vaccination-technic, to the greater facility of securing a first-rate lymph, and partly also to the gradual replacement of arm-to-arm vaccination by animal vaccination. There has been a constant diminution in the number of smallpox cases in the army since 1867. From a serious mortality it has been reduced at the present time almost to nil. Sickness presents a parallel diminution. This is probably dependent upon stricter isolation of the patients, more rational disinfection, but in large part to protection by vaccination. It is unquestionably shown that those who have never been vaccinated, when attacked by smallpox, have the greatest probability of death, while those who have been recently and successfully vaccinated have the greatest probability of recovery. Livi reaches the conclusion, based upon a study of those who through illness or other causes are admitted to the army and not vaccinated for a period of time after their admission, that if the army were to be exclusively composed of never-vaccinated individuals, there would be, for an average strength of 207,000 men, no fewer than 6,007 smallpox cases each year, with an annual mortality of 1,561 men. He very naturally remarks that it cannot be perceived upon what proofs, or upon what arguments a serious scientific opposition to vaccination can be grounded. [s.m.h.]

3.—**Pemphigus contagiosus,** according to Munro, is characterized by the presence of one or more bullæ appearing simultaneously or in succession and spreading by contagion from one part of the skin to another or from person to person. Each bulla is preceded by a spot of hyperemia which marks the site of the coming vesicle and spreads with the development of the latter as a thin areola or surrounding circle sometimes not very evident. An itching, burning or stinging sensation usually attaches to this spot, decreasing with the advent of the vesicle, and returning again when the collapse of the vesicle brings the superficial and deep layers of the epidermis in contact. Each vesicle or bulla contains a clear fluid with a few cells from the stratum granulosum, leukocytes and a micrococcus. This micrococcus is undoubtedly the specific cause of the disease. The bullæ often become confluent when not widely separated. Marked constitutional disturbances rarely exist. The disease closely resembles true pemphigus. The pemphigus acutis infantum of Europe is probably identical with it. It also closely resembles impetigo contagiosa. Pemphigus contagiosus, however, does not begin with a febrile attack, does not invariably form pus, is more commonly distributed on the limbs and trunk than on the face and scalp, the scabs and exfoliations which spread around the periphery of the ruptured vesicle are not formed mainly of dried pus, but of desquamated epithelium, which may continue to exfoliate for weeks, and lastly, micrococci are invariably present in the fluid from the vesicles; these points serve to distinguish it from impetigo contagiosa. The treatment is mainly local, the use of corrosive sublimate soap for washing the surrounding skin, sublimate or ichthyol compresses and the use of an ointment of white precipitate and naphthol with a dusting-powder of dermatol and borax in infants usually ends the disease in a week or 10 days. Tonics are often required in tedious cases. Arsenic, quinin and iron serve the purpose best. [s.m.h.]

4.—Edmonds, of Demerara, discusses **malaria and pregnancy** and is convinced, after 20 years' active work in malarious districts, that malarial fever is responsible for a large number of stillbirths. He is of the opinion that malaria, by rapidly raising the body-temperature, tends strongly to abortion and miscarriage, and that the early use of quinin by reducing the temperature lessens very considerably the stillbirth rate. [w.k]

5.—Holland had under his care a girl, aged 19 years, who had a chronic **eczematous eruption** covering the whole dorsum of the hand. The skin was thickened, scaly, and there were a number of adherent blackened scabs overlying its surface. The condition had lasted for 5 months. The hand was exposed, on 7 different occasions in the course of a month, to an active x-ray tube. The lower edge of the glass of the tube was held from 4 to 7 inches from the hand. Each exposure lasted for about 15 minutes. At the last exposure the scabs were loose and were picked off. Most of the scales had disappeared. No further treatment was adopted, and about 4 weeks later the hand was entirely well. The curative effect was attributed by Holland to the stimulating effect of the x-rays on the tissues of the diseased hand. [s.m.h.]

6.—Thorne had under his care a woman between 30 and 40 years of age who had frequent attacks of violent **hiccough** in the course of a marked digestive disturbance. No line of treatment seemed to give any relief. Finally tabloids of $\frac{1}{100}$ grain of nitroglycerin were directed to be taken 2 or 3 times a day. The effect was immediate and the malady subdued in about a fortnight. There were no recurrences in the course of 2 years. Gurney also reports a case of obstinate hiccough in a man aged 30, in whom, after many other remedies had failed, a dram of oil of turpentine in a little mucilage caused the immediate cessation of all symptoms.

Sympson saw an obstinate case of hiccough checked in a few hours by the application of a blister on each side of the cervical spine over the region of the third, fourth and fifth cervical nerves. They were applied in this region in the hope of influencing the phrenic nerves. [S.M.H.]

7.—This case is reported as the 31st undoubted case of **dislocation at the radiocarpal articulation.** The reduction was easy and recovery of function speedy. The fall was said to be on the fully-flexed hand. [C.L.L.]

8.—An ill-defined, hard nodule fixed to the fourth rib, below the scar, caused the usual lancinating pain. When excised it proved to be a typical carcinomatous deposit. The cicatrix and axilla were healthy. There was no sternal prominence or other indication of insidious marrow infection. [C.L.L.]

9.—As the result of personal observation in upward of 100 cases of **intestinal obstruction** the author finds that the worst results have occurred when, by a long operation, the damaged bowel has been excised and the ends united by a simple suture or a button or bobbin. Somewhat better are those in which the bowel has been emptied by multiple enterostomies, the incisions being closed at once. The best are those in which a temporary enterostomy has been performed, and the artificial anus closed later when the patient is unpoisoned. He believes that this latter method is the one that should be most frequently employed. [C.L.L.]

11.—The tumor was the size of half a tangerine orange. It appeared to be a **cyst,** and was adherent to the skin. The nipple was normal and there was no dimpling over the tumor. There were no enlarged glands in the axilla or tenderness on palpation. The occurrence is rare in a male of 3 years. The whole breast was removed, as it was difficult to get out all the small cysts that were scattered about. [C.L.L.]

12.—The 3 cases reported illustrate **different phases of colotomy** and the complications that may be met with. In the first the peritoneum was not sufficiently irritated to form adhesions in a week's time, or to be irritated by the action of the feces that followed its prolapse. The second case showed a rare complication, the absence of a mesocolon, while the third illustrated the benefit to be derived from early inguinal colotomy. [C.L.L.]

Lancet.

April 29, 1899. [No. 3948.]

1. Mental Abilities and Disabilities of Children. F. Warner.
2. The Parasite of Cancer. William Russell.
3. Six Months' Abdominal Surgery in Western Australia. E. Paget Thurstan.
4. A Case of Cerebral Abscess Illustrating Certain Forms of Aphasia; No Word-deafness. Alexander Miles and Theodore Shennan.
5. The Incubation-Period of Scarlet Fever, Varicella, Parotitis and Rötheln. Clement Dukes.
6. A Case of Toxemia with Convulsions. C. L. Fraser.
7. Three Cases of Juvenile General Paralysis. D. Hunter.
8. Wounds Caused by Some Projectiles and their Treatment. Edward E. Craster.
9. Suppurating Cysts of Both Ovaries Removed by Abdominal Section 5 weeks after an Abortion, followed by Septic Absorption; Recovery. Ernest A. T. Steele.
10. A Note on the Occurrence of Epithelial Pearls in the Tonsil. Hugh Walsham.
11. Note on the Treatment of Thrombosed Varicose Veins by Excision. F. A. Southam.
12. Hallux Valgus and Hammer Toe. T. S. Ellis.
13. "Replacement of a Severed Portion of the Nose." W. M. Abbot-Anderson.
14. A Case of Acute Tetanus Treated by Serum; Death; Necropsy. James Berry.
15. A Case of Removal of 14 Uric-Acid Calculi from the Bladder by the Aid of an Extempore Rectal Bag. T. Sinclair Browne.

2.—Russell reviews the literature relating to the **parasite of cancer** and concludes that the researches of Sanfelice have been very carefully conducted. The links in the chain of evidence which he presents are simple and strong and are summarized as follows: Investigating blastomycetes, he discovered appearances similar to those described in cancer both inside and outside the cells. Working on these lines, he familiarized himself with the appearances presented in the parasites in the tissues and organs in different animals. He found that in different animals the pathogenic effect varied from a somewhat rapid infection with a great proliferation of the parasite down to a much less acute infection. By inoculating them into the peritoneal cavity in dogs he recovered the parasite in the lymph-glands and passed them through another dog, and so on. Having thus modified the parasite by the chemical vital influences in the dog's body, he inoculated the mammæ and testicles of dogs with the modified organism and found that it produced epithelial growths with metastases. The successes of other investigators in cultivating blastomycetes from tumors, mainly malignant, adds confirmation to Sanfelice's results. That blastomycetes, therefore, occur in malignant growths appears to be established. That the sporozoa may be the cause of some malignant new growths is not necessarily quite disproved, but their cultivation will be a still more difficult matter. With the amount of positive work published the evidence is incontestably in favor of the blastomycetes. [S.M.H.]

3.—Seven abdominal operations are reported: **colotomy** for malignant disease of the rectum; **double oophorectomy;** exploratory operation for advanced malignant diseases; the drainage of **hydatid cysts** of the liver; and the excision of hydatid cysts in the left iliac region and in Douglas' pouch; a case of **appendicitis** in which after operation 2 grape-seeds, 3 fish-bones, a piece of egg-shell, and a tack were found in the appendix; and a case of **nephrolithotomy.** In the latter case there was a history of a fall from a horse 10 years previously, causing passage of much blood. After recovery from the injury there were attacks of renal colic and of gravel. A period of good health followed; then the patient began to suffer acute pain in the lumbar region, to lose flesh, and pass pus in the urine. An incision was made, exposing the kidney, and a stone weighing 2 drams, was extracted from the pelvis of the kidney. An excellent result followed. [M.B.T.]

4.—A man 22 years old, had had a discharge from the left ear, swelling over the mastoid, severe pain over the forehead and temperature of 102.5° F. The mastoid antrum was opened and drained for 6 days. There was improvement for a week, then the patient became uneasy and restless. He was trephined over the posterior part of the temporosphenoidal lobe and an aspirating needle was pushed upward and forward until pus was found. Hernia cerebri resulted, but gradually grew smaller. The cavity was freely opened and drained. After the operation there were evidences of paraphasia and word-intoxication. Gradual improvement took place, however, which continued for a month. It was believed that the lesion affected the connecting fibers from the auditory center to Broca's convolution. Two months after the operation the patient became worse; he complained of pain in the forehead, was drowsy, and had a subnormal temperature and a slow pulse. Cheyne Stokes respiration developed, and the patient became unconscious. Forceps were pushed upward and forward close to the bone, and thick, green, foul pus escaped. A drainage tube was inserted and temporary partial improvement followed. One week later, trephining was performed anterior to the hernia. The next day the patient gradually became worse and died. The symptoms during the last part of the illness were those of general compression without localization symptoms. [M.B.T.]

5.—From an analysis of bedside notes taken by himself during a period of 28 years relative to the **incubation-period** of scarlet fever, varicella, parotitis and rötheln, Dukes gives the following table:

Name of Disease.	Shortest Period of Incubation.	Longest Period of Incubation.	The Largest Number Occur on the Following Days.	The Majority of the Cases Arise Between the Following Days.	Percentage Referring to Previous Column, *e. g.*, 59% Occur Between 2d and 4th Days.
	Days.	Days.	Days.	Days.	
Scarlet fever.	1	9	2d & 4th	2d and 4th	10 out of 17—59.00
Chicken-pox.	13	19	15th	14th and 17th	24 out of 36—66.00
Mumps.	14	25	19th	17th and 20th	50 out of 69—72.46
Roserash.	12	22	16th	14th and 17th	31 out of 40—77.50
Measles.	8	14	11th	9th and 12th	18 out of 24—75.00

The record of the number of times an epidemic has been prevented by an instant isolation of the first and second cases shows to some extent the infectiousness of the diseases in the early stage. Those infectious diseases which have been arrested the fewest number of times are the most infectious at the onset. Rötheln in his experience has been the most infectious in the early period, measles following closely, mumps coming next, scarlet fever and chickenpox being among the least. [S.M.H.]

6.—Fraser reports a case of a **toxemia with convulsions** occurring in a man aged 34 years. He first complained of a peculiar numb sensation in the left arm and hand and the left side of the face and head. He looked as if in perfect health. He did not feel weak, and was free from headache or any other symptom. His urine contained neither albumin nor sugar, nor any trace of acetone; the urea was normal in quantity. The first sound of the heart was subdued and muffled. He had been working very hard for some months and was sent off for a period of 6 weeks' rest. Shortly after his return, at the end of a fatiguing day's work, he was suddenly attacked while going to bed with a violent general convulsion, preceded by the same numb sensation in the arm and leg as referred to above. These seizures succeeded each other in rapid succession and during them his tongue was severely bitten. The convulsions were succeeded by violent vomiting which lasted intermittently for 2 days. The tongue was heavily coated; the breath was very foul. He was dull and stupid for a day or two and had no recollection of what had occurred. The urine now contained albumin, partly due to congestion from the violent fits. The reflexes of the left lung were exaggerated; the pupils were equal on both sides. Sensation was not impaired. There was no optic neuritis. Free bowel-movements were accompanied by enemas and glycerin-injections. These seemed to give great relief. The patient was threatened with another seizure a few nights later, the twitching of the left leg and the numb feeling of the arm having recurred. He was again threatened on the following day and two days later had a pronounced attack. The left leg and arm twitched violently, the patient remaining conscious. Laxatives relieved the symptoms. After a long rest, he had recovered his general health to some extent, but still dragged his left leg a little in walking. Without any apparent cause he one day had another mild convulsion. His convalescence from this was rapid. Three weeks later he had another attack. This time the symptoms began in the leg, spreading up the left side and down the left arm and to the head. These parts became convulsed, and finally all parts of the body were in violent motion, but he did not lose consciousness. The exciting cause of the convulsions was thought to be a toxin or toxins absorbed from the liver or intestines producing an irritant discharging effect on the motor cortical cells in the region of the right fissure of Rolando. [S.M.H.]

7.—Hunter reports 3 cases of **juvenile general paralysis,** 1 in a man, aged 22 years, the second in a man aged 19 years, the third in a young married woman aged 23 years. Cases 1 and 2 lasted longer than the average duration of the adult form, which is usually the case in young paralytics. In the third case menstruation continued, which is contrary to the usual experience in these cases. As to motor symptoms and reflexes, there were tremors in the muscles of the face, feeble, and tottering gait, pupillary anomalies and convulsive seizures in all of the cases; in both male cases violent intention tremors of the upper limbs were a prominent feature of the later stages. The postmortem changes were exceedingly well marked. All of the classic signs were present, and were more pronounced than in ordinary adult cases, especially the widespread and firm pial adhesions. In young subjects a larger proportion of cases seems to be associated with a history of syphilis than is the case among middle-aged patients. In none of these patients were there any of the characteristic signs of this condition discovered at the necropsy, but one patient during life gave a doubtful history of infection. From a personal knowledge of 3 asylums, where large numbers of general paralytics are annually admitted, those with histories of syphilis and definite clinical or postmortem signs of that disease are extremely rare. In one of the cases here recorded an hereditary tendency existed. [S.M.H.]

8.—Four **gunshot wounds** are reported affecting the abdomen; neck; the arm, penis and thigh; and the thigh. Caution is advised concerning or probing cutting for bullets and in regard to early amputation. [M.B.T.]

9.—Steele reports a case of **suppurating dermoid of the ovary.** The cyst had been infected after an abortion 4 weeks previous. Operation was successfully performed. [W.K.]

10.—Walsham considers the occurrence of **epithelial pearls in the tonsils** of especial interest because they are probably the origin of at least some of the so-called tonsil calculi. In one of the cases referred to in his article, one of the pearls showed evidences of calcification. The center of these pearls shows no definite structure. The periphery is composed of horny, squamous epithelial cells pressed tightly together, resembling closely the epithelial cell-nests found in some of the epitheliomata. In the younger specimens the epithelial cells can be traced nearly to the middle of the pearl. They are clearly retention-products and cannot possibly be due to epithelial inclusion, as no fusion of epithelial surface takes place in the tonsil. They are comparatively rare, but are observed at all ages. In addition to these retention-pearls there exist epithelial accumulations in the adenoid tissue of the tonsil, which have not heretofore been described. They are located chiefly in the center of one of the closed lymphatic follicles, and have no connection with the epithelium lining the tonsillar crypts. According to Retterer both the ectoderm and mesoderm take part in the formation of the tissues forming the closed part of the tonsil. The tonsil is formed by epithelial involutions and swelling of the mesoblastic tissue, then by the formation and detachments of terminal epithelial buds. The closed lymphatic follicles are formed by the formation around these buds of lymphoid tissue. As life advances these central epithelial accumulations disappear. It seems reasonable, therefore, that they cannot be regarded as either retention-products or inclusion-products, but must be considered a product of the normal evolution of the organ. [S.M.H.]

11.—The case of a man, aged 44, is reported who had suffered from **varicose veins** of the right leg for 26 years. During 3 years he had had severe attacks of thrombosis. The thrombosed portions of the saphena vein were excised and the wound closed without drainage with an excellent result. [M.B.T.]

13.—The photograph of a man is given who had had a portion of his nose cut off and replaced and sutured. [M.B.T.]

14.—Berry reports a case of **acute tetanus** developing in a man aged 27 years, the symptoms beginning 6 days after an injury to the ball of the great toe. The symptoms began shortly after midday. At 10 P.M. he was given 10 cc. of antitoxin. The wound in the toe was found to be suppurating and was immediately opened and drained. At 4 o'clock the following morning, on account of the violence of the symptoms, he was given an additional 10 cc. of antitoxin. A few hours later this was repeated, and at 3 o'clock in the afternoon 5 cc. was given. About an hour later in a violent tonic spasm, in which the back was so arched that he rested almost entirely on his head and heels, he died. The autopsy showed the brain congested, the arachnoid thickened and opaque, the brain-substance firm. The spinal cord above the lumbar enlargement was very soft, and in the arachnoid there were numerous white, hard spots varying in size from that of a pin's head to that of a split pea. They were most marked over the cervical region and over the cauda equina. The internal organs were generally congested. [S.M.H.]

15.—A case is reported in which 14 uric-acid calculi were removed from the bladder by suprapubic cystotomy. A piece of old inner-tube bicycle-tire was made use of in place of a rectal bag. [M.B.T.]

New York Medical Journal.

May 13, 1899. [Vol. lxix, No. 19].

1. Phocomelus of the Humerus in Epilepsy as a Stigma of Degeneration. With Report of Two Cases. L. Pierce Clark.
2. Inhibition. S. J. Meltzer.
3. Intrauterine Vaporization. Abram Brothers.
4. "Inertia" and Pedicle-twisting. Charles P. Becker.
5. Complete Laceration of the Urethra. With the Report of a Case. Arthur Stern.
6. The Coated Tongue. W. H. Weaver.

1.—Clark describes 2 cases of epilepsy in which there was a shortening of the humerus on one side of the body, and calls attention to the fact that there has been but one other case of epilepsy reported in which this stigma of degeneration is emphasized. The first patient was a girl aged 19 years. She had had epilepsy since 3 or 4 years of age. Her father was intemperate; her mother was rheumatic and died of phthisis at 41 years of age. She was a full-term child, delivered by instruments after prolonged labor. She was injured in the left side and had several convulsions after birth. She was subject to crying spells from infancy and had several convulsions during her first dentition. When about 3 or 4 years old she had a series of convulsions which ended in left-sided hemiplegia and mobile spasm of an athetotic character. For many years the attacks were confined to the left side and always began there. The physical examination of the patient showed a generally poor physique and a poorly-nourished body. In considering the measurements given below he draws attention to the fact that the shortening of the humerus on the right side is not compared with the normal, but with a defectively developed left hemiplegic side. There is no history in this case of prenatal palsy, no suggestion of Little's disease, nor of cerebral hemorrhage at birth. The measurements resulted as follows: The length of the right humerus was 9 inches, that of the left 12½ inches. The circumference of the right arm was 8¾ inches, that of the left 8¼ inches. The dynamometer gave 42 kilograms with the right hand, 38 with the left. The measurements, aside from this, were not suggestive, the right side being a little above the left all the way through. The second patient was a woman, aged 20 years, having epilepsy dating from 18½ years. There was no history of trauma or of complication during her mother's pregnancy. The child was born at full term; the labor was normal. When she was about 4 years old, the right arm was noticed to be smaller than the left, but she had perfect use of the limb. There was no history of any such phenomenon in the family. The patient was bright and capable physically, but had been unable to learn at school. She had a good physique and was well nourished. The measurements of the humerus showed the right to be 7½ inches, the left 12 inches long. The circumference of the biceps was 9¾ on each side. The circumference of the right forearm below the elbow was 8¾ inches, of the left 9½ inches. The dynamometer registered 45 kilograms in the right, 43 in the left. The condyles were found on examination to be much enlarged and protuberant in the shortened humerus. The lower part of the bone apparently suffered as much as the shaft in the process of dwarfed development. The lines running from the shaft to the condyles were proportionately shortened. This latter fact probably accounted for the muscular atrophy or lack of development of the supinators and flexors of the right arm. The line to the internal condyle was a little shorter than that to the external condyle. [S.M H]

3.—Brothers, in writing of **intrauterine vaporization,** says that although the treatment of hemorrhage by heat is of ancient origin, the use of steam, at a temperature of the boiling-point or above, for hemostatic purposes, is of recent origin. After describing the apparatus of Pincus, and citing 21 cases in his own experience, he summarizes the present uses of vaporization or vapocauterization, as follows: (1) as a hemostatic it has been employed most successfully in cases of nonmalignant postclimacteric uterine hemorrhages. It has proved curative in the various irregular bleedings met with in connection with catarrhal fungoid, or hemorrhagic endometritis. It acts as a palliative measure in certain cases of fibroid tumor or inoperable carcinoma associated with hemorrhages; (2) as a caustic it can be relied on to destroy the mucous lining of the uterus, even to the extent of obliterating the uterine canal; (3) as a bactericide it may be used in cases of gonorrheal or septic puerperal endometritis. Fenomenow has repeatedly had the uterus (which was subjected to vaporization and later removed by hysterectomy) examined bacteriologically and proved it to be sterile; (4) to reduce the bulk of the subinvoluted uterus, Pincus has frequently resorted to intrauterine vaporization with success; (5) in chronic suppurating fistulous tracts, Fenomenow has reported successful results in cases of abdominal fistulas of several years' duration, which had resisted all other methods of treatment. [W.K.]

4.—Becker claims that **pedicle-twisting** is largely due to **inertia.** In the human body all the organs are so anchored that they must follow the movements of the trunk. The intestines, through their peritoneal covering, are so well lubricated that they can move with the greatest ease and with less friction than in the best oiled machinery, and torsion and strangulation would take place inevitably on turning the body around if it were not for the mesenteric attachment (which, of course, has other important functions). Ovarian tumors can move with the same absence of friction, and, if they are attached by only a single small pedicle, the latter is liable to become twisted every time the patient turns around. It is only a question of favorable conditions or the reverse. Tumors that are firmly grasped by surrounding viscera will turn with them. Those that lie extremely to one side or the other will be carried around by the revolution of the body just as a ball held in the hand would, unless the person happened to turn round on one leg in such a way that the axis of motion fell within the tumor. [W.K.]

5.—A man aged 34 fell from a ladder, striking midway between the testicles and the rectum on a picket of a fence. Efforts to introduce a soft catheter into the bladder were without avail. External urethrotomy was performed: after separating the superficial fascia a cavity was entered containing about 2 ounces of bloody detritus; the central portion of the urethra was found with difficulty, and owing to the extensive laceration it was impossible to suture the ends together over the catheter; the peritoneal wound was packed and the catheter retained in position. An uneventful recovery followed. The necessity for early recognition and operation in **uretheral injuries** is urged. [M.B.T]

6.—Weaver thinks that from a clinical standpoint the **coated tongue** should be looked upon as a comparative index of the purity or impurity of the blood. Besides the normal constituents of the salivary secretion, which vary within certain limits, there are undoubtedly some abnormal elements which are carried out through the glands from the blood when it is surcharged with impurities. This abnormal saliva, being thrown into the mouth, is subjected to the numerous microorganisms of fermentation. More or less of the solid matters are thrown down and constitute a salivary precipitate which lodges on the teeth and on the dorsum of the tongue, as well as on the gums and lips. It is easily removed from the teeth by the use of the brush. Ordinarily it is allowed to remain upon the tongue until it becomes offensive, consequently communicating an odor to the breath. In Bright's diease, diabetes, and almost any disease in which the nutritive and excretory functions are disordered, this coating becomes very foul, and the fouler the tongue the more serious the condition of the patient, the more sluggish the excretory organs, and the more heavily loaded is his blood with toxins. It is probable that the highly offensive odor has a depressing effect upon the nervous system, if not upon the nutrition, acting as a gaseous poison through the inspired air. He advises the use of a tongue-scraper as a part of the morning toilet, after which a disinfectant should be used. This procedure will remove the foulest odor from the breath. He recommends the same procedure to be applied to surgeons for the sake of asepsis and its thorough application in cases of operation in or about the mouth. Each fever-patient should have his tongue systematically cleaned. [S.M.H.]

Medical Record.

May 13, 1899. [Vol. lv, No. 19.]

1. The Hernia Guarantee and the Minimum of Confinement After Operations for Appendicitis With and Without Pus. GEORGE M. EDEBOHLS.
2. Naupathia. EDWIN K. LOSEE.
3. Successful Excision of Gastric Ulcer. HERMANN GRAD.
4. The Scientific and Practical Medical Aspects of Public-School Inspection. FRANCIS REDER.

1.—Edebohls believes that the value of McBurney's incision in acute **appendicitis** with pus is not sufficiently appreciated. He advises the inversion of the entire appendix into the cecum if possible. In case there is pus a loose, slender column of gauze is arranged for drainage, the amount of gauze is diminished after 2 or 3 days and entirely withdrawn, sometimes so early as the fifth day. As soon as the cavity formed by the gauze is obliterated by granulations e wound is carefully, disinfected the granulations are ghtly scraped away and the granulating surface of the ound is entirely dissected off; the abdominal wall is then osed by 2 tiers of continuous catgut-sutures. . By this ethod of treatment confinement to bed need not exceed a eek. After chronic appendicitis the patient leaves his bed the third day after this secondary operation for closing e wound, and hernia need not be dreaded. [M.B.T.]

2.—Losee believes that **seasickness** is due to the surise of the faculty of the mind underlying consciousness cause it is brought into a condition differing from its lifeng habits, and that it is analogous to strong emotional disrbance, such as fright, joy, etc. There are 3 stages of e disease, depression, exhaustion, reaction; sometimes cessive appetite may be a prodrome. Bromids may be ministered before setting sail, and compound licoricewder may be used as a laxative. [J.S.]

3.—A case of **gastric ulcer** is reported occurring in a man 32 years old, who had been ill for 2 years with naua, vomiting, and pain after eating; occasionally she vomd blood. Various forms of medicinal treatment were ed without results. The symptoms disappeared when the tient was put in bed and rectal feeding ordered, but the in and nausea returned as soon as feeding by the mouth came necessary again from the irritability of the rectum. **eration** was advised and accepted. The stomach was roughly washed out and an incision made parallel to the rder of the ribs on the left side, beginning at the outer rder of the rectus muscle; the stomach was brought into w, and on external examination nothing abnormal was nd. A series of loops of silk suture were passed through serous and muscular coats and a wire frame was introced through these loops to hold the stomach into the dominal wound. On opening the stomach an ulcer about f an inch in diameter was found on the anterior wall near cardia. A purse-string suture was introduced around ulcer, drawn up and tied; the projecting mass, including ulcer, was then excised without any loss of stomachtents, and this area was buried with 2 rows of Lembert's ures; the wounds in the stomach and the abdominal wall e then closed. The operation lasted 2 hours and there considerable shock, but the patient made an excellent overy. [M.B.T.]

.—Reder believes that **systematic medical inspecn of the schools** will obviate many of the dangers due the presence of contagious disease. Children suffering n tuberculosis should not be admitted. Cases of contaus disease should be isolated, and if severe or virulent, all school-property used by that child should be burned. .]

Medical News.

May 13, 1899. [Vol. lxxiv, No. 19.]

he Limitations of Conservative Surgery on the Female Genital Organs. George Ben Johnston.
he Use of Formaldehyd Gas as a Disinfectant for Dwellings, Vehicles and Household Goods. William H. Park.
tology; Its Relation to General Medicine. G. Griffin Lewis.
bstinate Hematuria During Pregnancy. William Byrd Young.
n Improved Urethroscope. Ferd. C. Valentine.

.—Johnston says in regard to the limitations of **convative surgery on the female genital organs** while conservatism properly applied is both wise and ane, to be tolerated it must accomplish what it seeks to In its application, the soundest judgment, the ripest erience, and consummate skill must be present. The culties which encompass it are great, (1) it often entails onged effort, thus increasing the liability to shock; (2) nsive manipulations which denude the peritoneum, eby increasing the risk of infection and setting up postative adhesions and, maybe, intestinal obstruction. By ing with open pus-cavities, grave danger of infection rs. It often requires many wounds, which mean much orrhage, numerous cavities to be repaired, foreign sumaterial left behind to accomplish these repairs, the ible formation of blood-clots, which furnish foci for infection, a likelihood of secondary hemorrhage, perhaps painful scars, and almost certainly, when many points have been subjected to operation, postoperative adhesions; (3) the bruising of tissues incident to harsh methods of controlling hemorrhage, thereby impairing the recuperative powers and thus endangering the success of the undertaking; (4) finally, the ever-present prospect of a second operation. [W.K.]

2.—Park states that for **destroying ordinary bacteria** 6 to 10 ounces of formalin are required for each 1,000 cubic feet, and for the more resistant spore-bearing forms, at least 3 times as much. A moist atmosphere is more favorable for disinfection than a dry one. He enumerates 6 methods of producing the gas, of which he regards Schering's pastilles as the most satisfactory. As a result of experiments performed at the Department of Health Laboratories he concludes that surfaces may be readily disinfected by this substance, but that the penetrative effect of the drug is small. For bedding, carpets, books, etc., at least 10 times the usual quantity should be used and the articles exposed as completely as possible to the gas. Ambulances may be disinfected in a special building. Formaldehyd gas is inferior to steam and dry heat for heavy goods, but is, aside from cost, better and more desirable than sulphur dioxid. [J.S.]

3.—Lewis calls attention to the danger of neglect or improper treatment of **ear-disease,** particularly otitis media. The ordinary application of oil, laudanum, etc., in cases of earache is usually distinctly injurious and should be replaced by the application of a leech or blister in front of the tragus and the instillation of a hot boracic-acid solution. Syringing of the nose and excessive use of the Politzer air-bag are deprecated, and he earnestly cautions against the use of undue force in the removal of foreign bodies. [J.S.]

4.—Young reports an interesting case of **hematuria during pregnancy.** The patient was 6 months pregnant when she first noticed blood in her urine; the symptoms became severe and in a few days the patient miscarried, after which the symptoms gradually disappeared. Young calls attention to the scarcity of literature on the subject. [W.K.]

5.—The apparatus consists of four dry electric cells, that suffice for 350 deliberate urethroscopies. The cost is $1, making the cost of each examination less than one-third of a cent. These batteries can be replaced in 5 minutes if they give out. The urethral tube is similar to Kallman's modification of the Oberlaender tubes. Examinations can be made from either direction. The disc at the visual end is larger than in other urethroscopes. A megaloscope makes the slightest lesions visible. Manipulations can be made under the guidance of the eye, as the light is encapsulated. There is not sufficient heat to trouble the most sensitive, even after 40 minutes of use. [C.L.L.]

Boston Medical and Surgical Journal.

May 11, 1899. [Vol. cxl, No. 19.]

1. Hysteria Simulating Acute Visceral Inflammation. William H. Robey.
2. Poisoning During Chloroform-Anesthesia in the Presence of a Naked Flame. Kenelm Winslow.
3. Diabetes Mellitus in Children. Charles W. Townsend.
4. A Case of Axillary Aneurysm. Geo. H. Monks and F. B. Lund.
5. The Abdominal Bandage in the Treatment of Enteroptosis. Arthur K. Stone.

[The abstract of Dr. S. L. Abbot's article on **dislocation of the os magnum,** which appears in the issue of May 13, instead of reading "bending the wrist forcibly backward," should read *bending the wrist forcibly*, or better, *flexing the wrist forcibly.* M.B.T.]

1.—Robey reports 3 cases of **hysteria closely simulating acute visceral inflammation.** Case I was apparently one of hysterical abdominal pain accompanied by hysterical paraplegia, and the rapid subsidence of the symptoms alone excused more heroic treatment. Case II seems to have been an attack of influenza in a muscular man, whose general resistance was lowered by hard work and the excitement of school and hospital examinations. The abdominal pain which accompanied the onset of influenza persisted, its localization was assisted by the patient's medical knowledge and doubtless by the careful examination of his attendants. On these chances the two attacks which followed the perityphlitic abscess were not thought appendicitis, since the appendix was found in perfectly normal condition, and the patient remembered so accurately the taste of asafetida. Although the surgeons were not unanimous in the decision to operate, still it would seem that, in view of the persistence of the abdominal symptoms, laparotomy was justifiable. In Case III the abdominal symptoms were so similar to those which both of the patient's physicians had long recognized as hysteria that they were deceived. If, in view of the persistence of the abdominal pain and tenderness, an early pelvic examination had been made, the real condition might have been discovered in time to save the patient's life. [W.K.]

2.—Winslow reports that during an obstetric operation in which chloroform was administered to the patient, all those in the room felt a choking and stinging sensation in the throat and chest and had incessant cough and dyspnea. This became so severe that the operation had to be stopped temporarily, and the windows opened; ether was substituted for the chloroform, and the operation was completed without further trouble. The patient suffered no harm. Upon examination of the literature Winslow finds that a number of similar cases are reported, and that these cases usually occurred when **chloroform** was, as in this instance, **administered while artificial light was in use.** In this case there were 3 gas-jets burning while the anesthetic was being administered. There is experimental evidence to show that the administration of chloroform while artificial lights are burning is likely to produce bronchopneumonia and edema of the lungs with marked passive congestion of the liver and kidneys. This variety of poisoning also occurs with some frequency in druggists or chemists who use chloroform in the presence of gas-flames. This danger, when added to the other dangers in the use of chloroform, makes it inadvisable to use this anesthetic in obstetric work, in which night-work is more probable than in other conditions. [D.L.E.]

3.—Five cases are reported which are noteworthy owing to the rarity of the condition in children. The first was a Hebrew child 5 years of age. The second was a child 1 year and 11 months old, of neurotic parentage; the child had been freely indulged at table. The third was 3 years old, without definite previous history. The fourth, 7 years old, had a good family history and was well until after an attack of measles and mumps. The fifth, 9 years old, had scrofulous ancestors, and two of his uncles were epileptics; he had been well until after an attack of whooping-cough, though diabetes had not appeared until about 18 months after this attack. All the children died, several of them in coma. **Diabetes mellitus in children** must not be confounded with a temporary glycosuria, which may appear as the result of digestive disturbance. The symptoms usually seen in diabetes in the very young are incontinence of urine from polyuria, nervous irritability, and excessive thirst; the emaciation, weakness, and loss of color that are common in adults are often absent in children, at any rate until very late. The progress of the disease is very rapid; the cases here reported had a course of but from 1 to 14 months. The children are likely to die in coma. [D.L.E.]

4.—The patient was a laborer, 42 years old. He had a swelling in the axilla that had all the characteristics of an **aneurysm.** The subclavian was first ligated. The distal of the two ligatures applied eroded and there was oozing of dark bloody fluid from the wound, and suppuration, while the pulsation returned in the aneurysmal sac. The axillary artery was ligated on the distal side of the sac, it was opened and the contents removed. The ribs were eroded and infection was present. It became necessary to amputate. He recovered from this operation, but acquired a pyothorax and died 50 days after the amputation and 87 days after the ligation of the subclavian. [C.L.L.]

5.—Stone has observed that most **bandages prescribed for enteroptosis** are likely to increase the trouble rather than cause improvement, since the bandage—as usually made—takes its bearings across the anterior superior spines and crests of the ilia; the intestines are, therefore, likely to slip down below and be compressed downward rather than upward. He, therefore, directs that the bandage be so made that the pressure should be strongest immediately above the pubes, and that care should be taken to examine the patient frequently while wearing the bandage, in order to determine that this pressure is directed properly, both as to place and degree. [D.L.E.]

Journal of the American Medical Association.

May 13, 1899. [Vol. xxxii, No. 19.]

1. Treatment of Acute Rheumatism. HENRY B. FAVILL.
2. Disfigurements of Nose and Mouth. JOHN B. ROBERTS.
3. Congenital Atrophy of Cerebellum. C. G. HUBBARD.
4. Woman. I. N. LOVE.
5. Cerebellar Tumor or Masturbation? RICHARD C. CABOT.
6. Some Reflections upon Cellular Physiology and Pathology. AUGUSTUS A. ESHNER.
7. Subcutaneous Rupture of Large Arteries from Contused Wounds. J. A. CROOK.
8. Mismanagement of the Eyes of Readers. NORBURNE B. JENKINS.
9. Where Are We At? AP MORGAN VANCE.
10. Therapeutic Value of Hypnotism. JOHN R. ROSE.

1.—In the treatment of **acute rheumatism** Favill advises first emptying the bowels with a mercurial purge; he then administers full doses of soda salicylate, but in case this is not well borne he gives oil of wintergreen. If the coal-tar products are contraindicated because of the condition of the heart, opium must be used to control pain. The salicylates are gradually withdrawn and the system is filled with alkali until the active process seems controlled. While giving this treatment or after it, iron is administered, providing the conditions of the bowels and liver permit. At all times the bowels are kept open by cholagogs or salines. [M.B.T.]

2.—The **operative treatment of deformities of the face** is desirable for esthetic reasons because of the great annoyance which such disfigurements cause and because of the interference with respiration, speech and mastication which results from such conditions. Deformities of the nose and mouth are often due to congenital causes, but injuries, syphilis, operations, the unskilful use of caustics, and gangrene following infectious diseases may be other causes. All deformities of the lips should be remedied by plastic operations during the early months of life; protruding or everting lips may be much improved by cutting out a V-shaped portion of the thickness. In case of harelip of moderate degree, the edges of the cleft are freshened and the raw surfaces are brought together with sutures without the use of pins. The skin must not be put so much on the stretch as to make pressure upon the small bloodvessels at the base of the flap, in case a sliding fold is used. Instead of cutting a V-shaped, elliptical, or irregular flap, rotation of a flap attached by a narrow pedicle may be equally efficacious. The skin, periosteum and bone of the forehead may be drawn downward and pushed under the skin of the dorsum of the nose in order to build up a nasal bridge; a defect in the cheek, or at the corner of the mouth may be filled by a flap from the skin of the side of the neck. Skin-grafting by small particles or long grafts is a valuable aid in covering raw surfaces. Saddle-back nose may be improved by slipping a planoconvex portion of celluloid under the skin so as to fill up the hollow. The ala of the nose may be constructed from the tissue of the cheek and a tip may be made by 2 such flaps. A prominent angular nose is easily remedied by incision on the bridge and chiseling away bone or cartilage; twisted and crooked noses can be remedied by deflecting the septum. [M.B.T.]

3.—Hubbard reports the delivery of a female child that weighed 5 pounds and 13 ounces at birth. The child was well-formed except that over the lower part of the occipital bone there hung a sac 3 inches long, 2¾ inches wide and an inch thick at the base. The sac was tapped when the child was a week old to lessen pressure on the brain. After emptying the sac an absence of brain substance was found; the finger could be swept around under the bone within the cranial cavity ½ inch beyond the margin in every direction. The sac was tapped once a week for 3 weeks. After the tapping was discontinued, hydrocephalus appeared and the child died at the age of 4 months, 14 days. At a partial necropsy, the **cerebellum** was found so **atrophied** that its right hemisphere was scarcely half an inch in diameter and the other hemisphere was a trifle larger. [M.B.T.]

5.—A boy, 15 years old, with a family-history of tuberculosis was troubled with weakness of the right hand, frontal headaches, general weakness and nervousness. Somewhat later there was retraction of the head, and rigidity of the muscles of the back; also slight vomiting began, coming unexpectedly, not preceded by nausea; his appetite was good and his bowels were regular. Diplopia was noticed, with weakness of vision and roaring in the ears. Hypophosphites and codliver oil were administered and there was some improvement. A diagnosis of cerebellar tumor was made. Five years after his discharge from the hospital he was seen in perfect health. He stated that at the time of treatment he had the habit of **masturbation** and that he had improved rapidly on breaking off the habit a short time after leaving the hospital. It is doubtful whether his symptoms were entirely due to this cause or to the absorption or incapsulation of a solitary **tubercle of the cerebellum.** [M.B.T.]

7.—A brakeman, aged 23, while coupling cars, had his arm caught between the bumpers of 2 cars, contusing the parts above and below the elbow, fracturing the neck of the radius and rupturing the vessels, although the skin remained intact. There was enormous distention of the arm and great pain. To relieve the swelling punctures were made and the arm was then bathed in hot mercuric chlorid solution and wrapped in cotton wrung out of the solution. There seemed to be some improvement for a few days, but it was not permanent. Sixteen days after the injury the arm was gangrenous, the line of demarcation having formed above the elbow. Amputation was followed by recovery. [M.B.T.]

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merican Gynecological and Obstetrical Journal.

February, 1899.

. The Relations of Pelvic Cellulitis to Recent Pelvic Surgery. Ely Van De Warker.
. Complete Incontinence of Urine. L. Grant Baldwin.
. A Five-gallon Ovarian Cyst Removed from a Girl of 17. R. R. Kime.
. Prolonged Retention of a Dead Embryo within the Uterus. Luther C. Peter.
. Etiology of Movable Kidney. C. S. Bacon.
. Symptoms and Diagnosis of Movable Kidney, with Report of 18 Cases. Gustav Fütterer.
. Symptoms and Diagnosis of Movable Kidney. H. B. Stehman.
. The Surgical Treatment of Movable Kidney. L. L. McArthur.
. Empyema Complicating the Puerperium. D. C. Moriarta.

1.—Van de Warker discusses the **relations of pelvic ellulitis to recent pelvic surgery,** and recites a few elected illustrative cases, saying that if these were multiplied hundred-fold it would simply be of the nature of cumutive evidence, and not serve to render the facts more clear, r the deductions more logical. The motive of the paper is o establish as clear a differentiation as possible between pelic cellulitis and the other forms of pelvic inflammation, and e lays down one rule which he has found a safe guide, amely, infection that follows the route of the sexual canal nd reaches the peritoneum through the tubes, will cause eritonitis. Infection which gains access through lesions of he soft parts will cause cellulitis or inflammation of the mph-channels. Rough or ill-advised intrauterine treatent, or the use of the sound, very often causes serious intraelvic inflammation of a serous form and very rarely cellur. [W.K.]

2.—Grant Baldwin, in discussing **complete incontinnce of urine**, considers only those cases due to injury of he anterior wall of the vagina, causing a prolapse of the pper third of the urethra; necessarily the neck of the adder must accompany it to an uncertain extent; but in o case reported was the bladder sufficiently prolapsed to be lled a cystocele. Partial loss of control of urine is frequently observed, and oftentimes the patient with the least emonstrable lesion of urethra and bladder will suffer much ore from incontinence than another with gross lacerations nd prolapse of the anterior wall, and in many cases it is impossible to determine why this is so. The first case Baldwin ports is that of a married woman, aged 64 years, with a ethra prolapsed in the upper third. Knowing how unsatisctory are the results of operation on the anterior wall of e vagina, he decided not to operate, but used a rather mall and short Emmet hard-rubber pessary, which gave innt, complete, and permanent relief. Why the incontinence should date back only 6 years, her period of widowhood, instead of 20 or more years to the birth of one of her children is unknown. The second case was also in a married woman, aged 57, with complete incontinence except when in a recumbent posture, and though she had been more or less under the care of physicians for 10 years without relief, the same style of pessary accomplished the same result as in the first case. The third case was in a Sister of Charity aged 30 years. The only thing abnormal in the history of this case was obstinate constipation for years, and all the organs were in a normal condition except the urethra, which was torn from its moorings back of and underneath the arch of the pubis. Various forms of pessary were tried without success; but finally a rubber ball was used and found effectual. A ball of pure rubber $1\frac{3}{4}$ inches in diameter has been worn for 6 months and has brought perfect relief. [W.K.]

3.—Kime reports a case of a **five-gallon cyst removed from a girl** of 17. Her convalescence was complicated by pneumonic inflammation, with pulse of 140 per minute; temperature, 103.2° F.; respiration, 40, with marked cyanosis. Though the pulse remained high for some weeks, the patient made a complete recovery and returned home 5 weeks after operation. This case is reported to direct attention to size of tumor and rapid growth compared to age and size of patient; also to note accompanying complications. [W.K.]

4.—Feter reports a case of **prolonged retention of a dead embryo within the uterus.** From this case and others which he quotes he concludes that a dead fetus or embryo may remain in utero indefinitely, either as a dried or macerated mass, or in a state of decomposition. In the latter condition, however, retention is rarely prolonged beyond 3 to 6 months. [W.K.]

5.—Bacon, in discussing the **etiology of movable kidney,** calls attention at the outset to a few striking facts which may serve as a key in solving the problem. These are (1) the condition of movable kidney is much more common in women than in men; (2) the right kidney is affected in 90% to 95% of all cases, the left kidney in only 5% to 10%, and both in 5% to 10%; (3) the movable kidney is generally developed between the ages of 20 and 40 years; (4) most women who suffer from this trouble have had children, or have had some abdominal tumor removed, or have suffered some wasting disease which has left them with relaxed abdominal walls or injured pelvic floors, or they have displaced the abdominal organs by tight lacing; (5) movable kidney is frequently associated with prolapse of the other abdominal organs, the so-called enteroptoses. The chief facts to be explained, and which in turn help to explain the etiology of the disease, are (*a*) the much greater frequency of movable kidney in the right side, and (*b*) the much greater frequency in women. The kidney being held in position by its attachment to adjacent structures and by intra-abdominal pressure, its displacement is due to a combination of two kinds of causes—those which weaken the kidney attachments and those which diminish its support by intra-abdominal pressure. The attachments may be weakened by pressure from above, as in case of enlarged liver or abnormal accumulation above the diaphragm or by tight lacing. They may be weakened by traction made by the ureters, colon, or duodenum. They may also be dislodged by a blow or jar or other trauma. The increased weight of the kidney would always be an important factor, especially in cases of enlargement of the kidney, as in disease, tumor, or menstrual congestion. The attachments may also be congenitally weak, or they may be weakened by emaciating disease when the fat is absorbed. The intra-abdominal pressure is weakened or destroyed by relaxation of the abdominal walls or injuries to the pelvic floor, one or both of which conditions are often the sequelæ of labor, laparotomy, or emaciating disease. [W.K.]

6.—Fütterer reports 18 cases of **movable kidney** and then gives a summary of the chief symptoms. Pains in the back seem to occur most regularly and they are generally of a changing character, from dull to sharp. The next symptom most frequently found is dizziness. Then come those due to enteroptosis and the gastric symptoms. Then those of the circulatory system, consisting of palpitation, sometimes irregular heart action, distention of the abdominal aorta, throbbing of this vessel, kinking of the renal artery, occasionally a bruit in this place. In rare case compression of the cava inferior, edema, of the lower extremities, and even thrombosis of the cava inferior has been observed.

Then the symptoms from the nervous system, neurasthenia, trembling, dizziness; headaches, occipital or frontal, and deep depression. A great many of the symptoms of movable kidney are no doubt caused by pressure on the solar plexus. [W.K.]

7.—Stehman says in regard to the **symptoms and diagnosis of movable kidney** that in its diagnosis reliance to a great degree is placed on palpation and percussion. In differentiating this condition from lesions of other organs there are several anatomic and pathologic facts which, if kept in mind, will help one materially: (1) The post-peritoneal position of the kidney as compared with the liver, spleen, gallbladder, various cysts and growths in the abdominal cavity, which can be easily demonstrated by combining percussion with inflation of the bowel; (2) the reniform shape of the kidney in comparison with the characteristic shape and feel of the spleen, liver, gallbladder, etc; (3) the immobility of the displaced kidney during inspiration and expiration as compared with the descent and ascent of the spleen and liver, and growths with them during respiration; (4) the pulsation of the renal artery, which, if felt at all, will always be recognized as part of the pedicle; for it must be remembered that the range of motion of the kidney is determined by the vessels, nerves, and ureter; (5) the ease with which the organ can frequently be moved from place to place, and restored to its normal position in comparison with organs or growths whose positions are fixed; (6) tenderness on pressure and the sickening sensation which is produced by compressing the organ between the hands. [W.K.]

8.—McArthur discussses the **surgical treatment of movable kidney,** and claims that in the ideal operation the kidney will be fixed in position by normal living structures, and says that this has been satisfactorily accomplished in the following manner (1) a curved transverse incision below the last rib is made through all the structures at once down to the peritoneum anteriorly; (2) the peritoneum is then loosened from lateral parietal walls by blunt dissection sufficiently to permit of boldly enlarging the posterior angle of the wound without fear of injury to important structures quite back of the quadratus; (3) the fatty capsule of the kidney is loosened by blunt dissection; (4) the anterior layer of lumbar fascia and the transversalis aponeurosis is then loosened from the tissues on which it lies to such an extent as will admit the kidney in the pocket thus made, the lower flap of wound having a compartment for the lower half of the kidney; (5) prior to inserting the kidney in the new compartment, the cut edges of the transversalis aponeurosis have inserted in them two or three stitches, which serve to pucker the pocket containing the kidney; (6) the kidney having been dislocated first upward, its lower end is slid into the pocket; (7) closure now made of the stitches in the aponeurosis of the transversalis fixes the lower half of the kidney external to one of the layers of the abdominal parietes supporting the same by so broad a surface that no injury to kidney can result and no displacement occur, and employing a normal tissue not transplanted. He has found it sufficient to make the pocket for the lower half of the kidney, and would suggest its use in the movable cases where a very complete arresting of its wanderings can be secured. Two or three stitches can be made to hold the kidney until adhesions form. By this arrangement, too, the movements of the other abdominal organs cannot dislodge the kidney in question, it being external to one of the layers of the abdominal wall and pressure from above tending to drive it deeper into the pocket thus formed. [W.K.]

9.—Moriarta presents a case of **empyema complicating the puerperium,** occurring in a married primapara, aged 24. Two months after delivery, when the previously distressing thoracic condition had been much relieved, a rapid empyema was developed; and the chest being evidently full of fluid, she was removed to a hospital, an incision made between the sixth and seventh ribs in the axillary line and a large quantity of pus evacuated, perhaps a quart, in which there were several large fibrinous masses. No portion of the ribs was removed, as the patient's condition became critical while on the table and the surgeons were obliged to be contented with sewing in a drainage-tube. The patient reacted nicely, the lung expanded, the wound continued to discharge, gradually growing less. She was able to be up and about the room in a few days, quite like herself. [W.K.]

Neurologisches Centralblatt.

April 15, 1899. [18. Jahrg., No. 8.]

1. The Return of the Kneejerk After It Has Disappeared. Albert Adamkiewicz.
2. A Case of Tabes Dorsalis with Bulbar Paralysis. Martin Bloch.

1.—Pick has concluded that the **kneejerk reappears** only in those cases in which Westphal's root-entrance zone is not completely but only partially degenerated. As the degeneration of the posterior columns is only a part of the complicated conditions governing the kneejerk, Adamkiewicz undertakes to define the conditions under which this phenomenon may occur. Clinically, reappearance may occur in syphilitic disease of the spinal cord, and in locomotor ataxia after the occurrence of cerebral apoplexy. Many authors believe that the degree of degeneration of Westphal's zone or of the posterior column corresponds more or less closely to the impairment of the kneejerk. When, however, the inhibitory influence of the brain is removed, the kneejerk, providing the alteration in the posterior columns is not too extensive, may reappear. Others, as for example Wagner, hold that when it does not reappear, its loss is probably due to exaggerated inhibition. Adamkiewicz believes that all vital phenomena are the result of two forces working in opposition. The muscles are stimulated by the cerebral hemispheres, and the stimulation is conveyed to them through these hemispheres and the pyramidal tracts. They are inhibited by fibers from the cerebellum and in the posterior columns. Both forces produce precision in muscular movement. If either function is disturbed, we have either spasm or ataxic movements. In the former case, the kneejerk is exaggerated; in the latter, diminished or absent. Adamkiewicz endeavors to represent graphically the interaction of these opposing forces. Unfortunately, his figures cannot be described adequately, and practically only they give a representation of his arguments. [J.S.]

2.—Bloch reports the case of a man, 55 years of age, who had suffered from the symptoms of **locomotor ataxia** for 8 years. For about a year, he has had a feeling of numbness in the right half of the tongue and right half of the face. The speech had become nasal, chewing difficult, and there was a continuous flow of saliva from the mouth. Occasionally, in drinking, fluids were regurgitated through the nose. There were the symptoms of aortic regurgitation, slight enlargement of the thyroid glands, incomplete ptosis of the right eye with pupils that failed to react to light, and complete paralysis of the abducens, the internal and superior recti, and paresis of the inferior recti. On the left side all the muscles of the eye were paralyzed. There was hyperesthesia in the region supplied by the left trigeminus. Smell, taste, and hearing were normal. The tongue could not be completely protruded. The muscle was thin, and showed fibrillary twitchings. Examination of the throat by Baginsky showed the presence of a right posticus paralysis with preservation of the superior laryngeal nerve. This combination of glosso-labio-pharyngeal paralysis with locomotor ataxia has been, according to Bloch, recognized only twice, once by Charcot and once by Howard. [J.S.]

Centralblatt für innere Medicine.

April 15, 1899. [20. Jahrg., No. 15.]

On the Effect of the Hydrotics and Antihydrotics upon the number of Leukocytes in the Blood. K. Bohland.

Horbaczewski found that the number of leukocytes increased after the use of pilocarpin and decreased after the use of atropin; the first, of course, producing at the same time increase in the secretion of sweat, the latter decreasing this. Bohland has carried on further investigations in this line, the patients always taking meals of the same character and being examined at similar times in relation to their meals. The exercise was the same in all cases, and, so far as possible, all other sources of error were excluded. The minimum number of leukocytes was found to be present normally at about 10 A.M.; by noon the number had increased, and by the middle of the afternoon the highest number was found. In the experiment with drugs they found that atropin, camphoric acid, tannic acid, picrotoxin, agaracin, menthol, sulphonal, and several other antihydrotics caused a marked decrease in the leukocytes. Quinin had the same effect. They decided, therefore, that antihydrotics produce a marked decrease in the number of leukocytes. Of the hydrotics, they tried sodium salicylate, pilocarpin, antifebrin, antipyrin, phenacetin, Dover's powder, morphin, liquor ammonia acetatis, and others, and found that directly the opposite effect was obtained; all these increasing the number of leukocytes. They also investigated the action of these drugs in rabbits, and equally prompt and decided effects were observed. Upon investigation of the distribution of the leukocytes by killing animals and observing the number found in the peripheral and central portions of the circulation, they found that the change was in all probability due to an alteration in their distribution. After the use of the hydrotics, more were found at the periphery, while with the antihydrotics, the number in the central circulation was increased. They believe that this explains the occurrence of sweats in certain diseases in connection with leukocytosis. The toxins are believed to be carried by the leukocytes throughout the peripheral circulation, and there act upon the sweat-glands, causing marked increase in their function, and with this profuse sweating, the toxins are discharged. They say that this explains the effects of the sulphonal and opium-preparations when given to phthisical subjects to produce sleep, the former decreasing the number of leukocytes and decreasing the sweats, the latter giving the opposite effects. [D.L.E.]

April 22, 1899. [20. Jahrg., No. 16.]

A Case of Diverticulum of the Lower Portion of the Esophagus. S. Landauer.

The patient was a man of 51, who had had **indefinite disturbance of the stomach** which he attributed to drinking large amounts of ice-cold beer. Latterly his complaint had been difficulty in swallowing, particularly when he ate rapidly. This was followed by a feeling of pressure in the epigastrium, subsequently by a sensation of spiral movement of the food downward when swallowing. Swallowing had finally become so difficult that the patient almost feared to eat. He had had spasmodic cough, particularly in the night. Introduction of the stomach-tube brought forth fluid containing food-remnants, and since this flowed from the tube without any vomiting efforts, it was suspected that it came from the esophagus. It contained no free HCl, but lactic acid was present, and, microscopically, much squamous epithelium. A test-meal was expressed, apparently from the lower part of the esophagus, and showed no digestion, and the sound when introduced met with an obstruction 47 cm. from the teeth, but this could be passed, after which fluid was obtained which gave reaction for free HCl. The introduction of the tube into this apparent diverticulum of the esophagus and another tube along the side of it into what was believed to be the stomach, showed that the diagnosis had been correct, since fluids passed into these tubes did not mix. Also there evidently was not a simple dilatation of the esophagus, since when the diverticulum was filled with colored fluid, and a tube with perforations along its side introduced through the esophagus into the stomach, none of the fluid could be expressed from the stomach. It was therefore decided that it was a **saccular diverticulum of the lower portion of the esophagus.** Examination with the x-rays gave no satisfactory results, nor did the esophagoscope. There are 4 other cases similar to this on record, 3 of them occurring in men, 1 in a woman. The treatment consists merely in keeping the sac thoroughly washed out; this relieves the distress. [D.L.E.]

April 29, 1899. [20. Jahrg., No. 17.]

On the Chemotactic Action of the Toxins of the Typhoid Bacillus and the Colon-Bacillus upon the Leukocytes. K. Bohland.

Bohland has been impressed with the idea that the hypoleukocytosis observed in typhoid fever is due to the negative chemotactic action of the typhoid toxin. He has, therefore, injected typhoid toxin into rabbits and has studied the effect upon the leukocytes, blood being removed 10, 20, 30, and 60 minutes afterwards. The invariable result was a reduction of the leukocytes in from 10 to 15 minutes, this reaching its highest point in from 20 to 30 minutes; the amount of reduction varying from 5% to 66%. The action of the colon-bacillus was exactly the opposite, the leukocytes increasing in amount from 12% to 14% beyond the normal. He also took serum from 9 cases of typhoid fever, and found that this had a negative chemotactic action upon the leukocytes, causing them to decrease between 20% to 66%. The interesting observation was made that in one case, while the typhoid fever was uncomplicated, the serum was negatively chemotactic; subsequently, when the patient developed several abscesses, due to staphylococci, the serum was positively chemotactic, and the patient at the same time showed an increase in the number of leukocytes to beyond 28,000. The conclusions drawn are that the typhoid-toxin does have a negative chemotactic action, and that hypoleukocytosis is a valuable differential sign of typhoid fever, but that counting the leukocytes is of positive value only when hypoleukocytosis is found. [D.L.E.]

Berliner klinische Wochenschrift.

February 20, 1899. [36. Jahrg., No. 8.]

1. Athenic Paralysis, Albumosuria and Multiple Myelomata. H. Senator.
2. Deterioration of the Spinal Marrow in Embolism of the Aorta Abdominalis and the Closing of the Central Artery in the Spinal Marrow. Heiligenthal.
3. Speculum Examinations of the Rectum. Lipman-Wulf.
4. Concerning Fixed Ideas (Hallucinations). Tuczek.

1.—A woman, 36 years of age, complained of pain in the back, head, and legs, and of marked prostration; the urine contained albumose, casts, and epithelial cells. Various nervous symptoms were present, such as paralysis of the tongue, anesthesia of the chin, and paralysis of the arytenoid muscle. The patellar reflexes were active. The patient died suddenly before an accurate diagnosis could be made. At the autopsy the following lesions were found: **Multiple sarcomatosis of the ribs,** fibrinous pleurisy, bronchopneumonia, chronic parenchymatous nephritis with amyloid degeneration, and gangrene in the region of the left trochanter. The tumors histologically were round-cell myelogenous sarcomata (myelomata). The nervous system, on microscopic examination, revealed nothing to explain the paralysis of the tongue, which Senator, therefore, classes among the group of **asthenic palsies** of Oppenheim. The spinal cord was much smaller than one from a healthy woman of the same age, and there was a heterotopia in the lumbar enlargement. The **albuminuria** present in the case during life was dependent on the bone-tumors, and has been found in a number of the myeloma-cases previously recorded. The cause of the paralysis of the tongue and the other nervous symptoms Senator would seek in the profound anemia that was present in the patient. That anemia should occur in cases of multiple myelomata is readily understood when the importance of the bone-marrow in hematopoiesis is remembered. The primary disease in the case was the multiple myelomata; these led on the one hand to albumosemia and albumosuria, and to changes in the kidney, on the other, to grave anemia, which in turn produced, in a patient that may have been predisposed by an imperfect development of the nervous system, to asthenic paralysis. Senator thinks that if the patient had lived longer structural changes might perhaps have manifested themselves in the nervous system. [D.R.]

2.—Heiligenthal reports the microscopic findings in a case of **embolism of the abdominal aorta.** The patient had suffered for years from mitral stenosis. After the occurrence of the embolism the pulse disappeared from the femoral and popliteal arteries; paraplegia with complete anesthesia and loss of reflexes was found in the lower extremities, and the patient died in 12 hours, having suffered a good deal of pain in the paralyzed and anesthetic limbs. On section of the cord hardened in alcohol, a disease-focus was found in the gray matter of the lumbar cord, on each side, near the point of junction of the anterior and posterior bones. On the left side this focus was represented by a longitudinal cavity bounded by a fibrillar network; the nuclei were also increased and amylaceous bodies were present. On the right side there was no cavity, the area consisting of a network of fibers; amyloid bodies and proliferation of nuclei were also noted. In both foci the nerve fibers were more or less degenerated. One of the posterior lumbar roots presented a degenerated area similar to those of the cord. The vessels, apart from slight thickening and a few thrombi, showed nothing abnormal. Stained by Nissl's method, the ganglion-cells were for the most part normal, a few presented central chromatolysis and peripheral displacement of the nuclei. A few cells were swollen, rounded, and filled with fine, dust-like granules. All the cells were deeply pigmented. The author looks upon the changes as dependent on **anemic softening,** but does not believe that the embolus was the cause, firstly, because it did not extend high enough upward from the bifurcation of the aorta to close the lumbar arteries, and, secondly, because the changes found were certainly older than 12 hours. He concludes that they were due to an embolic obstruction of one of the central arteries of the cord. This embolism would not explain the degenerative changes in the ganglion-cells, which, from their position, could not have been affected by the occlusion of the vessel in question. The author attributes them to the lesion produced in the peripheral neuron by the anemia that followed the occlusion of the aorta. The cell-changes in such a case are best explained by the theory of v. Lenhossek, according to which nutritive disturbances occur in all ganglion-cells which, the afflux of central and peripheral stimuli being preserved, are unable to discharge their energy. [D.R.]

3.—Lipman-Wulf finds that **endoscopy of the rectum** by means of the instruments and the positions recommended by Otis, is quite feasible if the anal region is first rendered anesthetic by Schleich's mixture, or by painting with a 3% eucain solution. For endoscopy of the lower part of the rectum, the patient lies in the lithotomy position or on his right side with his knees drawn up; for examination of the middle portion, in the knee-chest position; and for inspection of the upper portion, in the knee-elbow position. [D.R.]

February 27, 1899. [36. Jahrg., No. 9.]

1. Upon the Change of Albumin and Sugar-secretion in Diabetes Mellitus. TH. RUMPF.
2. Acid Bacilli in a Suppurating Ovarian Cyst. A. DIETRICH.
3. The Curious Suppuration after Fochier's Method in Pyemia and Other Acute Diseases. M. L. H. S. MENKO.
4. Concerning Fixed Ideas. TUCZEK.
5. The New Ordinance Relating to Synthetic Pharmacy.

1.—There are cases of **diabetes** in which the ability to utilize amylaceæ in the body is permanently or temporarily completed abolished. In such cases, as Rumpf shows, the ingestion of amylaceæ may at times lead to an output of sugar much larger than that which would correspond to the output on a strict diet plus that derived from the ingested carbohydrates. This increased elimination of sugar may persist for several days after the starch ingestion has ceased, the sugar being then derived from an increased proteid decomposition. Rumpf cites observations along these lines made on a youth of 20, suffering from a severe form of diabetes. On strictest diet the average daily excretion of sugar was 92.7 grams. On receiving for 7 days, 50 grams of biscuit (Semmel) daily, he passed during the seven days 953.9 grams of sugar, which is 100 grams more than he should have passed if the sugar corresponding to the biscuit (220 grams) and that which he would have spontaneously eliminated had been added together. This increase in sugar-excretion corresponded to an increased elimination of nitrogen. Hence the patient have **decomposed albumin to make sugar.** A second case is then cited in which a similar increase in the sugar, after the addition of amylaceæ to the diet, was not accompanied by an increased decomposition of albumin; in fact, there was a storing up of nitrogen. Yet despite this favorable nitrogen metabolism the patient died of diabetic coma. In a third case of grave diabetes, there were eliminated, in round numbers, during a strict regimen of 15 days, 1,000 grams sugar and 100 grams nitrogen, or 10 grams of the former to 1 gram of the latter. But as according to Minkowski 100 grams albumin can form only 45 grams of sugar, or 1 gram nitrogen only 2.8 grams, the 1,000 grams of sugar excreted by the patient could not all have come from the albumin represented by the 100 grams of nitrogen. There must in such cases be other sources of sugar than the albumin. That the sugar could have come from stored carbohydrates or glycogen is scarcely possible in grave cases of diabetes, and the author concludes that **the only other source is the fats.** Fats consist of fatty acids and glycerin, and it is the latter that is convertible into sugar. Such a splitting up and transformation of the fats may also explain the occasional appearance of volatile acids and even of oxybutyric acid in the urine of diabetics. It is possible that sugar can also be formed in the body from fatty acids. The conversion of fat into sugar probably does not occur in every case of severe diabetes; as in the first case, an increased elimination of sugar may be covered by decomposition of albumin; in late stages of the disease, however, there seems to be a tendency to seize the fat for the production of sugar and to spare the albumin of the body. [D.R.]

2.—Dietrich's patient, a widow of 48 years, had an **ovarian cyst** of doubtful nature, which had become infected through the medium of intestinal adhesions. Eventually it perforated into the rectum. In the pus contained in the stool **bacilli resisting decolorization by acids** were found; they stained by the Fiehl-Neelsen method. Cultures made from the pus of the cyst at the autopsy several months later did not yield the bacilli referred to, and of 4 animals inoculated with the pus, 3 died shortly of purulent peritonitis and abscesses at the point of injection; the fourth was killed in 10 weeks, but showed no tuberculous or other pathologic lesions. In the body of the patient, tuberculous processes were nowhere discoverable. The author assumes that the bacilli found in the cyst had entered through the fistula from the intestine, for they had not been observed in the pus obtained by puncture of the cyst before the latter ruptured into the rectum. He believes the organisms are either allied to the semegma-bacilli, or that they were made resistant to acids by peculiarities in the media of growth, *e. g.*, by fats, decomposition-products of albumin, or cellulose. The cyst-contents were rich in fatty acids and all sorts of decomposition-products. The tubercle-bacillus thus no longer occupies, in its tinctorial behavior, an exceptional position, particularly not since the discovery by Rabinowitsch and by Moeller of certain acid-resisting bacilli in butter. [D.R.]

3.—The patient was a woman, 43 years of age, who after some gynecologic treatment in which antisepsis had been neglected, developed a most grave **pyemia,** with delirium, chills, and fever. The case seemed hopeless when Menko determined to produce an artificial abscess, after the method of Fochier. Two grams of turpentine were injected into the left calf; in 6 days fluctuation was present, and exploration demonstrated the existence of pus. For a day after the injection the pain was very great and required morphin, and even on the following days this drug was occasionally needed to subdue the pain. The result of the injection was wonderful. On the first day the chills stopped; the patient improved rapidly, and the pus in the abscess disappeared. Then a relapse occurred, and a second time turpentine was injected. Fluctuation was soon obtained. After the second injection the patient began to improve and eventually recovered. Fochier suggested turpentine injections for the treatment of pyemic conditions in 1891, calling the abscess **abscès de fixation.** Since then the method has been employed in a considerable number of cases of pyemia; also in **typhoid fever, erysipelas, osteomyelitis, pneumonia, scarlet fever, otitis,** etc. The course of the suppurative process varies—fluctuation may occur early and the abscess may perforate, or the pus may be resorbed; in some instances fluctuation does not occur at all. The suppuration assumes two forms—either that of acute pustules or that of a phlegmon. Fochier advises that the abscess be not opened until convalescence is established. If the pus has been evacuated before that stage, a new abscess should be produced. Various hypotheses have been advanced to explain the good effects of these abscesses—Mercandino and Fochier believe that antitoxins are formed in them and effect the cure. This view is shared by Menko. [D.R.]

March 6, 1899. [36. Jahrg., No. 10.]

1. Concerning Abdominal Surgery. KÖNIG.
2. Upon Diffuse Scleroderma. UHLENHUTH.
3. Upon the Mongolian Type of Idiocy. NEUMANN.
4. Concerning Fixed Ideas. (Conclusion.) TUCZEK.

1.—König reports the **extirpation of the rectum and sigmoid flexure** from a woman 25 years old who ad suffered with severe symptoms of stenosis of the recum for a year. She had had syphilis and gonorrhea for nany years and pus was discharged from the rectum. ntiseptic treatment was carried out, the discharge ceased nd the patient left the hospital in a relatively good condiion. About 6 months later she returned very much reduced n flesh and complaining of intense pain. Examination of he rectum revealed ulcers and warty growths. The very evere pain, which continued day and night, made operation eem imperative. After opening the abdomen the sigmoid lexure and the upper end of rectum were freed and extirated from below. The patient was severely collapsed and eft the operating-table almost pulseless. She partly recovred, however, but died from peritonitis 3 days later. At he necropsy the condition was shown to be due to syphilitic hanges. König suggested this method of extirpation of the ectum 10 years ago and has performed it successfully in ome cases. He believes that these diseases of the rectum re very frequently of gonorrheal origin and result from irect autoinfection from the vaginal discharge. In case the iseased condition has not progressed so far the Maydl's peration will cure a large number of these cases by preventng the irritation by the feces passing over the ulcerated surce. [M.B.T.]

2.—Uhlenhuth reports a case of **diffuse scleroderma** n a man of 41 years. The interesting features of the case ere total atrophy of the thyroid gland and bronzing of the kin. The scleroderma affected the hands, the face, the hest, the abdomen, and the lower extremities. Sensation, oth for temperature and pain, was normal; the electric rections were practically unchanged, nor was the sweat-secreion disturbed. Atrophy of the thyroid gland has been found other cases of scleroderma, but it was generally secondary; the author's case it seemed to precede the skin-changes. s to the bronzing of the skin, such a condition is not rare schleroderma; sometimes, as perhaps in the present intance, it probably depends on Addison's disease. Every rm of recognized **treatment,** including thyroiodin tablets nd suprarenal extract, proved unavailing in the Uhlenhuth's ase; some good was accomplished with full baths after the ethod of Mosler. The patient was kept for 15 or 20 minutes water at 38° C., to which 60 grams of ichthyol had been dded. Afterwards he was wrapped for 1 or 2 hours in lankets. Internally, sulfoichthyolate of calcium, in dose of .1 gram, thrice daily, was given. On the days on which the aths were not used, the patient was anointed with ichthyol-intment. [D.R.]

3.—The **Mongolian or Calmuck type of idiocy,** itherto studied chiefly in England, is so striking that it is asily recognized, even in the infant at birth. The face is attened, the nose blunted, the nasal bridge flattened and road, and separated from the eyes by a longitudinal fold; e eyes are usually small and slanting, the mouth is small, enerally open, and the thick tongue protrudes. The skull is ounded, and the back of the head is more or less parallel ith the plane of the face. Other malformations are comon, such as imperforate anus, malformation of the ears, tc.; twice the author observed congenital heart-lesion. Anther interesting feature is the great relaxation of the joints. he children afflicted with this form of idiocy are backward mental and physical development; walking is learned owly, and dentition is also belated. Pigmentation and arbling, and dryness and roughness of the skin have been oticed; the belly may be prominent, and the hands and et inordinately plump. The idiocy is congenital, and preents, so far as the nervous system is concerned, the characers of arrested development rather than of fatal disease. t is more common in girls than in boys (9 to 3 in the auor's cases). The ancestral history gives no clue as to the ause of the malady. The condition is apt to occur spodically in families, one only of a large number of children eing affected, the others being normal. Diagnostically, it ust be differentiated from sporadic cretinism and from tal rickets. [D.R.]

Centralblatt für Chirurgie.

April 29, 1899. [26. Jahrg., No. 17.]

eclus' Phlegmon Ligneux of the Connective Tissue. Ludwig Krause.

This condition is characterized by a swelling on the lateral and anterior region of the neck. It develops slowly and exists for weeks or months without fever of any considerable constitutional disturbances; the skin remains unchanged, and there is scarcely any elevation of temperature or pain. Two cases presenting these symptoms are reported; one occurring in a woman 35 years old, the second in a boy 18 years old. The swelling was incised, a small amount of pus was evacuated and a good recovery followed in each case. Cultures were made and after 2 days' incubation cocci were seen on microscopic examination which were somewhat larger than the staphylococci. [M.B.T.]

Centralblatt für Gynäkologie.

February 11, 1899. [23. Jahrg., No. 6.]

1. The Definition of Puerperal Fever. E. Bumm.
2. Reply to the Foregoing Article. R. Oldshausen.
3. The Treatment of Pelvic Peritonitis. C. H. Stratz.
4. A Sterilizable Obstetric Outfit. M. Graefe.

1.—In cases doubtful as to the diagnosis between puerperal infection from diphtheria, scarlet fever, gonorrhea, and fever from septic microorganisms, it is considered desirable that means for practical diagnosis be made more accessible to the general practitioner. [W.K.]

3.—In a series of 20 celiotomies for inflammation of the adnexa, in which general peritonitis with a temperature of 40° C. was present, Stratz has lost but one case. In acute cases he uses large abdominal compresses medicated with ichthyol and lanolin. The patients are kept at rest and bathed, and a hot vaginal irrigation with large quantities of water at a temperature of 45° to 50° C. is used. Intrauterine irrigation with two liters of fluid is carried out twice daily. A speculum with a broad base is recommended to prevent injuring the sensitive external genitalia. In chronic cases massage is recommended. [W.K.]

Deutsche medicinische Wochenschrift.

March 16, 1899. [25. Jahrg., No. 11.]

1. An Atypical Case of Thomsen's Disease. Bernhardt.
2. Treatment of Leukorrhea with Yeast-culture A Local Antagonistic Bacteria-therapy. Th. Landau.
3. Remarks on Glycosuria in Cholelithiasis. A. Exner. Supplementary Remarks on the Above. Czerny.
4. The Theory of Insufficient Muscle-tone (Tabes Dorsalis). (*Continued*) O. Rosenbach.
5. Malignant Epithelioma of the Chorion. E. Frænkel.

1.—Bernhardt reports the case of a boy, 19 years of age, without neuropathic heredity, and with eight healthy brothers and sisters, who from childhood had suffered from weakness in the hand, particularly when he had been exposed to the cold for some time. In a warm room, movement was unimpeded, the muscles were well developed, and the patient apparently was normal. In the cold, the muscles were so stiff that the patient was almost helpless. The mechanical irritability of the muscles was practically abolished excepting of the orbicularis palpebræ. The faradic and galvanic irritability of the nerves was normal or slightly diminished. Opening of the induced current caused lightning-like contractions of the muscle that do not persist. The flexors and extensors of the areas and the small muscle of the hand showed diminished electrical irritability. Even to Franklinic electricity, no deviations from the normal were noticed. The electrical examination of the muscles at the temperature of 0 C. showed considerable diminution. The case, therefore, represents an **atypical form of Thomsen's disease** without hereditary antecedents, and therefore to be spoken of as acquired. It differs from the usual type in the fact that any attempted motion after prolonged rest at a low temperature produces the curious tonic spasms of the muscles. It is further complicated by an atrophic condition of the muscles in the arm and hands. [J.S.]

2.—The usual means for treatment for leukorrhea act only for a short time and over a limited area. The acids are soon neutralized by the alkaline fluids of the body and the metallic salts soon form albumin compounds. The tissues are subject to the influence of continuous deleterious action of the bacteria. If one is to combat these, a means is needed which acts persistently, either to destroy the germ or its culture-medium. During the last 6 months Landau has treated 40 cases of **leukorrhea with yeast**; most of the patients were about, although some were confined to bed. In more than half of the cases every macroscopic evidence of discharge disappeared after 1 or 2 applications. The cures were also permanent after discontinuance of the treatment. In a further number of cases the discharge ceased after a longer use of the yeast. In certain other cases there was evident diminished discharge and subjectively practical cures. In a few cases there was no result. The yeast was obtained from a brewery and was mixed with a certain amount of beer, making a thick fluid. This was drawn up with an ordinary gonorrheal syringe, with a capacity of about 10 or 20 cc., and injected into the vault of the vagina, and a tampon was inserted which remained in place for 24 hours. Vaginal douches were entirely omitted and the treatment was repeated after 2 or 3 days. This treatment was continued for several weeks. Unpleasant or harmful effects were not noted. [W.K.]

3.—Exner, in reply to Kausch who criticised his results of the investigation of the **urine** of patients suffering from **cholelithiasis,** states that he is capable of testing the urine for sugar, and in many cases used more than one reagent. Czerny, in a brief note appended to the article, states his confidence in Exner's results. [J.S.]

4.—Rosenbach continues his paper upon **spinal muscle-tone insufficiency.** He believes that syphilis may be positively excluded as the invariable cause of tabes, because in many cases not only are there no signs of its presence or previous existence, but the history is given so positively that there is no reason to believe that it has ever existed. Exhaustion, as a result of the normal exercise of one of the functions, is contrary to all teachings of physiology. It is possible, however, that certain systems may be exhausted, as a result of functional exercise which destroys tissue to such an extent that it cannot be replaced. In the majority of cases, however, such an abnormal exercise of a function has never existed. If the possibility of individual predisposition be accepted, it is necessary to distinguish sharply between hereditary or atavistic influences which are characterized by the fact that they occur in successive generations, and embryonal or individual predisposition, characterized by the fact that they occur in but one generation, although several parts of that generation may be similarly affected as a result of the exposure of themselves or their parents or sisters to peculiarities of environment. He believes that this individual predisposition is the best explanation that we have at present for the origin of the disease—first because women are so infrequently affected, second because locomotor ataxia is not an exceedingly uncommon disease in children, and he calls attention to the significance of the typical hereditary ataxia (Friedreich's disease) in this connection. [The paper is unfinished. J.S.]

5.—Frænkel gives a brief review of the literature of the **malignant chorioepithelioma.** This tumor was apparently first described by Maier, who was followed by Saenger in 1888; the latter regarded it as a sarcoma arising from the decidual cells, in which opinion he was supported by Pfeiffer. Gottschalk subsequently had his attention attracted by the peculiar villous structure of the tumor, and supposed that it was due to the proliferation of the epithelium of the chorionic villi. Nevertheless, he regarded it as a sarcoma of these structures, on account of the apparent preponderance of the proliferation of the connective tissue. Pestalozza also holds to this opinion. L. Frænkel calls it a carcinoma, and E. Frænkel believes that it is due to the proliferation of the syncytial membrane that covers the chorion, which is composed of an undifferentiated mass of protoplasm, taking the acid stain intensely, in which are found the nuclei. Three questions appear to demand answer before we can definitely decide upon the true nature of this tumor: (1) do these tumors develop exclusively from external covering of the chorionic villi? (2) whence does this external covering arise? (3) are all malignant tumors following pregnancy of this nature? In regard to the first question, it may be said that some tumors may arise from other sources, but this has not yet been proven. Some tumors certainly do arise from the syncytium, and it does not appear that, in these cases, other cellular structures enter into the formation of the tumor. The second question cannot at present be answered. It is not even certain that the covering of the chorion is epithelial in nature, and finally it is not certain that other tumors may not have the same clinical course. [J.S.]

March 23, 1899. [25. Jahrg., No. 12.]

1. Upon the Therapeutic Value of Heroin. H. Leo.
2. Upon Subcutaneous Injection of Heroinum Muriaticum. A. Eulenburg.
3. The Knowledge of Perihepatitis Chronica Hyperplastica. R. Schmaltz and O. Weber.
4. The Theory of Insufficient Muscle-tone (Tabes dorsalis). O. Rosenbach.
5. Developments of the Röntgen (X-ray) Experience. M. L. Dorn.

1.—Leo records some extremely encouraging results from the use of **heroin.** He has found it very satisfactory in cases of dyspnea. In two cases of dyspnea accompanying uremia there was some improvement, while in eight cases of severe emphysema, 15 of chronic bronchitis with dyspnea and 5 of bronchial asthma, the results were wholly satisfactory. In one case of emphysema and two of chronic bronchitis only was there no satisfactory effect. In all the others, after the use of one powder containing 5 mg. (about $\frac{1}{13}$ grain) of heroin, there was a notable improvement, and Professor Leo states that heroin seems to him more prompt and more satisfactory in its effects than any drug previously used for this purpose. In a note Schwalbe states that he has had excellent results in two cases of chronic bronchitis with dyspnea, and much accumulation of secretion, by combining potassium iodid with heroin. [D.L.E.]

2.—Eulenburg has had prepared a **muriate of heroin,** which is soluble in cold water. The limit of dosage which he considers safe is about 1 cgm; this should not be exceeded except when the dose has been very gradually increased. In one case he noticed from a dose of 2 cgm. nausea, some general distress and vertigo, followed by weakness and profound sleep; and in a second case, after a dose of slightly over 1 cgm., similar symptoms, with vomiting, were caused. He says that the drug should be studied with some care before being freely used, since the toxic effects are not well known, and it is particularly advisable that for the present small doses should be used. The preparation he recommends may be used by the mouth in solution, the dose advised being then from 5 gm. to 1 cgm. 3 to 4 times a day. [D.L.E.]

3.—The case reported occurred in a woman of 42, who had had 4 children. There was no specific history; the parents had lived to advanced age. The present disease began in 1892 apparently after catching cold. She then had severe anemia, frequent epistaxis, with marked ascites, and dropsy of the legs. The liver was much enlarged. Potassium iodid caused some improvement. Two years later she came under the care of the present writers, and after the latter part of 1895 was unable to leave her bed. She was extremely weak, pale, emaciated, edematous; the cardiac dulness was enlarged, there was a systolic murmur, and the second pulmonary was accentuated. Ascites was present; the liver-dulness reached two fingers' breadth below the ribs, and the liver felt hard; the spleen did not seem enlarged. There was little albumin in the urine, no sugar, no bile, no casts; the hemoglobin was reduced to 10%, the red blood cells to 1,187,000. Fluid was removed from the abdomen repeatedly, but the woman constantly lost strength and died from exhaustion. She had had much pain in the region of the liver and this had led to the suspicion, during life, of **chronic hyperplastic perihepatitis** (Zuckergussleber). At the post-mortem there were found a few spots of pericarditis, but the layers of the pericardium were not adherent; there was no endocarditis; the heart was somewhat dilated and the myocardium frangible. The left lung was found very adherent at the base, and there were adhesions in the right pleura also; the peritoneum was adherent in the lower abdomen between the folds of the bowel; there were adhesions about the spleen, while the liver was found strongly adherent over the whole of the left lobe, and to some extent over the right lobe; also to the right kidney and the stomach. Over the portions not adherent there was a porcelain-like exudate of hick, white, fibrous tissue, which was from $\frac{5}{10}$ mm. to 6 mm. n thickness; the liver-tissue was entirely normal. There was no increase of the periportal tissue, and no notable chronic ongestion. This is a typical picture of chronic hyperplasic perihepatitis. Pick has suggested that the fibrous exulate on the surface of the liver is the result of chronic cirulatory stagnation resulting from pericarditis. In this case, owever, as well as in Hübler's, there was no pericarditis or ther severe heart-affection to have given rise to it. The uthors suggest that the liver in these cases becomes enlarged, s had evidently occurred in this case, that it lowers the reistance of the surrounding peritoneum, and that then a ocal infection of the peritoneum of low grade takes place ecause of this lowered resistance, and the isolated thickenng of the peritoneum results. They suggest the ascites is rgely due to the fact that a large portion of the peritoneum s cut off from the functions of secretion and resorption, and hat this portion of the peritoneum in particular is especially oncerned in absorption of the peritoneal fluid. They think hat the affection of the pleura in this case was secondary. n the diagnosis they emphasize the acute onset and the inoercible progress of the disease, in association with the bsence of all evidence of severe circulatory stagnation in ne gastrointestinal tract. [D.L.E.]

4.—Rosenbach first directs attention to the fact that in ne normal individual in advanced age particularly, and with elaxed muscles, the skin reflexes, particularly the abdomial reflex are decreased, but that **in tabes dorsalis the kin-reflexes will be found very much increased.** n case the abdominal walls are not very much relaxed the bdominal reflex will be extremely marked. This antagonim between the skin-reflex and the deep reflex he considers point of great diagnostic importance, since such antagonm is not noticed in case a cerebral lesion is present. In ich cases both forms of reflex suffer together. In persons ith abnormal muscle-tone the abdominal reflex is increased hile the tendon-reflex is lost or much decreased. Also he ys in the early stages of spinal muscular dystony, which as not yet reached the stage of active tabes, and there are bsolutely no changes in sensation, it is impossible for the atients to stand on their toes with closed eyes. He conders this form of testing the equilibrium peculiarly valuble. He also notes that the fact that a tabetic patient nnot stand with closed eyes is not the result of inability to e surrounding objects, for if a double tube be placed over is eyes allowing him to look skyward and receive light imulses, but to see nothing, he will retain his equilibrium. Ie therefore decides that the loss of equilibrium when the yes are closed, is not due to the loss of view of surrounding ojects, but to a loss of the light impulses. [D.L.E.]

5.—In making **x-rays** of diverticula, fistulas, etc., much ay be gained by injecting into the cavity some substance rough which the rays pass with difficulty, such as a watery lution of bismuth phosphoricum. Levy-Dorn mentions a se in which shadows of both the ovaries and uterus were tained. Röntgen-rays exert a healing influence on lupus, ey sometimes cause hair to fall out, and they have a weak ctericidal influence. [G.B.W.]

March 30, 1899. [25. Jahrg., No. 13.]

Concerning Plastic Restoration of the Under Lip. A. STIEDA.
Determining the value of Intracerebral Injection of Tuberculosis Antitoxin.
Concerning Embryonic and Pathologic Red Corpuscles of the Blood. C. S. ENGLE.
Concerning the Separation of Sugar from Albumin. FR. MÜLLER and J. SEEMAN, Marburg, and F. BLUMENTHAL and P. MAYER, Berlin.

1.—Stieda describes the following method of **restoration f the lower lip:** The case reported necessitated the reoval of the entire lower lip by an arch-shaped incision. An cision somewhat longer, but parallel to the one used to cise the growth, is made across the region of the double in. The flap thus made is dissected free, up to the edge of e lower jaw, and the knife, being kept close to the bone, is ished upward until it makes its appearance in the primary ound. With a sawing motion toward both the right and ft, the chin region is loosened from the bone. The flap so made is then drawn visor-like upward to form the new lower lip, and is held in place by a nail driven into the middle of the chin. A few sutures and a sterile dressing complete the operation. The space left underneath the chin heals by granulation. [G.B.W.]

2.—The experiments were conducted by making a drill hole in the skull almost penetrating the inner table, through this introducing a small cannula and **injecting tuberculin.** It was found that fluids such as physiologic salt-solution, bouillon, and sterile water could be injected in this way in quantities as large as .2 cc. without any unfavorable results. Doses as large as .1 cc. of tuberculin were given without killing the animal, while the alcoholic precipitate from tuberculin could be given only in doses as large .002 cc. without causing death. Further experimentation showed that solutions of salts such as sodium sulphate, ammonium sulphate, some chlorid and phosphates caused severe symptoms when introduced into the cranial cavity, and the author decides that the attempt to use the method of intracerebral injection to test tuberculin has been a failure since other products contained in the solutions cause such serious effects that the action of tuberculin cannot be separately recognized. [D.L.E.]

3.—Engle presents his version of the story of the **development of the red blood-corpuscles** as he has given it in several journals before, describing the youngest embryonal cells which are found in the pig's embryo 1 cm. in length as metrocytes of the first generation. These are round or ellipsoidal cells with a large nucleus, the protoplasm staining somewhat with fuchsin. The second form, which appears later in embryos of 2½ to 3 cm. in length, he calls the metrocyte of the second generation; this has a protoplasm which stains with orange, and a small nucleus. [The minute details of morphologic classifications grow wearisome.] He finds that even before the liver, spleen or bone-marrow have developed blood is found in embryos. The orangeophile metrocytes are the ones, he says, which give rise to the normal red blood-corpuscles and these are chiefly developed in the bone-marrow. He says that these can be found in the blood in many cases of pernicious anemia, and that they therefore indicate that this disease is a reversion to embryonal types, and that when they are present it is absolutely possible to diagnose pernicious anemia from the appearance of the blood in spite of contrary criticisms. One point in the paper may be of value in technic—in making spreads from the bloodvessels of the chicken-embryo he goes into the vessel with a sharp scalpel, keeping at a little distance from the albumin. This allows a small bright red drop of blood to be pressed out by the movements of the heart. He then takes two carefully cleaned cover-glasses which have been heated, holds them close together with forceps, and states that the blood flows readily into the capillary space between, and by careful separation of the cover-glasses afterward handsome preparations are obtained. [D.L.E.]

4.—Müller and Seeman criticise the previous work of Blumenthal and Mayer, who believe that they had obtained a **hexose from albumin.** The authors believe that it is not essentially a sugar, but is an amido-combination of a hexose. They state that if Blumenthal and Mayer had used the method adopted by the present authors they could readily have determined a nitrogen-content and the dextrorotary character of the substance. They also claim priority in the production of such a substance. In answer to this, Blumenthal and Meyer refer to Seeman's previous article in which he states himself that the substance which he obtained probably came from the mucoid substance and not from albumin, and that, therefore, he has given no proof of priority in the production of this substance. They also insist that it makes no serious difference whether this sugar which they have produced from albumin is a hexose or an amido-combination of a hexose, since the osazon of amidohexose is identical with the hexosazon, and theoretically one can produce a hexose from a hexosazon. [D.L.E.]

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1. Observations on Hernia, Particularly as Regards Radical Operations. FRANZ.
2. Amputation Stumps. HILDEBRANDT.

3. A Contribution to the Diagnosis of Brain-Abscess Following Ear-Disease. W. MERKENS.
4. The Operative Treatment of Reducible Prolapse of the Rectum. CARL FRANCKE.
5. Retroperitoneal Lymph-Cysts or Gravitation Abscess? HANS STREHL.
6. The Sublingual Gland and Ranula. W. MINTZ.
7. A Case of Thrombosis of the Sinus From Otitis. V. MEYER.
8. Muscle Angiomata and Their Extirpation. BAYHA.

1.—Franz reports in detail the **radical hernia operations** done in the clinic of Prof. v. Eiselsberg, and endeavors to show the application of different methods for the different individual hernias. **Inguinal hernia.**—In this class of cases, Bassini's operation was used, except once, when Kocher's third method was employed with success. Only in a few minor points was there any departure from the 4 steps as laid down by Bassini. From February, 1896, to July, 1898, there were 100 radical operations on 77 persons, of which 59 were men, 4 women, and 14 children. There were 11 cases of congenital hernia, and among these was one case of testicle in the inguinal canal, and another of a true undescended testicle. The average length of the operation was from 20 to 30 minutes, and the average time the patient remained in the hospital was from 3½ to 4 weeks. Patients were able to return to work after 2 to 3 months. In 25% there was some wound complication, as suppuration or gangrene of the testicle. Painful scars remained three times after healing was complete. Of the 100 cases operated 3 times there was return of the hernia—once a small ventral hernia developed, once the external ring admitted 2 fingers, once a slight protrusion in the inguinal region existed, and in 9 cases no report was made. All the rest had as yet no return. In 22 cases of 1½ years' duration after the operation, there was only 1 case of return of the hernia. Franz gives 1½ years as the length of time after the operation which is necessary for the patient to wait before he can consider himself cured. Large scars with a great amount of cicatricial tissue are because of poor nourishment and atrophy. They are of much less strength than clean wounds uniting by first intention with the minimum amount of scar-tissue. The posterior wall of the inguinal canal is the chief hindrance to the protrusion of the hernia, and not the anterior. **Femoral hernia.**—The operation used for closure of the femoral hernial opening was a modification of Bassini's method, differing from it only in that Poupart's ligament, instead of being sutured to Cooper's ligament is sutured to the insertions of the adductor muscles. Of the 18 cases thus operated on 11 were in women and 8 in men. In 14 there was no return of the hernia, of the remaining 1 died from empyema and in another a return took place and in 2 the result was doubtful. **Hernia through the anterior abdominal wall.**—(1) Epigastric hernia, 3 such cases were operated on and cured; (2) umbilical hernia, 7 cases, 4 irreducible; 6 were in women and 1 in a man. The age of the patients varied from 39 to 69 years. Of the 7 cases in only 3 was there no return of the hernia. (3) Ventral hernia—four cases of this variety are reported, 2 following abdominal injury and 2 postoperative. **Incarcerated hernia.** From February, 1896, to June, 1898, there were operated on at Eiselsberg's clinic 20 inguinal, 27 femoral and 1 umbilical incarcerated hernias. The inguinal cases were operated on after Bassini except that the hernial contents were held fast while the aponeurosis and external oblique ring were being divided so that the gangrenous intestine might not slip back into the abdominal cavity. Care must be taken not to infect the abdominal cavity, as Brentan has shown that microorganisms are present in every incarcerated hernia lasting over 36 hours. The treatment of the contents consists in exsecting gangrenous portions of the mesentery, resection of similar portions of the intestine, occasional formation of an artificial anus, and, in very exceptionally favorable cases, in returning the contents to the abdominal cavity. After the herniotomy has been performed and the contents of the hernia disposed of, a radical operation is more than justified. [G.B.W.]

2.—**Amputation stumps** may change either as to the form of the stump (atrophy) or as to its direction of the component parts leading to changes in the inner structures, especially of the bones. The atrophy is generally due to the lack of use of the stump. It has been shown that if the stump be so formed as to be functionally active, no atrophy follows. Such results can be obtained by the osteoplastic method of Bier Though earlier investigations seemed to indicate that the form and direction of the trabeculæ of the spongy portions of bones did not change with changes in position of the bones as in Pirogoff's or the osteoplastic amputations, in the light of more recent observations this rule must not be unreservedly accepted. For it has been shown that there is a tendency for the trabeculæ to alter their positions in conformation with the static relations, *i. e.*, the arches of trabeculæ adapt themselves so as to give the best support possible under the new conditions. The stumps which are most capable of use are such as result from Pirogoff's, Sabanoff's, or Bier's operations. Also amputations through joints give very satisfactory stumps. Scars which are so placed as to be pressed upon by the artificial leg or other apparatus greatly interfere with the use of the limb. The reason that most stumps are not capable of bearing weight is because bone-callus and the medullary substance are sensitive to pressure. Bier's method consists essentially in obtaining a small portion of the diaphysis and in fastening it across the cut end of bone so that the pressure is borne by the normal periosteal surface. By the intermittent pressure of walking the periosteum tends to thicken instead of becoming atrophied as when the pressure is constant, in the case of tumor, etc. [G.B.W.]

4.—Francke describes König's method of operating in cases of **prolapse of the rectum.** It consists in narrowing the anal aperture. A wedge-shaped piece is removed from the edge of the anus, the elliptical incision being so made that one end lies within the anus and the other end on the outer skin. The excised wedge includes skin, mucous membrane, areolar tissue and muscle. Care must be exercised in sewing up the deeper portions of the wound. Six cases were thus operated on and in 2, after 9 and 3 months respectively, a slight return was noticed. In the others, up to the present time no prolapse had occurred. [G.B.W.]

6.—Mintz says that the results of the careful pathologic study of his case of **ranula** support the theory that ranula has its origin in the sublingual gland and also confirm Hippel's idea that the primary cysts begin in the excretory ducts of the gland. Suzanne's theory of degenerated acini forming the cyst cannot be supported. A radical operation should include the removal of the gland as well as the cyst and is best accomplished from below the jaw between the mylohyoideus and biventer. Less radical procedures are apt to be followed by a return of the ranula. [G.B.W.]

8.—**Angioma** as found in the muscles are generally not due to the growing in of a growth from outside or to the development of a new mass of bloodvessels, but rather to a cavernous degeneration of the already existing network of bloodvessels. In this respect was angioma of the muscles considered to belong to a different group than nevi and other telangiectic tumors of the skin. [G.B.W.]

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8. The Origin of Bone Deformities. CESARE GHILLINI.
9. The Vaginal Method for Operations on the Rectum. W. TIERMAN.
10. Some Statistics about Spondylitis. OSCAR VULPIUS.
11. Choledochotomy. HAASLER.
12. The Open Meckel's Diverticulum. MORIAN.
13. Acute Symmetrical Osteomyelitis of the Pubic Bone, with Remarks about the Etiology of Acute Osteomyelitis. A. KIRCHNER.
14. Sigmoid-Rectostomy, a New Means of Relieving Strictures of the Rectum. J. ROTTER.
15. The Topography of Mammary Carcinoma. J. ROTTER.
16. Polyposis Recti—Malignant Adenoma—Spontaneous Cure. J. ROTTER.
17. Bubo of the Neck, Especially as Sequelæ to Scarlet Fever. H. FISCHER.

[The numbers of the articles are volume numbers, and correspond to those in the original.]

8.—Ghillini, in his article on the **origin of bone deformities,** limits his dissertation to the effect which certain mechanic laws have in the formation of rachitic deformities of the legs. He shows .that, because of the form of the femur and its relation to the pelvic bone and the surrounding ligaments and muscles, a force is produced which, though small, exerts itself in an outward direction, tending to produce an external bowing of the legs. If there exists some softening of the diaphysis, as in rachitis, this bowing becomes a reality, and the deformity is produced. [G.B.W.]

9.—The patient presented, from whom a **carcinoma** of the **posterior rectal wall** had been **removed per vagina,** had good functional power over the sphincter and was still free from any return of the disease. The operation was as follows: An incision was made through the whole length of the posterior vaginal wall and carried back around each side of the rectum. This viscus was then cut through 3 cm. above the anal ring and pulled forcibly down into the wound. The dissection was carried upward until a point was reached well above the growth, where the gut was again divided and the diseased portion, 14 cm. long, removed. Several enlarged lymphatic glands were also taken out. The mucous membrane of the anus was freshened and the upper end of the rectum brought down into the ring and retained there with 4 sutures. The perirectal space was drained from the skin-surface, and the vaginal wall closed by a suture. [G.B.W.]

10.—The **statistics on spondylitis** which Vulpius has collected are from the pens of a large number of the leading surgeons, and also from his own experience. A few of the results obtained are as follows: Among 187,260 patients spondylitis occurred 810 times, and most of the cases developed before the tenth year of life, and after 15 there is a sharp decline in the percent of cases; 53.25% are males. As an etiologic factor trauma was present in 53% of the cases of spondylitis, and in 16.6% were hereditary tendencies traceable. As to the portion of the spine most frequently attacked it was found that the seat of predilection was the lower dorsal, scarcely less frequent were the lumbar vertebræ attacked, while the lower cervical is very seldom assailed. The most common complication is abscess-formation ocurring in about 24.5% of the cases, with its seat most frequently in the lumbar or cervical vertebræ. Vulpins gives the mortality of the cases which fell under his care during the past 5 years, at 34.6%, though during the last year it had only been 15.4%. [G.B.W.]

11.—In dealing with the subject of **choledochotomy,** it is essential that we take into our consideration certain anatomic details, and important among these is the relation which the pancreas holds to the bile-duct. Very often the substance of the pancreas forms a ring around the duct, making the operative approach to the duct much more difficult, and later on in life forming a nondilatable portion, where stones are liable to become lodged. The connection of the capsule of the pancreas to the outer layers of the duct-wall make it possible for inflammations and tumors of the gland to considerably constrict the lumen of the duct. Occasionally the lymph-glands of the hepatico-duodenal ligament, by disease-processes, press on the bile-duct, but this occurrence is comparatively rare. The 3 seats of predilection at which gallstones are apt to be found in the bile-duct, are just behind the papillary mouth, just above the ampulla, and at the entrance of the duct into the pancreas. In operating, the nerves and veins give little trouble, but the arteries and their relations to the duct are of the utmost importance, especially the gastroduodenalis, which generally divides just in front of the duct. Haasler reports 18 cases of choledochotomy, which he summarizes as follows: Out of the 18 cases, 2 died; in 1 the operation was followed by a severe suppurative cholangitis and pericholangitis, with multiple abscesses of the liver, and in the other, fatal anemia resulted from secondary hemorrhage. All the others, except one woman, who had some return of her trouble, were completely cured. In most of the cases the wound in the duct was sutured without making a biliary fistula. The incision used ran along the edge of the ribs or parallel to the same. [G.B.W.]

12.—Morian reports a case of **Meckel's diverticulum** in which the interior of the gut communicated with the surface at the umbilicus. The condition developed right after the cord came away, and in the fifth week after birth, as there was no signs of spontaneous closure, operation was decided upon. It was found at the operation that a tubular projection about the thickness of a leadpencil ran from the small intestine to the umbilicus. There was no mesentery to the diverticulum. It was removed from the gut as Kocher does resection of the appendix, and with it the whole umbilicus was taken away. The success of the operation was absolute, the patient making a complete recovery. [G B.W.]

13.—A man, 21 years old, after injury developed an **acute symmetric osteomyelitis** of the **pubic bone** which finally resulted in the exfoliation of the epiphysis of this bone. The symptoms were those of an intense inflammatory condition with induration over the lower abdomen for about 6 cm. above the symphysis. At the operation a large abscess-hole was found underneath the recti muscles. There was loosening of the periosteum from the pubic bones and from each a small but detached portion of bone was removed. Also on both sides a large hole filled with pus was discovered running under the pectinei muscles. The abscess-cavities were well drained and the patient finally made a complete recovery. [G.B.W.]

14.—The method of **sigmoid rectostomy,** as practised by Rotter for the relief of stricture of the rectum, is as follows: a celiotomy is performed and the sigmoid flexure just above the rectum is divided between 2 ligatures with a thermocautery. The lower end of the gut is sewed up, forming a closed sac. The patient is then put in the lithotomy position and a transverse incision made just in front of the rectum. The dissection is carried upward between the rectum and vagina until Douglas's pouch is reached and opened, when the upper end of the divided sigmoid flexure is seized and drawn forcibly downward. The rectum is incised longitudinally between the sphincter and the stricture and the sigmoid flexure pushed into the incision and sutured in place. The abdominal wound is closed by sutures and the perineal wound packed with iodoform-gauze. Of the 3 cases thus operated on 1 died from septic peritonitis, but the other two made excellent recoveries. In both of the recovery cases there was finally good functional abilities obtained. [G.B.W.]

15.—For some time it has been known that the lymphatics through which **carcinoma** of the **breast** spreads to the axilla, run through the pectoral fascia and to a large extent follow the course of the larger bloodvessels, and lately Grossmann has in 3 cases found small glands along the course of the superior thoracic artery. Rotter, however, has by careful preparation and dissection found small lymphatic glands situated as follows: 1 or 2 along the main trunk of the superior thoracic artery (these probably being those described by Grossmann); 1 to 3 among the branches of the superior thoracic; and 3 along the course of the external mammary. The last 2 sets are not constant, being present in about half the cases. Occasionally a small gland was discovered among the arteria perforans. All of these glands are liable, in cases of carcinoma of the breast, to become infected, and therefore the necessity of thorough removal of the whole of the pectoral portion of the pectoralis major muscle is more deeply impressed on our attention than ever. [G.B.W.]

16.—An interesting case of **polyposis recti** is reported by Rotter. A woman, 31 years old, on examination, showed a fistula ani completa, secreting a great deal of pus; also numerous mucous polyps and a tumor of the rectum, which, by vaginal palpation, was hard, firm, slightly movable, and cylindric. Microscopic examination gave the diagnosis of adenoma maligna. The rectum was removed up to 10 or 15 cm. above the anus, and the cut end sutured to the skin. The patient made a good recovery from the operation, but about 2 months later the growth recurred, both in the artificial anus and in the vaginal wall. The growths were removed the second and a third time by curetment, but recurred rapidly after each operation, so that the patient's life was despaired of and she was discharged from the hospital. Four months later, however, the patient returned, and examination showed a complete disappearance of the growth; a complete recovery had spontaneously taken place. [G.B.W]

17.—**Bubo of the neck** may be situated in any of the following chains of lymphatic glands: (*a*) glandulæ cervicales superiores; (*b*) glandulæ cervicales superiores profundæ; and (*c*) glandulæ cervicales profundæ superiores. It is known that infection gets to the glands by following the lymphatic vessels which run from the original lesion to the glands involved. Therefore, the sore throat so common in the idiopathic form of scarlet fever may readily lead to the involvement of some of the glands of the neck. In the simple catarrhal form of angina complicating scarlet fever the glands generally are slightly swollen and tender, and sometimes suppurate, but rarely is there any great enlargement with the manifestations of a phlegmonous inflammation. Of the croupous form of the sore throat of scarlatina we have several varieties: (*a*) *Slight throat complications with the severest general infection.* This variety is characterized by slight enlargement of the glands all over the body, not particularly of the neck, and death in from 6 hours to 3 days. (*b*) *Severe throat disease with severe general condition.* I. Croupous form of scarlet fever angina. The pure membranous sore throat may be accompanied by great swelling of the glands of the neck with occasionally suppuration taking place in them. In the ulcerated membranous sore throat, however, the condition of the glands is much more severe and there is from the first great swelling and pain. When the patient lives long enough there is generally suppuration of the glands of the neck and phlegmonous inflammation of the surrounding tissues, but occasionally in very favorable cases the enlarged glands gradually resolve and return to their normal size. The gangrenous form generally terminates fatally in a few hours to 6 days, and the glands in the neck are destroyed in accordance with the length of the disease. II. Diphtheria occurring in the course of scarlet fever. The glands of the neck are very often enlarged, and in 1.3% of the cases in which they are enlarged, suppuration takes place. Sore throat in measles and chickenpox is of rare occurrence, but with it may exist any of the forms of cervical adenitis, from a simple enlargement of the glands to suppuration and phlegmonous inflammation. Swelling of the cervical lymphatic glands occurs quite frequently after small operation in the mouth, after large and badly treated wounds of the lower jaw, or from carious teeth and periodontitis. The bubo following extraction of teeth with no attention being paid to cleanliness, may occasionally be of extreme malignancy. We have the following clinical forms of bubo of the neck: I. *Bubo simplex*, which has its seat as a rule in the glands under the angle of the jaw, and is characterized by swelling and tenderness of the glands, with gradual formation of pus and pointing of the abscess. II. *Bubo phlegmonosus*, consists essentially of bubo simplex plus phlegmonous inflammation of the surrounding connective tissue. The inflammation goes on to suppuration of the connective tissue and destruction of the glands. This form of adenitis of the neck occurring at the angle of the jaw, may be only with difficulty diagnosed from parotitis. III. *Bubo pestilentalis.* The glands at the angle of the jaw and in the upper triangle of the neck are most frequently affected, and at first they become enlarged, resembling a nodular tumor. This condition rapidly develops into a hard homogeneous swelling taking in the parotid region, the side of the neck, and part of the face, with red and edematous skin covering the neighboring structures and adherent to the tumor. Pain is intense, swallowing and breathing hindered. The symptoms increase in severity as suppuration takes place. The glands break down and the connective tissue suppurates with the formation of gangrenous sloughs. If the patient lives long enough true moist gangrene of the part develops with formation of gases and stinking exudate. IV. *Retropharyngeal septic bubo.* A few lymphatic glands exist in the connective-tissue stratum lying posteriorly to the pharynx, and in inflammatory conditions of the throat these glands may easily become inflamed, but very rarely do abscesses develop in them. Probably streptococcus-infection is the cause of the severer forms of bubo of the neck. Various complications may arise in the course of a cervical adenitis, more especially in the severer forms. Burrowing of the pus, usually due to an active extension of the phlegmonous inflammation, either upward under the tongue, or down into the mediastinum, occasionally occurs and is followed by most disastrous results. Another rare complication is the breaking of the pus through into internal cavities and organs. Secondary suppuration in remote portions of the body occurs in two ways, either through septicemia, *i e.*, through the circulation of organized or chemic septic poisons, in the bloodvessels, or through embolism. Joints are the parts of the body most frequently attacked, and the hand and finger-joints suffer the oftenest. Disease of the bloodvessels is quite a frequent accompaniment to the bubo of the neck following scarlet fever. In the worst forms of scarlet fever we sometimes see a hemophilic condition, caused by degeneration of the red corpuscles and other constituents of the blood. Hematoma are found very occasionally. Thrombosis is more common, almost always being found in the small arteries and large veins. Ulceration through the walls of the larger vessels is one of the most dangerous complications, and fortunately is an astonishingly rare happening when we take into consideration how complete a dissection of the vessels may be made by the suppurative processes. Hemorrhage from ulceration of the vessel-walls occurs somewhat more frequently from the arteries than from the veins. This is explained by the fact that thrombosis forms much more readily in the veins, thus affording additional support to the vessel-wall. There is a case reported in which the source of a fatal hemorrhage could not be ascertained even postmortem. Various nerves may become involved in the destructive processes giving rise to neuralgias and paralyses. Another possible accident is opening of one of the larger lymph-ducts with the production of a lymphorrhagia. As to the treatment, attention should be paid to prophylaxis, such as cleansing the throat with douches of salt-solution, and when adenitis is present abscesses are to be opened at the earliest possible moment. [G.B.W.]

Sundry French Journals.

1. Clinical Exploration of the Renal Functions. Ch. Achard. (*Gaz Heb. de Méd. et de Chirur.*, Feb. 2, 1899. 46me Année, No. 10).
2. The Difficulties of the Diagnosis of Interlobar Pleurisy. L. Guinon, Tuffier, Béclère, and Rendu. (*Gaz. Heb. de Méd. et de Chirur.*, February 2, 1899. 46me Année, No. 10).

1.—At a meeting of the Académie des Sciences, held January 30, 1899, Achard called attention to the **clinical exploration of the function of the kidneys.** This may be accomplished by the subcutaneous injection of methylene-blue, that causes the passage through the kidnev of a substance that is entirely foreign to the organism. Other bodies may be chosen for this purpose without a modification of the principle of the method; but the normal constituents of the urine are not convenient for such investigations, because the rate of their excretion is influenced by diet, general nutrition, and the functions of other organs. The subcutaneous injection of phloridzin may be used in order to determine the activity of the functions of the kidneys that is decided by the amount of sugar eliminated. These different methods of exploration may be used conjointly, and the results that are furnished by each may be so interpreted that they control each other. [J.M S.]

2.—At a meeting of the Société Mèdicale des Hôpitaux held January 27, 1899, Guinon reported a case that shows that the **diagnosis of interlobar pleurisy** may escape the best conducted examination and the most attentive observation. The patient was an adult woman, who, for 3 months, had expectorated fetid pus without other physical signs than subcrepitant rales, heard particularly toward the upper third of the left lung. The expectoration was very purulent, resembled pea-soup in appearance, and sometimes contained small quantities of blood. In the face of a symptomatology so insufficient, preparation was made for an x-ray examination, when a formidable hemoptysis and a total massive congestion of the left lung followed the subcutaneous injection of creasote. From this time the condition of the patient became much worse, and the attacks of hemoptysis reappeared almost continuously. Then operative interference was decided upon, and a large cavity, contained in the upper third of the left lung, was opened and drained, but, in spite of the undeniable improvement that the operation produced, the patient succumbed to repeated hemorrhages. Tuffier, who operated upon this patient, thinks that the errors of diagnosis may be decreased by adding radiography, radioscopy, and stereoradioscopy, to the methods of examination ordinarily employed. Béclère thinks that interlobar pleurisy is much more frequent than is ordinarily supposed. Since the discovery of the x-rays has considerably facilitated the diagnosis of this condition, he has observed 10 cases. The condition is frequently confounded with gangrene of the lung. He calls attention to the fact that radioscopic examination would give the same results in cases of interlobar pleurisy and of aortic aneurysm. Rendu spoke of a case in which the diagnosis of interlobar pleurisy had been made by exploratory puncture. [J.M S.]

Practical Therapeutics.

Under the charge of

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of Philadelphia.

he Therapeutics of Acute Pneumonia.—Mays *erck's Archives*, May, 1899) states that from a practical exience of about 7 years he is convinced that the very best lication to the chest is ice. In 400 cases treated with d external applications, collected during the last 6 years, mortality was only 4¼%, against a death-rate of from % to 30% in cases treated without cold.

his measure reduces the fever; it subdues the tendency convulsions in children and allays the irritability of the vous system in adults; it limits and checks the extension the pneumonia-process by contracting the pulmonary illaries; it promotes resolution and disperses the products exudation; it acts as a profound sedative to the circulay and respiratory centers; it supports the function of the rt; it alleviates difficult breathing; it abates pain in the st; and it gives general rest and comfort to the patient.

he ice is applied in large flat rubber bags to the head and st. It is usually found that the hottest part of the head acute pneumonia is in the occipital region, and hence in ere cases 1 ice-bag should be applied to the neck, and ther one cover the front and top part of the head. This thod of applying the ice to the head is not out of place in less severe cases. The number of ice-bags which are to applied to the chest depends on the size of the area which nvolved in the pneumonic process, and on the degree of er. If the inflamed area is small and the fever not very h, 1 or 2 will answer. In infantile pneumonia the fever usually very high, while at the same time the physical s are poorly defined. In such cases 1 ice-bag on each of the chest and 2 to the head will generally suffice. In adult, if the fever is high and the involved area in the gs is large, the chest may be entirely covered with ices. In one of the worst cases in his experience 9 bags e applied to the chest and 2 to the head. The ice-bags y be wrapped in thin toweling, and if it is necessary to ly 4 or 5 or more, a broad, thin bandage is to be placed und the chest over the bags in order to keep them in ce. This is of great importance when the patient is restand tosses about in the bed. If the patient throws his d about a great deal, as is often experienced in severe es of this disease, it is a good plan either to suspend the bags, when applied to the top of the head, from, or tie m to the top of the framework of the bed or cot, in such ay as to have them in constant contact with the head, hout being wholly supported by the latter.

f the inflammatory area begins at the base of one lung, as sually does, and if it seems to show no tendency to spread, s good policy to apply an ice-bag to the opposite and ffected base in order to check invasion to this side, for ich the disease often shows a strong predilection. In adon to this it is also good practice to apply an ice-bag ve the infiltrated area, if this begins at the bottom of the g, or below, if it begins at the top, so as to prevent the rbid process from either spreading upward or downward.

he length of time during which the ice-bags are to be lied is largely determined by the amount of fever which resent. So long as this is high they must be constantly ined; if it falls to or near the normal point, and shows a dency to remain there, they may be gradually removed. s best, however, not to be in too great haste in withdraw- the cold, for frequently when this is done prematurely fever rises suddenly again, and then it is more difficult to ng the temperatnre down than it was the first time. netimes the temperature rises regardless of the ice being or off the patient. This is not, however, due to the reting of the disease in the old area, but because the inflamtory process has extended to another field of lung-tissue ich should be promptly followed and covered with ice.

lthough the local use of cold is paramount to everything in the treatment of acute pneumonia, internal remedies by no means to be discarded. Prominent among the er agents stands strychnin, which posesses a profound ulant action on the nervous system in general and on the respiratory nerve-supply in particular. Over and above this it is the equal of digitalis in enhancing the function of the heart, and thus tends to overcome some of the most serious tendencies to death in this disease. In order to get the most valuable effect of strychnin it must be given for effect. In other words, it must be administered in doses large enough so that its effects approach the border line of toxic action. In adults it is best to begin with a dose of $\frac{1}{30}$ grain 4 times a day, giving in addition a hypodermic dose of $\frac{1}{20}$ grain morning and evening until the limit of toleration is reached. In alcoholic or latent pneumonia it is well to begin with a larger dose.

Another very remarkable drug is capsicum. This is one of the most effective diffusible stimulants, and is of special advantage in that stage of acute pneumonia which is characterized by a low muttering delirium, a comatose tendency, picking at the bedclothes, etc., and which is often associated with a hard, dry, and sometimes black crusty tongue. It is to be given in doses of from 10 drops to a teaspoonful of the tincture in water every 3 or 4 hours. Dr. Mays has given a teaspoonful of the tincture every hour with the best results in cases of low alcoholic pneumonia.

Sleep is very important in this disease, and the giving of $\frac{1}{4}$ grain morphin hypodermically, in connection with a 10-grain suppository of asafetida at bedtime, will in most cases secure this desirable end. Oxygen given by inhalation, and more or less constantly, is of immense service in cases of great dyspnea and cyanosis. If oxygen fails to relieve the two latter symptoms then venesection must be resorted to. The salicylates of cinchonidia and of soda are of special value in the treatment of pleuropneumonia, or in grip-pneumonia, or when pneumonia is accompanied with pain in the joints, or when the disease occurs in a patient giving a distinct rheumatic history.

The question of nourishment is also one of great importance. The food should be concentrated in bulk, and of easy digestion. Freshly expressed beef-juice properly seasoned is probably the most nourishing food, of which 2 ounces ought to be given alternately, every 2 hours, with a glass of milk containing a tablespoonful of whisky or brandy.

If the stomach is rebellious, as is often the case during the early stage of the disease, the nourishment may be given by the rectum.

Cough in Laryngeal Tuberculosis.

℞.—Codein sulphat.	3 grains.
Sodium bromid..............................	120 grains.
Sirup of wild cherry........................	4 drams.
Water to make 2 ounces.	

Sig.—A teaspoonful every 4 hours for cough.

—Donellan, *Therapeutic Gazette.*

Resuscitation from Chloroform-Syncope.—Kelly recommends the following plan, which combines inversion and artificial respiration in an especially effective manner: "On the first indication of failing respiration the administration of the anesthetic should be instantly suspended and the wound protected by a fold of gauze. An assistant steps upon the table and takes one of the patient's knees under each arm, and thus raises the body from the table until it rests upon the shoulders. The anesthetizer in the meanwhile has brought the head to the edge of the table, where it hangs extended and slightly inclined forward. The patient's clothing is pulled down under the armpits, completely baring the abdomen and the chest. The operator, standing at the head, institutes respiratory movements as followers: Inspiration, by placing the open hands on each side of the chest posteriorly over the lower ribs, and drawing the chest well forward and outward, holding it thus for about two seconds; expiration, reversing the movement by replacing the hands on the front of the chest over the lower ribs and pushing backward and inward, at the same time compressing the chest. The success of the maneuver should be demonstrated by the audible rush of the air in and out of the chest."—*The Practitioner*, May, 1899.

The Treatment of Itching.—Savill (*Treatment*, December 22, 1898) considers ointments and lotions of very little use in treating this affection which, renders the lives of many people unbearable. Constitutional remedies are the most satisfactory. Tincture of gelsemium, 20 minims, twice daily, has been known to relieve. The best internal remedy is, perhaps, chloral hydrate (10 or 15 grains, thrice daily), but the drug has narcotic properties, may induce a dangerous habit, and its suspension is followed by a return of the itching. Pilocarpin internally, by promoting perspiration, is sometimes useful. In neurotic cases bromids are of value. In 1896 Savill first tried calcium chlorid in large doses, the idea having occurred to him after reading Professor Wright's researches into the effect of the remedy in increasing the coagulability of the blood. The fact that cases of prurigo are frequently attended by erythematous or urticarial exudations seemed to him to point to a tendency in the blood in such cases to exudation and therefore to increased fluidity—that is to say diminished coagulability. Consequently, whatever would increase the coagulability might, he thought, relieve this troublesome symptom. The favorable results attending the use of this drug in the first few cases induced him to try it more extensively, and in almost every case the effect was very striking. Since 1896, when 7 cases were published, many observers have tried this remedy not only in prurigo but in the itching attending all kinds of eruptions, and the treatment has received striking confirmation.

A New Treatment for the Arrest of Postpartum Hemorrhage.—Dr. Bastian (*Revue Médicale de la Suisse Romande,* January, 1899) describes a new method of treating this affection. It is efficient in promoting hemostasis no matter from what pathologic condition it may result. A bivalve speculum is introduced as high up into the vagina as possible (Dr. Bastian prefers that of "Cusco"), when it is opened as widely as can be done. The cervix uteri then appears in the opening. Iodoform or merely sterilized gauze is taken and pushed energetically into the cavity, taking care to block up entirely the os uteri and fornices. During this, the uterus rises into the abdominal cavity, but the plugging is continued gradually until the vagina is filled up as far as the ostium. The quantity of gauze or pledgets required is sometimes very considerable. If a slight sanguineous discharge should continue, it is easily stopped by a further introduction of the gauze. The speculum is not withdrawn until the lapse of 12 hours, when some of the plugging may be removed. The rest of the gauze is to be removed 24 hours after its introduction. The subsequent course is normal. The mechanism of the proceeding is as follows: If the hemorrhage be from the vagina, the compression effected by the blades of the speculum prevents the escape of blood as well as the distention of the vaginal walls which occludes the vessels in it. If the blood comes from the lacerated cervix, the direct compression of the bleeding-points and of the trunk of the uterine artery itself at the base of the ligaments, together with the stretching of these by the elevation of the uterus, are all causes which arrest the blood-flow. If it be due to uterine inertia, the elevation of the uterus which causes a stretching of the broad ligaments, occludes the vessels which they contain. The presence of the foreign body in the shape of the plugs also keeps up a certain degree of uterine contraction. In Dr. Bastian's practice this method has proved most efficacious.—*Scottish Medical and Surgical Journal,* April, 1899.

Gonorrhea.—Young (*Toledo Medical and Surgical Reporter,* February, 1899) has found the following combination useful in acute and chronic gonorrhea:

R.—Methylene-blue	2 grains.
Oil of sandal-wood	3 grains.
Oleoresin of copaiba	3 grains.
Oil of cinnamon	1 drop.

Make into one capsule. One capsule to be taken thrice daily.

To Abort a Cold.—Max Nassauer asserts that an incipient cold in the head can be checked if the nose is thoroughly rinsed out with a weak solution of potassium permanganate, which seems to have a specific action upon the germs causing coryza. It checks cold in the first hour or so. He keeps a strong solution of potassium permanganate on hand—about what can be taken up on the tip of a small knife to half a liter of water. A few drops of this strong solution are added to warm water until it is colored a pale pink. After blowing the nose vigorously both nostrils are well rinsed out with this weak solution, the fluid being allowed to run out through the other nostril and through the mouth. Each nostril is then wiped out with cotton on the finger. A small dry plug of cotton is then pushed well u into each nostril and the nostrils filled with the weak sol tion, with the head held back, the cotton being allowed t soak it up. The plug is left undisturbed for 'about an hou when it can be expelled by blowing the nose. Even an e tablished cold is favorably influenced by this treatment, b it is most effective when the sneezing, tickling and increase secretion announce the onset of the cold.—*Practitioner,* Ma 1899.

The Treatment of Chronic Nasal Catarrh b Massage and Insufflations of Xeroform. Hag dorn (*Die ärztliche Praxis,* No. 7, 1899) states that he only cau terizes tissue that cannot be reduced by massage of th mucosa, such as spines and projections. He has alwa succeeded in reducing diffuse swellings of the membrane b means of massage with the hard rubber catheter recon mended by Politzer for the drum of the ear. Massag causes a primary swelling followed in a few minutes b reduction in size, and after the fifth sitting this reductio persists until the following day. Twenty sittings are require on an average. The procedure is safe and pleasant, at th very least, in comparison with the use of the cautery. I cases in which the exceptionally abundant secretion is espe cially annoying to the patient the author insufflates ver finely powdered xeroform into the nasal cavities, thus effec ing a more rapid desiccation and reduction in size of th affected membrane. In children in whom chronic catarr is consequent upon adenoid vegetations, after radica removal of the growths under chloroform, xeroform insuffla tions are the sole procedures required in a very large num ber of cases. Only in older children, who have had chroni rhinitis for a number of years, a short course of massage treatment is needed in addition to the adenoid operation.

[Xeroform, or tribromophenol bismuth, appears as a pal yellow, or slightly greenish powder, almost free from odo and taste, and said to be free from both irritating and toxi properties. Heuss (*Therap. Monats.,* Band xi, Heft 4, 1897 states that it possesses the properties of both of its constitu ents, tribromophenol and bismuth oxid, in that it promote drying, and prevents fermentation and the growth of bac teria.]

The Carbolic-Acid Treatment of Tetanus.—H. C Wood (*Merck's Archives,* May, 1899) reviews the literature re lating to this subject, and draws the following conclusions:

1. Carbolic acid gives better results in tetanus than doe the antitoxin-treatment.
2. It acts by antagonizing the toxin and by quieting th nervous system.
3. It should always be given hypodermically, and in larg enough doses, cases of tetanus being remarkably toleran towards it.
4. Other methods of treatment should be continued, o which the discoverer lays especial stress on the local disin fection of the wound.

[The method of treating tetanus by carbolic acid, know also as Baccelli's method, consists in the administration, sub cutaneously, of a 2% solution of carbolic acid, given at 2 or hours intervals. The initial dose, in cases of average se verity, is about 3 grains a day, and this amount is rapidly increased to 6 or 8 grains a day. The danger of poisoning b carbolic acid is apparently greatly reduced by tetanus.]

Heroin.—Leo (*Deut. med. Woch.,* March 23, 1899) find that heroin, one of the new derivatives of morphin, lessen the rate of the respirations, but increases the depth of th breathing. As a narcotic, heroin is much less powerful tha morphin or codein, and therefore proved unsatisfactory i sciatica, neuralgia, rheumatism and gastric ulcer. It ha also little effect in checking cough, but in relieving dysp nea it proved of great value. Leo has used it in 2 cases o uremic asthma, 8 cases of emphysema, 15 cases of chroni bronchitis, 5 cases of asthma. Good effects were observed i all cases, except one of emphysema and 2 of chronic bron chitis. In some cases its action was remarkable, and afte one or two doses, the patients were able to sleep in the re cumbent position. In some cases it seemed to render th expectoration more difficult, but this action was offset by combining the drug with potassium iodid. According to Leo the dose should not exceed $\frac{1}{12}$ of a grain.

Original Articles.

CASE OF BROWN-SEQUARD PARALYSIS APPEARING ONE YEAR AFTER SYPHILITIC INFECTION.

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THE report of the following case appears to me tifiable as a contribution to the literature on Brown-quard paralysis because it represents a typical ex-ple, especially so far as the sensory disturbances are cerned, and because it illustrates the fact that nifestations on the part of the nervous system may pear in a relatively early stage of syphilis.

ohn W., aged 43, white, a telegraph lineman, single, was nitted to the medical wards of the Johns Hopkins Hos-l (service of Dr. Osler), May 26, 1897. He complained of alysis of the legs and of urinary trouble. The family ory was unimportant, except that one brother died of fulosis. There was no history of any neurosis in the ily.

le had had scarlet fever as a child, but there were no uels. When 32 years old he had an attack of dysentery. r since his eighteenth year he has been a moderate but ier steady drinker, averaging about two drinks of whisky y, but never went on sprees. He has taken very little hol, however, in the last year or so.

uring May of 1896 he noticed a small ulcer on the glans is, which he thinks appeared 3 weeks after intercourse. to its appearance he only remembers that it was a small, htly depressed ulcer which gave rise to no discharge and ch healed rapidly under local treatment. June, 1896, he iced several enlarged glands on the side of his neck. He a sore throat for 5 weeks, there were several small ulcers he tongue, and he had a little fever at times. Not until tember did he notice a rash; this he describes as consist- of red spots, not raised above the skin, numerous on omen and lower extremities. He had told a friend of this , etc., and was advised to take a "blood medicine," the ent selecting a patent medicine advertised as a "blood cific." Inquiry as to the ingredients of this blood specific ws that its principal constituent is potassium iodid and ; it contains no mercury. He improved under its use has taken it at regular intervals until the onset of his ent illness. He has never consulted a physician nor has aken any other treatment. There is no history of pains he long bones and no alopecia was noted. Except for the ptoms the patient's general health had been fairly good. has lost some weight, however, during the last 6 months.

lay 22, 1897, on getting up in the morning, he noticed a t aching pain in the back, especially between the lders, considerable headache and a feeling of malaise. neck felt stiff and sore. About midday he noticed for first time slight difficulty in placing his feet while walk- The right foot was the one especially affected, the le extremity felt heavy and the foot would drag. Towards ing the left extremity became more involved. It was with considerable difficulty that he could walk across a n. On the morning of the 23d the condition remained oted and he was able to walk about his room by using a . On the 24th the right extremity was almost com-ely paralyzed, but he sat up in a chair. On the 25th he d he had lost all power in the lower extremities so that vas obliged to remain in bed. There had been inconti-ce of urine and feces since the 23d and the sexual power ned absent. No fever was noted, there was no history of ill, no vertigo, and no mental symptoms. Memory was , and vision apparently normal, also hearing. There no tinnitus, no severe headache, no vomiting.

ysical examination showed a temperature of 97.5°, and pulse 72 a minute. There was no sclerosis of radial or temporal arteries; dorsal decubitus; natural facial expression; clear sensorium; complaint of a slight stiffness and soreness of back and neck; moderately well nourished man. There were no deviations from normal in the movements of the eyes, and the pupils reacted equally to light and accommodation. The tongue was in the median line, and there was no paralysis or paresis of any facial muscles. Examination of mouth and throat was negative. There was no alopecia. A moderate glandular enlargement existed affecting both inguinal epitrochlear groups and several still larger isolated glands in anterior and posterior triangles of neck. All the glands were hard and freely movable and not tender. There was no tenderness of the long bones or skull on percussion. The lungs were clear on auscultation and percussion, and the abdominal examination was negative. The heart-sound was clear and of normal relative intensity. There was no evidence of any spinal deformity, and none of the vertebræ were tender to percussion.

The patient lay in bed with the lower extremities motionless, with the right foot turned outward; he was unable to move the right extremity at all, and could not move the toes of right foot. The left extremity could, however, be moved to a small extent; almost all its muscles possessed some power, and the toes of the left foot were moved quite readily. Extension was performed quite well and under slight resistance, but flexion was almost completely lost. Abduction was possible with slight resistance, but the power of adduction was very reduced and almost impossible. The patellar reflex was much exaggerated on both sides, there was also bilateral ankle-clonus and patellar clonus; these reflexes are a trifle more exaggerated on the right than on the left side. The cremasteric reflex was absent. Muscular development was good, there was no fibrillary tremor, and no tenderness of the nerve trunks.

Sensory disturbances are shown on the accompanying charts. There was complete thermoanesthesia (heat and cold) on left half of body (paretic side), extending from a point 2 cm. below the xiphoid cartilage and passing to the spine in a horizontal line ending at level of eleventh dorsal vertebra; ending with remarkable abruptness at the median body line and not passing to the right of spine. There was complete absence to painful sensations over this region. The sense of touch was well preserved, the patient feeling and locating the slightest touch of a camels'-hair brush. Above this anesthetic zone a band of marked hyperesthesia to pain and temperature existed, having an average breadth of 5 cm.; posteriorly its upper limit was over the ninth dorsal vertebra. Muscle-sense was normal on this side.

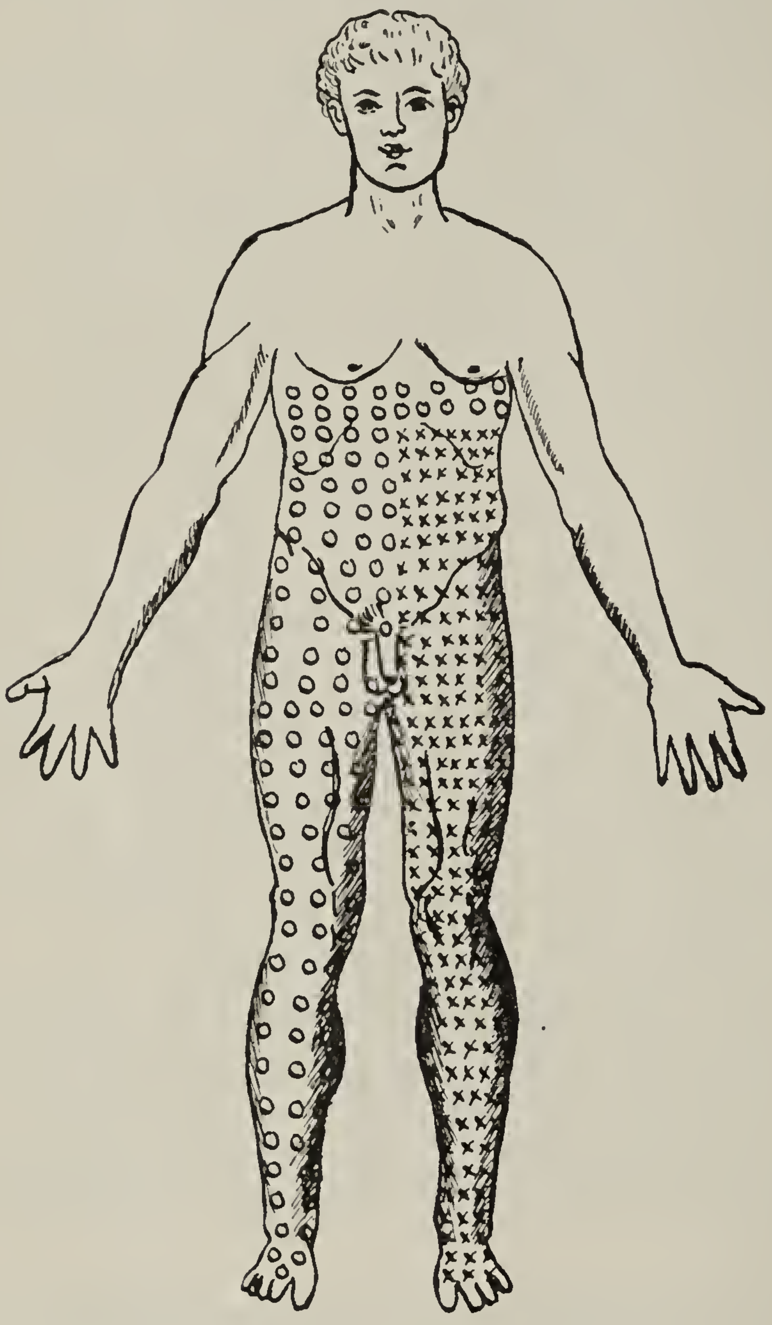
Over the entire right (paralyzed side) a marked hyperesthesia existed to both temperature and pain. This had the same boundaries as the anesthesia of the opposite side. The muscle-sense was slightly affected, the patient confusing the position of the toes when these were flexed, adducted, etc., but being able to judge correctly the positions of the entire right extremity. There were three areas of tactile anesthesia on the posterior aspect of the right leg and thigh as shown in chart. These were separated by areas of hyperesthesia.

Surface temperature, taken with two English surface-thermometers: Right side (paralyzed) after 10 minutes, 94.2° F. Left side (paretic) after 12 minutes, 93.3° F. No special vasomotor phenomena could be detected. No dermatographia.

May 30, the patient began a course of mercurial inunction which was continued at intervals over a period of 4 weeks. Potassium iodid was given in gradually increasing doses until he took two drams during the day. June 14, he was able for the first time since admission to move the right extremity, he was able to flex the thigh a little, also to abduct the extremity. Extension was not performed nor adduction. The left extremity improved rapidly and 10 days after admission showed almost normal muscular power. Retention of urine had ceased. August 10, the note says: "Marked improvement now presents itself. He is able to walk about the ward with the aid of a cane. The left extremity is practically normal, supports weight of body when standing on one foot. The right foot drags and the extremity is swung outwards in a half circle during act of walking. Analgesia and thermoanesthesia still exist on the left side, having the original boundaries. The hyperesthesia of the right side has almost disappeared, as has the zone of hyperesthesia above the anesthetic region on left side."

November 5, 1897 (almost six months from first appearance of the paralysis), he was able to walk several city blocks, but was obliged to have two canes; progress was very slow and the right extremity was still swung outward, describing almost a semicircle. The bladder and rectum were normal, there was no muscular atrophy, and thermoanesthesia and analgesia persisted on left side, while there was no hyperesthesia on the right.

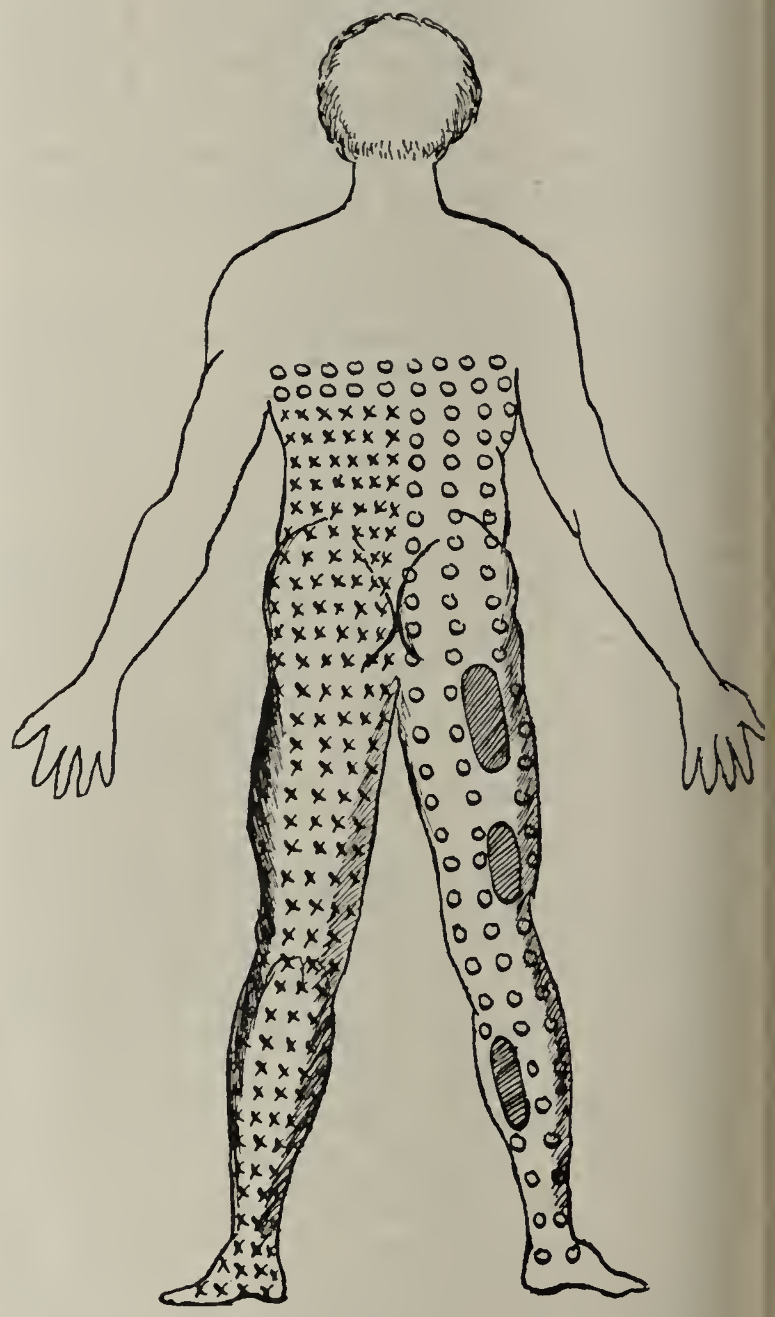
Although this case is not a typical example of the paralysis associated with hemilesions of the cord as first so classically described by Brown-Sequard that the affection bears his name, the only feature in the case, however, which deviates from Sequard's typical clinical picture of such lesions of the cord, is the absence of a pure monoplegia, as the other extremity was markedly paretic. This is, however, usual, even in such cases where hemilesions of the cord are produced experimentally in animals. The extremity on the opposite side to that of the hemisection of the cord almost always shows some slight paresis of its muscles, although this, as a rule, disappears quite rapidly, whereas the other extremity remains completely paralyzed. In practically all instances of the cases of Brown-Sequa paralysis which came under observation immediate after the injury to the cord, the extremity on the ane thetic side was affected to some extent, and it seems be but natural that this should be the case if we co sider that fibers pass from one side of the cord to t other, establishing, undoubtedly, more or less intima relationship between both sides, so that the gener effect of a traumatic shock to such a delicate org would almost surely exert some influence on regio more or less remote from those of the site of the injur itself, owing, probably, to delicate changes of a molec lar nature in the protoplasm of the cells, and this ma account for the frequent prompt improvement and e tablishment of normal function on the side opposite th lesion.



X = Thermoanesthesia and Analgesia.

O = Hyperesthesia.

Fig. 1.



X = Thermoanesthesia and Analgesia.

▨ = Areas of Anesthesia (touch).

O = Hyperesthesia.

Fig. 2.

It is, therefore, more the sensory disturbances whic come into prominence in this type of paralysis; an certainly in cases coming under early observation thes will be the important disturbances pointing to a lesio of one-half of the cord, for one could easily imagine that such a case might very well resemble an ordinary paraplegia of transverse lesions for a considerable period. In this case this is clearly shown, and I believe the recovery of the paretic extremity was even more rapid than is usual in this class of cases. It therefore seems only natural to assume that the pathologic process exerted its deleterious influence more especially on one-half of the cord.

The nature of the pathologic process in this case is more difficult to conclusively determine. The clear history pointing to a syphilitic infection, and the prompt mprovement in the symptoms after specific treatment, make it fairly certain that a syphilitic process of some kind was the etiologic factor. The entire absence of root-symptoms—in fact, of premonitory symptoms of any kind—rather tends to exclude that a gummatous umor or meningitis of syphilitic origin was the cause. It is more difficult to exclude a hemorrhage; but the onset was gradual, so that it seems more likely that a disturbance of the arterial supply to a portion of the cord (anemia or ischemia of the cord-substance) existed, perhaps with secondary softening. The primary cause being changes in the arteries themselves, may have led o partial obliteration of the lumens, the onset of symptoms, perhaps, being due to formation of a thrombus.

The frequency of arterial diseases from syphilitic infection, and especially as a cause of pathologic changes in syphilis of the cord and brain, tends to strengthen hese views. These syphilitic changes in the arteries were first satisfactorily studied by Huebner. The first hanges, according to this observer, begin in the media nd then involve the outer or inner coats, frequently both. If the process is especially marked in the latter, we speak of an endarteritis; and if in the former, of a eriarteritis; Koster, Baumgarten and Rumpf hold ractically the same views.[1] Others hold that the primary changes are usually found in the outer coat, so hat a periarteritis is produced, the cellular infiltration howing itself especially in the perivascular lymph-space of the vessel (space of His).

What seems to me of special interest in this case is the rather early involvement of the nervous system fter the infection. Of course it is not an extreme example by any means, for we shall find that the nervous ssues may be involved much earlier than this, a fact hich has only received the proper recognition during the last few years and should still be more widely taught; and it seems too much stress cannot be laid on the possibility of such manifestations in the treatment f the disease, in order to guard against their occurrence, so that the occasional early use of the iodids for t least short periods is advisable and too frequently eglected. Much credit is due to Fournier and Hutchinson[2] for first calling the attention of the medical world to these early manifestations on the part of the nervous system in syphilis.

In this country Lydston[3] was perhaps the first to add valuable material illustrating this question. One of the cases appearing in his articles is as follows: "A young man, 20 years old, has a sudden onset of aphasia with right-sided hemiplegia in the third month of syphilis. Chancre still to be seen. Mucous patches on tongue and lips. General glandular enlargement. Recovery with mixed treatment."

Brash[4] reports a case in which left-sided hemiplegia developed 10 months after infection. A right-sided facial paralysis of peripheral origin had appeared in this case 4 weeks after the appearance of the chancre. The facial paralysis was at first attributed to lead-poisoning, as the patient came in contact with the metal and had a blue line on his gums. Symptoms of labyrinthian disease with nerve-deafness appeared 8 weeks after infection. The patient stood mercurial treatment badly and died in coma 15 months after the appearance of the primary sore. The autopsy showed marked syphilitic endarteritis, and aneurysmal dilatations, affecting chiefly vessels of base of brain. There was a small area of softening in the upper right half of the pons and degeneration in right, left, and pyramidal tracts of the medulla. Both auditory and the right facial nerves showed a marked cellular infiltration and increase of connective tissue.

Jolly[5] reports a case in which cerebral symptoms appeared 8 months after infection. The patient had severe headache, vertigo, and vomiting, double optic neuritis, facial paralysis, followed by a total right-sided hemiplegia and word-deafness. Autopsy 26 months after infection showed a syphilitic meningitis, and marked changes in the arteries of the base of the brain, the arterial lumens being obliterated. There was an area of softening in the left temporal lobe. This case also illustrates how nearly brain-syphilis may simulate brain-tumor.

Bechterew[6] reports a case with autopsy showing involvement of the nervous system one year after syphilitic infection.

Westphal and Filliater saw general paralysis develop 18 months after infection.

That the optic as well as other cranial nerves may be involved in the secondary stage of syphilis is well known. Only recently I saw a case of double optic neuritis associated with retinitis in the third month of syphilis. There were no brain-symptoms in this instance.

Althaus makes the terse remark: "So far as the lesions of the nervous system are concerned we have no right on pathologic grounds to divide the changes of syphilis into secondary and tertiary periods, as gummata, arteritis, and other changes may occur in either period."

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[1] *Deutsche med. Wochenschrift*, Berlin, vol. xi, p. 749.

[2] *British Medical Journal*, vol. i, 1895.

[3] *Journal American Medical Association*, Vol. i, 1895.

[4] *Deutsche Zeitschrift f. Nervenheilkunde*, Band viii, Nos. 5 and 6.

[5] Referred to in article of Brash.

[6] *Archiv f. Psychiatrie*, Band xxviii, No. 3.

From these observations the views of Ricord are certainly disproved, for this observer limited the lesions of the nervous system in syphilis to the tertiary period.

Although stab-wounds are undoubtedly the most frequent cause of hemilesions of the cord, they may be produced by hemorrhages, tumors, more rarely by myelitis and sclerotic processes. That syphilis of the cord not so infrequently produces symptoms of such lesions is demonstrated by the number of cases reported; those of Oppenheim, Bechterew, Krafft-Ebing, and J. M. Clark being typical examples.

In 1862 Brown-Sequard first described the peculiar sensory disturbances following hemisections of the spinal cord. The most typical examples of these disturbances and which correspond to this type of paralysis most accurately are those following hemilesions of the dorsal portion, for one must remember that the results differ when the cervical and lower lumbar or sacral portions are involved.

The following disturbances would illustrate a typical example of Brown-Sequard paralysis.

Dorsal Cord.

INJURED SIDE.	NORMAL SIDE.
Paralysis of lower extremity on corresponding side.	Lower extremity of corresponding side normal. (Generally paretic.)
Below lesion corresponding half of body shows hyperesthesia to pain and temperature. Areas of anesthesia to touch. Muscle more or less disturbed.	Below lesion this half of body shows anesthesia to pain and temperature. Sense of touch and muscle-sense generally normal (may be involved ?). A band of hyperesthesia is frequent above this anesthesia.
Reflexes generally exaggerated (may be absent).	Reflex normal (frequently exaggerated).
Temperature of skin raised.	Temperature of skin normal.

Rectal and bladder symptoms are frequent. If the lesion is in the upper dorsal segments there may be pupillary symptoms, inequality, etc.

From this symptom-complex following hemisections of the cord, Brown-Sequard came to the conclusion that this could only be explained by the following arrangement of the motor and sensory fibers of the cord.

1. That the fibers carrying motor impulses were direct fibers.

2. Those carrying sensory impressions crossed to the opposite side of the cord, with the probable exception of those sensory fibers carrying the sense of touch and muscle-sense impressions which are only partially crossed, the majority direct.

Schiff, however, believed that the sensory disturbances could be best explained by an inhibitory action of the injured on the otherwise normal half of the cord.

In 1894 Brown-Sequard gave up his former theories and seems to have accepted the views of Schiff.

The valuable experiments of Turner support very strongly the theory of the crossing of the majority of sensory fibers from the lower extremities. For the upper, however, he believes only those subserving pain-impressions are crossed.

Mott's experiments oppose these views of Turner in that he comes to the conclusion that the fibers for temperature and pain impressions are direct fibers and on both sides of the cord. From a careful review of the literature of the last few years one certainly sees that most observers accept the original views of Brown-Sequard. Oppenheim, in the second edition of his "Lehrbuch der Nervenkrankheiten," Berlin, 1898, says: "The clinical observations on man agree essentially with the teaching of Brown-Sequard, and the more recent opinions in regard to the course of fibers in the spinal cord agree, at least in the more important details, with the facts which he (Brown-Sequard) first presented."

COMPRESSION OF THE SPINAL CORD AND SPINAL HEMORRHAGE.

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Assistant Physician to Out-patient Department of Howard Hospital, Physician to Out-patient Department for Diseases of Children, St. Joseph's Hospital.

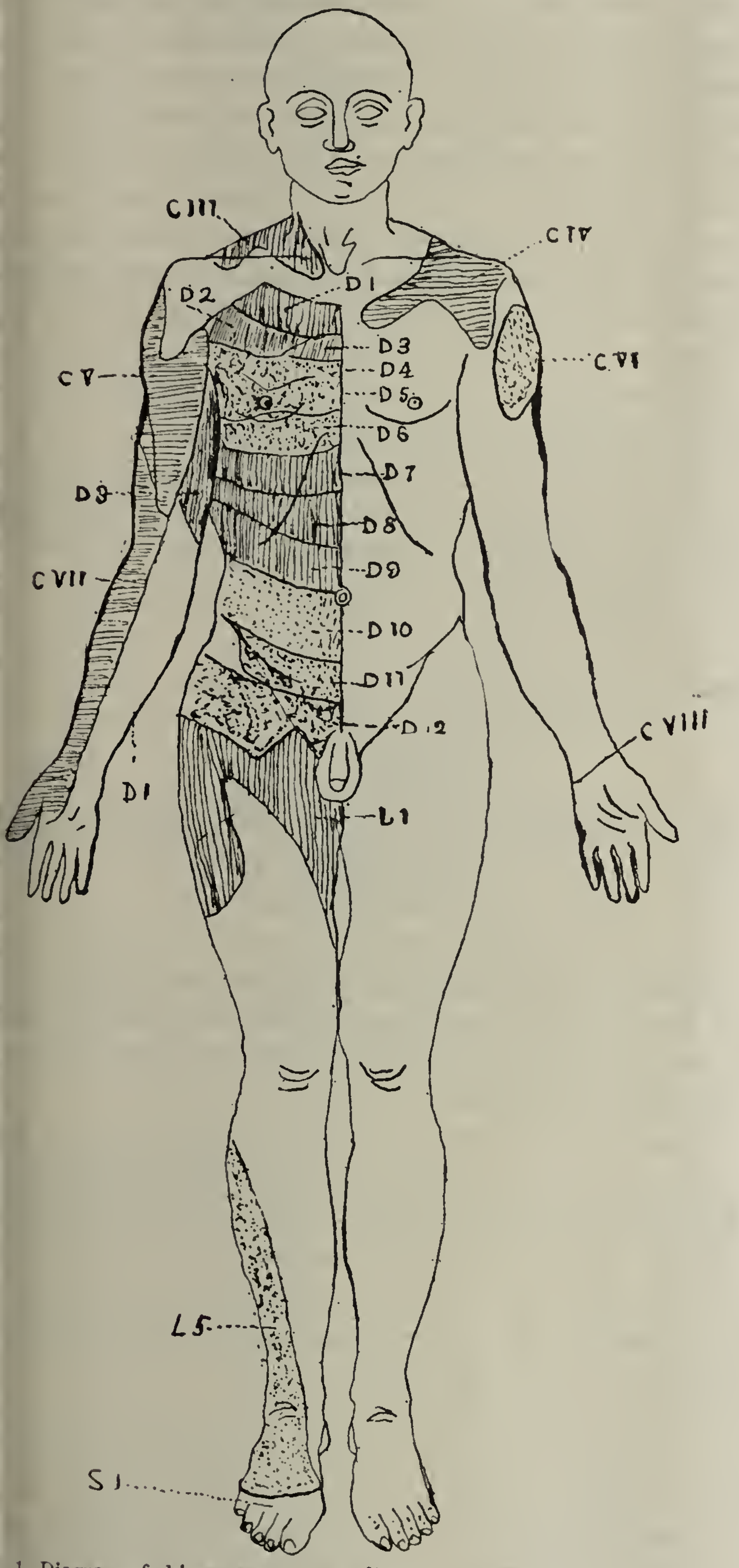
Reports of all injuries to the spinal cord are of special interest to the general practitioner of medicine, the surgeon, and the neurologist. In case of compression of the cord the questions of prime importance are those of diagnosis and treatment. Treatment, however, becomes of secondary importance in fracture or dislocation from the fact that in most cases a fatal termination ensues.

The signs and symptoms of spinal compression due to traumatism may easily indicate a proper diagnosis when there is deformity and complete paralysis of motion and sensation with involvement of the sphincters, but in many cases in which this condition supervenes upon accident no deformity whatever occurs. In a given case in which traumatism gives rise to sudden paralysis of motion and sensation of the lower extremities, loss of power over the sphincters, and without any signs of head-injury, a diagnosis of spinal compression must admittedly be correct. The most important question would be regarding the nature and extent of the compression, for upon the condition of the cord will depend the ultimate termination of the case.

In the absence of physical signs in these instances the symptoms alone must indicate the gravity of the lesion. Three conditions may be present, any one of which will bring about paralysis of motion and sensation of the lower extremities and loss of power over the sphincters: (1) Fracture or dislocation of vertebræ;

) hemorrhage into spinal cord (hematomyelia); (3) emorrhage into spinal membranes (hematorrhachis). emorrhage is a necessary concomitant occurrence hen the vertebra is fractured, but hemorrhage not in- equently occurs in the absence of fracture along the inal canal. In Case 4 this condition was observed exist.

FRACTURE OR DISLOCATION OF VERTEBRÆ could only ssociated with a history of traumatism, and, as in atomyelia, the symptoms come on immediately. symptoms of compression of the cord are mani- d at first usually by unconsciousness, and later by ial or complete paralysis below the seat of lesion, uding loss of control of sphincters. Localized ling may appear at the injured point and crepitus is sometimes present, but is usually not detected for obvious reasons. A very important symptom in compression of cord from fracture or dislocation of vertebræ is a high rise of temperature (103°—108°) before the second day. This symptom was present in all 3 cases here presented. Death generally occurs before the fourteenth day, if the phrenic nerve is not involved. In this case of course it would occur at once.



. 1. Diagram of skin-areas corresponding to the different spinal segments. ined from Head's diagrams. (Osler.)

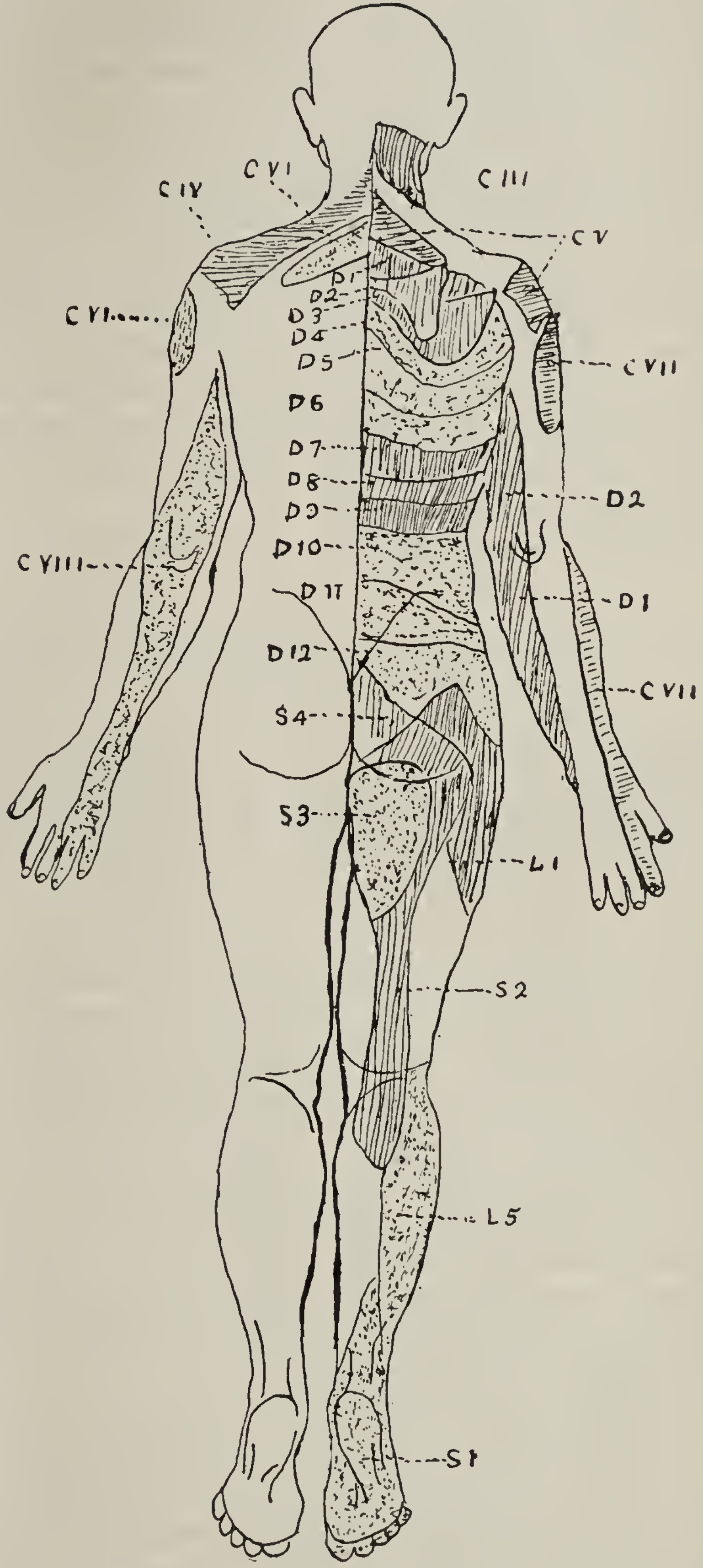


FIG. 2. Diagram of skin-areas corresponding to the different spinal segments. Combined from Head's diagrams. (Osler.)

HEMORRHAGE INTO SPINAL CORD (hematomyelia, spinal apoplexy, intramedullary hemorrhage) is admitted by all writers to be very rare. Hematomyelia generally occurs in cases with degeneration of the vascular system, is always sudden in onset, and not associated with a history of traumatism. Prolonged exertion, such as forced marches, have been known to bring it on. In some cases it has been secondary to such diseases as syphilis, smallpox, and yellow fever.

The onset of hematomyelia is marked by a sudden and agonizing pain in the spinal column, sacrum, thorax, or epigastrium. Gowers states that if the pain is situated in the spine it is local and does not extend for any considerable length as it does in hematorrhachis. With the pain there is complete paralysis (paraplegia) below the seat of lesion, together with loss of control of the sphincters. The temperature may be said to be normal as a rule, but after a few hours a moderate fever frequently comes on. As a rule consciousness is not disturbed and there is no rigidity of the lower extremities, relaxation being most common.

Hemorrhage into Spinal Membranes (hematorrhachis, extramedullary hemorrhage, spinal meningeal hemorrhage). In this condition the blood may be extravasated between the dura mater and arachnoid, in the subdural space, between the dura mater and bones, and between the arachnoid and pia mater. As in other forms of compression of the cord, hematorrhachis is brought about by direct violence.

Hemorrhage may occur in any portion of the cord and the symptoms will therefore become variable. If the hemorrhage be small in extent the symptoms develop very slowly. (In Case 4 they did not manifest themselves for several hours after receipt of injury.)

The onset may be said to be marked by a sense of constriction about the waist, twitching and cramps of the lower extremities, paresthesia and rigidity of the spinal column approaching opisthotonos. Pain is generally severe and extends along the course of the nerve-trunks, to be distributed to the areas supplied by the nerve-filaments or neurons.

Paraplegia with strong rigidity comes on, the sphincters finally yield and the feces is passed involuntarily and there is retention of urine with overflow. The hemorrhage if small may only occasion a slight rise in the temperature, while if excessive may give rise to hyperpyrexia approaching that of fractured vertebra. Osler has outlined the symptoms according to the site of the lesion as follows: "If the hemorrhage occur in the lumbar region there will be partial paralysis of the lower extremities with abolition of the reflexes and impairment of the sphincters. If in the dorsal region there will be girdle-pains with complete paraplegia, while the reflexes are usually retained."

In the cervical region, in addition to the other symptoms, there will be embarrassed respiration, rigidity o the neck, and pupillary symptoms.

After the paralysis has existed for some time, an owing to the fact that the cell-body and constituen parts of the central neurons have been destroyed in th affected area, the muscles will become soft and flabb and present the reaction of degeneration. The uppe limit to the area of anesthesia will not correspond o the periphery to the location of the affected region o the cord (or injured vertebra, as the case may be), becaus in the first instance peripheral nerves often contain several processes from distinct and widely separated segments of the cord; and in the second place, becaus the segment corresponds to the nerve which arises fron it and not to the vertebra to which it may be opposit The area of anesthesia may be shown by the followin diagrams:

In cases of hematorrhachis after several hours th area of anesthesia may extend upward.

Reverting to the symptomatology of these condition from time to time will aid in elucidating these case which are herewith presented. The first three ar probably cases of fractured vertebras with hemorrhag giving rise to compression, the last one being due alon to hemorrhage. Of the fatal cases autopsy could onl be obtained in one.

Differential Diagnosis.

Fracture Dislocation.	Hematomyelia.	Hematorrhachis.
1. History of traumatism.	1. History of prolonged exertion.	1. History of traumatism.
2. Deformity.	2. Negative.	2. Negative.
3. Onset sudden.	3. Onset sudden.	3. Onset slow or sudden.
4. Consciousness frequently lost for several hours.	4. Consciousness not disturbed.	4. Consciousness generally retained.
5. Paraplegia with loss of control of sphincters. Rigidity of lower extremities.	5. Paraplegia with loss of control of sphincters. Relaxation of lower extremities.	5. Paralysis generally affects lower extremities, an in exceptional cases control of sphincter Rigidity of lower extremities.
6. After a few hours, high rise of temperature.	6. Fever absent or only moderate.	6. Moderate fever.
7. Prognosis fatal.	7. Unfavorable.	7. Guardedly favorable.

Case I.—Mr. M. F., aged 28; family history was negativ The personal history showed that he had always had goo health; he was very muscular, and weighed 190 pound December 9, 1898, at 4.15 P.M., he fell from a scaffolding distance of about 12 feet, striking on his head. He remaine unconscious until 7 P.M. of the same day, when his min became clear and so remained until the day of death. O examination, only a few contusions about the scalp wer found. There was no deformity anywhere along the spina column, and no crepitus was elicited.

On careful examination at 7 P.M. on the day of the accident there was complete loss of motion and sensation i both arms and legs; the kneejerk and cremasteric refle were absent; pupils responded to light and distance.

Patient complained of intense pain in cervical region, an also said he felt as if a band as wide as the hand was constricting his chest at the level of the clavicles. At the uppe limit of this area there was a zone of anesthesia, and immediately below total anesthesia occurred. A sharp line divide the two areas. Posteriorly, the zone of anesthesia is foun immediately below the spine of the scapulæ.

The scaleni, sternomastoid, and deltoid muscles all responded to faradic current. The patient was entirely unabl to move his arms or hands and could only make movement with his head. No convulsive movements had been note On the day subsequent to injury the zone of anesthesia ha extended about 2 cm. higher than on the previous day. O third day following injury the muscles presented reaction

generation. From date of injury the feces had been
ssed involuntarily, and there had been incontinence of
ine with overflow.

Name, M. F.

TEMPERATURE.

	Pulse.		Temperature.		Respiration.	
y of nth.	8 A.M.	6 P.M.	8 A.M.	6 P.M.	8 A.M.	6 P.M.
9	. .	56	. .	96.2°	. .	20
10	92	88	104.4° (11 A.M.)	100.4°	36	24
11	96	84	100°	99.4°	24	20
12	84	90	102.2°	103°	24	24
13	88	72	98.2°	99.2°	24	24
14	88	100	99.3°	102.2°	24	28
15	100	112	103.3°	106.2° Death 12 P.M. Temp. 104.6°.	32	40

)eath was from failure of respiration, as shown by the fol-
ving: At 12 P.M. the temperature was 104.6°, pulse 64, res-
ation 4 per minute. At 12.06 P.M. pulse was 60, respira-
ns, 0. The pulse ceased to beat at 12.10 P.M.

ASE II.—Mr. J. E., aged 33, fell from a wagon June 9, and
s crushed between the wheels and some lumps of coal.
remained unconscious for several hours after injury,
iperature being 108°, pulse 120, and respirations 24. At
s time there was found to be paralysis of lower extremi-
with anesthesia extending up to the nipples. Slight
ormity existed at the fifth cervical vertebra, and there
s complete motor paralysis up to the nipples, involving
arms and hands. From the time of the injury there was
oluntary movement of bowels and incontinence of urine
h overflow. Priapism occurred on third day following
injury.

he patient not improving, laminectomy was performed 3
s after injury by Drs. J. J. Buchanan and R. W. Stewart,
he Mercy Hospital, Pittsburg, but no relief was obtained
n operation, death occurring June 13.

UTOPSY.—The body was that of a well-nourished man.
ht contusion existed over region of sacrum about 8 cm
diameter. On exposing the vertebræ there was a large
sion of dark blood, most marked in the cervical and
er dorsal regions. The supraspinous ligament was found
e ruptured at the tenth dorsal vertebra. There was a
ht extradural hemorrhage in the region of the seventh
ical vertebra, and also slight hemorrhage appearing to
etween the pia mater and cord on the posterior surface
esponding to this location. At this point there was also
it hemorrhage into the spinal canal extending along the
l on the anterior surface. Pulpefaction of cord was
id in two places immediately below the line of the
h cervical vertebra.

he bodies of both the fifth and sixth cervical vertebras
e not fractured, and the membranes of the cord in this
on were intact.

ame, J. E.

TEMPERATURE.

Day of Month.	Temperature.	
	8 A.M.	6 P.M.
9	. .	108°
10	104°	108°
11	103°	104°
12	103°	103°
13	. .	106° death.

SE III.—Mr. G. L., aged 60, was working on a scaffold-
n a church, July 3, when the plank broke and he fell a
nce of about 20 feet, striking his head on the end of a
the abdomen falling across the back of the pew.

hen first seen, several hours after admission, the patient
conscious and entirely free from pain. There was total
lysis of lower extremities; no sensation from pricking
pin over this entire area. The paralysis of motion in-
ed the arms and hands, the patient being only able to
e his head.

The anesthesia existed up to a point about 8 cm. above the nipple on the right and 5 cm. above the nipple on left side of body. Sensation to pencil stroke appeared to be good on the dorsal aspect, but was lost on the anterior surface of the forearms. Sensation was lost on the dorsal surface of both hands, but seemed normal (?) on the palmar surfaces. Posteriorly, sensation was intact above the first dorsal vertebra, but greatly diminished below this point. Near the junction of the dorsal and lumbar region there was a small area in which sensation to the pencil stroke seemed almost normal.

A day or two after the injury the patient complained of two very tender spots, one in the region of the fourth cervical vertebra, the other about the first dorsal.

Priapism occurred a few hours after the injury was sustained, but subsided after 24 hours. From the onset of the injury the bowels acted involuntarily and there was incontinence of urine with overflow.

July 6, patient was entirely free from pain, but death ensued quite suddenly on the following day.

Name, G. L.

TEMPERATURE.

Day of Month.	Temperature.	
	8 A.M.	6 P.M.
3		97°
4	100°	99°
5	99°	103°
6	100°	100°
7	. .	105°. Death.

Case of Hematorrhachis.—H. F., aged 6; father, mother, and several brothers and sisters all healthy. He had measles in March, 1898. November 11, about 9 A.M., he fell from a swing a distance of several feet and is very positive that he fell face-downward. He arose and walked around school all the morning and to his home, about 200 yards, without inconvenience. Late in the afternoon of the same day he began to suffer pain in the region of the stomach, which gradually became worse, and he was put to bed. The following morning his mother observed that when she gave him food his hands trembled perceptibly. He complained of his arms and hands feeling numb; the fingers were rigid and could not be flexed. At this time he could not raise his hands above the level of the body and had no control over them, but could move them within certain limits. Two days after the injury he began to suffer with general body-pains, and on palpation tender spots were found over the region of the right lobe of the liver, spleen, and umbilicus; the last-named area being quite hard and somewhat swollen (?). At this time there was intense itching all over the body, so severe as to cause the patient to scratch the skin off certain portions of the chest anteriorly. This itching sensation lasted three or four days. Two days after the injury, on pinching the lower extremities, sensation seemed relatively good (?), but from this time onward paralysis of sensation and motion gradually supervened until the tenth day after the injury, when there was total paralysis, the zone of anesthesia extending to the umbilicus. For three days after the accident the temperature ranged from about 99.5° to 100°; the pulse from 130 to 140, when there was a gradual decline to normal, where it subsequently remained. Sphincters were under perfect control until fifth day from injury, when they began to act involuntarily. November 26, there was distinct ankle-clonus and loss of patellar reflex, but no localized tenderness anywhere along spinal column. On the following day a more careful examination was made, and the following symptoms were present. By pricking with a pin, sensation was good in the region of the feet, legs, thighs, and abdomen, which several days previously had been completely paralyzed. He had been steadily improving for a week and was now able to toss his hands in all directions with control over them, and had a firm grip in the fingers. He lay upon the back throughout the entire day and was free from pain, which always began when he was turned on the side or abdomen. The appetite was good and the patient was bright and cheerful. The sphincters were still paralyzed. The pulse was 100 and the temperature 98°. November 28, the patient was able to move the index toe of the right foot for the first time since the accident. A day or two later he could move the index toe of the left foot. Several days later he could move the feet and legs.

Control of Sphincters.—December 4, a few moments after bowels had moved unconsciously, the patient said he felt as if he desired to go to stool. This symptom recurred several hours subsequently. On being requested to pass urine he could not do so, and incontinence with overflow still existed. December 7 (26 days after the injury), he expressed a desire to pass water, but it was found micturition had just occurred. This delayed sensation continued for several days and until December 10, when for first time he began to void urine voluntarily. The following day the sphincters were again paralyzed. For several days following December 10 there would be intervals in which the patient would have control over the sphincters, at other times not.

December 26 (forty-fifth day of injury), the sphincters were under control, but only able to retain urine for a few moments.

The patient was never catheterized. The urine was examined repeatedly, and when there was much sediment usually yielded to diuretics or sweet spirits of niter and solution of potassium citrate. January 8, a plaster-jacket was put on and 5 days later the patient was able to walk 5 steps. January 15, he walked 60 feet without support, but trembled considerably. Galvanic current of moderate strength was used 3 times a week.

From this time on recovery was uninterrupted, the patient regaining sufficient strength of limbs to run moderately fast and to climb trees with agility.

The points of special interest in the study of these cases are:

1. That in the 3 cases first cited, while the nature of the traumatism was different, the paralysis following in each case was practically the same, showing the susceptibility of the spinal column in the region of the fifth cervical vertebra to suffer injury.

2. That unconsciousness is usually one of the first symptoms when there is compression of the cord from fracture or dislocation, and that it does not always attend hematorrhachis.

3. That hyperpyrexia occurring several days after fracture or dislocation is an unfavorable symptom.

4. That in case of hematorrhachis the symptoms may not manifest themselves for several hours after receipt of injury.

I am indebted to Dr. E. W. Holmes for report of Case I.

RESULTS OF THE EXAMINATION OF THE BLOOD OF 90 SOLDIERS ILL WITH TYPHOID AT THE ST. AGNES HOSPITAL.*

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of Philadelphia.
Pathologist to St. Agnes' Hospital, Philadelphia.

During the latter part of the summer and the early part of autumn of 1898 there were admitted into the St. Agnes Hospital 144 soldiers suffering from typhoid fever. The opportunity thus given for the study of the blood in a large number of cases, and among individuals of approximately the same age, and who, it is fair to assume, were in the enjoyment of vigorous health a few months before, was most favorable, inasmuch as the results obtained under such uniform conditions might be of statistical value. The scope of this work, in which I was ably assisted by Dr. Joseph Walsh, bacteriologist of the hospital, was the study of the quantitative and qualitative changes in the red and white blood-corpuscles and their relations to each other in the various stages of the disease; the determination of the quantity of the HB and its relation to the red blood-corpuscles and finally to the search for malarial organisms, especially in the blood of soldiers suffering from typhoid fever, who were brought from Southern camps, from Santiago and Porto Rico. In selecting the cases to be studied, only such were chosen in which the diagnosis of typhoid fever was supported by all the symptoms and signs which are regarded as characteristic of the disease, including the Widal test; while, with few exceptions, which are noted in the appended table, all cases with complications which could have a tendency to influence the result of the blood-examinations were excluded. Of the cases admitted into the hospital, a large proportion suffered from some complication; so that the number in which an examination of the blood could be of value for purposes of comparison was of necessity somewhat limited. The clinical features of all the cases were exhaustively treated by Dr. Franklin B. Stahl† in a paper read before this college at its last meeting. The principal localities from which these patients came were San Fernandina, Fla., Camp Alger, Camp Thomas Santiago, Porto Rico, and Camp Meade. Many of the soldiers from Southern camps, from Santiago, and to a much less degree from Porto Rico, were markedly emaciated and extremely pale; a condition, no doubt due to indifferent food and to unsanitary surroundings and not only to their attack of typhoid fever. The skin in these cases was dry and shrunken as well as the tissues under it, so that in many instances it was only with the utmost difficulty that a sufficient quantity o blood for examination could be procured. In severa instances even puncture of a small vein failed to bring enough for our purpose, so that we were compelled to content ourselves with an incomplete examination The blood in these cases was of a peculiar watery brownish-red appearance and could not be made to stand out in the form of a drop on the surface, but immediately spread in a thin layer over the skin, thus making it impossible to draw it up into the pipet, a difficulty which could be occasionally overcome by painting a small ring of vaselin around the puncture thus preventing diffusion over the surface.

Classified according to weeks of illness, there were examined 7 cases during the first week, 10 cases during the second week, 15 cases during the third week, 29 cases during the fourth week, 10 cases during the fifth week, and 4 cases during the sixth week. In the remaining 15 cases a satisfactory history of the duration

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[*] Read at a meeting of the College of Physicians of Philadelphia, March 1, 1899.

† See Philadelphia Medical Journal, February 25, 1899.

the illness could not be elicited and these cases were erefore also excluded from the estimation of averages.

The Red Blood-corpuscles.—One of the most striking atures of our examination was the almost uniform duction of the number of red blood-corpuscles, so that only 6 cases (Nos. 18, 28, 30, 32, 74, 87) did the count ow 5,000,000 or more red blood-corpuscles to the cubic llimeter. In 2 of these cases the high count was, how- er, only apparent, being due to concentration in con- quence of severe diarrhea, while the others were mild ses in the first or second week of the attack. In 23 ses the count was between 4 and 5 millions red blood- puscles to the cubic millimeter; in 33 it was between and 4 millions; in 25 it was between 2 and 3 millions; d in 3 it was between 1 and 2 millions.

The average count for the first week (7 counts) was 19,714, for the second week (10 counts) it was 75,000, for the third week (15 counts) it was 3,206,333, the fourth week (29 counts), 3,191,680, for the fifth ek (10 counts), 3,203,700, for the sixth week (4 unts), 3,525,000; thus showing the greatest reduction the fourth week, after which there is a gradual in- ase. The qualitative changes which were observed the red blood-corpuscles were usually those com- nly seen in secondary anemias, such as poikilocy- is, absence of rouleaux formation, etc.

Hemoglobin.—The reduction of the hemoglobin was an almost constant feature, but kept pace with the uction in the number of red corpuscles only within y wide limits. When the count sank to a low figure was noted that the HB was usually not reduced in portion, so that such cases sometimes showed a her percentage of HB than cases having a higher nt, indicating that in such cases the individual od-corpuscles contain an unusual amount of HB. triking exception was, however, observed in case 41, which the count showed 1,168,000 red cells and only % of HB. The average amount of HB for the first k was 88.25% (7 cases), for the second week 70.9% cases), for the third week 70.2% (15 cases), for the rth week 61% (30 cases), for the fifth week 57% ases), for the sixth week 72.25% (4 cases). This ws that in all the cases a gradual reduction of the , beginning with the first week, took place, reaching lowest point in the fifth week, after which it again an to rise. The HB therefore continued to diminish a while even after the red cells began to increase.

he White Blood-corpuscles.—Like most other ervers a decided hypoleukocytosis was noted by us he majority of cases. In 68 out of a total of 86 s, or in 79.1%, there was found a reduction to less 8,000 white cells per cubic millimeter; of these ere between 7,000 and 8,000, 13 between 6,000 and 0, 17 between 5,000 and 6,000, 11 between 4,000 5,000, 13 between 3,000 and 4,000, 7 between 2,000 3,000, 5 between 1,000 and 2,000, while in 18 cases, 20.9%, there was an increase in the number of white cells varying in number from 21,000 (case 32) to above 8,000. The average count for the first week was 5,358, for the second week 4,326, for the fourth week 4,400, for the third week 5,574, for the fifth week 4,714, and for the sixth week 3,933. Of the cases showing leukocytosis 4 had complications, as follows: Bronchitis (case 5), purpura (case 18), furunculosis (case 76), and endocarditis (case 41), while one case of lobar pneumonia (52), one case of endocarditis, one of gangrene of skin (70), and one case of furunculosis (23), had hypoleukocytosis. It would be difficult to account for the increased number of white cells in the other cases, for, although we know that it is sometimes observed in apparently uncomplicated cases of typhoid fever, it nevertheless constitutes a good reason for suspecting the presence of some complication although not apparent at the time. The differential count showed that in almost all the cases without complications the juvenile forms of lymphocytes predominated, and that this was due principally to an increase in the large form of this variety of white cell. The small lymphocytes were found to predominate in 7 cases, while polymorphonuclear leukocytes predominated in 23 cases, mostly during the first week or when complications existed. Beginning with the first week in all uncomplicated cases, a steady decrease in the relative number of polymorphonuclear cells, and an increase in the juvenile forms was observed; so that at the end of the second week and at the beginning of the third this form of cell predominated. This increase, as was observed above, concerned principally the large lymphocytes; this was found in all but 7 cases, in which the small form was more numerous. Cases with complications usually showed a majority of the adult polymorphonuclear variety, although there was frequently observed a relative increase in the juvenile forms. Eosinophiles were rarely met with.

Parasitology.—In 7 cases (Nos. 26, 33, 35, 40, 59) extracorpuscular or intracorpuscular bodies, which in some instances contained pigment, were observed. These bodies were spherical, irregular in outline, and as first stated sometimes contained pigment which, at least in the intercellular variety, was usually gathered in or near the center of the body. In two instances sluggish ameboid motion was observed, while in the rest the bodies were quite motionless. Dr. A. O. J. Kelly, who examined 7 cases, was, however, more fortunate, having observed ameboid motion in 3 out of 7 cases examined. The red blood-corpuscles containing these bodies were usually more or less altered, in a few instances a mere shell only being left. Other evidence of chronic malaria, such as pigmentation of leukocytes, usually of the large mononuclear variety, was observed. With the Plehn-Czesinsky stain the intracellular bodies stained a deep blue, although a more lightly-stained portion could usually be made out in the interior of the body. Evidences of roset formation or of sporulation were never observed, nor did we ever succeed in finding rings, crescents, or ovoid bodies belonging to the estivo-autumnal variety. The question as to the nature of these bodies is an interesting one.

The malarial character of those showing ameboid motion can, of course, not safely be denied, but the nature of the others is not so clear. Intracellular bodies as well as extracellular pigments are sometimes seen in anemia, the former staining fairly well with methylene blue, although not so intensely but with more uniformity than these bodies. Their peculiar staining properties, however, their pigment, the simultaneous existence of pigmented leukocytes, the ameboid motion observed in some of them, and, finally, the disorganized condition of the red blood-corpuscles in which they are contained, stamp them, I think, as organisms of malarial origin. Ewing[1] also regards similar organisms, which he saw in cinchonized cases of malaria and in some cases of typhoid fever as atypical malarial organisms, and believes them to be of greater significance than conservative blood-analysts admit. The extracellular vacuolated pigmented and nonpigmented bodies have also been observed by Ewing (*loc. cit.*). He says that "this group does not include the adult tertian parasite, which in the fresh condition usually appears free from cellular element, and is almost always demonstrable by staining, nor the larger sterile forms showing pigment in vibratory motion. In the fresh condition the appearance of cystic extracellular bodies strongly suggests an origin from malarial parasites." These cases, however, cannot be regarded as instances of the coexistence of active malaria and typhoid fever, but only of the latter disease, occurring in malarious subjects in whom the malarial element had been suppressed by the more masterful disease.[2] It is well, however, to remember that most of the cases received at the hospital had been already pretty thoroughly cinchonized before admittance, and that this may in part account for the absence of the typical organisms in the blood.

The question of the coexistence of active malaria and typhoid fever has been the subject of lively controversy during the last half-century, and one which seemed impossible of definite solution until the employment of exact laboratory methods in general and the discovery of Laveran's organism in particular. Since then the subject has received renewed attention from medical investigators, with the result that up to date 31 cases, which have been studied by modern methods, have been published. Twenty-nine of these were collected by Lyon[3] from literature to which he adds 2 of his own. Those collected by Lyon from literature are from the following authors: one by Osler,[4] one by DaCosta,[5] five by Kinyoun,[6] three by Thompson,[7] two by Laveran,[8] and seventeen by Vincent.[9] Of these, two of Kinyoun's and eight of Vincent's ended fatally, a mortality of 32.22% of all the cases published.

The clinical similarity between some cases of pernicious malaria and typhoid fever is so well known tha it needs no further comment, a differential diagnosi being sometimes very difficult. Rose spots, hemorrhages, diarrhea, tumefaction of the spleen, high, continued fever, sudden exacerbations, and remission may be observed in both; nor does a positive Widal tes always help us, although presumptive evidence is i favor of typhoid fever, it sometimes fails or gives a positive reaction in nontyphoid cases. The demonstratio of Eberth's bacillus in the blood or stools is bette evidence, but attempts to find it frequently fail and it i always somewhat difficult of differentiation. Finally th blood-count in both affections, being similar, cannot ai in diagnosis, so that the final determination of th occurrence of mixed typhoid and malarial infectio could therefore not rest on clinical data alone, bu required the demonstration of the malarial parasite i the blood during life, and of the typical typhoid lesion after death.

All these conditions, so necessary for the demonstration of the actual occurrence of active malarial an typhoid fever are present in Vincent's 8 fatal cases which came to autopsy, and in which the active malarial parasite as well as the characteristic typhoid lesion were present. This observer concludes—"from th anatomicopathologic changes which are found in th fièvre typho-palustre, and especially from the result of bacteriologic and microscopic examination of th blood and viscera, we believe that we may conclude tha the syndrome studied is no other than a mixed infection, due to the association of the bacillus typhosus, an the pathogenic organism of paludism." An account o the fatal cases of Kinyoun could unfortunately not b found, but the importance of Vincent's observation cannot be overestimated, constituting as they do a scientific basis for that peculiar clinical picture describe by competent clinicians as mixed typhoid and malaria infection. Burserius,[9] in 1781, was the first to describ such cases under the name of the proportionata; h was followed by Herman Schmidt,[10] in 1830, and b Maillot,[11] in 1836, and Felix Jacquet,[12] in 1851; in th United States, by Drake,[13] in 1854, by Dickson,[14] i 1855, and by Levick,[15] in 1863, who described them under various names. Woodward,[16] in 1863, first introduced the term typhomalarial fever, a designatio which has given rise to a great deal of confusion, inasmuch as it conveyed the idea of a peculiar combinatio of both infectious agencies forming a modification o both, and hence was used, especially in the souther United States, for every case of typhoid fever whic presented any unusual features. Until the discover of Laveran's parasites and the adoption of moder methods of research, the possibility of the existence o both infections in the same subject met with violen opposition. In the cases reported by Osler, Da Costa Kinyoun, Thompson, Laveran, Vincent, and Lyon careful examinations of the blood were made, and th

Age.	Number of Red Corpuscles in cu. mm.	Number of White Corpuscles in cu. mm.	Hemoglobin.	Kind of White Corpuscles Predominating.		Week of Illness.	Remarks.
					Juvenile.		
20	3,000,000	3.500	53 %	....	Large.	4th	
30	4,218,000	3,100	39 %	....	Large.	3d	
22	3,220,000	4,400	70 %	....	Large.	5th	Convalescent.
24	2,800,000	5,300	50 %	....	Large.	6th	
22	4,250,000	3,900	68 %	Adult leukocytes.	....	2d	Bronchitis.
25	4,270,000	4,400	96 %	Adult leukocytes.	....	1st	
27	3,200,000	2,500	52 %	....	Large.	4th	Porto Rico.
22	2,600,000	8,300	50 %	....	Small.	4th	
35	2,500,000	?	45 %	....	Large.	6th	Died.
?	3,236,000	3,700	68 %	....	Large.	3d	
17	2,520,000	8,400	40 %	....	Large.	4th	
25	3,520,000	5,200	87 %	....	Large.	4th	
20	4,080,000	7,500	82 %	....	Large.	2d	
21	4,534,400	8,000	65 %	....	Large.	3d	
20	2,800,000	4,400	65 %	....	Large.	4th	Camp Meade.
24	3,750,000	1,050	85 %	....	Large.	4th	
26	2,000,000	6,000	58 %	....	Large.	5th	
21	5,800,000	8.100	56 %	....	Large.	?	Purpura.
22	2,902,000	8,100	86 %	....	Small.	1st	
21	3.840,000	1,500	70 %	Adult leukocytes.	....	6th	
20	4,800,000	3;100	70 %	....	Large.	5th	Camp Meade.
28	3,200,000	8,300	60 %	....	Large.	3d	
27	4,3 9,000	4,700	?	Adult leukocytes.	....	5th	Furunculosis.
21	3,320,000	6,900	71 %	....	Large.	2d	
21	4,800,000	4,400	100 %	Adult leukocytes.	....	1st	
28	3,466,000	6,900	80 %	....	Large.	4th	Poikilocytosis. Pigmented and nonpigmented, intra- and extracorpuscular bodies.
21	2,400,000	5,000	58 %	....	Small.	3d	Porto Rico.
21	3,800,000	9,500	75 %	Adult leukocytes.	....	9th	Porto Rico.
21	2,450,000	1,900	40 %	....	Large.	4th	Santiago.
22	6,400,000	3,300	70 %	....	Large.	3d	Severe diarrhea.
35	4,500,000	10,000	90 %	Adult leukocytes.	....	?	
21	6,000,000	21,800	92 %	Adult leukocytes.	....	1st	Camp Meade.
34	2,470,000	11,250	70 %	....	Large.	4th	Nonpigmented, intracorpuscular bodies showing ameboid motion.
21	4,180,000	5,000	90 %	Adult leukocytes.	....	2d	Camp Meade.
18	3,100 000	8,800	60 %	Adult leukocytes.	....	2d	Intracorpuscular pigmented bodies. Porto Rico.
?	2,400,000	5,800	65 %	....	Small.	4th	San Feruaudina, Fla.
35	2,500,000	4,400	70 %	....	Large.	3d	
21	3,600,000	7,600	48 %	....	Large.	4th	Santiago.
23	2,400,000	6,250	46 %	Adult leukocytes.	....	9th	Santiago. Very pale.
21	2,575,000	5,625	62 %	....	Large.	4th	Pigmented intracorpuscular bodies. Porto Rico.
24	1,168,000	10,000	17 %	Polymorphonuclear leukocytes.	....	4th	Endocarditis.
22	4,266,000	4,375	93 %	Polymorphonuclear leukocytes.	....	1st	
21	2,500,000	3,225	43 %	Polymorphonuclear leukocytes.	....	8th	Camp Meade.
24	1,950,000	4,400	50 %	Polymorphonuclear leukocytes.	....	4th	
23	3,400,000	6,000	62 %	Polymorphonuclear leukocytes.	....	8th	Convalescent. Porto Rico.
20	3,900,000	3,900	53 %	....	Large.	5th	Santiago.
22	3,280,000	6,200	25 %	....	Small.	4th	Santiago.
28	1,800,000	?	36 %	....	Small.	5th	San Fernandlna, Fla.
20	3,600,000	5,500	72 %	....	Large.	3d	San Fernandiua, Fla.
23	4,375,000	18,536	32 %	Polymorphonuclear leukocytes.	....	2d	San Fernandiua, Fla.
28	4,100,000	6,450	65 %	....	Large.	3d	San Fernandina, Fla.
34	3,587,000	2,920	87 %	Polymorphonuclear leukocytes.	....	3d	Complication with pneumonia, delirious. San Fernandina.
35	4.725,000	5,000	89 %	....	Large.	4th	
28	4,100,000	4,667	82 %	....	Large.	3d	
27	3 300,000	6,250	40 %	....	Large.	7th	Convalescent.
22	2,800,000	6,250	35 %	....	Large.	2d	
20	2,500,000	?	30 %	....	Large.	4th	
34	2.132,000	6,950	40 %	....	Large.	10th	Camp Meade.
25	4,400,000	8,125	88 %	Polymorphouuclear leukocytes.	....	?	Pigmented and nonpigmented intra- and extracorpuscular bodies. Porto Rico.
25	4,950,000	5,000	54 %	....	Large.	6th	Convalescent.
26	5.800,000	5,625	100 %	Adult leukocytes.	....	1st	Camp Meade.
?	3,530,000	5,000	71 %	....	Large.	?	Santiago. Pigmented and nonpigmented bodies.
?	3,800,000	5,965	55 %	Adult leukocytes.	....	4th	Endocarditis.
23	3,700,000	3,868	60 %	....	....	4th	
20	4,266,000	3,125	95 %	....	....	3d	
24	3,600,000	3,950	62 %	....	Large.	3d	Porto Rico. Had chills and fever before present attack.
24	3,200,000	10,625	72 %	Adult leukocytes.	....	11th	Couvalescent.
20	4,200,000	9,000	65 %	....	Large.	?	
21	3,680,000	6,489	67 %	....	Large.	4th	Santiago.
23	3,400,000	2,375	75 %	Adult leukocytes.	....	4th	Gangrene of skin.
?	3,568,000	4,000	57 %	....	Small.	4th	
19	4,875,000	2,500	60 %	....	Large.	2d	
24	4,400,000	2,500	80 %	....	Large.	3d	Porto Rico. Nonpigmented intracorpuscular bodies.
27	6,245,000	5,539	92 %	Adult leukocytes.	....	2d	
22	3,840,000	5,000	65 %	....	Large.	4th	
21	3,962,500	16,336	62 %	....	Large.	4th	Furunculosis.
24	2,728,000	6,875	59 %	....	Large.	5th	Convalescent.
22	3,300,000	3,437	58 %	Adult leukocytes.	....	7th	
24	3,500,000	8,125	57 %	....	Large.	5th	
22	2,297,000	?	72 %	....	Large.	5th	
24	2,000,000	4,500	73 %	....	Large.	4th	Santiago.
?	2,660,000	3,125	68 %	....	Large.	4th	
23	3,400,000	3,125	60 %	....	Large.	2d	
20	2.200,000	1,000	60 %	....	Large.	5th	
?	4,800,000	6,000	80 %	....	Large.	3d	
17	2,600,000	1,666	80 %	....	Small.	4th	
19	6,225,000	2,500	95 %	....	Large.	4th	
27	2,400,000	5,000	82 %	Adult leukocytes.	....	2d	
33	4.200,000	5,000	65 %	Adult leukocytes.	....	1st	
23	3,800.000	5,000	60 %	....	Large.	4th	

active malarial organisms were found. All modern observers, however, agree as to the comparative rarity of this condition, at least in the temperate zone. Dock,[17] in Galveston, declared, in 1894, that he was willing to go anywhere, if a doctor had a case of malarial and typhoid infection, to search for malarial organisms in the blood. Thayer,[18] in his enormous experience, never saw a case, although he admits the possibility of its occurrence. Ewing (*loc. cit.*), speaking of his examinations of the blood of the soldiers at Montauk Point, says that "in spite of every painstaking effort the attempt to find a case of typhoid fever and active malaria progressing simultaneously was unsuccessful."

Ewing, however, also admits the possibility that some of the patients at Montauk suffered from this condition, but says there was no positive indication that such was the case. When typhoid fever occurs in a malarial subject, the development of the malarial organism in the blood is usually inhibited either wholly or in part, resulting either in the disappearance of the organisms from the blood until convalescence or in the presence of atypical forms, such as were observed in some of our cases. The typhoid element usually dominates the scene, but there are cases in which the malarial infection seems to be too strong to be suppressed, thus resulting in a true mixed infection.

In response to an inquiry, Dr. Stahl informs me that the possibility of the occurrence of typhoid and malarial infection was constantly kept in mind, but that the sudden rises of temperature observed were due to other causes.

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A Greek Philanthropist.—The following are some of the bequests of the late Mr. Andreas Syngros, of Athens: $250,000 to the Evanghelismos Hospital, $50,000 to the Elpis Hospital, $75,000 to the Dromokaïtion Lunatic Asylum, $125,000 to the Amelieiori Orphanage, $50,000 to the Kadji-Kosta Orphanage, $75,000 to the Children's Hospital, and an extensive estate at Oropos, valued at about $800,000, upon which is to be erected a marine sanitarium for scrofulous and convalescent children.

THE DIFFERENTIATION OF APPENDICITIS FRO OTHER AFFECTIONS IN THE RIGHT ILIAC AN PELVIC REGIONS.

By A. A. BERG, M.D.,

of New York City.

TO THE operating surgeon, whose action is based upo his diagnosis, it is a matter of the utmost importanc that such diagnosis should be as accurate as the presen status of our knowledge will allow. Nothing can b more exasperating to the surgeon who has expressed decided opinion as to the nature of a particular affectio and advised an operative procedure accordingly, tha to be proved wrong when such measure is carried ou Especially is this the case when the mistake could hav been avoided by a closer and more careful examinatio of the patient.

The frequency of appendicular inflammations i both sexes has almost blinded our eyes to the existenc of other structures in the right iliac and pelvic region disease of which can simulate in many ways a disease condition of the appendix vermiformis, and especiall is this the case in the female sex. The general prac titioner upon whose shoulders rests the first an heaviest burden of making a diagnosis, has been pr judiced to the opinion that all affections in the righ iliac fossa are appendicular in origin—his opinion in fluences in only too many instances the conclusions the surgeon upon whose shoulders, in turn, rests th chief blame for faulty diagnosis.

Probably the most frequent of the lesions apt to sim late, and hence be confounded with, appendicular dis ease is salpingitis. I doubt very much whether it ha not fallen to the lot of every one of us to have mistaken at some time, an acute inflammation of the fallopia tube for an appendicitis. The symptoms resemble eac other in many respects, both constitutionally an locally. Thus in both there may be a history of pre ceding attacks. The present one is sudden in onse with or without vomiting, a febrile movement, and a increased pulse-rate. The progressive character of thes general symptoms may be present in either cas Local examination will usually enable a correct diag nosis to be made; but such local examination should n be confined to mere external palpation; it should i every instance be accompanied with both a vaginal an rectal palpation. I have learned by experience never t diagnose appendicitis until a careful vaginal and recta examination has ruled out disease of the uterine a pendages. Even though the case is to all appearance a straightforward attack of appendicitis, and even thoug we would spare the patient the annoyance of a vagina and rectal examination, the frequency of errors in ju these cases, occurring to the best of men, is sufficien reason for a systematic palpation of the parts by th vagina and rectum.

In considering the differential diagnosis betwee lpingitis and appendicitis, we must distinguish be- een two sets of cases—those in which the appendix cupies its usual seat in the iliac region, and those which the appendix, either on account of its ng mesentery or because of adhesions, has come lie in the pelvic fossa. In the former class of ses the diagnosis will rarely be in doubt. Externally e inflammatory focus in an appendicular inflamma- n is at a higher level than in a salpingitis. By the gina and rectum the fallopian tube can be felt pass- g from the uterine cornu, out to the brim of the lvis, in close relation to the ovary, and distinctly nder and swollen when inflamed.

It is in the latter class of cases that errors in diag- sis most frequently arise. If the adnexa are healthy d well, we can at once exclude these as being the urce of the trouble; when they are diseased, however, e differential diagnosis is by no means easy. The fficulty is further increased when we consider that th structures may be simultaneously the seat of flammation, and be closely bound together by exudate d adhesions. We have no means at our disposal of fferentiating between appendicular and tubal disease the latter instance; the most we can venture is a obable diagnosis, leaving to the incision the task of monstrating the true *status quo*.

Another rather frequent source of error in diagnosis caused by the presence of a small cystic ovary, which m time to time excites around itself a local peri- itis. I can best illustrate this by describing a case vas recently asked to see, and which was suspected being an acute appendicitis.

woman, 30 years old, suddenly began to complain of ere pain in the right iliac region (a little lower down than usually the case). Her temperature rose to 104° and her se to 110. She felt nauseated and her bowels had not ved in 48 hours. On local examination the lower abdom- l wall was rigid and a mass which was exceedingly tender uld be palpated about the level of the pelvic brim. ginal examination showed this mass to be the right ovary, arged, tender, and cystic; the fallopian tube was normal. vement of the right ovary by the examining finger caused reased pain. I diagnosed a local peritonitis due to the tic ovary. The attack subsided under ice applications, has returned several times since. In the interval the endix appears normal, the ovary, however, being tender painful.

Here, as in many other cases, it might be claimed t operation would have served a good purpose in noving a diseased ovary. Our position, however, o diagnose the exact condition, whenever possible, ving the question of operation for the patient to ide, after the case both pro and con has been clearly ed.

Considerably less frequent than the preceding in- nmatory conditions and yet very worthy of mention his connection of differential diagnosis, is an inflam- tion of the cellular tissue behind the colon and itoneum, a cellulitis which sometimes extends into psoas muscle, involving that in the inflammatory cess. Such cellulitis is usually secondary to an infection from the genital organs, and hence is very likely to be associated with a similar inflammatory condition of the pelvic cellular tissue.

In these cases the diagnosis is simple enough. The history of a recent childbirth, or abortion, and the presence of a pelvic cellulitis which can be traced upward into the posterior cellular tissue of the abdomen aid considerably in forming the diagnosis. When the psoas muscle is also involved the thigh is flexed, complete passive extension is painful, and complete active extension is impossible.

We must also remember that such a cellulitis is quite often secondary to an appendicitis or ulceration of the colon, but here there is usually no pelvic involvement and there is a previous history of appendicitis or colitis.

Inflammations of the right ureter or the passage of a calculus along its lumen can often be mistaken for appendicitis. An attack of renal colic, attended as it is with the characteristically radiating pain, and its associated symptoms is not apt to mislead us, but diseased conditions of the ureter are. Yet a careful examination of this structure ought rarely leave us in doubt as to its condition. Vaginal or rectal examination shows the ureter (thickened, swollen, and irregular when diseased) passing upward and outward (to the side of the cervix, behind the broad ligament in the female), over the posterior pelvic wall to the pelvic brim, and thence by abdominal palpation we can trace it upward to the loin, and especially so when it is diseased. When such information as to the character of its wall is combined with the knowledge we obtain by cystoscopic examination, and by catheterization of its lumen, we can but rarely be left in doubt as to its condition.

Inflammations of the gallbladder frequently call upon our sharpest powers to make the differential diagnosis from appendicular disease. Of course the two can only be confused when the appendix occupies a relatively high situation, *i. e.*, in the right hypochondrium, or when the gallbladder, in virtue of a complete mesentery, descends lower down in the abdominal cavity. The tumor caused by a distended gallbladder is smoother and more rounded than is the case in appendicular disease. The pain is sharper and extends upward towards the shoulder, the urine is apt to contain bile, and there may be a history of previous attacks with jaundice and the passage of gallstones with the feces. At times, however, these signs are wanting, and then the diagnosis can again be only a probable one, to be decided either by further observation or by incision.

In the diseases to which I have thus far referred operative attack, though not always indicated, is yet justifiable in that we may remove or relieve the offending member. I would like now to call attention to a series of purely internal diseases, in which operative attack is not only not indicated, but entirely unjustifiable, inasmuch as there is no disease present which can be benefited by such procedure.

Of these internal diseases the most important, by virtue of its frequency, in a diagnostic relation to appendicitis, is an inflammatory condition of the ileum or of the caput coli in the immediate vicinity of the appendix; it matters very little whether the inflammation be typhoidal in nature or not. The close proximity of these structures and their frequent simultaneous involvement renders an exact diagnosis not only very difficult, but often even impossible. The constitutional symptoms are almost similar—a sudden onset with severe pain in right iliac region, a rise of temperature, and accelerated pulse-rate, with or without nausea, vomiting and diarrhea. Locally there is severe pain over the ileum or colon, or both, but as a rule there is no exudate. I know of no way of deciding positively the diagnosis in these cases—which, fortunately, are not very frequently met with. The extreme difficulty encountered in these instances should serve to impress us how closely we must examine and watch our patients before we decide upon our diagnosis. I have found that these cases of inflammation of the colon and ileum differ from cases of appendicitis in one very important particular, namely, the symptoms at the very outset in the former class of cases reach their maximum intensity, and although they may persist with this same degree, they do not show the same progressive character as do the cases of appendicitis that require operative attack. The urgency of these cases for surgical intervention having been decided, subsequent observation reveals the seat of the inflammation. Until the methods of differential diagnosis between these cases are better defined there will be now and then a case operated upon for appendicitis which proves to be not appendicular, but a disease of the colon or ileum.

Lesions that are rather frequently overlooked and the burden placed upon the already overtaxed appendix are diaphragmatic pleurisy and a pneumonia of the lower lobe of the right lung. How frequently during my interne days in the hospital have I been kept awake awaiting an urgent case of appendicitis, only to find on the admission of the patient that he or she was suffering from a pleurisy or pneumonia. These patients refer their pain to the appendicular region, but examination of this area shows no abnormity. The abdomen is soft, the pain is entirely a referred one, and is not increased by palpation. Examination of the chest shows the classic signs of pneumonia or pleurisy.

Neuralgic pains along the lower lumbar nerves are frequently falsely ascribed to appendicitis. The entire absence of any local evidence of appendicitis, outside of the pain, with the distribution of the painful area in accordance with the distribution of the nerves, should render possible the making of the diagnosis.

I have thus briefly made mention of the most prominent affections of the right side of the abdomen that are apt to come into diagnostic relation with the appendix. Whenever possible I have given the points of differential diagnosis, but the close relation of the various structures often makes such diagnosis very difficult if not impossible. We have all erred, but our mistakes, if they have been made after a careful examination, avail us but little in future doubtful cases, beyond making us a little more cautious in expressing a positive opinion. I have heard it expressed that, after all, the main point to be decided is whether or not to operate. This is true so far as it goes, but it is one thing to diagnose appendicitis and then operate and find it, and quite another matter to operate and find an entirely different lesion. It entails needless explanations and tends to upset the confidence in our diagnostic ability. In the obscure cases it is better that no diagnosis be made or only a probable one, but we must remember that the great majority of errors occur not in the obscure cases, but in the simpler ones. A careful examination will spare us many disagreeable disappointments, many needless explanations, and will unload from the already overtaxed appendix a large part of its burden as a factor in diseases of the right side of the abdomen.

A CASE OF CARDIAC THROMBOSIS.[1]

By B. VAN SWERINGEN,

of Fort Wayne, Ind.,

Professor of Theory and Practice of Medicine in the Fort Wayne College of Medicine.

Mrs. R., a widow, about 38 years of age, the mother of 2 children, began suffering a year before her demise with cough and shortness of breath. These symptoms, while present to some extent continuously, were greatly aggravated at times. Her physician, Dr. Enslen, assured me that at that time there was no cardiac murmur present nor other evidence of cardiac disease save a rapid pulse. The expectoration contained no bacilli of tuberculosis, although it was bloodstained on a number of occasions. She was under Dr. Enslen's treatment for several months, when improvement occurred and she was without medical attention for a month or more; then the same symptoms returned in an aggravated form, cyanosis was added, and the feet became edematous. The heart became extremely rapid and irregular and spells of cardiac dyspnea rendered her life miserable. Stomach symptoms also developed, nausea and vomiting.

Dr. Porter, into whose hands the patient had now committed herself, in casting about for an explanation for the extreme tachycardia, observed that the thyroid was enlarged and inquiry showed it to have been enlarged since late childhood. There was no exophthalmos, but realizing that all cases of Graves' disease are not accompanied by marked exophthalmos, it seemed withal the affection which best explained the symptoms. This opinion was confirmed by myself when I saw the patient during Dr. Porter's absence. At my visit an intracardiac cause for the tachycardia was sought for but not found, owing probably to the extreme rapidity of action (140) and because also of the noises transmitted as the result of the orthopnea.

Dr. Porter also states that at none of his examinations was he able to detect any adventitious cardiac sound. There was no displacement of apex-beat, nor increase in cardiac dulness. With this diagnosis she was sent to the hospital, where she perished shortly thereafter from progressive cardiac failure. The following are the postmortem notes:

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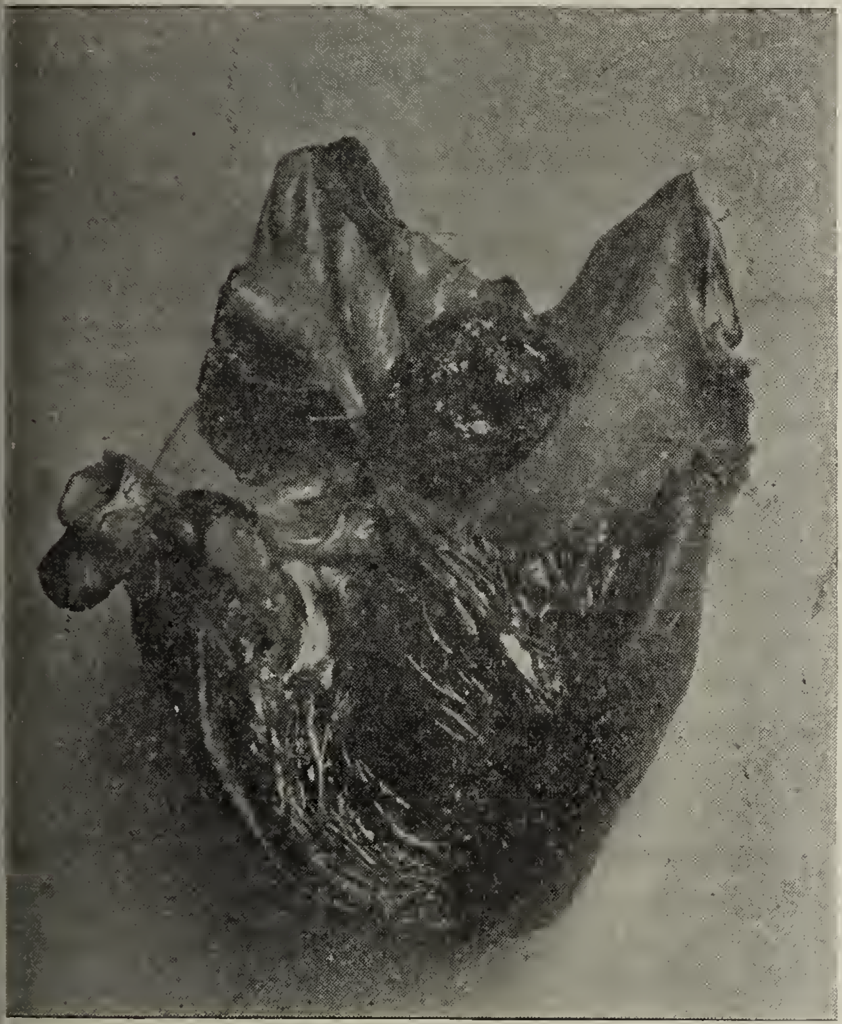
[1] Read before the Allen County Medical Society.

Postmortem, Mrs. R.,-20 hours after death.—Body spare. igidity not well marked. Examination limited to thoracic nd abdominal organs. The right parietal pleura was bound the visceral pleura near the apex by a few old adhesions. he bases of both lungs were infiltrated and on section prented a dark-red, hepatized appearance, and contained no r; the left base was more solid than right. The remainer of the organs were crepitant throughout. There was no xcess of fluid in the pleural cavity. The thymus gland was ill apparent, and the thyroid was enlarged to the size of a nall orange, the enlargement being confined to the right be. The liver was enlarged and dark, spleen and pancreas ormal. Kidneys cyanotic and enlarged, capsule easily ripped, parenchyma normal. No ascites. The pericardial c contained about 2 ounces of fluid. The heart was not larged. It was arrested in diastole and the chambers were lled with large dark coagula. The right auricle and venicle are normal, the tricuspid competent. The walls of the ft ventricle are not hypertrophied, being, if anything, ightly reduced in thickness. The mitral valve is normal. No egetations or signs of valvulitis or endocarditis. On the ricular septum, and protruding into the left auricle, is tuated a growth the size of a walnut, attached by a short edicle which allows of considerable motion to the growth.



hen the organ is held so that the tumor is pendant the itral orifice seems almost completely obstructed. It can so be pushed up until it touches the top of the auricle. e growth itself presents rather a mulberry appearance and dark in color, the contrast to the light auricular walls ing greater than is presented by a caruncle to the mucous embrane upon which it grows. It is soft and gelatinous consistency and semi-translucent.

The nature of this growth was a matter of much eculation at the time of its removal. By myself it as thought to be either myxomatous or papillomatous. llowing is Dr. Ludvig Hektoen's report on its nature:

"Sections stained with hematoxylin and Weigert's rin method show the mass to consist of old, partly alin fibrin, with much blood-pigment, and, in places, nnective-tissue substitution."

This leaves no doubt that the case is one of cardiac thrombosis. It is an example of what used to be called cardiac polypus.

Cardiac thrombi are divided into two classes,—antemortem and postmortem clots. With the latter we need take up no time, for they have no clinical significance.

Of the former there are those which arise from disease of the endocardium, those which arise by reason of stasis of the blood in a dilated cavity, and those which arise by deposit of fibrin upon an embolus derived from some peripheral source. Antemortem clot may also be determined by some acute disease which produces a hyperinotic condition of the blood, but it is to the more chronic or slowly developed clot that we have to direct our attention in studying this case; for the symptoms were present, with the exception of a remarkable and unexplained improvement of a month's duration, for about one year.

There is no history of any acute illness which might have given rise to an embolus upon and about which this fibrin was deposited. She had not recently been confined, and if it had had its origin in this way it is not probable that it would have been attached to a perfectly smooth portion of the auricle if it had been attached at all, although it is easy to conceive of an embolus becoming lodged in the columnæ carnæ of the ventricles or auricles.

As regards stasis in a dilated cavity, it may be said that there is probably some increase in the size of the left auricle in this heart, although it is not very marked, and it may with propriety be asked whether it developed before or after the growth was present. There is, as has been said, no roughness of the leaflets of the mitral valve, nor are they thickened to any extent, nor is the opening markedly contracted so that clot from stasis due to stenosis of the mitral with consequent dilatation of the auricle can be excluded. Then, too, in the latter case the clot usually forms in one of the small ears, where the stasis is more complete than it is in the locality occupied by this.

We find the same difficulty in arriving at an opinion that the clot in this case developed upon a patch of endocarditis, save that it might happen that in the length of time which was undoubtedly occupied by this growth in destroying the patient's life, all evidence of the endocarditis may have disappeared. As before stated, these formations are sometimes found free in the auricles, in which case their slender attachments have been broken.

Cases are on record also in which these deposits have grown so large that the center has softened or liquefied, and until Charcot demonstrated, in 1851, that the contents was not pus, but an amorphous detritus, resulting from the degeneration of the fibrin and containing some fat globules and occasionally white corpuscles, considerable pathologic speculation as to their origin existed.

MEDICAL LIBRARIES.[1]

BY WILLIAM BROWNING, PH.B., M.D.,
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THE well-known papers of Chadwick,[2] of Gould,[3] and of Spivak[4] have furnished facts, statistics, and general information on this, a subject of growing importance. The *Index Catalogue* and *Index Medicus* give a full record of such literature, and the "Association of Medical Librarians," and the special journal *Medical Libraries* now furnish channels for the interchange of ideas and the carrying-on of united work. The field is hence adequately covered. I shall therefore venture to take up a few matters, partly new and partly old, that are of importance. not so much from what I am able to say, as in the hope that certain principles for guidance may gradually be established.

The trend of modern activity is so strongly in the direction of combined effort that medical men should not neglect so great a chance for applying the plan offered by medical libraries. While certain of these institutions are from 50 to 100 or more years old, yet the medical-library movement may still be said to be in the formative stage. Though we must adapt ourselves in each case to the local circumstances, the experience so far gained should be carefully studied to determine what can and what can not be accomplished and what means may be adopted to further these aims.

After so much by way of introduction, I shall take up three topics that have interest at the present time.

When shall medical libraries be established independently, and when as departments of other and general libraries?

That such a collection shall be truly successful, it is necessary that its material cover the broadest possible field, that it be made in all lines as complete as possible, and finally that it be so managed as to be utilized to the fullest extent by the profession. To accomplish this adequately requires funds, workers, quarters, and efficient directing.

There can be no question but that, whenever practicable, this particular form of special library will be more successful and permanent if conducted as a separate library and under the auspices of some general medical organization. This is shown by the Library of the Surgeon-General's Office, the finest collection of this kind in the world. Part of the success of Dr. Billings' great work was due to the timely recognition of this principle. In my own city of Brooklyn it has been well demonstrated in another way. Some 30 years ago our leaders were drawn off from their own beginning library and persuaded to help start a medical department of the very successful Long Island Historical Society. But this arrangement broke down and for over 20 years now no material additions to this section have been made, while the older Medical Society Library has gradually taken its true place and is now entering its new home. This view is also borne out by a statement in Dr. Gould's Lakewood address,—"Theoretically there are 45 public general libraries with medical departments, but only a few of these are efficient, stocked, and active."

Somewhat better is the outlook for those libraries established in connection with hospitals or medical schools. Yet here we find that the library annex of the New York Hospital has, after a long period of great usefulness, finally gone out of existence. The Albany school has very generously given its library to the State. These considerations do not, of course, apply to the small working-libraries which each hospital should support for its staff.

Besides the tendency of such work to soon outgrow the facilities for handling it, the reason for the failure to make a lasting success in most of these cases has evidently been a too narrow conception of the scope of the work,—a limitation of the material to only choice and old lines, and a status that did not adequately take in the whole profession in the respective region.

But there is a limit to this principle. Such separate work is only feasible in large towns. The fine institutions in Hartford and Cleveland show that under favorable circumstances they may succeed in places of say 100,000 inhabitants. It may in time even prove possible in towns of only 50,000. But evidently the lower limit of communities where this can be done will be from 50,000 to 100,000 as regards residents. In all places, large or small, there should of course be but one library of this class. And in an occasional large city, it may be that the medical department of some general library is so endowed and supported as to properly monopolize the field.

It may be claimed that any kind of a beginning is better than none, that thereby some temporary good will be done, and that though it lie for a time dormant, yet it will gravitate eventually to proper channels. The argument may be taken for what it is worth. In the long run, however, little is gained by raising false hopes.

I only contend that experience so far shows the independent medical library to offer the most promise of permanency and usefulness.

It is then in the smaller cities that the medical department has its proper field. In them it is a necessity if anything is to be accomplished.

What are the conditions that favor success in these smaller places, and what can be accomplished?

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[1] Paper presented at the Atlantic City meeting of the New Jersey Library Association and the Pennsylvania Library Club, March 16–17, 1899.

[2] "Medical Libraries: Their Development and Use." *Boston Med. and Surg. Jour.*, January 30, 1896.

[3] Lakewood Address on "The Union of Medical and Public Libraries." PHILADELPHIA MEDICAL JOURNAL, 1898, July 30, pp. 237–240.

[4] "The Medical Libraries of the United States." PHILADELPHIA MEDICAL JOURNAL, 1898, October 22, and *Medical Libraries*, Denver, January, 1899.

The essentials for success are a small allowance of
nds for this purpose, and if possible some medical
ganization that keeps an eye on the work. There are
w places where at least a county society cannot be in-
rested. Almost equally important is the active co-
eration of some physician of scholarly taste and
aining. Without the directing and enthusing influ-
ice of such a man, little of importance need be hoped
r. He should have the backing of at least a journal,
ub, or better, of a well-established medical society.

It may not be out of place to suggest certain lines
here these department-libraries ought to excel and
hich they can develop with little or no outlay. Numer-
us inquiries received regarding the best methods in
ch cases indicate the need of information, and I will
ntribute my mite. They should secure sets of the
alth-reports of their own town, district, and State, and
will usually be possible to obtain those of other
ates also. The nearest health-officer can often be per-
aded to turn over most of the exchanges that he re-
ives in this line. The department should also aim to
ve files of all reports of local charitable and medical
ganizations—such as hospitals, dispensaries, medical
hools, retreats, homes, nurseries, orphanages, etc.
eir own State's reports on insanity, asylums, charities,
., and their State medical society's transactions are
ually obtainable. Always useful are the published reg-
ers of medical men in the State and region. It is sur-
ising how frequent are the calls for this class of mate-
l; in demand it outranks almost everything else.
ien, through the Congressman of the district, there
ould be little trouble in obtaining a copy of each of the
ge number of government publications bearing di-
tly or closely on medical affairs. By utilizing all
ese various sources it is possible to work up collec-
ns of the greatest value locally at least, and at an
tlay almost for postage only. Quantities of this kind
material are continually thrown away, until it hap-
ns that even the institutions reporting are often short
a set of their own issues. The local medical library
ould seek to be the chief custodian, and thus fill a
l need.

When the substantial nucleus thus established is sup-
mented by a circulating journal club, by works from
libraries of deceased medical men in the vicinity,
a few subscriptions to the best journals, and by such
ier casual additions as will everywhere be possible,
will soon be found that an exceedingly valuable
rking collection of medical and allied publications
i be offered for use. To induce the profession to
tronize the department is hardly less important, but
t must be left to those carrying it on.

The third point that I wish to speak of, is that most
ellent plan of Dr. Gould's, the establishment of a
tral exchange or clearing-house for all our medical
raries and departments. To argue its vast advan-
es is quite unnecessary; these must be acknowledged
by everyone who can appreciate its possibilities. Besides the immediate function of an exchange, it should also serve as the distributor of medical libraries turned over to it by estates, and it doubtless might secure the left-over volumes from many editions of valuable works. It can best be carried on under the auspices of the "Association of Medical Librarians," and as the bulk of the material received will still be on hand after the constituents are all stocked, the balance can be given to worthy applicants and would be a continual incentive to the development of the smaller and newer collections.

The only impediment in the way is the lack of funds to carry it on. Scarcely one-half the necessary financial support is yet in sight, despite the noble backing that several medical men have proffered. A practical plan for carrying on this work will be forthcoming as soon as the needed money, at least $1,000 a year, is guaranteed. I feel that no opportunity for advocating and advancing this project should be neglected. This is a kind of moral to my short story.

THE RELATION OF LIFE INSURANCE COMPANIES TO PUBLIC MEDICINE.

By ROBERT L. PITFIELD, M.D.,
of Philadelphia.
Assistant Bacteriologist, Pennsylvania State Board of Health.

Bacteriology has a great commercial value to many of our business institutions. To such pursuits as brewing, agriculture, cattle raising, dairying, and food preserving it is of great technical importance. It has improved commerce because it has taught health officers how to effectively quarantine. Indeed, commerce would be at a standstill at certain seasons if cholera and yellow fever existed at exporting ports, and these diseases are held in abeyance because of hygienic supervision. There are many facts yet to learn which bacteriology may yet teach, and which will help to stamp out such diseases as yellow fever, for instance, from our Gulf ports. Many facts have been already taught that might be applied to improving drinking-water.

Besides being of technical value to manufacturers and farmers, and of commercial value to importers, bacteriology is of immense importance in an economic way to life insurance companies. Directly and indirectly it has saved many insured lives to the companies. As an example, suppose that a perfectly healthy, vigorous man, aged 30, who is insured in a good company for $1,000, payable at death, should contract tuberculosis. If he had paid but one premium of $25 on his policy it is obvious that the company, if the man died, and if it paid the policy, would lose the difference between $25 and $1,000, or $975. If an immunizing serum against tuberculosis had been discovered and this man had been protected against the disease so that he lived until he was 70, the company would not have lost, but would have gained. Even if by improved treatment the man lived 5 years and paid his premiums that long, the company would not have lost so much money.

Insurance companies cannot control the lives of persons insured with them so that there would be a minimum risk, but they frequently do make restrictions as to war, living in the tropics, etc. If a man living in New Orleans was insured for $100,000, on which he had paid but a few premiums, and if yellow fever should become epidemic in that city, it would be a matter of great economy on the part of the insurance company to have him remove from possible infection and death. These companies depend upon an inherent sense of self-preservation which would lead to extra precautions in such cases, but there are many dangers which lurk in every gust of dust-laden wind in any city, which threaten insured and uninsured at all times with dangers of which they are totally ignorant and against which no single individual can protect himself.

No company could compel men they have insured to move away from danger, but by financial support it might contribute to the general health of the city in many ways, so that yellow fever would have little chance to spread. The company could go further than that, and pay men to devote all their time and energies to develop immunizing agents against yellow fever, tuberculosis or any other disease, so that not only the insured man but every individual could be protected forever against the diseases and thus they might be stamped out.

Thousands of dollars annually would be saved insurance companies if the Schuylkill River was prevented from killing insured individuals with its typhoid-laden waters.

The discovery of the bacillus of tuberculosis has been of great economic value to insurance companies. Because of the discovery of this bacillus in his sputum a patient of mine at once removed to Minnesota, where he now has lived for 6 years. He carries a policy of $10,000, and when he first was infected he had paid but a few premiums; but through the early recognition of his trouble he prolonged his life by going to a better climate where he continues to pay his annual premiums, and in all likelihood the company insuring him will not lose money.

The absolute knowledge of the infectiousness of tuberculosis and of the means of preventing it is to-day filling the coffers of insurance companies. The meagerly rewarded discoveries of Lister, Koch, and Virchow have been of immense commercial value to these companies because of money saved to them, and paid to them by people who otherwise would have died.

On a monetary basis alone, one would think that a life insurance company which pays its president over $50,000 a year, and has assets of $200,000,000, an actually boasts of being the strongest financial institution in the world, would be interested in th preservation of human *insured* life by promotin medical discoveries. A live interest on the par of these companies in the filtration of Schuylkil water, for instance, would be a stroke of great economic value, without taking into consideration th good that would accrue to the people. A protectiv inoculation against croupous pneumonia which to-day balks medicine in all the advancement of physica diagnosis and bacteriology just as it did 100 years ago might be devised if such companies would pay men to spend their time trying to discover an immunizin substance. In every department of medicine investigators can and would work improvement if they only had the means, and it would pay insurance companies to have it done.

Each company might select a man, and all of these men collectively might form a board whose duty would be to further medical discovery, particularly in the direction of public health. It would be to the interest of life insurance companies to see that good medical laws were enacted, that quacks were put down, that streams are not polluted. The board could found a hygiene laboratory or fellowships in hygiene and pathology in the large medical schools, and good would certainly result from this measure. It would follow that the public would be educated in health matters.

Other forms of insurance companies unite for the mutual protection of their interests. The marine insurance companies have a Board of Underwriters which interests itself in winter load-lines, fire precautions, etc. If a ship is ashore and is in danger they dispatch a tug to the rescue, no matter what company holds the insurance. Fire insurance underwriters interest themselves in limiting the height of sky-scrapers, size of water-mains, etc., and they have a fire-patrol to protect all insured merchandise in time of fire. A life-insurance Board might well interest itself in clean water, broad streets, and good health ordinances in every city.

Good doctors are more economic to insurance companies than bad ones, and it would be a paying policy for them to assist in suppressing irregulars and quacks, and to endow laboratories and fellowships in order that good doctors may be developed. A hygiene laboratory founded and maintained by a life insurance company, or fellowships established, would widely advertise such a company.

Life insurance companies owe much to medicine directly. The clinical tests for albumin and the use of the microscope have prevented the companies from taking many a case of incipient nephritis only diagnosed by these means. The improvement of the compound microscope has been of incalculable value to insurance companies, and yet I know of no instance which they even lifted a finger or contributed a nny toward its development or toward the advance- ent of medicine in general. If money was expended insurance companies toward improving public alth no direct and individual aggrandizement should expected. They must expect to do good to 50 unin- red persons to one insured individual, but this would of benefit to them because the health of the one in measure is dependent upon the health of the 50, espe- ally in case of an epidemic.

A laboratory devoted to the study of rheumatism or ncer, or syphilis, or nephritis, fully and amply uipped in every particular, would yield immense re- rns perhaps at the end of a few years. As yet the pro- ssion is working in the dark as to these diseases, and e more light the better will it be able to cure and to *event.* The better public health, the lower the premium- te, the insurance men say, and this means less returns, t it would also mean a greater number of risks. If thisis could be cured there would be less risk in in- ring a man who had a tuberculous family-history.

The way to protect the individual is to protect the ass. After all, Emerson is right in saying, "One ddy drop of manly blood [human] the surging sea tweighs."

ASY METHOD FOR THE CALCULATION OF QUANTITIES IN THE MODIFICATION OF MILK.

By H. M. SHRINER, M.D.,
of Philadelphia.
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When the mother is unable to supply the demands her infant, or when the child does not thrive prop- ly, it becomes necessary to substitute other food. w's milk is easily modified and diluted, and can be ndered, by the means I will describe, as near as pos- ble equal to the requirements of the child. Artificial ods, as a class, can be set aside, their use being sim- y that of a temporary substitute for a modified milk. heir chief support has come from the fact that physi- ans in general have not become familiar with the eparation of a modified cow's milk, because of the fficulty of making the necessary calculations. When e physician has access to any of the milk-laboratories, is only necessary to write a prescription calling for e percentage of fat, proteids, sugar, etc., required, and ith the number of feedings and the amount it is de- red to give the child at each.

In districts where such facilities are lacking, and also here the matter of expense is foremost, it becomes ecessary to use articles which are easily obtained and small cost. This makes considerable difference in e results obtained, as calculations are only based approximate percentages and not on the results of ctual examinations, as are those when the milk is obtained from one of the laboratories instead of being supplied by the ordinary milkman.

The milk, as obtained from the milkman, is apt to be lower in percentages of fat and proteids, and as the rules which follow and the results obtained will be calculated on the basis of laboratory-milk, a slight quantity of the materials used should be added in excess, when ordinary milk and cream are used.

In home modification, when ordinary milk is used, a quart of good milk can be allowed to stand in a cool place for 6 hours, when about 6 ounces of a 12% fat cream can be skimmed off. This contains about 3.6% proteids; the remaining milk will contain little fat and about 4% proteids. Ordinary drug-store lime-water is used for giving the alkalinity, and either a 20% solution of milk-sugar is used, or 6¾ drams is allowed to each 20 ounces (7%) of milk to be prepared.

The calculations below are based on laboratory-milk, using a cream containing 16% fat, 3.6% proteids, and 4% sugar. Here, instead of using skimmed milk, one may use separated milk with .13% of fat (which can be overlooked), 4% proteids, and 4% sugar, 20% sugar-solution and lime-water.

The rules for general calculations are as follows:

1. For obtaining the number of ounces of cream or milk necessary to give the desired percentage of fat or proteids respectively, multiply the desired percentage by the total ounces to be prepared, and divide by the percentage taken as a standard of the cream or milk used. The result will be the number of ounces required.

This rule holds good when it is desired to obtain the amount of cream or milk to supply the percentage separately, but when both cream and milk are used in combination, it is first necessary to calculate the percentage of proteids contained in the quantity of cream used, deducting this from the desired percentage of proteids; then add sufficient milk to make up the difference in the proteids. The quantity of proteids contained in the cream used can be calculated by the following rule:

2. The quantity of cream used, multiplied by the percentage of proteids contained in the cream and divided by the total number of ounces prepared, will give the percentage of proteids contained.

The result is subtracted from the desired percentage, and the difference is made up by calculating the number of ounces of milk required by means of Rule 1.

The percentage of sugar is calculated by means of Rule 2 from both the cream and milk used, and the results added together. This is then deducted from the desired percentage of sugar, and sufficient sugar-solution (1 oz. = 1%) added to bring it up to that desired.

The percentages that have been assumed below in formulating are only approximate, as it is impossible to get any one set of percentages to compare to all milk, but I think they can be accepted as being near enough for the purpose.

MODIFIED MILK CALCULATIONS.

I. Quantity = % *desired* × *total quantity* = ozs. necessary.

ASSUMED STANDARD PERCENTAGE.

II. Percentage = *ozs. used* × *assumed standard* % = % contained.

ASSUMED STANDARD PERCENTAGE.

Cream	16% F. = 12% F. 3.6%, P. 4.4% S.
Skimmed or separated milk	13% F., 4% P., 4% S.
Sugar. sol	20% sol.

Fat contained in the milk used is not considered.

Total quantity, 20 ozs.

For each additional percentage of sugar required add an ounce of 20% sol.

	CREAM.			CREAM.			SKIMMED MILK.		
	F. 12%	P. 3.6%	S. 4.4%	F. 16%	P. 3.6%	S. 4.4%	F. .13%	P. 4%	S. .4%
% F. Desired.	Ozs. Cream Required.	% P. Contained.	% S. Contained.	Ozs. Cream Required.	% P. Contained.	% S. Contained.	% P. Desired.	Ozs. Milk Required.	% S. Contained.
.5	⅚	.15	18	⅝	.11	.13	.5	2½	.5
1	1⅔	3	36	1¼	.22	.27	1	5	1
1.5	2½	.45	55	1⅞	.33	.41	1.5	7½	1.5
2	3⅓	6	73	2½	.44	.55	2	10	2
2.5	4⅙	.75	92	3⅛	.55	.68	2.5	12½	2.5
3	5	9	1.10	3¾	.67	.82	3	15	3
3.5	5⅚	1.05	1.28	4⅜	.78	.96	3.5	17½	3.5
4	6⅔	1.20	1.46	5	.9	1.1	4	20	4
4.5	7½	1.35	1.64	5⅜	1.0	1.2			
5	8⅓	1.5	1.83	6¼	1.1	1.3			
6	10	1.8	2.2	7½	1.3	1.5			

TO MAKE CLEAN THE HANDS AND THE FIELD OF SURGICAL OPERATION WITH A JŌB.[1]

By W. S. FORBES, M.D.,
of Philadelphia, Pa.
Professor of Anatomy in Jefferson Medical College, and Clinical Surgeon to Jefferson College Hospital.

I CALL attention to the most humble and the simplest of surgical instruments.

℞.—Curled horsehairs.............................. 3 drams.
Contrive a jōb with them, flat and oval, 4 inches long and 3 inches wide.
Sig.—To be used with soap and water in rubbing the hands and the field of operation for the purpose primarily of cleaning the parts before they are sterilized.—FORBES.

Here is such a jōb of curled horsehairs, fashioned before you now in a moment. It has neither wood, nor wire, nor tack to bind it. It is just 3 drams of curled horsehairs pressed together, nothing more, nothing less. It may be bleached with the fumes of sulphur if desired, but unbleached the hairs cohere better and are stronger.

The hairs taken from the mane of a horse are about 10 inches in length and are elastic. Entangled and pressed together by rubbing the little bundle between the palms of the hands, just as in using a cake of soap, they make a flat oval mass of an open network appearance, at once tough and pliable. When desired, the flattened mass may be quilted or held together by stitching with sterilized catgut or other material, but this is optional. I hold in my hand a jōb stitched and one not stitched. The tensile strength of this jōb, not bleached and not stitched, was tested to 100 pound without in the least disturbing its mechanism. Whe once fashioned it will hold its shape without chang The more used by rubbing in the palms of the hand the more set the mass becomes. I prefer the jōb no stitched. I have used this jōb for months. It doe its work of cleaning completely and pleasantly an never loses its integrity.

It cannot cut or tear the skin even in the delicat periungual region. It is easily cleaned with boilin water before and after each surgical operation. A solution of bichlorid, 1 to 100, does not change it in th least. Plunged in steam at 300° it is not disturbed Placed on the periphery of a centrifugal machine, boiling water sent with force through its open network o meshes removes all foreign matter and the jōb remain clean with its integrity untouched. Kept in alcohol, i is ready for use in hospital or elsewhere. A pound o the best curled horsehairs, such as used ordinarily i making a mattress, of which these jōbs are specimens and costing only 90 cents, will make 42 such jōbs as I have described. Each jōb thus costs a little over 2 cents.

It may be asked, why do I insist in calling this humble and simple but necessary surgical instrument a "jōb?"

The reply is, because this name jōb relates to its character. Like the patient patriarch of Holy Writ, having passed through severe torture in the test of character, life and integrity remain untouched.

It is this abiding quality that distinguishes this jōb of curled horsehairs from the scrubbing-brush of tainted memory, which cannot be kept clean and which has made septic many a wound, and only has been used heretofore in the absence of a better agent.

Pray let every surgeon call this new and better agent his jōb.

Two Hundred Radical Operations for Hernia.—J. Borelius (*Nordiskt Medicinskt Archiv.*, N. F. Band X, Häft 1) has performed 200 radical operations in the Karlskorona hospital for the radical cure of hernia, from 1891 to 1897, with 5 deaths, 4 of these occurring after strangulated hernia. There were 27 recurrences. In 147 operations for nonstrangulated hernia there was but 1 death, 10 recurrences, and 46 cases in which no later information was obtainable. In the 53 operations for strangulated hernia there were 4 deaths, 6 recurrences, and 25 were not heard from later. Several operations were for the rarer forms of hernia, 4 for epigastric hernia, 5 for umbilical hernia, and 1 for hernia in the linea alba. [M.B.T.]

Carbolic Acid Gangrene.—H. R. Leipzeger (*Virginia Medical Semi-Monthly*, April 14, 1899). Carbolic acid has come to be generally used as a family remedy. It is doubtful if many persons know that even a weak solution of carbolic acid when applied continuously to the fingers or toes may cause rapid and hopeless gangrene, and it seems that not all practitioners are aware of this danger. Forty-three examples of such injury have been collected from literature. Two cases are reported in which serious results followed the use of carbolic acid as a domestic remedy; in 1 case amputation of a finger was necessary as the result of the use of a cloth saturated with a solution containing 20 or 30 drops of carbolic acid to the ounce. [M.B.T.]

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[1] A paper read before the Medical Society of the State of Pennsylvania at the meeting in Johnstown, May 16, 1899.

The Philadelphia Medical Journal

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See Advertising Page 21.

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Medical Societies Should Beware of Advertisers.—At a recent meeting of a medical society one member was allowed to contribute a paper which seemed to advocate an undesirable imitation of a treatment already rather extensively published by another physician. Moreover, the contributor was not ashamed to show recent copies of a very yellow evening newspaper containing pictures of himself, his instruments, and diagrams illustrating methods of treatment, etc., etc. Every paper offered and placed upon the program of a medical society should previously be scrutinized by a committee and adjudged worthy of presentation.

Weed the Program !—At the recent meeting of a arge medical society nine successive papers listed in he program were called for by the President, but neither he papers nor their authors were in evidence. This is not right. Members seeing the announcement of essays upon subjects in which they are especially interested put themselves out to attend the session and are disappointed. Of what advantage can it be to the person hus announcing a purpose he does not carry out? If e does not intend to be present or submit the promised rticle harsh names are appropriate. If at a late day ccident or circumstances prevent his attendance his aper should be sent. If neither the article nor its uthor can be present it is at least a decided discourtesy ot to notify the chairman of the fact.

The Politician and the Public Health.—The Michigan State Senate, in defeating in committee of the hole a bill intended to give the State Board of Health ower to define the terms "contagious" and "communicable," has given renewed evidence of the mental ttitude assumed by the ordinary legislator toward ygienic problems. The object of the bill was the doption of measures directed to the repression of communicable diseases, including tuberculosis. The work f the Michigan Board of Health is everywhere recogized for its high character and appreciated for its ractical usefulness, and its able secretary is looked pon as a most efficient and industrious officer. In he face of these facts, instead of the efforts of the Board being supported, they were antagonized and a ersonal attack made upon the secretary. It would ppear as though votes were of far higher consideration the average politician than the welfare of the people.

Politics and Pure Water.—It appears from the spontaneous and voluntary confession of one of the political bosses of the city of Philadelphia that the legality of the loan bill for $11,000,000 was attacked and the fulfilment of its objects frustrated at his instigation because of an unwillingness on the part of himself and his friends to permit the then inimical "administration" to expend the money that would have been raised for such urgently necessary improvements as pure water, schools, paving, etc. We wonder if this self-confessed villain realizes his share of the responsibility for the many cases of typhoid fever and the large number of deaths due to water polluted by reason of his action? If ever punishment was richly deserved none could be too severe for the politician who can stand calmly by and see men, women and children die in numbers in order that he may revenge himself upon an opponent. Many sins have been committed in the name of politics, but none, we conceive, so heinous or so hideous as this—and the confession is made with an air of pride.

The hygiene of banqueting, it is feared, is not always so well illustrated by physicians as is desirable, neither for their own sakes, nor for the sake of their influence upon the community. One should practise what he preaches. If it is wrong to eat too hurriedly, it is quite as wrong to prolong dinner for three or four hours, to be followed by several more hours of sitting in dense clouds of tobacco-smoke. It is a recent occurrence, however, that moves us to protest against late-hour dinners. Instead of 10 or 11 o'clock, we think 7 would be a far more sensible hour to choose for beginning a banquet. Most of us require several hours of sleep each night in order to live lives even remotely approximating healthfulness and righteousness. At large medical meetings, where literary and scientific work must be resumed early the next morning, it is folly to begin a dinner at 10 that can hardly end before 2 or 3 o'clock in the morning. The banquet habit is fast becoming an abuse, and if the abuse is so abused as to demand self-stultification of professional hygienists, the sooner the thing itself is done away with the better.

The Hygienic Construction of Dwellings.—So important are light and air to the welfare of a community that he must be considered a benefactor who will provide the means through which the greatest amount possible of these natural forces will be accessible to the largest number of persons. Too many dwellings, particularly in the crowded cities, and especially tenement-houses and the more ambitious apartment-houses, are constructed without adequate attention to hygienic needs, and it is therefore gratifying to learn that an architect has come into the field who has sound views on this subject and the courage to put them into practical operation. Mr. Ernest Flagg, who planned the Mills Hotel in New York, has erected between the Hudson River and Central Park buildings containing 373 apartments with fireproof construction, bluestone stairways, corridors with mosaic floors, heating by gas and coal, ranges, hardwood finish, air and light in every room, and the rental of which at moderate cost yields a satisfactory profit, while the demands of hygiene are adequately met. Other buildings of like character are in contemplation in which the rate of rental will be one dollar per week per room. The principle of construction is based upon making the buildings square and having the living rooms on an open court, with the sleeping rooms on the street, avenue or boulevard. The building thus planned makes adequate provision for light, ventilation and space, affords security and privacy for tenants, and can be erected at a saving of 25% in ground area and building.

The Advantages of Individual Instruction.—It is not to be supposed that didactic teaching in medicine will ever be entirely dispensed with. It will always be necessary, at least for the elucidation of the principles of medicine in all its departments and for the description of such conditions as cannot be demonstrated clinically. There can be no doubt, however, that wherever and whenever possible the clinic, the demonstration, the quiz should supplement if not supplant the lecture. This modification in teaching carries with it the important condition of instruction to small classes, of more intimate personal contact and acquaintanceship between teacher and student, and must thus work a double good in increased stimulus to the one and increased incentive to the other. Of the wisdom of this departure in medical education, which has made itself so manifest in the last decade, evidence is afforded by some remarks recently made by Dr. Rudolph Matas in the course of an address acknowledging the presentation of his portrait by the graduating class of Tulane University—as follows:

> "I wish to lay stress upon the fact that since I have occupied the chair of surgery in this institution, I have never been brought in closer contact with individual members of the class assigned to me than during the present session. The system of quizzing and individual instruction that I have adopted this session in the wards and clinics of the Charity Hospital have led to a greater personal acquaintance and closer relationship with the senior members of the class than ever before, and this close relationship between us as teacher and student has, I am happy to state, led to better and more gratifying results—not only in the actual work accomplished, but in a more thorough appreciation of the merit of the individual students."

Paying the Piper.—The *Philadelphia Press*, of recent date, prints an entertaining letter from a disillusioned victim of Christian Science. This person, having read of the joy and satisfaction to be had from this "pow-wow" treatment, concluded to try it for the benefit of his health. He had been sick for some months. He made a bargain with one of Mrs. Eddy's disciples, as he alleges, for treatment. The first step was a payment of $25 and an agreement to pay $25 in advance weekly until a cure was affected. The "healer" told the patient to close his eyes at 11 A.M. daily for one hour, to think of her, and to repeat the words "I am well, I am strong, I am happy;" and she promised to think of him at the same time. It was a sort of treaty of reciprocity. The victim persevered for 6 months and spent $600 on the venture. He was, of course, not a bit benefited, and now rushes into print to proclaim his grievances.

This individual, in our opinion, got exactly what he deserved, and we wish sincerely that everybody who does as he did would get the same that he got. Such fools can only be convinced by the pocket argument. The disease, in this case, is not even mentioned, but to Christian Scientists the disease is of secondary importance. The first, last, and only requisite is to make an impression on the patient's "mind" and, incidentally, on his pocket. Most of their victims have no mind to speak of, but we are glad to note that some of them, at least, have a pocket, and that this can be impressed.

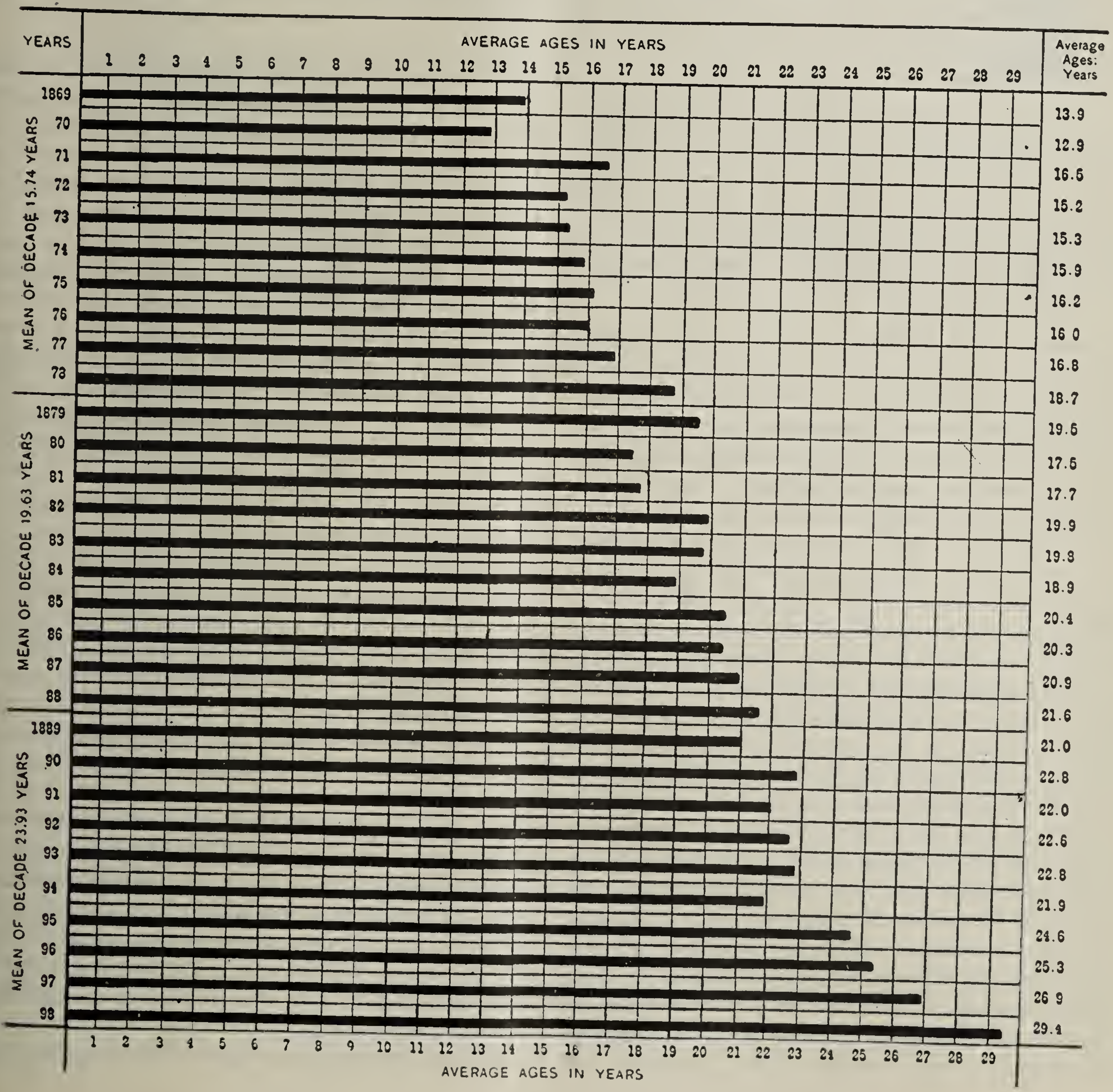
A Consumption Cure, and the Testimonial Business.—Coroner Jacob E. Bausch announces that he intends to call the attention of the New York Health Department to alleged unfair and illegal practices in a so-called "consumption cure." One woman, whose dying husband had been in this institution, stated to the coroner that a certain bottle of medicine, which she exhibited, had been said by the physicians there to have cost $9.00. Analysis showed the medicine to consist of a few drops of chloroform in water. John Knecht, of Brooklyn, charges that he went to this institution and paid $32 for a three months' treatment, but after he had been treated for one month, the doctors refused to continue treating his nose unless he paid $3 a week. This would seem to be bad enough, if true, but the same man alleges that having read in the German newspapers a glowing testimonial to the efficacy of the treatment at this place, he took the trouble to call upon the man who had signed his name to the testimonial, and to his great astonishment had found the fellow very ill in bed. When confronted with the testimonial of the wonderful cure that had been effected in his case, the poor wretch broke down.

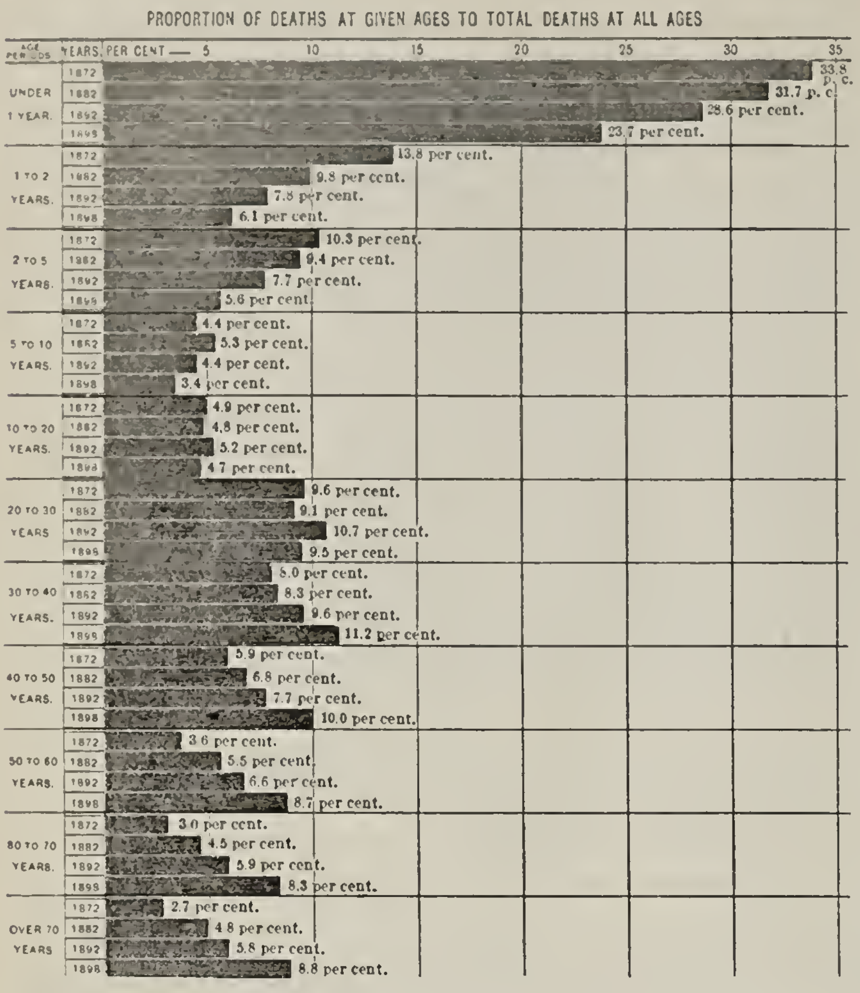
He stated that he had been treated at this place until his money was all gone, and that then they had refused to treat him longer, although professing to be able to cure him. In this sad plight he had yielded to their infamous offer, viz.: that if he would take oath to the testimonial that they would write for him, they would treat him free. If this leaflet from the testimonial scrap-book could be spread broadcast over the country how much good might it do!

A Saving of 42,050 Lives a Year in Chicago.—From the April Report of the Department of Health of Chicago we reproduce herewith two diagrams showing at a glance the remarkable progress made in that city in saving and in lengthening human life. The diagrams explain themselves, but, to quote from the report, it may be said that "measured by the average age at death of all who died in the city of Chicago thirty years ago and of those who died last year, the average duration of life in the city has more than doubled during a single generation. That is to say: In 1869 there were 6,488 deaths recorded, with the age of each decedent given. The aggregate of the ages footed up 90,336 years, or an average of 13.9 years for every individual decedent, old and young. Last year there were 22,897 deaths similarly recorded, with an aggregate of 672,540 years of life, or an average age for each decedent of 29.4 years. This is an increase of 111.5%. In his annual summary for 1898, published in the December Bulletin of that year, the Commissioner of Health called attention to this increasing duration, in a citation of the correlative saving of life—as shown by the decreasing death-rate, based upon figures of population. On this latter showing—with an average annual death-rate of 14.4 per thousand during the quinquennium 1894–1898, as compared with an average annual rate of 40.6 per thousand in the decade 1845–1854—there is demonstrated a saving of 42,050 lives per annum out of the average population (1,611,225) of the last five years.

"If the same ratio had obtained in 1898 that did in 1872, out of the total 22,897 deaths last year, there would have

AVERAGE AGES AT DEATH OF 443 920 DECEDENTS IN THE CITY OF CHICAGO DURING THE THIRTY YEARS, 1869-1898 INCLUSIVE.





PROPORTION OF DEATHS AT GIVEN AGES TO TOTAL DEATHS AT ALL AGES

been 17,584 deaths under 30 years of age, and only 5,313 over 30 years, instead of the 12,804 under 30 and the 10,813 over 30 that actually did occur.

"If the average age at death in 1898 had been as low as in 1872, the aggregate ages of those who died in the former year would have amounted to 347,805 years. The actual aggregate ages of those who died in 1898 foot up, as shown in the table, 672,540 years—*a gain of 324,735 years of life among the 22,897 persons who died last year.*"

Diplomas for Opticians.—Reference has already been made in the columns of the PHILADELPHIA MEDICAL JOURNAL to certain diplomas of efficiency in elementary ophthalmological work, sight-testing, etc., which are being issued in England to opticians after examination by the company of spectacle-makers. The examinations upon which the issue of these diplomas is based are conducted by a well-known ophthalmic surgeon, and the range of knowledge required is designed to be such that the possessor of the diploma would only be gratified to act as an intelligent help to the ophthalmologist and not to take his place. Under these circumstances the matter was not regarded as of any particular consequence by our English confreres. If here and there an optician, on the strength of the information gained while working for his diploma, felt himself able to give advice in a case in which he should have sent for a medical man, this loss to the medical profession would be more than amply compensated. For the most important knowledge that the instructed optician was likely to gain by reading for a diploma was a knowledge of his own limitations. With his increased information he could be able to recognize many of the cases coming before him to be tested for glasses as cases requiring the ministration of the ophthalmic surgeon—to whose care he would transfer them. All idea that things would work in this comfortable manner has been upset, however, by the pretensions of some of the possessors of the new diploma. For they are arrogating to themselves, sometimes by means of offensive advertisements in the lay press, the position of ophthalmic surgeon. The matter, as it concerns the medical profession, is being brought to the notice of the General Medical Council by a memorial to be presented by the Corporate and Medical Reform Association, Limited. This association is a very enthusiastic reforming body, making up by the vigor of its propaganda for its comparatively scanty numbers. It has the best interests of the medical profession in Great Britain at heart, but its methods of procedure and proposals of reform have not met with much active support either from the medical press or from leaders of the medical profession. The memorial of the association to the General Medical Council calls upon the Council to assert its position to resist the encroachments made by diploma-ed opticians and licensed midwives upon the field of legitimate medical practice.

The supply of cheap sterilized milk in cities is one of the most pressing of duties. Because it is better to prevent than to cure disease, and because this prevention is so much less expensive than cure, it is a pity that some of the money given to hospitals could not be secured to supply children with pure milk. The summer is upon us, and with it will come the awful waste of life, and the suffering caused by infantile diseases, a large portion of which are so certainly avoidable that not to prevent is almost equivalent to murder. In New York City, Mr. Strauss last year undoubtedly saved hundreds of lives by the simple means of making it possible for mothers to get sterilized milk for the little ones. On May 15, Mr. Strauss, together with some friends and co-workers, went to Randall's Island to celebrate the first anniversary of the installation of his plant for sterilizing milk for the poor children in the Infants' Hospital. Those who are cognizant of the fearful infant-mortality at this institution for many years past will not fail to appreciate, at its full value, the good work accomplished by this practical philanthropist. The system of feeding these poor waifs that has been in vogue during the past year includes not merely the use of sterilized milk, but an elaborate system of basket-containers and individual feeding-bottles, containing the milk and bearing the name of the infant for whom the milk is intended. In 1897, or before Mr. Strauss stretched out a helping hand and arranged for the sterilization of milk here, 1,181 children were treated, with 524 deaths, or a mortality of 44.36%. In 1898, or during the first year of the working of this new system of feeding the infants in this hospital, 1,284 children were treated, with 255 deaths, or a mortality of 19.8%—a reduction of nearly 25%.

But Mr. Strauss' plan needs systematization, extension throughout the entire city, and the whole year, and realization in every city of our country. The local distributing centers in a city should be so numerous and the milk so cheap that no child will be compelled to use impure milk. To carry out such a project will require much money, good management, scientific oversight, sleepless watchfulness, and a rare unselfishness. The great infant-mortality of our cities is a disgrace of civilization. There is no charity that will yield such quick and evident returns, no benefaction that will bring such prompt and hearty gratitude, as this simple one of giving every hungry child a cup of pure milk.

Medical Appointments in the Army.—In view of the criticism which has been made of army medical appointments, criticism often based upon great misunderstanding of the conditions, we give below a copy (kindly sent us by Surgeon-General Sternberg) of a letter sent the *Journal of the American Medical Association.* It makes plain the fact that Dr. Sternberg in no way shirks his personal responsibility for almost every appointment subject to his order, and that coercion and politics have not influenced his action. This clears the atmosphere and is very satisfying. We still have no reason to modify our repeated opinion that, barring the errors inevitable under the trying circumstances, the department of the Surgeon-General will be found blameless of great misconduct during the war. But this by no means implies that there was not misconduct elsewhere.

May 22, 1899.

Editor of the Journal of the American Medical Association :—

Sir :—Your editorial note relating to "The Army Medical Service" in the last number of the *Journal* (May 20, p. 1123) indicates that a misapprehension exists with reference to the appointment of medical officers in the Army, and I consider it my duty to correct this at the earliest possible moment.

Appointments in the Regular Army are made entirely upon recommendation of Army Medical Boards convened for the purpose of examining the candidates who present themselves, and neither political nor personal influence have any weight in these appointments.

Regimental surgeons of volunteer regiments under existing laws are appointed by Governors of States, and neither the Secretary of War nor the Surgeon-General of the Army has anything to do with these appointments.

Division and brigade surgeons of volunteers, and the medical officers of the so-called immune regiments, have been appointed by the President upon the recommendation of the Surgeon-General of the Army.

Acting assistant surgeons have been appointed and discharged by the Surgeon-General of the Army, or by the chief surgeons of military departments and armies in the field. These appointments are of a temporary nature, and during the first months of the war the urgency for medical assistance was so great that it was not practicable to convene medical examining boards for the selection of "contract surgeons."

It is a mistake to suppose that the Secretary of War has attempted to control the appointment of commissioned medical officers or of acting assistant surgeons. In a few instances he has suggested the appointment of physicians personally known to him, and naturally his wishes have had due consideration. In making recommendations for Presidential appointments, or in appointing acting assistant surgeons, I have not been influenced by political reasons, but a large number of those seeking appointment filed with their applications, letters from members of Congress and other influential persons. These letters have been considered simply as testimonials as to character and professional standing, and it has been my aim in all cases to obtain satisfactory professional endorsement for candidates not personally known to me. No doubt mistakes have been made, but I believe that a large majority of those appointments have proved themselves to be competent physicians and many have shown a special aptitude for the military service.

Very respectfully,
Geo. M. Sternberg,
Surgeon General, U. S. A.

The Influence of School-life upon the Health of Children.—The agitation that is going on with regard to the health of school-children, the transmission of disease through the intermediation of schools and pupils, and the means of prevention and correction, is a healthful sign and of good omen for the future of preventive medicine. Such a great moral force is education that it may with truth be said that the strength of a nation resides within its schools. Appreciating the importance of the subject, the Civic Center and the Washington Branch of the Association of Collegiate Alumnæ undertook recently a joint investigation of the sanitary condition of the public schools of Washington and as a result found many serious defects. The report, which has been published by the Government Printing Office, contains the following interesting communications:

The Sanitary Condition of the Public Schools, by Mrs. Alla B. Foster; The Influence of School Life upon the Health of Children, by William W. Johnston, M.D.; The Influence of School Life upon the Teacher, by Sofie A. Nordhoff-Jung, M.D.; Some of the Causes of So-called School-diseases Found in the Home, by Samuel S. Adams, M.D.; Many of the Causes of So-called School-diseases Found in the School, by George M. Kober, M.D.

A most important recommendation made by the joint committee is "the appointment of visiting physicians, who would inspect the pupils of each building every day. By this means ailing children would be more promptly cared for and the danger from spreading contagious diseases would be reduced to a minimum."

According to Dr. Johnston:

1. All investigations made into the health of school-children in this country or in Europe show that a large percentage present signs of ill-health.

2. Departures from health in school-children are primarily and chiefly in the nervous system and in the eye, although the general nutrition, the blood-making processes, and the digestion are also disordered.

3. The same conditions of disease are seen in different countries and climates, and are so uniformly associated with school-life that there is a reasonable presumption of a close relation between school-instruction and these disorders.

4. The facts show that there is a progressive increase in the sum total of disease with advance from class to class; that the percentage of disease varies also with the number of hours devoted to study and with the extent to which the brain of the pupil is taxed.

5. Careful observations show that during the first eight years of life the brain is rapidly growing in weight and size and complexity of structure; that after eight years there is but little further increase in the size and development of the brain. The first eight years, therefore, demand such a degree of rest of the brain as will best favor its growth and avoid overstrain of an immature organ. The premature

strain put upon a growing organ, as yet unfit to perform its function, hinders its proper development and brings about disorder in the function or disease of the organ.

6. The beginning of school instruction before the age of 8 years is one of the causes of the prevalence of disease among school-children. The rapidly progressive deterioration in the eye shows how injurious is the overstrain of an immature organ, and the progressive increase of the so-called "school-diseases" show the effect of continued strain upon the nervous system of the young.

7. Another cause of disease is the admission of children who are physically and mentally unfit to begin school-instruction or who can not bear the restraints of school-life. Overstrain of an enfeebled nervous system quickly causes disease.

8. The remedies suggested by these considerations are the fixing of 8 years as the proper age to begin school-instruction, instead of from 4 to 6 years, as at present permitted, and the demand for a proper medical certification as to the fitness—mental and physical—of each child who seeks admission to the schools.

Editor and Reader, No. 23. Editorial Corrections of MSS.—By the same mail last week we received two letters, one expressing delight and gratitude for the corrections made in the contributor's manuscript and for the way the article was put in type; the other as energetically expressed disgust. In editing both MSS. the same principles and rules of literary judgment had been applied. What is a poor editor to do? If he shovels papers to the printer untouched he has his own conscience to meet and must also expect to receive letters from justly critical subscribers asking what grammar the editor studied, where he went to school, and many such sarcastic questions, calculated to make him resign and to prefer shoveling gravel to shoveling manuscript. But if he presumes to change *bromides* to *bromids*, and *æther* to *ether* the author ironically writes on his galley, "why not also *salicylats?*" and, "why not instruct Cicero to spell Latin?"

The wise and just way appears to us to be somewhat as follows:—The author has his right and the editor has his duty; the right of the author is that the facts he gives shall be published with accuracy. The sense of what he writes shall not be changed by the editor. The editor's duty is threefold: to his readers, to his contributor, and to his journal. A duty common to all three is that whenever possible and without changing the meaning of his contributor, the editor should amend faults of language, cut down excessive verbiage, and generally improve methods of expression. Busy men have not time to attend to these matters and they should (and usually they do) recognize that a conscientious editor can have no desire except to help them in the presentation of their thought. Often the sticking point is the author's vanity. It is not seldom that precisely the thing most cherished by a writer is that sentence which expresses a doubtful truth, in bad taste, and by means of careless English. We advise contributors to give the editor considerable freedom; we advise the editor to be very cautious about taking too many liberties with his authors' MSS., and lastly we advise the readers, "Don't shoot the Editor."

The Bacteria of the Normal Female Urethra.—F. Schenk and L. Austerlitz (*Prager medicinische Wochenschrift*, April 27, 1899) describe a series of inoculations on 5 different forms of culture-media made from the urethras of 60 patients who entered the University Gynecologic Clinic at Prague. As a result of these investigations it was found that the normal female urethra was entirely free from germs in 50% of the cases if they are not introduced from the outside. In the remaining cases saprophytic bacteria of various forms were found, the most of which are usually found in the vestibule. Pathogenic bacteria are found only in the rarest case. [M.B.T.]

Correspondence.

THE PROPOSED LAW GOVERNING EXPERT TESTIMONY.

By H. C. WOOD, M.D.,
of Philadelphia, Pa.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN the PHILADELPHIA MEDICAL JOURNAL of May 13 there is an editorial upon a proposed Act of Assembly, published in the *Legal Intelligencer* of January 7, we believe, as a suggestion from Law Reform Committee of the Pennsylvania Bar Association, relative to expert or opinion testimony. The source from which this proposed act emanated is such as to require very careful consideration of the bill on the part of those interested. After such consideration it is to my thinking clear that the enactment of the bill as published would leave the situation in our courts, at least so far as medical matters are concerned, worse rather than better. My own belief is that the attempt at reform is in the wrong direction, but this is of course a matter ever open to discussion. On the other hand, it seems to me possible to point out the deficiencies of the bill so clearly that they will be universally recognized.

The first section of the bill is directed to providing for the appointment of 4 experts, who are to be paid by both parties directly or indirectly, and are supposed therefore to act without bias. Section 1, *inter alia*, states "Nor may any person be so chosen [as expert] if he has been approached or consulted or paid in reference to such proceeding or to the subject under inquiry by or on behalf of either party. Nor may he be so chosen if he has already formed a fixed opinion concerning the right or the guilt of either party to such proceeding or concerning the existence of some material fact relevant to such right or guilt." Let us see how this would apply in medicolegal matters.

Take first a case of supposed poisoning. Until the chemist has done his work there can be no trial, and in a large proportion of cases until the chemist has done his work there is not sufficient ground for any legal proceedings save for that of investigation by the District Attorney's office. It is suspected that A has died of poisoning—the proper portions of the corpse are put in the hands of the chemist; if he finds the poison then it is the duty of the District Attorney's office, if possible, to connect the poisoning with some person; until, however, such connection is definite there can be no trial and no agreement between two parties. Under the purposed law the expert testimony of the chemist would be ruled out at the trial, and the whole judicial system would collapse. It will not do to say the law could be evaded by declaring that the chemist's testimony is as to matter of fact, not as to matter of opinion. The line between matters of fact and matters of opinion is largely arbitrary; it may be a matter of fact whether a certain stain upon a piece of glass is or is not arsenic, but so far as the expert is concerned it is a matter af opinion with him that this is arsenic. His opinion concerning the alleged fact is certainly open to contradiction, and if he be employed by one party as an expert, the other party would necessarily have the right to employ somebody else as an expert to test the accuracy of his opinion.

Again, in regard to testamentary capacity. I suppose every expert in mental diseases is from time to time consulted as to the mental capacity of persons who are about to make wills; and under such circumstances written opinions are often put in the safe-deposit boxes with the will. It is absurd to say under these circumstances that the expert is under a bias; he gives the opinion and the will is made, if the opinion is that there is testamentary capacity; while the will is not made if the opinion of the expert is contrary. Death comes perhaps 5, 8, 10 or even more years after the making of the will; in the trial, under the purposed law, the expert who examined the patient at the time of the making of the will, and really had knowledge of the facts of the case, would be put aside for one who must give his decision without personal knowledge, basing his opinion upon the shadowy statements of interested relatives, servants, and other more or less cultivated or ignorant witnesses, who are themselves more or less nvolved in what may be a very bitter controversy.

Again, take the matter of the most contested of all judicial matters, personal injuries. I suppose almost every expert has been consulted shortly after an accident conjointly by the railroad that has done the injury and the person who has received the injury; has given an opinion to each party, receiving half a fee for the opinion from each party; and then he parties concerned disagreeing as to the amount of damages, the case has been taken into court. It is plain that the opinion of such an expert would be of much more value than he opinion of an expert, of equal intelligence, who would examine the patient simply at the time of trial.

Some years ago I was employed by the City of Philadelphia to examine a woman, of whom it was affirmed that she had been permanently injured by falling into a hole in the street. Careful examination and study of the case led me to the positive conclusion that the woman was suffering from no disability, and to a belief that there had not been any injury. Notwithstanding decided testimony in accordance with this conclusion, $1,500 was awarded to the woman, the legal officers of the City expressing, however, great satisfaction, since hey believed damages for thousands of dollars would have been given if it had not been for my testimony throwing doubt into the minds of the jury. Some years afterward, coming out of the court-room, I was met by a lawyer, who aid, "Doctor, do you remember such and such a case?" I aid, after some little hesitation, "Yes." He said, "The woman is dead now, and I think you will be gratified to know you were perfectly right. The case was a set-up one, he woman never had had any fall, never was hurt, but after all we were smart enough to get $1,500 from the City in spite of you."

A great deal of medicolegal work is in the investigation of uch cases as these; very commonly the discovery of the truth nvolves the coaxing of the patient to go into a hospital, the putting of a trained nurse in the house, or the use of the professional detective, the alleged symptoms being of such a character that they cannot be seen by the doctor in examination. The medical expert, who had detected such a fraud as his, would, under the proposed bill, be entirely ruled out of court. In many cases of fraud, the detection at a single examination, such as would be made by experts appointed at he time of trial, is almost impossible.

Again, let a case of alleged malpractice be considered; or almost any medical case. If an expert has been called early n the case, has watched the case through, has perhaps known the patient before and after the occurrence, he is the one who has the most intimate knowledge of the whole affair; and yet, under the Act he certainly would be ruled out of court.

It must be clearly remembered, as before said, that in expert matters there is no line between matters of fact and matters of opinion; it is always a matter of opinion what are the facts of the case. Myelitis and broken backs are facts, but it is an opinion whether they exist in a given case or not.

Section 3 of the proposed Act says plainly that no expert or opinion testimony may be offered by either party except that of the official experts. Section 8 of the proposed law provides that no hypothetic question shall be submitted, but that the opinion of the expert witness must be based "either upon agreed or undisputed facts, or upon facts known by the witness and previously testified to by him, or upon the entire consistent evidence of a party or a witness, assuming the evidence to be true, or upon the several aspects of such evidence, assuming first one aspect and then another aspect to be true, or upon a combination of all or of any of the foregoing matters."

The difficulty of applying these sections to some medicolegal cases seems to me quite apparent. Supposing that this bill were enacted into a law, and that it were possible under its provisions to have a trial for poisoning; the official experts would find themselves in this position: the prosecuting District Attorney claims that a certain substance was arsenic; the defence claims that it was not arsenic; the conviction or acquittal would result according as the case put forth by the District Attorney or that set up by the defence was believed. The experts could not give any opinion in regard to the final matter under the provisions just given by the law because they could only give an opinion based upon one set of the alleged facts, and if they did give a decision based upon the whole testimony in the giving they would usurp the position of the jury, deciding as to matters of alleged fact. What good to the jury would be the statement of an official expert that if the case of the prosecution be correct the substance is arsenic; but that if the statement of the defence be correct the substance is not arsenic? What the jury wants is guidance from an expert as to whether the substance is or is not arsenic; and this brings us to the fact that probably, if it be possible in any way to reform expert testimony to advantage under the present jury-system, such reform would consist in giving an expert assistant to the judge, who would expound to the judge the ins and outs of the expert testimony precisely as the judge expounds to the jury the ins and outs of the law in regard to other matters of evidence; the expert of course not addressing the jury directly but aiding the judge in the preparation of his charge.

Such considerations as those of the last paragraph are, however, perhaps of minor importance, since the purposed law, if enforced, would evidently altogether prevent cases of poisoning from getting to the jury.

A serious question is involved in the compensation of experts provided for under the bill. The giving of expert testimony is the most difficult branch of practice in medicine, involving the coexistence in the expert of the widest practical experience and the largest theoretic knowledge of the matters concerned; requiring also the highest judicial mental capacity and the greatest conscientiousness. No man is fit to give expert testimony on a medical matter who is not in daily active contact with all classes of the diseases in question. At the same time, the uncertainty of the engagements, the detentions in court, the amount of time involved in the proper investigation of cases, interfere very greatly with the regular duties of the doctor. Moreover, to most men few things are more disagreeable than to be made a target for the wit and abuse of a man whose training has been largely directed toward the baffling of witnesses and the hiding or the bringing to light of the truth, according as his present needs lead him to desire. Under such circumstances expert testimony of really high order must be well paid for, and unless the payment is liberal the work will be done solely by very inferior men, and for the cause of justice would better be left undone than done. A recent adventure of mine indicates very strongly what would be the probable outcome of payment by courts in the country districts. The matter was a difficult case of alleged insanity; three or four afternoons were given to its consideration; but the court finally held that $10 was a full remuneration for the expert.

A study of Section 10 of the proposed law, concerning the compensation of experts, will show further that in criminal cases the expert would never know whether he would get anything for his work or not. Unless the judge intervened his only claim for compensation would be an order upon a convicted defendant, to be enforced as part of the sentence. Exactly how much and what the convicted thief or assaulter would be willing and able to pay remains uncertain, but certainly few experts of eminence would be strongly tempted to follow such an ignis fatuus; if they did, one or two mirings would probably afford sufficient experience.

There are other objections to the proposed law which could be readily brought forward, but it does not seem here well to occupy more space. Instead of attempting to reform jury practice as it now exists, would it not be wiser to begin to limit trial by jury to subjects which are not absolutely outside of the normal horizon of the jury's vision? For example, a very large proportion of the medical expert difficulties could be solved by a simple law which said that no question of sanity or insanity should be referred to the ordinary jury, but to a commission composed of one lawyer, one doctor, and one layman, (representing by its composition the three points of view), which commission should decide finally upon the question of sanity or insanity after hearing the evidence, both ordinary and expert. In the case of an alleged criminal the Commission should make the first investigation; if the sanity of the alleged criminal were upheld he should appear before the petit jury for trial as to guilt or innocence. If, however, the criminal were adjudged insane, he should become the ward of the court, to be taken care of according to the character of his crime and of his insanity.

THE QUESTION OF MUTILATION BY AUTOPSY.

By WILLIAM SIMMONS,

of Brooklyn, N. Y.

To the Editor of The Philadelphia Medical Journal :—

When you say "An autopsy is not a mutilation" (editorial comment, Medical Journal, May 13) you restrict the use of the word, mutilate, to a narrowness not recognized by custom, and I can find no etymologist who gives it such a limited meaning. According to the Century Dictionary Judge Audenreid's use of the word is entirely correct, and by the same authority I can say I never saw an autopsy which did not leave the body mutilated. I believe that few would deny that bodies are mutilated in the dissecting-room.

Schermerhorn Street, May 17, 1899.

University of Leipzig.—The centennial anniversary of the foundation of the medical clinic was celebrated May 11, on which occasion busts of Wünderlich and Wagner were unveiled.

Society Report.

[From our Special Correspondent.]

PENNSYLVANIA STATE MEDICAL SOCIETY.

The Fourteenth Annual Meeting, held at Johnstown, Pa., May 16, 17, and 18, 1899.

Tuesday Afternoon.

Address in Surgery.—Dr. Geo. W. Guthrie, of Wilkesbarre, spoke of **the lessons to be learned from the late war.** The Mauser bullet was practically aseptic and the wound made was clear-cut; the dressing packet devised by Esmarch and modified by Senn was a most efficient agent in preventing infection; the superiority of the x-ray over the Nelaton probe was proved; the superiority of the woman nurse demonstrated. Of the many anesthetics introduced, chloroform and ether only have given satisfaction. The elaborate antiseptic methods of Lister have been supplanted by the more simple process of sterilization of the field of operation and instruments, etc., and the dressing with germ-free materials. Antisepsis has widened the field of surgery and has tempted many young operators to rush into serious operations with questionably good results. Kelly emphasizes the importance of conservative gynecological surgery. Noble concurs in this opinion. The surgical treatment for fractured vertebræ offers little in the way of recovery, but gives a fair percent of improvements. The achievements of the past century have been wonderful, but the limit has not been reached.

Pott's disease and its modern treatment was the subject of a paper read by Dr. Stewart L. McCurdy, of Pittsburg. Pott's disease is a tuberculous disease of the vertebral column embodying 25% of all tuberculous bone and joint affections; 80% of the cases occur under the age of 14 years. The one symptom of rigidity is the most important and is invariably present. Pain is not at the focus of disease, but at the terminal of the nerves given off at point of destruction. Fever is usually present for an hour or so during afternoon, and seldom rises above 100° F. As to prognosis, patients may recover without deformity if seen before deformity exists, or if treated by forcible correction, such correction being made under an anesthetic. Racheocampsis, or gradual correction of deformity, was advised as the best treatment. It is recommended that patients should not be suspended during the application of a jacket, and a wooden frame was shown which permits the adjustment of a jacket in the horizontal position when the muscles are relaxed and traction can be made from the head and lower extremities. The unsightly jury-mast is never used by Dr. McCurdy because it not only does not give absolute support to the head, but the pressure of the brace against the most prominent point in the lumbar spine caused by the weight of the head being anterior to this pressure-point throws the body forward and increases the deformity. As a substitute, a plaster-of-paris jacket is used for lower dorsal and lumbar disease. For upper dorsal or cervical disease the support is brought up in front from the anterior superior spines of the ilium directly to the chin by means of iron strips which are worked in the jacket. A chin-shelf extends from these, secured with screws. It is claimed that this gives absolute support to the head. The bodies of the vertebræ being destroyed, the tranverse vertebral processes constitute the remaining supports which are well back from the surface. The artificial support to be effective must be on the anterior portion of the body. The brace shown does this. For cervical disease a wire frame or collar was shown which makes pressure at four points, viz., occiput, vertebral prominence posteriorly, and the mentum and sternum anteriorly. In cervical disease no jacket or other head-support is required. In applying jackets they are cut down in front before being completely set, and are finished by covering with stockinette and stitching lacers along the anterior margins. Jackets should be worn day and night, and the patient should never be allowed to stand for one moment without the jacket. Tracings of cases before and after correction were shown which furnished evidence that cases instead of getting worse were improved. Models were shown to demonstrate methods of applying the jacket, the finished jacket, the head-support, and the new cervical-support.

Dr. J. B. Crombie, of Pittsburg, reported a case of **cerebellar abscess** in a girl 11 years old. The symptoms of abscess were retarded. The sitting posture caused dizziness, nausea and vomiting, which were relieved when reclining. Temperature, pulse, pupils and visual fields were normal. The right side of the face and head became edematous, and there was giddiness on movement. Convulsions developed which were not controlled by chloral, and the patient died of respiratory failure. At the postmortem a large abscess holding ½ ounce of pus was found in the anterior part of the base of the cerebellum with a number of smaller abscesses around it. In the discussion Dr. L. J. Hammond, of Philadelphia, pointed out a line of symptoms that he thought would go far toward making a diagnosis. There was marked discrepancy between the pulse and temperature, dilation of the pupils without fixation, paralysis, a tendency to turn the head toward the side affected. The history of a trauma should be always searched for. Dr. Theodore Diller, of Pittsburg, stated that he had seen the patient a number of times and that it was a matter of great difficulty to decide whether it was a case of nephritis with cerebral symptoms or a case of gross intracranial trouble. The history of the ear-disease and the localization of the edema seemed to indicate the cerebral trouble. Another point of interest was whether or not the albuminuria was an independent affection or a secondary one. He stated that in his opinion it was independent; that neither in his own practice nor in the literature could he find any evidence that albuminuria was a complication of cerebellar abscess. Dr. L. J. Lautenbach, of Philadelphia, referred to a case of cerebellar abscess which had been treated in Philadelphia for a number of years. The symptoms were all of a general nature. There were only two things actually known; there was atrophy of the eye-ground and albuminuria. Beyond this nothing could be discovered; there was no other evidence of disease except, perhaps, depraved nutrition. The woman died suddenly and the autopsy showed a large cerebellar abscess. Dr. Crombie, in closing the discussion, said that the pulse in this case never ran above 95 and the temperature ranged from 97.5° to 99°.

In a paper on **stricture of the rectum**, Dr. William M. Beach called to notice the increased area of exploration of the rectum by means of the proctoscope. He pointed out that many cases of so-called stricture of the rectum are due to hypertrophied rectal valves. The rectal valves must be considered in the pathology of semilunar, annular, and tubular strictures of the rectum.

Dr. W. S. Forbes, of Philadelphia, called the attention of the society to what he designated a **Jōb.** (See this Journal, May 20, 1899.) Dr. J. Daland, of Philadelphia, called attention to the fact that horsehairs have a strong affinity for microbes, and asked if it would not be difficult to keep the Jōb aseptic. Dr. Americus Enright, of Bedford, spoke of using horsehair brushes in cleaning the stomach mechanically. Dr. E. E. Montgomery, of Philadelphia, spoke very favorably of the use of horsehair in the manner described by Dr. Forbes. Dr. Forbes, in answer to Dr. Daland's question, stated that it was very easy to keep the Jōb aseptic.

Some atypical features of certain of the more common nervous diseases were treated of by Dr. Theodore Diller, of Pittsburg. His paper was a resume of the symptoms of various diseases, copiously illustrated by reports of a number of cases and a number of suggestions regarding points in differential diagnosis.

Dr. J. Hartley Anderson, of Pittsburg, spoke of the indications for the **treatment of recent brain-injuries** from the standpoint of the most fatal sequence. He concluded that (1) The engorgement of the pial veins is the expanding force in intracranial pressure. (2) Anemia is the consequence of this engorgement with stoppage of the capillary circulation, and the high arterial tension maintains this locking of the circulation of the encephalon cord. (3) The anemia produces central nervous excitation in the brain and cord which increases general vascular tone, general muscular tone and high arterial pressure, finally central exhaustion and death. (4) General venesection does not unlock the engorged pial veins after capillary circulation ceases. (5) The essential treatment is phlebotomy of the pial veins preferably on both sides of the falx. (6) Cerebral edema is a late manifestation of vasomotor injury to pial vessels associated with tissue-starvation and diminished bloodpressure, and the edema produces further anemia by removing the nutrient vessels from the tissue, causing chemical symptoms resembling the symptoms of anemia by engorgement. (7) Treatment of cerebral edema is the reverse of that for anemia of engorgement and consists in increasing the capillary circulation of the brain by drugs and general treatment. Dr. Henry J. Beates, of Philadelphia, called attention particularly to the function of the arteries in the circulation of the blood, stating that it was his belief that the arteries had more to do with the propelling of the blood than had the heart, and that this fact should be kept in view in treating all cases of increased arterial tension. In advancing his theory of artery-wall function in propelling the blood he cited cases of degenerated heart-muscle in which the blood still circulated, but the heart was clearly not strong enough to give the necessary momentum to the blood. Taking this view of Dr. Anderson's cases he thought an arterial stimulant would be indicated. Dr. W. S. Forbes endorsed the theories of the previous speaker. Dr. Anderson, in replying, stated that he did not think an arterial stimulant indicated, but that the principal thing to do was to bleed the pial veins.

Tuesday Evening.

President W. B. Lowman, in his annual address, delivered Tuesday evening, passed very briefly over the history of medicine down to the time when he began the practice of medicine in 1867. In medicine, he dwelt particularly upon the results of pathologic and bacteriologic research, and in surgery upon anesthesia and antisepsis, referring particularly to the advances in abdominal surgery. He touched upon gynecology and neurology, and stated that the present and future possibilities were "as infinite as the sands of the sea and limited only by Time itself." In a general way he considered the subject of public health and necessary sanitary legislation. He also spoke at length of the thorough training all students of medicine should have, that the qualifications should be high, and the examinations comprehensive. He thought this country would eventually adopt the five-years course.

Wednesday Morning.

At the session of Wednesday forenoon, in discussing the **Importance of early and proper attention to injuries to the eye,** Dr. G. W. Allyn, of Pittsburg, pointed out that major and unusual cases receive attention, while petty ones are hastily examined and treated. Eye-injuries should never be neglected or slighted when assuming responsibility of the treatment. A badly injured eye is a constant menace to the sound one. In using atropia, care must be used to avoid glaucoma. Great care in diagnosis is necessary to avoid injurious mistakes. Eye-strain is a most common cause of headache, which is frequently overlooked until the pharmacopeia has been exhausted without relief. In answer to a question, Dr. Allyn stated that the removal of a bit of metal by means of the magnet, if done slowly and carefully, would not lacerate the tissues.

In his paper on **The attitude of the family-physician to his patients in respect to opticians,** Dr. Louis J. Lautenbach, of Philadelphia, reported several instances in which opticians boast of having physicians recommend their patients to them for refraction. He explains this by assuming carelessness on the part of the doctor, a desire to save his patients expense, or the failure to see the value of specialists. The physician's duty is to render his patients the best service possible by advising that they consult an experienced specialist. Frequently a patient needing glasses may have a more deep-seated and serious trouble, which will only be detected by the specialist. Modern civilization tends to develop astigmatism. Judgment is necessary in prescribing for this condition. There is no saving in paying a medium price and getting poor work with unsatisfactory results in a short time. The oculist will refer the prescription to the optician to grind the glasses and adjust them to the face. The result is satisfactory both to the physician and patient. This plan will obviate much dissatisfaction between patient and physician, lessen expense, and save time and trouble to all concerned. In discussing the paper, Dr. G. W. Allen spoke of the necessity of physicians referring their eye-cases to oculists rather than to permit them to go to opticians. The specialist was placed in a rather delicate position, but nevertheless he felt that it was his duty to speak of it as he had had in his own practice so many cases which had been in the hands of opticians until the trouble became so grave that an oculist was consulted frequently after it was too late.

Dr. Joseph E. Willetts, of Pittsburg, dwelt at length upon the **abnormal movements of the ocular muscles** and the evil results of same, and showed how by restoring the muscles to their natural movements the various reflexes would tend to disappear. Dr. F. Savary Pearce, of Philadelphia, spoke of the necessity of the use of glasses after the neurasthenic symptoms had disappeared.

The mechanical treatment of ptosis was the subject of Dr. Edward B. Heckel, of Pittsburg. He notes in textbooks a lack of consideration of the mechanical procedure in regard to this condition. The operations already devised give universally bad results. He advises mechanical support by means of spectacles of special manufacture. A number of patients have worn his ptosis spectacles for two years with satisfactory results.

Dr. W. M. L. Coplin read a paper on the **propagation of disease by means of insects with special consideration of the more common domestic types.** This paper will be published in an early number of this Journal.

Dr. W. W. Keen read a paper on the **removal of a tumor weighing one pound and five ounces from the liver.** The operation was done entirely by means of the Paquelin cautery. Five large veins were ligated with catgut. The tumor measured 5½ inches in length, 4¼ in breadth, and 3 in thickness. The raw surface where it was detached from the liver measured 5½ by 2⅜ inches. Some iodoform-gauze was packed against the seared surface and the abdomen closed with that exception. The man made an uninterrupted recovery. The tumor was probably a cancer. Dr. Henry Beates, Jr., of Philadelphia, called attention to the circulation of the bile and the difference in its character when taken from the gallducts or the liver, the former often being infected, but the latter generally aseptic, and for that reason he would think Dr. Keen perfectly justified in closing the abdomen without drainage in such a case as reported. Dr. Coplin, of Philadelphia, spoke of the difficulty in ascertaining the nature of the growth on account of its extensive caseation. Although hundreds of specimens had been examined by leading pathologists, a positive diagnosis had not as yet been made.

Wednesday Afternoon.

On Wednesday afternoon Dr. W. S. Foster, of Pittsburg, in considering **some of the results of advanced medical legislation,** spoke of the difficulty of securing medical legislation. It is a great satisfaction to know that the constitutionality of the law has been affirmed in several States. The medical council, or its equivalent, has been sustained in nine suits by the Supreme Courts. He recounts a number of suits against various illegal practitioners, such as osteopaths and Christian Scientists, in which the courts upheld the legality of the laws. He believes there is more illegal practice than should be permitted, and the respective county medical societies should see that those violating the laws are prosecuted. Some good results have already been secured in Pennsylvania. The fact that the societies take care of their own legal rights would have a good moral effect.

In delivering the **address in obstetrics** Dr. Francis P. Ball, of Loch Haven, dealt almost entirely with injuries of parturition, especially of the perineum. He spoke of the physician who makes the claim that he never had a tear in his practice. Many physicians never make an effort to discover whether or not there has been a tear; other physicians, knowing that there is a tear, fear to say anything about it lest their skill may be called into question. The essayist spoke of the suffering which women undergo from these injuries which might be avoided by prompt and proper treatment. The use of the forceps in delivery was discussed, and the time to use them. The time at which extensive repairs of the cervix should be made was spoken of, Dr. Ball not approving generally of immediate operation, but of an immediate operation for repair of lacerated perineum; he illustrated his method of performing the operation.

What can we promise from operative treatment of cancer of the breast? was the title of the paper by Dr. E. E. Montgomery, of Philadelphia. He thinks the answer to this question will depend upon the knowledge of the cause of the cancer, a thorough knowledge of its pathology and development, and an accurate diagnosis to determine when the individual case is malignant, its extent of invasion and the method of operative procedure for combating the disease. The progress of cancer is slower after the climacteric. The disease cannot be implanted by the introduction of cancer-juice. He calls attention to the fact that there is nothing distinctive about the cancer-cell; that it conforms to the type of the particular tissue in which it occurs. The extensive infiltration of surrounding parts contraindicates operation. Relapse after operation most frequently takes place within the first six months. Dr. George E. Shoemaker, of Philadelphia, called attention to the necessity of thorough examination by the general physician, especially in case of hemorrhage. In many cases the privilege of examination is refused. In these cases the physician should either insist upon the privilege or give up the case, as the only and best hope lay in early diagnosis. Dr. G. B. Massey, of Philadelphia, spoke of the great increase in the number of cases of cancer in recent years. He attributed the disease to a germ resembling the yeast-germ. Dr. Charles P. Noble, of Philadelphia, said that what could be promised depended largely upon the character of the growth, its location, and the time of diagnosis. He suggested the use of the cautery as a substitute for the knife. In closing the discussion Dr. Montgomery stated that, although an early diagnosis was very desirable, he had always been successful even when the case was not seen early, and, on the other hand, he had been successful when it was a question whether the case was operable or not. He said that the success of operations depended upon conditions not yet fully understood.

Dr. Charles P. Noble, of Philadelphia, read a paper upon **nephrectomy,** which was largely a plea for the more general use of modern methods for exact diagnosis in diseases of the bladder, ureters, and kidneys. He pointed out that mere cystoscopy and catheterization of the ureters practised early, and in suitable cases the x-rays employed, nephrectomy for stone would seldom be necessary—nephrolithotomy being sufficient. Early diagnosis and prompt nephrectomy will greatly improve the prognosis in primary tuberculosis of the kidney.

Dr. G. B. Massey, of Philadelphia, reported **four cases of carcinoma of the breast,** which constitute the number of cases he has treated since the last meeting. He reports the treatment apparently successful but without sufficient time to exclude recurrence. He uses in treatment powerful electric currents which produce nascent mercuric and zinc oxychlorids, the patient being under an anesthetic. This produces an area of destruction and zone of reaction immediately if currents of sufficient strength and duration are used. Dr. W. W. Keen, of Philadelphia, took a decided stand against Dr. Massey's method of dealing with cancer, stating that it was irrational and unscientific. Dr. Henry Beates, Jr., of Philadelphia, asked if histological examinations of specimens had been made. Dr. Massey, in closing the discussion, defended his method and stated that he did not consider it necessary to make a wound in order to obtain a specimen for examination; the clinical signs were usually sufficient.

In his paper on **Puerperal septicemia,** Dr. G. W. Wagoner, of Johnstown, calls attention to the fact that the nfecting micrococci are conveyed to the woman from without. There must be an open wound following a normal abor. Retained membranes, clots, and pathologic conditions of the parts may constitute a favorable culture-medium for the micrococci after they are deposited. One of a number of different germs may produce the disease. He calls attention to the importance of beginning treatment early, after the first symptoms. The treatment in the first stage is based upon antisepsis. He believes removal of the womb and ovaries when it is certain they are infected, to avoid systemic infection, to be an unwarranted antemortem autopsy.

Dr. Laplace demonstrated a **forceps for intestinal anastomosis,** explained and illustrated in the Philadelphia Medical Journal, June 11, 1898.

Thursday Morning.

On Thursday forenoon, in a paper entitled **Intoxication from toxalbumins and other toxins,** Dr. Mary McDonald Shick, of Reading, briefly reviewed the history of bacteriology and dwelt at length on the nature and origin of toxic proteids and reviewed the theories as to the action of antitoxin. Her conclusions were: (1) Bacteria themselves are not always essential to the production of diseases resembling those ordinarily produced by microorganisms; (2) all soluble poisons produce similar lesions; (3) it is possible, under natural conditions, for an individual to become poisoned with the toxins exclusive of the bacteria. Generally, however, this does not occur. In drinking-water, the poison is well diluted; in foods, we do not as a rule eat those in which putrefacation has progressed sufficiently for the toxin to have been developed; (4) the trend of present experiments would seem to indicate that a special antitoxin for each toxin is not necessary; but rather some substance which in all cases will act as a stimulant to the lymphoid tissues of the organism; (5) considering the similar symptoms and lesions of all intoxications, one general line of treatment may be followed, to be modified to suit individual cases. In the discussion of this paper, Dr. J. C. Wilson, of Philadelphia, thought the subject well illustrated by the process which takes place in malaria, although of course there is a difference between the parasite of malaria and bacteria, the former almost being entitled to be classed as an animal. He considered the malarial patient up to and through the stage of chills and fever, and it was his theory that at the time of the rupturing of the matured malarial body, a large amount of toxalbumin was thrown into the blood and this was coincident with the chills and fever. Dr. Adolph Koenig, Pittsburg, thought that arguments advanced by the reader of the paper justified him in advocating the use of guaiacol in typhoid fever. He stated that the toxalbumins produced by the pathogenic bacteria combined with phenols, and consequently guaiacol was not only an intestinal antiseptic but that it aided in destroying the poisonous excretion of the bacteria.

Dr. Adolph Koenig reports great **success in the use of diphtheria-antitoxin** during an outbreak of the disease at the Rosalia Foundling Asylum and Maternity Hospital. The first two cultures examined by the Bureau of Health proved negative, but the symptoms continued and a third culture gave a positive result. The two cases already infected were injected with 800 antitoxin-units. A culture from all the children of the ward in which these cases appeared were examined and a large number showed the bacilli present. Of the throats of 74 children examined 38 proved positive, and of 22 adults examined 14 were positive. All persons found infected were isolated and injected. Only one case resulted fatally. The antitoxin used was the product of the Laboratory of the Pittsburg Bureau of Health.

Dr. F. U. Ferguson, of Gallitzin, in speaking of **tuberculosis following typhoid fever,** says that in searching the postmortem records of Guy's Hospital Reports he failed to find a single case in point. Other authorities confirm this opinion. Dr. J. C. Wilson, of Philadelphia, stated that in children tuberculous trouble sometimes follows enteric fever, but that it is very rare in adults and that in his opinion enteric fever not only does not predispose to tuberculous trouble but is even antagonistic.

Dr. L. H. Mayer, of Johnstown, believes **typhoid relapses** not to be a fresh extrinsic infection but a renewed autoinfection. With intelligent nursing the danger of relapse is decreased. He reports a number of cases with relapses, discussing the various conditions producing the relapse in each case. Dr. J. C. Wilson, of Philadelphia, discussed the **cause of relapse in typhoid fever** at length and advanced the theory that immunity was a gradual process; that a relapse generally occurred at the time solid food was first administered, causing great activity of the stomach and upper bowel, that a large quantity of bile was thrown into the bowel, that it was a matter of fact that bile was generally infected with the bacillus of Eberth, and that this fresh invasion reached a location not yet immune and a relapse occurred.

The address in medicine was delivered by Dr. J. C. Lange, of Pittsburg, who deplored the fact that medicine does not occupy the honored position which it should in society. Never before did superstition in medicine masquerade so boldly as the truth, yet, although she is assailed on every hand, she calmly holds her onward course and remains abreast of progress. He criticised the medical journals that through revenue derived from advertising of unscientific remedies and nostrums are able to continue in business. He calls attention to the fact that all remedies that require advertisement are superfluous. He denounces the policy of certain manufacturing chemists who offer to physicians a share in the profits of their company if they will use in their practice the products of their company. It redounds to the glory of medicine that it admits of unlimited progressive changes. It is in the order of Providence that medcine should advance, as in the other provinces of science. All that society and individuals can claim from physicians is the exercise of our art in accordance with the existing state of our science.

In a paper on **the diagnosis of mild cases of smallpox,** Dr. W. D. Haight, of Johnstown, stated that he had quite an extended experience with smallpox, and called attention to the marked difference between the early symptoms of those who had been protected at some more or less remote period and those who had not; stating that the former suffered much less, and often in these cases the doctor himself is not suspicious until the vesicular stage indicates clearly what the trouble is. He spoke fully of the differential diagnosis between smallpox and measles, stating that one of the most reliable tests of smallpox was the hard papule under the skin which did not disappear like the papule of measles under stretch of the skin. Dr. S. H. Gump, of Bedford, spoke of the epidemic of smallpox which had occurred during the past winter. He laid special stress upon the fact that previous vaccinations of one parent partly immunized the child having the characteristics of that parent and also that the disease attacked with greater virulence children of parents never vaccinated than it did of those who had been. Dr. Haight, in closing the discussion, brought out the point that a mild case of varioloid could transmit a severe case of confluent smallpox, and therefore the dangers of contagion were just as great from a case of varioloid as from a case of confluent smallpox.

Thursday Afternoon.

Some of the remote results in artisan's palsy was the title of a paper by Dr. F. Savary Pearce, of Philadelphia, who called attention to the increase in the number and variety of manifestations of this disease, owing, doubtless, to the wear and tear of modern life. The cases, which the speaker treated in detail, were those in which there was no neurasthenia, but a paresis either with or without muscular irritability. These cases he divided into muscular, neurotic, and vascular. Of the muscular type, he reported several interesting cases of brakemen and street-car drivers. It was not always necessary to change the employment in order to effect a cure of these cases. The cases of the neurotic type, while severer, were not to be considered hopeless, if taken in time, but it was essential to quit the employment which caused the disease. Galvanism, massage, and rest were indicated in these cases. He called attention to what he designated as an arterial type, stating that arterial or capillary involvement was the primogeniture of a certain number of disabilities of the arms. This was illustrated by reports of a number of cases. He believes the cause of many cases of neurasthenia is due to peripheral irritations, and that this fact should always be considered. Dr. G. B. Massey, Philadelphia, spoke of the disease as being caused by a change of metabolism, and that he considered it a true fatigue-disease and spoke of the rest-cure. He also referred to the fact that many of the cases were in persons who had never had to work and yet the rest-cure was beneficial; for this reason he thought there was an element of hysteria in many of the cases. He spoke also of the benefit from administrations of pure nitromuriatic acid. Dr. W. T. Bishop stated that he used to think there was a nervous element in these cases, but greater experience proved that there was not. He stated that among telegraphers he had never seen a case that did not have a rheumatic history. In closing the discussion he said that he thought suggestion was very valuable as an aid in curing this metabolic disturbance; that a patient's confidence in the physician was most beneficial.

Pancreatic Cyst.—L. L. McArthur (*Chicago Medical Record*, May, 1899) reports the case of a youth of 17, who had had symptoms resembling appendicitis for 7 days. When first seen there was marked fulness of the entire right side of the abdomen. A hypodermic needle was inserted and a dark straw-colored fluid was withdrawn, although there was no evidence of suppuration. A cystic growth was suspected. Celiotomy was performed and a tumor was found which was adherent to the superior surface of the bladder and the anterior surface of the rectum, reaching well down into the pelvis; it was also adherent to the anterior and internal aspect of the ascending colon. When the adhesions were loosened the pedicle was found to spring from the pancreas. The inferior aspect of the head of the pancreas was ligated with a solid rubber pedicle ligature, the sac was excised, and the cavity packed with a Mikulicz tampon. For a few days the temperature was high. The pedicle came away from the pancreas after 10 days, and good recovery followed. [M.B.T.]

Nephrolithotomy.—C. R. Harry (*Pacific Record of Medicine and Surgery*, April 15, 1899) reports the case of a woman, aged 40, who had suffered from severe attacks of pain in the region of the left kidney for five years. Later a swelling was noticed on the left side, and there was pus in the urine which increased in quantity until about an ounce was passed at each urination. The pain increased in severity and radiated down the left ureter toward the bladder; the bladder became very irritable. An operation was performed, the incision being made along the outer border of the left sacrolumbalis muscle; the kidney was incised and 6 or 8 ounces of pus evacuated. A large stone could be felt, which was removed after breaking off a long process; hemorrhage was slight. After irrigation, the capsule of the kidney was sutured to the edges of the wound and the cavity was packed with iodoform gauze. The stone weighed 523 grains, and was composed of phosphates and uric acid. The patient made a very satisfactory recovery. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Dr. John J. Healy, of Philadelphia, has been appointed by Governor Stone an inspector of the Eastern Penitentiary.

Jefferson Medical College Hospital.—Dr. George W. Spencer has been appointed assistant visiting surgeon, and Dr. John H. Gibbon, chief of the surgical out-patient department.

Presbyterian Hospital, Philadelphia.—The gynecologic ward presented to the Hospital by Miss Mary C. Dulles as a memorial to her mother, Mrs. Margaret Welsh Dulles, was dedicated May 23, with appropriate ceremonies.

By the will of the late Dr. Joseph J. Kirkbride, $5,000 is bequeathed to the Pennsylvania Hospital for the purpose of endowing a free bed. His microscope and accessories are devised to the Biological and Microscopical Society of the Academy of Natural Sciences.

Woman's Medical College of Pennsylvania.—The annual commencement exercises were held May 17, 29 graduates being awarded diplomas. Addresses were delivered by Dr. William H. Parish, professor of anatomy, and Judge Ashman. In the evening the corporators and the faculty tendered a reception to the members of the graduating class and their friends, and the new laboratory building, as yet unfinished, was opened for inspection.

The Philadelphia Alumni Society of the Medical Department of the University of Pennsylvania held its annual meeting in the Bourse May 20. The following officers were elected: President, Dr. Edward L. Duer; honorary vice-president, Provost C. C. Harrison; vice-presidents, Drs. J. H. Musser, J. P. C. Griffith, J. L. Forwood, and C. P. Mercer; recording secretary, Dr. S. W. Wadsworth; corresponding secretary, Dr. B. Franklin Stahl; treasurer, Dr. H. B. Carpenter; executive committee, Drs. T. S. Wescott, J. F. Shamberg, A. O. J. Kelly, H. L. Adler, Jr., and Boardman Reed.

Sanitarium Association of Philadelphia.—According to the twenty-second annual report which has just been issued, during the year 1898, 149,008 children were taken by steamer to the Sanitarium at Red Bank. The average daily admissions were 1,721; 29,400 quarts of soup, 3,989 quarts of milk, 826 loaves of bread, and 118 barrels of crackers were distributed at the playgrounds. The expenditures for 1898 were $12,033.25; the receipts, $9,210.56, an excess of expenditures over receipts of $2,822.69. During the 22 years of the existence of the Association, 1,831,641 persons, mostly children, have been carried to and from the Sanitarium.

Alumni Association of the Medico-Chirurgical College.—The seventeenth annual meeting was held May 19, there being a reception to the graduates and a banquet. At the reception an address was delivered by Rev. Joseph Krauskopf, D.D. Dr. Henry Fisher, president of the Alumni Association, presided at the banquet, at which the following were the toasts: "The Alumni," Dr. Charles H. Gubbins; "The Medico-Chirurgical College," Dr. W. Easterly Ashton; "The Press," Peter J. Hoban; "The American Medical Association," Dr. Joseph M. Matthews, the president of the association; "The University of Pennsylvania," Dr. James Tyson; "The Jefferson Medical College," Dr. H. A. Hare, and "Public Charities," Ralph Blum.

Philadelphia Chapter of the Alumni Association of Jefferson Medical College.—The annual meeting was held May 22, at which, in addition to a reception, the following officers were elected: President, Dr. Joseph S. Neff; vice-presidents, Drs. William Carrol, Lewis Brinton, Henry Morris, Wilson Buckby, C. C. Davidson and W. H. Wells; J. K. Weaver, Montgomery county; Walter Webb, Delaware county; J. B. Carrel, Bucks county; D. C. Hoskins, Chester county; E. L. B. Godfrey and C. F. Adams, New Jersey; corresponding secretary, Dr. John H. Gibbon; recording secretary, Dr. Charles A. Holder; treasurer, Dr. William M. Sweet; executive committee, Drs. H. F. Hansell, J. P. Bolton, A. H. Hulshizer, Hobart A. Hare, Addinell Hewson, H. A. Wilson, W. W. Keen, I. P. Strittmatter, E. E. Montgomery, Francis X. Dercum, J. M. Fisher, E. L. Vansant, Collier L. Bower, and A. P. Brubaker.

Philadelphia Lying-in Charity.—According to the 70th annual report recently issued there were admitted to the hospital during the past year 303 pregnant women; there remained in the hospital at the time of the last report 8. Of these 278 were delivered; 17 left before confinement, and 8 were awaiting confinement. 280 children were born (2 cases of twins). Of these 254 left with their mothers; 14 were stillborn; 6 were premature, 6 died (3 premature), 2 of asphyxia, and 1 of inanition. The total income for the year amounted to $14,304.31, and the expenditures to $18,430.58, an excess of expenditures over income of $3,371.27. On May 17, the graduating exercises of the nurse class were held, at which 22 nurses received diplomas. Interesting addresses were delivered by Dr. W. M. Capp, John Sparhawk, Jr., and Rev. J. P. Duffy. This institution has the oldest training-school for nurses in America, it having been established in 1828. This school is also thought to be the second oldest in the world, being junior by only 2 years to another established in Dublin, Ireland.

Vital Statistics of Philadelphia for the week ending May 20, 1899.

Total mortality		378
Children under 5 years of age		96
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis 47, laryngeal tuberculosis 1		48
Pneumonia		38
Heart-disease 29, fatty degeneration of the heart 2, neuralgia of the heart 2		33
Nephritis 21, uremia 4		25
Apoplexy 14, paralysis 7, softening of the brain 2		23
Senility		19
Gastroenteritis 12, cholera infantum 5		17
Diphtheria	78	17
Typhoid fever	111	17
Inflammation of the brain 15, congestion of the brain 1		16
Inanition 8, marasmus 6, debility 3		17
Carcinoma 10, tumor 2, sarcoma 1		13
Convulsions 12, epilepsy 1		13
Scarlet fever	42	4
Cerebrospinal meningitis	6	2
Peritonitis 8, suicide 5, bronchitis 5, abscess 4, atheroma 4, burns and scalds 4, cyanosis 4, dropsy 4, rheumatism 4, pertussis 4, liver-disease 3, casualties 2, cirrhosis of the liver 2, erysipelas 2, hemorrhage 2, intestinal obstruction 2, suffocation 2, teething 2, alcoholism 1, anemia 1, parturition 1, diabetes 1, stomach-disease 1, influenza 1, pleuritis 1, metritis 1, inflammation of the spine 1, insanity 1, jaundice 1, locomotor ataxia 1, septicemia 1.		

A Physician Fined $1,033.—Dr. F. W. Frankhauser writes us as follows: "Dr. F. H. Brobst, of Reading, was arrested and has been tried at Reading for obtaining money under false pretenses. Mrs. Minker brought suit against Dr. Brobst on the following alleged facts: She was to be taken to Philadelphia to have an operation performed privately and to be furnished with a private room at the hospital, and have a private nurse, for all of which she was to pay $165. Instead of this she was operated upon, as it is stated, in a private operating-room at the Jefferson Hospital before a section of the class and occupied a bed in the general ward. The defense was that the $165 was used to pay $7 a week to the hospital, and the doctor's expenses to and from Philadelphia, also for part on an old account. When the husband of Mrs. M. learned that Mrs. M. was not in a private room, and that the operator received none of the money, he asked the doctor about it. The doctor then gave Mr. M. a check for $62, but afterwards stopped its payment. The hospital expenses were not all paid. The jury brought in a verdict for the plaintiff of $1,033."

Philadelphia Pediatric Society.—At a meeting held May 9, Dr. Edsall exhibited a girl with a **tumor in the region of the right kidney,** of rapid growth, extending from the lumbar region to between the liver and anterior iliac spine; with no fluctuation, and evidently a **sarcoma of the kidney**; blood-examination showed a leukocytosis, but a differential count was negative.

Dr. Griffith exhibited a patient with **congenital heart-disease,** the murmur present being loudest in the area of the pulmonic valve, and systolic in time, leading to the diagnosis of pulmonary stenosis, the absence of constant cyanosis and the presence of an accentuated pulmonic second sound being explained by supposing a patulous ductus arteriosus, with a defect in the ventricular septum. In the discussion, Dr. Tyson, agreeing with the diagnosis, mentioned an apparent enlargement of the left auricle. Dr. Eshner considered the murmur to have the characteristics of obstructions between the left auricle and ventricle, the enlargement of the left auricle tending to confirm this. Dr. Griffith replied that there existed no enlargement of the right ventricle, such as would result from mitral stenosis.

Dr. Hand exhibited a girl, 3 years old, of good intelligence, in whom there came on, at one year of age, a slowly developing **spastic paresis,** involving, to a great degree, the left arm, to a less but marked degree the left leg, and to a slight degree the right leg. The muscles were not well-developed, probably owing to the lack of use, but they did not seem degenerated. Attempts at motion on the part of the child caused a sympathetic contraction of the greater part of the muscular system. The kneejerks were not exaggerated, and sensation was unimpaired. The absence of mental deficiency opposes an otherwise well-established diagnosis of a cerebral lesion. Dr. Griffith thought that the presence of athetoid movements indicated a cortical lesion, in which Dr. Eshner agreed. Dr. A. O. J. Kelly mentioned the possibility of an hysteric element in the case.

Dr. Tyson exhibited photographs of a case of **generalized vaccinia,** following the use of liquid lymph. Dr. Welch recalled Jenner's contention that vaccinia could not give a general eruption and stated that early in the history of vaccination a mixed lymph was extensively used, accidentally of course, which gave the vaccination-lesion and also a modified variolous eruption.

Dr. Edsall read a paper on **Congenital stenosis of the pylorus** and reported a case. He considered in detail the factors variously held answerable for the affection.

Dr. L. M. Allen reported a case of **erysipelas ambulans in an infant 14 weeks old,** resulting fatally in 13 days with uremic symptoms; coincidentally the mother had a cellulitis of the forearm, and one of the children had scarlet fever. Dr. Allen also reported a case of melena beginning on the third day after birth and so profuse as to soak through the mattress; no hemorrhage occurred on the fourth day, but on the fifth there were several bloody stools.

Dr. Emery Marvel reported a case of **noma in a boy 23 months old,** resulting fatally in 5 days after complete destruction of the left cheek, the nose and eye being also involved. The child had had measles ten months earlier, followed by a general catarrh for five months. Immediately preceding the noma there was a gastroenteritis.

NEW YORK.

Dr. Emil Mayer, of New York City, has been appointed co-editor for America of the *International Centralblatt für Laryngologie und verwandte Wissenschaften,* of which Sir Felix Semon, of London, is editor-in-chief.

Smuggling Drugs into New York.—Several special Treasury agents are busily engaged just at present in endeavoring to ferret out some of those who have been guilty of smuggling into that port large quantities of drugs. On May 15th, a large stock of drugs was seized and 4 persons placed under arrest. One lot of these contraband goods is valued at $5,000. It is intimated that certain large wholesale drughouses here have connived in this smuggling.

Buffalo Academy of Medicine—Surgical Section.—At a meeting held May 2, Dr. Marshall Clinton read a paper entitled **Impressions of a medical man in Cuba.** Dr. Clinton was one of the surgical staff of the 202d Infantry, U. S. V., which did garrison duty in Cuba. He detailed the care exercised to prevent the occurrence of typhoid fever and other infectious diseases in Cuba as compared with that taken in camp in the United States, and with that taken during hostilities both in Cuba and here.

Arrested for Conducting a Horse-meat Factory.—After a rather long search for evidence against an alleged factory for the canning of horse-meat, the police succeeded on May 19 in discovering the factory in full operation on the Fresh Pond Road. They arrested two Brooklyn men, who were held in $1,000 bail for examination on the charge of slaughtering horses and maintaining a nuisance. The evidence showed that horses had been slaughtered in the basement of a saloon, and that the meat had been cured in the cellar of an adjoining house, both buildings being situated in an unfrequented region.

The Woman's Hospital Building Fund.—Mr. Russell Sage has just brought joy to the hearts of the directors of the Woman's Hospital by a gift of $50,000 towards the fund of $400,000 needed to build a new home for this hospital on the present grounds. Mrs. Sage hinted that her husband was willing to give another $50,000 if necessary, but added that already about $300,000 had been subscribed. Mrs. F. F. Thompson, the treasurer, has given $50,000 also, and among those who have given $5,000 each are Mrs. Morris K. Jessup, Mrs. Charles Alexander, Mrs. Malcolm Braham, Mrs. Alfred Hoyt, Mrs. A. D. Juilliard, Mrs. Whitelaw Reid, Mrs. William E. Dodge, Jr., and Mrs. Robert De Forest.

A Discharged Physician Sues a Former Patient.—Dr. William J. Barry, who had been engaged by Mr. Charles H. Hoyt, the theatrical manager, to treat him for nervous exhaustion for a period of four months, and who was discharged from attendance upon Mr. Hoyt after about two weeks, has brought suit against his former patient to recover $4,000 damages for breach of contract. According to his story, Mr. Hoyt agreed to pay him this sum, in addition to his traveling expenses, if he would go as his medical attendant for a southern trip for a period of four months. He alleges that after they had been gone a little over one week, his patient had been violent and abusive because he would not permit him to use tobacco, alcohol and morphin.

This culminated in the physician being discharged from his service. On the other hand, Mr. Hoyt's lawyer claims that the doctor had been discharged because he misbehaved and became so intoxicated that he was unable to perform his duties.

Judicial Action Concerning Physician's Certificates of Illness of Persons Called for Jury Service.—A number of Supreme Court Justices of New York have recently adopted a strict attitude towards men summoned as jurors who seek to be excused from service on the ground of ill-health, and bring with them written certificates from their physicians that the jurors are unable to endure the hardship of sitting in a jury-box. The simple certificate in writing over a physician's signature possesses no efficacy whatever, and it is necessary that the document bear the jurat of a notary public or commissioner of deeds, showing that the family doctor has verified his diagnosis of jury illness under oath. One of the Justices is reported to have declared that he will not accept the illness of a juror as an excuse for non-attendance unless the physician appears in person before him for examination as to the condition of the patient.

Buffalo Academy of Medicine—Section on Medicine.—At a meeting held May 9, Dr. Joseph W. Grosvenor read a paper entitled **The use of alcohol in the treatment of disease.**

He stated that alcohol adds nothing to physical energy, that it was invaribly depressing whether in doses of one pint or one-half ounce; that it was an excellent anesthetic; that it lowered bodily temperature; that it prevented the absorption of oxygen by the blood, it retained the urea therein, it produced fatty change in the corpuscles and diminished the excretion of carbonic oxid; that upon the kidneys it decreased urinary toxicity by preventing the excretion of toxins, hence was an extremely poor remedy in microbic diseases; that it lessened the resisting power of the cells by causing degeneration thereof. He quoted Hamilton's experience in the civil war to show that in general by its depressing effect it was contraindicated in the treatment of disease. The doctor gave many experiments to prove his position. In discussion, Dr. A. L. Benedict said that alcohol should be looked at as a drug and not as a beverage. He believed that it is not the potent factor in disease of the liver and kidneys that it is considered, and that it did not affect these organs directly. He said that its effects in the stomach were positive, that up to 5% strength in gastric juice it stimulated digestion, but in greater amount it retarded. He divides alcoholics into three groups: beers, which are not nutritive, whiskies and wines, which have a positive value when fruity acids are needed. Dr. Sydney A. Dunham decried the use of alcohol as a "pick-me-up" in nervous disorders, saying that there was no such thing as moderation in its use in nervous diseases. He reviewed the literature from the side of the nervous system, and ended by saying that alcohol degenerates the healthy, degenerates the degenerate, and hands down the degeneration to posterity. Dr. H. R. Hopkins drew a strong contrast between alcohol and alcoholic beverages, which latter he described as vital, living products varying as much as other substances containing beside alcohol, ethers, salts, etc., which have effects and values different from the contained alcohol. He believed in the use of alcoholic fluids in the treatment of disease because of their availability and their adaptability. Dr. E. L. Frost believes that alcohol pure has no place in therapeutics, but that in fluids its presence in conjunction with the other substances therein has a usefulness in the treatment of disease second to no other drug.

New York Academy of Medicine.—At the last meeting, Dr. Alexander B. Johnson read a paper entitled, **Recent methods of local anesthesia for minor and for major surgical operations.**

He considered that local anesthesia would be found chiefly of service in the following cases: (1) Operations on the general integument, limited areas of which might be rendered analgesic for the purpose of opening superficial abscesses, the suture of superficial wounds, or the removal of superficially situated new growths or foreign bodies; (2) operations on the mucous membrane of the urethra or on the integument of the penis; (3) for the suture of a fractured patella; (4) for the resection of a rib in a case of empyema; (5) in a few desperate cases of strangulated hernia, and (6) exceptionally for a moderately severe operation in which the avoidance of nausea and vomiting was of the greatest consequence, or where the surgeon considered that the use of a general anesthetic would greatly enhance the risk. The parts best suited for cocain-anesthesia were the mucous membrane of the mouth, pharynx and tonsils, the nasal fossæ, the male and female urethra, and occasionally the female bladder. Rather strong solutions should be employed—usually 10%. The mucous membrane of the bladder would absorb cocain quite slowly as compared with the mucous membrane of the turbinated bodies. The stronger the solution, the more widely would the anesthesia extend beyond the actual line of application. This was equally true of solutions injected into the tissues. For operations, about the 1% or 2% solutions were sufficiently strong. When operating upon the mucous membrane of the mouth, it was better to paint the surface with a moderately strong solution than to use a spray. For many years he had been in the habit of doing all his internal urethrotomies back to a depth of 4½ inches under cocain-anesthesia. After irrigation of the urethra, half a dram of a .5% solution should be introduced into the canal by means of an ordinary urethral syringe, and the meatus held closed for 10 minutes, when the operation could be proceeded with. If the patient were a strong adult, the region not very vascular and the bleeding free, a quantity of cocain equal to 1½ grains could be used without producing intoxication, but ordinarily one grain should not be exceeded. It was usually considered that a full stomach and a recumbent position tended to diminish the liability to the occurrence of unpleasant symptoms. If an incision were to be made into an area of inflamed skin, the cocain should be introduced around the periphery of this area. When the operation was to be done on the feet, it was desirable to elevate the limb, then inject the cocain, and finally apply a constricting bandage. It should not be forgotten, however, that the prolonged application of a constricting bandage was itself often as painful as the cutting. Another admirable method was to inject the cocain along the nerves of the part. This was very strikingly beneficial when applied to the digital nerves. In the discussion, Dr. H. Lilienthal warned against the use of eucain in connection with a constricting bandage on account of the liability to sloughing under such circumstances. Local anesthesia, induced through the agency of cataphoresis, was a method employed by some dentists, and to its efficacy he could personally testify. Before using either cocain or eucain for local anesthesia, it was his custom to give the patient sufficient morphin to produce mental quietude. Dr. W. H. Bates said that when, as often occurred, satisfactory anesthesia in the eye could not be secured by the use of cocain, it would often be found that the simultaneous use of suprarenal extract would secure that blanching of the eye so necessary if one would produce good anesthesia.

Dr. Robert Coleman Kemp read a paper entitled, **Further experimental researches on the effects of different anesthetics upon the kidneys.**

It was a continuation of the experiments that he had made, in conjunction with Dr. William H. Thomson, and by which they had first learned of what they styled the specific effect of ether on the kidneys. The experiments had been conducted in the physiologic laboratory of Columbia University, with the aid of modern instruments of precision. This investigation covered an inquiry, by experimentation on animals, into the effect on the general circulation and upon the kidneys of ether, chloroform, A. C. E. mixture, Schleich's solutions, anesthol, ethyl chlorid, and nitrous oxid. The conclusion was reached that ether caused a special contraction of the renal arterioles, and exerted a deleterious effect on the secretory cells of the kidney, leading to albuminuria and diminution or suppression of urine. Chloroform seemed to have no effect on the kidneys. The A. C. E. mixture exhibited the specific effect of ether on the kidneys, and also that of chloroform on the heart, consequently there was no advantage in using this mixture. The same observation applied to the Schleich solutions. The new anesthetic mixture brought forward by Dr. Willy Meyer, and known as "anesthol," he believed to be dangerous because of the aggravated chloroform-heart produced by it, together with the effect on the respiration and the specific effect of ether on the kidneys.

Dr. Thomas L. Bennett read a paper on the **relations between the administration of anesthetics and disease of the kidneys.** He took the ground that many of the disturbances of the kidneys popularly attributed to the anesthetic were in reality the result of various other factors, very commonly overlooked, viz: the operation itself, improper clothing and exposure to chilling influences and sepsis. In choosing an anesthetic, having in mind the influence on the kidneys, they would rank in the following order, the one having the least action coming first: (1) Local anesthetics; (2) nitrous oxid with oxygen; (3) nitrous oxid with air; (4) chloroform and (5) ether. The effect of any one of them on the kidneys would be very largely influenced by the quantity administered. In the discussion, Dr. S. J. Meltzer said that as one would expect to find the same changes in other organs as in the kidneys, he would suggest that the same line of experimental investigation be carried on, substituting for the kidney either the testicle or the spleen. From the known physiologic action of caffein, it would seem not improbable that the administration of this drug during ether-narcosis might reestablish the normal balance of the circulation. He cited one case in which the administration of sodium salicylate had had a striking effect in relieving a suppression of urine following etherization. Dr. Robert Abbé cited some recent statistics regarding the occurrence of transient albuminuria and the presence of renal casts immediately after etherization. His confidence in ether as an anesthetic agent, he said, had not been shaken by the experiments just detailed.

New York County Medical Society.—The monthly meeting of this society was held at the Academy of Medicine, New York, on the 22d inst., the president in the chair. Two papers were read, the first by Dr. Wm. T. Spratling on **The Craig Colony for Epileptics,** and the second by Dr. Joseph H. Weiner on **Early diagnosis of uterine cancer,** the former being illustrated by means of limelight views, and the latter by photographs and photomicrographs.

The Craig Colony for Epileptics, Dr. Spratling stated, was founded after the model of a similar institution at Peterfeld, in Germany. It was established through the instrumentality of the charity organizations and Charities Department of New York, and took its name on the suggestion of the late Governor Flower from a gentleman named Craig, who as chairman of the committee took an active part in its foundation, but died before his work had borne practical fruition. The colony is situated in the Genesee Valley, 60 miles from Buffalo, and about 300 miles from New York. The ground consists of 400 acres, mostly consisting of land that is very valuable for agricultural and other purposes, and a number of buildings have been erected for the purpose of accommodating epileptic subjects, and carrying on scientific investigations with a view to discovering means for coping with the disease. Only State or indigent persons have been taken so far, but it is intended that private patients shall also be taken and allowed to rent or build cottages in the colony, care always being taken to see that the indigent patients are attended to first, as indeed is required by the law. The grounds are 2¾ miles in length and 1½ miles broad, and are intersected by a wide gorge, and this natural division has led to the quarters of the male patients being put on one side of the gorge, and those of the females on the other. Some of the buildings now in use were acquired from the Shakers, who originally owned the property, while others have been built by the colony. All the resources have been exhausted in the work of construction, and therefore little has been done in the way of scientific investigation, but the results so far obtained from getting the patients together and putting them to healthy and congenial work have been very satisfactory. The greatest possible liberty is allowed the patients, who practically come and go as they please, and only in two instances with 300 patients under their charge have patients wandered away. Dr. Spratling, having made these preliminary remarks, proceeded to show views of the buildings and the patients. The first pictures show the administration building and the hospital. Then some of the male patients were shown engaged in making mattresses, an occupation at which they are employed in the winter time when their services cannot be used at outdoor work. In this connection he explained that it was usual to put patients to work of a totally different nature from that at which they had formerly been employed. For example, if a man had been a bookkeeper, he would be put to light work in the fields, and if that did not suit him he would be sent to something else. The women, again, were largely employed in making clothes—for themselves and the other patients. By way of showing further the diversity of employments which are engaged in, pictures were shown of boys engaged in cutting ice, of men and women gathering tomatoes and strawberries, of girls sawing (for the purpose of developing their muscles, which was found to be the best way of commencing to get their brains into a healthy condition), of men engaged in brickmaking, and so on. The colony was worked on the most economical system possible consistently with good living, and the result was that patients were maintained at a cost of from $85 per annum upwards. At the conclusion of the paper remarks were made by Dr. F. Peterson, Dr. I. Van Gieson, and Dr. Leszynsky, who spoke in terms of commendation of the work being done in the colony, and by Dr. E. D. Fisher, who inquired as to the medical treatment of the patients, and particularly as to the efficacy of drugs in the cure of epilepsy. Dr. Spratling, in reply, said he had put the question to all the specialists he had met, here and abroad, as to whether there was anything new in the drug-treatment of epilepsy, and they had all replied in the negative, as his own experience led him to do likewise. They had preparations by which they knew perfectly well that they could prevent attacks, but whenever they ceased administering them, the attacks were worse than before. Generally speaking, his experience was that they could do more good by giving the patients good nutritious food and healthy work and recreation in the open-air than they could by any drug-treatment. Many of the patients were apparently incurable, but when they got their scientific investigations instituted they hoped to discover something more as to the nature of the disease, and the best way of dealing with it.

Dr. Weiner, in his paper on **The early diagnosis of uterine cancer,** showed that the large mortality caused by this disease was due to the fact that operations were rarely performed until too late. He cited cases to prove that the germs of the disease were often developed at a very early age, even in virgins; and he maintained that if detected in time it could be eradicated. The Germans, he maintained, were in the habit of making much more minute examinations of the uterus than American doctors, and as a result they saved the lives of many patients. Dr. D. H. Coe, in criticising the paper, expressed the opinion that doctors should not allow delicacy or any other considerations to prevent them from making thorough examinations of the uterus in all cases in which the symptoms were in the slightest degree suggestive of cancer, and when convinced of the existence of the disease they should insist on a radical operation being performed or wash their hands of the case altogether. It was important that they should discover more than was at present known about the primary stages of cancer in the uterus. Dr. Weiner, in some supplementary remarks, expressed the opinion that if proper diagnoses were taken early enough there was no reason why cancer in the uterus should not be as successfully dealt with as cancer in the breast.

The photographs exhibited in illustration of the paper having been examined, the proceedings were brought to a close and the meeting adjourned.

NEW ENGLAND.

Harvard Medical School.—Dr. A. L. T. Scharper has been appointed assistant professor of histology.

Dr. Charles G. Cumston, of Boston, has been elected an honorary member of the Surgical Society of Belgium.

Farmers Gain a Point.—By the new legislation on the milk law in Massachusetts, the standard for solids is fixed at 12% from April to October, and at 13% for the rest of the year. The original percentage of solids in milk was 13% all the year, but the granger legislators succeeded first in reducing the standard to 12% for April and May, then for June, July, and August, and now for September.

Medical Examination Frauds Exposed.—A great fraud was attempted last Tuesday at the State examination of the Massachusetts Board of Registration in Medicine. In some way the papers for examination slipped through the precautions of the printer, and the day before the examination the secretary of the board, Dr. Edwin B. Harvey, learned that they were being offered for sale in Boston, and found ready purchasers at from $50 to $100 a set. There are examinations in physiology, pathology, surgery, medicine and obstetrics, with 10 questions on each subject. They are selected with a real intention of finding out what the candidates know, and are marked accurately, a percentage of 70% being required as an average standing. Previous to last July the papers were typewritten in the office of the secretary, but since that date they have been printed outside the State, sealed and so delivered to the secretary. Despite this precaution it is certain that they were sold in the corridors of the State House just before the March examination began. Several men that received a high mark in the examination were not allowed certificates on account of the suspicion which attached to them. The first hint that the papers were out again came on Saturday, May 13, when 10 undergraduates of one of the weaker medical schools insisted on paying the $20 fee and taking the examinations, although advised to wait until they had received their degrees. On Monday a new set of papers was prepared in the secretary's office, and on Tuesday, when the 67 candidates appeared, at least a score were visibly disconcerted on seeing the paper. The amount of sharpening of pencils and general "masterly inactivity" they displayed during the two hours was quite remarkable. The new papers were unusually stiff, and the examiners and proctors very alert, so that it is safe to say that the men who pass this year will deserve all they get. The medical schools have taken the matter up, and it is certain that any person who is proven to have attempted fraud will not only lose his degree, but will be refused a license to practise medicine in this State, on the ground of bad moral character.

The Obstetrical Society of Boston met May 17, at the St. Botolph Club, upon the invitation of the president, Dr. Alfred Worcester, of Waltham, Mass.

Dr. Edward Reynolds read a communication on **The complications of the puerperium due to fibroids.** He first spoke briefly of the danger of fibroids undergoing necrosis during the puerperium, from the loss of circulation consequent upon the involution of the uterus and decrease in the size of the pedicles of the tumors. He illustrated the point by reporting three cases. Dr. Reynolds concluded that in the presence of a fibroid it is important to watch the puerperium very closely, and that if the tumor begins to be painful and swollen, it is a matter of great delicacy of judgment to know whether or not it is likely to recover its circulation. If this is thought unlikely the tumor should be removed by myomectomy or hysterectomy before the patient's condition becomes desperate. If this is neglected, if abdominal operation looks hopeless, immediate relief may sometimes be obtained in interligamentous fibroids by a palliative operation by the vagina.

Dr. F. S. Newell, of the Boston Lying-In Hospital, also read a paper, in which he considered **79 cases of true puerperal eclampsia,** which had occurred in that institution. His statistics are of obvious value. They cover the period since 1885, during which 6,700 deliveries have taken place, with 79 cases of eclampsia. This is an average of 11.7 to the 1,000. This is higher than true proportion of eclampsia. Knapp, from the Prague clinic, reported but 22 cases in 4,480 deliveries, or about 5 to the 1,000. The percentage is raised at the Boston hospital, because many cases are sent there after treatment outside has proved of no avail.

Of the 79 patients reported upon, 57, or 72 2%, were primiparæ, and 22, or 27%, multiparæ. This corresponds very closely to other observers. The Prague clinic gives 72.7% of primiparæ, and Schreiber, from the Vienna clinic, shows 79.5%. In the Boston series, 32 cases were antepartum, 22 interpartum, and 25 postpartum. Three of the cases came to autopsy, and the result confirmed Schmorl's conclusion that the lesions in the kidney are less marked than in the liver. In the latter organ there are numerous areas of coagulation necrosis into which hemorrhage has taken place. Schmorl says the changes in the liver, which are very striking and characteristic on macroscopic examination, are pathognomonic of the disease. Lush says the chief causative factors of eclampsia are, (1) protracted labors, (2) multiple pregnancies, (3) elderly primiparæ. Dr. Newell's figures show that the average time of labor is practically the same as in an equal number of non-eclamptic primiparous and multiparous labors. The effect of multiple pregnancies on the disease is marked. In the period covered by Dr. Newell there have been 63 twin births, and 6 developed eclampsia—about 1 in 10.

As to elderly primiparæ, the records show that only 6 were over 30, and that the average age was 22.5 years. Knapp and Schreiber both say most of their cases were young, Schreiber reporting 109 out of 113 as under 30. Dr. Newell reported that in 21 cases there were no prodromal symptoms, or were so slight as to escape the patient's notice. Of the 53 patients who gave a history of syphilis, 37 complained of frontal headache, 33 had vomiting, 19 had epigastric pain, 5 had blurring of vision, 3 had twitchings, 23 had edema of the ankles; in only 10 was edema of the face observed on entrance. All but 2 cases showed albumin in the urine, with blood and casts, convulsive attacks, usually epileptiform in character, were the principal diagnostic signs. Twenty-one cases died out of the 79, a percentage of 26.5. This compares favorably with the statistics of other maternity hospitals, which vary from 20 to 50%. Of the antepartum cases, 31.2% died; of the interpartum cases, 27.2%; of the postpartum cases, 20%; of the primipara, 21%; and of the multipara, 41% died. The number of convulsions seemed to be no guide to the severity of the case, nor did the amount of albumin in the urine. In the main, the treatment at the Boston Lying-in Hospital has been to empty the uterus as rapidly as was consistent with the safety of the patient, and to stimulate all secretions in order to eliminate the toxins as rapidly as possible. Dr. Newell made one general criticism on the treatment, namely, that stimulation had been too often neglected, in spite of the fact that the treatment had been markedly depressant. The records seemed to show that shock after operative delivery had played an important part in the death-rate. Early and thorough stimulation, he believed, would bring a distinct reduction in the mortality-list. Pilocarpin had been used in treating 56 of the 79 cases, with 14 deaths, 5 of which were from pulmonary edema. Morphin, ¼ gr., was given in two cases to control convulsions, but alarming symptoms developed at once. The drug was stopped and both recovered. The reader favored strongly saline solution. It acts, he says, in three ways. It stimulates the heart, it increases the secretions and dilutes the toxins in the blood.

Operative delivery was resorted to in 49 of the 53 antepartum and postpartum cases, with the death of one-third. 25 children were stillborn or died a few hours after birth. There were 20 forceps-cases, 27 versions, and 2 craniotomies.

CHICAGO AND WESTERN STATES.

Cook County (Ill.) Hospital Alumni Association.—At the annual meeting held May 23, Dr. Henry M. Lyman, the only survivor of the original staff, read a paper entitled: "The History of the Building and Establishment of Cook County Hospital."

Rush Medical College, Chicago University.—Dr. Christian Fenger has been appointed professor of surgery.

Dr. Howard Ayres, professor of biology in the University of Missouri, has accepted the presidency of the University of Cincinnati.

Dr. Wm. H. Crane was appointed to the chair of chemistry in the medical department of the University of Cincinnati (the Medical College of Ohio).

A youthful criminal in Cincinnati has recently attracted considerable notoriety. He is a colored boy, aged 11 years, who in the course of a few months is said to have poisoned a horse and several relatives. On May 17 he purchased a box of rough-on-rats and attempted to kill his father and brother by administering the poison in coffee. The father drank but little and is recovering. The brother, a man of 30, took two cups of the coffee and died a few hours afterwards. The boy made a complete confession of his crime to the chief of police, and talks in an unconcerned manner of previous similar attempts. His moral sense seems completely lacking, though he has always passed for a quiet, intelligent boy in the neighborhood.

Society of Ex-Internes of the Cincinnati City Hospital.—The fourth annual reunion was held May 14. Nearly 56 physicians participated. An elaborate dinner was served at the St. Nicholas Hotel. The menu-card was decorated by photographs of the old Commercial Hospital as it stood in 1832 (the forerunner of the present institution) and of the City Hospital as it now stands. In addition there were reproduced photographs of Drs. Daniel Drake, Reuben D. Mussey, John A. Murphy, Wm. Carson and Blackman. Dr. S. E. Allen, '88, was an inimitable toast-master. Dr. Wm. H. Taylor, '59, responded to the toast "Reminiscences." Dr. J. F. Heady, '78; "The Staff a Quarter Century Ago." Dr. C. P. Judkins, '68; "The Interne in Peace." Dr. F. W. Hendley, "The Interne in War." Dr. C. R. Holmes, '86, was elected president of the association for the coming year.

Academy of Medicine of Cincinnati.—The meeting held May 15 was devoted to a **discussion of smallpox and the recent epidemic in Ohio.**

Dr. Horace T. Whitacre showed a number of lantern-slides illustrating fully the pathology of the smallpox lesions. He thought that the infiltration of the epidermis began, not over the papillæ, as is generally stated, but usually in the interpapular region. Dr. B. F. Lyle, who had charge of most of the cases treated at the branch of the City Hospital, gave a most interesting detailed account of the epidemic. From November 30, 1898, to May 1, 1899, 420 cases of smallpox were received at the Branch. Previous to November, 9 negroes had been affected with the disease, but in none of them was its true nature recognized early enough to insure efficient isolation. Of the 420 patients 348 were negroes. Of these 5 died. Of the 72 whites, 3 died, the general mortality being only 1.9%. Of the 8 deaths, 2 occurred in infants under 1 year of age. The causes of death were nephritis in 2 cases, pneumonia in 2, septicemia in 3, and purpura variolosa in 1. One woman was admitted 5 days after confinement, in the pustular stage of the disease. The infant was immediately vaccinated. Fourteen days later a macular eruption appeared on the child which died 10 days later. A pregnant woman went through the whole course of the disease without aborting. Twenty-two days after her discharge from the hospital a five-months-old fetus was born, its body covered with smallpox pustules. Dr. Lyle presented this specimen to the Academy. One case of variola hemorrhagica was treated. The male patient, aged 23 years, had severe hemorrhages from the nose, mouth, and bowels. He nevertheless recovered. One hundred and eighty-four cases were of the confluent variety. A large number of patients were afflicted with abscesses during convalescence. One patient had 184 abscesses. In 20% of the cases indolent ulcers remained as sequels of the disease. In 3 cases the cornea was ulcerated. In one case the eye was totally destroyed. Glossitis was a very common complication, 25% of the cases being affected. In 4 the glossitis assumed alarming proportions. Of the 420 cases 18 had been previously vaccinated; 6 had cicatrices. One patient had previously suffered from smallpox and had pocks from the first attack. Relapse occurred in one case two weeks after apparently complete recovery. Not a single case was contracted in or about the hospital by attendants or visitors.

Dr. Heidingsfeld presented a patient suffering from **lichen ruber planus.**

Dr. Giles Mitchell presented a specimen of **abscess of the ovary.**

Dr. R. B. Hall demonstrated an **ovarian cyst** in which the pedicle had become twisted. The patient was collapsed, but recovered from the operation.

SOUTHERN STATES.

Honor to Dr. Matas.—The graduating class of Tulane Medical College, New Orleans, La., recently presented to Dr. Rudolph Matas, the distinguished professor of surgery, a portrait in oil of himself, which is to be hung in the gallery of the College. The presentation was made by Mr. S. A. Ayo, the president of the class, and an appropriate response was made by Dr. Matas.

Kentucky State Medical Society.—The following officers were elected at the annual meeting held in Louisville, May 17 to 19: President, Dr. William Bailey, Louisville; first vice-president, Dr. James H. Letcher, Henderson; second vice-president, Dr. R. C. Falconer, Lexington; secretary, Dr. Steele Bailey, Stanford; treasurer, Dr. C. W. Aitken, Flemingsburg; librarian, Dr. B. W. Smock, Louisville. Next place of meeting, Georgetown. Chairman Committee of Arrangements, Dr. John A. Lewis.

The Charity Hospital of Louisiana Alumni Association held its fifth annual meeting on May 15th in New Orleans. Rev. Dr. Beverley E. Warner delivered the annual oration. An historical sketch of the Charity Hospital was read by Dr. W. E. Parker. The conduct of affairs during the ensuing year was entrusted to the following officers: Dr. Chas. Chassaignac, President; Dr. L. M. Provosty, Vice-President; Dr. Jacob Barnett, Secretary; Dr. M. H. McGuire, Treasurer. The President and Secretary, with Drs. E. L. McGehee, E. D. Fenner, and Hermann B. Gessner, constitute the executive committee.

Marine Biologic Laboratory at Beaufort, N. C. The United States Fish Commission will maintain a marine biologic laboratory at Beaufort, N. C., during the summer, and will undertake to establish a permanent laboratory at this place. There will be accommodations provided for a limited number of investigators, two buildings having been secured, one of which will be used for scientific work, while the other will afford a home for the staff. Dr. H. V. Wilson, who has previously been associated with the Fish Commission in its work, has been invited to become the director of the new laboratory. Beaufort has been chosen on account of the water of the harbor and adjacent sounds being well supplied with fishes and invertebrates. The place has also been selected as the headquarters of the steamer *Fish-Hawk* during a biologic and topographic survey of the oyster beds of North Carolina, which the Fish Commission will undertake at the request of the State authorities.

Orleans Parish Medical Society, New Orleans, Louisiana.—At a meeting held May 13, a case of **bestial sodomy** was reported by Dr. L. G. Le Beuf, from his hospital clinic. An Italian shoemaker, 49 years old, married and the father of 5 children, had been treated for neurasthenic symptoms. Close questioning in regard to his habits of life brought out the fact that he was addicted to the degrading practice of buggery with a dog, the penis of which animal he received in his rectum. Later his account, listened to incredulously at first by the medical attendant, was corroborated by an acquaintance, who said that his unnatural copulation with the dog had been observed by eye-witnesses. Nervous pains in stomach and rectum, with pains in the nose, and particularly in the posterior nares, were the symptoms complained of by the patient. Dr. Le Beuf had consulted the medical dictionary of Larousse, which employs the term pederasty to designate such practices in general; in his opinion bestial sodomy was more applicable to the case in point. Dr. Isadore Dyer, president of the Society, expressed the opinion that cases of the kind are more frequent than one would judge from the number of reports. Those interested would find the work of Krafft-Ebing rich in information on this subject. Recently, Havelock Ellis has contributed to the subject. Undoubtedly the subject is worthy of serious attention on the part of the medical profession. Dr. Hermann B. Gessner called attention to the fact that pederasty, meaning literally "boy-loving," or unnatural relations between men, is not properly applicable to the case related. The prevalence of pederasty might be judged from the statement made some years ago by a police officer on duty in the slums, that there were then in a limited area in New Orleans 40 males who permitted buggery to be practised on themselves.

Dr. T. S. Dabney referred to some cases of **pulmonary tuberculosis treated with antistreptococcic serum.** This treatment is based on the known fact that other bacteria are commonly found with the tubercle-bacillus in the sputum of the tuberculous, and on the belief that these other bacteria are to no small extent responsible for the general condition of the patient. Case I, seen with Dr. Le Beuf, was given 30 cc. of the serum on 5 successive days, as well as on the seventh day. The sputum had previously been examined and found teeming with bacilli. After the inception of the treatment the temperature fell first from 102⅗° to 99°, then to normal, there it remained subsequently. There has been general improvement, with gain in weight; the patient is again able to work, after being confined to bed for 5 weeks. Case II, a patient of Dr. C. F. Sauter, had a temperature of 102.6°; this was lowered to 100° by the first injection, to 98.5° by the second. Tubercle bacilli, which were present in his sputum at one time, are no longer to be found in it. An apparent cure has been effected. Case III, one of Dr. Dabney's own patients, suffering from laryngeal tuberculosis, terminated fatally in a short time, having derived no benefit whatever from three injections of the serum. In a fourth case, still under treatment, two doses of 30 cc. have been injected; after the first administration the pulse-rate rose from 110 to 140 per minute, dyspnea came on, and the patient complained of loss of appetite and dizziness. This injection was, however, followed by a fall of the temperature from 103° to 100°, and the second by a drop to 98°. Dr. F. W. Parham wished to know whether the presence of streptococci in the sputum had been determined by the use of cultures. It was his impression that if the associate infection was staphylococcic it would not be remedied by the use of antistreptococcic serum. The improvement which occurred in several cases under this treatment could hardly be explained by a coincidence. As to the serum itself, he was satisfied, from his experience with it in the treatment of a member of his own family, that when used with proper care it is quite harmless. The beneficial effect from its use in the cases related must be attributed, naturally, to the destruction, not of the tubercle-bacilli, but of pabulum favoring their development. Referring to the use of the culture-method in these cases, he said that recently, in a case of sequestrotomy of the femur, he had planted an agar-tube with material from some caseous foci in the bone, using the platinum loop for the purpose. Subsequent examination of the tube showed a pure culture of the tubercle-bacillus, demonstrating the nature of the infection and the absence of pyogenic infection from the true seat of disease, though this was no doubt present in the sinus leading to the bone. Dr. LeBeuf stated that there had been marked improvement in the patient under his care, which had persisted in spite of the unhygienic conditions to which he was exposed. Expectoration had ceased, febrile temperature had disappeared; physical examination showed local improvement corresponding to that in the general condition. Dr. Dabney, answering Dr. Parham, said that he appreciated the importance of determining the presence of streptococci in the sputum; he had asked that this be specially investigated, but had received no information beyond the mention in one of the sputum reports that "numerous other bacteria" were present in addition to the tubercle-bacilli. Referring to the cases of pulmonary tuberculosis treated with antistreptococcic serum, Dr. Wm. Perkins said he had found in literature the statement that the antitoxin of one bacterium may exert a curative effect on diseases caused by other organisms, just as in a certain proportion of cases the serum of an animal suffering from one specific infection will give the agglutination reaction with cultures of other bacteria.

Dr. Dabney told of a woman, to all appearances normally pregnant, the fruit of whose labor—at the expected time—was a large mass, 1,100 grammes in weight, placentoid in character, but with a serous covering over its entire circumference. A smaller mass, of 500 grammes weight, was expelled next day. Examination at this time showed the uterus small, firmly contracted. This occurred in a colored multipara, in whose labors nothing unusual had previously occurred. Nothing like a fetus accompanied this mass, the origin and nature of which the relator could not explain.

Dr. R. J. Mainegra told of the difficulty which he had experienced in overcoming angular deformity on the fourteenth day after the occurrence of fracture of the femur in a new-born baby; this was due to the firmness of the callus formed in this time. An anterior splint was used together with a lateral support, securing ultimately good union, with no perceptible shortening. He went on to tell of two cases of fracture of the femur in adults, in which shortening was observed to take place after union had taken place and the patients been permitted to walk—about the seventh or eighth week. These observations were based on careful measurements. Dr. Gessner had had no experience with fracture in the new-born; but in a young child (3 years) he had known a fracture of the clavicle to unite in 14 days. Dr. John T. Jones had seen a boy of 12 years in whom union of a fracture of both bones of the forearm had taken place in 10 days. In a similar fracture occurring in a colored child 4 or 5 years old, union was observed after one week.

MISCELLANY.

Obituary.—Dr. William Hale McEnroe, professor of materia medica and therapeutics in the University of New York, and who was, the day prior to his death, offered a similar position in Cornell University Medical School, New York, May 17, aged 46 years.—Dr. Mark Nivison, Newark, N. J., May 19, aged 61 years.—Dr. Stempson, Thompson, Pa., May 20.—Dr. Joseph William Stickler, of Orange, N. J., in New York, May 18, aged 45 years.—Dr. William A. Brokaw, St. Louis, Mo., May 9, aged 27 years.—Dr. Thomas Galbraith, Tarentum, Pa., aged 83 years.—Dr. John E. Carpenter, Washington, D. C., May 5.—Dr. William F. Robinson, Chicago, May 12, aged 36 years.—Dr. George Perkins, Somerset, Ky., May 11.—Dr. E. G. Reinhardt, Roberts, Ill., May 5, aged 38 years.—Dr. Henry B. Lazear, Morgantown, W. Va., aged 61 years.—Dr. Samuel Budd, Petersburg, W. Va., aged 47 years.

American Academy of Medicine.—The following arrangements have been made for reduced rates to the Columbus meeting, June 3 and 5:

New England Association.—No reply to letter. But they usually adopt the Trunk Line Association rates. If not, purchase ticket to New York or Albany and secure ticket to Columbus there.

Trunk Line Association.—A fare and a third. Pay full fare going, receiving a certificate to that effect. Instructions for securing one-third fare returning are printed on the certificates. Tickets can be purchased June 1 to 7, returning as late as June 13, territory East of Pittsburg and Buffalo, North of Washington.

Southern Passenger Association.—No rates announced as yet.

Central Passenger Association.—One fare round trip; tickets purchased June 2 and after, territory West of Trunk Line to Chicago and St. Louis, North of the Ohio River.

Western Passenger Association.—Practically one fare plus $2.00 for the round trip. When the fare from the point of purchase to the Eastern Gateways (Chicago, St. Louis) is less than $6.00, not as much as $2.00 excess over single fare is charged. Tickets purchased so purchaser can pass through Eastern Gateway not earlier than June 2. Thus points in Utah, on May 30; in Colorado and Wyoming, May 31; trains, Missouri territory East of Colorado and Wyoming, June 1; territory West of Central Passenger Association to Utah.

Dr. E. F. Wilson, the chairman of the committee of arrangements, urges you to secure your rooms early. There is to be a political convention in Columbus on the first of June and some may remain over. The Chittenden is but two or three blocks away from the Union station.

Health-Reports.—The following cases of smallpox, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service during the week ended May 20, 1899:

Smallpox—United States.

			Cases.	Deaths.
Alabama:	Mobile	May 12	2	
District of Columbia:	Washington	May 12-15	3	
Georgia:	Savannah	May 9-16	5	
Illinois:	Chicago	May 9	2	
Indiana:	Evansville	May 6-13	2	
Kansas:	Emporia	May 6-13	2	1
"	Kansas City	April 29-May 6	32	8
Kentucky:	Louisville	May 4-11	16	
Louisiana:	New Orleans	May 6-13	9	
"	Shreveport	May 8-13	4	
Maryland:	Steelton, near Baltimore	May 17	4	
Minnesota:	St. Paul	April 29-May 6	1	
Missouri:	St. Louis	Jan. 21-May 12	65	
New Mexico:	Las Cruces	May 12	19	
New York:	Borough of Brooklyn	April 29-May 6	1	
Ohio:	Cleveland	May 6-13	11	
Pennsylv'a:	Allegheny	May 6-13	2	
"	Johnstown	May 6-13	1	
"	Philadelphia	May 6-13	1	
Rhode Island:	Providence	May 10	1	
S. Carolina:	Barnwell Co.	May 16	3	
" "	Beaufort, (not verified)	May 16	3	
" "	Clarendon Co.	May 6	3	
" "	Edgefield Co.	May 6	5	
Texas:	Galveston	April 29-May 6	7	
"	Laredo	April 29-May 6	2	
Virginia:	Newport News	May 9-13	5	
"	" "	May 13-17	6	
"	Norfolk	May 11-18	16	
"	Portsmouth	May 11-18	9	
Wisconsin:	Milwaukee	May 6-13	2	

Smallpox—Foreign.

Belgium:	Brussels	April 15-22		1
Egypt:	Cairo	March 26-April 22,		4
England:	London	April 15-22	3	
Greece:	Athens	April 22-29	21	8
India:	Bombay	April 4-18		15
"	Calcutta	March 25-April 8		3
Nicaragua:	Bluefields	April 22-29	1	
Russia:	Moscow	April 8-15	8	2
"	Odessa	April 22-29	5	1
"	St. Petersburg	April 15-22	18	3
Turkey:	Constantinople	April 77-24		2
"	"	April 24-May 1		3

Cholera.

India:	Bombay	April 3-18		6
"	Calcutta	March 25-April 4		43

Plague.

India:	Bombay	April 4-18		1199
"	Calcutta	March 25-April 8		266
"	Madras	March 25-31		1
Japan:	Formosa			
"	Tamsui	March 8-29		394

National Confederation of State Medical Examining and Licensing Boards.—The following is the program of the ninth annual meeting, to be held in Columbus, Ohio, June 5:

Address of Welcome, by Hon. Asa S. Bushnell, Governor of Ohio; Address of Welcome, on the part of the Medical Profession of Ohio, by Charles A. L. Reed, Cincinnati, Ohio; Response, by Vice-President William Bailey; Report of Committee on Minimum Standard of Requirements, N. R. Coleman, Chairman, Columbus, Ohio; Discussion and Action Thereon; Report of Secretary and Treasurer; Annual Address by the President; Educational Foundation for a Physician's Special Training, President James H. Canfield, Ohio State University; The Results of the Medical Law of New Jersey, E. L. B. Godfrey, Camden; The Results of the Medical Law of Kentucky, Joseph M. Mathews, Louisville; The Tennessee Method, T. J. Happel, Trenton; The Old and the New in Nebraska, B. F. Crummer, Omaha; The Medical Law of New Mexico, W. R. Tipton, Las Vegas; Thoughts on Preliminary Education, Augustus Korndoerfer, Philadelphia, Pa.; The Unifying Influence of the Three-Board System, H. M. Paine, Albany, N. Y.; Co-operation Between the Legal Representatives of the Various State Boards, Hon. Ralph E. Westfall, Columbus, O.; On the Preparation of Questions, Edward Cranch, Erie, Pa.; Paper, Charles K. Cole, Helena, Mont.; Paper, A. Walter Suiter, Herkimer, N. Y.

The following are the officers: President, William Warren Potter, Buffalo, N. Y. Vice-presidents: E. L. B. Godfrey, Camden, N. J.; William Bailey, Louisville, Ky. Secretary-treasurer, A. Walter Suiter, Herkimer, N. Y. Executive council: William S. Foster, chairman, Pittsburg, Pa.; Joseph M. Mathews, Louisville, Ky.; Hugh M. Taylor, Richmond, Va.; W. H. Sanders, Montgomery, Ala.; Charles K. Cole, Helena, Mont. Committee on minimum standard of requirements: N. R. Coleman, chairman, Columbus, O.; Gardner T. Swarts, Providence, R. I.; T. J. Happel, Trenton, Tenn.; Augustus Korndoerfer, Philadelphia, Pa.; W. R. Tipton, Las Vegas, N. M.

Changes in the Medical Corps of the U. S. Navy for the week ending May 30, 1899:

Palmer, S. B., assistant surgeon, resignation accepted from May 15.

Changes in the Medical Corps of the U. S. Army.

George, W. R., acting assistant surgeon, is relieved from duty at the General Hospital, Ponce, P. R., and will report to the commanding officer, Ponce, for duty at that station.

Wilson, Joseph G., acting assistant surgeon, will accompany light battery C, Seventh U. S. Artillery, to the United States.

Escobar, J. A., acting assistant surgeon, will accompany light battery M, Seventh U. S. Artillery, to the United States.

Sears, H. E., acting assistant surgeon, on duty at the General Hospital, San Juan, will report to the commanding officer, Nineteenth U. S. Infantry, at Ponce, P. R., to accompany that regiment to the United States as assistant surgeon. Upon arrival in the United States he will report by letter to the Surgeon-General, U. S. Army, Washington, D. C.

Morris, John E., acting assistant surgeon, on duty with troop I, Fifth U. S. Cavalry, Ponce, will report to the commanding officer, Nineteenth U. S. Infantry, at Ponce, P. R., to accompany that regiment to the United States as assistant surgeon. Upon arrival in the United States he will report by letter to the Surgeon-General, U. S. Army, Washington, D. C.

Cline, H. C., acting assistant surgeon, on duty at Adjuntus, will report to the commanding officer, Nineteenth U. S. Infantry, at Ponce, P. R., to accompany that regiment to the United States as assistant surgeon. Upon arrival in the United States he will report by letter to the Surgeon-General, U. S. Army, Washington, D. C.

Hare, Frank J. O., acting assistant surgeon, on duty at the General Hospital, Ponce, will report to the commanding officer, Nineteenth U. S. Infantry, at Ponce, P. R., to accompany that regiment to the United States as assistant surgeon. Upon arrival in the United States he will report by letter to the Surgeon-General, U. S. Army, Washington, D. C.

More, Henry C., acting assistant surgeon, on duty at the vaccine station, Coamo, will report to the commanding officer, Nineteenth U. S. Infantry, at Ponce, P. R., to accompany that regiment to the United States as assistant surgeon. Upon arrival in the United States he will report by letter to the Surgeon-General, U. S. Army, Washington, D. C.

Gilhuley, John J., acting assistant surgeon, on duty at El Morro, San Juan, will report to the commanding officer, Nineteenth U. S. Infantry, at Ponce, P. R., to accompany that regiment to the United States as assistant surgeon. Upon arrival in the United States he will report by letter to the Surgeon-General, U. S. Army, Washington, D. C.

Ashford, First Lieutenant Bailey K., assistant surgeon, will, in connection with his work at the General Hospital, San Juan, P. R., take charge of the sick at Ballaja Barracks.

Driver, Gerry S., acting assistant surgeon, is relieved from duty at Ballaja Barracks, San Juan, P. R., who will report to the commanding officer, Adjuntas, P. R., for duty.

Collins, First Lieutenant C. C., assistant surgeon, will, in addition to his duties at the General Hospital, San Juan, take charge of the sick at Fort San Cristobal, San Juan, and the adjoining battery.

Hutton, Paul C., acting assistant surgeon, is relieved from duty at Fort San Cristobal, San Juan, who will report to the commanding officer, Nineteenth Infantry, Ponce, P. R., to accompany that regiment to the United States as surgeon.

Beslin, W. C., acting assistant surgeon, is relieved from duty at Ponce, P. R., and will report to the commanding officer, Nineteenth Infantry, to accompany that regiment to the United States. He will transfer his property to Acting Assistant Surgeon W. R. George. Upon his arrival in the United States he will report by letter to the Surgeon-General of the Army.

Hartinger, D. B., acting assistant surgeon, U. S. A., is relieved from duty at Cienfuegos and will proceed to Matanzas, Cuba, and report to the chief surgeon of this department.

Wood, O. S., acting assistant surgeon, U. S. A., will proceed to the United States for annulment of his contract, and on his arrival at Washington report to the Surgeon-General by letter.

Rainold, M. W., acting assistant surgeon, Par. 40, S. O. 94, April 22, this office, directing him to proceed from Savannah, Ga., to Havana, Cuba, is amended so as to direct him to proceed from New Orleans, La., to Havana, Cuba.

Fuller, First Lieutenant L. A., assistant surgeon, will proceed to Puerto Principe, Cuba, for special duty as member of a board convened for the examination of officers for promotion.

The following-named medical officers will accompany the Sixteenth Infantry to Manila: Major H. S. T. Harris, brigade-surgeon, U. S. Volunteers; Acting Assistant Surgeons, Wallu H. Dade, Cyrus D. Lloyd and Shannon Richmond, U. S. Army.

Powell, Major Junius L., surgeon, U. S. A., Fort Riley, Kan., the leave of absence for 7 days granted is extended 23 days.

Kennedy, Captain James M., assistant surgeon, is relieved from duty pertaining to the muster out of troops at Augusta, Ga., and will proceed to the Presidio of San Francisco, Cal., and report to the commanding officer, Fourth U. S. Cavalry, for duty.

Barnhardt, Harry A., acting assistant surgeon, will proceed from this city to Camp Meade, Middletown, Pa., and report to the commanding officer at that place for duty.

Dean, First Lieutenant Elmer A., assistant surgeon, is relieved from duty at Fort Snelling, Minn., and will proceed to St. Paul, Minn., and report to the commanding general, department of Dakota, for duty as attending surgeon and examiner of recruits.

Dunshie, James F., acting assistant surgeon, U. S. Army, is relieved from duty at Camp Meade, Middletown, Pa., and will proceed to Havana, Cuba, and report to the commanding general, division of Cuba, for assignment to duty.

McCaw, Captain Walter D., assistant surgeon, in addition to his duties at Fort Porter, N. Y., is assigned to duty as examiner of recruits in Buffalo, N. Y.

Ferrer, F. M., acting assistant surgeon, U. S. Army, is granted leave of absence for 7 days.

Banister, Captain William B., assistant surgeon, U. S. Army, is granted leave of absence for one month, to take effect upon the completion of his present duties.

Kneedler, Major William L., brigade-surgeon, U. S. Volunteers, will remain on duty, with station at Pinar del Rio city, supervising the construction of hospitals and all sanitary work.

Mason, Captain Charles F., assistant surgeon, U. S. Army, is relieved from further duty in this department and will proceed with the Nineteenth Infantry to Camp Meade.

Peyton, Charles E., acting assistant surgeon, U. S. Army, is relieved from duty at Camp Mackenzie, Augusta, Ga., and will proceed to Richmond, Va., and report by letter to the Surgeon-General of the Army.

Street, Baen, acting assistant surgeon, U. S. Army, is relieved from duty at Camp Columbia, Havana, Cuba, and will proceed to this city and report to the Surgeon-General of the Army.

Grandy, Luther B., acting assistant surgeon, U. S. Army, will proceed from Atlanta, Ga., to San Francisco, Cal., and report to the commanding general, department of California, for transportation to the Philippine Islands, and on arrival there will report to the commanding general, department of the Pacific, for assignment to duty.

Wilson, Roy A., acting assistant surgeon, will proceed to Camp Meade, Middletown, Pa., and report to the commanding officer at that place for duty.

Norman, Seaton, acting assistant surgeon, U. S. Army, will proceed from New Orleans, La., to Havana, Cuba, and report in person to the commanding general, division of Cuba, for assignment to duty.

Morris, John E., acting assistant surgeon, U. S. Army, will proceed from New York City to Indianapolis, Ind., and report by letter to the Surgeon-General of the Army.

Curry, J. S., acting assistant surgeon, U. S. Army, is granted leave of absence for 20 days, to take effect on or about June 3.

Millhoff, First Lieutenant Clarence B., assistant surgeon, U. S. Army, is granted leave of absence for 14 days, to take effect on or about May 29.

Loffre, Major Augustus A., surgeon, is directed to report to president of the Army retiring board at Fort Sam Houston, Tex., for examination.

Foreign News and Notes.

GREAT BRITAIN.

A Mrs. Brydges-Williams has made a donation to the **Prince of Wales' Hospital Fund,** of £5,000.

A man named Wilson and styling himself "Dr. Wilson," has been sentenced, in London, to a year's hard labor for running brothels under the guise of homes for massage and medical treatment.

Royal London Ophthalmic Hospital.—The new buildings of this institution, widely known as Moorfields Eye Hospital, which have been erected in the City Road about a mile from the old site, will be opened by the Duke and Duchess of York. Provision is being made for 40 additional beds and for a much larger out-patient department.

The death-rate in Dublin, which declined steadily through April from 33.4 per thousand to 29.7 per thousand, fell during the first week in May to 24.8. This figure, however, compares badly with the death-rate for the month of London (17.2), and Edinburgh (17.7), and there can be no doubt that the ancient Irish capital is an unhealthy city.

The bacteriologic treatment of sewage is to be undertaken by the city of Belfast, Ireland. A sub-committee appointed by the Joint Town Improvement and Public Health Committee recently visited various towns in England, to secure information upon the subject, and has now submitted a report to the municipal officers. It is proposed that a portion of the sewage be immediately experimented with, and it is hoped that ultimately the entire sewage of the city will be thus dealt with. An architect has been authorized to prepare plans for the system—two beds to be now erected at an estimated expenditure of $5,000.

Instruction in Tropical Diseases at Edinburgh.—Following the now popular movement in London and Liverpool, the University of Edinburgh has instituted a course of classes in tropical medicine and the first lecture was delivered at the opening of the summer session of the University by Dr. Andrew Davidson. Of all medical schools in the world Edinburgh probably sends out the most medical graduates to tropical regions, so that the fitness of giving the students instruction in tropical medicine is obvious. But the clinical material to illustrate the lectures, and impart reality to the course will be harder to come by in Edinburgh than in London, and much harder than in Liverpool with its enormous trade both eastward and westward.

Communicated Madness.—The *New York Medical Journal*, quoting the *Medical Review of Reviews* for April, states that a strange story of communicated madness is reported from Ireland. Of three sisters belonging to Glencollins, near Kingwilliamstown, County Cork, one, on being married, went to live at Guinequilla, County Kerry; another settled down at Cordal, Castle-Island; the third remaining at home. Some time ago the sister residing at Guinequilla developed symptoms of mental derangement. On hearing of this, her sister from Cordal went to visit her, and shortly afterward she also became similarly afflicted. The third sister at Glencollins, on learning of the unhappy circumstance, immediately went to see her sisters, when she, too, lost her reason. The sister first attacked has been conveyed to the Killarney District Lunatic Asylum, and it is reported that the other two are making satisfactory progress toward recovery.

A Medical Hero.—The English journals report that a Dr. R. J. Burns, of Sunderland, was hurriedly called upon to attend to a man who had attempted suicide by drinking some phosphorus-paste which he had poured into some beer. The doctor responded with a stomach-tube, which was unfortunately out of order. But not to be defeated, the doctor introduced the stomach-tube into the patient's stomach, and sucked out the contents with his own mouth. The man improved somewhat, but died three days later. The doctor became confined to his bed suffering with phosphorus-poisoning, but was not seriously ill, and was expected to recover in a few days. The *Lancet* places this deed of heroism on a par with that of a man on the ill-fated vessel *Stella*. The latter came out owing to the application of a lady to "presume the death" of her father as having been lost in the *Stella*. She and her father were standing on the deck and her father made an appeal to some passengers in a boat to make room for his daughter. One man promptly climbed back on to the sinking ship and went down with her. No one knows his name, but his example will surely never be lost sight of.

The President of the Royal College of Surgeons of England is selected annually on the second Thursday in July, from the members of the council of the College. The council of the College is selected on the first Thursday of July. Sir William MacCormac's term as a councillor happens to end this year, so that he will occupy on July 1st, in the ordinary course of events, the curious position of being no longer on the council of the College and yet being President of the College and therefore of the council. The circumstances have occurred before, and on each occasion the membership of council was prolonged, and no doubt the compliment will be offered to Sir William MacCormac, if he decides, as it is believed he will decide, to offer himself for reelection as President during 1890–1891. If, however, Sir William MacCormac resigns, his successor in the presidential chair may be either Mr. T. Pickering Pick, the editor of *Gray's Anatomy*, or Mr. Nottidge C. Macnamara. Other names are mentioned, but nothing will be done to further anyone's candidature until Sir William MacCormac's intentions are known.

The Seamen's Hospital Society and a London School of Tropical Medicine.—Mr. Chamberlain, the Secretary of State for the Colonies, presided on the evening of May 10th, over a large dinner held to further the establishment in London of a school of tropical medicine. Mr. Chamberlain made an excellent speech expressing his opinion that the man who should successfully grapple with malaria and the fevers desolating the British colonies and dependencies in tropical countries and thus make these regions habitable for white men would do more for the British Empire than the man who should add a new province to the Queen's dominions. He was well supported by the Marquis of Lansdowne, the Secretary of State for War, who reminded his hearers that in the recent Tirah campaign in northern India there were (in round numbers) 1,000 admissions to hospital from gunshot-wounds and 11,000 from fever and dysentery; while there were 100 deaths from wounds and injuries and 600 from tropical disease. In the course of the evening subscriptions amounting to £15,800 towards the expenses of building and endowing the school were announced. This sum included £3,000 from the Colonial Office, £2,000 from the Harriott bequest (per the Bishop of London), £1,000 from the India Office, £500 from Sir Thomas Sutherland (chairman of the Peninsular and Oriental Steamship Company), and £200 from the King of the Belgians. Lord Strathcona, better known as Sir Donald Smith, the High Commissioner for Canada, and Sir Donald Currie, the great ship-owner, each offered to endow a bed at a cost of £500; and Sir Henry Burdett, formerly secretary to the Seamen's Hospital, promised £300 a year for three years to found a traveling scholarship.

The British Medical Register.—The General Medical Council of Great Britain issues annually the Medical Register, which is the official roll of the profession. The persons whose names are on the roll are qualified medical practitioners—all others are without any legal status. Why the edition for 1899 should not appear until May, *i. e.*, until one-third of the year for which it is valid has expired, we cannot guess, but unless the English medical press is in malignant league against the Registrar it cannot be assumed that it is the excessive care exercised in the compilation which entails the tardiness of publication. The *Lancet* roundly denounces the Current Register as inaccurate, and both the *British Medical Journal* and the *Dentist* assert that the names of dead men are far too frequent in its pages. The maintenance of an accurate list of the medical profession of the country is so clearly one of the most important duties of the General Medical Council that we may expect reform in the present methods of compilation to follow upon such general censure. At any rate, the means which enable the medical press to detect inaccuracies are open to the officials of the General Medical Council.

CONTINENTAL EUROPE.

French Hospital-Ships.—The hospital-ship *St. Paul* which was launched last year to accompany the fishing fleet (*pêcheurs d'islande*) was wrecked 15 days ago. This is the second hospital-ship sent out by the Société des Œuvres de Mer. The first ship, the *St. Pierre*, was wrecked last year. The society has now decided to build no more sailing hospital-ships, but only steamers.

Prosecution of Medical Men.—Dr. Duclaux, director of the Pasteur Institute, and Dr. Grimaux, *agrégé* Professor of Chemistry at the Faculty of Medicine, have been prosecuted by the Correctional Tribunal as being members of the League of the Rights of Man which was founded in favor of Dreyfus and have, as have many members of previous leagues, been fined, time being given for payment.

Statue Entitled "Inoculation."—One of the most beautiful works of art now on exhibition in the Paris Salon is entitled "Inoculation." It represents a hospital nurse holding an infant while giving it a hypodermic injection. The look of anxiety on the part of the nurse, and of pain on the part of the infant, are said to be accurately depicted. The French Government has purchased the group and will present it to the Pasteur Institute.

Obstetric, Gynecologic and Pediatric Societies in Paris.—According to the *Lancet*, the old Obstetric and Gynecologic Society of Paris has just been broken up. A purely obstetric society was formed some months ago out of the members of the old society under the presidency of Professor Budin. A purely gynecologic society is also in process of formation. Besides these there was founded some two months ago a society of obstetrics, gynecology, and pediatrics under the presidency of Professor Pinard. There is also a society which deals with nothing but pediatrics, and a second one in process of formation comprising members who were unwilling to belong to the other one.

International Congress of the Medical Press.—The Organizing Committee of the International Congress of the Medical Press which will be held in Paris during the year 1900 met for the first time on April 20, and elected the following officers: President, M. Cornil, Professor of the Faculty, Member of the Academy of Medicine and Senator. Vice-presidents, M. Lucus-Championnière, surgeon to the hospitals, Member of the Academy, editor of the *Journal de Médecine et de Chirurgie Pratiques;* and Dr. V. Laborde, in charge of the physiological work at the Faculty of Medicine, Member of the Academy and Editor of *La Tribune Médicale.* Secretary, Dr. Blondel, in charge of the laboratory of the Charité Hospital and editor of the *Revue de Thérapeutique.*

Professor von Rosthorn, professor of gynecology in the University of Prague, on the occasion of his leaving Prague to assume the professorship of gynecology in the University of Graz, was the recipient of many manifestations of warm regard on the part of his professional brethren. On the occasion of his last appearance in his clinic, his first assistant, Dr. F. Kleinhans, delivered an address on behalf of the professor's former and present assistants. This was followed by an address on behalf of the medical students, by Herr Franze. To these Professor Rosthorn responded in fitting terms. A few days later, a complimentary banquet, attended by most of the prominent members of the profession and eminent officials, was tendered Professor Rosthorn. The medical societies devoted time to expressing the regrets of the members at their loss, and wishing Professor Rosthorn well in his new field of labors, and an entire number of the *Prager medicinische Wochenschrift* was dedicated to him as a farewell.

French Society of Laryngology, Rhinology and Otology.—At the annual congress held in Paris, May 1, Drs. Libet-Barbon and Furet reported 17 cases of operation—trephining—for **maxillary empyema,** with 14 complete cures. No drainage was employed in the after-treatment.

Dr. Joal read an extensive communication on **Urticaria and odors,** in which he concluded that as a result of rhinitis the nasal mucous membrane becomes highly sensitive, and that urticaria ensues as a reflex consequence.

Dr. Berbineau reported a case of **epithelioma of the velum palati.** He commented upon the rarity of the condition, and stated that as the growth had been removed by the thermocautery 2½ years prior to the report, he felt justified in considering the case one of complete cure.

Dr. de la Comb read a paper on **Aphthous laryngitis.** He referred to the fact that little mention is made of this condition in the literature, and reported 5 cases, that were characterized by fever, dysphagia, and aphthous plaques on and about the epiglottis.

Bulbar Sclerosis Following Pertussis.—According to the *Journal de Clinique et de Thérapeutic Infantiles,* quoted by the *Lancet,* the occurrence of gross hemorrhagic lesions in the course of whooping-cough, though comparatively infrequent, has been established by repeated clinical and pathological observations. The proof of a similar connection between the same disease and sclerosis of the brain or spinal cord is by no means so well assured. A peculiar interest therefore attaches to a case described as being of this nature by Dr. G. Variot in the *Journal de Clinique et de Thérapeutique Infantiles* of January 19. The patient was a little boy, 11½ years of age, whose father was believed to have died from phthisis, but whose personal history revealed nothing noteworthy until he had a well-marked but so far uncomplicated attack of whooping-cough. From two to three months after this illness his nervous disorder first appeared. He had at this time some difficulty in swallowing and some dribbling of saliva from the mouth. Then followed weakness of the upper extremities and soon afterwards an increasing difficulty in walking. Among the early symptoms there were also noticeable thickness and embarrassment of speech. No marked muscular tremor was observed for more than six months after the above described symptoms appeared, though a certain slowness and hesitancy in movement were present. While under treatment, however, he developed nystagmus and had repeated convulsive crises, and a tremor in the hands was apparent when he tried to feed himself. Dr. Variot's diagnosis in this case is that of sclerosis, primarily bulbar, extending to other nerve-centers and directly due to the morbid virus of whooping-cough. The relation between the supposed cause and its effects is at least very strongly suggested by the history of this case, though it is also possible that the influence of mechanical injury, such as does undoubtedly result from a severe effort of coughing, has been overlooked. Such an injury, though insufficient to betray itself by any striking symptom, might well become the starting-point of sclerosis. Whatever be its accurate explanation, however, this case must accentuate the importance of persevering with treatment even in a disease the course of which it can at best but modify.

MISCELLANY.

Hygienic Institute of Egypt, Cairo.—The director of the Institute, Dr. H. Bitter, has been given the title of professor.

Obituary.—Dr. H. Thomas, professor of clinical medicine in the Medical School of Tours. Dr. Marcellin Duval, formerly director of the sanitary department of the French Marine Service.—Dr. Ulry, chief of the ophthalmic clinic in the University of Bordeaux.—Dr. G. Assaky, formerly professor of anatomy and physiology in the Faculty of Medicine of Lille, and recently director of the Gynecologic Institute of Bucharest.—Dr. Theódore von Hessling, formerly professor of histology in the University of Munich.

The Differential Diagnosis and the Mechanism of the Presystolic Murmur of Aortic Insufficiency.—G. M. Converse (*Gaz. heb. de Méd. et de Chirur.,* Feb. 5, 1899) shows that this murmur may be the index of a concomitant mitral stricture, may be produced by the aortic lesion alone, and it may be extracardiac in origin, cardiopulmonary, and may or may not be associated with symphysis of the pericardium. If the presystolic murmur is heard above the apex, constant, not varying with the position of the patient, and without other sign of mitral stenosis, it indicates aortic insufficiency only. If, on the other hand, any of the other signs of mitral stenosis can be established, the condition is one of concomitant mitral stenosis. If the presystolic sound is heard best at the apex, if it appears or disappears according to the position of the patient, or from day to day, if it has a superficial blowing character, or if it is not accompanied by a thrill, the condition is probably one of cardiopulmonary murmur, and may or may not be associated with cardiosymphysis. In order to explain the presystolic sound, the author believes that it is produced whenever the lesion of the aortic semilunar valves is such that the regurgitating blood is strongly deflected toward the mitral orifice; that is to say, whenever the aortic current meets the mitral current at a little more than a right angle. As a consequence of this mingling of the two currents of blood the vibrations of the aortic current are exaggerated at the time at which the auricular current has attained its greatest speed; in other words, during the systole of the auricle. [J.M.S.]

The Latest Literature.

British Medical Journal.

May 6, 1899. [No. 2001.]

1. Remarks on the Differential Diagnosis of Insular Sclerosis from Hysteria. Thomas Buzzard.
2. The Localization and Symptoms of Disease of the Cerebellum Considered in Relation to its Anatomical Connections. Alexander Bruce.
3. On the Physiological Action of Choline and Neurine. F. W. Mott, and W. D. Halliburton.
4. Traumatic Epilepsy, Status Epilepticus; Trephining; Recovery. Nathan Raw.
5. On the Atrophic Marasmus of Nurslings (So-Called Hospitalism or Athrepsy of Parrot). Adolph Baginsky.
6. Trachoma and Race. Major M. T. Yarr.
7. A Case of Spontaneous Rupture of the Heart. John Gordon.
8. Probable Persistence of Thyro-Glossal Duct. J. W. McIntosh.
9. Erythrol Tetra Nitrate in Angina Pectoris. Boughton Addy.
10. Postpartum Convulsions; Venesection; Recovery. Sandom Davis.
11. Tonsillar Calculi. Robt. H. Strong.
12. A Case of Axillary Mamma. George Templeton.
13. Two Successful Cases of Cesarean Section. Frank Cole Madden.

1.—Buzzard, in **differentiating between insular sclerosis and hysteria,** points out that insular sclerosis is most frequently ushered in by a loss of power, often of very sudden origin, in one of the limbs, which may or may not be accompanied or preceded by a feeling of numbness or tingling. Hysteric loss of power is likely to be more complete than that which occurs early in insular sclerosis, and more likely to be accompanied by marked anesthesia. The subjects of insular sclerosis are liable to a transitory paresis of the limb, which is succeeded after a longer or shorter interval by a recurrence in the same or some other limb or limbs. These attacks do not occur in hysteria. Transitory attacks of squinting sometimes usher in insular sclerosis and do not occur in hysteria. There may be a blurring of the sight in one eye with considerable loss of vision as an early symptom of insular sclerosis. Recovery may occur, but is liable to be followed some time afterwards by a similar affection in the other eye or a return of it in the same eye. This course of events never occurs in hysteria. No change is to be found with the ophthalmoscope in the fundus oculi in many of these cases. In 50% of cases of insular sclerosis, however, there is found some atrophy of both optic disks. The amount of atrophy is often very slight, so that the ophthalmoscopic examination requires to be most carefully made to avoid erroneous conclusions. Usually the knee-jerks are excessive in insular sclerosis, but this is not an evidence of organic disease. Loss of kneejerks, a condition not found in hysteria, is a most valuable evidence of structural disease. The knee-jerks are rarely lost, however, in insular sclerosis. Ankle-clonus is a characteristic symptom of insular sclerosis, and well marked cases of ankle-clonus of purely functional character have not been met with, although the modified form of the phenomenon is not rare. Absence of the knee-jerk associated with ankle-clonus is clear evidence of organic disease. Intention-tremor, when present, is an important sign. In hysteria there is sometimes clumsiness of movement, but no definite intention-tremor. Anesthesia of the lower extremities is a symptom of distinctly functional character commonly present in hysteric paraplegia. Hysteric contracture of the lower limb, unlike the contracture of insular sclerosis, is not accompanied by well-marked and persisting ankle-clonus. In the great majority of cases of hysteric paraplegia, in which anesthesia is nearly or altogether absent, the plantar reflex is absent. In functional conditions the plantar reflex may be quite absent at the beginning of the course of treatment and return on the patient's recovery. It is present as a general rule in cases of insular sclerosis and its retention in a patient suffering from loss of power in the lower extremities strongly suggests that the case is one of insular sclerosis rather than one of hysteria. If the foot-sole, on being tickled, responds by a movement of extension of the big toe, care being taken to be sure that it is a movement of extension of the metatarsophalangeal joint, it may be taken as tolerably certain that there is an affection of the pyramidal tract, and that we have not to do with a case of functional paraplegia. In insular sclerosis it is a rare event for the pyramidal tract, in some part at least of its extent, not to be invaded by the islets of sclerosis, and the value of this toe-phenomenon is therefore great. [s.m.h.]

2.—Bruce, in a study of the **localization of the symptoms of disease of the cerebellum,** says we may expect disturbances of equilibrium to be produced by lesions situated within an area bounded by the intracerebellar path of the 2 inferior peduncles, of the 2 superior peduncles, and the dentate nuclei in which the latter arise. This area contains the middle lobe (superior and inferior vermis, the roof nuclei and the sagittal fibers connecting the latter with the cortex) and the cerebellovestibular tracts from the roof nuclei to the nucleus of Deiters. Lesions within this area may produce no such disturbances provided they are symmetrically situated with reference to the mesial plane, especially if their growth is so slow that compensation is established *pari passu* with the disturbances they may tend to cause. Lesions situated in the lateral lobes may produce no disturbances of equilibrium provided they are situated entirely external to the intracerebellar paths of the upper and lower peduncles, and of the nucleus dentatus. If, however, these structures are interfered with either by pressure, or by direct involvement, then the characteristic symptoms of cerebellar disease will be produced, and will depend in their character and amount on the nature and extent of this interference. If Deiters' nucleus be injured, then the usual stimuli will not pass either to the injured cornua of the cord or to the sixth or third nuclei. Hence may result the weakness of the same side, the tendency to fall to that side, the impairment of the conjugate deviation to that side, the tendency of both eyes to be directed to the opposite side, and the lateral nystagmus which occurs especially when the eyes are directed toward the same side. Spinal symptoms may be produced, since the nucleus of Deiters will not act through the vestibulospinal tract and posterior longitudinal fasciculi upon the anterior cornua, and more especially upon that of the same side. The effect on the position and movements of the eyes will be understood if it be remembered that the sixth nucleus is the nucleus for the conjugate deviation of the eye to the same side, supplying, as it does, not only the external rectus, but also through the opposite third nucleus and nerve the internal rectus of the opposite side. A stimulus of Deiters' nucleus acting on the sixth nucleus, will turn the eyes to the same side; absence of this stimulus will allow the other sixth nucleus to pull the eyes toward the opposite side and will thus weaken the voluntary attempt to look to the same side. Lesions which merely irritate, but do not destroy, the nucleus of Deiters may cause rigidity or spasms of the same side of the body, or such an excess of movement as may cause the body to fall to the other side, and by acting on the sixth nucleus may turn the eyes to the same side. [s.m.h.]

3.—Mott and Halliburton have studied the **physiologic action of choline and neurine.** Choline creates a fall in the blood-pressure partly by its action on the heart, but mainly by dilatation of the peripheral vessels, especially in the intestinal area. The action on the splanchnic nerves is due to the direct action of the base on the neuro-muscular mechanism of the bloodvessels themselves. Section of the vagi produces no effect on the results of injecting choline. It has little or no action on nerve-trunks, and has no effect on respiration. Its effect soon passes off and the blood-pressure returns to its previous level, due partly to the great dilution of the substances injected by the whole volume of the blood and partly to the excretion of the alkaloid or to its being broken up into simpler substances by metabolic processes. It was not recovered in the urine. A hypodermic injection of morphin or atropin prior to the administration of the anesthetic results in causing a rise of arterial pressure by the choline, showing how the action of one poison may be modified by the presence of another. Neurine produces a fall of arterial pressure followed by a marked rise and a subsequent fall to the normal level. With small doses the preliminary fall may be absent. With large doses the heart is presumably more profoundly affected and the rise is absent. It has a much more marked effect upon the heart of the frog than has choline. In the case of both the action of the frog's heart is antagonized by atropin. The slowing and weakening of the heart accounts for the fall of blood-pressure. In some cases this seems to be combined with a direct dilating influence on the peripheral vessels. The rise of blood-pressure following the fall is due to the constriction of the peripheral vessels, and the constriction of the vessels is due to the action of the drug on the ganglia. Neurine produces no direct results on the cerebral bloodvessels. It is intensely toxic to nerve-trunks. It produces a marked effect on the respiration, first greatly increasing it, lessening with each successive dose, and finally ceasing altogether. When an animal has been poisoned with neurine, asphyxiation causes few or none of the usual convulsions. [s.m.h.]

4.—The patient was brought in unconscious and no definite history of the previous accident could be secured, and no scar was visible. He was in the **status epilepticus,** and it was decided not to operate. The friends urged ome operation. A large flap was turned down comprising he scalp of the forehead. The right frontal and right parietal bones were found depressed one-eighth of an inch. The greater portion of the right frontal and a portion of the ight parietal bone were removed. The patient began immediately to improve in condition and finally recovered completely. [c.l.l.]

5.—Baginsky believes that in all varieties of **atrophic marasmus of nurslings,** the bacillus coli, the streptococus, the staphylococcus pyocyaneus, and pneumococcus play certain role in the etiology. It is not possible to attribute o them any specificity in the production of the anomalies f nutrition that result. The effective cause in children's sylums, as in the homes of the poor, is the want of proper nd sufficient care. If each child should receive special atention for itself, the defects causing this condition might be voided. Baginsky has made a series of researches in the metabolism of these cases. In a very much wasted child, ged 2½ months, suffering from extreme marasmus, two sees of researches directed to ascertain the quantity and ind of nourishment actually absorbed were made. The reults of these investigations showed that most of the child's oss of weight was due to its loss of nitrogenous substances. o ascertain if this was to be explained on the theory of a pecial condition of the intestinal tract or to other circumances, a series of detailed anatomic studies of the condion of the intestinal canal was made. In the case investiated serious lesions existed. They were not of equal verity over the whole of the intestinal canal, but perfectly ealthy parts were found in the neighborhood of parts that ad suffered the severest destructive processes in the mucosa, ith atrophy and sclerosis of the remaining tissues of the instinal wall. The gastric mucous membrane as a whole emed well preserved, at least not markedly atrophied. In dition to catarrhal lesions and evidently as the result of ese there was found a more or less marked and extensive rophy of the intestinal walls. All the layers of the intesne were affected, and the consequence of the whole process as the evident incapacity of the subjects to assimilate d absorb the nutritive material ingested. As a conseence of the loss of nitrogenous substances of the body, uscle, etc., there was persistent thirst and hunger, so that e clinical picture, so often seen, of these children sucking eir fists receives an obvious explanation. Baginsky made cropsies of 2 cases of the primary atrophy of Fede. In ese cases the intestinal wall was, in almost its whole extent, rfectly normal, certainly not atrophic, though here and ere signs of catarrhal and inflammatory processes were seen. these 2 cases, there were all the external appearances of ath from starvation, not of failure to absorb nutriment suped, but insufficient supply. It is possible, then, if the nepsy is done soon enough, to distinguish by the microscopic amination cases of starvation from marasmus due to atroy of the intestines, a point which may be of importance m a medicolegal standpoint. This condition should not called primary atrophy, but death by starvation. [s.m.h.]

7.—There were no physical signs or symptoms to make a ferential diagnosis possible; the patient lived 1 day, 12 urs and 45 minutes, instead of dying suddenly; and the pture was due primarily to the **occlusion of a coronary tery,** and a consequent degeneration of the muscular wall the heart. [c.l.l.]

8.—McIntosh observed a woman, aged 21, with **enlarged thyroid gland** who had complained for some months of an offensive discharge into her throat, which she neither vomited nor coughed up, and with which there was no accompanying catarrh. This sometimes became quite profuse and was then accompanied by a diminution in the size of the thyroid gland. Firm compression of the gland produced the discharge into the throat with an accompanying lessening in the size of the gland. Previous treatment had not relieved the condition. McIntosh suggests the possibility of a **persisting thyroglossal duct.** [s.m.h.]

9.—Addy had under his care a man, aged 52 years, with **serious signs of heart-failure.** In the course of his disease he developed very severe attacks of **angina pectoris.** After the use of amyl nitrite, ethyl nitrite, and nitroglycerin (the last causing relief of the symptoms, but producing very severe headache and ultimately losing its effect), he ordered **erythrol tetranitrate** in tabloids of ½ grain each 2 or 3 times a day. This immediately checked the anginal attacks and produced a much more lasting effect than the nitroglycerin. [s.m.h.]

11.—This is a case of **tonsillar calculi** found in a boy of 13 years, who apparently coughed up two without any pain. The point where they had been imbedded was not inflamed. There was slight hemorrhage but no tenderness. The only glandular enlargement was noted on the left side and the calculi had apparently been imbedded behind the left faucial pillar. [c.l.l.]

12.—Templeton had a patient in whom, during the early period of lactation, was observed a painful, spongy mass under the skin, passing beneath the outer border of the pectoralis major. It was sometimes irregular and lobulated, and produced a swelling the size of a walnut when the arm was raised. It was movable and had a minute pore in the center which exuded a bluish white fluid, which upon examination proved to be human milk. There was no areola around the opening; the swelling was quite separate from the pectoral mamma. There were no other **abnormally-placed mammæ.** After weaning the child the pain vanished and the lump considerably diminished in size. [s.m.h.]

13.—Madden reports two successful cases of **Cesarean section** in the Kasr-el-ani Hospital, Cairo. These two cases are primarily of interest as illustrating an extreme degree of rickety deformity occurring in Egyptian patients, who, as a rule, are not very liable to this disease. Here, also, the rickety condition was apparently associated with achondroplasia, for both patients were tiny dwarfs with stunted limbs, marked lordosis, and lateral curvature of the spine, and contracted pelves. They bore a striking resemblance to each other in feature as well as in bony deformity, and were primiparæ. [w.k.]

Lancet.

May 6, 1899. [No. 3949.]

1. A Case of Syringomyelia. W. S. Colman.
2. On Some Complicated Cases of Appendicitis and their Surgical Treatment. H. Betham Robinson.
3. The Serum-treatment of Plague. Frank G. Clemow.
4. Foreign Bodies in the Pharynx and Esophagus. Robert Jones.
5. Three Cases of Cardiac Thrombosis in Diphtheria. J. Woollacott.
6. A Case of Acute Pemphigus. Wilfred Hadley.
7. Red-water or Texas Fever: a Further Communication. Alexander Edington.
8. A Case of Recurrent Appendicitis; Operation; Recovery. W. Jones Greer.
9. Carbolic Acid as a Test for Albumin. Walter Colquhoun.
10. Medical Men as Public Men. Stanley Haynes.
11. A Case of Strangulation of the Vermiform Appendix in the Sac of a Femoral Hernia; Operation; Recovery. Edmund Owen.
12. A Case of Irreducible Femoral Hernia Containing the Vermiform Appendix; Operation; Recovery. W. H. Battle.

1.—Colman reports a case of **syringomyelia** occurring in a woman 28 years of age. The first symptoms appeared at the age of 7, and consisted of repeated painful sores at the ends of the fingers, with necrosis of two of the peripheral phalanges. Three years later it was noticed that she had curvature of the spine; her walking was poor, there was loss of heat-sense, and some pain in the dorsal region. At the age of 12 years her fingers began to contract. Now there is marked muscular weakness, nystagmus, complete thermal anesthesia and analgesia of the upper portions of the body, with the exception of the face, partial loss of heat-sense and pain-sense below the waist; tactile-sense is apparently normal, although she complains of subjective alteration in the affected regions. The patient walks awkwardly. there is some loss of muscular sense, and incoordination. The upper limbs are weak, but not totally paralyzed. Below the elbows, however, there is marked wasting of the muscles. The electrical reactions are normal, but quantitatively diminished to faradism in the upper limbs. The kneejerks are exaggerated on both sides. There is double ankle-clonus, the wrist-jerk and elbow-jerk are absent. When the plantar reflex is elicited, the hallux is extended, and not flexed as occurs in normal cases. The fingers are thick and clumsy, and show evidences of old whitlows. There is some adhesion in the tendon sheaths around the wrist, but no general enlargement of the hands. The nystagmus is slight, and rotary in character. The face has a stupid expression, corresponding to the intellect of the patient. The forehead is prominent and narrow. The lower portion of the face is broad, and the lower jaw is square. Colman considers that this disease is of two varieties, according to pathology. First, those cases in which there is a congenital excess of neuroglia that progresses during life, and which he characterizes as gliosis. Second, cases in which there is a tumor-like growth of the neuroglia infiltrating the surrounding structure, and which he terms gliomatosis. He regards as diseases most difficult to differentiate from this condition, leprosy, central hematomyelia, and Morvan's disease, which is really only a variety. Prognosis is, of course, hopeless as regards cure; treatment is unavailing. [J.S.]

2.—A case of **gangrene of the appendix** is reported occurring in a youth of 18. There was a secondary collection of pus below the right lobe of the liver. An operation was performed evacuating pus and resecting a portion of the appendix. Recovery followed after a severe illness. A second case of similar character is reported as occurring in a girl 8 years old. A boy of 16 had **appendicitis** followed by subdiaphragmatic abscess, right empyema, parotid bubo, and inflammation about the liver. Recovery followed after extensive operative procedures for the relief of these conditions. In a fourth case, appendicitis occurring in a boy of 12, secondary abscess formed under the liver and fecal fistula resulted after operation, but perfect recovery resulted in time. [M.B.T.]

3.—Clemow reports his experiments with Yersin's and Lustig's anti-plague serum. Yersin's serum is prepared by inoculating a horse with sterilized cultures and testing upon mice. When it is effective in protecting the latter against a fatal dose of the plague virus, it is considered ready for use upon human beings. He calls attention to the excellent method of storage devised by the Russian Commission from which he obtained it—that is, in small glass vials each containing 10 cc., with long sealed necks. Fifty cases were treated with, and 50 control cases without, the serum. The mortality in each group was 40. The early injection of the serum appeared to have no effect, for 6 cases inoculated on the first day resulted in death. He gives a table showing the results of the treatment and the amount of serum employed. The dose was gradually increased until as much as 60 cc. was injected daily without affecting the mortality. He concludes that Yersin's serum is not effective for the treatment of plague. He also treated 30 cases with Lustig's serum. Of these, 10 resulted fatally, giving a mortality of 77%. Some of the cases showed a fall of temperature after the injection, but otherwise no beneficial results were observed. Although the number of cases is small, he feels that this serum will prove useless. [J.S.]

4.—Jones has performed **esophagotomy** 3 times with 2 recoveries. In each instance the operation was performed upon adults for the removal of false dentures. He has found the x-rays of decided aid in diagnosis; forcible attempts at extraction by the mouth are to be condemned. In case bodies have laid for some time and give rise to symptoms of obstruction, irritation, or dyspnea, immediate operation is indicated; operation is specially demanded in case the impacted bodies are sharp or irregular. In some cases gastrotomy, or gastrotomy in combination with esophagotomy, is indicated. If the wound in the esophagus is jagged or its walls inflamed no sutures should be used. A clean-cut esophageal wound may be stitched up with continuous suture with very slight danger of infection and suppuration. Liquid food may be given by the mouth 24 hours after the operation. [M. B. T.]

5.—Woollacott reports **3 cases of diphtheria.** The first patient, a boy of 9, was given 8,000 units on the fifth day, and subsequently 4,000 more. Three days later he began to vomit, and on the eleventh day of the disease he was suddenly seized with severe precordial pain. He became restless and showed symptoms of collapse. In the course of 9 hours death occurred. At the autopsy an antemortem clot adherent to the endocardium was found at the apex of the right ventricle. The second patient, a boy of 7, received 8,000 units on the seventh day and later 1,500 units more. Paralysis of the soft palate supervened. On the sixteenth day of the disease there was severe pain in the epigastrium. The symptoms rapidly progressed and in the course of 36 hours the patient died of heart-failure. The lower portion of the left ventricle contained an antemortem clot that had softened in the center. Infarcts were observed in the kidney and spleen and there was some lymph in the peritoneal cavity. The third patient, a boy of 7, was admitted on the second day. The pulse was weak throughout, there was abdominal pain and some delirium. On the twenty-eighth day of the disease there were attacks of pallor and dyspnea and death occurred in a few hours. An antemortem clot was found in the right auricular appendix and there were numerous infarcts in the lower lobe of the left lung. The liver was large and nutmeg and was covered with lymph. Otherwise the peritoneum was healthy. Woollacott calls attention to the rarity of this form of death in diphtheria. The symptoms are, apparently, a falling pulse, severe precordial pain, that is usually of very acute onset. It cannot, however, be considered the result of the formation of the thrombus, as this must have been present in one case at least before the pain appeared. He is doubtful if the thrombosis itself causes any particular symptoms. Of course, if it becomes detached, it may cause death by embolism. [J. S.]

6.—Hadley and Bulloch report the case of a man 23 years of age, a butcher by occupation, who had wounded his hand on a piece of jagged bone. Three days later, he observed some blisters on his chin, followed the next day by a bullous eruption on the back of the neck, that extended to the trunk, abdomen, and thighs. When admitted to the hospital, this eruption was very general. The bullæ varied from the size of a pea to that of a walnut, and some had ruptured. There was moderate fever. The patient developed vomiting, diarrhea, and died of exhaustion. At the autopsy the mesenteric glands were enlarged and softened. The solitary follicles in the greater part of the large intestine were also enlarged. Bacteriologic examination of the fluid from the bullæ revealed a diplococcus similar to that of Demme, Bleibtreu, Bulloch, and others, but which did not resemble any of the ordinary **pyogenic diplococci.** [J.S.]

7.—Edington has made a number of experiments upon **red-water fever.** He found that animals previously inoculated with the blood of other animals that had been rendered immune or were naturally immune, were protected against the disease. Of 107 animals inoculated with defibrinated blood from four steers that had had the disease 29 days previously, only 17 died. A second series of inoculations were made upon a herd of 53 animals, all of whom recovered. He believes that the method will be efficient in combating the disease. [J.S.]

8.—An operation in the interval after the fourth severe attack of appendicitis is reported in the case of a youth of 18. Recovery was uneventful. [M.B.T.]

9.—Colquhoun has found that a solution of carbolic acid in absolute alcohol is **a very delicate test for albumin** in the urine, comparing very favorably with nitric acid. The urine should first be diluted until the specific gravity is about 1010; a few cc. of carbolic acid is then poured on top of this, and a white ring is immediately formed, from which milky drops fall to the bottom of the tube, and adhering to this are he flakes of albumin. The test is sufficiently delicate to how 0.000012 gram in 1 cc. of urine. [J.S.]

11.—The vermiform **appendix** is rarely found in the sac f inguinal hernia, and it is decidedly exceptional to meet vith it **in a femoral hernia.** Cases in which it is the sole ccupant of such a sac are believed to be extremely rare. The case of a woman, 65 years old, is reported who was admitted to the hospital complaining of a painful swelling in he right groin, which had appeared about a fortnight previously and slowly increased in size. At first there was slight ain, except on pressure or on coughing, and the bowels acted egularly. A swelling was found extending from the upper art of the saphenous opening to about 3 inches above Poupart's ligament, the mass was hard and there was some deep luctuation. An incision was made and the abscess was pened and evacuated. At the bottom of the abscess cavity vas a dusky swollen body, about the size of the end of the inger; this proved to be the appendix, which was stranguated at the femoral ring; adhesions had formed about the eck of the sac. The appendix was gently drawn down, tied bove the constricted portion, and removed. The abscess-avity was closed and packed with gauze and good recovery ollowed. [M B.T.]

12.—A woman, aged 49, had noticed a swelling in the ight groin 5 years previously; it had appeared suddenly and as very painful; ultimately the swelling disappeared and e had no further trouble until 10 days before admission to e hospital, when the swelling and pain again appeared. here had been no strain or injury, she had not vomited or ffered from constipation, the swelling was in the femoral gion, which was irreducible and tender on pressure, there as no fluctuation nor impulse or coughing, the temperature ad been normal. On incision over the femoral opening veral enlarged and inflamed glands were discovered, atted over the femoral canal, the femoral canal was opened d the **hernial sac** was found to **contain the appendix,** hich was ligated, removed and the stump returned to the domen. The wound was closed without drainage and good covery followed. [M.B.T.]

New York Medical Journal.

May 20, 1899. [Vol. lxix, No. 20.]

The Significance of Absence of Nucleated Red Corpuscles in the Blood in Cases of Grave Anemia. John S. Billings.

Retention of Urine. Ramon Guitéras.

Inhibition. S. J. Meltzer.

The Term Appendicitis, and other Unscientific Words of our Nomenclature. Achilles Rose.

On the Use of the Valerianates of Creasote and Guaiacol in the Treatment of Pulmonary Tuberculosis. A. B. Briggs.

1.—Billings reports 5 cases of **grave anemia** in which e bone-marrow apparently had lost its power of forming d corpuscles at a comparatively early period, as the exination of the blood showed no nucleated or polychromaphilic red corpuscles. An absence of nucleated red corscles in the blood in cases of grave anemia indicates that ere is no new formation of red corpuscles taking place. e prognosis for such cases is extremely bad. In a large mber of cases of severe anemia examined during the past 6 ars Billings has seen only the 5 cases here reported in which ere were less than 1,500,000 red blood-corpuscles to the bic millimeter associated with an absence of nucleated red rpuscles. There were many cases in which the number of d corpuscles was lower, but in them nucleated reds were esent in varying numbers. Their presence, of course, does t warrant a favorable prognosis, since they are an indican that the blood-making organs are being pushed beyond ir limit of production of normal red cells, but many es in which they exist end in recovery. When the number red corpuscles is above 1,500,000 per cubic millimeter, the esence or absence of nucleated red corpuscles is of little nificance, but when they are below that number and cleated red corpuscles are absent, a fatal result may be nfidently predicted. [S.M.H.]

.—The cause and diagnosis of acute and chronic retenn of urine are carefully discussed at considerable length hout anything new being added to the subject. [M.B.T.]

4.—Rose points out that the **word appendicitis is a misapplication,** and that there are many other words used in chemical and medical nomenclature which are grossly contradictory to science. [S.M.H.]

5.—Briggs reports the results of his **experience with the valerianates of creasote and guaiacol in the treatment of pulmonary tuberculosis.** He treated 8 cases, 3 of incipient tuberculosis and 5 chronic cases. Of the 3 acute cases, 2 of the patients have made, to all appearances, complete recoveries. The third, still under treatment, is fast recovering and bids fair to result in a cure. Of the 5 chronic cases, 1 patient has died, 3 have improved, and the fifth, although showing no improvement, nevertheless has received benefit from the drug, as a lessened amount of cough and expectoration, together with a decrease of night-sweats and other troublesome symptoms, is proof conclusive. Creasote and its various preparations and esters have no specific action on the bacilli themselves, or on their toxin-producing powers, but act rather in the alimentary canal before their absorption, by favoring the elimination of the toxic albumins with which they combine. Again, the drug is eliminated largely by the bronchial mucous membrane, and thus by its local action upon the bronchial mucosa, and by its stimulating effect, the resisting power of the cells is increased and its well-known power as an expectorant accounted for. From his experience with these drugs, he suggests the following points for consideration: (1) they may be given with advantage in all cases of pulmonary tuberculosis; (2) they are nontoxic and nonirritating, from 3 to 10 drops being as much as is ever required at a dose. From 10 to 30 minims daily can be given with benefit; (3) the remedy always acts as a tonic; the appetite improves, dyspeptic symptoms subside, the patient increases in weight, the cough, expectoration, night-sweats, and physical symptoms improve, while the hemoptysis seems to be entirely under control; (4) on account of their disinfectant properties, fermentative conditions in the stomach and bowels, so often present in these cases, respond very readily and favorably to their use. Tuberculous enteritis, if present, is benefited, and self-infection prevented; (5) the well-known sedative action of the valerianates is soon demonstrated after their administration, as shown by their beneficial action on the nervous symptoms, frequently so pronounced in these cases. [S.M.H.]

Medical Record.

May 20, 1899. [Vol. lv, No 20.]

1. The United States and Foreign Army Rations Compared. Charles E. Woodruff.
2. Anemia as Observed in a Gynecological Clinic, with Some Practical Suggestions on the Diagnosis of Obscure Cases and Their Treatment. W. Gill Wylie.
3. Some of the Essential Features in the Diagnosis and Treatment of So-Called Idiopathic Epilepsy. William M. Leszynsky.
4. An Old Plaster Splint Modified, and a New One. W. C. Hobdy.
5. Strangulation of the Intestine with Few Symptoms. R. Cadwallader.
6. A Case of Transitory Insanity. Theodore Diller.
7. A Rare Omental Tumor. G. G. Eitel.

1.—Woodruff gives a table of the **rations supplied to the armies** of various nations, and a careful study of their relative food-value. He states justly, however, that when the different army rations are compared with the foods commonly used in these nations it will be seen that ours is, thus considered, amongst the least liberal instead of, as is commonly claimed, the most liberal. He also deplores the fact that there is no flexibility in our rations; that what is prescribed must be given, while many other nations allow of the substitution of one kind of food for another in case of necessity or advisability. Furthermore, our ration does not allow of an increase during any especial strain, and this is a wholly irrational plan. Our measures for increasing the quantity and kind of food supplied are entirely unreliable, and this is the greatest cause that the soldiers had for complaint during the late war. A constant source should be provided. [D.L.E.]

2.—Wylie believes that the **gynecologist,** relatively speaking, sees more cases of **anemia** than other doctors, for the reason that all his patients are women, and **women are more subject to anemia than men,** on an average; for half their lives they menstruate every month and not infrequently bear children, and these functions are very liable to be disturbed by abnormal and repeated hemorrhages. Chlorosis is strictly confined to women and occurs almost entirely during the period of development of the generative organs, the average age of chlorotic patients being 17½ years. Many obscure cases treated for years for "nervous prostration," "neurasthenia," "melancholia," "hysteria," "chlorosis," "anemia," etc., with medicine, rest-cures, trips to Europe, etc., without success or only temporary relief, may be made clear by demonstrating beyond a doubt that the cause of the trouble, or at least the existing complications which have nullified all this general treatment and medication, may be ascribed to the lesion of some important organ. [W.K.]

3.—Leszynsky notes one **case of petit mal,** which occurred in an actor and obliged him to cease his occupation, because while reciting he would frequently, with the onset of one of these attacks, omit the proper lines, and recite instead some unintelligible sounds. Leszynsky insists that the general condition of the patient must be investigated and set to rights. He insists upon the especial value of correction of eye-defects, and believes there are certain instances in which the attacks disappeared after the correction of ocular abnormities. Ovariotomy is usually worthless in controlling the attacks. He thinks it sometimes justifiable, however, for the purpose of preventing the birth of epileptic children. The digestive tract should be carefully treated if deranged, and it is to be remembered that most epileptics are likely to eat too much. Bromids should not be indiscriminately administered, though they are undoubtedly the standby in this disease. Leszynsky agrees with Seguin as to the prognosis, that is, that cure should not be considered as effected, unless 5 years at least have passed without any attack. [D.L.E.]

4.—Hobdy suggests the treatment of **fractures of the leg** by a posterior plaster-of-paris splint which may be made by impregnating some pieces of old sheets with plaster-of-paris. The bandage extends from the midpopliteal space around the heel to the ball of the foot, embracing the posterior and lateral surfaces of the calf. [M.B.T.]

5.—A case is reported in which a man was suddenly taken with violent abdominal pain; opium was administered, and no further symptoms appeared, though the patient passed a restless night. He had had a stab-wound of the abdomen and had a **ventral hernia** which was easily reducible and painless. Deep down near the splenic flexure of the colon a mass could be felt. At midnight the next night sudden fecal vomiting occurred, celiotomy was performed, and the protruding intestine was found a deep mahogany color. A knuckle of gut was adherent to the old scar, and over it several feet of intestine had passed, the two portions of the intestine had twisted and strangulated some 6 feet of gut; the adhesion was cut and the strangulation relieved. The shock from the operation was great and the patient rallied only to sink into collapse and died about 24 hours later. [M.B.T.]

6.—Diller records a case of **transitory insanity,** which occurred in a man of 41 who had never previously been insane, but for some weeks had been feeling unwell. The onset was very sudden; the man was very violent; the attack lasted but 18 hours, and disappeared as suddenly as it came on, leaving no recollection of what had occurred during the attack. A few days later he had a transitory delirium, but seemed well when he left the hospital. He had been an alcoholic. [D.L.E.]

7.—A man, aged 44, consulted his physician regarding the enormous size of his abdomen. On examination, the presence of fluid in the peritoneal cavity was determined, and 3 gallons of fluid were drawn off with a trocar. The distention returned, and at a second tapping 2½ gallons more were withdrawn. After removing the fluid a tumor was felt in the hypogastrium and operation was advised. Upon opening the abdomen the tumor was found to consist of omental tissue, the omentum was rolled inward and upward, producing constriction and partial obstruction to the return circulation. It was unravelled without difficulty and the enlarged veins at once disappeared. The abdominal incision was closed, prompt healing followed, and the patient returned to his work and has had no recurrence of the disease. [M.B.T.]

Medical News.

May 20, 1899. [Vol. lxxiv, No. 20.]

1. Syphilis of the Eye and Its Appendages. Charles Stedman Bull.
2. Etiology and Frequency of Sporadic Purulent Meningitis. L. Napoleon Boston.
3. Recent Investigations upon Malaria. W. S. Thayer.
4. A Surgical Suggestion. The Purse-String Method for Tonsillar Hemorrhage. Robert H. M. Dawbarn.

1.—A concise didactic review of **syphilis of the eye and its appendages,** dealing briefly with the rarer syphilitic lesions of the eye, while devoting more space to the commoner syphilitic affections. Their differential diagnosis lies in those symptoms and signs that are common and characteristic of all syphilitic lesions, while they yield to the general systemic medication which must, however, be rapidly brought to bear upon the system. This is entirely true of the superficial lesions, and the only other measures that are essential are the antiseptic and antiphlogistic treatment used in all superficial inflammations involving the eye. In those lesions that involve the deeper structures the treatment is the combination of antisyphilitic internal measures, with the use of mydriatics and other remedies common to the simple inflammatory conditions that these lesions simulate. [C.L.L.]

2.—Boston has investigated the postmortem records of the Philadelphia Hospital from 1894 to 1898 and found 80 cases of **meningitis,** of which 13 were purulent. He reports 4 cases in which he made bacteriologic examinations, finding in one only the pneumococcus, in another the bacillus cadaverus, the staphylococcus aureus and diplococci; in a third, the colon-bacillus, and in a fourth the micrococcus tetragenus. Three of the 13 cases, which were pretty evenly distributed throughout the 4 years, were possibly tuberculous. [J.S.]

3.—Thayer gives a brief review of the recent literature upon the method by which the malarial contagion is conveyed. He is satisfied, as the result of the work of Ross, Bignami, Grassi, Dionisi, and Bastianelli, that the mosquito is the most likely carrier of the contagion. He calls attention to the fact that Laveran himself suggested this process, and that as Ross and McClellan have shown, he was correct in his original idea that flagellation was a vital process in the life-history of the plasmodium. In speaking of the work of Koch in Africa, he calls attention to the fact that it is merely confirmatory of the work of other observers, and contains nothing original. [J.S.]

4.—In combating the **severe hemorrhage that is sometimes the result of tonsilotomy** Dawbarn has advocated and employed a **purse-string suture** which may be placed about the base of the tonsil before the operation or inserted afterwards if hemorrhage is encountered. A heavy silk sterile suture is passed submucously with a curved needle and holder in four stitches about the tonsil and then tightened. It can be readily inserted under eucain B (10%) local anesthesia. This anesthetic has been found very efficient for tonsilotomy, as it does not act upon the capillaries. [C.L.L.]

Boston Medical and Surgical Journal.

May 18, 1899. [Vol. cxl, No. 20.]

1. A Case of Diabetes Mellitus Quickly Following Mumps. On the Pathological Alterations of the Salivary Glands, Closely Resembling those Found in the Pancreas, in a Case of Diabetes Mellitus. H. F. Harris.
2. Small Aneurysm of the Descending Arch of the Aorta, X-ray Examination Confirmed by Autopsy. Francis H. Williams.
3. A Case of Melano-Sarcoma. George Shattuck Whiteside.
4. Laminectomy. J. C. Munro. I. Fracture of the Lumbar Vertebræ; Laminectomy. II. Laminectomy for Pressure Symptoms in a Case of Syringomyelia. III. Fibroma of Spinal Cord; Removal; Complete Recovery. J. C. Warren.

1.—Harris reports the case of a man, 42 years of age, always previously healthy, who was suddenly attacked with **mumps.** A month after recovery he began to have polyuria, constant thirst, and increased appetite. There was rapid emaciation and impairment of vision. He also noticed a slight increase in the salivary secretion. Both patellar reflexes were lost, and the urine amounted to over 6 liters per day, containing 4.6% of glucose. Harris, in order to determine whether **injury to the salivary glands could produce diabetes,** removed them from a dog, and was actually able to detect small quantities of glucose in the urine. He also reports the case of a man, 63 years of age, who, 15 months before admission to the hospital, developed the characteristic symptoms of diabetes, complicated by gangrene of the right great toe. The urine contained 3.66% of glucose, and averaged from 3 to 4 liters per day. He ultimately died with the symptoms of pulmonary tuberculosis. At the autopsy the lungs were found to contain numerous cavities, and were in part consolidated. The pus from these cavities contained tubercle-bacilli. The pancreas was small, and, together with the salivary glands, which were also smaller than normal, was removed. As the alterations in the pancreas and in the parotid glands were practically similar, they are given together. There was proliferation of the trabeculæ between the acini, contraction of the latter, in some cases apparently leading to almost complete obliteration. More or less round-cell infiltration, particularly around the bloodvessels, was observed. Although Harris admits that there are no certain cases of pancreatic inflammation following inflammation of the parotid glands, he believes that there is reason to suspect that this may occur and produce profound functional alterations in the economy. [J.S.]

2.—In a case of **aneurysm of the innominate,** with a small aneurysm of the descending aorta, the tracings made by the aid of the fluorescent screen upon the patient's chest were found on postmortem examination to correspond more nearly with the facts than did tracings made by percussion. There was, however, a marked difference in the tracings posteriorly and those anteriorly, which indicated the excursion of the viscera during expiration and inspiration. Williams ascribes these discrepancies to the greater distance of the aneurysm from the screen, ignoring an obvious source of error in all such tracings on the chest-wall, *i. e.*, its marked upward and downward movement. Percussion over the descending aorta posteriorly will detect these small aneurysms, or their relatively correct size can be readily demonstrated by skiagraphs, which give their exact location in reference to the posterior portion of the ribs and to the vertebræ. [C.L.L.]

3.—It is said that **moles on the foot not infrequently become sarcomatous in middle-aged persons.** The mole in this case did not at once become sarcomatous, but first showed a structure consisting of atypical cells in groups, with a very vascular stroma. This type of tissue often very closely resembles sarcoma. This lesion was removed entire, taking the whole thickness of the skin, "a wide margin of healthy tissue." At that time there were no glandular enlargements, and one would have supposed a sufficiently radical operation had been done. A local recurrence of the disease, however, required amputation six months after the first operation. At this time the pathologist reported that the disease was considered melanosarcoma. No local recurrence took place after this, but a gradual spread of metastatic growths through the abdominal viscera began soon, and in six months the patient gave evidence of a brain-tumor. Apparently, this metastatic tumor did not injure the brain-tissue near it by invading it, but caused symptoms from pressure alone. Finally, a metastasis of the tumor began inside a cerebral bloodvessel. Death due directly to the effect of the hemorrhage at this point. The lessons taught by this case seem to be these: (1) Moles on the foot of a middle-aged person should be excised; (2) an ulcer beginning in a mole on the foot demands immediate and radical surgery; (3) the prognosis of ulcerated moles should be guarded even when growth seems non-malignant. [C.L.L.]

4.—An informal report of **17 laminectomy operations** was made, with a few deductions and suggestions in the way of treatment. Of 7 acute traumatic cases, 3 of which were in the cervical region, no shock followed operation, and even in 10 rapidly fatal cases a temporary improvement followed intervention. Those injured in the upper part of the cord died, with sudden and marked elevation of temperature. Two dorsal cases lived for several months, neither injured nor benefited by the operation. Autopsy in three cases showed complete crush and softening of the cord. Of 4 chronic traumatic cases, one, a fracture-dislocation of the second cervical, was markedly improved in the paralysis of the upper extremity and in the motions of the head; a second, operated upon during a secondary acute affection of the cord, was not benefited by interference, but died in a few hours with high temperature. A third mid-dorsal case, and almost hopeless from the start, was relieved of the athetosis, but gradually succumbed to sepsis. A fourth, upper lumbar, though paraplegic and typhoidal at time of operation, made a complete recovery, so that she could earn her living at general housework at the end of 8 months. Of 2 adults with paralysis from caries, one, upper cervical, was perhaps slightly benefited; the other, one of 10 earlier cases, died of acute peritonitis, probably from being placed in the prone position after operation, a position that has proved not only useless, but at times dangerous. Of 2 cases of syringomyelia both were markedly benefited by operation, and though ultimately the disease is fatal, yet the relief justifies the simple operation of opening the spine and dura. Two cases of sarcoma were operated upon, one a diffuse growth, the other melanotic, but very little, if any, benefit resulted. In operating, a single median incision is recommended; hemostasis by gauze packing; removal of the laminæ by special forceps, without chisel or trephine; the dorsal position after an operation that should not last over half an hour. In addition, Dr. J. C. Warren reported 3 cases of laminectomy, which he selected from a number as being of special interest. The first case was of fracture of the spine. An exudation was found between the fractured laminæ and the dura. The dura was opened, there was no visible crushing, but the dura was adherent to the cord. There was slight alteration in the color and edema. The pia was scratched and a dram to a dram and a half of fluid escaped, while the swollen appearance disappeared. The recovery was slow, but finally function was so nearly restored that the patient could resume his ordinary labor. The second patient had been previously operated upon and the arches of three dorsal vertebræ removed by Dr. Keen. Persistent pain made the second intervention necessary. On opening the dura a fungus-like growth was seen protruding from the wound, but no fluid could be found. Gauze drainage was introduced and the result of the intervention was relief from pain. The relief from pressure secured by the drainage permitted the cord to recover. In the third case a tumor the size of an olive was removed, which proved to be a fibroma. Motion was at first entirely absent after the operation, but began to return in three days. It increased slowly. At the time she could walk alone, though with difficulty, and sensibility is nearly perfect. Reflex spasms, especially of the muscles of the feet, have been very troublesome throughout. The knee-jerks are still very lively, though less so than before the operation. [C.L.L.]

Journal American Medical Association.

May 20, 1899. [Vol. xxxii, No. 20.]

1. Further Remarks on Erosions of the Stomach. Max Einhorn.
2. Aqueous Suprarenal Extract. Joseph Mullen.
3. The Giant Magnet. William A. Fisher.
4. Acute Obstruction of the Bowels. Floyd Wilcox McRae.
5. Cure of Internal Hemorrhoids. James A. Gardner.
6. Fifty-one Mastoid Cases. D. Milton Greene.
7. Methods of Prevention in Smallpox. Solon R. Towne.
8. Typhoid Fever in Children. Frederick R. Starr.
9. Therapeutic Value of Hypnotism. Jno. R. Rose.

1.—Under the name **erosions of the stomach** Einhorn describes a condition in which, aside from various subjective symptoms of gastric origin, there are always small pieces of the gastric mucosa found in the wash-water of the stomach. He has previously described 7 cases and includes in this paper reports of 6 further cases. The condition of the gastric secretion is most varied; in some cases the acidity is normal, in other cases there is hyperchlorhydria or achylia. Two of the cases were complicated with tuberculosis of the lungs, in another case there was a history of syphilis and in 4 cases there were symptoms of gastric catarrh, besides the finding of gastric mucosa. There is almost always distress soon after eating, frequently a feeling of weakness and there may be anorexia, nausea, vomiting, dizziness, and constipation or diarrhea. The treatment consisted in most cases in spraying the stomach with a 1 to 1,000 solution of silver nitrate. The diet is arranged to correspond with the state of gastric secretion. Cold bathing, light gymnastics, and out-of-door life are recommended. An easily assimilated preparation of iron is always appropriate and nux vomica is frequently used. [M.B.T.]

2.—Mullen speaks highly of the use of **suprarenal extract** in the surgery of the eye and throat. In the eye its use is always preceded by the instillation of a 5% cocain solution, and 10 minutes afterward an aqueous solution of the extract is put in. In the throat it is always applied with a mop, preceding the application by cocain. For operative work in the pharynx the field is sprayed or mopped with cocain, afterwards Schleich's solution is injected and the solution of the extract is applied. Its therapeutic value depends on its physiologic action, contracting the small arterioles, retaining the cocain in the tissues and preventing hemorrhage or toxic effects from rapid absorption of the cocain. [M.B.T.]

3.—The method of using the electromagnet in removing iron or steel bodies from the eye is carefully described. [M.B.T.]

4.—In addition to the usual cases of **acute obstruction of the bowel** mention is made of the internal hernias into the duodenojejunal, pericecal or intersigmoid fossas or through the foramen of Winslow, slits in the omentum or mesentery, or by adhesions or diverticulums. Operation is strongly advocated in the treatment of intussusception. McRae believes that there is danger of rapid thinning and weakening of intestinal wall and rupture under very moderate pressure; it is also impossible to correctly estimate the amount of pressure which the weakened incarcerated intestine will bear. Reduction should be performed if possible, if not immediate resection by the aid of Murphy's button or Laplace's intestinal anastomosis forceps. [M.B.T.]

5.—The treatment of hemorrhoids by various methods is discussed and the methods by clamp and cautery and by ligation are described. [M.B.T.]

7.—The more important details with regard to quarantine, vaccination, disinfection, and early diagnosis are considered in connection with their bearing in the prevention of smallpox. [M.B.T.]

8.—In discussing the symptoms of **typhoid fever in children** attention is called to the fact that the onset is much more rapid than in adults and the clinical picture is much more indefinite, initial rise of temperature is more rapid, the remittent character during the second week is less marked and the average duration is much shorter. The temperature may fall almost by crisis; diarrhea is rarely excessive; and the stools are not found characteristically typhoidal; rose-spots are found less frequently and are less in number; the pulse is rarely irregular, compressible or dicrotic; extreme nervous symptoms are very rare. The treatment outlined is that usually advised in adults. [M.B.T.]

American Journal of the Medical Sciences.

April, 1899. [Vol. cxvii, No. 4.]

1. Peripheral Nerve-transplantation. REUBEN PETERSON.
2. Abscesses of the Cerebellum from Infection Through the Labyrinth. J. ORNE GREEN.
3. Further Considerations of the Mechanism of Ear-vertigo and its Relief by Removal of the Incus. CHARLES H. BURNETT.
4. A Case of Isolated Urticaria of the Tongue, Associated with Achlorhydria. J. L. GOODALE and H. F. HEWES.
5. Entero-plastic Operation to Overcome or Prevent Stenosis, with Especial Reference to the Spur in the Preternatural Anus. CHRISTIAN FINGER.
6. Critical Summary of Recent Literature on the Treatment of Abscess of the Brain. JOSEPH COLLINS.

1.—By coming in contact with a circular saw, the patient, a man of 24 years, sustained a severe injury of the right wrist, the cut extending nearly to the bones. The ulnar artery, a number of tendons, the **ulnar and median nerves were severed.** Marked trophic changes ensued, with ulceration of the peripheral phalanges, glossy skin, atrophy of muscles, etc. The fingers were flexed, and extension was impossible. Five months after the injury, the author, having rendered the hand bloodless by an Esmarch bandage, resected the ends of the median and ulnar nerves, and filled the gap in each with a piece—4 cm. long—of the sciatic nerve of a dog. The grafts were united to the nerve-ends with kangaroo-tendon. On the day following the operation there appeared to be a return of sensation over the palmar side of the thumb to the distal end of the first phalanx. Gradually sensation returned over wider areas, but at the testing an area that at a previous examination had been sensitive, was again anesthetic. Under electricity and massage satisfactory improvement in motion and sensation was made, and at the end of 14 months sensation was complete in the hand, except over a small area between the last joint and the nail on the dorsal surface of the second and little fingers; motion was good and strong, although some atrophy of the interossei and thenar and hypothenar remained. From lack of exercise of the hand resulting from a frost-bite, there was increased contraction of the flexor tendons, especially those of the little finger. Abduction and adduction of the thumb were not possible; nor could the fingers be separated or brought together. Microscopic examination of the segments of the median and ulnar nerves removed at the time of the operation was made by Dr. G. C. Huber, and showed a marked increase of the interstitial tissue of the epineurium. One portion of the section from the central part of the median nerve, the bulbous portion, presented a loose areolar connective tissue, in the meshes of which small nerve-bundles were seen. The fibers of these bundles consisted of an axis-cylinder, and most of them had a very thin layer of myelin, and were beset with numerous nuclei; they presented the appearance of newly-formed medullated fibers. These small fibers spread out in fan-shaped fashion, and twined between the connective tissue of the bulb. In the peripheral end, in addition to the connective-tissue hyperplasia, there was also a slight regeneration of nerve-fibers. Small medullated fibers could also be traced into the dense fibrous tissue that connected the two ends of the median nerve. The central stump of the ulnar nerve showed the same changes as the median nerve-bulb; it was attached to one of the tendons of the wrist, having probably been sutured to it at the time of the first operation after the injury. Newly-formed fibers could not be traced beyond the nerve-bulb, the dense structure of the tendon to which the nerve was attached probably preventing the downgrowth of the axis-cylinders from the central end of the nerve. Microscopic examination was also made of the tips of two fingers that had been amputated on account of suppurating sinuses that had formed after the patient had frozen the right hand. Nothing of importance was discovered. Peterson reviews the theories advanced in explanation of the process of regeneration of nerves — according to one, accepted by Howell and Huber, it is effected by the growth of new axis-cylinders from the central end; according to the other, the new fibers come from the peripheral end. In case an injured nerve is sutured soon after severance, or when, from the nature and position of the injury, the ends of the divided nerve do not contract much, embryonic connective tissue developing between the severed ends forms only a relatively unresistant layer through which the down-growing axis-cylinders may penetrate and reach the distal nerve-trunk. If the embryonic tissue for any reason is denser, the down-going axis-cylinders become tortuous, and are deflected, and the so-called bulb-tissue is formed. Transplantation of a peripheral nerve between the ends of a divided nerve is a surgical attempt to prevent the formation of dense connective tissue and to provide a path of least resistance for the down-growing young axis-cylinders. Huber has shown that a transplanted nerve is superior to catgut strands or tubular sutures as a path for the axis-cylinders. The rapid return of sensation (within 24 hours) noted after the operation was probably due to anastomosing nerve-fibers or to supplementary supply. The reason that these fibers do not functionate at the time of the nerve-section is supposed to be that through the irritation of the nerve at the point of lesion, an inhibitory influence, by way of the spinal cord, is exerted on other peripheral nerve-fibers. Through operation this irritation and with it the inhibition are removed. The variations in sensation—"vacillating sensation"—are explained on the basis of changes in irritation occurring in the cells surrounding the nerve-endings. The first improvement in motion in the author's case was noted in the third week after operation. Twenty cases of nerve-transplantation are tabulated, from which the following conclusions, among others, are drawn: (1) Transplantation of a peripheral nerve-segment to bridge over a gap between two ends of a resected nerve is a legitimate surgical procedure; (2) regeneration of the degenerated peripheral end is due to down-growths from the axis-cylinders of the central end; (3) sensation may return very early after operation, and, as a rule, precedes return of motion; (4) the rapid return of sensation is explained by collateral nerve-supply; (5) in many cases very early return of motion after transplantation may be due to vicarious movements of other muscles than those formerly paralyzed and not to a regeneration of the latter's nerve-supply. [D.R.]

2.—Green reports 3 cases of **abscess of the cerebellum from infection through the labyrinth** and a case of caries of the labyrinth without brain-disease. In all a chronic tympanic suppuration was running its course without other symptoms than otorrhea, when there was a sudden attack of vertigo, followed soon by dull pain in the depth of the ear. At this time the infection of the labyrinth undoubtedly occurred, the vertigo being due to irritation of the cristæ acusticæ of the ampullæ of the semicircular canals. In all 4 headache was a prominent symptom, but in none was it occipital. In the 3 cerebellar cases it was bilateral. Paralysis of the abducens nerve occurred in 2, in 1 it was unilateral, in 1 bilateral. Optic neuritis was present only in 1 case; in the author's experience in otitic brain-disease its absence has no meaning whatever. Leukocytosis was present in 2 of the cases of cerebellar abscess. Nystagmus was well-marked in the case of simple labyrinthine inflammation. It should not be regarded as a brain-symptom. Caries of the bone, on the inner (labyrinthine) wall of the aditus and epitympanum, was present in all the cases, and the external semicircular canal had been perforated. The cerebellar abscesses were of about equal size and situated in the anterior and lower portions of the cerebellum, on the same side as the ear-disease; one of them opening directly against the internal meatus, the other two separated from the bone by relatively one-quarter and one-half inch of brain-substance. In one of these two a fistula connected the abscess with the labyrinth, in the other the cerebellum was adherent to the dura over the aqueductus vestibuli. In all of the cases an accurate diagnosis before operation was absolutely impossible, in two abscess of the brain was the probable diagnosis, but whether cerebral or cerebellar could not be determined. The exploratory operation demonstrated the value of the **tympanomastoid exenteration** in exposing the whole interior of the bone, and thus showing the course which the inflammation had taken in reaching the brain, and determining at least the situation of the brain-disease, if not its character. The finding of the caries into the labyrinth, the absence of caries in all other parts, the exposure and exclusion of disease of the sinus by aspiration pointed to the labyrinth as the direct route of infection. Otitic cerebellar abscesses are due to extension of the inflammation either through the inner wall of the mastoid or through the labyrinthine passages. In the former instance the abscess is in the posterior portion of the cerebellum; in the latter, in the anterior portion. The posterior abscesses can be reached by removing the inner wall of the mastoid, and then, by rongeurs or gouge and mallet, carrying the opening backward to any desired extent, thus exposing the cerebellum below and behind the lateral sinus, and giving thorough and efficient drainage. The anterior abscesses offer much greater difficulties. In two of his cases the author approached them from a point just in front of the sinus, removing the posterior surface of the petrous bone for some distance forward and inward from this point. Not finding any pus in one of the cases at the meatus internus, the author desisted from exploring the brain, and thus overlooked an abscess lying within half an inch of the seat of operation. In the third case he opened the dura and explored the brain with a director and then with a pair of forceps introduced closed and withdrawn opened; but without success. Yet at the autopsy it was shown that the instruments had passed into and through the abscess-cavity. The three cases of cerebellar abscess ended fatally. In a note the author states that leukocytosis, being present in 79.5% of uncomplicated tympanic suppurations, cannot be of diagnostic value in otitic abscesses. [D.R.]

3.—**Ear-vertigo** may be due to disease in the external, middle, or internal ear; when due to a lesion of the last it is Menière's disease. All the 3 forms of ear-vertigo present similar symptoms, those that are termed "Menière's symptoms," viz., more or less deafness and tinnitus, with paroxysmal vertigo, nausea, vomiting, reeling, and often falling, but no loss of consciousness. There are two forms of false ear-vertigo—vertigo due to a tumor in the tract of the auditory nerve, and vertigo due to traumatism of the ear in connection with traumatism of the cranium. In these cases vertigo is more or less constant, and rarely, if ever, as violent as in the pathognomonic paroxysms of true ear-vertigo. The irritation exciting ear-vertigo may be caused by undue retraction and impaction of the stapes in the oval window, and consequent compression of the labyrinth-fluid and the ampullæ, as in the late stages of chronic catarrhal otitis media. If engorgement of the labyrinth and pressure upon the ampullæ from within the cranium be present, as in parotitic metastasis, such pressure-irritation may be increased at times by sudden retraction and impaction of the chain of ossicles, and the foot-plate of the stapes, as occurs in sudden movements of the head, or in an accommodative contraction of the tensor tympani unnoted by the normal labyrinth, and a paroxysm of ear-vertigo takes place. The paroxysmal nature of ear-vertigo can be explained only by assuming that it is due to temporary increase in retraction and impaction of the stapes in the oval window, or to temporary engorgement of the labyrinth from within, without compensatory yielding of the stapes, and a consequent pressure on the labyrinth-water and the ampullæ. That such is the mechanism is demonstrated by the **curative effect of removal of the incus and liberation of the stapes,** an operation which Burnett has performed in 27 cases of ear-vertigo. The hearing, uniformly very defective in true ear-vertigo, has been uninfluenced by the operation. An interesting case is detailed of a trolley-car conductor who had contracted mumps; metastasis occurred to the testicles. The left parotid was attacked first; 4 days later the right, 4 days later the left testicle, and 4 days later the right. Two or 3 days after the orchitis had disappeared, a right-sided pleurisy developed. Before the parotitis both ears were normal; while the patient was still confined to bed, tinnitus and deafness developed in the left ear, and on rising he observed a marked tendency to vertigo. Preceding any vertiginous attack there was an increase of tinnitus in the left ear and usually a coppery taste in the mouth, perhaps most marked on the left side of the tongue. **An increase of tinnitus** before an attack of tympanic vertigo is **pathognomonic.** On account of the vertigo and the fear of falling, the patient gave up his work, and finally consented to an operation. The incus was removed, and the stapes, when touched, was then found normally movable. The vertigo disappeared, but the tinnitus and deafness remained. The patient was able to resume his duties. On one occasion he took cold, and had an acute otitis media in the ear operated upon. The details of the operation, which are clearly given, are best read in the original. [D.R.]

4.—Goodale and Hewes report the following curious case, which they consider one of **urticaria of the tongue.** The patient, a shoemaker, 38 years of age, complained that for a period of 4 years, reddened sensitive areas had been making their appearance on the back of his tongue, coming and going, and increasing in soreness, so that the patient had been compelled to give up his work, as he could no longer hold shoe-tacks in his mouth. For the past 2 years the lingual dorsum had been almost constantly affected by the sore, red areas. More recently the mucous membrane of the cheeks and lips had shown similar manifestations. The skin had at all times been free from eruption. The dorsum of the tongue, with the exception of a normal-looking area in the center and the tip presented enlargement and reddening of the filiform and fungiform papillæ, and was traversed by furrows and wrinkles that could be smoothed out by the fingers. There was no induration or change in consistence. The affected part of the tongue exhibited marked sensitiveness to mechanic, chemic, and thermic irritants. No change in acuteness of taste was apparent; pruritus and spontaneous pain were absent. A portion of the reddened area, including some of the adjacent normal-looking mucous membrane, was excised and studied histologically. The principal changes consisted in a proliferation of the endothelial cells of the corium, accompanied by edema and leukocytic infiltration in the neighborhood, together with a heightened proliferation of the cells of the rete mucosum. Frequent examination of the tongue during a period of several months showed a continual rapid shifting in position of the reddened areas. The eruption appeared evenly and simultaneously over a given area, subsiding in a like manner. At no time was an excessive epithelial proliferation noted, such as is seen in superficial wandering glossitis. Local applications were without effect. As the patient was subject to more or less constant symptoms of digestive disturbance, these phenomena were carefully studied. Upon rising in the morning, there was a sense of nausea and unrest in the stomach, a bad taste in the mouth, and much eructation of gas. After the ingestion of food, and sometimes before, there was regurgitation; the appetite was excessive. At periods of from 1 to 2 hours after a meal, the patient had spells of extreme drowsiness. He thought he had ruined his digestion by abuse of alcohol and tobacco. The empty stomach extended 2 or 3 fingers' breadth below the umbilicus; its capacity was 1,800 cc. The **gastric contents,** expressed one hour after an Ewald test-meal, showed the following characteristics: Quantity, 80 cc.; odor, normal; reaction acid to litmus; no free acids present to Congo-red test; no free HCl; no lactic, butyric, or acetic acid; total acidity, 0.36 grams per mille; rennin, ¼ normal. Small amounts of pepsin were present. The acidity of the contents was due presumably to the test-meal, which, in infusion, had a total acidity of 0.4 grams per mille. The condition of **achlorhydria,** such as existed in this case, occurs in atrophy of the glandular structure of the gastric mucous membrane; it may also occur as the result of a permanent disturbance of the nutrition or innervation of the gland-cells unassociated with the pathologic changes in the cells which occur in atrophy. The record of the prolonged alcoholic abuse and the history of the progress of the case argued in favor of the former condition, the so-called **gastritis atrophicans.** Under regulation of diet, capsicum and sodium bicarbonate, and strychnin, and of belladonna for the salivation, the condition improved, but the urticaria of the tongue did not. Assuming that the latter might depend on intestinal sepsis, **salol** was given, with good results. Benzonaphtol was substituted for the latter drug, and proved beneficial, but only temporarily. Under the reemployment of salol the urticaria remained in abeyance. [D.R.]

5.—Fenger recommends the transverse union of a longitudinal incision as an excellent means of overcoming or preventing stenosis of the intestine, and illustrates the method by the description of a case of appendicitis in which evacuation of the abscess resulted in a fecal fistula. At the operation for the cure of the fistula a spur of mucous membrane, 1 cm. square, projected from the upper corner of the opening, being connected with the proximal loop of bowel. The incision was lengthened, both proximally and distally, until the longitudinal opening was 3 inches long, and then the edges were united transversely.

The longitudinal incision should be made in the middle of the convex surface of the intestine, and in the freely movable small bowel may be 5 or 6 inches in length, or even longer. This plastic operation, when applied to resection and circular suture, will enable the surgeon to avoid narrowing of the intestine by folding in of its wall at the place of suture. A number of cuts in the article serve to facilitate the understanding of the author's points. [D.R.]

6.—Collins reviews the literature of **brain-abscess** for the past year and finds that the most potent factor in contributing to the great mortality of this disease is the failure to recognize its existence before it has produced septic complications or profound exhaustion. Surgical technic has apparently little if anything to do with it. Regarding otitic brain abscesses he believes that as they are most frequently situated in the temporal lobe or cerebellar hemisphere of the same side, the surgeon should explore first the one area and then, if the abscess is not located, the other. Delay to operate until the appearance of unequivocal localizing symptoms, or procrastination by operating on the mastoid after symptoms of brain abscess are evident, is a greater injury to the patient than subjecting him to an exploratory trephining. [D.R.]

Deutsche medicinische Wochenschrift.

April 6, 1899. [25. Jahrg., No. 14.]

1. The Fundamental Law of Medical Organotherapy and its Importance in General Practice. H. Schulz.
2. The Ultimate Result of Operative Treatment in Ectopia Vesica. Sonnenburg.
3. Demodex s. Acarus Folliculorum and its Relation to Inflammation of the Eyelids. K. Joers.
4. An Operative Case of Absence of the Radius in both Arms. v. Bardeleben.
5. Technic of the Operation Upon Adenoid Vegetation in the Nasopharyngeal Region and Peritonsillar Abscesses of the Palate. E. Barth.
6. Struma Maligna with Copious Bleeding of Varixes of the Esophagus. H. Hellendall.
7. A New Ankylostoma and its Peculiarity. J. Goldsmith.

2.—Sonnenburg, in cases of **ectopia of the bladder,** recommends that the bladder be excised and the ends of the ureters be brought and sutured to the edges of the penis. This allows of the easy collection of urine into some sort of apparatus worn by the patient. [G.B.W.]

3.—Joers shows that there is no causative relation between the **acarus folliculorum** and certain forms of blepharitis, as in 64% of cases the parasite was found in healthy lids, without causing the slightest symptom. [G.B.W.]

4.—In this case of double club-hand, the **non-existence of the whole of each radius** was easily diagnosed. The operation consisted in dislocating the ulnæ radialwards and then splitting the ulnæ like a fork, so that the carpus could be placed between the prongs. Sutures were used to retain the parts in position, and a retention-bandage was applied. Good functional results were obtained. [G B.W.]

5.—Probably the easiest and quickest way to remove the **pharyngeal tonsil** is by means of Hartman's conchotome, which has the only disadvantage in that care must be taken not to engage a portion of the uvula. The opening of **peritonsillar abscess** is easily and accurately done by the following method: Palpate with blunt-point probe for point of especial tenderness, find pus with hypodermic needle, and then incise. If the abscess lies particularly deep dull dissection with the finger or forceps is often necessary. [G.B.W.]

6.—The case occurred in a woman of 58, who had goiter which increased rapidly in size; she had repeatedly vomited blood which, in the beginning was of a dark color, but after the hemorrhage had continued for a time became bright red. The thyroid tumor had grown to be very large, reaching from the lower part of the larynx down the neck and along the sternum, the lower border being found at the xiphoid process. Death occurred, and at the postmortem it was found that the tumor had grown through the sternum, destroying the greater part of this bone. The first rib on the left was involved; in both jugular veins were white thrombi; in the esophagus were large varices which were due to the pressure of the tumor. The tumor itself was diagnosed a **struma maligna.** The microscopic examination showed that on the exterior portions of the growth it was distinctly carcinomatous. Therefore Hellendall decides that it was a peculiar form of growth not previously described, and was a combination of malignant adenoma and carcinoma, since the portion of the tumor not evidently carcinomatous was certainly malignant owing to its rapid and destructive growth. This portion corresponds with struma maligna, which often shows no carcinoma or sarcomatous structure. The varices of the esophagus are interesting because it seems to be the first report of the occurrence of the esophageal varix situated in the upper ⅔ of the esophagus and due to pressure. [D.L.E.]

7.—Goldschmidt describes **ankylostomiasis** as endemic on the island of Madeira. There are two especial seats of the disease. In the neighborhood of Porta da Cruz the people live under the most unhygienic circumstances, mixing with each other with great freedom; here the disease was originally extremely severe. The other focus is in the town of Sao Martinho; in the latter district the hygienic conditions are much better, and the disease has always been much milder. It seemed to have been carried originally by a sailer from the tropics who came to this region; the people in the neighborhood became infected and there appeared a fatal disease which was unrecognized until Goldschmidt's friend, Machado, investigated and found that it was ankylostomiasis. The treatment with felix mas and thymol has been very effec-ual. Deaths now rarely occur, and the disease is being stamped out. [D.L.E]

April 13, 1899. [25. Jahrg., No. 15.]

1. Concerning the Affections of the Respiratory Apparatus in Typhoid Fever. A. FRAENKEL.
2. Leukocytosis and the Iodin-reaction in the Leukocytes. S. KAMMIER.
3. The Hematologic Picture of Lymphemia without the Anatomic Lesions, Occurring at the End of a Severe Anemia. E. KORMOCZI.
4. Remarks Concerning the Movements of the Intestinal Contents. GRÜTZNER.
5. On Cardiac Insufficiency and its Treatment. THURN.
6. The Observation of Cardiac Arrhythmia by Means of the Röntgen Rays.

1.—Fraenkel first directs attention to the confusion that as existed concerning the use of the term **pneumo- yphoid** which has been given to pneumonias which run a ourse resembling that of typhoid fever but have absolutely o relation to the latter disease, to those that are associated ith active typhoid of the abdominal organ but in which the neumonia is due to the pneumococcus, and in the third lace to typhoid cases which have symptoms of pneumonia s the most prominent elements in the case and which are robably due to the typhoid bacillus or to its effects working n association with other bacteria. He insists that the clini- al observation of such cases is insufficient for the positive iagnosis of pneumotyphoid. One case is detailed in which e whole appearance of the patient, the course of the dis- ase, the occurrence of enlargement of the spleen, of an ruption of rose spots on the abdomen, together with signs f consolidation of the lung, made the case seem to be neumotyphoid. At the autopsy, however, an ordinary pical fibrinous pneumonia of the right upper lobe and ortion of the left lower lobe was found, and there was abso- tely no typhoid of the intestines. There was enlargement f the spleen. [This history, without bacteriologic examina- on, does not exclude the pneumotyphoid.] In discussing ypical pneumonia Fraenkel now states that he has made cteriologic examination of numerous such cases to see hether there was mixed infection in the cases examined d has without exception found that they were due to the eumococcus. The probability of finding other micro- ganisms in these cases is great since the sputum, if this is amined, is likely to be loaded with such other bacteria ming from the mouth and the pharynx; but if the strep- coccus, which is often found in these cases, be injected into ice it will be found that subsequent cultures will give pical lancet-shaped cocci. [D L.E.]

2.—Kammier has found 3 stages of the **reaction of the ukocytes to iodin.** In the first there is a slight diffuse ddish coloration of the protoplasm; in the second the color localized, and one sees it in the form of intensely stained anulations and flakes; in the third there seems to be a neral metamorphosis of the protoplasm into the substance hich stains with iodin. The second stage is the one most quently noted. He has rarely seen the substance outside the leukocytes. There were no diseases of which this could said to be diagnostic. It occurred regularly in suppura- n, also in puerperal septicemia when there was no localized ppuration. He has never seen it excepting in connection th leukocytosis; leukocytosis was, however, noted repeat- ly without the iodin-reaction being present. The nature the substance has given rise to discussion. In order to whether it might be glycogen, he investigated several ses of diabetes, but since in all these cases except one the action was absent, it seemed probable that it was not gly- gen. In this one case in which it was present there was o from some cause a leukocytosis. He does not find that is an accompaniment of cachexia unless the cachexia be companied by suppuration, and the three factors which he ds active in causing it are fever, leukocytosis, and toxemia. perimentally he has been able to produce the reaction in umber of guineapigs which had been injected with diph- eric toxin—in 13 of 15 which had fever, while of 5 which d no fever, the reaction was absent in 4. Substances which duced leukocytosis without causing fever and with which re was no toxemia, such as spermin, gave no reaction; d blood poisons, such as potassium chlorate, did not give the reaction. He believes that the substance which causes it is one that has chemotactic action. [D.L.E]

3.—The patient in this case of **anemia** was a man of 50 who had lived in a very damp dwelling. His illness began one month before admission with disturbance of the stomach; he was found profoundly anemic; there were numerous petechiæ over the body; the blood was very pale and contained but 2,300,000 red cells, and these within 3 weeks became reduced to 1,600,000; the hemoglobin was 30%, subsequently reduced to 20%; the leukocytes were at first 6,000, but suddenly 3 days before death were found to be 107,000 to the cm. Red cells showed marked changes in size and shape, and megaloblasts were present. Large numbers of the white cells were mononuclear, and they showed the most striking variations in size, ranging even from 2 to 24 microns in diameter; the nuclei were large, and nearly filled the cells. At death there was found excessive anemia of all organs, the lymphatic glands were atrophic, the spleen anemic and not enlarged, the medulla of the bones red, there was fatty degeneration of the heart. The bone marrow showed an extremely variable picture. There were a few cells containing fatty granules, but the chief part of the marrow was composed of cells, which were various in type, but largely resembled lymphocytes. There were some nucleated red cells found. The lymphatic glands, when examined microscopically, were found atrophied to an extreme degree. [D.L.E.]

4.—Grutzner states that if small particles be introduced into a physiologic salt-solution, and the whole injected into the rectum, the particles will be able to traverse the colon so far as the iliocecal valve; if the mixture be introduced into the intestine at any portion, it will be carried both downward and to a considerable distance upward. There are, therefore, **peristaltic and antiperistaltic movements normally in the intestine.** He believes that, although the contents of the intestine finally reach the lower part of the bowel, they get there by pendulum-like movements, moving first downward, then upward, then downward—the downward tendency being, of course, the greater. He states that the iliocecal valve does not provide an absolute obstruction to the passage of contents from below upward, as he has found that small bodies introduced into the rectum will pass up over this valve, particularly when the small intestine contains much fluid. He does not mean to raise the question of movements of large masses upward through this valve, but he does consider that small particles may be passed up. Large numbers of negative results in the experimental investigation of this question do not, he considers, disprove his statement, since, in a few instances, it has certainly been observed. [D.L.E]

5.—Thurn discusses the form of **insufficiency of the heart,** which he believes, contrary to some others, is due to moderate over-strain followed by compensatory hypertrophy, the over-strain being repeated at intervals, and at the same time becoming too great for the heart to compensate for it. The symptoms which he considers of importance in indicating a necessity for treatment are: (1) slow pulse with energetic cardiac contraction; (2) continued rapidity of the pulse, and even when the patient is absolutely at rest, objective and subjective dyspnea; (3) a disproportion between the excited heart-action and the soft small pulse. [D.L E.]

6.—Riegel teaches that the most frequent cause of irregularity of the heart action is **bigeminal and consequent alternating pulse,** and this he emphasizes by stating that by careful examination of the heart one may find double the number of contractions at the heart that are discovered at the radial; the proof of this is afforded in the present observation. A man of 26 who had been over-working had flashes before the eyes, distress in his chest with normal lungs, slight increase of the cardiac dulness, weakness of the impulse, and slight diastolic murmur. In one of his attacks of thoracic distress he was found to have excessively slow pulse, about 40 per minute, and with the phonendoscope one heard a very weak sound between each of the slow, well-marked, cardiac contractions, and upon observation with the fluoroscope it was possible to observe at the time of occurrence of this weak tone an ineffectual cardiac contraction. [D L.E]

Dr. John B. Roberts, of Philadelphia, has resigned as Professor of Surgery in the Woman's Medical College.

Wiener klinische Wochenschrift.

March 30, 1899. [12. Jahrg., No. 13.]

1. Spontaneous Gangrene in Young Children. ZUPPINGER.
2. The Theory of Thread-Formations in Serum-Reaction as Described. M. PFAUNDLER.
3. The Pathogenesis of Dura Mater Epilepsy. Critical Remarks on Prof. Prus's Treatise "Upon Guiding Ways and Pathogenesis of Dura Mater Epilepsy" in No. 38 of the *Wochenschrift*, 1898. UNVERRICHT.
4. Reply to Prof. Unverricht's Paper, "The Pathogenesis of Dura Mater Epilepsy." J. PRUS.
5. Supplement to the Article, "Isolated One-sided Traumatic Paralysis of the Trochlearis." S. KLEIN.

1.—The case of a girl 5 years old is reported who was taken with the signs and symptoms of croupous pneumonia of the left lower lobe of the lung. The crisis occurred on the sixth day of the disease. The next afternoon there was severe pain in the great toe and on the following morning the right foot was blue up to the malleoli; in the course of the forenoon the blue discoloration extended to the middle of the leg, it appeared on the right elbow and on a place the size of a palm of the hand on the left shoulder-blade and over a larger surface at the lower part of the back. Vesicles formed, complete death of the tissue took place and in two weeks the line of demarcation had formed. The child entered the hospital with slight fever, very anemic and with almost no appetite. An amputation of the leg was undertaken; 3 weeks later complete healing had taken place, the defects in the skin had diminished in size, the general condition was improved and 2½ months later the child left the hospital almost completely well. The family-history was good and no cause for the condition is known. In a search through literature Zuppinger has not been able to find a case of this kind occurring in children. Abstracts of similar cases occurring in adults are given and various theories as to the etiology of the condition are discussed. [M.B.T.]

2.—In 1897 Pfaundler described a peculiar reaction under the name of **fadenbildung** (thread-formation), for which we would suggest as the English equivalent the term **filamentation.** It consists in the formation of long interwoven threads when dilute blood-serum and a culture of bacilli are brought together. Filamentation is generally accompanied by a clearing of the mixture and a precipitation. In typical cases no free bacterium is visible, all are united in threads and skeins. The reaction only occurs when the serum and the microorganism came from the same individual—thus when three persons are suffering from infection with the colon-bacillus, their serums (S_1, S_2, S_3), will act on the colon-bacilli isolated from the disease-products (C_1, C_2 C_3) in such a way that S_1 produces filamentation only in C_1, and not in C_2 or C_3; the other serums act in an analogous manner. It appears from this that in their symbiosis with the body-cells and fluids the microorganisms become **individualized.** This individualization is preserved outside of the body on artificial media for several generations. Individualization and the power of forming threads, which is its expression, are only acquired when the infection has lasted for some time. It was possible by the injection of indifferent colon-species into guineapigs to develop the reaction so that the serum produced filamentation in the bacilli isolated from the animal in strength of 1 to 80. Attempts were also made to "desindividualize" colon-species. A colon-bacillus isolated from a case of cystitis, which form threads in the serum of the patient, was passed through a guineapig. The serum of the patient still agglutinated the bacillus, but no longer caused filamentation. By growing the microorganisms on unfavorable culture-media they may also be desindividualized so that they no longer form threads with the serum of the case from which they were isolated. The morphologic and cultural properties of the bacilli are in nowise modified by the individualization and desindividualization experiments; only the virulence suffered manifold changes. As to the **mode of origin of filamentation** Pfaundler believes that the phenomenon is brought about by **multiplication** of the bacteria in the serum without their separation. Regarding the relationship between **filamentation** and **agglutination** he expresses himself as follows: Filamentation is only seen when the serum (diluted) is brought in contact with a species of microorganism that for some time has vegetated in the individual furnishing the serum; agglutination occurs when the serum acts upon microorganisms intimately related to the one producing infection. Agglutination is therefore the expression of a specific modification of the serum, filamentation the expression of a specific modification of the serum, plus a specific modification, an individualization of the microorganisms in the infected body. Filamentation is the evidence of a counter-reaction of the microorganism to the reaction produced by it in the body of the individual infected. The **practical value of filamentation** in diagnosis is as yet limited. In the first place, the reaction is not constant; secondly, it has so far been studied thoroughly only in bacillus-coli. Whether the typhoid bacillus forms typical threads is still doubtful. There is apparently no relationship between the protective power and the thread-forming power of the serum. As another illustration of the possibility that microorganisms may suffer a specific individual modification, the author cites the fact that sometimes a child that is exposed to measles by reason of a sister or brother having the disease, escapes only to take the exanthem at the next epidemic. He explains its escape in the first instance on the ground that the measles-poison suffered a modification, in the direction of an attenuation, in the sick children; the measles of the family became less harmful for another member of the family than the "foreign" not yet "familiarized" poison. [D.R.]

3 and **4.**—These are controversial articles arising from a publication of Prus' on the pathogenesis of cortical epilepsy. [D.R.] (See Editorial, PHILADELPHIA MEDICAL JOURNAL, 1898 Vol. II, p. 808.)

Berliner klinische Wochenschrift.

March 13, 1899. [36. Jahrg., No. 11.]

1. Test of Two New Mercurial Salts as to their Value as Antiseptics, Compared with Sublimate. F. STEINMANN.
2. The Danger of Infection in Tuberculosis. G. CORNET.
3. Upon the Influence of Strong Muscular Activity (in bicycle-riding) on Diabetes. A. ALBU.
4. Concerning Abdominal Surgery (conclusion). KÖNIG.
5. The Duty of Reporting Syphilitic Diseases. O. ROSENTHAL.

1.—Many efforts have been made to find an antiseptic that, while possessing the power of corrosive sublimate, should be free from its disadvantages, which are: (1) Its poisonous character; (2) its decomposability by albumin; (3) its destructive action on surgical instruments. Under the name **asterol** a soluble preparation of sulfocarbolate of mercury has been placed upon the market, which is not precipitated by albumin. It contains 17% of mercury, hence is about ¼ the strength of sublimate. Steinmann has made experiments to determine the value of the substance; at the same time he tested mercury arseniate, recently suggested as an antiseptic. The latter, however, was proved to have all the disadvantages of corrosive sublimate, without any superiority. Regarding asterol the author's conclusions are as follows: (1) It is soluble in water; the solutions remain clear; (2) it has marked bactericidal action, which it does not lose in albuminous media; (3) its solutions do not cauterize wounds; (4) it has a deep penetrating action; (5) it is useful for disinfecting the hands and field of operation, as well as instruments, as it does not attack the latter; (6) although it is as toxic as other mercury-compounds, it can be used without much risk in the antiseptic treatment of wounds. [D.R.]

2.—Cornet defends his doctrine of the **spread of tuberculosis** by dried, pulverized sputum against Flügge's assertions. Flügge maintains that the disease is spread by moist particles expelled by phthisical patients during coughing, speaking, etc. If this is true the entire system of prophylaxis at present in vogue must be recast. Cornet admits that nearly all the inhalation experiments in the past were made with finely-divided liquid sputum, or with pure cultures, but this was because of the danger for the investigator of inhalation-experiments with dried sputum. Experiments made with the latter have generally failed, but only because of the use of inadequate means. Cornet several years ago made a series of experiments (heretofore not published) with dried sputum, and found that it was able to infect animals as surely as sputum in the moist state. The first experiments failed because of the hygroscopic nature of the dried sputum, which became moist from the vapor in the animals' breath and called itself into lumps which could not penetrate into the deeper air-passages. Eventually Cornet succeeded by reproducing the natural conditions, in infecting the animals. Some phthisical sputum was scattered over a rug on the floor of a room; another portion was dried on glass-plates. Three series of experiments were made: In the first, 12 guineapigs were forced to inhale the dried sputum; in the second, 24 guineapigs were placed in a wooden cage, so arranged that each group of six could be kept at a different level from the floor, the rug being directly in front of the cage. The rug had previously been briskly swept with a broom, so that a cloud of dust had arisen—this the animals breathed; in the last, 12 animals were placed in an open cage 3 meters from the rug, ½ meter above the floor. **Of the 48 animals, 47 became tuberculous,** the first series showing the most extensive lesions. In the second series the lesions were more marked than in the third, and varied inversely with the height from the floor, those nearest the rug showing the most advanced changes. Some of the animals had been made to breathe through the mouth; half of these had acquired tuberculous lesions in the cervical glands, while of those that had breathed through the nose only ⅕ had such lesions; in fact, the former showed in general much more marked changes. Two young guineapigs thrown by a tuberculous mother, were healthy. The danger for the experimenter of such investigations as those detailed above is shown by the fact that Cornet found tubercle-bacilli in his nasal mucus. After that he wore a protective mask. [D.R.]

3.—The author has investigated **the influence of bicycling on diabetes.** He had found that a patient sufferng from a mild form of the disease had borne a moderate amount of riding well, although his condition had not been mproved. His present studies were made on a youth of 20, afflicted with a severe form of diabetes, in whom the sugar n the urine, under ordinary diet, varied from 4% to 7%, and under restricted diet from 1.8% to 5.5%. Urinary tests always showed **a reduction of the sugar after bicycle-riding.** This reduction occurred while the patient was aking a certain amount of carbohydrates. While on a pure proteid diet, bicycling caused no reduction in the output of ugar. Indeed, there was a slight increase, and the beneficial nfluence of the exercise seemed to remain, while the patient was on that diet, entirely in abeyance. Although carefully ooked for, diacetic acid and acetone never appeared in the rine after bicycling; the nitrogen output, although large, ever exceeded the intake; therefore, bicycling did not disurb the nitrogen-equilibrium. [D.R.]

4.—The case of a woman, 33 years of age, is reported, who had suffered with symptoms of biliary colic. Choleystotomy was performed and a large number of gallstones were removed. After 1½ years of health the attacks of colic returned and it was believed that there was a recurrence of he gallstones. With this supposition an operation was ndertaken. The gallbladder was found entirely empty and **tumor of the ascending colon** was discovered which as adherent to the neighboring organs and was extirpated only after a difficult operation of 3 hours' duration. A good ecovery followed and the woman was discharged 6 weeks ter, and has been able to attend to her usual occupation nce. In a second case, a man aged 53, was admitted for evere abdominal symptoms of 2 years' duration. For 10 ears he had had intestinal trouble, but only within the past years had a tumor been noticed. At the operation it was und necessary to excise a piece of the abdominal wall, as rge as the palm of the hand, which was adherent to the mor. The disease had its origin in the ascending colon, ut it also extended to the ilium in that region. In removing a hole was made in the small intestine, which was closed, nd after tying off a large portion of the mesentery the ene ascending colon was excised. An uneventful recovery llowed and the man was discharged 5 weeks later. König s performed a considerable number of such operations th favorable results. One patient is living 6 years after ch an operation, and others have lived for 4 or 5 years thout recurrence. A gunshot wound of the abdomen is orted in which the stomach and colon were perforated. liotomy was performed, the openings were closed and a od recovery followed. [M.B.T.]

March 20, 1899. [36. Jahrg., No. 12.]

1. Upon the Introduction of Foreign Serum into the Blood-circulation. H. Friedenthal and M. Lewandowsky.
2. Upon a New Group of Anilin Colors, and their Significance in the Biochemistry of Cells, and their Availability for Tissue Coloring. H. Roslin.
3. The Etiology and Therapy of Aneurysm of the Aorta. E. Aron.
4. The Danger of Infection in Tuberculosis. G. Cornet.
5. The Influence of Strong Muscular Action (in Bicycle-riding) upon Diabetes. A. Albu.
6. Leprosy in Jerusalem. M. Rickardt.

1.—Animal albumins introduced into the circulation are either toxic or are at once eliminated in the urine without being utilized. This and the danger of bacterial contamination have militated against the employment of these albumins as foods, when introduced more or less directly into the blood. An **albumin to be utilizable** as an artificial food, must be **assimilable, nontoxic, and germ-free.** Blood-serum is germ-free, but that of one species of animal is toxic when injected into the circulation of another animal. Horse-serum seems to possess the least toxic properties in this respect. In large hospitals it may be possible to use the nontoxic human serum. Weiss has claimed that the serum of a male animal is not tolerated by the female of the same species, and is quickly eliminated; and vice versa. The authors, however, deny this, and state that the blood of the sexes can be completely mixed by uniting the carotid of one with the jugular of the other animal, without the appearance of more than a trace of albumin in the urine. In their efforts to **render foreign serums nontoxic,** they based themselves on Buchner's discovery of the globulicidal action of foreign blood-serum. Thus globulicidal property is destroyed by heating the serum for ½ hour to 53° or 55° C. The authors found that serum so heated (to between 55° and 60° C.) had entirely lost its toxic property, and quantities equal to the amount of blood in an animal could be injected intravenously, intraperitoneally, or subcutaneously, without producing poisonous effects. The disappearance of the globulicidal property, as tested in vitro is not always a sign that the toxic property has also been destroyed. If it is desired to use animal-serum for injections in man, the authors recommend that the serum be kept for 2 hours at a temperature of from 58° to 60° C. It assumes then a peculiar opalescence. Regarding the assimilability of "inactivated" serum, they found that 99% was retained, only 1% being eliminated in the urine. They believe that in rare cases the subcutaneous use of heated serum (intravenous and intraperitoneal injections are scarcely to be considered in man) should be tried. [D.R.]

2.—By means of Ehrlich's triacid stain, Rosin showed that the Nissl granules of nerve-cells were apparently basophile. As other observers disputed this, some going so far as to deny the occurrence of any chemical reaction during staining, Rosin endeavored to find some positive proof of an **active chemic process during tissue-staining.** He found that by combining the acid eosin with the basic methylene-blue, both in concentrated watery solutions, a new dye was produced which he terms, provisionally, the **eosinate of methylene-blue.** The tissues decompose this into its components in such a manner that the nucleus is stained blue, the protoplasm red. He also combined various other acid and basic anilin stains, and succeeded in producing a whole series of crystallizable dyes, which, however, he has not studied so thoroughly as the eosinate of methylene-blue. Whenever concentrated watery solutions of an acid and a basic anilin dye are mixed in such a way that the mixture is neutral or nearly so, a voluminous precipitate occurs, which is partly or altogether soluble when either the alkaline or the acid dye is added in excess. The precipitates are usually crystalline, are almost insoluble in water, but are soluble in alcohol. That of eosin and methylene-blue is in the form of needle-shaped crystals, soluble in absolute alcohol, with a bluish-violet color and an intense green fluorescence. From a biochemic standpoint this substance is of the greatest importance. The alcoholic solution is changed by organic acids to a pure blue or bluish-green color. On neutralization, the original color returns. Mineral aids produce the same change, but neutralization does not restore the old color. Alkalies turn the alcoholic solution red; neutralization brings back the original color. In fact, all acid substances are stained blue, all alkaline substances red, and all neutral substances violet. Sections of tissue placed in the alcoholic bluish-violet solution of the pure dye take the stain in such a manner that the nuclei are blue, the protoplasm bright red. Only **the nerve cells are an exception.** In them the protoplasm stains red but the Nissl granules stain blue, while the nuclei are not stained blue. The neutrophile granules in leukemia stain violet. It appears from this that the tissues, even postmortem, have the power of decomposing the stain; numerous methods of fixation and hardening were tried and were found not to deprive the tissues of this power. The fact that the neutral precipitate is only soluble in alcoholic solutions, is a disadvantage for purposes of staining, except for leukemic and perhaps malarial blood. But the disadvantages can be overcome by dissolving the dye in an excess of either the acid or the basic stain. The resultant solutions are no longer neutral, but either acid or alkaline; they contain, however, the neutral dye in solution, and are very useful for staining purposes. [D.R.]

3.—Aron reiterates the importance of **syphilis** as a factor in the production of **aortic aneurysm** and recommends the use of potassium iodid and mercurial inunctions, together with the customary hygienic and dietetic measures, in the treatment, whenever a history of syphilis is obtained or syphilitic infection can be suspected. [D.R.]

4.—Flügge doubted that the bacilli demonstrated by Cornet on the walls of rooms were derived from the dust, and assumed that they had been deposited by actual contact with the hands or in other ways. But Cornet states that he took the dust from the wall at the head of the bed, from the cross-slats on the back of the head-board, etc. In 40 specimens of such dust he was able to demonstrate the presence of bacilli. In answer to Flügge's suggestion that the bacilli might have been deposited by coughing and the consequent scattering of sputum-particles, Cornet asks why bacilli were only found in the rooms of unclean patients who allowed sputum to dry, and not in those who, although they coughed just as much, took care in the disposition of the sputum. Flügge maintains that the mucous particles scattered during coughing produce aerial infection. Cornet admits that bacilli may be scattered during explosive coughing, but as it is only the saliva and mucus from the pharynx and mouth that are scattered, and not the bacilli-containing cavernous sputum, the number of germs forced into the air must be very small. Cornet made 18 patients hold Petri dishes in front of the mouth during coughing; 2 of the dishes showed macroscopic sputum particles, inoculation of which into guineapigs produced tuberculosis; of the other 16, the inoculation of the deposit from 2 only gave rise to the disease; 14 animals remained free from tuberculosis. In another series of 15 patients with bacillary sputum, all the animals inoculated with the deposit on the Petri dishes remained free from tuberculous lesions. Tuberculous sputum is exceedingly consistent, and, moreover, is covered with a coating of tough bronchial mucus—two conditions that prevent the scattering of bacilli in the mouth. The number of bacilli in sputum is vastly greater than that in the mucous particles expelled during coughing. From 219 masks worn during 32 days, throughout the 24 hours, by a number of phthisical patients, Fränkel was only able to collect 2,600 tubercle bacilli. Heller estimated the number of bacilli expelled with the sputum as 300 millions for each clump, or as 7,200 millions a day for a patient expectorating once per hour. In tuberculosis, then, the **"drop-infection" has very little significance,** but it may play a part in the spread of diphtheria, of leprosy of the mouth, and of influenza. Flügge's theories are dangerous in that they arrest the spread of or abolish the prophylactic measures which have yielded such good results in lessening the phthisis-mortality. If Flügge had been content only to point out the danger of scattering bacilli by coughing, and to advise the holding of a cloth before the mouth during coughing, his course would have met with approval. Von Weismeyer has shown that the tuberculous patient never scatters bacilli during coughing if he covers the mouth with the hand or a cloth. Fraenkel recommends the wearing of a mask, but that custom will probably not become popular. Moreover, the patient himself is in danger of inhaling bacilli from the mask when the sputum particles have become dry. Cornet concludes that, as heretofore, patients must be instructed to guard against drying of the sputum; and by holding the hand or a cloth before the mouth during coughing, the danger to others is practically entirely eliminated. [D.R.]

5.—By means of careful bicycling the patient's sugar was reduced more and more, and within 3 months, his grave diabetes was transformed into a mild type of the disease. At times the sugar disappeared entirely. Some months later he acquired syphilis, and then bicycling had no longer any effect in reducing the sugar in the urine. The author quotes the older writers in favor of the use of exercise in diabetes. Muscular exercise is superior, in controlling the glycosuria, to all forms of medicinal treatment. Prerequisites for the institution of treatment by active exercise are a **good heart, good nutrition, and firm muscles.** The degree of glycosuria is no contraindication. The effect of the exercise must in the beginning be carefully tested. If bicycling is to be the exercise it may be well to let the patient begin on a tricycle. Walking is of but little value; some form of sport, such as mountain-climbing and bicycling, is required. The exercise leads to a burning up of sugar in the muscles, and correspondingly less sugar is excreted through the kidneys. In severe cases of diabetes the exercise should be begun with the patient on carbohydrates; later these may gradually be reduced. Regarding the **best time for the exercises,** they should follow soon after the carbohydrate ingestion—after breakfast and after the noon-meal. [D.R.]

Neurologisches Centralblatt.

May 1, 1899. [18. Jahrg., No. 9.]

1. A New Algesimeter. W. von Bechterew.
2. Contribution to the Physiology of the Trigeminus and the Sensibility of the Mucous Membrane of the Mouth. Herman Schlesinger.
3. Mikrogeria and Mikrophthalmia. Kalischer.

1.—Von Bechterew, dissatisfied with the various forms of instruments for testing the pain-sense, such as those of Buch, Motschutkowski, and Kulbin, has devised a special form of apparatus, the essential principle of which is that a concealed needle is thrust into the body by a spring within the instrument itself. The distance that the needle enters the skin is regulated by a micrometer screw. As an additional modification, he is in the habit of introducing a dynamometer between the hand and the instrument itself, in order to register the amount of pressure exerted upon the skin, which modifies considerably the degree of irritation of the peripheral nerves. This has the additional advantage in enabling the investigator to determine the pressure-sense. Finally, an electrode may be attached to the end for the purpose of testing the electrocutaneous sensibility. The author hopes that in the future the apparatus may be still further improved. [J. S.]

2.—Schlesinger has endeavored to determine the segmental arrangement of the sensibility of the face and the mucous membrane of the mouth, and the relation between the two. His investigations have been made upon 5 cases of syringomyelia, and 1 case of tumor of the cervical cord, the lesions in all cases progressing steadily upwards. The first area that becomes anesthetic in the face lies just outside the frontal region, and is followed by the development of sensory disturbances in the rest of the frontal region near the border of the hair. It then extends downward to the eyebrows, where progress in this direction ceases for a time, and the anesthesia proceeds forward from the side, and gradually involves the outer halves of the upper and lower lids. This is followed by the involvement of the nose with the exception of the bridge and alæ. This peculiar distribution leads Schlesinger to conclude that the innervation of the skin supplied by the superior branch of the trifacial is controlled by at least 2 nuclei, the most distal supplying everything except the skin of the nose. He believes that the three branches are arranged so that the nucleus for the superior is most distally placed; then come the ganglion cells for the third branch; and between these and the pons is the nucleus for the second branch and the nasociliary and ethmoidal nerves. The dissociation of sensation is frequent, and indicates the considerable separation between the paths for the conduction of pain and temperature, and for the conduction of touch-sensation. The examination of the sensory areas of the mucous membrane of the mouth showed that it corresponded in distribution closely to those of the external skin, proceeding from behind gradually forwards. Therefore, the posterior parts are controlled by the nuclei nearest the spinal cord, although it is possible that variations from this arrangement may take place. The pharynx, the soft palate and the tonsils maintain their sensation long after the cavity of the mouth has become completely anesthetic and analgesic, [J.S.]

3.—Kalischer reports the case of a child, 5 months of age, born at full term, the mother being apparently healthy. The father was a chronic drunkard. Development was imperfect, and shortly after birth convulsions occurred lasting several minutes, and repeated as often as 20 times a day. Motility of the limbs was normal. The patellar reflexes were exaggerated. There were no asymmetries of the skeleton, but in the lower dorsal region there was an angular kyphosis. The left eye was distinctly smaller than the right. At the autopsy, the membranes, aside from congestion, were normal. Many of the gyri in the frontal, occipital, and parietal lobes were smaller than normal, and granular on the surface. Otherwise, the brain showed no gross lesions. In the left orbit there was a cyst about 13 mm. by 16 mm. in size, which appeared to surround the optic nerve. Microscopically, it was found, however, that the nerves simply passed along it. The wall of the cyst consisted of a reticular mass of neuroglia. The left optic nerve was smaller than the right, otherwise no changes were found in either optic tract. In both nerves, however, there were numerous bundles of fibers that appeared to lie outside the sheaths. Not only the shrunken gyri, but also those apparently normal, showed extensive changes consisting in the penetration of the brain-substance by septums from the pia mater which divided the cortex into larger or smaller areas. The blood-vessels were extremely altered, many of them being obliterated by sclerotic changes. The neuroglia was coarse and irregular. It contained no spider-cells, and only a moderate number of neuroglia-nuclei. The various layers of the cortex were considerably distorted by these bands of connective tissue and neuroglia tissue. It contained numerous pyramidal cells. The myelinated fibers did not appear to penetrate the cortex for any considerable distance. Kalischer believes that mikrogyria is simply a term applied to a number of pathological conditions. He believes that the presence of the cyst and the mikrophthalmia indicates the time of the origin of the process, which he regards as a malformation. Mikrophthalmia is frequently associated with malformations with other portions of the brain. [J S.]

Centralblatt für Gynäkologie.

February 18, 1899. [23. Jahrg., No. 7.]

. Four Cases of Vesicovaginal Fistula Operated on by the New Method of W. A. Freund. Georg Romm.
. Two other Cases of Vesicovaginal Fistula operated on by the Freund Method. E. Kahn.
. Hot Vaginal Irrigation. F. Walzer.

1.—Romm reports 4 cases of **large fistula** which he operated on with splendid results by the Freund method, after having tried various others. He freshens the edge of he fistula, makes an incision in the posterior fornix of the vagina, freshens the posterior wall of the uterus, and brings he fundus down through the opening into the culdesac, and titches the freshened posterior uterine wall into the opening n the anterior vaginal wall. He then closes up the culdesac and perforates the fundus of the uterus to allow the menstrual luid to escape. The necessary torsion of the uterus and broad ligaments soon brings about an artificial menopause by cutting off the blood-supply. In one patient, 21 years old, here appeared between the labia a darkened tumor the size f a walnut, which was the everted mucous membrane of he bladder. The opening in the bladder would admit hree fingers. The second patient, 42 years old, had a fistula he size of a thorn-apple through which the vesical mucous membrane protruded. It would allow the passage of three ngers into the bladder and occupied some three-fourths of he anterior vaginal wall. Nine months after the operation he patient could retain the urine 4 to 5 hours, looked rosy, ut did not menstruate, showing the uterus had evidently trophied and the vagina had shortened. The third fistula would admit two fingers. The patient had been operated on twice before Freund's operation was tried, it being held as the last resort. In this case the fundus of the uterus was not perforated. The patient left the hospital in six months in good condition. The fourth case was that of a woman 30 years old who had previously undergone the usual operation without benefit. Ten weeks after the injury, when the opening would admit two fingers, Freund's operation was tried and found effectual. When heard from three months later the patient was perfectly well. On account of the rapid atrophy and shrinking of the uterus with cessation of menstruation in the first two cases, Romm concludes that he would not perforate the uterus in any future cases. [W.K.]

2.—Kahn reports **two cases of Freund's operation,** in the first of which the fistula would admit two fingers. Other methods of operating had been tried but without success. He did not close the Douglas pouch after having brought the fundus of the uterus into the vagina, but packed it with strips of iodoform gauze. The patient made a good recovery, voiding the urine spontaneously in 3 weeks after the operation. In the second case in which the fistula was nearly as large as the first, the recovery was somewhat protracted owing to a small fistulæ in the stitch-holes which had to be closed later. It was also complicated by the uterus being anteflexed before the operation, causing the additional risk of gangrene of the uterine tissue from the necessarily greater torsion. Kahn claims that although this operation is always to be preferred to colpocleisis, yet it is only applicable when the ordinary methods fail, and is not to be adopted save as a last resort. [W.K.]

3.—Walzer has devised for irrigating the vagina an instrument which is of a convenient size, moderate price, easily disinfected, and can be managed by the patient herself in a comfortable position without the use of bedpan or support. It can be used in winter under the bedclothes, in an unheated room. It is inserted as a speculum and is provided with a uterine tube which can be lengthened or shortened at will. An influx tip is attached to the tube of the fountain syringe. There is also a reflex tube with a rubber stopper by means of which the discharge can be checked by the patient herself and the vagina distended. This instrument protects the vulva and the perineum from the hot water. [W.K.]

Centralblatt für innere Medicin.

May 6, 1899. [20. Jahrg., No. 18.]

Hemorrhage from the Kidneys, and Diazo-Reaction with Grip. A. Köppen.

Several cases are noted, in which grip showed a hemorrhagic tendency. Köppen then describes two of his own cases, in which there was hemorrhage from the kidneys. He then considers the occurrence of the diazo-reaction; in the two cases just mentioned the reaction was marked; in 4 cases now detailed, there was slight diazo-reaction, and it persisted for but a short time. From the examination of this extremely small number of cases, he puts forward the suggestion that the severity of the disease may be determined by the strength of the reaction, since they run parallel with each other, and he believes the diazo-reaction indicates the amount of toxemia. [D.L.E.]

Centralblatt für Chirurgie.

May 6, 1899. [26. Jahrg., No. 18.]

The Determination of the Position of Foreign Bodies by Means of the X-Rays. R. Galeazzi.

The location of foreign bodies by skiagraphs taken in different planes is described and illustrated by several diagrams. [M.B.T.]

Revue Mensuelle des Maladies de l'Enfance.

March, 1899.

1. The Rachitic Head. Jean Bonnifay.
2. Precocious Dentition. V. Joukovsky.
3. Does there Exist in the Newborn a Stenosis with Congenital Hypertrophy of the Pylorus? R. Romme.

1.—Bonnifay, as the result of numerous **measurements**

of the heads of rachitic children at various ages, which are tabulated in his article, concludes that, (1) in the first period of rickets the absolute dimensions of the head are generally diminished; (2) after the fifth year these same dimensions are on the contrary augmented; (3) considered in relation with the trunk, the head of the rachitic is constantly greater than the normal, this deficiency of proportion between the head and the trunk being the striking characteristic of rachitis; (4) this defect of proportion between trunk and volume of head goes together with a defect of proportion between various dimensions of the head. [S.M.H.]

2.—Joukovsky describes **two types of teeth.** In the one variety the teeth are modified in structure and form. They are small, diminished in all their dimensions, and sometimes atrophied and carious at birth. They are always covered with a discolored enamel and are movable in their sockets. These teeth not only begin prematurely, but are placed superficially, the crowns developing before the complete formation of the gum. The second variety pertains to the true teeth, which are very solid. Joukovsky reports a case of this character. The family-history showed no hereditary predisposition; there was no history of syphilis; the maternal grandmother died of phthisis. There was nothing specially abnormal noted about the child at birth. At the first nursing the mother recognized some defect, and on examination there were discovered two congenital teeth, the lower median incisors. The right was larger than the left and pushed it forward. The teeth were very solid in their sockets, and when first examined there was no mobility. In form and color they resembled the normal teeth. There was no local modification of the gum. The general state of the infant was perfect. On the fourth day the mother complained of pain at each nursing, and inspection of the infant showed ulcerations on the inferior part of the tongue, and a very pronounced inflammatory reaction around the teeth. The lingual aspect of the gum was in particular the seat of a considerable tumefaction. It was hot and deep red in color. With this, the teeth loosened and the surrounding gums became rather fungoid and bleeding. The teeth were considered the cause of the trouble and also of the existing excoriations on the breast of the mother. The injury to the gum caused by the teeth was evidently accompanied by infection. Following the advice of Henoch, that the extraction of these precocious teeth is absolutely necessary in order to avoid the development of morbid process in the alveoli, the teeth were immediately extracted. They resembled in every particular the normal milk-incisors. The cause of the development of these teeth is not known. The possibility of a periostitis commencing during fetal life is suggested. That the condition does develop in a state of perfect development and nutrition is distinctly shown by this case and by others, and it is also shown that it develops in conditions of defective development of the skeleton, as in rachitis. [S.M.H.]

3.—Romme reviews the subject of **stenosis with congenital hypertrophy of the pylorus in the newborn.** The symptoms by which the condition is ordinarily recognized are (1) vomiting following soon after the ingestion of small quantities of food; (2) visible peristaltic movements of the stomach; (3) a resisting tumor in the region of the pylorus; (4) eventual dilatation of the stomach. A number of cases of this condition have been recognized and reported, and it has become rather generally recognized as a pathologic condition. Pfaundler, however, basing his views upon anatomic and clinical evidences, does not accept the existence of such a condition. His reasons therefore are as follows: Examinations made on the cadaver show that the stomach of the nursling may present itself under one of three forms: in the first the stomach is relatively large, its walls throughout thin and relaxed. When placed on a flat surface without being stretched, the large and small curvatures form the arcs of regular circles, the circumference of which augments progressively from the pylorus towards the cardia. This he calls the diastolic stomach. In the second group, which he defines as the systolic stomach, the organ is relatively small, its walls thickened and hard throughout. Placed on a flat surface it appears as a narrow, elongated, irregular tube. The large and small curvatures form two zigzag lines. Generally one finds two contractions circularly situated, the one between the body of the stomach and the tuberosity, and the other particularly indicated between the body of the stomach and the cavity of the pylorus. Between these two types of stomach there is an intermediary one, in which a part only of the stomach seems thickened, stiff and hypertrophied. Oftentimes this condition manifests itself exclusively in the region of the pylorus, the thickened walls of the pylorus resembling a tumor, covered internally by a wrinkled mucous membrane. The pyloric orifice is narrowed and only permeable to a sound of small caliber. Often also the pylorus forms in this case a tumor on the duodenal side, which resembles in appearance the neck of the uterus.

Microscopically, sections of the diastolic stomach show a normal structure. In the systolic stomach the muscular fibers are thickened, hypertrophied, and wavy. The mucous membrane and other coats of the stomach seem normal, or present various lesions in cases where the child has had digestive disturbances during life. Pfaundler has shown that if one injects water under feeble pressure into the systolic stomach, it takes on almost immediately the aspect and form of the diastolic stomach. Its walls become soft and flexible and the greater and smaller curvatures are more rounded, the tumor formed at the pylorus disappears, and the pyloric orifice, which seemed contracted, takes on normal dimensions, and if then examined under the microscope the muscular hypertrophy which formerly existed is found replaced by normal muscular fibers. It is evident, therefore, that the systolic stomach is not a pathologic condition.

According to Pfaundler, neither cadaveric rigidity nor the time at which the autopsy is made nor the affection from which the infant succumbs have anything to do with the production of the systolic stomach, the only factor which can be incriminated is the state of repletion of the stomach at the moment of death. If death follows a long time after the last food, namely, when the stomach is empty, it will be of the form diastolic. If, death follows shortly after the last meal and the stomach contains food, one find at the autopsy the systolic stomach. The latter is therefore simply a stomach fixed and immobilized by death in one of the phases of its functional motion. By these results Pfaundler believes he has show that the stomach of congenital stenosis is merely a hemisystolic stomach, that is to say, normal. From the clinical standpoint he considers this view confirmed by the absence of stenosis, the absence of compensatory hypertrophy, slow appearance of the symptoms and their disappearance under the influence of medical treatment. He admits the existence of a symptom-complex such as that described under this name, but attributes it to a spasm purely functional of the pylorus. Under the influence of inappropriate or irritating food, there occurs an exaggerated sensibility of the sensitive motor apparatus which provokes the contracture of certain parts of the stomach, perhaps a spasm of the pylorus under the influence of simple hyperacidity of the gastric contents. The functional spasm of the pylorus explains equally the clinical symptoms and the pretended anatomical lesions of the congenital stenosis, and make it possible to understand why the symptoms do not appear immediately after birth, why they disappear sometimes under the influence of appropriate treatment, and how the simple contracture (systolic) of the pylorus has been mistaken for a tumor. Accepting this view he naturally opposes gastroenterostomy for the relief of the condition. Narcotics, compresses to the abdomen, prolonged lukewarm baths, and especially systematic lavage of the stomach, serve the purpose very much better. Lavage of the stomach diminishes the muscular tone of the stomach and relaxes the pylorus. Belladonna gives good results in some cases. [S.M.H.]

The Twentieth Annual Meeting of the Louisiana State Medical Society was held in New Orleans May 16, 17, 18. Interesting papers were read and discussed. A banquet tendered by the local profession brought the meeting to a pleasant close. The next meeting will take place in New Orleans April 19, 20 and 21, 1900. The following officers will serve until the next meeting. President, Dr. W. G. Owen; vice-president—for the 1st Congressional District, Dr. Felix Formento; for the 2d, Dr. F. W. Parham; for the 3d, Dr. W. A. Holloway; for the 4th, Dr. T. E. Schumpert; for the 5th, Dr. J. B. Bonney; for the 6th, Dr. G. C. Mouton. Recording secretary, Dr. Hermann B. Gessner; corresponding secretary, Dr. A. G. Friedrichs; treasurer and librarian, Dr. H. S. Cocram.

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.,

of Philadelphia.

Benzoate of Mercury for Hypodermic Use.—Bretonneau and Desesquelle (*Journal des Practiciens*, May 6, 1899) have shown that benzoate of mercury is decomposed n the presence of chlorids, bromids and iodids, and that he drug is best administered in an aqueous solution of neu-ral benzoate of ammonium in which it is perfectly soluble. In this solution it does not precipitate the albuminoids of he blood even after the addition of sodium chlorid. Benzoate of mercury is slightly less toxic than corrosive sublimate, and since it does not precipitate albuminoids, it is decidedly preferable to the latter for hypodermic use. The following solutions are recommended by the writers for hypodermic injection:

℞.—Mercury benzoate	9½ grains.
Neutral ammonium benzoate	47 grains.
Distilled water	2 ounces.

Or,

℞.—Mercury benzoate	9½ grains.
Neutral ammonium benzoate	47 grains.
Cocain	2 grains.
Benzoic acid	9½ grains.
Distilled water, to make	2 ounces.

Proprietary Domestic Disinfectants.—The medical profession is already indebted to Dr. Harrington for pointing out the large percentage of sugar-forming material in most of the so-called diabetic breads. He has increased this debt, his time with the help of Dr. Pearce, by pointing out the haracter of many of the proprietary domestic disinfectants.

The common practice of sending to the apothecary for "a good disinfectant" for use in spit-cups and bed-pans led these wo men to investigate the right of the preparations so sold to e so called.

Twelve preparations examined were as follows: (1) Marsh's nstantaneous Disinfectant, (2) Disinfectine, (3) Platt's Chlorides, (4) Ozonos, (5) Hovey's Chloride of Zinc, (6) Bromohloralum, (7) Chlorinated Soda, (8) Carbolic Purifying Powder, (9) Royal Disinfectant, (10) Excelsior Disinfectant, (11) Phenol Sodique, (12) Preparation of Eucalyptus.

After a few preliminary experiments had been made other reparations were added to the list, as follows: (13) A widely dvertised nostrum for internal and external use, guaranteed to cure almost all cases of disease, and consisting of an aqueous solution of less than 1% of sulphuric acid; (14) carbolic cid, 5%; (15) sulphonaphthol, 5%; (16) a preparation containing a fairly large amount of cresols, 5%; (17) formaldeyd, 1%.

The test-objects employed were anthrax and typhoid cultures, stools from typhoid cases, membrane from diphtheria cases, and sputum from cases of pulmonary tuberculosis. Anthrax was employed solely on account of its high resistance, and not because of its common occurrence in habitaons. The others were employed as representatives of the materials which the public is most commonly advised to erilize without delay.

Of all the agents tried only two, the preparation containing resols and the 1% solution of formaldehyd, made by diluting 5 cc. of 40% formalin with 100 cc. of water, were uniformly uccessful. The carbolic powder (8) and two tar products (9 nd 11) were invariably unsuccessful. Moreover, the cost of he proprietary preparations is much in excess of that of very rge volumes of those agents which yield the best results.—*oston Medical and Surgical Journal*, May 11, 1899.

Pilocarpin in the Treatment of Ranula.—Safranni (*Journal de Médecine de Paris*) states that he has successlly employed pilocarpin hypodermically in the treatment ranula. With the view of forcibly distending the cyst ith saliva and thus driving out the obstruction in the duct e administered ⅙ of grain of pilocarpin hypodermically to atient having a ranula of considerable dimensions. This as followed by a slight reduction in the size of the swelling; second injection, however, effected a cure, the obstruction ing completely removed.

Sodium Glycerophosphate in Nervous Affections.—Kahane (*Gazette hebdomadaire*, February 19, 1899) states that while the treatment of nervous affections is more particularly hygienic and dietetic, yet it is often impossible to dispense entirely with drugs. Recently the glycerophosphates have been widely recommended throughout France. These preparations are of considerable interest physiologically, in that they are the product of the decomposition of lecithin, which plays an important role not only in the nervous system but in the entire organism. Lecithin, which has been isolated in crystalline form by Hoppe-Seyler, has been found in the semen, and blood, in the nervous system, and in the principal organs. The association of the different fatty acids give the different varieties of lecithin. Lecithin is decomposed in the intestine into stearic acid, glycerophosphate, and neurin. Sarano, who studied the action of lecithin, found that when given hypodermically, it improved the appetite, increased the weight, caused a marked rise in the number of red blood-corpuscles, and stimulated tissue-change. Glycerophosphatic acid is a bibasic acid which gives salts readily soluble in water. Sodium glycerophosphate contains 18.8% of phosphorus. Robin, Delage, Murray, Valerdi, and Starr all agree as to the therapeutic value of these compounds in such conditions as neurasthenia, phosphaturia, exophthalmic goiter, and lumbago. In states of mental depression, Robin recommends:

℞.—Calcium glycerophosphate	3–6 grains.
Powdered nux vomica	⅓–½ grain.

Kahane employs the following solution of sodium glycerophosphate:

℞.—Glycerophosphate of sodium	6½ drams.
Distilled water Orange-flower water } of each	13 drams.
Sirup of orange peel	5 drams.

Kahane has used the drug in a score of cases, mostly hysterical and neurasthenic, but in one of exophthalmic goiter, and one of chronic myelitis, and concludes that it is entirely free from deleterious effects, and that while suggestion may have been responsible for the results in some instances, nevertheless close examination has convinced him that in the majority of cases it exerts a decidedly beneficial influence.

The Conduct of the Heart in the Face of Difficulties.—Broadbent (*Medical Press and Circular*, January 18, 1899) says that the recognition of unduly high pressure in the arteries affords one of the most valuable indications for treatment. He believes that it often escapes recognition and that sometimes digitalis is given for the relief of the discomfort which may attend it. This is like knocking the head against a stone wall, for digitalis not only acts on the heart but tightens up the vessels, and so increases the obstruction, which is already too great.

When a murmur is discovered at one of the valve-points, the first thing to be done is to ascertain what the murmur really means—whether, when it is mitral, there is much or little regurgitation; or, if aortic, whether it signifies mere roughness or actual constriction. If, in the case of mitral incompetence, there is any considerable reflux into the left auricle, the first effect will be damming back of the blood entering it by the pulmonary veins, and the obstruction thus created will make itself felt in the pulmonary artery, raising the blood-pressure within it. This high blood-pressure is at once recognized by accentuation of the pulmonic second sound. To overcome the obstruction the right ventricle becomes enlarged, and we learn from the amount of compensatory enlargement required to neutralize the effects of the valvular lesion whether the lesion is severe or slight. When there is no appreciable hypertrophy of the right ventricle, or marked accentuation of the pulmonic second sound, and the patient has no heart-symptoms, the murmur means nothing, and there is no need to interfere in any way with the patient's mode of life, even if this includes hunting, or climbing, or swimming, or cricket. The line, however, should be drawn at football and training for races.

When the enlargement is marked, but there are no symptoms, regurgitation is considerable, but it is neutralized by the compensatory changes. In this case nothing is to be done, but the patient must be warned that the compensation may be easily broken down, and that a single imprudent act of violent or sustained exertion may do irreparable injury.

In mitral regurgitation with dyspnea, enlargement of the liver, distention of the cervical veins, cyanosis, anasarca, and scanty, albuminous urine, the first thing to be done is to relieve the right heart from the overdistention which is paralyzing its efforts. Unless this is done digitalis may simply help the straining ventricle in the work of self-destruction. The nearest approach to a modern therapeutic miracle is seen on bleeding in a good case of this kind, that is, one in which the onset of the severe symptoms has been sudden under the influence of some adequate exciting cause, such as overexertion or chill, in a fairly robust subject with a powerful right ventricle. The venesection must be followed by a good calomel purge, 2 or 3 grains of calomel, with, say, 5 of colocynth and hyoscyamus, and, perhaps, a dose of a saline purgative. Bleeding, however, is too heroic a method for these degenerate days, and it is not always easy to say whether it is really demanded. A good alternative is 6, 8, or a dozen leeches over the enlarged liver, followed up, of course, by the calomel purge. In less severe cases we may content ourselves with the mercurial aperient. The right heart having been relieved, digitalis may be given with excellent effect in different combinations, according to the condition, with nux vomica and ammonia, and perhaps ether, or with acetate of iron and potash. If the edema is considerable it should be drained off by Southey's tubes, and any pleural effusion should be drawn off by aspiration at an early stage. The principle emphasized is that when the heart is in difficulties, we can generally do more for the relief of the patient indirectly by removing the difficulties than directly by aiding it to overcome them. This is the case whether the disturbing influence is external to the heart, as, for example, a dilated stomach, or distended colon, or resistance in the peripheral circulation, or is a secondary effect of disease of the heart itself, as illustrated by overdistention of the right ventricle. If the heart is in a state of fatty degeneration it is useless to give cardiac tonics; but its work can be diminished by keeping down the arterial tension, and a fatal issue may be for a time averted by preventing distention or dilatation of the stomach.

Neuralgia.

℞.—Menthol Guaiacol } of each	1 dram.
Absolute alcohol	10 drams.

Apply twice a day on cotton. —*Therap. Monats.*

Oxycamphor (oxyphor), an antidyspneic and sedative, has been under close observation lately by Alfred Ehrlich (*Centralblatt f. d. gesammte Therapie*, xxii, 1899). This body was introduced by Manasse and studied pharmacologically by Heinz, who found that it was a strong respiratory stimulant. It is a derivative of camphor, in which a hydrogen atom is replaced by an hydroxyl molecule. In commerce it appears as a white, crystalline, odorless and slightly bitter powder soluble 1-50 in cold water, more readily soluble in hot water and in alcohol. Under the influence of light and moisture the powder alters very materially and quite rapidly, becoming a soft, slimy, sticky, yellowish white mass, in which condition it is unfit for use. Experiments were instituted to find a means by which the drug could be given, and it was found that in tablet triturates with milk-sugar it kept fairly well; gelatin capsules filled with the drug kept very well, and a 50% tincture was also permanent. It was also prescribed in the following manner:

Sol. oxycamphor alcohol (50%)	30 minims.
Alcohol	1½ dram.
Sirup of raspberry	3 drams.
Distilled water	6 ounces.

One dram 2 or 3 times a day.

This preparation at times was not well borne by the stomach.

The author tried this remedy in dyspnea due to acute and chronic lung-diseases, in dyspnea due to various cardiac irregularities and diseases, and in nervous dyspnea of various origins.

Some 32 cases were put upon the remedy. In all of these cases, no matter what the cause of the difficulty, some results were obtained approaching a specific action on the breathing, although this beneficial action was not always of the same character. The best results were obtained in dyspnea due to tuberculosis. Good results were also obtained in cardiac insufficiency. In the nervous cases its general sedative action made it extremely valuable. In general, the author employed the drug in doses of from 15–30 grains; any quantity less than 15 grains was of no service, and in no case were over 45 grains per diem administered. No unfavorable effects were noted.—*Merck's Archives*, May, 1899.

Jacobson (*Berlin. klin. Woch.*, April 17, 1899) has employed oxycamphor in 9 cases of pulmonary disease, 5 of cardiac disease, and 4 of renal disease. Very good results were obtained in 7 of the pulmonary cases, in 4 of the cardiac cases, and in all of the renal cases. The drug was also used by Senator in 4 cases of dyspnea with good results. In 2 instances it produced nausea, and in 2 cases it apparently lost its power to relieve the dyspnea. On account of its instability it is recommended in the form of a 50% alcoholic solution. Jacobson concludes that oxycampor his a valuable agent in the treatment of the dyspnea attendant upon pulmonary, renal, and cardiac disease.

The Treatment of the Dropsy of Gouty Nephritis.—In the dropsy of chronic lithemic nephritis we have to deal with a *failing heart*, and our chief reliance must be upon drugs that increase its energy. Digitalis takes the first rank, if there is aortic regurgitation; convallaria, in 15 minim doses of the tincture, is a good drug; either may be combined with:

℞.—Caffein citrate	5 grains.
Sodium salicylate	10 grains.
Spirit of glonoin	1 minim.
Infusion of scoparius	1 ounce.

If there is peritoneal effusion this may be removed by tapping. Pleural effusions should not be rashly interfered with, especially if there is reason to believe they are not recent. These cases are eminently unsuited for purging, it is sufficient to keep the bowels open; for it must be remembered that when dropsy sets in from heart-failure, the end is very near, and may be more easily precipitated than averted.—Soundby in *Renal and Urinary Diseases.*

Naphthalin in the Treatment of Ulcers.—Takowlew (*Vratch.*, February 4, 1899) states that observations extending over several years have convinced him that naphthalin possesses very great therapeutic powers in promoting the healing of extensive sores and ulcers of the skin. The special benefits are particularly obvious in cases of chronic ulcer of the leg. The irregularly-shaped ulcer, with its profuse discharge and ragged edges, is rapidly converted into a healthy ulcer, the base of which becomes covered with healthy granulations. Inflammation and edema of the surrounding skin also subside. The beneficial effects are usually marked after the first week of treatment, being manifested by the diminution of the discharge and the change in aspect of the ulcer. Takowlew, who has employed the drug for the last four years, recommends the following method of application: A piece of cotton-wool corresponding to the size of the ulcer is first dipped for a few minutes in an antiseptic lotion; then naphthalin is spread on it and put on the sore parts; over this a piece of gutta-percha tissue is placed and the whole secured by a bandage, care being taken that the parts, previous to the application, have been bathed and carefully cleaned. At first the bandage is changed after 8 or 10 days; later it may be left for a longer period. The advantages of this treatment are summed up as follows: (1) It greatly expedites the healing process; (2) it does not irritate the parts with which it comes in contact; (3) it is easily handled; the expense is trifling; (5) a point of very great importance—it prevents putrefaction of the discharges.—*British Medical Journal.*

Joint-Pain.—For local treatment in the majority of cases of joint-pain nothing is so prompt and decisive in its effect as acupuncture, followed by accelerating the joint action and bandage support. As a liniment the following formula is often extremely useful:

℞.—Salicylic acid	4½ drams.
Tincture of opium	3 drams.
Dilute alcohol	2 ounces.
Oil of turpentine	1 ounce.
Sweet-oil to make 8 ounces.	

The tincture of opium must be eliminated in growing children. It may be applied by inunction or by saturated flannels. The hand must be well oiled which is to rub it in. —*Practitioner.*

Original Articles.

THE SYMPTOMATOLOGY OF TUMORS INVOLVING THE HYPOPHYSIS CEREBRI.[1]

By JAMES STEWART, M.D.,
of Montreal, Canada.

It is generally recognized that tumors of or involving the pituitary body may, in addition to the results arising from local or general cerebral pressure, induce symptoms directly due to destruction or interference of the function of this structure. It is generally admitted that the hypophysis is either enlarged or diseased in every case of akromegaly.

What relation the changes in the pituitary body bear to the akromegalic symptoms is, however, still a matter of speculation. A number of cases of tumors involving the destruction of the hypophysis have been reported, chiefly by Weir Mitchell, Drs. Anders and Cattell, and Guy Hinsdale, in which no symptoms of akromegaly were present.

This paper is chiefly a record of two cases of a similar character, in neither of which were there any symptoms of akromegaly. In one case the symptoms, in addition to the direct cerebral pressure signs, resembled a mixture of myxedema and pernicious anemia, while in the other the symptoms were those of a somewhat rapid infiltrating neoplasm of the anterior part of the base of the brain.

Case I.

Perithelial Angio-Sarcoma of the Pituitary Body—Symptoms—Headache, Vomiting, and Temporal Hemianopsia—Finally, Infiltration of the Growth into the Ethmoid and Sphenoidal Cells causing Hemorrhage from the Nares—No Symptoms of Akromegaly or other Forms of Nutritional Disturbance.

Miss K., aged 35, a miniature-painter, was admitted on December 2, 1898, complaining of headache, dimness of vision, and occasional vomiting. She says that the headache and dimness of vision have been troublesome for upward of 18 months. The failure of vision was noticed first in the left eye, and she observed that the pupil of this eye was larger than the right. Three months previous to admission the sight of the right eye was found to be also failing and the pupil of that eye to be becoming larger. The vomiting, which occurs about every month, lasting from 1 to 3 days, was first noticed in March, 1898.

She was born in Eastern Ontario, and always lived there, except for a period of 6 years, when she resided in Illinois. With the exception of measles and whooping-cough, there is no history of any illness. She has 4 brothers and 5 sisters living, all in good health. One brother died from pulmonary tuberculosis, and a sister from heart-trouble. She was much worried for months previous to the onset of headache and dimness of vision, and had been treated for nervous prostration.

She is a tall and well-nourished woman, 35 years of age. She is able to walk about, but prefers lying in bed on her back, as in this position she suffers less from headaches. She is more than ordinarily intelligent, her mental state on admission being, so far as she herself or others could judge, fully normal.

Pain in the head is her great complaint. It is referred chiefly to (1) the left temporal and parietal regions; to the left eyeball and over the left brow; (2) to the occiput, just below the occipital protuberance, shooting downwards and often forwards, on both sides often entirely circling the neck. The pain, she says, is continuous, but it is frequently intensified, especially on movement, on percussion, and at times spontaneously.

Three months before her admission into the hospital, Dr. Stirling had an opportunity of examining her eyes and found the following condition present:

Right Eye.—5-9, outer half of the field gone, light perception reduced 5°. The pupil active to light and accommodation, but indirect action from left eye lost.

Left Eye.—Light perception reduced 8°. She is able to count fingers at 2 feet in the lower and outer part of the field, but nowhere else. Pupil is 7 mm. in diameter, immobile to light and accommodation. There was a slight nonparalytic divergence.

There was simple atrophy of both optic nerves, without any diminution in the size of the large vessels.

Three months afterwards, Dr. Buller found a more advanced condition of atrophy, there being just perception of light in the left eye, and a marked diminution now all over the right field. He also reports a state of simple atrophy without diminution of the large vessels. The diminution of light-perception in the right eye was so marked that he was not able to map out the field.

Her voluntary power is not in any way impaired. Nutrition is good. The kneejerks are much diminished, while the superficial and organic reflexes are normal. There is no disturbance of any form of the muscular sense. The general sensibility is not in any degree impaired, and with the exception of the disturbance in the functions of the optic nerves already referred to, the special sense nerves are normal.

Menstruation began when she was 13 years of age and continued 1 year, when it permanently ceased.

The urine had a specific gravity of 1025, and contained ½% of albumin, together with numerous granular and hyalin casts.

The subsequent course was characterized by more or less continuous and severe headache, by occasional vomiting, and gradually increasing stupor. A few days previous to her death, January 7, 1899, there was a discharge of a bloody fluid from both the anterior and posterior nares. The immediate cause of death was hyperpyrexia.

I am indebted to Dr. A. G. Nicholls, assistant pathologist to the Royal Victoria Hospital, for the following account of the postmortem.

In addition to the morbid changes met with in the brain, the following were found:

There was a subacute diffuse nephritis in both kidneys. The uterus was infantile in type, being only 5.25 cm. long. The ovaries were small, fusiform in shape, and without noticeable scarring, and slightly fibroid.

Examination of the brain showed the calvarium to be normal. The dura was thin, showing the convolutions of the brain through its substance. It was congested and exuded blood. The convolutions were flattened on both sides, chiefly over the vertex and posteriorly. The frontal convolutions appeared to be normal. There was considerable exudation of clear fluid about the base of the brain.

On removing the brain a tumor-mass was found at the base, lying in the sella turcica, and occupying the site of the pituitary body, of which no vestige could be seen. The tumor measured 5 cm. long by 4.75 cm. broad. The upper surface was lobulated, forming grape-like masses of a reddish translucent color, of soft consistence, and hemorrhagic appearance. There were two large lateral lobes with 3 smaller ones anteriorly. The under surface of the tumor was very soft and diffluent, of the appearance of raspberry-jelly. This was probably due to manipulation. The tumor lay in the median line with a tendency to the left side. There was an oval excavation on the base of the brain, in which the mass rested. The sella turcica was greatly enlarged in all directions, corresponding to the main mass of the tumor below. The body of the sphenoid was eroded from pressure, the bone being as thin as paper. The sphenoidal and ethmoidal cells contained a jelly-like mass similar to the tumor. The posterior nares contained blood-stained mucus. On the left side in front the tumor passed beneath the dura of the cranial base, reaching along the lesser wing of the sphenoid as far as the back of the left orbit. It had not, however, invaded the orbit. The growth had reached the top of the pharynx without causing any perceptible bulging. The tumor pressed directly upon the optic commissure, which was flattened. It reached backward to a point 2 cm. anteriorly to the pons, compressing the left crus. Other cranial nerves seemed not to be directly involved.

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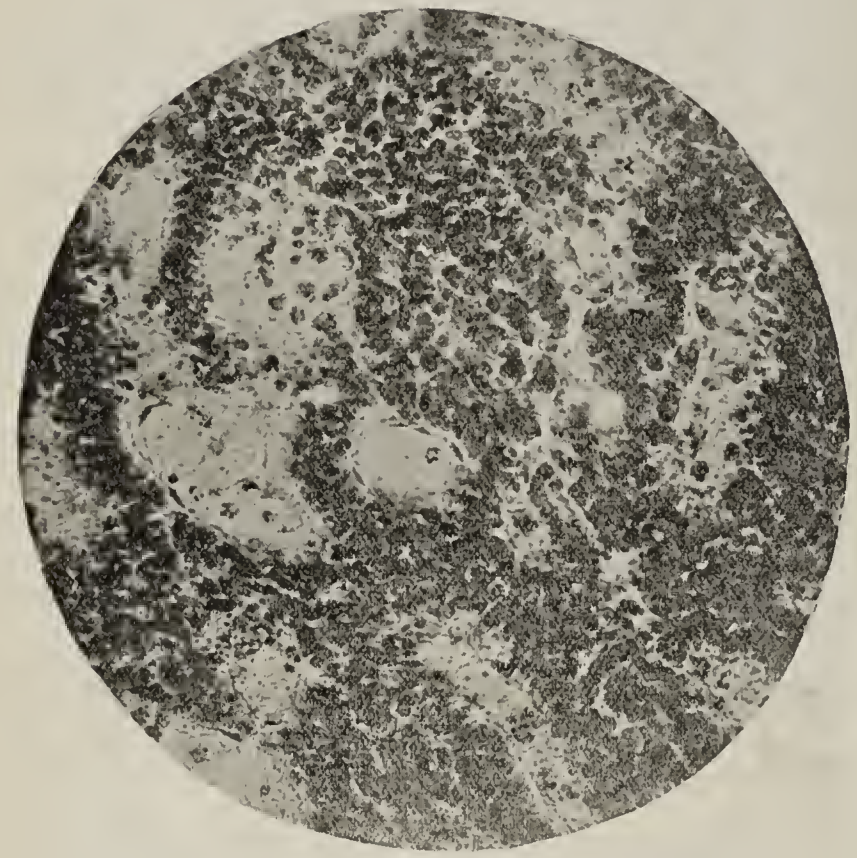
[1] Read at the fourteenth annual meeting of the American Association of Physicians, held at Washington, D. C., May 3-6, 1899.



Microscopic appearances in Case I.

The specimen was hardened in bulk in formol—Müller. At closer inspection the mass was found to be bounded, at least above, by a thin fibrous membrane, presumably the pia mater. Several sections were made through its substance, and through the optic chiasm, pons, medulla, left crus and cord.

Microscopically, the tumor was found to be enclosed in the upper surface by a laminated fibrous tissue membrane, presumably the pia mater. The finer structure of the mass varied somewhat in different parts. In the main it consisted of delicate capillary bloodvessels with elongated cells, having oat-shaped nuclei. The bloodvessels were composed of basement membranes lined with flat endothelial cells; they were for the most part small, but in a few instances formed actual cavernous sinuses. The elongated cells were arranged about the bloodvessels, their long axes being placed radially to the center of the vessel. This gave the tumor the appearance of being formed of a series of rings. In other places the elongated cells formed long finger-like processes, running in various directions and without the same definite relationship to the vessels. On the under surface of the tumor small spicules of bone were seen, showing that the new growth had forced its way through the body of the sphenoid. At the margin of the growth two or three very cellular nodules were seen, which had a close resemblance to round-celled sarcoma. On the whole, as the tumor was composed largely of short spindle cells, it had the appearance of a sarcoma, and owing to the relationship to the vessels it must have started from the perithelium. No remains of the pituitary body were seen, nor was colloid present.

A diagnosis of perithelial angiosarcoma of the pituitary body was made.

Sections through the optic chiasm showed that the optic nerves were in a state of extensive degeneration, the myelin-sheaths being broken up and reduced to globular masses. The bloodvessels were distended, and surrounding them were masses of small round cells.

Sections through the pons, medulla, left crus, and cord showed nothing abnormal.

The symptoms in this case extended over a period o about 20 months, and were clearly indicative of a cerebral growth in the neighborhood of the optic chiasm. There were no symptoms whatever of akromegaly, myxedema, or pernicious anemia; I would like however, to call attention to two changes which have been frequently met in cases of tumors involving the pituitary body.

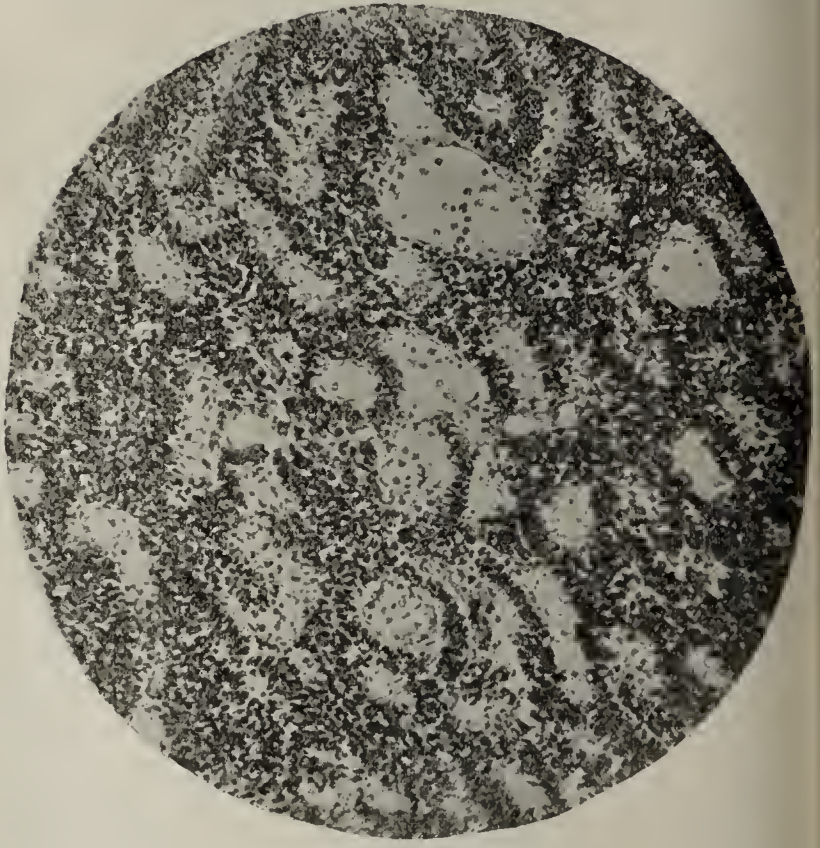
These are cirrhotic changes in the kidneys, uterus and ovaries. Boyce, in his valuable paper on hypophysial growths, gives details of at least 4 cases in which the kidneys were found to be granular.

CASE II.

Endothelioma of the Base of the Brain Causing Pressure on the Chiasma and Obliterating the Pituitary Body—Symptoms of a Cerebral Growth Extending Over Years — Right Temporal Hemianopsis — Profound Anemia—A General Appearance not Unlike that Seen in Myxedema—No Changes in the Osseous Tissues.

Mr. W., a merchant, aged 42, came first under the observation of Dr. Stirling in February, 1888, complaining of failing vision, headache, and vertigo. He first noticed the failure in vision in the left eye 2 years previously, and this was, I believe, the first evidence of any intracranial trouble.

He had been for a number of years, and up to the time o the appearance of his present complaints, a heavy drinker



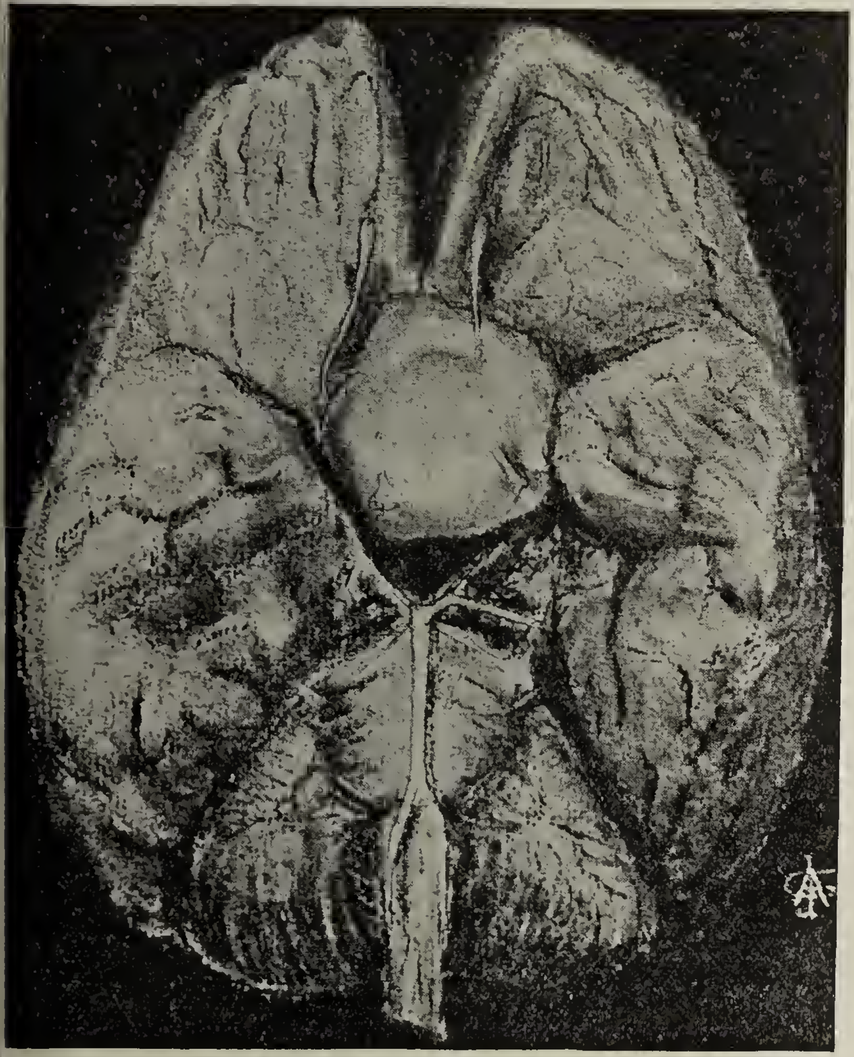
Microscopic appearances in Case I.

There was no history or evidence of tuberculosis or syphilis He complained of a dull frontal headache, but neither at this period nor any time during the prolonged course of his illness was headache a prominent symptom. In walking he more or less constantly had what he called a giddy sensation, with a tendency to fall forwards. Vomiting of a cerebral character was present for some months during the early period of the disease. Dr. Stirling's examination of the eyes revealed the following changes:

Left Eye.—There is no perception of light. The pupil i emidilated and immobile, but reacts on stimulating the ight eye with light.

Right Eye.—Complete blindness to the outer side of the ield. The inner side was amblyopic, vision being reduced o counting fingers at 12 feet. In reading type he is able to ick out a letter of the largest size (No. 16) here and there. n this area the perception of green was found to be very efective, and after looking at green for some time there was n after-image in pink.

Examination of the fundus revealed in the left eye white trophy of the disc with somewhat contracted vessels. In he right eye the disc is pale.



Endothelioma of the hypophysis.

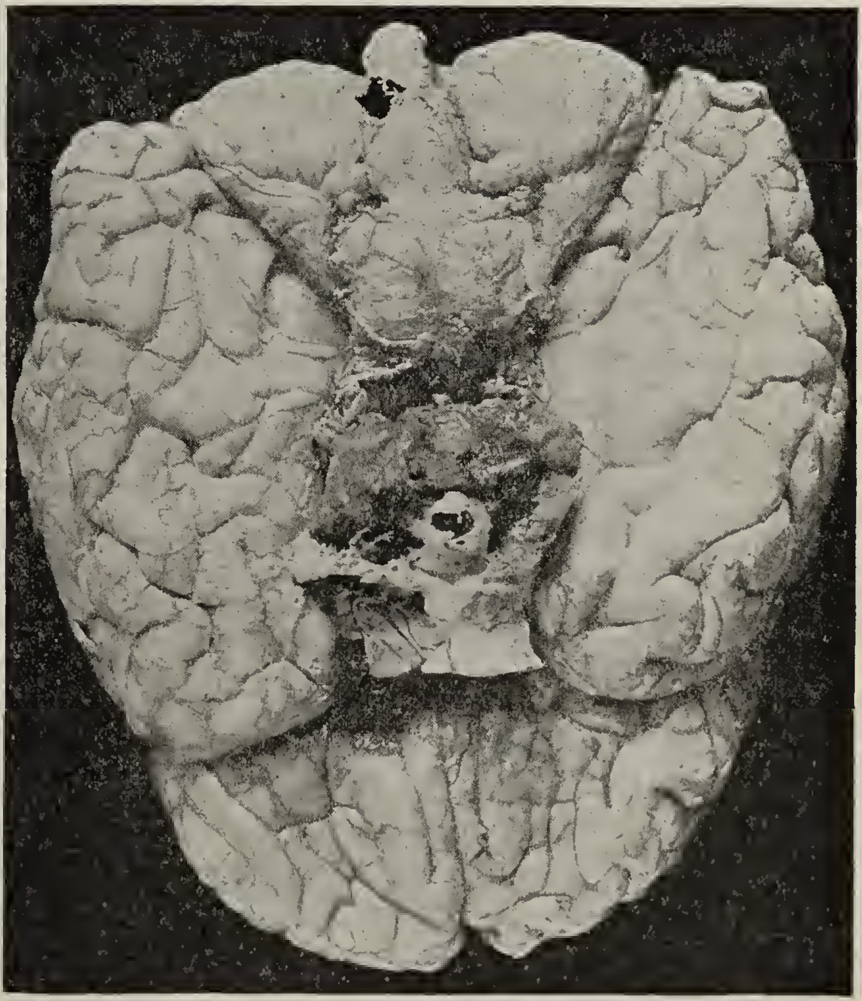
There was no objective disturbance of either sensation or otion. He complained, however, of numbness in the ands. He had frequent flushings followed by profuse perirations about the head and neck. The kneejerks were ightly exaggerated, but the superficial and organic reflexes ere normal.

The further course of this case was very slow, six ears elapsing before his death, in 1894. His sight enrely failed in August, 1889. He became very fat and nemic. The face and extremities were puffy, but in o part was there pitting on pressure. The puffy, pale in presented a very striking clinical picture. The allor of the skin was noticed when he first came under servation in 1888, but it steadily increased. In 392, he presented the typical appearance of a person ffering from pernicious anemia, the skin having a pical lemon-yellow tint, while the general state of utrition appeared to be unusually good. In March, 393, Dr. Gunn examined the blood. He found 2,800,0 red cells, and the proportion of white to red as 1 1,500. The red cells were irregular in size, microtes being abundant; no nucleated red cells were und. Four months later a second examination of the blood was made by Dr. Gunn. He found 2,100,000 red cells, and the proportion of white to red as 1 to 1,600. The urine was free from both albumin and sugar.

The anemia remained up to death, but did not present any changes different from the last above-recorded examination. His appetite remained good, and was even at times voracious. He was annoyed with photopsia, and during the last 2 years of his life he complained more or less constantly of hallucinations of vision, smell, taste, and hearing, and of general sensibility. He often imagined that burglars were breaking into the house, maintaining that he not only heard but saw them. He kept a revolver under his pillow to punish any burglar that would attempt to come near him.

He frequently made mention of what he called "beasties" crawling over his skin, and would stoutly maintain that he not only felt but saw them. This was when he had no perception of light in either eye. Although his general nutrition and strength were fair, he spent almost the whole of his last year in bed. When urged to get up, he would make answer that he would do so the following day.

Summary of the symptoms and course :



Perithelial angiosarcoma of the pituitary body.

1. Gradual loss of vision in both eyes, going on to total blindness in the left and temporal hemianopsia in the right, followed later on by total extinction of the perception of light.
2. There was complaint in the earlier months of his illness of frontal headache and of occasional vomiting.

3. The presence of more or less constant giddiness throughout the course of his disease, with a tendency at first to fall forwards and afterwards to one side.
4. Profuse intermittent flushings and perspirations about the face and neck, but the skin of other parts was dry and harsh.
5. Slow cerebration, as evidenced by a slow, drawling speech and slowness in answering questions. There was also great apathy and drowsiness, and lowered temperature.
6. Hallucinations of sight, smell, of hearing, and of general sensibility.
7. A very pronounced lemon-tint of the skin, resembling, in this respect, the appearances considered to be characteristic of pernicious anemia. The blood-changes corresponded also to those met with in pernicious anemia.
8. Edematous-like condition of the hands and feet, but no pitting on pressure.
9. During the last 2 years of his life he kept his bed more or less constantly, taking little or no interest in anything, but still able to talk and answer questions intelligently. He finally died in a state of coma.

The general symptoms, headache, vomiting, vertigo, and optic atrophy pointed clearly to a cerebral tumor, while the temporal hemianopsia localized this to the optic chiasm. Had the visual disturbance been seen earlier it is highly probable the limitation of the field would have been met in both eyes. The absence of the pupillary reflex indicated that the lesion must have been situated between the left eye and the basal optic nuclei. Further, the optic atrophy showed that the lesion could not be further back than the basal nuclei, as in lesions of the optic radiations or cortex, white or essential atrophy is exceedingly rarely if ever visible at the optic disc. The slow growth of the tumor would account for the absence of the choked disc, time being sufficient to allow of the formation of lateral drainage or gradual distention of the sheath.

When the patient was first examined the obtunding of the nasal half of the light field, together with the defective perception of green, pointed to interference with the conduction of the remaining active portion of this nerve. There was a concentric and a fairly equal contraction of the field for white and colors, pointing to a slow growth.

Prof. Adami, who performed the postmortem examination, found a large cancerous tumor of the pituitary. The bone in the neighborhood was found greatly atrophied and the fossa greatly enlarged.

As the diagram shows, the growth was not perfectly symmetrical, it extended more to the left than the right hand side. The right olfactory was pushed to one side, while the growth infiltrated anteriorly above the left olfactory nerve. The thyroid gland was found to be normal. Dr. Nichols reported as follows on the nature of the growth.

The portion of the tumor examined was enclosed in a laminated fibrous-tissue capsule in the pia mater. The tumor was composed of rounded or oval masses of cells surrounded by loose connective tissue, the whole at first sight suggesting carcinoma simplex. On examining more closely, however, it was seen that the cells did not conform to the carcinoma-type. The walls of connective tissue which enclosed the cellular masses were lined with elongated and flattened cells, fusiform when viewed edgeways. At other places, when the section was more oblique, these cells could be seen to be irregularly diamond-shaped, with large clear oval nuclei—typical endothelial cells. The cells forming the cell-masses were various in shape, being generally elongated with bluntly oval nuclei, others, however, being irregular in outline with a more rounded nucleus. They had in places a curious tendency to form small whorls, and in such cases the component cells were considerably flattened. The tumor was not specially vascular, nor did it show any tendency to degeneration. No pituitary structure was seen.

The diagnosis made was that of endothelioma.

The general symptoms of an intracranial growth, as headache, vomiting, vertigo, optic atrophy, were sufficiently pronounced to allow such a diagnosis; and the locality of the growth was clearly indicated by the temporal hemianopsia. An especial interest arises in connection with an explanation of the myxedema-like state and the pallor of the skin. How are these conditions to be explained? Have they any connection with the destruction of the pituitary body?

In a recent paper by Pechkranz, of Warsaw (*Neurolog. Centrbl.*, vol. 18, page 254), on a case of sarcoma of the pituitary body, particular mention is made of a myxedematous appearance that was a prominent feature. The author considers it identical with the pachyacria mollis of Arnold, a state in which the dystrophy is confined to the soft tissues, in contradistinction to akromegaly to which Arnold applies the term pachyacria ossea. In Pechkranz's case the osseous tissues were found normal.

In a few cases of myxedema, changes have been met with in the pituitary body, and instances are on record in which both diseases have existed together. Dr. Anders (*Nervous and Mental Diseases*, January, 1892) reports a case of hemorrhagic tumor of the pituitary body and infundibulum in a case of pernicious anemia in a female, aged 34. The symptoms which developed after typhoid fever were giddiness, headache, nausea, slight loss of consciousness, and delirium. I simply place this second case on record without the addition of any hypothesis as to a possible causal connection between the pituitary growth, the anemia, and myxedematous state.

THE ANESTHETIZER AS A SPECIALIST.

By D. H. GALLOWAY, M.D.,
of Chicago, Ill.
Professor of Minor Surgery and Anesthetics in the Illinois Medical College.

In the excessive growth of specialism in medicine in he last quarter of a century, it seems strange that pecial anesthetizers have not made their appearance. nesthetics have been in use for 50 years, but only ecently has it seemed to occur to surgeons that special kill was necessary or desirable on the part of the anesthetizers. It is a strange anomaly that while we are ot expected to do any surgical operating without ome training under a competent operator, we are ex-ected to administer an anesthetic without any training hatever. Yet anesthetizing often is more difficult of ccomplishment than the average surgical operation.

There are some curious superstitions with regard to divine title to knowledge. No matter how ignorant a irl or a woman may be, or how little judgment she ay possess, when she becomes a mother, she (and any other people) considers that she has come into erfect judgment regarding the physical care and mental aining of the child. A man may not know a mortar om a spatula, yet the moment he may put M.D. after s name, the public considers him perfectly competent make and to compound medicines; the law in some ates specifically assumes this ability. If one wants a rgeon, he inquires with regard to his ability, qualifi-tions and experience; but if he wants an anesthetizer simply asks for a doctor; some do not even do that, ut select a nurse or a friend of the patient to attend to hat they regard as a trivial or unimportant matter.

Among doctors there is still some doubt of the neces-y for skilled anesthetizers. There seems to be no ace provided by medical ethics for the anesthetizer. operations in the past, this position has usually been signed to the least favored of those present or to the e considered the least useful to, or most in the y of, the surgeon. Then, too, it was not thought cessary to pay the anesthetizer anything; the surgeon ok whatever fee was paid, considering that the privi-e of assisting him and seeing how he did his work s ample reward for all the necessary assistants. In ler to share in this benefit, the anesthetizer usually voted more attention to the operation than he did to patient. The student who cared to learn to operate and what one did not?—avoided this assignment enever possible. As accidents multiplied there came be a feeling among some operators that perhaps a lled man in this place might be an advantage. Then ecame a positive disadvantage to a young man to a reputation for skilful administration of anesthetics, he was called upon oftener, his opportunities for rning surgery were lessened, and still no one thought offering him adequate pay for the time and skill uired.

While this state of affairs prevails there is no inducement for anyone to qualify himself for the position, which brings neither remuneration, reputation nor respect. I am glad to say that I believe this condition is destined to undergo a radical change, for many surgeons are now awaking to the necessity of skill in this as well as in other departments of medicine, and when there is sufficient demand the necessary skill will be forthcoming. The people seem to be more alive than the profession to the desirability of expert anesthetizers, and it is a frequent occurrence for a patient to say, "I do not dread the operation, but I fear the anesthetic!" I have more than once heard physicians say, "I know a dozen men, any one of whom I would be willing to have operate upon me, but I know few or none whom I would be willing to trust to give me an anesthetic."

Is it necessary or desirable that there should be special anesthetizers? Much practice would seem to be necessary to successfully accomplish anything requiring such concentration of attention and such judgment as is necessary to safely administer an anesthetic. The success of the anesthesia and the safety of the patient continually hang on the judgment of the anesthetizer, and any lapse of attention or error of judgment may result fatally. Decision, requiring quick and accurate judgment, must be based on a complexity of symptoms which is appalling to the inexperienced. The anesthetizer must know the condition of the patient constantly, and by that I mean that he must know every respiration the patient takes and must be instantly aware of any intermission or change in its character.

From the standpoint of the operator the necessity for trustworthy anesthetizers may be summed up as follows:

1. No man can do two things at once so well as he can do either of them by itself. A surgeon cannot do his most skilful operating while devoting half his attention to the anesthetic.

2. The operator is frequently more concerned about the result of the anesthetizer's work than he is about the results of his own work.

3. An operation may be practically devoid of danger, while an anesthetic is never administered without jeopardizing the life of the patient.

4. In many cases, more skill is required to administer the anesthetic than is required to perform the operation.

5. Death may occur from the anesthetic in the hands of the most skilful anesthetizer, but in the great majority of deaths which have occurred the anesthetic was in the hands of unskilled anesthetizers.

When all these things are taken into consideration, there would seem to be more reason for a specialty in anesthetics than in many other branches of medicine which are now monopolized by specialists.

The anesthetizer will have to make his own place in medicine; the profession will not make a place for him, and not until he has demonstrated the value of his services will it concede him the position which the importance of his duties entitles him to occupy. He will be obliged to define his own rights, duties, and privileges, and he must not expect that his own estimate of the importance of his position will be conceded without opposition.

There are many surgeons who are unwilling to share either the credit or the emoluments of their work with any one, and their opposition will be overcome only when they are shown that the importance of their work will not be lessened, but enhanced, by the increased safety and dispatch with which operations may be done; and when the anesthetizer looks to the patient and not to the surgeon for his fee. It will take some time to overcome the sentiment expressed by a surgeon of my acquaintance. He told me that he did not care who gave his anesthetics, that they were as safe in the hands of one as another. He further said that he had had many deaths from anesthetics, but that he would not publish such cases—"he might as well quit the practice of medicine." Strangely enough, it seems never to have occurred to him to employ an experienced anesthetizer and let him assume the responsibility for such deaths. Fifteen minutes after the above conversation the doctor stated in a lecture, "It is an outrage on the public for any doctor without special training to presume to sew up a lacerated perineum," an operation which I venture can be learned in much less time than it takes to learn to properly administer an anesthetic, and with much less danger to the patient.

The qualifications necessary in one who would be considered an expert anesthetizer:—He must, above all things, know thoroughly the effects of anesthetics and must be able to rightly interpret every symptom produced by the drug he uses. He must be able to maintain that concentration of attention which will enable him to be aware of every respiration the patient takes, and which will make him instantly aware of a single intermission, without at the same time being oblivious of everything which is taking place about him. When he meets the patient for the first time, the latter will be undergoing the ordeal of preparation for an operation which he knows may result in death, and the anesthetizer must be able to inspire complete confidence in his ability to carry the patient safely through the dangers of the period of anesthesia.

The patient may be wrought up to the highest pitch of excitement and fear, and the anesthetizer will find the difficulties of his task and the danger to the patient lessened one-half, if he can assure, quiet, and soothe him before beginning the anesthetic. He must not allow himself to become disconcerted by the remarks of the surgeon and thus crowd the anesthetic to the point of danger; neither must he allow an impatient surgeon to begin the operation until the patient is fully ready. However, when the anesthetizer becomes a specialist, and is called in as such or as a consultant, there will be no occasion for a discussion of these points. When an accident happens and the patient stops breathing, the anesthetizer must proceed quietly, promptly, and energetically to apply such means as are possible for the restoration of the patient. In such cases the life of the patient is in his hands and he must be perfectly cool in directing all the measures that may be used for resuscitation. He must be collected in the face of impending death and calm when death results. If he gives way to emotion or excitement under such an ordeal, there is no place for him in surgery. To make use effectively of all the means available, to inspire the confidence of those about him and get efficient assistance from them, he must know the means at his command and how and when to use them. He must feel that he can do all that can be done and that no other could do it better. No man can do this unless he knows his subject thoroughly; the ill-prepared and over-confident man will fail utterly to be the master of the situation. Under such circumstances there is no time to consult textbooks or to ask advice.

The necessary duties of the anesthetizer are manifold and are somewhat modified by the conditions under which the operation is performed. In hospitals, where there are trained nurses under the direction of a competent superintendent, or where the operator has a trained or expert assistant, his duties may be limited to the immediate care of the patient. But in private houses, where the facilities are inadequate and the assistants insufficient or inefficient, it may be necessary for him to assume a general supervision over the whole proceeding. Unless the patient gives special trouble, he may do this without actually withdrawing his attention from his immediate occupation; for in a great many cases the ear and the finger are all-sufficient to apprise the anesthetizer of the patient's condition. In case of any uncertainty, any irregularity of pulse or respiration, he must instantly devote his whole attention to the patient. In short, it is his business to see that the patient continues to breathe and that his heart continues to beat; his duties end here if this requires all his time and attention. If he has any time to spare, however, he should not hesitate to interfere with anything which he thinks may jeopardize the success of the operation or the future welfare of the patient. During the intervals of the operator's work, he should see that large wounds and exposed intestines are protected with hot sponges. The patient's condition may rapidly become worse from shock if this precaution is neglected, and a fatal result might be charged to the anesthetic. In amputation of the breast—particularly the left one—there is often great interference with respiration, and this condition is often instantly relieved when the wound is covered with a hot sponge.

The surgeon or his assistant sometimes seriously inerferes with the patient's respiration by allowing an rm to rest on his chest; the anesthetizer must be on the ookout for this, and if it happens he must see that it is mmediately discontinued. He must see that the atient is properly clothed and protected from unnecesary exposure and that the room is properly ventilated nd warmed. The fact that the sweat is pouring off the ce of the operator is not necessarily an indication that e room is warm enough for the best interest of the atient. Should he see one of the assistants take an strument from the floor or scratch his head with his ngers, he should remind the assistant to sterilize the strument or wash his hands before proceeding. In e very nature of things the surgeon cannot watch his sistants, as his eyes are necessarily almost constantly irected to the wound; and if he does not have at least e expert assistant, who will look after the others, it lls to the anesthetizer to do it in so far as he can witht neglecting any of the more immediate duties of his sition.

As the operation approaches completion, the anesthetr should inquire of the attendants whether dressings d bandages are in readiness so that no time may be t in getting the patient into bed when the operator s finished. The shock of the anesthetic is in proporn to the time the anesthesia is maintained. The anthetic is to be stopped as soon as the operator is done; t if there is delay in getting the patient to bed, until has partly recovered, there will be added shock in oving him and greater liability to nausea and vomitg. He should direct an attendant to prepare the bed ile the operation is in progress; it should be warm d uncovered when the patient is brought in. The esthetizer must assist in moving the patient and parularly see that the hot-water bottles are so placed as warm the patient without burning him. This is ential even when trained nurses are employed, for I ve recently seen three patients severely burned while der the care of trained nurses; the nurse may pare somewhat of the excitement of the family and rdo some things. The anesthetizer is responsible the safety of the patient until he has regained conusness; he must remain with him until pulse and piration are normal and, if there is not a competent son in charge, until he is fully conscious.

he prevailing mode of compensating the anesthet- is radically wrong and cannot result in anything dissatisfaction to all parties concerned. For the rator to charge a fixed fee and then undertake to the anesthetizer without letting the patient know much, if anything, the anesthetizer gets, is to tify the latter in the estimation of the people and onvey the impression that he and his work are of lit- f any importance. For the operator to charge $100 or 0 for performing a simple uncomplicated operation give the anesthetizer $5 for conducting a difficult and complicated anesthesia, in which he has had to exert all his energy and skill to keep the patient alive, is an injustice which is not calculated to increase the number or efficiency of anesthetizers. Of course, the anesthetizer is indebted to the surgeon for the call and the opportunity to make any fee at all, yet if his services are necessary, he is entitled to adequate remuneration.

Suppose the practitioner who calls in a consultant, or a specialist, or a surgeon, should reason thus and say to himself, "I will charge this patient $250 for this operation and give the surgeon $25 for his share," how long would it be until he could no longer get a surgeon to do his work? When he found that no surgeon of reputation would respond to his call, he might employ an aspiring student, who would be willing to do the work without any remuneration for the sake of the experience. In this way he might very materially increase his fees, but, in the light of medical ethics, what would we think of such treatment of the patient? Yet the following case happened but a few months ago. A patient stipulated to pay a surgeon $200 for performing an operation. He afterward requested that the most experienced anesthetizer available be obtained to administer the anesthetic. The surgeon informed the patient that that would cost $25 additional, and the patient said he would gladly pay it. The surgeon employed a student to give the anesthetic, collected $225, gave the student $5 and thus received $220 for the operation.

I have no doubt but that in the next generation specialists will be employed for this work, as they are now employed to operate on the eye, but at present it would not pay any one to devote all his time to giving anesthetics. However, it will add materially to the income of a young man during the "waiting" period to get a reputation for the skilful administration of anesthetics, and in fact every doctor should become somewhat experienced in this important work before he graduates and while there should be competent supervision of his first work. Unfortunately this training is not provided for, and no one seems able to explain why college managements do not take an interest in this subject.

Salpingo-oophoritis; Diagnosis obscured by Bicornate Uterus.—A. Macmillan (*Medical Age*, May 10, 1899) reports the case of a woman, 28 years old, who had symptoms of acute pyosalpinx; her temperature was 102°, pulse 100. On vaginal examination there was tenderness of all the pelvic organs, the uterus was immovable and displaced to the right, and to the left was felt a large fixed tender tumor. Celiotomy was performed, the left tube and ovary were adherent and at first it was impossible to find any line of demarcation between the uterus and the tube, but after separation of the adhesions a solid mass was found, which proved to be the left cornu of a bicornate uterus. The operation was completed without difficulty and a good recovery followed. [M.B.T.]

THE COLD BATH IN TROPICAL FEVERS.

By CHARLES E. WOODRUFF, M.D.,

of the U. S. Army.

IN the PHILADELPHIA MEDICAL JOURNAL for February 25, 1899, there is an account of the experiences of the hospitals of Philadelphia with typhoid fever originating among the soldiers in the late war. In the account of the cases at the Pennsylvania Hospital the statement is made that the mortality in 95 cases treated with the cold plunge-bath was 11.58% (11 deaths), but that in 119 cases treated with only spongings of the surface with cool water every 3 hours if the temperature rose as high as 102° Fahrenheit, the mortality was only 6.72% (8 deaths). By changing the figures somewhat, because of transfers from one treatment to the other, the percentages are even more marked, for with the cold plunges 14.10% died, and with spongings only 5.88%. The report then concludes as follows: "These percentages speak very eloquently to me, and, although the number of cases is not sufficiently large to prove anything, a consideration of the results does lend strong moral support to those of us who have never been able to think that the cold plunge-bath could accomplish all that its more enthusiastic advocates have believed."

A short while before I left the Philippines, an American military surgeon, who had had care of many hundreds of fever cases, told me that if there is any one thing certain and positively proved, it is the fact that the cold plunge-bath is an absolute necessity in the treatment of fevers in the tropics. All doubts seem to have vanished under the light of a very sad experience, and as I came away, it seemed to me that if I were to refuse the cold plunge to a typhoid patient in Manila I would be guilty of murder.

Now there must be some reason for such widely differing opinions, and if there is any way of reconciling them it seems to me that nothing should be put in the way of the unrestricted use of the cold bath, for we now have in the tropics many thousands of young American soldiers at the ages most prone to contract typhoid fever.

In the *Journal of the American Medical Association*, April 2, 1898, I published a series of cases of typhoid occurring in Montana, in which there was such a remarkable absence of fever that some of the cases might be called afebrile. Indeed, it is not uncommon to find that patients suffering with typhoid fever in the West do not go to bed at all, but for the 4 weeks or more that the infection lasts, they may only complain of being somewhat out of sorts. On the other hand the cases occurring in the Philippines are all prone to have high fever, and the chief danger is hyperpyrexia. Whatever may be the cause or causes of this remarkable difference, there can be no doubt that it is partly due to the patient's environment—the climatic conditions. In Montana the atmosphere is so dry that it soaks up moisture with remarkable rapidity. Washed clothing hung out is dry in a few minutes. Perspiration rarely appears on the skin, for it is evaporated at once, and as it carries away immense amounts of heat in converting it from a fluid to a gas, it is extremely difficult for the body to become overheated. Physicians who have not been well grounded in the study of physics rarely appreciate the immense amount of heat it takes to evaporate a pound of water to vapor of the same temperature as the water. It takes 540 times as much heat as would raise a pound of water one degree centigrade.

The immense evaporation from the body then so thoroughly prevents overheating that sunstrokes are almost unknown in our Great West, though the midsummer temperature is apt to be excessive. I have frequently seen the thermometer register over 105° in the shade, occasionally 110° F., and have known it to be 118°, and yet no harm would result nor would there be much discomfort. As the heat normally produced in the body is easily lost, so the heat abnormally produced by diseased processes is lost. Consequently, though high fevers may occur, the tendency in infectious disease is toward low temperatures.

Now, what a contrast do we find in the Philippines. With a temperature rarely below 80° or above 90°, the heat is almost intolerable, as the atmosphere is almost saturated with moisture. Indeed for many months each year it is entirely saturated. I have seen the thermometer register about 86° at noon, and 84° at midnight with great regularity day after day. Perspiration cannot evaporate into the loaded atmosphere, and no body-heat can be lost by this means. Loss of heat by radiation is trifling when everything around us is but little cooler than our bodies. Saturation of the air with moisture is not uncomfortable if we can radiate heat, so that a foggy day, with a temperature below 60°, is not dreaded, but a steaming atmosphere over 90° is deadly. Now let a person become diseased and produce more heat still. The heat cannot be lost as in Montana, but remains, warming the body more and more, until the temperature is so high that life ceases.

On several occasions I talked with Dr. Donelan, an Irishman, who has practised in Manila for 21 years, and who is recognized as the most capable physician in the Philippines, and consulted by the Spaniards in all difficult cases. He told me that for many years they had recognized that the chief danger (I was on the point of saying the only danger) of their typhoid-fever cases was death from hyperpyrexia. When the cold-bath treatment was first introduced into Manila 16 years ago, it therefore found favor at once. It was so logical—this method of removing the heat by water, when there was no other way to do it. The continuous bath of which we now and then see references in the journals has been an old story in Manila for years, for it is a perfectly logical outcome of the bath-treatment. The physicians reasoned that if it was the heat that killed, then keep the patient in the water until he was cooled.

Dr. Donelan gave me a most interesting account of the first case in which a long bath was tried. He was called in consultation to see a prominent Spaniard, who was comatose and evidently dying from an enormously high temperature in typhoid. The patient was very fleshy. It was recognized at once that it would take a long time to get the internal heat from such a big man, and it was ordered that the patient be put into the bath and kept there until his temperature was reduced. The first bath lasted 48 hours before the temperature came down within safe limits, and the patient made a good recovery.

There is a practical point of great value given to me by Dr. Donelan. He said that he found by long experience that the patient's temperature came down sooner and stayed down longer if the water was of about 90° F., or more when the patient was first immersed, and then gradually cooled to the required point, 70° to 75°. If he were plunged at once into cold water, it took a onger time to get the temperature down and it did not emain down so long. The explanation given was to he effect that the shock of the cold water to the vasomotor nerves caused such a contraction of the arterioles of the superficial circulation, that it was difficult to cool off much more of the body than the skin and subcuaneous tissues, the internal heat not being conveyed to he surface at all. This explanation agrees perfectly with the well-known fact that gentle stroking of the urface while the patient is immersed causes a dilataion of the arterioles and so increases the peripheral irculation as to materially assist in removing internal eat thus brought to the surface.

It is very evident, therefore, that the part of the world in which we are living certainly has a considerble influence in modifying treatment and views. If I were treating a case of typhoid in the arctic regions, where the atmospheric temperature is 40° F. below ero, or lower, it is quite evident that I would have but ttle use for the cold-bath treatment. Merely lowering he room-temperature would be sufficient to cause nough loss of body-heat by radiation alone, and conection into water would not be necessary. If the mosphere is very dry, as in Montana, and there is reat loss of body-heat by evaporation of surface moisture, many cases may occur in which there is no se of temperature sufficient to warrant any treatment. ndeed, it is perfectly possible in a dry atmosphere to duce temperature by the air-current from an electric n, and if there is not enough moisture on the skin e patient can be wet or covered with a wet sheet—a ethod of treating hyperpyrexia used successfully by any physicians. In the tropics, where there is no her way of reducing the temperature except by imersion in cool water, the cold bath is a positive necesty.

A large equipment in the way of portable bath-tubs and every convenience for bathing fever-patients is just as much a necessity of our troops in the tropics as the issue of quinin for use in malaria. In the temperate zones, where some of the typhoid-patients easily lose their surplus heat at one time, and at another time warm up to a dangerous degree, there is no wonder that there should be a legitimate difference of opinion as to the necessity of the cold bath, and that there should be a large number of physicians who are firmly convinced that they can prevent or reduce dangerous temperatures by other less radical and less disagreeable means.

The suffering, by the way, which we see so often while the patient is being tubbed at home, is not nearly so great in the tropics. Indeed, to many patients the bath is a welcome luxury, and one patient whom I saw tubbed was quite well pleased with the treatment. Even in health a cold bath is necessary to reduce body-heat in the tropics. Many men take 2 or 3 shower baths a day, and it not infrequently happens that the only comfortable time one has in the 24 hours is the hour following a shower bath. How much more necessary then are cooling baths in disease, when so much extra heat is produced. People who run away from our Eastern cities in summer, and would as soon spend a vacation in a pest-house as to remain in Baltimore or Philadelphia in August, ought to appreciate the condition of our soldiers in a perpetual Baltimore August. I have personally witnessed very much suffering of our sick soldiers in the Philippines, in the early weeks of the campaign, before it was possible to get either the tubs or the water to bathe the fever-patients. Whatever our views at home may be on the subject of the cold bath, it certainly seems to the writer that there can be no question as to its supreme importance in the tropics, and that nothing should interfere with the complete equipment of all our hospitals so as to give baths without stint.

Another point in regard to the treatment of typhoid depends directly upon the heat-production. Of course we know that the extra heat only means that there has been a burning up of enormous amounts of fuel—the tissues themselves. It really seems as though there is more of this combustion in the tropical fevers than at home, and therefore there is greater need of food and alcohol as a food. Dr. Donelan has formed a routine plan of having his patients take 3 quarts or more of milk a day, and informs me that patients so fed come out of the fever in better shape and more safely than with our own plan of 1½ to 2 quarts per day.

The medicinal treatment is symptomatic. In the beginning of a fever, when the blood could not be examined for the plasmodium, it was the rule to give large quantities of quinin for diagnosis, as malaria was thus promptly improved or cured and the typhoid remained uninfluenced. Intestinal antiseptics were only given when the stools were very foul. Caffein was considered the best cardiac stimulant, and this is extremely interesting in view of the fact that coffee is used to such an extent in tropical countries.

This is scarcely the place to argue in favor of the cold plunge-bath treatment at home, as it is the intention here merely to call attention to its necessity in the tropics for the sole purpose of getting rid of the surplus body-heat, not only in fevers, but in health also. Yet I cannot refrain from giving an experience as to the results of the treatment other than reduction of temperature. It was my privilege once to visit frequently, during one whole year, a hospital in which many typhoid cases were treated without the cold bath. It was certainly no pleasant picture,—here a comatose patient, there one delirious, another muttering, another picking the bedclothes or huddled in bed, none intelligent, all stupid with the expressions we were taught were so typical of the disease. A year or so afterward I spent a winter in another hospital, where the cold plunge was carefully and systematically carried out. There were just as many and as severe cases as in the other hospital, but what a contrast! There was such an absence of the nervous phenomena, and the faces of the patients were as a rule so intelligent, that it was difficult to believe that they were so seriously ill with typhoid, but the temperature-charts told an eloquent story of a successful struggle with high fever. In Cavite and Manila for a long time it was not possible to bathe the patients. There was no water, and tubs are not carried in the field where it is usually impossible to carry even enough food. The fever cases at that time gave a pitiful picture indeed, and it is a nightmare which I hope will never be repeated. No wonder, then, that the cold plunge is almost universally acknowledged to be an essential of the treatment of tropical fevers. It is safe to use it in any disease because every disease seems to be accompanied by fever, and indeed it seems cruel to deprive a patient of the only comforting thing he used in health.

Actual observations in Manila show that perfectly healthy men may have mouth-temperatures of 100°, 101°, or even more; that is, men who have had no symptoms of disease, have felt perfectly well and vigorous and have remained well. These observations prove either or both of two things. First, they may show the extreme difficulty healthy men experience in disposing of the surplus heat normally produced and usually expended by simple radiation in cooler climates. Second, they may show that the internal heat stimulates chemical changes, just as it does in the chemist's laboratory, and just as the hot bath stimulates metabolism in all cases of defective metabolism and excretion. It is quite possible that under the stimulation of heat in the tropics, men accustomed to lower temperatures actually produce more heat and have difficulty in disposing of it. No wonder then that cold baths to remove this heat are found to be absolutely essential in health. How much more necessary is it then, to administer cold baths in fevers when such enormous additional amounts of heat are produced in the course of the disease. This extra heat-production no doubt accounts for the success in feeding the cases to the utmost limit and giving alcohol as a food.

A CASE OF PRESYSTOLIC MITRAL MURMUR ASSOCIATED WITH SYSTOLIC TRICUSPID MURMUR COMPLICATING PREGNANCY.[1]

By JAMES TYSON, M.D.,

of Philadelphia.

I MAY be presuming in expecting the members of the Association to be interested in a case of associated presystolic mitral and systolic tricuspid murmur which has been of so much interest to me, though I think few will claim that our knowledge of the presystolic murmur and its associated conditions is in all particulars complete, especially when it is remembered that some comparatively recent observers allege that the murmur is not auriculosystolic but really ventricular systolic. I confess it was some time before I myself could recognize it as anything but ventricular systolic, and even now I often learn its true significance only through landmarks of condition and consequence by which it is, in a way, staked out for me. Further interest attaches to the case on account of the complicating pregnancy, the termination of which permitted a comparative study before and after confinement.

The patient, whose case I report, is a married woman, aged 32, who was admitted to the Hospital of the University of Pennsylvania March 16, when about 7½ months pregnant. She was extremely ill about 8 years ago, before her first pregnancy. The illness lasted 3 months, and during it some operation was done *per vaginam*, but it is impossible to ascertain its real nature, and she seems to have recovered completely. Two years later she had a miscarriage. Between these two events there is a vague history of rheumatism, apparently muscular, certainly not severe. For the past 5 or 6 years she has had a winter cough which entirely disappeared in summer. For two years she has been growing short of breath, especially on exertion, has suffered much with palpitation, and has had several syncopal attacks. Three months before admission she is said to have had pleuropneumonia and was in bed 5 weeks. From this illness she seems never to have entirely recovered, and although she returned to work in a shoe factory she was compelled to give up at the end of a week. Since then she has been growing steadily worse with distressing cough and aggravated dyspnea, often amounting to orthopnea, growing weaker and losing weight. On admission her face was thin and pinched, while her cheeks were flushed, her eyes bright, and with her bad cough and extreme dyspnea she looked like a consumptive. She was found, however, to be without fever, her temperature being but 97.6° F., with respiration 34 and pulse 110 per minute. Physical examination found only a general bronchial catarrh. Inspection recognized a very striking jugular pulse connected with each systole of the ventricles, a marked systolic thrill at the apex, which was in the fifth interspace, an inch to the left of the midclavicular line. The upper border of cardiac dulness to the left of the sternum was found in the second interspace; the right

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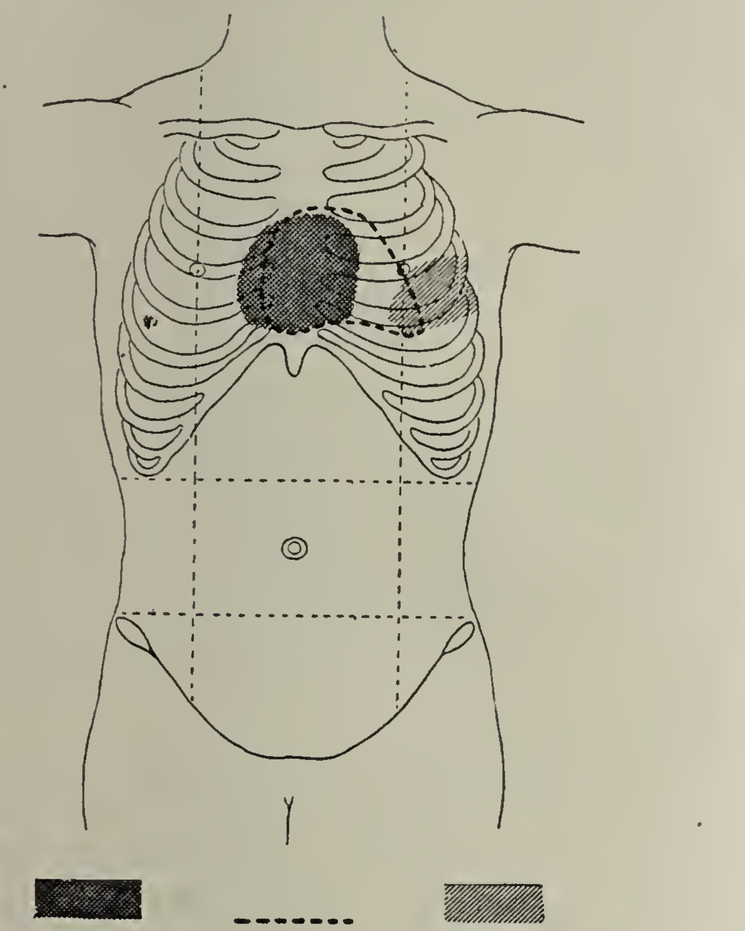
[1] Read at the annual meeting of the American Association of Physicians held at Washington, D. C., May 2, 3, and 4, 1899.

ɪrder one inch to the right of the sternum at the fourth
ɒ. The area of cardiac dulness is shown by the dotted
ıe in the appended drawing.

Auscultations recognized at the apex a short, rough
urmur terminating abruptly in a loud, thumping, first
und, presystolic in tone, followed by a faint, scarcely
ıdible second sound. When the stethoscope was carried
› into the pulmonary area the second sound became rapidly
tense and again less loud as the aortic area was approached,
owing the accentuation to belong to the pulmonary factor
the second sound.

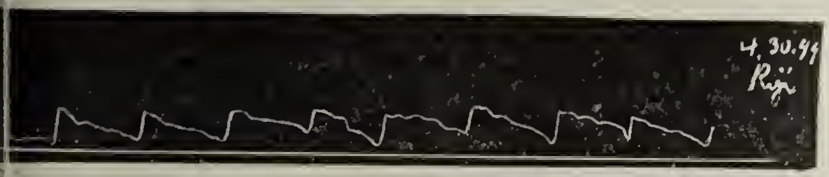
The presystolic murmur was not audible beyond the left
.rasternal line, nor was it conducted upward, although the
umping first sound was well heard in the axilla, though
ꜱs loudly than in the mitral area. It was also heard less
ıdly at the angle of the left scapula behind. The lighter
ading in the figure shows the condition of this thumping
st sound.



ed line marks cardiac outline. Dark shading marks tricuspid systolic murmur. Light shading marks presystolic murmur and thumping first sound.

ust across the left parasternal line in the line of the apex
ꜱ heard a long, loud blowing systolic murmur, more inse as the left edge of the sternum was reached and most
ense in the fifth and sixth interspaces at this edge. It was
.rd upward along this edge of the sternum as high as the
rd rib, and across nearly so far as the right parasternal
ɜ, in fact throughout the whole of the right heart. It was
heard at the apex nor in the aortic or pulmonary areas.
ɜ dark shading indicates the space over which this murr was heard.

owhere and at no time was a mitral systolic murmur
.ible, nor was there the irregular pulse so charasteristic of
ral stenosis. Appended is a pulse-tracing which exhibits



ıe irregularity. There was a small albuminuria on adsion, but the urine was otherwise negative. It was exnely difficult to define the liver at its lower margin either
ouch or percussion in consequence of the invasion of the
er abdomen by the pregnant uterus The patient was
dly relieved of the bronchial catarrh by potassium iodid
belladonna and she was correspondingly more comfore. The extreme cardiac distress was also diminished by
odermic injections of morphin and atropin.

At 4.30 on the morning of April 11, while the patient was asleep, the membranes ruptured and she was awakened by the gush of water. She immediately became more comfortable, her breathing was easier and less embarrassed. Her respirations fell to 26 and pulse-rate to 90. She was transferred to the maternity department, but labor did not actually set in until 48 hours later. The pains were severe, but ineffectual. By noon she began to be cyanosed and by 4.30 the cyanosis increased to lividity, when forceps were applied by Prof. Hirst and a male child quickly delivered. The relief to the cyanosis was almost instantaneous, but she was allowed to bleed freely. The pulse fell to 80, and although the breathing rate was still unnaturally rapid her relief was inexpressible.

As soon after her delivery as seemed safe, a physical examination was made. The conspicuous jugular pulse had disappeared except a fluttering appearance, such as characterizes the false jugular pulse. The liver could now be distinctly outlined by percussion and palpation at least two fingers' breadth below the costal margin. It was tender, but not the seat of a pulsation. Before confinement the lower margin could not be found because of the encroachment of the gravid uterus. The presystolic thrill was still as plain as ever, the pulmonic second sound strongly accentuated without reduplication. At the apex, which was no longer without the midclavicular line, the presystolic murmur was heard as before labor, cut short by the intensified thumping first sound followed by the faint second sound. A little further to the right, say at the left parasternal line, the tricuspid murmur comes out, is heard thence into the sixth left interspace at the edge of the sternum and rapidly fainter toward the right edge of the sternum, where it is only faintly heard. In like manner the right cardiac border, as determined by percussion, seems not to extend as far to the right of the sternum, but it is difficult to determine because of the encroachment of the enlarged liver. The pulse had fallen to 76–80, temperature 98°, and breathing-rate 26 to 30.

When we seek the differences between the physical signs before and after delivery they are what one would expect as the result of recession of the diaphragm and subsidence of venous turgor which followed the emptying of the gravid uterus. They include disappearance of the jugular pulse, diminished intensity and conduction of the tricuspid murmur, replacement of the apex, and probably slight change in the right border. The remaining signs continued the same. There was at no time a pulsation in the left auricular region above the fourth rib to the left of the sternum, though there was enlargement. The greatest strain seemed to have been on the right ventricle, and the bronchitis with which the patient was admitted also contributed to this and to its dilatation. Yet there was no edema, notwithstanding the apparent tricuspid regurgitation. In seeking for an explanation it seems not unreasonable to account for it by an accumulation of fluid in the amniotic sac.

One point more deserves to be noticed—the evidence of hypertrophy of the left ventricle. In pure stenosis without regurgitation at the mitral valve there is supposed to be no hypertrophy of the left ventricle, yet it is comparatively infrequent to find the signs of mitral stenosis without some hypertrophy. In these cases the conclusion is that there must be a certain amount of regurgitation even in the absence of systolic murmur. In the case reported the displacement of the apex after confinement was so slight that it may be inferred that the hypertrophy was not large, and that the absence of a systolic mitral murmur could be correctly interpreted as pointing to the absence of mitral regurgitations. The "thumping" first sound, characteristic of certain cases of mitral stenosis, and which was present in this case, may also be cited as evidence of sufficiency of the mitral valve, the complete closure of which seems to be indicated by it. On the other hand, the feeble second sound, so far as its aortic factor is concerned, points to an imperfectly-filled aorta and consequent feeble recoil on the aortic valve.

The very latest examination of the patient was made on April 29, when the breathing-rate was but 20, the pulse 60, and the temperature 97.2° F., these being approximately the rates and temperature for the three days previous, uninfluenced by digitalis or other heart-tonic, as she had taken none since her confinement.

SOME PROPHYLACTIC MEASURES WITH ESPECIAL REFERENCE TO INFANTS AND CHILDREN.

By W. L. JOHNSON, M.D.,

of St. Louis, Mo.

The idea that the physician's duty is confined to the alleviation of pain and the cure of disease is erroneous. His work should embrace this, but his study and aim should be to prevent disease. He should study causes. Etiology is as important as pathology and bacteriology; in fact the latter two should be studied chiefly with the view of their bearing on etiology. The treatment of disease, all important as it is, is secondary to its prevention. Bartholow is credited with the paraphrase "diagnosis, prognosis and therapeutics, but the greatest of these is therapeutics." If therapeutics means preventive measures as love means charity, I agree.

Though mankind is subject to many diseases—some real, some imaginery—not one is necessary for his *physical welfare*, not one but can, we may hope will be, eradicated some day. The day is coming when the physician, like his Chinese brother, will be paid for keeping people well and mulcted for permitting them to get sick; when the physician, like the germ, will secrete the toxin that shall limit his own life, and eventually destroy him and his profession. In the introduction to his *Materia Medica and Therapeutics*, Brunton, so long ago as 1885, remarked: "Preventive medicine or prophylaxis is daily becoming more important and probably before the end of this century medical men will be employed more to prevent people from becoming ill than to cure them when disease has become fairl established."

There are two principles of which we must never los sight. (1) The strengthening of the resisting power of the human organism, and (2) the elimination of th sources of infection.

Concerning the *first* we do well to begin with th *young*.

First and foremost let us advocate *water*. "Wate internally, externally, and eternally." The action o water in the human system is not unlike its actio without. It is the great solvent for the ingress of nutritive material and the egress of debris. Its missio differs little from its mission in the streams and rivers While the Americans and particularly the lower classe use water more freely than some of our friends on th other side, yet I venture the statement that even we d not pay sufficient attention to the toilet. From the tim the infant enters the world, in winter and summer, yea in and year out, he should have the daily bath. It i strengthening, it is cleansing, it is *prophylactic*. Th refuse, such as dead epidermic scales, hairs and nails and the excretions, particularly the non-volatile ones which if not washed off are capable of reabsorption—all, together with dust, chance germs, remains of irritating urinary and fecal deposits, may thus be removed Nature is given natural aid, the pores are opened and the skin exercised, surface circulation stimulated. And the truth is patent, water is prophylactic as well a therapeutic.

The bath should include rinsing of the buccal cavity scrubbing of the teeth, if any, and even cleansing o the nostrils is not amiss. To the infant water internally is a necessity. How many mothers so thoughtful as to give their sucklings a little water to drink now and then? True they get liquid in their milk, but not enough often to eliminate as they should, the waste products of the body. Water is nature's diuretic. I have seen urates which had been deposited on the diaper, and for no other reason, as I believe, than because the baby did not get enough water to hold them in solution. It is aperient, and given more freely to infants would doubtless lessen the constipation so prevalent in them. And is it not prophylaxis to relieve the kidneys and unload the bowels at the proper time? If the infant is given no water he depends exclusively upon his milk. We drink water, we eat water in every bite of steak, in potatoes, vegetables of every sort, and drink it in coffee, tea, beer, drinks innumerable.

Prophylaxis might well begin in the pregnant woman. She should be nursed carefully and fed bountifully. She should be guarded from every disease, especially typhoid fever, malaria, and syphilis. If she have syphilis, treatment must be instituted, and if she bears the treatment well we may hope for a healthy child.

It may be well to refer to that prophylactic measure

metimes neglected—either because of haste or igno-
nce—of waiting until the umbilical cord ceases pul-
ting before it is tied. Béclard pointed out as early as
52 the importance of the infant receiving the addi-
nal two ounces or more of blood in the cord and
acenta. And as Pinard observed, so we must believe,
e can nearly always tell the infants whose cords have
en severed too hastily.

As a preventive measure let us withdraw the mucus
m the infant's mouth, since remote affections, as
eumonia, if not immediate suffocation, may super-
ne. If the child be vigorously rubbed all over with
lean towel, respiration is readily established and the
ild made cleanly, so that, while it may be done, the
ing preceding the bath may be dispensed with. The
th in a reasonable time should follow and the infant
ould be warmly clad. I believe the flannel band a
eventive measure, especially in the weak.

For older infants and for children the bath should be
en daily. It matters little about the time so long as
surroundings are comfortable and conducive to
od health. The temperature of the room, the sus-
tibility of the child to warm or less warm water,
ist influence the nature of the bath. Sometimes
en a child is restless at night and cannot sleep readily
is well to postpone the warm bath until just before
ltime. This will be found a simple and natural
orific. A cool bath in the morning will stimulate
d refresh the languid little one.

The mouth and teeth (when any) of the young are
glected. It does not appear so necessary to cleanse
buccal cavity, since eating no solid food, as a rule,
y do not have meat fibers and the like to lodge and
compose. Yet, when they crawl they get into coal
ckets, handle coal dust and kindred filth, which
ryone knows inevitably reaches the mouth. Is not
matitis, catarrhal, ulcerative, and parasitic, com-
n? Then, too, the mucous membranes throughout
body excrete waste-products. The buccal cavity is
arbor for germs, and a point of entrance for gastro-
estinal infection. Keep it clean!

The subject of clothing is an important one in this
ngeable, catarrhal climate when related to the young.
ton garments are pretty generally preferred in sum-
r, yet it is a question whether they are best. To go
ther than the illustration of ice and the blanket, we
uire into the reasons why wool should be consid-
d the garment throughout the year. Woolen garments,
ce they are coarse and porous, are slow conductors
heat, for they retain within their pores considerable
which is a poor conductor. Their capacity for re-
ing moisture and giving it up slowly is great and
antageous. This, a common observation, leads the
lete to wear wool. The evaporation being not so
id, the body-surface is not cooled too quickly.
ne might argue against woolen fabrics in summer
the ground that they, being poor conductors of heat, keep the heat of the body in and hence the body warmer. "But we know that conduction and radiation are, as a rule, more active in proportion to the coldness of the air" (Stewart). "As long as the temperature of the body is higher than that of the surrounding medium, heat is given off, and that the more rapidly the better the conducting power of the surrounding medium; as soon as the surrounding medium rises higher than the temperature of the body, the latter absorbs heat, and it does so the more rapidly the better the conducting power of the medium" (Landois' Physiology, Art. Thermolysis). Beyond doubt, then, in cold or in very hot weather wool is indicated. But what of more moderate weather, when the temperature is slightly below that of the body? Here we must consider evaporation and radiation, and these exceed conduction. Now wool is the better evaporator. "Wool possesses a great capacity for moisture . . . the evaporation from its external surface is not nearly so rapid as from the surfaces of other material. The water absorbed by different fabrics penetrates their fibers and is held *between* them in the interstices of the cloth. The latter can be wrung out, and is called water of interposition; the former is only got rid of by evaporation, and is termed hygroscopic water. Wool greatly exceeds either linen or cotton in this power of hygroscopic absorption, taking up at least double the amount of water in proportion to its weight, and quadruple in proportion to its surface" (Huxley and Youmans). Now McGregor Robertson, although an advocate of cotton, says: "The hygroscopic qualities of clothing also determine its value, since if it readily absorbs moisture from the skin a great loss will be experienced thereby." Wool does this, but what is to be emphasized is that it does not give it up so rapidly as to chill the body. True, it does not take it up as rapidly.

Furthermore, wool is the best radiator. Again, in moist air, especially when still, very little heat is lost by evaporation. The water remains upon the skin as sweat. It is here wool can absorb and retain more sweat. And, says Currier in his *Hygiene*, when the air is very moist and evaporation ineffective, radiation becomes correspondingly active and aids the process of conduction to relieve the body of much heat. Wool, we repeat, is the best radiator.

We must remember, too, that heat-production is less in infants and the aged, hence the greater precautions for maintaining it. Our object then is to prevent cold. Whatever may be said to the contrary, on a theoretical basis, certain it is that exposure to draughts, sudden chilling, as from too rapid evaporation, are prolific, if not thoroughly understood, causes of many colds, bronchitic and other respiratory disturbances, even tuberculosis. Also rheumatism, renal disease, and even intestinal troubles are frequently traceable to exposure. Cold interferes with the circulation. It may cause reflex troubles by irritating the extremities of the nerves. It may and does check the secretions and excretions of the skin and mucous membranes. Yes, we believe in the germ, but these changes make it possible for him to become aggressive. We must conclude then that, (1) for the young, whose body-surface is greater in proportion to its entire weight than in older and larger human beings (greater surface gives greater play for evaporation, hence the little ones cool off more quickly), and especially in this changeable, catarrhal climate, woolen fabrics winter and summer are the best for the babies; (2) exposure of limbs as well as meager clothing of same as advocated by some is unsafe and unwise, and that more attention to their warmth and less overclothing of the chest will result in better health; (3) undue pressure as by gloves, tight shoes, tight collars, and hat-bands may and does cause inequality of circulation, benumbing of peripheral nerves and resulting lack of resistance, which may give rise to cold hands, cold feet, nosebleed and headaches; (4) several light undergarments are warmer and better than one heavy one, and these should not be too tight to restrict motion nor too loose to allow of circulating rather than stationary air between the layers.

Let me again quote Huxley and Youmans: "The good effect of wearing flannel next the skin the year round is unquestionable," and finally to refer to the testimony of travelers in hot climates, notably Stanley, and mountain-climbers on the Continent, who agree that wool at all times is *the* garment material.

However well the average physician may know what is best he is certainly far too lenient in the matter of permitting or counseling mothers to dry up the breast-milk (nature's prophylactic) and resort to modifications of cow's milk, or, what is more common and more detrimental, the use of patent foods. This practice is a shame upon the modern mother and a disgrace to the profession. The fact that the breast-fed child is so often exempt from the contagious and infectious diseases, that he is the healthier and happier child—the shortcomings of patent foods, their lack of fat, preponderance of carbohydrates, the difficulties in securing intelligent sterilization of cows' milk—all these, and a thousand other reasons, should make it the imperative rule of the physician never to suggest, never to acquiesce in robbing the infant of his birthright to nature's sustenance, unless after much thought, even consultation, the very life of the infant or mother is believed to be in jeopardy; and this, like the necessity of producing abortion for the vomiting of pregnancy, is indeed rare.

What has this to do with prophylaxis? Holt, speaking of the etiology of scurvy, says: "The previous diet of most of these patients who develop scurvy has been either some of the proprietary foods or condensed milk, or a combination of the two;" of rickets he says: "The essential cause of rickets is dietetic, although hygienic influences play a very important role. . . . Rickets is not common in *nursing* children unless lactatio be unduly prolonged." Rotch says: "Like all disease associated with impairment of nutrition it (rickets) i less likely to occur among the breast-fed infants tha among those who are deprived of their natural food."

I cannot conclude this paper without a reference t a common evil—the lack of proper measures to maintain a good nervous system in young children. Takin the young one to the theater, into the parlor full of admiring company until a late hour, exciting the littl ones by too much attention, if persisted in, will inevitably lead to an unstable adolescence and a temperament American though it may be, nevertheless deplorable.

The physician is often careless with his fingers an instruments, especially in clinical work. Whenever h suspects an infectious disease, handles ulcers, abscesses mucous patches, he should wash carefully and thoroughly with powerful antiseptics. The physician i attendance upon a case of diphtheria, scarlet fever, o erysipelas, for instance, would better send a substitut to his labor-case occurring at the same time, no matte how cautious he may be. The nurse must not dres the vulva and then the infant's navel without grea antiseptic precautions. Tell her so. The obstetrician would better keep the pet dog or cat who is soon to b succeeded by the first-born out of the lying-in room Diapers and baby chamber-chairs should be kept from the living-room.

It is by attention to details—trying as they are—by eternal vigilance, by careful direction to those afflicted and ignorant, and to those associated or liable to contact, that the physician may save his patient many a trying disease and even his life. It is not enough to know the danger ourselves, but it is our duty and our mission to teach them to others, and so plainly that "a wayfarer, though a fool, need not err."

DESCRIPTION OF A NEW METHOD FOR THE IMPLANTATION OF GLASS BALLS INTO THE ORBITAL CAVITY.[1]

By CHARLES A. OLIVER, A.M., M.D.,
of Philadelphia.
Attending Surgeon to Wills Eye Hospital; Ophthalmic Surgeon to the Philadelphia Hospital.

Having, through repeated performance of the operation for evisceration with insertion of artificial vitreous (glass balls[2]) upon properly-chosen cases, obtained a degree of cosmetic success that has been far in excess of what I had originally expected, I have been induced to endeavor to obtain a better working stump than has heretofore been obtained in cases in which it is necesary to sacrifice the eyeball and not the orbital contents.

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[1] Paper read before the April, 1899, meeting of the Section on Ophthalmology of the College of Physicians of Philadelphia.

[2] Personally I have not had any experience with the insertion of any other material than glass into the scleral or the orbital cavity.

At last, after several trials with the well-known plans of Frost, Lang, and Morton, I hit upon a modification of the methods of Frost and Morton, which consisted in first securing the horizontally-placed recti muscles by a single suture, and then the vertically-placed ones by a second single suture, in such a way that their free ends could be neatly sutured together over a glass ball, which is placed within Tenon's capsule; the whole being covered with the conjunctival membrane, thus securing a strongly protected and permanent stump over which he artificial eye when properly molded into place in accordance, for example, with Snellen's plan, will admit of as good appearance and of as great motion as hat which can be secured by evisceration with the nsertion of artificial vitreous.[3]

The procedure which in its latest details has given ne the best results with the least amount of reaction in fact frequently less than with ordinary enucleation), s practically as follows:

The conjunctiva around the entire corneal limbus is reed from the globe and dissected sufficiently far back o as to expose the tendons of the four recti muscles. The tendinous extremities of the muscles are made eady for separation from the globe. A half-curved needle with its point directed toward the corneal border, and holding a long piece of catgut thread, is caried directly through the belly of the internal or the external rectus muscle, and brought out of the tendon of the muscle just behind the remaining attachment to he globe. The muscle thus secured is cut loose from he globe just as in an ordinary tenotomy. The catgut hread is drawn through as far as practicable, and a ufficient length of the strand of gut is left untouched n order to allow a loop broad enough for free manipulation between it and the eyeball. The needle is caried over to the opposite side of the cornea, and, with its point directed away from the cornea, is made to ransfix the tendinous belly of the other lateral muscle, which is secured and freed from its connection with he eyeball.

The vertically-placed muscles are dealt with in a imilar manner.

The four recti muscles are thus freed from their teninous attachments to the globe, and each pair of musles is secured in a loose sling that can be tied the moment that this becomes necessary.

Working in between the broad loops of catgut attached to the ends of the muscles that are held apart y an assistant, the eyeball is enucleated with as much f the optic nerve as may be desired, without any ifficulty.

The cavity previously occupied by the globe is thorughly cleansed and a water-tight glass ball of about three-fourths the size of the normal globe is dropped into place.

The ends of the lateral rectus muscles which are held by the lower and the first placed catgut thread are neatly trimmed and sutured together. The same is done with the two ends of the vertical rectus muscles. The circular opening made by the cut edges of the overlying conjunctiva is lengthened into a lozenge by a couple of horizontal snips, and is carefully brought into linear apposition by a series of silk threads.

The operative field is covered by a gauze protective-bandage upon which iced compresses are placed.

If the operation be done under strict asepsis, without any undue violence, and the parts be kept thoroughly freed from blood-clots and loose or hanging tissue, and if iced compresses be employed for the first 24 to 48 hours after the procedure, there will be absolutely no reaction, and the surfaces will be ready for the insertion of an artificial eye in a very brief time—in fact, earlier than after an ordinary enucleation, while the cosmetic results will be fully as good as those that are gotten by Mules' method.

The operation is offered on trial for cases in which abscission, keratectomy, or evisceration with insertion of artificial vitreous are inadvisable or impossible, such as in many cases of phthisis bulbi, extensive ruptures of the sclera, etc., thus giving opportunity to obtain well-fitting and freely mobile artificial eyes in cases in which it is necessary that a globe without any of the other orbital contents must be sacrificed.

PATHOLOGY AND TREATMENT OF NASAL ULCER UPON SEPTUM NASI AND FLOOR OF NASAL PASSAGE.

By HIRAM L. LEFFINGWELL, A.M., M.D.,

of Milwaukee, Wis.

Having acquired the method of treating this non-specific ulceration in many cases successfully, as well as the ulceration upon lower half or lower third of the tibia accompanying varicose veins of the lower extremity, which is equally nonspecific, I assume that the indication is the same for both conditions. The nasal ulcer, which is constantly covered with an incrustation resulting from the process of necrobiosis, superficial or deep, is owing to the same cause—a varicose condition of the nasopharynx; which has so much affected the circulation at this point, that local vitality is at a very low stage. These dilated veins often communicate with the fronto-occipital sinus. This is proved by the fact that when removal of the crust causes epistaxis, the brain-fulness is greatly relieved, and the nasopharynx too, and the patient will think that the great improvement is a precursor of recovery.

We treat the varicose ulcer of the leg by covering the ulcer with sublimated oakum and strapping the foot and leg almost to the knee with inch-wide strips of diachylon or rubber adhesive plaster; but how shall we treat the incrusted nasal ulceration upon the same principle? I will try to describe it.

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[3] The operation must not be confounded with Fox's method of inserting glass lls into eyeless sockets from which the organ has been previously removed.

After the partial removal of incrustation by raising the edges with a crochet-needle, and using small forceps, apply with a small swab hydrogen dioxid until every particle of the incrustation left is destroyed; and if only slight bleeding occurs, continue to apply it until the bleeding stops. Use absorbent cotton on any holder and change often. My rule is to allow the ulcer to bleed freely, but to apply the hydrogen dioxid until the frothing produced by oxidation entirely ceases.

This treatment affects the whole nasopharynx: the oxygen is taken up and gives life to the coats of the vessels and lessens the varicose condition to some extent each treatment. The treatment should be given daily and then at intervals, according to the loss of vitality to the circulation. These cases are very seldom complicated with catarrhal conditions that require use of syringe or spray. It is a strange fact that children under the ages of 10 or 12 are cured by giving suitable tonics, diet and possibly using hygienic precautions. This action would lead us to believe that the condition was owing to some cachexia, but I am inclined to differ and say that this action is simply a restoration of the elasticity of the vessels by greatly improving the general health. The child had no disease to begin with but a bad cold, and had caused the dilatation by too forcible use of the handkerchief. The adult had also done this, but improvement of the health was insufficient, because the organism of the adult is no longer so elastic as in childhood.

Syphilitic ulcers are not generally accompanied by varicose conditions of the nasopharynx.

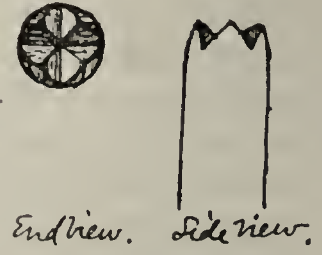
A SIMPLE GAUZE-PACKER.[1]

By WM. C. BANE, M.D.,

of Denver, Col.

Ophthalmologist and Otologist to the House of the Good Shepherd; C., R. I. & P. Ry.; Consultant for Diseases of the Nose and Throat to the State Home for Dependent Children.

Packing wounds with gauze is a prevailing practice, but I have not been able to accomplish the act with ease by the use of smooth-pointed probes, applicators or forceps, the instruments in common use. The round points often slip on the gauze or pass through the meshes and cause undue pressure on the tissues. Dressing-forceps sometimes catch on the gauze and partly withdraw the packing as they are removed. To overcome the difficulty I serrated the end of the handles of my applicators and of Buck's probe by cutting a cross in the end with a small file, and smoothing the teeth thus produced so that they would not be too sharp, yet sufficiently prominent to catch in the meshes of the gauze. (See enlarged drawings illustrating the ends.)



Such a device is adapted for carrying gauze into any wound or cavity without undue pressure on the sides of the cavity, or fear of the point passing through the gauze and penetrating tissue, as a smooth point is liable to do in the packing of a brain-abscess cavity. The thickness, length, and shape of the shaft of the instrument will depend upon the work done by the surgeon.

The ordinary aluminium probe and cotton carrier, $\frac{1}{16}$ of an inch in diameter, serrated in the round end, makes an admirable packer for work in the ear and in mastoid operations. While the device is original with me, I have no doubt many others have preceded me in the idea. However, I believe its value justifies me in calling the attention of the profession to it.

Total Obstruction of the Bowel lasting 34 Days.—W. Fell (*Australasian Medical Gazette*, March 20, 1899) reports the case of a man 32 years old, who had suffered from abdominal discomfort for over a year. Operation had been advised but was refused. Total obstruction set in, which was not affected by enemas; his abdomen became swollen and tense; there was frequent vomiting during the first week, intense pain and the passage of no flatus. Palliative operation was repeatedly refused. At the end of 2 weeks the whole abdomen was blue and a hard swelling appeared at the angle of the jaw, which broke down on the fifth day and discharged nearly a teacup full of offensive pus. Hunger was never complained of. The patient became rapidly emaciated and very weak, and died quietly on the thirty-fourth day. At the necropsy an impermeable malignant structure of the bowel was found at the sigmoid flexure. The bowel measured 18 inches in circumference above the obstruction and contained some liquid feces and an enormous quantity of flatus. The stomach and small intestines were empty and contracted. [M B T]

Nerve-Suturing.—D. McCartney (*Glasgow Medical Journal*, May, 1899) cites the case of a man, aged 56, who had received a cut 9 years previously in the anterior aspect of his left wrist. The wound healed with the loss of sensation in the palmar surfaces of the 3½ outer fingers of that hand. An operation was undertaken, dissecting out the proximal bulbous end of the nerve and the atrophied distal ends. The ends were cut off and sutured with fine chromicized gut. The patient was discharged from the hospital a week later and several weeks after there was marked improvement in the acuteness and localization of his sensations. [M.B.T.]

Triplets: A single child and a thoraco-gastrodydimus.—G. W. Thompson (*Indiana Medical Journal*, April, 1899) reports a triplet birth with one single male child weighing 3 pounds, and 2 female children perfectly formed in all respects except their union in one body. The mother was a primipara. The single child was born first, the breech presenting; the 2 others presented by the vertex and were born without any aid except traction by the hand in the vagina. The single child was stillborn and the other 2 died after 12 minutes. The mother suffered from severe shock and postpartum hemorrhage, but finally rallied and made a good recovery. [M.B.T.]

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[1] Exhibited at the Denver and Arapahoe County Medical Society, March 14, 1899.

The Philadelphia Medical Journal

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Reactionary and Impolitic.—We read in a newspaper the following special despatch from Des Moines, dated May 23:

> "The Iowa Homeopathists convened in annual convention here to-day. The unanimous sentiment of the meeting was that the present Iowa laws compelling an examination of aspirants for medical practice by the State medical examiners should be abolished, and a committee will be appointed to seek the repeal of these laws by the next legislature, and permitting all college graduates to practise on the strength of their diplomas."

It is almost unbelievable that whatever the private opinion, men calling themselves physicians would be so impolitic as to announce publicly a plan such as this. We are reminded of the famous old lady who attempted to stop the rise of the ocean-tide with her broom. Homeopathists who value their profession, their creed, or the welfare of the community, should hasten to disavow this selfish and stupid action of their colleagues.

"The exhibit" at medical society meetings seems to be not wholly satisfactory to anyone, and now comes the complaint that the doctor is guilty of extorting an unfair price for space. In a letter before us one manufacturer says that the money thus made is used "for wining and dining," the "poor devils of exhibitors not being invited to share in the jolly good time." How far this opinion is shared by other exhibitors, and how far the charge is justified by the action of the medical committeemen, we have no means of judging. We do not remember to have seen any reports as to the income and expenses of committees on exhibits, and do not know, if there is a profit, what is done with it. We suggest in future a publication of these matters in the spirit of perfect frankness and justice. Only reputable firms and those making nonsecret preparations should be admitted to the exhibition-room, and they should be treated with courtesy and honesty, and with no intention of making a financial profit out of them.

Subscribers may lessen quack advertisements in lay publications, scientific journals, etc., by the simple method of writing protests. If publishers are not apprized of any opposition they naturally believe that "silence gives consent." We have sometimes failed, but sometimes have succeeded, in inducing a publisher to discontinue an objectionable advertisement by a single letter. Would *McClure's Magazine* continue to publish the outrageous things it now admits if a hundred remonstrances were sent to its editor? One letter caused the disappearance of an osteopathic "ad." in an optical journal, and another shamed the publisher of a semiprofessional pediatric journal concerning a cancer-cure. We suggest that physicians examine the advertising columns of every magazine and newspaper that come to their homes and at once write protests to editors and publishers against the worst of the quackery advertisements, explicitly mentioning the reasons why certain of them are contrary to good ethics, either professional or social.

The Office-seeker.—With the regularity of the yearly national medical meetings comes the medical politician scheming for office. If it were not a fact altogether too obvious one could not bring himself to believe that medical men could push themselves by all the politicians' arts as candidates for positions of honor. The chief value of such elections is that they bespeak the spontaneous feelings of respect and admiration entertained by one's fellows. What kind of a man must he therefore be who sets himself up as most worthy and chicanes for the honor? Honor itself is lost in the getting. Egotism and vanity have surely reached morbidity when such impudence is exemplified. It is incontrovertible evidence of rank unfitness for a position of honor when, instead of being chosen, one chooses to honor himself, and works for votes by the methods of the ward-boss prior to a nominating convention. It seems to be an appropriate season to settle the case of the medical politician. Vote against a man who directly or indirectly asks you to vote for him!

Nonsecrecy is becoming so popular that the newspaper advertiser finds it to his advantage to fall into line. "Forty thousand physicians are said to use the new preparation for dyspepsia and wasting diseases, because it is not a secret patent medicine." This, decidedly, is progress! Can it be true that the ancient love of mystery is fading out of the minds of Lord Demos, and that His Majesty is coming to desire a knowledge of what is the nature of the thing he so delights to be humbugged with? Of course there is no trace yet of any desire on his part, judging from the flamboyant advertisement, to have the peculiarity of his diseases treated by intelligent adaptation of means to ends. All " wasting diseases " and " dyspepsias " are alike! And all are amenable to the " harmless " tablets, containing " no mineral poisons." But we should be, and, verily, we are, grateful for the step in advance. After nonsecrecy, perhaps, etiology, and then of course intelligent therapeutics. Our correspondent writes: " You have found the quack an argument, but who will find his dupes an understanding?"

Denver Claims the Prize.—We gladly copy the following from the *Denver Medical Times*:—

> "As a result of public improvements and reform in the sanitary administration, imperfect though these reforms have been, the death-rate of Denver has been reduced from 19.4 as the average rate per 1,000 per year during six years from 1886 to 1891, inclusive, down to an average rate of 12.13 during the 7 years just ended, or the still lower average of 11.18 during the past 4 years. This last means, in a population of 160,000, the saving of 1,315 lives per year. It means of course the prevention of a vastly greater number of cases of sickness, a marked increase in the average duration of human life, and an important conservation of the physical strength and wealth-producing energy of the people. The saving of 5,260 lives in 4 years, or 13,150 in every decade, in the one city of Denver as a result of improved public arrangements, is a triumph for sanitary science that may encourage further efforts.
>
> " Sanitary administration of almost all the large American cities has been increasing most remarkably in efficiency during the past 10 years. Very recently the Philadelphia Medical Journal gave publicity to certain figures from Buffalo and claimed that that city was thereby proven to be the healthiest large city in the world. Buffalo is certainly a healthful city and Dr. Wende's excellent administration of its health department during the last 8 years is responsible for it. But if we may speak of cities of over 100,000 in population as being 'large,' then Denver is certainly not only the healthiest large city in America, but in the whole world, for we must remember that 20% of even our present low annual death-loss is due to imported tuberculosis."

Reform in Medical Instruction.—The widening domain of medicine and the rapid evolution of specialism are making it day by day more urgent that changes should be made in the courses of medical instruction in order that the work may be adapted, so far as possible, to the needs of the individual student. With the avowed objects of directing the student's attention early and constantly to the living patient and away from books, bones, and cadavers, of unifying the present curriculum, of giving liberty to teacher and student in their work, and of devising a plan equally adapted to the quick and the slow, the College of Physicians and Surgeons of Chicago has divided the college course into three terms of four months each, beginning respectively the first Monday in September, the first Monday in January, and the first Monday in May. Each term of sixteen weeks is divided in two half-terms of eight weeks each. Attendance upon two terms of four months each is required to obtain credit for a year's time, and credit will not be given for more than two terms' attendance in any calendar year. A student may, under proper conditions, attend half or the whole of a third term in any year, but he will receive credit only for the work done, but not for the time. Four years' work and time are required for graduation. Students are encouraged to select a clinical professor of the college as a preceptor, who will receive as nearly as possible ten students, whom he will meet for an hour once a month, to decide upon courses of study. This modification of current methods of medical instruction seems practicable and should yield excellent results. We await the outcome with much interest.

Dividing the Meetings of the American Medical Association.—It has been proposed, on account of the extent of the country, to divide the meetings of the Association, so that, during two or three years, several would be held synchronously in different parts of the country, the whole body coming together for a common meeting every second or third year. We are surprised that the suggestion should have been received with any favor. If put to vote we have little doubt it would be deluged with a ringing shout of *noes*. The plan would clearly lessen the power of the organization to mold both professional and general public opinion, and would almost entirely abrogate our desirable and growing power to influence legislation. It would mean professional disintegration, our greatest historic and continuing curse, and from which, with infinite travail, we are slowly reaching out toward some sort of unity and power. The railroad is our salvation from the disease of sectionalism and provincialism. Of all men the physician needs to break up the slavery to routine and habit, and to meet his colleagues from all parts of the country. In centralization, not disintegration, in union, not individualism, lies the tendency of progress and the coming duty.

Another Newspaper-service and the Way to Utilize it.—We have been interested in the plan of a Philadelphia daily newspaper to " do justice to Philadelphia's representatives at the meeting of the American Medical Association," by securing, direct from the authors, copies of the essays they are to read at Columbus, the same to be printed " simultaneously in Philadelphia with their delivery in Columbus." The reason given is that " papers of this kind are never adequately reported by wire." This is astute and at first blush it seems an innocent plan. But it has a sulphurous odor. In another column a correspondent cites an instance which, if he is correct in his statements, makes us hesitate to comply with our obliging newspaper editor. If the author fail to read his contribution because of some accident, the exophthalmic accounts in the far-away paper seem a bit ludicrous. To prevent this it is said that one author last year at Denver had the greatest difficulty to secure the privilege of reading his paper in overlong session, and the abstract read was a pigmy compared with the giant already printed a thousand miles away.

We suggest for the benefit of all such experts, if not for the greater good of the profession, that a special official editor or committee be appointed by the association, through whose hands must pass the Associated Press reports, and only through such a censorship could members enter into negotiations with the laity through the most kind medium of the newspaper. The public can understand but little of the scientific communications made, or that should be made, to a professional body like the association, and this growing evil of the newspaper advertiser with the latest developments, can only be overcome by some plan whereby competent and authoritative officials shall be the judges of many things, among them as to how far a politician may use the association as a stalking-horse for bringing down unsuspecting game with his newspaper dumdum bullets.

The Evolution of the Consultant Physician and Surgeon.—A scheme has been started in Birmingham, England, the main lines of which have given rise to much adverse comment in the two leading English medical papers. The Birmingham Hospital Saturday Fund, a body that collects subscriptions from working-men and divides the sum received among the various medical charities of the neighborhood, proposes to establish an institute where the opinion of the consultant physician or surgeon can be obtained for half-a-guinea, holding that the usual sum of one guinea is entirely outside the reach of the middle-classes, who yet may not desire to trespass on the time and labors of charitable institutions. So stated the proposition seems a good one. It would lead to certain small fees being paid to the medical profession for work that would otherwise be obtained from them gratis, and would relieve the hospitals from certain undue burdens. But the Hospital Saturday Fund does not intend, as its scheme at present stands, to attempt to utilize the services of the medical men in Birmingham who have proved themselves to be in fact what their life-work promises that they must be—*i. e.*, competent consultants. The fund has not approached the seniors of the medical profession in Birmingham and asked that persons guaranteed by the fund to be unable to pay more than half-a-guinea should be seen by them for that reduced fee. The scheme of the fund is much more revolutionary than this. It is proposed to hire two consulting rooms and two young gentlemen, one to be called a "consultant physician" and the other to be called a "consulting surgeon." These two officers of the fund are to be placed in receipt of a salary of £500 per annum, and for this sum are to see all comers, while the profits, which it is believed will be considerable, will accrue to the fund. The idea that medical men who have any right to the title of "consultant" can be found willing to give their entire services for such a salary, and to see their labor exploited by a group of laymen has met with universal condemnation among medical men. It has arisen from the mistaken notion that a man is a consultant because he calls himself so, and not because he has put behind him some record of work which entitles his opinion to be received with peculiar respect, not only by the public but by his medical confreres. The Hospital Saturday Fund will, it is believed, find it hard work to get any medical gentleman of real position in his profession to accept either of the posts which it is proposed to create.

Agraphia.—Dr. H. C. Gordinier has put on record (*American Journal of the Medical Sciences*, May, 1899,) an important case which seems to prove the existence of a true graphic center. The patient was a woman who developed a tumor at the base of the second left frontal convolution. The symptoms were headache, vertigo, numbness and slight paresis in the right arm, optic neuritis, slow cerebration, paresis of the right external rectus muscle, and total inability to write. The patient had no aphasia, word-deafness or word-blindness. She could recognize and name any object placed before her, or, with closed eyes, any familiar object placed in her right hand. Her functions of speech were carefully analyzed by Gordinier, who seems to have made his clinical observations with critical exactness. At the autopsy a tumor was found at the foot of the second left frontal convolution, extending downward and inward in the centrum ovale as far as the roof of the anterior cornu of the lateral ventricle, and forward to near the apex of the frontal lobe, involving almost exclusively the white matter of the second frontal gyrus. The reporter contends that no other part of the speech-zone was involved. We have given but a brief synopsis of the case, which should be studied in the original report, but we do not hesitate to say that it is unique and one of the most important in the whole range of the literature of the pathology of speech.

Gordinier will doubtless be put on the defensive by his critics, who will make many demands upon him, both reasonable and unreasonable. Some, for instance, will contend that the slow cerebration (not at all uncommon in tumors of the frontal lobes) was really a disguised aphasia; and others will maintain that the autopsy was not sufficiently accurate to disprove the involvement of subcortical fibers other than those running from the graphic center. With these and similar criticisms we shall not ourselves undertake to deal here, but merely say that we believe that the reporter has presented a case which will be difficult to argue away by any such objections.

Following Dejerine especially the opponents of a graphic center have long held the day, and have been fortified by the paucity of observed cases of lesions limited to the base of the second left frontal convolution. Such a center was formerly accepted on somewhat theoretic grounds—and on such grounds, indeed, it is difficult to dispense with it. Gordinier's case comes now as nearly to giving an exact demonstration of the existence of this center as a pathologic case well can, and we shall be interested to observe with what reception it meets. Whatever the immediate event, we have no doubt that the case will occupy a permanent place in the literature of this much-debated question.

Schools for Instruction in Sanitary Science.—Several years ago the health-officer of one of our inland cities suggested during the course of a correspondence with Dr. Fowler, who was at that time the Health Commissioner of the City of New York, the possibility of arranging a short postgraduate course of work in connection with the Health Department of New York. It was the object of the officer of the smaller city to send to New York every year some three or four of his best men for the purpose of giving them a month or six weeks' observation of the methods in vogue in the metropolis.

Whatever other objections may be made to some of the civic or business methods of the New York Board of Health, it must be admitted that the scientific methods are a credit to American Municipal Administration. The reports and publications that have emanated from the New York health office during the last ten years have been of great value and have served as an educational factor for the officers of other cities who have been intelligent enough to read and comprehend them. It was a source of keen gratification to scientific workers all over the country when it was realized that even Tammany dared not interfere with the scientific working force of the health department of the largest city of the United States.

The reason why the health department of New York has attained its present preeminence and standing is not far to seek. Looking through its reports from year to year, one cannot fail to be impressed with the fact that the same names continue to appear attached to the reports of scientific work; and as the years go by it is noted that the official rank of the most reliable workers has become higher. It is quite plain that so far as the bulk of the appointments in that department are concerned a practical adherence to civil-service methods has prevailed for many years. Politics may intrude enough to change the official head of the department and the official policy may be modified from time to time by political influences, but in spite of these occurrences it is evident that the organization has been kept intact and the working force interfered with but little in comparison with what has been done in other American cities.

What has been the result of this practical permanence of organization and working force? Taken through many years the policy of the New York department has been one of sustained, purposeful effort, resulting in successful accomplishment and progressive improvement. Its various divisions, controlled by experts and manned by subordinates that have been chosen for efficiency in their particular branches, have become practically schools of instruction in sanitation, and the man who has passed through the various divisions in succession has become well fitted to occupy a position of responsibility in connection with sanitary administration. This is the reason why even an occasional weak head has not been able to ruin or nullify the influence of the board. The machine is too big, too scientifically constructed, and its momentum too great, to be destroyed by one man's inefficiency. Nay, the individual parts of the whole have such an intelligent comprehension of their duties that the machine will run properly even if for a time (not too long, however) an unskilled head be in control.

In the Chicago Health Department the same efficiency of service has been noted, especially during the years that it has been under the direction of Dr. Reynolds. For the Western States the Chicago Department has done much the same work and has made much the same record as the New York Department has done in the East. There is this difference, however, the Chicago Department has attained its maximum of efficiency in a much shorter time than has that of New York.

These two great departments are to-day practical training schools in sanitation. From their publications the officers of many of the smaller cities are drawing their inspiration for work; new organizations are being modeled upon the lines laid down already in these two great cities.

These two great practical schools should be utilized in connection with the proposed theoretic schools that are to be established soon in different parts of our country.

Sanitarians have long felt that their science has become a specialty in medicine. Its scope has become so extensive that it is no longer possible to hold to the old belief that any doctor is qualified for the proper practice of preventive medicine. As a matter of fact the majority of doctors have never had any instruction of any kind in sanitary science. A mere course of lectures upon the subject in no way qualifies any man to meet the actual problems of municipal sanitation. It is in fact a mere introduction designed to set him to thinking.

A sanitarian should have a special and practical knowledge of certain branches far more extensive than that possessed by or required of the ordinary physician. If a set course of instruction in these branches could be included in the curriculum of our universities or offered as postgraduate courses by hygienic institutes in connection with the Health Departments of our large cities, we might eventually have a set of educated sanitarians from whose ranks the health-officers of all cities would gradually be selected. The degree of

Doctor of Hygiene, fairly earned by a man already possessing his medical degree, through attendance upon a two-years term of practical instruction in such a school, would give some assurance to any community of efficient and intelligent service from a health-officer bearing it.

The kind and extent of instruction that should properly be given in such a school would of course require to be gradually determined after some years of experimental teaching. To begin with, it is evident that it would include both didactic and practical teaching in the following branches:

Bacteriology,
Chemistry of foods, air and water,
Meteorology and climatology,
Sanitary engineering,
Water supplies,
Sewer construction and sewage disposal,
Contagious diseases of all kinds (largely clinical),
Legal medicine,
State medicine,
Methods of gathering, keeping, and using statistics,
Plumbing and house-building,
Quarantine methods and laws,
Keeping accounts of expenditures,
Meat inspection and diseases of domestic animals,
The history of epidemics,
The organization of executive departments,
Comparison of administrative methods in various cities and countries,
Practical sanitary inspection of premises,
Methods of recording sanitary work.

The above titles by no means cover all the subdivisions of sanitary work which would require special instruction, but they are sufficient in number and broad enough in scope to indicate that there would be no lack of subject-matter for two very full and busy years of study for the degree of "doctor of hygiene."

To illustrate the extent to which I am sure practical sanitarians will agree that instruction should be given in some of the subdivisions, let us take the subhead of "legal medicine." The student would first receive instruction in those matters which refer to the right of the medical profession itself as related to the public, then the organization of law courts and the limitations of power of the lower and superior courts would be exhaustively discussed; the laws of evidence would be explained and the methods of procedure in the various States studied, so that the graduate would have a definite idea in what manner he would have to proceed in almost every kind of a case that could be brought into litigation for sanitary redress; the property-rights of individuals, of municipalities and corporations, and the rights of the public for redress against individuals would be given attention; methods of legislation in city and State should be explained and the methods of drawing up regulations, ordinances and statutes made pefectly plain, so that the graduate would be able to make a sanitary regulation that would stand the test of the courts; expert testimony, the manner of testifying, and the best methods of presenting cases would also be fully considered and the relative powers of executive officers and of courts explained. We are sure that a full course of instruction such as above outlined would require several lectures a week during six months from a competent professor of legal medicine. The purely medicolegal problems relating to poisons, violence, personal identity, and all that is usually included under the head of legal medicine would take as much more time.

It may readily be seen that equally careful instruction in all of the subjects indicated as proper studies for such a school, would result in giving us some "doctors of hygiene" who would make good, competent health-officers from the very start. Towns and cities would soon demand such attainments, not only for their chief officers, but for the subordinates who would expect by promotion to become the chiefs. It would be a departure from our present American methods, so radical in principle and so far-reaching in results that an immediate improvement in sanitary administration everywhere would be certain to result from its adoption.

Editor and Reader, No. 24. Shameless Methods of Rivals.—Since we began the publication of this journal there has hardly been a week that letters have not been received, or that word has not come to us in some way, that our company had been reported as about to fail, to sell out, or discontinue the journal, that our stockholders were disgusted, that our capital had been sunk, etc., etc. For example, a prominent physician wrote us last week as follows: "An agent of a well-known Eastern medical publishing-house while in Cincinnati a week or so ago circulated the report that the stockholders of your company were very tired of their journal, that they had already lost $30,000, and objected to new assessments, etc., etc." The persistence with which this malicious nonsense has been scattered betrays that there is somewhere quite as pitiable a dearth of intelligence as of honor. The wish is so evidently father to the thought that the scandal-mongers are harmed rather than ourselves. We are genuinely sorry our contemptuaries feel compelled to adopt such poor methods of meeting competition. We should advise them rather to double the size of their journals (in some cases quadruple them), to endeavor to smooth the sneers out of the angles of their mouths, and to expel from their hearts a quite ludicrous envy. Neither this journal, its publishers, nor its stockholders are, so far as we know, in any sort of financial difficulty whatever; we are all very much pleased with our present success, and quite sure that still greater future success awaits us. The Philadelphia Medical Journal, we believe, will be youthful, prosperous, and happy, long after jealousy, "very tired" of itself, shall have ceased from troubling, or rather, from being troubled.

University of Prague.—Professor Sanger, professor of obstetrics in the University of Leipsic, has been appointed to a similar position in the University of Prague and has accepted the position.

University of Göttingen.—Dr. Erwin von Esmarch, professor of hygiene in the University of Königsberg, has been appointed ordinary professor of hygiene, to succeed the late Professor Wolffhügel.

Correspondence.

O SCIENCE, WHAT CRIMES ARE COMMITTED IN THY NAME!

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

AT the Denver meeting of the American Medical Association in 1898, Dr. John B. Murphy, of Chicago, read a paper upon pulmonary surgery, and in this paper advocated in the strongest terms the treatment of phthisis by the injection of nitrogen gas into the pleural sac, collapse of the lung being thus produced. This method was presented as a debutante is introduced, that is, with the impressive formality appropriate to a new discovery. But it is not a new discovery in any single point. We are not meeting a blushing damsel, bowing in her first ball-room, but a sallow old campaigner who has swung around the circle and is only pretending to youth and innocence.

In 1881 Dr. Herard, of Paris, asserted that the occurrence of hydropneumothorax might retard and even arrest the progress of phthisis. Hilton Fagge, in 1891, stated that an attack of pneumothorax might prove of benefit in phthisis by giving rest to the diseased lung. Stephen Paget set forth the same view in his work on "The Surgery of the Chest," and says, "in some cases of tubercular phthisis with slight effusion, the presence of a moderate amount of air or fluid tends to check the advance of the disease." In fact, the theory of the beneficial influence of pulmonary collapse was so well known that it was set forth from time to time as an excuse for a failure to drain an empyema. Murphy did not originate the theory. Neither was he the first to apply this theory to practice and deliberately produce pneumothorax.

At the International Medical Congress which met at Rome in 1894, Prof. Forlanini, of Turin, presented a paper on the treatment of phthisis, in which he reported two cases of phthisis apparently cured by the intentional creation of pneumothorax. Forlanini described his method, and stated that nitrogen is the best gas to employ because it is very slowly absorbed. So much for the origin of the theory and the person who first applied it.

As to the usefulness of the method, it is by no means proved. Of the glowing statements which have been put forth, we would use Horace Greeley's words, they are, "important if true." The procedure may be dangerous. It cannot be of any use if both lungs are involved, and in such a condition would be sure to do harm. Collapse of one lung may be followed by the development of tuberculosis in the other lung, and is certain to be so followed if the other lung is already diseased. In fact, there is a curious absence of trustworthy data to sustain the contention that pneumothorax benefits tuberculosis.

Besides the issue as to the value of the "discovery" and the priority of the "discoverer," there are certain moral questions relating to this matter, which in the interests of decency and honesty must be fearlessly discussed. Dr. Murphy's translation of Forlanini's views proved a "find" for the sensation monger, and has been eagerly seized. On many occasions during the past twelve months the public has been gratified by lengthy newspaper articles with "scare" headlines, pointing out that Chicago is the Mecca of consumptives, and illustrated with weird and delirious pictures of aspirators, tubercle-bacilli, and collapsed lungs. Dr. Murphy's assistant, Dr. Lemke, has been interviewed at great length, and has praised the method in the same glowing terms in which an army commissary officer sets forth the virtues of canned roast beef. From time to time numerous editors have put aside politics, the Klondike, the management of the army, and the tariff, and have poured forth physiologic lucubrations and pathologic conjectures of a nature to draw tears from the statue of the elder Gross, and to make Leidy rise from his grave.

If we believe in the view that necessity develops function we must conclude that a certain news agency under the stimulus of a great necessity invented a method of transmission so speedy that in comparison with it Mercury is but a district messenger boy and Mohammed in Al Borak is as a colored man on a mule. If correctly informed, the very day during which an abstract of Dr. Murphy's paper was read in Denver, a Chicago morning paper published a full report of it, and also a most infatuating likeness of the author. A communication that antedates the event which it describes possesses every element of the marvelous. It is prophecy pure and simple. Think of the value of such a method to a stock-broker.

The question is, are prophecies of this nature inspired? Such methods have become too common of late. The exploitation in the newspapers of medical methods and the wonderful doings of individuals is strongly to be deprecated. Such publications delude the public, stir the appetite for the morbid, accomplish no useful purpose, discredit science and disgrace the medical profession. They constitute advertisements, mean, vulgar, deceptive, catch-penny advertisements. They advertise a method and a man and serve to discredit the value of the one and the sincerity of the other. The difference between an article of this kind and an advertisement of trusses or toothwash, is about the same as the difference between intoxication and drunkenness. Such articles are evil enough when they relate to medical small fry, but they become intolerable when they refer to prominent men, because, "if the abbot plays cards, what can be expected of the monks?" If the leaders leave the straight path, what can be looked for in the followers? Proceedings of such a character may lead to temporary financial gain, but never to real success or enduring prosperity. Those who think otherwise are unable to distinguish between a note from the golden trump of fame and a shriek from the tin whistle of notoriety. In the long run the sheriff Fate overhauls such individuals and brands them as moral bankrupts.

How do such articles get in the papers? This is a mystery similar to the mystery alluded to in Sartor Resartus, that is, How does the apple get into the dumpling? Medical men would indignantly repudiate the suggestion that they put them in, or get them put in, or allow them to go in. It may be that such articles are like Topsy, and "just growed." It seems that some of these well-advertised gentlemen occupy the same relation to the newspapers that the French mountebank of one hundred years ago did to a certain small boy. The mountebank would walk with majesty and gravity into a village, followed at a short distance by a boy. The boy would cry out at the top of his voice—"There he goes, the greatest physician of the age. Cures all chronic diseases. Cures scrofula, rheumatism, gout, pox, lunacy, and consumption." A curious crowd would gather round the two. The mountebank would pause and after glancing at the crowd and inspecting the boy, would say, "I do not know the boy or where he comes from, but verily, he speaks the truth." Respectfully yours,

MEDICUS.

SANITATION IN PINAR DEL RIO, CUBA.

By WILLIAM L. KNEEDLER,

Chief Surgeon, U. S. Army.

To the Editor of The Philadelphia Medical Journal :—

From a medical and sanitary standpoint the occupation of Cuba by the American forces has been of great benefit. The effects of the improved conditions will last, no matter what may be the political future of the island. The inhabitants, having experienced the advantages of a measure of cleanliness, will never return to the filthy modes of living that existed a year ago. That they will, if left to themselves, maintain the high standard now required can hardly be expected.

They have forever forsaken their pet custom of having the kitchen and the privy (both filthy, but the latter so beyond description) in the same inclosure, often not even separated by a screen. Having made a change in this their national custom, there is reason to hope that the public streets, vacant buildings, as well as the plazas, may not be used for the deposit of human excrement. An official report, made a year ago and now on file in Washington, states that the streets of Guanajay, a town of 4,000 people, are so filthy that it is impossible to plant the foot without its being fouled with human excrement. Guanajay is to-day a clean town, and one can walk anywhere without a care as to where he steps.

Early last December it became necessary to occupy Pinar del Rio with 3,000 American troops. This province is one of the largest in Cuba, and is probably the one that suffered most during the 4 years of the last war. At least 40% of the inhabitants perished from wounds, disease, and starvation. Everywhere sanitary conditions were most unfavorable. The care of American troops, in a tropical country, in close communication with the inhabitants, presented a question that could not but cause anxiety. Five months have now passed, and the results obtained evidence the care exercised by the Surgeon-General of the Army in the attention to details of sanitation.

For 5 months the numerical strength of the U. S. troops in the Department of Pinar del Rio has varied between 2,000 and 3,000. Military necessity has made it impossible to keep these troops out of the towns, or to separate them from the natives. To prevent serious epidemics, it has been necessary to render the towns and natives sanitary. During these 5 months, there have been 9 deaths of soldiers in the Department of Pinar del Rio; 2 were suicides, 1 homicide, 1 a case of appendicitis, 1 of pneumonia, 1 of pernicious malarial fever, and 3 of typhoid fever. One of the regiments on duty in the Department was through the Santiago campaign. The men are not desirable material for a second tour of duty in a malarial country.

The percentage of sick from climatic fever has been large, but the sick have had every comfort and luxury that money could procure. The small death-rate speaks for the careful nursing and skilful medical attendance.

The protection of the troops has necessitated attention to many details. An order was issued forbidding the sale of intoxicating liquors to them. The character and preparation of their food was carefully regulated. All water used for culinary and drinking purposes was double filtered, the Maignan, Pasteur, Berkfeld and Chamberlain filters being used. The matter of suitable clothing, the hours for drill, and the habits of the men, all had careful attention.

Reports show a disability of 60% from venereal disease in some of the English regiments serving in India. The conditions being about as unfavorable in this part of Cuba, the following order was published and enforced:

> "Clandestine prostitution will not be tolerated. Prostitutes shall be registered. They shall live in such locations as are indicated. Each prostitute shall have a book. In this her name, age, nationality, and address shall be recorded. She shall be examined at least once a week by a physician, and the examining physician shall sign the book. This examination shall be good only for one week. Any prostitute doing business when her book is not signed to date shall be punished. She shall not change her residence without permission of the Sanitary Inspector.
>
> "The proprietors of houses of prostitution will be held accountable for the condition of the houses and of the inmates, also for the orderly conduct of those living in or visiting such houses.
>
> "No liquor shall be sold, given away, or drunk in houses of prostitution.
>
> "Each prostitute will be required to provide the means necessary for securing her own and her visitor's cleanliness.
>
> "Cases of venereal disease must be at once reported to the Health Inspector. When venereal disease is traced to any particular person, such person will be subject to punishment."

In six months, among the troops in this department, there have been only 12 cases of venereal disease reported.

Smallpox of a very severe type has been, at times, epidemic in this department. Two years ago, in the municipality of Guanajay, with a population of 11,000, there were 6,000 cases of smallpox. At one stage of the epidemic, the mortality was as high as 60%. The American medical officers have made 26,000 vaccinations of the native population. This vaccinating has been done in the centers where the troops come in contact with the natives, also, along the line of the railroad and the Calzada, or military road of the province.

To improve sanitary conditions in the towns the following regulations were published and enforced:

> "The persons and clothing must be kept as clean as circumstances permit.
>
> "When the necessary means for carrying out the above order are wanting, provision for obtaining the same will be made at as early a date as possible.
>
> "Slops and dirty water must not be thrown upon or allowed to run into the public streets. The Sanitary Inspector will decide what disposition shall be made of this form of waste.
>
> "Houses and yards shall be cleaned and kept clean by the occupants of the same.
>
> "A barrel, box, or other receptacle shall be provided at each house. Into this all solid refuse shall be thrown—except such as is suitable for disposal in the sink. These receptacles shall be kept in convenient places, so as to ensure their constant use and to permit of ready access of the parties in charge of the dump-carts.
>
> "There shall be a sink in every yard, or near every dwelling. This sink shall be used for the calls of nature. Defecation in the streets or yards or upon vacant ground within the city limits is strictly forbidden. Sinks will be cleaned and must be kept clean. Where none exist they will be dug. The Sanitary Inspector will indicate the location and give directions as to the character of these sinks. Cesspools and drains must receive rigid attention. The orders of the Sanitary Inspector regarding these matters are to be strictly obeyed.
>
> "Lime will be provided for the disinfection of all sinks. Each family will provide a bucket or box for procuring and holding this lime, and each family will be held responsible for a supply of lime being on hand and for its use at such times and such places as the Sanitary Inspector may direct.
>
> "Where chamber-pots are used they will be kept clean and frequently aired and emptied.
>
> "Water for drinking and culinary purposes and for washing will be obtained from such sites as the Sanitary Inspector shall indicate.
>
> "All cases of sickness shall at once be reported to the Health Officer. He shall indicate where and how these cases are to be treated. He will isolate all suspicious cases and

all cases of contagious disease, and will determine such means of isolation and disinfection as the circumstances demand."

Native physicians have been appointed in the different towns as local health-officers. They are paid from the revenues of the island, and serve under the orders of the Chief Surgeon of the Department.

Some of these local health-officers are Cubans and some Spaniards. Under careful supervision, their service has been generally faithful and efficient.

To their loyal cooperation is due in a large measure the success of the effort to improve sanitary conditions in the Department of Pinar del Rio.

FRACTURE AT THE BASE OF THE SKULL, WITH LOSS OF THE CEREBROSPINAL FLUID—RECOVERY.

By GEO. S. HULL, M.D.,

of Pasadena, Cal.

To the Editor of The Philadelphia Medical Journal :—

That patients with fractures at the base of the skull, attended with loss of the cerebrospinal fluid, so seldom recover —according to Agnew, Robert says, "Recovery never takes place when there is a loss of the cerebrospinal fluid," and Agnew himself states that he has seen only two cases "certainly" in which recovery took place—has led me to report the following case :

Being asked, May 20, 1898, by the attending physician of Mrs. W. to seek for the cause of a continuous dropping of a clear fluid from her left nostril, I first gathered the following history of the case: She was thrown from a buggy against a curb during a runaway, 15 days before. The immediate result of the accident was a partial unconsciousness of but short duration. This was followed by vomiting of blood blackened by action of the gastric juice, and the vomiting was repeated 3 times within 12 hours. There were open wounds on the forehead over the right eye, also several severe contusions over the scalp posteriorly. It was supposed that when she was thrown from the buggy she struck not only against the curb, but also against a telegraph pole. No external evidences of fracture of the skull were discovered at the time. Her physician dressed the open wounds with bichlorid dressing, placed an ice-cap on her head, and kept her mildly under opiates during the first 24 hours. She slept at short intervals during the night and when awake complained of pain in her head, and in the morning of dizziness. Shortly after the accident she was affected with diplopia. This was not examined into at the time, but the patient states that she saw things double for some hours after recovering from the shock of the accident.

On the first night, 8 hours after the accident, her temperature was 100.4° F. The next evening it rose to 102.6°. After this it continued to decrease slowly and reached normal by the fourth day. During the time she was confined to bed she complained that quantities of a thin fluid flowed back from the postnasal space, compelling her to swallow frequently. She said the fluid tasted very much like tears. After she was able to sit up in bed it dropped from the left nostril and was thought to be from catarrhal disease, but the usual remedies gave no relief. On examination I found the nostril free from obstruction and with no catarrhal condition, the mucous membrane being but slightly reddened. No evidence could be found to indicate that there had been any fracture of the nasal bones, and, indeed, no violence had been applied over the nose at the time of the accident, the nearest bruise being on the forehead above the right eyebrow. The fluid trickled from the upper wall of the nasal cavity and dropped into a receptacle at the rate of from 15 to 20 drops per minute; a more exact estimation showed that she was losing from 1½ to 2 pints in 24 hours. A chemic analysis of the liquid proved it to be the cerebrospinal fluid. There was a total loss of the sense of smell.

This diagnosis was evidently that of fracture of the skull at the base (anterior cerebral fossa), including the cribriform plate of the ethmoid. When asked when this discharge would cease, or if it would ever cease, and what effect it would have on the patient in either event, no definite reply was ventured. The case was simply watched with the hope that the fracture would close over and the fluid be retained within the cranium. In about 2 weeks the flow had so diminished that it could scarcely be detected, and in a few days longer it had entirely ceased. The patient experienced no ill effects during the flow of the fluid, traceable to its loss, and when it ceased she said the only feeling she had was one of comfort in being rid of the annoying discharge. She is now—nearly one year after the accident—in her usual health, but has not recovered her sense of smell.

THE DOSE OF CARBOLIC ACID.

By WM. J. BAIRD, M.D.,

of Boulder, Colo.

To the Editor of The Philadelphia Medical Journal :—

H. C. Wood, Jr. (*Merck's Archives*, May, 1899) considers 0.72 grain per diem of carbolic acid an heroic dose. Wigglesworth (London *Lancet*, April 8, 1899) recommends the drug in doses of 12⅔ grains, every two hours, in the treatment of influenza. In his article he says :

"I saw a patient about five weeks ago who had been seized with the worst attack of influenza which I had ever seen. There was not only violent cephalalgia with acute myalgic pains, but there were incessant vomiting and high temperature. Her pulse was 130, and the woman suffered from intense thirst, prostration, and much mental depression. She also complained of severe abdominal pain, and as she was 7 months advanced in pregnancy, she feared labor had set in. I ordered her a mixture containing 2 drams of Calvert's liquid carbolic acid in 8 ounces of water, 1 tablespoonful to be taken every 2 hours. This is equal to 6⅓ grains of pure phenol for a dose. She commenced to take this medicine at midday. I learned on the next morning that during the night she had poured out a small wineglassful of the mixture and had drunk that instead of a tablespoonful. Careful measurement of the glass she had used showed that it held just 2 ounces. The patient declared that it was filled, but I allowed only three-quarters as having been taken, and even this would amount to 19 grains in the dose. The patient averred that the only apparent deleterious effect was feeling "a little warm" in the abdomen and that every other symptom had abated. The cephalalgia was reduced to a minimum, the myalgia ended in a little soreness of the limbs, the abdominal pain had ceased, and the vomiting had abated, and she was sitting up in bed laughing at her mistake. I had only to make one more visit when convalescence was established.

"The next case occurred a few days afterward. I administered 12⅔ grains every two hours with the same gratifying results, and I have done so in each case I have had since."

I determined to try the remedy in the dose recommended.

I have treated 6 cases with results that justify Dr. Wiglesworth's claims. My first case was a boy, aged 8, with a temperature of 102°, pulse 130, headache, pain in loins and limbs—in short, with a typical attack of influenza. I ordered C. P. carbolic acid 4.00 in sirup of orange-peel; 192.00. One tablespoonful every two hours, and promised to call next day. Next morning I received a note saying: "You need not come to see the boy anymore, he is O. K." The results in the other cases were equally good. One woman declared I had made a mistake in diagnosis, as "Grip could not be cured so quick." There were no unfavorable results in any case. Is it safe to give carbolic acid in such doses?

Society Reports.

[From our Special Correspondent.]

MEDICAL SOCIETY OF THE STATE OF KENTUCKY.

The Forty-fourth Annual Meeting, held in Louisville, May 17, 18, and 19.

Dr. David Barrow, of Lexington, president. The address of welcome was delivered by Dr. Thomas L. McDermott, and responded to by Dr. Chas. H. Todd, of Owensboro. The afternoon session of the first day was largely devoted to a consideration of cerebrospinal meningitis. The first paper, **Cerebrospinal meningitis,** was read by Dr. James H. Letcher, of Henderson. The paper dealt chiefly with the definition, symptomatology, etiology, and pathology of the disease. Whether the virus enters the body through the limentary tract or the respiratory tract is unknown. The isease is not seen in tropical countries. Young people, specially in some epidemics, are most frequently attacked. The diplococcus intracellularis meningitidis of Weichselbaum is quite probably the cause of the disease. In the fulminant ariety death may occur before time has elapsed for apprecible pathologic change to take place. In many instances, or the first few days it is difficult to make a diagnosis because of the paucity of symptoms. The differential diagnosis oncerns especially typhoid fever, tuberculous meningitis, and mallpox. The essayist ascribed high diagnostic importance o puncture, which under asepsis is without especial danger nd is believed by some to be of therapeutic value.

Dr. D. O. Hancock, of Henderson, read a paper on **Cererospinal meningitis in Henderson County.** He called ttention to the fact that headache, backache, nausea, vomiting, constipation, delirium, oppression, and fever are comon ymptoms as we go among the afflicted, but when these ymptoms are severe, with opisthotonos, paralysis, and a discolored, spotty skin, we probably have to deal with cerebropinal meningitis. The meningococcus is the true cause of he disease. In more than 100 cases in Henderson County he experience of the physicians had not been materially fferent from that in other epidemics. Few cases occurred n the higher portions of the country, distant from streams nd lowlands, and most cases were observed in ill-ventilated, vercrowded houses. The disease does not seem to be conracted by direct contact, such as attendance upon the tients. No physician or nurse in Henderson County had e disease. In few instances more than one case occurred a family. There was no evidence of transmission from ne person to another or from one family to another, or om one locality to another. The essayist would place the sease in the same category as pneumonia, typhoid fever, c., in which there is a local lesion and the symptoms of neral toxemia. Of the 107 cases in Henderson County, 53 tients were males and 54 females. Under 10 years of age ere were 38 cases, from 10 to 20, 13 cases, 20 to 40, 49 cases, d over 40, 7 cases; 30% of the patients are still living. any of the cases were not reported on account of their ildness. A few cases were protracted 60, 80, and even 100 ys.

Dr. T. D. Williams, of Bardstown, read a paper on **The iology, forms, diagnosis, prognosis, treatment, cerebrospinal meningitis.** He considered the disease a specific, infectious, and slightly, if at all, contagious disease, characterized by the inflammation of the meninges and spinal cord, and clinically by an exceedingly irregular course of fever, severe pain in the head and back, often in the trunk and extremities, with contraction of the muscles of the neck and back, hyperesthesia, vomiting, delirium, and coma, and often various eruptions. The micrococcus lanceolatus seems to have an etiologic relation to the disease. Whatever the specific microorganism, its growth is favorably affected by moisture and a moderate temperature. Sometimes it seems to be favored by bad air, dark rooms, and bad sanitary conditions. It is found especially among children, soldiers, and prisoners, where there is crowding. No age enjoys perfect immunity. In the present epidemic in Kentucky the disease seems to have shown a preference for a later period of life than is usually reported. Males and females were attacked in about equal number. Most of the cases were in lowlands, in rudely constructed houses and cabins often poorly ventilated, and sometimes the patients were using unwholesome water and the sanitary conditions were defective. In the fulminant cases, with the possible exception of cholera, probably no disease kills so quickly. The abortive form sets in acutely with headache, fever, and photophobia, but in a few days these subside and convalescence is established. Other diseases are more often incorrectly diagnosted as cerebrospinal meningitis than is this disease overlooked. Complications affect the prognosis. The highest mortality-rate is found in children from one to two years of age. The mortality-rate has been variously given at from 25 to 75%, and has probably been about 75% in Kentucky. In the treatment, bad sanitary conditions should receive prompt attention, and individuals in feeble health should, as a prophylactic measure, be removed from localities in which the disease is prevailing. The diet should consist of nutritious liquids, and during convalescence a gradual return to the normal diet. The cases are best treated symptomatically. Pain calls for opium. Morphin affords protection against the pain and spasm, and at the same time supports the heart. Ergot and belladonna are efficient remedies to lessen the congestion of the capillaries early in the disease. If convulsions are threatening chloral may be used. Even in children the essayist had found morphin, $\frac{1}{30}$, $\frac{1}{20}$, $\frac{1}{16}$ gr., to have done more to quiet them and control the respiratory centers than any other remedy. After effusion the narcotics are to be replaced by remedies which promote absorption, such as potassium and sodium iodid, and mercuric chlorid. Cold is grateful and of value. The ice-bag should be applied to the head and the entire length of the spine.

Dr. J. D. Maddox, of Rockport, read a paper on **Treatment of cerebrospinal meningitis by antistreptococcus-serum.** He reported a case treated with antistreptococcus serum. Six doses of the serum, 10 cc. each, were administered. The first dose was followed by a pronounced beneficial effect, and it was believed that the result might have been better had the doses been given closer together, but the supply was limited and it was thought better to stretch this amount out as far as possible while waiting for a further supply.

Dr. L. C. Royster, of Smith's Mills, read a paper on **A case of cerebrospinal meningitis.** After the first three days the temperature did not exceed 100° F., and the pulse 90. A relapse occurred on the 13th day, during which there was pain in the extremities and sometimes in the head, but there was not the opisthotonos observed in the original attack. About the 7th week the patient became so low that he could not move himself in bed. The pulse reached 160 about the 52d day of the disease. The patient was given alternating doses of strychnin and morphin and all the whisky he could take. Rectal alimentation was resorted to. The next day the pulse was 154 and some stronger. The improvement continued and the patient was practically well by the 64th day. On the 65th day convulsions suddenly occurred, followed by death in a short time.

Dr. R. C. Falconer, of Lexington, read a paper on **Gallstones.** Cholelithiasis is a disease especially in adult life, being rare in infancy. The maximum liability is from 20 to 40 years of age. The speaker had seen a case in a lady of 70. The preponderance among women is probably due to their habits and mode of living and dress. Gallstones are common in large, heavy individuals. Climate seems to play a minor role. The disease is probably less frequent in temperate than in tropical countries. The chief symptoms are pain, jaundice and the discharge of calculi, the presence of pain and calculi being the most important. The essayist did not mention colic in the symptomatology, as he believed it properly had no place in medical technology. Gallstones and malignant disease are often found together. Attention was called to the fact that gallstones are often found postmortem in cases which have given no symptoms. For pain, morphin, atropin, and chloroform were chiefly relied upon. Olive-oil and salts are often of value. Milk and soups may be given; alcohol is contraindicated. The paroxysms may be sometimes controlled by gastric lavage.

DR. AP MORGAN VANCE read a paper on **Charlatanism.** The medical charlatan has existed since the earliest period of the history of medicine and he has always flourished. Men of even apparently good repute give their names and sometimes their signatures to various nostrums. He called attention to the expensive quack advertisements, which would not appear if it did not pay the advertisers. All quacks should be prosecuted for obtaining money under false pretenses. Osteopathy has been responsible for more suffering and deaths than most of these quacks. A case was mentioned in which a child had been relieved of abscess of the hip, and shortly afterward the osteopathic journal came out with the statement that the child was found to be suffering with a dislocated spine and hip, which were being properly treated with good results. These quacks, by promises, impose upon the poor individuals whom we are compelled to inform of the impossibility of cure. One chief reason that there is so much quackery with so little opposition, is the attitude of the press, due largely to the free advertising of these sharks. It was suggested that a remedy might be found in the prosecution of journals for accepting quack advertisements.

The evening session was devoted to an address by the president, DR. DAVID BARROW, of Lexington, on **rest and recreation,** and a **popular address** by REV. CARTER HELM JONES. The president's address emphasized the prophylactic value of recreation and rest. Tuberculosis and functional nervous disturbance are two conditions that must be recognized early. Attention was called to the importance of studying the pretuberculous stage. The health of an individual does not run down, unless there is a cause. Alterations of disposition, such as crossness, peevishness, suspiciousness, etc., are often early evidences of nervous disturbance. What is rest for one may be unrest for another. It must be remembered that happiness, contentment and rest come from doing good.

DR. C. B. GRAHAM, of Henderson, presented the following resolution, which had been unanimously passed by the Henderson County Medical Society:

> "*Resolved*, By the Henderson County Medical Society, that we endorse the action taken by the Boards of Health of the County and City of Henderson. That we think the action taken by the Fiscal Court of Henderson County was grossly unfair to the State Board of Health and to the City Board of Health. That it is the sense of this Society that no reputable physician in the County or City of Henderson can, without lowering his professional dignity and that of the medical profession, afford to work for the Fiscal Court of Henderson County in the present smallpox epidemic."

Dr. Graham stated that the reason for this resolution was that during the present epidemic of smallpox of Henderson County, the County Board of Health and the City Board of Health took charge of the epidemic, and had it under control, and agreed to pay a certain sum for the services of the physician, who had charge of the cases. The Fiscal Court met, and cut the salary one-half. The County and City Boards of Health were characterized as thieves and robbers. Every member of the County and City Boards of Health resigned, and the members of the Henderson County Society informed the Judge of the Fiscal Court that they would attend smallpox patients for nothing before they would work for the Fiscal Court.

DR. URBAN V. WILLIAMS, of Frankfort, read a paper entitled **Is infection and putrefaction the genesis of microorganisms?**

DR. PHILIP F. BARBOUR, of Louisville, read a paper on **Peculiarities in heart-affections in childhood.** Often the heart-sounds may be heard best from the back of the child. The outline of the heart and the apex-beat vary with the age of the child. Mitral insufficiency is the more frequent lesion from endocarditis in children, while in the fetus the right side of the heart is most often affected. Rheumatism, scarlet fever, and even measles play an important role in the production of endocarditis in children. Rest in bed in the infections is an important prophylactic measure. Children have great recuperative power. Anemia and failure of growth are important. The pulse may be studied best when the child is asleep.

DR. J. B. BULLITT, Louisville, read a paper on **Normal salt-solutions in surgery.** Blood-transfusion has always been a difficult operation so far as the technic is concerned, and it has also been difficult to get individuals from whom to obtain the blood. The infusion of milk and other albuminous solutions is an old procedure. But at the present time the term infusion is applied almost exclusively to the use of salt-solution. The value of normal salt-solution in hemorrhage, shock, faulty and insufficient excretion, sepsis, and drug-toxemia was considered. The use of salt-solution dilutes the blood, lowers its specific gravity, stimulates the cardiac ganglia and the arteries, and increases alimentation. The solution should be used as hot as can be borne by the hand, 110° to 120° F. So high as 165° has been used in the dog. Death from hemorrhage may occur either from absolute or relative loss of blood. After the loss of so much as one-half or even two-thirds of the blood, death may not ensue if the blood is kept in circulation, and in such cases the use of salt-solution may be a life-saving procedure. Whenever the absolute loss of blood is so low as to render the remaining blood insufficient, even if kept in circulation, death must ensue. The normal salt-solution may not be substituted by plain water, which extracts the hemoglobin from the blood, and will cause death. The subcutaneous use of salt-solution has an advantage over the intravenous injection or the injection of the solution into an artery, in that the vessels may not be overfilled. It is a question whether the infusion should be used in concealed hemorrhage. It stimulates the bloodvessels, therefore acting in the smaller vessels as a hemostatic. But this contraction would not effect hemostasis in the larger vessels, but would cause greater hemorrhage. Nature's method is to weaken the circulation until a clot may be readily formed. Usually it is safer to repeat the infusion of small quantities of the normal salt-solution rather than make one large infusion, because of the danger of overloading the vessels.

DR. AUGUST SCHACHNER, of Louisville, read a paper on **Peritonitis from a clinical standpoint,** emphasizing the importance of prophylaxis against postoperative peritonitis. In operations exclude as much as possible infection of the peritoneum, and preserve as far as possible its integrity. In peritonitis the patient has an expression of anxiety rather than of pain.

DR. ARTHUR T. MCCORMACK, of Bowling Green, read a paper on **The closure of the abdominal wound after laparotomy.** He advised careful suturing of the various layers of the abdominal wall, paying especial attention to the fascia, and spoke strongly against the use of the through-and-through suture. The peritoneum may be closed with a continuous suture of fine catgut, the fascia with aseptized chromatized catgut, the fat, if necessary, with a subcutaneous suture, and a separate suture should be used for the skin. It is advisable that the skin be brought carefully into apposition.

DR. DUDLEY S. REYNOLDS, of Louisville, read a paper on **Detachment of the retina.** He did not believe that the two cases he reported presented complete severance of the retina from the choroid. Many of the spontaneous recoveries and many of the reported cures have occurred in cases, not of detachment of the retina, but of simple displacement of the retina. The essayist reported two cases of detachment of the retina with apparently good results from medicinal treatment alone. The treatment consisted of the muriate of pilocarpin and later the use of potassium iodid. Both of the cases seemed to recover absolutely, with perfect vision.

DR. J. A. STUCKY, of Lexington, read a paper on **Mastoid operation: Report of a case.** An interesting feature of the case was the fact that the history the patient gave before the operation and that he gave after the operation do not tally.

DR. WILLIAM B. PUSEY, of Louisville, read a paper on **A report of 276 intubations,** made in cases of membranous laryngitis. The greatest mortality was between the ages of 2 and 4, due to the fact that these little children are able to offer decided opposition and are too young for persuasion. With but very few exceptions the cases received antitoxin.

Dr. Curran Pope, of Louisville, read a paper on **What can we do for the chronic invalid?** Neurasthenia was especially emphasized as a cause of chronic invalidism. The more important causes of neurasthenia are heredity, ncluding mental diseases and tuberculosis in the ancestry, mental worry, overwork, especially overwork with mental strain or work that is carried on under the stimulation of alcohol. Moral control and discipline are most important n treatment. Usually the mental element predominates, A mixed diet is best. The internal use of water should not be neglected. Rest is important, either the absolute rest-cure or modified rest. In the treatment of neurasthenia, there is no medicine in the entire category that will cure the disease. Important remedies are cascara, nux vomica, and arsenic. The essayist stated that climate had never benefited any of his cases, and but rarely were cases improved by travel. Ablation of the female genital organs is useless, and often causes trouble.

Dr. F. H. Clarke, of Lexington, read a paper on **Friedreich's ataxia, with report of 2 cases.**

Dr. Walker B. Gossett, of Louisville, read a paper on **The use of chloroform in labor.** Chloroform after delivery hould be avoided, if possible. During labor an anesthetic, f not pushed too far, has no unfavorable influence upon the power of duration of the labor-pain. The essayist advised withholding chloroform until the latter half of the second tage. A dram of chloroform may then be put in the inhaler at the time of the pain, and after the pain is over, the inhalation of chloroform may be stopped, until another pain appears. Chloral hydrate is preferable to chloroform when nything is required earlier in labor. The essayist would use chloroform to the obstetric degree in all cases of labor during the perineal stage.

Dr. R. R. Sullivan, of Uniontown, read a paper on **Treat he patient, not the disease.**

Dr. A. G. Blincoe, of Bardstown, read a paper on **Ametropia and heterophoria,** with **remarks on eye-strain.** The essayist had thought errors of refraction and muscular rregularities were few, but upon studying his cases, he found them much more frequent than he had anticipated.

Dr. Edward Speidel, of Louisville, read a paper on **132 gallstones removed without operation.**

Dr. William A. Wathen, of Louisville, read a paper on **The technic in operations by the vagina in diseases of the uterus and surrounding structures.** Many operators needlessly complicate the operation by the se of too many instruments, especially retractors. The fingers are the best retractors that can be employed. The ovaries nd tubes may be examined through a vaginal incision, and if found healthy, they may be returned without injury. Either one or both ovaries and tubes may be removed through the vaginal route, either with or without the removal of the uterus. A clamp may be used by the vagina, when there is hemorrhage from a ruptured tube, and the hemorrhage may be controled in this way until an abdominal section can be made. This may be accomplished even without an anesthetic, if the patient is unable to take an anesthetic.

Dr. H. K. Adamson, of Maysville, read a paper on a **Case of gunshot-wound of the femoral artery. Recovery.**

Dr. R. Alexander Bate, of Louisville, read a paper on **suprarenal extract in the treatment of Addison's disease.**

Dr. Frank C. Wilson, of Louisville, read a paper on the **Etiology and treatment of pneumonia.** The essayist recommended especially ergot and sodium salicylate in the treatment of pneumonia, which he believed limited the exudate and rendered it more fluid and readily resolved later on. Good results have followed treatment with the pneumococcus-serum, but as yet we must depend upon symptomatic treatment. The value of the use of alcohol, oxygen, and cold applications was emphasized.

Dr. John G. Cecil, of Louisville, read a paper on the **Treatment of lobar pneumonia.** He gives a dose of calomel to start with, and morphin or some other preparation of opium for the relief of pain. The comfort of the patient may be consulted in the selection of hot or cold applications. Fever is not a bad indication; the condition of the heart is of much more importance. Whisky and strychnin are most reliable agents. Nitroglycerin is valuable in bridging a threatened collapse. Digitalis is inferior to strychnin. Oxygen is of great value in some cases. Do not overfeed; indigestion for forced feeding increases flatus and embarrasses the heart's action. Having made the diagnosis, frequent examinations are annoying, unnecessary, and sometimes dangerous. In general the treatment should be symptomatic, but we should not overtreat these cases.

Dr. J. L. Johnson, of Louisville, read a paper on **Hernia and its operative treatment.** He believed that although cases may be cured by the use of the truss, that fact should be no barrier to the operative treatment of hernia. The continual pressure of the truss tends to increase the size of the hernial opening by weakening the abdominal wall. The injection treatment is dangerous.

Dr. C. W. Aitken, of Flemingsburg, read a paper on **Some cases of country surgery.** The report included cases of appendicitis, mastoid disease, and gallstone.

Dr. W. B. Doherty, of Louisville, read a paper on **New arts in practice.** The essayist reviewed briefly asepsis and antisepsis, and then touched upon quacks and quack supporters, including the quack-advertising medical journals. The importance of specialists having a good general knowledge of medicine was emphasized. The curers of the various habits, the morphin habit, whisky habit, cocain habit, are probably the latest additions to the list of quacks. There is no remedy to increase the strength of the will-power. The essayist stated that probably from 2,000 to 4,000 inhabitants of Louisville are users of cocain. The accommodating druggist deserves censure for indifferently refilling prescriptions containing morphin, cocain, etc. The hypodermic syringe is becoming a dangerous household instrument. The habit of self-medication causes untold injury to mankind.

Dr. John A. Lewis, of Georgetown, read a paper on **Traumatic tetanus.** He believed that cases of traumatic tetanus are now fewer than formerly. He would divide tetanus into two forms, acute and chronic. The outlook in the acute cases depends largely upon prompt and thorough treatment. Chronic cases have a more favorable outlook than acute cases with the lapse of time.

Dr. Basil M. Taylor, of Greensburg, read a paper on **Practical treatment of typhoid fever.**

Dr. T. B. Greenley, of Meadow Lawn, read a paper on **The vital and mortuary statistics of Kentucky.**

Dr. J. T. Dunn, of Louisville, presented a number of **x-ray photographs.**

Dr H. E. Tuley, of Louisville, read a paper on **The Materna; a new device for home-modification of milk.**

Dr. A. H. Kelch, of Louisville, read a paper on **Physical examination for life-insurance.**

Dr. J. V. Prewitt, of West Point, read a **report of seven cases of empyema, with treatment.**

[From our Special Correspondent.]

AMERICAN MEDICO-PSYCHOLOGICAL ASSOCIATION.

The Fifty-fifth Annual Convention, held at New York, May 23, 24, 25, 26, 1899.

The sitting president of the association is Dr. Henry M. Hurd, of Johns Hopkins Hospital, in Baltimore, the secretary Dr. C. B. Burr, of Flint, Mich. More than 100 distinguished members were in attendance from all parts of the country.

The association of alienists was welcomed to the city by the Bishop of New York, the Right Rev. Henry C. Potter. In his address Dr. Potter excited considerable interest by saying:

"Sometimes those in charge of our spiritual affairs, I am bound to confess, wander out of their wholesome mental condition under the influence of great religious excitement. Of late years a more healthful religious feeling has been taking root, and we are beginning to realize in the church the value of working with our God-given minds as well as with our God-given hearts." In the address of welcome on behalf of the physicians of the city Dr. Edward G. Janeway sounded the same note by claiming that the greatest influence to eradicate insanity was the extension of truth, religious and moral truth.

Dr. A. B. Richardson, of Masillon, Ohio, read the first paper of the session on **The practical value of prophylaxis in mental disease.** In fully half the cases of developed insanity there is some ancestral taint. In no other disease can the development be so accurately foretold from a study of the patient's ancestry as in insanity. Alliances with persons whose ancestry is thus tainted are dangerous. This gives an opportunity for the medical profession to advise for the best interest of the individual. Our advice is not commonly asked in affairs of the heart, and we look on and consider it none of our business when these marriages are made, although we understand the terrible risk. It is our duty to speak out in such cases and tell people the dangers to society that arise from such cases, and just what arises from a perpetuation of a line that is tainted with insanity or imbecility. It is not necessary to doom to lives of celibacy all the children of a family in which there is insanity. There is only a small proportion to whom marriage should be denied, but it is extremely important that that portion should not be permitted to reproduce its kind. It is high time that we exercised the same care in breeding children as we devote to dogs and horses. Some day we may have laws on this subject, but at present such laws would be ineffectual because they are not supported by public opinion. He urged the necessity of adapting the school-system so that the minds of children inheriting mental defects might be relieved from the strain of competition with normal children.

Dr. Edward Cowles, of Waverley, Mass., reported on **Progress in the clinical study of psychiatry,** holding that the determining cause of insanity was not heredity, but that mental disease is in all cases the result of a distinct pathologic process.

Dr. R. M. Chase, of Philadelphia, read a paper on **The imagination in relation to mental disease.** Day-dreaming, he said, is a productive cause of mental degeneration and breakdown, and he advised keeping a curb on the fancy. The tendency of a child to indulge in the form of day-dreams known as fancy is a ruling passion, and in the aged the tendency is exhibited in the desire for a quiet reverie. In the insane the mental characteristics correspond frequently to the traits of the child. The tendency to lie or exaggerate noticed in the insane is not the result of a blunted moral sense but of distorted imagination, which makes it impossible to distinguish fact from fancy. The same explanation frequently holds good in the habit of perverting the truth found among those who are not insane. The many-sided expressions of fancy are the most illustrative symptoms of mental alienation. Some of its forms in the insane are a tendency to talk in rhyme and metaphor, and a leaning toward finding fantastic pictures in the clouds and in the fire.

Contagion and infection in insanity was the subject of the paper by Dr. Richard Dewey, of Wauwatosa, Wis. In defining terms he restricted the use of the word contagion to the influence of the insane mind over the sane, and infection to the reproduction of the race along lines of degeneracy and insanity. The effect of one member of an insane family on another illustrates this contagion, and furnishes a strong argument against boarding-out the insane. He had in his own experience seen 5 members of one family stricken with mental disease at one time. Many cases are of record in which attendants, nurses, and even physicians, after years of attendance on the insane, have developed insanity. He mentioned also many cases of hystero-religious insanity attacking whole communities. He proposed that there should be a method of judicially ending the lives of the hopelessly insane.

Dr. A. T. Hobbs, of Ontario, discussed **The rôle of wound-infection as a factor in the causation of insanity,** citing many cases in which severe wounds had led to mental disorders.

At the evening session Dr. W. L. Worcester, of Danvers, Mass., read a paper on **The relations of renal disease to mental derangement.** He took the ground that Bright's disease is a common cause of mental disorder, and that senile dementia is due to malnutrition of the brain. He said that it had been officially decided in New York State that senile dementia is not insanity. In the discussion to which this gave rise, Dr. Carlos F. MacDonald, formerly president of the State Lunacy Commission of New York, took exception to the statement. He said that Dr. Worcester had probably been led astray by the fact that ordinary cases of senility are kept out of the hospitals to make room for cases in which there was a chance of recovery. Dr. Worcester said that such was probably the reason on which he based his statement. At the same time he had heard that hospital employes sent out to bring in patients were permitted to make diagnoses, and to reject cases even after they had been certified to by two examining physicians. Dr. MacDonald then explained that this was done only by hospital physicians, and not by nurses and attendants, as Dr. Worcester thought was the case.

Second Day.

The first paper of the second morning session was read by Dr. E. C. Runge, of St. Louis, on **Our work and its limitations.** In the course of his paper Dr. Runge took occasion to comment unfavorably on the system of congregate dining-rooms in asylums, particularly by reason of the need of a routine-drill to make the system effective. On the other hand the ward dining-rooms had the tendency to promote the domestic feeling among patients, and were on that account productive of good. This provoked considerable discussion. The opposition to Dr. Runge's view was led by Dr. A. B. Richardson, of Massillon, Ohio, who said he felt somewhat sensitive on this point, because he was the first Superintendent of the Insane to introduce the congregate dining-room in the United States. Dr. Runge should not permit himself such wholesale condemnation of the view accepted by many others until he has had practical experience of the other method, which he understood he lacks at present. After an experience of the congregate dining-room extending over 12 or 15 years he would not return to the old system of ward dining-rooms.

The second paper of the day was read by Dr. Carlos MacDonald on **The legal versus the scientific test of insanity in criminal cases.** He reported that the highest court in the State of New York had decided that the test of the responsibility of the criminal for whom insanity is pleaded establishes itself on the knowledge of the distinction between right and wrong and the knowledge of the quality of the act which has been committed, whether it be right or wrong. Such a test, he contended, is directly in conflict with the law of nature as shown by the discoveries of science. The mere knowledge of right and wrong is not the only thing requisite to make persons responsible for the commission of crime. Before such responsibility can hold, the person must have the ability not only to recognize but to choose between the right and the wrong. The medical profession has learned to recognize that in many insane persons there exists the knowledge of right and wrong purely as abstract propositions. Courts undertake to fit the law of nature to their law of practice rather than to fit the practice to the law of nature as it really stands. In its relation to crime, insanity is a fact which must be established by medical science, and when it has been so established the courts should have no power to do other than acquit. If medical science has settled on a condition as a condition of mental disease, legal science is not in a position to declare it a condition of mental soundness. French and German law is in advance of that in this country, and not only is that the case, but the present state of the law here is such as to constitute a serious menace to human rights and liberty by reason of the existing erroneous test of responsibility. If every form of mental disease in each of its stages were inevitably attended by a loss of the knowledge of right and wrong we could readily recognize this as a symptom affording presumptive evidence of insanity, and although the test is unscientific there need then be no objection to it because it would serve the ends of justice. On the contrary, only a small percentage of the insane who are brought under the criminal jurisdiction of the courts belong to the types in which the power to recognize right and wrong has been lost; the insane who are dangerous to themselves and others seldom belong to this type. Paranoiacs can distinguish abstractly between right and wrong, yet they are the most dangerous lunatics known, because they are without power to control their own wills and actions in cases where such a distinction is abstractly appreciated. It would be a travesty of justice, and contrary to science and ense to hold them to a legal responsibility. The real question of fact to be decided in the case of a criminal for whom nsanity is pleaded are two :—First, did he at the time of the lleged crime rationally appreciate its nature, and if so, did e possess the will-control to enable him to choose between ight and wrong? Second, if he had lost the power of such hoice with reference to this particular act, was the loss due o disease or to the heat of passion, or some other self-induced tate?

The paper of Dr. J. B. Chapin, of Philadelphia, was entled **The psychology of criminals and a plea for the levation of the medical service of prisons.** Dr. hapin took the ground that grave crimes did not of necesity imply depravity of nature, for even in persons of keen oral susceptibility sudden passion might temporarily overrow it and lead to crime. If, however, the moral sense ere impaired or lacking the baser passions would inevitably ain sway.

The evening session was held in the Academy of Medicine nd the order of business was the delivery of the annual adress which it has long been the custom to make either a eview of the progress of the special science of the Association in general or else some special topic carefully elaborted to practical conclusions. The speaker at this session as Dr. Frederick Peterson, whose address was listened to ith the utmost attention and greeted with enthusiastic aplause.

Early diagnosis, he said, and speedy removal of patients special hospitals are very important, and this importance as long been recognized by all alienists. There are two ems in this statment, and each calls for particular considation. Early diagnosis entails the necessity for trained en who can make such diagnoses. To secure men of that aining clinical instruction in insanity is needed. To enable e removal to special hospitals of patients who have been agnosed as insane it is necessary that such special hospitals ist, that they should be readily accessible, and that legal ocess be so simplified that annoying obstacles are not aced in the way of carrying out the needs of such medical eatment. For two reasons such hospitals ought to be in the art of the cities; one reason is that they be speedily accesle to the greatest number of patients, the other that they within reach of special students for the purpose of affordg the needed clinical training. He argued that every city 50,000 population should have a State hospital for acute ses of mental disorder, and to avoid the name of asylum, th which some unpleasant associations have arisen, he oposed that they should be known as psychiatric clinics psychopathic hospitals. "The more one examines the atter," Dr. Peterson said, "the more convinced one bemes of the feasibility and humanity of this idea. I venre to become a prophet to the extent of saying that before years of the next century have passed there will be psyopathic hospitals in many cities where now there are ne. If that be the case the medical profession will beme as a whole more interested in mental disorders. With ese clinical opportunities the chairs of psychiatry in the edical colleges will become distinct from the chairs of urology. In the city the psychopathic hospitals then uld be in a position to gather all the spirits eager for new coveries along these lines. Attached to these hospitals ll be a variety of laboratories in which the biologic side of n can be studied by experts." Having removed the hosals to the city, he proposed that in the country there uld be colonies where outdoor work might be provided the insane in whose cases this manner of employment is licated.

THIRD DAY.

When the morning session opened on Thursday there yet nained a paper which had been carried over from the gram of the previous day and it became the first order of siness. It was entitled **Judicial errors in lunacy,** d it was read by the author, Dr. George Villeneuve, of ngue Pointe, Quebec. Taking as his theme the number the unrecognized insane who have been condemned for me and later recognized and removed for treatment, he luced supporting statistics. Before the Brussels Anthroogical Congress, in 1892, Dr. Paul Garnier, chief physin of the Paris prefecture of police, reported 255 such es in 5 years. Dr. Villeneuve supported his contention with similar figures from Scotland, Germany and the Province of Quebec.

Dr. G. Adler Blumer, of Utica, N. Y., State Hospital, described the country colony system as practised at his institution. He spoke of the universal practice of open wards in which patients were free to go and come, and the extension of the system to include gardens and fields for outdoor exercise and shops for the benefit of hand-work. In a very enthusiastic report of the Utica system he said: "Roads were improved, good fences replaced bad ones, ditches were dug, fields were plowed and tilled, and, presto, the whole farm smiled back approval at its makers. The patients were nearly all chronic cases, but the improvement in their condition, physical and mental, exceeded the most sanguine expectations."

Dr. Charles A. Drew, of Massachusetts, discussed the causative weight of eye-strains in inducing mental disorder and upheld that such were a factor that could not be neglected in the investigation of the etiology of insanity.

The afternoon session was held at the rooms of the Pathological Institute, No 1 Madison Avenue. Dr. Ira Van Gieson, who is in charge of the laboratory of the Institute, defended the retraction-theory from the physiologic side, and Dr. William A. White of Binghampton, N. Y., discussed it from the psychic side. The retraction-theory holds that consciousness depends on the action of nerve-cells, of which there are different sets, and a person may have two different sets of consciousness at the same time, one of which he may recall, and the other which is beyond his conscious memory. This theory supplies the explanation of observed cases of dual activity and subliminal consciousness.

The evening session was largely given over to the consideration of epilepsy. The first paper was by Dr. Charles G. Hill, of Baltimore, having for title **The pathology of epilepsy, with an introduction to a new treatment.** Practical results were presented by Dr. Owen Copp, of Palmer, Mass., in a paper on the **Public care of the epileptic in Massachusetts.** Dr. Frank Edgerly, of Oakbourne, Pa., discussed **The treatment of epileptics in colony.** The object of the colony treatment, he said, was twofold. One was to remove from the community at large a dangerous class of insane; the other was to provide skilled direction of the cases in wholesome country surroundings. No other form of alienation can show such noticeable advantages for the colony system as epilepsy. The last paper of the evening was by Dr. Walter Channing, of Brookline, Mass., on **The palates of idiots.**

FOURTH DAY.

The final session of the association was held on Friday morning with a slim attendance. The first order of business was the report of the Council showing the condition of the association. After this business had been transacted the calendar called for the following papers:

Dr. F. C. Hoyt, of Mt. Pleasant, Iowa, **Hospital dietary.**

Dr. Richard Dewey, of Wauwatosa, Wis., **Inhibition of speech and writing.**

Dr. W. D. Granger, of Bronxville, N. Y., **A review of the literature published for the instruction of nurses in institutions for the insane.**

Dr. H. C. Eyman, of St. Louis, Mo., on **Metaphysics.**

Dr. J. J. Kindred, of Astoria, N.Y., on **The importance of better cooperation and organization among the private hospitals for the insane.**

Dr. C. H. Hughes, of St. Louis, Mo., on **Christopathy—a glance at the neuropathic side of Christian science.**

These papers were read by title or by brief abstract owing to the amount of routine business on hand.

Dr. Frederick Peterson was elected delegate to the meeting of the British Psychological Association, and Dr. A. E. MacDonald to the British Medical Association. The preparation of a history of the Association, including the history of the care of the insane in the United States, was referred to the Council with power to act and to employ a competent historian. A memorial notice of the late Dr. H. A. Gilman, vice-president of the Association, was read, and 7 other memorials were read by title and ordered to be published in the transactions. In declaring the session adjourned President Hurd spoke of it as extremely interesting and profitable and representing the high-water mark of the Association's activities. The next meeting will be held at Richmond, Va., beginning on the first Tuesday of May, 1900.

The following officers were elected to serve for the ensuing year: President, Dr. Joseph G. Rodgers, of Indiana; vice-president, Dr. Peter M. Wise, of New York; secretary and treasurer, Dr. C. B. Burr, of Michigan. Auditors, Dr. Thomas J. Mitchell, of Louisiana; Dr. William Mabon, of New York. Councillors for 3 years, Dr. C. B. Bancroft, of New Hampshire; Dr. H. A. Tomlinson, of Minnesota; Dr. S. F. Cook, of Ohio; Dr. A. W. Hard, of New York.

At the same time these were elected to honorary membership in the Association: Dr. Henry Hun, of Albany, N. Y., Dr. Antoine Retti, of Paris; Dr. J. B. Spence, of Burntwood, England; and Dr. Alexander R. Urquhart, of Perth, Scotland.

[Specially reported for the Journal.]

AMERICAN GYNECOLOGICAL SOCIETY.

Twenty-fourth Annual Meeting, held at Philadelphia, May 23, 24, 25, 1899.

First Day.

The address of welcome was delivered by Dr. Edward L. Duer, of Philadelphia.

Dr. Hunter Robb, of Cleveland, Ohio, detailed **sixty-five consecutive abdominal sections without a death: with clinical and pathological reports.** The 65 cases presented were operated upon in due course, and did not represent any selection on the part of the operator. Extraordinary care was taken in the operative technic, and in properly attending to the patient before and after the operation. The prophylactic measures taken were in Dr. Robb's opinion largely to be credited for the uniformly favorable result, since, in his opinion, there is at the present day far less danger to the patient from defective operative skill than from sepsis. His methods of preparation are essentially the same as those detailed in his book "Surgical Technique," giving in detail the steps for sterilizing the field of operation, the hands of the operator and the assistants, the instruments, ligatures, etc. The use of rubber gloves and sleeves was strongly advocated because of the known difficulty in obtaining perfect asepsis of the hands and arms of the operator. Sutures and ligatures, silk, silkwormgut, catgut and silver wire were used. In cleansing the abdomen Dr. Robb preferred to use sponges of gauze, sterilized by steam, claiming that it was practically impossible to asepticize sea-sponges. After the section the abdominal cavity was freely irrigated with a warm, normal, salt-solution, poured directly into the abdominal cavity from the glass graduate. He has not used a glass tube for drainage in the past five years, preferring to use strips of plain sterilized gauze. After the operation, it is his practice to thoroughly wash out the abdomen with salt-solution and to leave from 300 to 500 cc. in the abdomen. He has frequently found that drainage was not necessary, beyond placing the patient in the usual postural position for drainage. Immediately after the operation the patient is placed in bed and watched closely for the appearance of symptoms indicating shock; in order to guard against this when it may be feared he often gives a small dose of strychnin hypodermically, aiding its action by also giving enemas of strong black coffee. The dorsal position is generally maintained for the first 12 hours, and the patient permitted to sleep as much as desired. Nutrient enemas follow, and the bowels are usually opened on the second or third day by calomel by the mouth, and a high rectal injection of glycerin followed by an enema of weak warm soap-suds. The patient is generally catheterized every 8 hours. Dr. Robb seldom uses morphin, preferring to try other measures first, but if the patient seems on that borderland of shock in which pain and uneasiness may carry her over into a dangerous condition, he quiets her by giving from 20 to 30 minims of tincture of deodorized opium by the rectum. When the need is extreme morphin is given hypodermically in doses of from $\frac{1}{6}$ to $\frac{1}{4}$ grain. Tympanites is relieved by the use of rectal tube. In conclusion Dr. Robb emphasized the statement that in his opinion infection in his cases was avoided chiefly by careful technic. Dr. Robb added to his paper 11 cases operated upon since the paper was prepared making a series of 76, a record thus far unsurpassed in abdominal work in America. Of these 76, in all but 3, the wound healed by first intention, and in but one was there formation of pus.

In the discussion Dr. C. P. Noble, of Philadelphia, said that the substance of Dr. Robb's paper must be endorsed because the methods advocated were those in general use. He had noted no bad effects following the routine practice of cleaning the abdominal cavity. Glass drainage has been to a large degree abandoned in gynecology, yet he was far from convinced that gauze was always best. He had used the glass tube for drainage once in 150 operations, but under similar conditions would use it again, although the outcome of the case cited was unfavorable. In his opinion gauze-drainage was chiefly indicated in operations upon the appendix, the gallbladder, etc., in which it was advisable to shut off a portion of the peritoneum. He personally has no objection to the use of morphin, and considers its nonuse somewhat of a fad. When the patient is restless after the operation and experiences considerable pain, he has had excellent results from the administration of $\frac{1}{2}$ grain of codein phosphate or of a suppository containing $\frac{1}{2}$ grain of opium and codein as indicated. This has no constipating effect. He cannot urge too much the strict care of patients after the operation. He has had 1% of his fatal issues from such causes as edema of the lungs, etc., from lack of proper care, warming the patient, etc., after she has been put to bed. In cleansing the abdomen he has used both gauze and sponges, but feels that if sponges are used but once and then thrown away, they are preferable, both on the score of usefulness and expense. Rubber gloves are a most useful addition to the surgeon's armamentarium, their most useful function being to afford protection to the patient from possible infection following some prior possible septic case of the surgeon. Still, the instance must be very rare in which the surgeon is compelled to use his hands within 48 hours after a presumably septic case, and after that time thorough disinfection is possible. If the surgeon feels that he cannot asepticize his hands after this period has elapsed he has no right to operate. Dr. J. M. Baldy, of Philadelphia, has seen no harm to follow the use of morphin after operation, but has noted much good, especially in the critical cases in which pain is so essential a factor in producing late shock. He has no use for gauze. In his experience it will drain blood-serum from the wound, but dams back the blood and detritus. It is absolutely uncertain in its action. He has no objection to the use of the glass tube in drainage, as by its use it is always possible to see the quantity of exudate and determine the possibility of hemorrhage. Gauze will often mask this condition until the patient is exhausted by the loss of blood and a fatal issue is imminent. He never expects to give up the use of seatangle sponges, although he recognizes that there is an element of danger in their not being properly prepared. He has used gauze in his general hospital work with excellent results. Beyond the possible protection of the patient no operator has any business to use gloves, as, in his opinion, delicacy of touch is so much impaired, and the hands become so tired, that the few points of merit in their use are overlaid by the disadvantages. Dr. Janvrin, of New York, claimed for America the credit for the origination of the method of irrigating the abdominal cavity with sterile salt-solution, the first person, to his knowledge, to have made use of the measure being his preceptor, 30 years ago, long before it was used in Europe. Dr. A. P. Dudley, of New York, called attention to the difference in opinion as to the action of gauze when used for drainage, and said there was some question as to whether it acted as a true drain through the ventral incision. In operating by the vagina he always established drainage with gauze, although he does not think the drainage is an essential feature of the treatment after 24 hours have elapsed, unless in sepsis. Still, he generally allows the drain to remain 5 days. He prefers to use gauze, as it does not permit air to enter the abdominal cavity, and assists in preventing adhesions. Cases in which he has packed the wound with gauze, as a rule recover with fewer complications, and experience less reflex trouble following recovery. In operating, Dr. Wathen, of Louisville, Ky., prefers the vaginal route, through Douglas' culdesac, whenever it is practicable. He has no deaths to report in operations by the vagina, and finds recovery quicker and more certain. Most of the operators who find imperfect drainage resulting from the use of gauze, use too much gauze. He does not approve of the use of salt-solution, save to obtain the necessary warmth for reaction. He does not remove pus by irrigation but by the use of sponges, and has uniformly good results to report from this procedure. He considers that the use of the glass tube is indicated in cases of resection of the bowel, in which it is impossible to promptly close the wound. He does not believe in the routine use of drugs, and seldom finds occasion for any medication when the technic has been properly carried out. Dr. A. Lapthorn Smith, of Montreal, has had good results from the use of opium or one of its derivatives after operation. He uses the salt-solution for operations involving the removal of large tumors, but does not think it is indicated so generally as it is used. He is opposed to drainage by glass tube, and also thinks that gauze is often the means of retaining products instead of acting as drainage in the truest sense of the term. He prefers, generally, to drain by a rubber tube through Douglas' culdesac. Dr. Bovée, of Washington, thinks that the salt-solution meets the demand of the tissues for fluids, and that it should be used on this account if no other. Rubber gloves should be used in all cases in which sepsis is suspected. Dr. Goffe, of New York, gives morphin after operation, and avoids undue restlessness by permitting the patient to take any position she chooses, as the strain of one position is most severe in its effects upon the nervous system. In closing the discussion Dr. Robb said that he failed to find much difference in his results from the use of gauze and glass-tube drainage. He failed to see much advantage from the use of the glass tube, as in his opinion it was likely to cause trauma at the point of entrance, and thus increases the probabilities of infection of the wound. It is also likely to become choked up. He usually does not establish drainage, and does not find it necessary even in so-called pus-cases. He considers it a mistake to drain simply because pus is present, since it is almost impossible to tell whether such pus is infectious or not. If it is virulent, no amount of drainage will save the patient. He has no hesitation in simply closing the wound after operation, if thorough irrigation has been made. He does not use morphin as a routine measure, but only when it is necessary. He uses the gauze sponges because they simplify the technic, and he can be sure that they are sterile. No one can be sure that a sea sponge has been rendered sterile.

Dr. C. P. Noble, of Philadelphia, read a paper entitled **Early abdominal sections for fibroid tumors, with a tabulated list of all operations prior to 1863,** interestingly bringing out the influence of accident in determining this important procedure. The discussion on the paper for the most part took the form of extending the records beyond the year at which Dr. Noble closed his review.

Dr. J. Whitridge Williams, of Baltimore, gave an account of a **case of spondylolisthesis, with demonstration of the pelvis.** The paper was profusely illusrated by charts showing the deformity, which the author considers as more often congenital than due to trauma. A preparation of the pelvis was demonstrated at length, and passed around for inspection. In discussion Dr. E. P. Davis mentioned a similar case in which death was due to sepsis which was not frank in its processes.

The report of the committee on antistreptococcic serum in puerperal sepsis was then made. The experimental work on the subject is not concluded, so the report was based upon the critical study of the literature on he subject, and their personal experience, of members of he committee, reserving for a later report the results of experimentation. The report began with a summary of Marmorek's work and reviewed the entire literature, domestic nd foreign, to April 1, 1899. The same has been used in France by 27 observers in 214 cases; in Germany by one oberver in 15 cases, and in Great Britain and America in 125 ases. In these 354 cases we find 20.6% deaths, far from a ood showing, and not calculated to encourage further use. t may be argued that these statistics are not a just basis for omparison, as in but a few cases was bacteriologic conrmation of the diagnosis of streptococcus-infection to be had. n analyzing these reports it must be remembered that they re based upon the most severe cases, since the serum is enerally a dernier ressort, the milder cases being treated in ne usual way. Such reports would naturally tend to give an exaggerated mortality. Eleven of the 14 authors who have committed themselves to a favorable opinion concerning the use of the serum have treated altogether only 13 cases, the other 3 have treated 54 cases, with 12 deaths. Some of the cases were not examined bacteriologically, and therefore it is probable that a proportion of these were not of streptococcic infection, but were due to other causes, so that the true percentage of mortality of streptococcus-infection is really higher than would seem to be indicated. The other 14 observers who have declared against the serum state that at the best the serum is useless, and occasionally even harmful to the patient. It has been the cause of the formation of abscesses at the point of injection. The serum is also reported to deteriorate rapidly. There has been observed a marked difference in the action of different streptococci upon the serum which may be explained by the fact that there are several different species, which, however, it is difficult to demonstrate and that the serum, to be effective, should be of the particular species causing the infection. In the investigations recorded in the literature there is an unanimous opinion that the virulence of the streptococcus can be raised, the degree, however, varying somewhat according to the different observers. In the personal experience of the members of the committee, Williams has observed 23 cases, Pryor 15, and Fry 7. In all, Doederlein's tube was used in obtaining specimens for bacteriologic examination, hence there can exist no doubt as to the accuracy of this part of the work. Williams had 91 cases of puerperal fever, but of these only 23 were due to the streptococcus, as shown by the bacteriologic test. Of these 16 were pure streptococcus, 2 were mixed with anaerobic organisms, and 5 with other organisms. None had peritonitis, all had endometritis, and 3 had pyemia with abscesses. There was but 1 death out of the 23 cases, and in 6 cases the temperature fell immediately after the douche. Pryor's work showed 15 cases with 1 death. He also practised sterilization of the pelvis. Fry reports 7 cases with 2 deaths. One case of these died from other causes than the infection, but died while under treatment. Still, it can scarcely be included in the statistics. Williams treated all of his cases with a single large intrauterine douche of sterile salt-solution immediately after taking the culture from the uterine cavity, his further treatment consisting in the administration of large doses of strychnin and whisky, if indicated by the general condition of the patient. Pryor opens the posterior culdesac, and then tightly packs the pelvis with large quantities of iodoform gauze, believing that by this means he can practically isolate the uterus, and thereby prevent the extension of the infection to the peritoneum. At the same time he gives large quantities of normal salt-solution, either subcutaneously or by the bowels. Fry treats all his cases by the intrauterine douche until bacteriologic confirmation of his diagnosis. Then all further local treatment is stopped, and the antistreptococcus-serum is administered. Each of these observers has obtained apparently good results by his individual efforts, and Fry believes that the serum has had a markedly beneficial effect upon some of his cases. A possible explanation of the discrepancy between the mortality-rate of these observers and of other workers in the same field, lies in the fact that the other reports were based on the observation of certain selected severe cases, instead of upon cases taken consecutively. The use of the curet is contraindicated, as it too often serves to break down the wall of protective leukocytes which has been thrown up by nature, and the common practice of curetment by the French may in no small degree account for the high death-rate reported by these observers. It is an absolutely useless practice in the virulent forms of infection, in which the streptococcus is already within the lymphatics of the muscularis of the uterus, and in many cases converts an attack from a mild course to a most severe one. Conclusions: (1) A study of the literature shows 354 cases of puerperal infection with a mortality of 20.6%; when the streptococci were positively demonstrated, the mortality was 33%. (2) Marmorek's claim that his antistreptococcic serum will cure puerperal infection is not thus far sustained. (3) Experimental work has cast grave doubts upon the efficiency of the work, demonstrating that a serum which is obtained from a given streptococcus may protect that animal from that organism, but is absolutely inefficient against another streptococcus. Thus the number of serums that may be prepared is only limited by the number of varieties of the streptococcus that may exist.

(4) Thus far the only definite result of Marmorek's work is the development of a method by which the virulence of streptococci may be increased to an almost inconceivable extent. (5) Personal experience of the committee has shown that the mortality of streptococcus-endometritis, if not interfered with, is something less than 5%, and that such cases tend to recover if nature's work is not undone by too energetic interference locally. (6) We unhesitatingly condemn curetment and total hysterectomy in streptococcus-infection after full term, and attribute a part of the excessive mortality in the literature to the former operation. (7) In puerperal infections a portion of the uterine lochia should be removed by Doederlein's tube for bacteriologic examination, and an intrauterine douche of from 4 to 5 liters of sterile salt-solution given just afterward. If the infection be due to streptococci, the uterus should not be touched again, and the patient be given large doses of alcohol and strychnin if necessary. If the infection be due to other organisms, repeated douchings, and even curetment may be necessary. (8) If the infection extends toward the peritoneal cavity, and in cases gravely septicemic, Pryor's method of isolating the uterus by packing the pelvis with iodoform gauze may be of service. (9) The experience of one of the members of the committee seems to show that it has no deleterious effect upon the patient, and, therefore, it may be tried if desired. But we find nothing in the literature, clinical or experimental, or in our own experience, to indicate that its employment may markedly improve the general results in the treatment of the condition.

In discussion, **Drs. Fry** and **Pryor** more fully reported their individual results. **Dr. Henrotin**, of Chicago, agreed with that portion of the report that referred to the use of the curet, etc. He thought there was far too much interference in all women's diseases by examinations, etc. Local measures, when used, were apt to be too harsh, and thus productive of more harm than good. **Dr. Byford**, of Chicago, thought the paper was rather likely to convey the idea that the members of the committee in the cases reported did nothing but use the serum. The portion of the report referring to the examination of the uterus and the removal of foreign material, together with the condemnation of the use of the curet, should be emphasized.

Dr. Robert A. Murray, of New York, stated that as the report of the committee had embraced all the vital points of the paper he was to read upon the **abuse of the curet in puerperal fever,** he would briefly summarize it in the discussion in order that it might be discussed at the same time. He agreed heartily with the committee except upon the point of finger-curetment. If there was streptococcus infection, there should be no interference whatever with the uterus. When the curet was used, the finger should accompany it whenever this was possible, and thorough cleansing should be done. He practises touching the lacerations of the cervix and the vagina with solution of silver nitrate, strong tincture of iodin, or the perchlorid of iron. When he practised curetment with repeated douching, his statistics were far worse than under the present system. He thinks that the occlusion-pad serves in a large measure to exclude infection, and that the general practice of frequent examinations often introduces more germs than would otherwise have access to the parts, and is thus, directly or indirectly, the cause of sepsis. When examination is necessary, it should be done under an anesthetic, in order that it may be thorough. **Dr. Reynolds**, of Boston, thought that despite the present reaction against the use of the curet, we could not afford to give it up altogether. Although it has been abused in a number of cases, it is nevertheless still of great value in others. If used at all, it must be intelligently, skilfully, and thoroughly to the last degree, and by men who will do no unnecessary damage. It is best used in connection with the intrauterine touch, and if done in this way there is no special danger, especially if the proceeding is followed by thorough irrigation. If the curetment has been well done, it is then best to leave the uterus absolutely alone. Cureting is best done when the local symptoms are important and there is little noticeable constitutional disturbance, in the first 24 hours, while the infection is still presumably local, particularly if the lochia are foul and the uterus large and boggy. It generally does harm after the first 24 hours, and always in cases in which nature has held out a long time against the local infection, and the sepsis has proceeded to distant points. In such cases the uterine cavity will look out for itself better if left alone than if subject to interference. **Dr. Buckmaster**, of Charlotteville, Va., preferred the use of the finger to that of the curet in removing foreign matters from the womb, thinking there was less danger of injury and subsequent sepsis. After the attendant is certain the uterus is absolutely clean, then douche thoroughly. He objects strongly to the use of the sharp curet. If the surface is smooth and there are marked constitutional symptoms, he lets the womb alone, directing attention elsewhere. He generally finds it best in cases of puerperal fever to paint the interior of the womb with a strong solution of 95% carbolic acid in glycerin. **Dr. A. Palmer Dudley**, of New York, advocates the use of the Leiter coil on the abdomen in order to limit the extension of the inflammatory process. He generally gives 3½ grains of bimuriate of quinin and urea every 4 or 5 hours until the blood is free from the poison. He objects to finger-manipulation of the septic uterus, especially when it becomes necessary to press the fundus down upon the exploring finger. Such procedure is likely to result in injury of the circulation of the broad ligaments, and is almost invariably followed by a chill. When he feels compelled to use a curet, he prefers an irrigating curet with a mercuric chlorid solution at a temperature of 120°, or as hot as can be borne, and then paints the uterus with 95% carbolic acid and packs with dry gauze.

The paper prepared by **Dr. Vineberg** on **Surgical treatment of acute puerperal sepsis, with special reference to hysterectomy,** having a relation to the tone of the discussion, was interjected at this point of the proceedings. Dr. Vineberg considered surgical intervention necessary before the local infection has become general. He follows the same principle of extirpating the focus of infection that obtains in general surgery, and in technic applies the same principles of irrigation and drainage that would apply to a septic wound elsewhere. He examines under anesthesia in order to make the procedure as thorough as possible, and exercises particular care against extending the infective process further through such examination. In severe cases of puerperal infection, the "granulation zone" either does not exist or is very imperfectly developed, and hence the radical use of the sharp curet is not so productive of destruction to such protective processes as has been claimed. In douching he avoids mercuric chlorid, which he considers a dangerous agent. If the cureting, etc., fails to produce immediate beneficial result, no hesitancy should be felt to open the abdomen, further action being governed by the condition revealed. It will generally be found necessary to perform total hysterectomy. Bacteriologic aid in determining the diagnosis is unsatisfactory. In 95% of cases, cureting, irrigation, and drainage will be sufficient. In the other 5% the radical operation will be found necessary. When large collections of pus form and are so situated that they can readily be reached, either by the vaginal incision or by one above Poupart's ligament, no time should be lost in resorting to surgical aid. When such collections are not so favorably situated, judicious delay is advisable, in the hope that ultimately the pus may be evacuated without risk of soiling the peritoneum. **Dr. Reamy**, of Cincinnati, O., thought it impossible to always explore the uterine cavity by the finger. It might be done after an abortion, but he did not think the finger long enough to reach to the fundus when the woman had been confined at term or after the fifth month. He is opposed to the use of the sharp curet, and protests against hysterectomy as a cure for puerperal septicemia, characterizing the procedure as neither reasonable nor justifiable. **Dr. Buckmaster** said the use of the finger was practicable as well after the sixth month as in earlier stages of pregnancy. Exploration by the finger was the only proper mode, and was the one he always used. **Dr. H. J. Boldt**, of New York, formed the conclusion from the report of the committee that the course of puerperal sepsis was not modified by the serum. The severe cases die with its use and the milder cases would recover without it. He thought the curet was used too much by the general practitioner, and thought that the impression that its use was seldom attended by danger a false one. The curet should never be used without first localizing the point of infection by the aid of the finger, and then should only be used by men familiar with its use, in whose hands only could it be pronounced without danger. **Dr. Lapthorn Smith** reported one case treated with the serum—mortality 100%. He injected 30 cc. in the first 24 hours, with good results; the temperature then rose to 100.5° and he injected 20 cc. more, 3 times daily. In four days he had obtained a temperature of 107.5°, and then the patient died. Before a period of 6 years ago, he had used the curet a little and had once in a while a death. Then he used the curet more, and found the death-ate increasing; he then began to carefully select cases and ound the death-rate again going down. He uses the curet after abortion, never at full term. He anesthetizes in order o find all wounds that may exist and over which the discharge from the uterus may pass, and sutures, cauterizes, or otherwise treats them as indicated. He irrigates freely with potassium permanganate or bichlorid douches, then plain hot water, places 4 pieces of gauze in the fundus for drainge, then packs with an ounce of dry boracic acid, and packs he vagina with 3 or 4 absorbent cotton tampons. The temperature comes down immediately, and he then leaves maters as they are for 4 days. He has no faith in the serum. Dr. Williams feels justified in concluding the inutility of the erum. He thinks that cases of streptococcus-infection tend o recover if they are interfered with. He is a firm believer n the reliability of bacteriologic diagnosis.

Dr. J. M. Baldy, of Philadelphia, read a paper on **Krauosis of the vulva,** prepared by himself and Dr. H. L. Williams. The clinical aspect of the case was as follows: The ase occurred in a married woman, and began 4 years before ith obstinate itching about the vulva, then a drawing and uckering sensation lasting for a few hours and disappearing or a period sometimes of months. There was a strong famy history of tuberculosis, but no traceable syphilitic affecon or venereal taint. Coitus became impossible, not so much from pain as from occlusion of the vagina. Beginning at the mons at the clitoris, an elongated oval preented, extending to below the anus, of a dead white apearance, as though badly macerated. At this time pain as not complained of and the only subjective symptom as dyspareunia. All trace of the nymphæ and clitoris ad disappeared, and the labia majora were almost oblitrated as such. The vaginal orifice was barely sufficient to ermit of introduction of the little finger. Operation was ndertaken to render the orifice patulous, and comprised he removal of the affected tissue with the exception of a mall portion near the clitoris and around the anus, permitd to remain because removal would cause too much utilation, and there was no immediate indication for so dical a procedure. The obvious method of repair for the ound produced was used, and a glass plug 2 inches in ameter was placed in the vaginal opening and held there a T-bandage. After removal of this a hard rubber plug as used to prevent too close contraction of the parts. he is at present relieved of the symptoms for which the peration was performed, and the only possible danger the infection of the healthy vaginal orifice artificially oduced from the diseased tissue allowed to remain. careful and elaborate resume of the literature was preented, and the paper was accompanied by pen-drawings d microphotographs illustrating the pathology of the contion, which was exhaustively considered. The etiology of he condition was also carefully elaborated. Dr. A. W. Hnstone, of Cincinnati, O., called attention to the resemance of the condition, as described, pathologically, to achoma. In fact he believed the process might be termed choma of the urogenital tract.

SECOND DAY.

Dr. Howard A. Kelly, of Baltimore, Md., described a **ethod of repair of complete tear of the rectoaginal septum with a view to the avoidance of nfection.** He considered that in this class of operations e reason that complete control of the sphincters was so en not obtained, was because of a failure to properly catch e severed ends of the muscle. In one case in which he d operated with a view to discover the cause of the failure had discovered one end of the sphincter-muscle so far racted as to be approximately under the tuberosity of the hium. He now makes it a part of the technic to adopt tion and direct suture of the muscle, this applying to the ernal as well as the external sphincter. He places his ger in the bowels during the operation in order to locate d define the rectum, and then dissects down an apron-like flap, going high above the internal sphincter. This he brings down over the torn space, and closes the wound with 3 or 4 figure-of-eight sutures, taking the place of the usual 12 or more interrupted sutures, and reducing the operation from a complex to a simple one by doing away with the rectal side of the tear and the suture-line on the inside of the rectum, as well as the so-called "dead space" which so frequently breaks down and impairs the success of the most careful operation. Dr. A. H. Buckmaster, of Charlotteville, Va., has for years dissected out the ends of the sphincter in precisely the manner here described as new. He fails to see any noteworthy difference between the procedure described than that of Thomas Addis Emmett, which he has followed for 30 years or more with uniform success, having a record of only 2 failures. If the Emmet operation is properly done, it fulfils all requirements. Dr. A. W. Johnstone, of Cincinnati, O., stated that in his opinion the new portion of the operation, the dissecting out of an apron-like flap high in the vagina, was identical with the procedure recommended by Lawson Tait. He thought that much of Tait's excellent plastic work had been overlooked in the general interest shown in his abdominal sections. The work outlined was practically that done by Tait so long ago as 1886, with the exception that, by an ingenious modification of the continuous figure-of-eight suture Tait gave opportunity for its removal, while for all intents and purposes it was also a buried suture. Dr. Harris, of New York, thought that in many details the procedure was new and important. He did not hesitate to acknowledge its value. Dr. J. M. Baldy, of Philadelphia, has often had to contend with infection of the rectal side of the wound, and commends the principle of going high into the vagina, splitting and turning down a flap, and by the mode of suturing getting rid of the wound in the rectum, as calculated to overcome this difficulty. He has always exercised care in finding and suturing all ends of the sphincter muscle. Dr. A. Lapthorn Smith, of Montreal, thinks that in all these operations the simplest method would be the one productive of the best results. In cases of laceration of the rectovaginal sphincter, the chief object was to attain the biggest space possible between the two tubes, and also to maintain the two tubes complete. He detailed a method he had for obtaining these results. He had usually found it necessary to use a tube in the rectum for some time after suturing the ends of the sphincter in order to overcome the tendency to excessive contraction. Dr. Thomas Addis Emmet thought there was a slight tendency to overdoing in the operation described. He failed to see the necessity for going so high into the vagina. He thought, the reason for failure in the ordinary operation lay in not dissecting far enough back. The laceration should be treated much in the same manner as a vesicovaginal fistula, exerting the greatest care in the direction of preventing the sutures from acting as the sticks in a fan or the spokes in a wheel. He has made it a part of his procedure to move the bowels with a saline every day, and to this he attributes the success of his operations as much as to any perfection of technic. Dr. Dickinson, of Brooklyn, N. Y., thought the whole question of success lay in being absolutely certain that the ends of the muscle were found and sutured. He had seen a number of instances in which operators had evidently mistaken scar-tissue for the ends of the muscle. He has frequently found that the muscle-ends had receded so far as 1½ phalanges of the finger toward the coccyx. Dr. Willis E. Ford, of Utica, N. Y., thought the strain from above was a factor of importance that was too often ignored in this operation. There is a growing tendency to place the suture where it will not be affected, but this is too often unsuccessful. If he might criticise Dr. Kelly's procedure, it would be that considerable difficulty would often be experienced in turning down the flap without buttonholing, as the tissues in this vicinity are very thin. Dr. Stone, of Washington, had found the Emmet operation most productive of success. Dr. Goffe, of New York, thinks the practice of cutting the sphincter posteriorly productive of excellent results, as the torn ends of the muscle are prone to retract excessively. He makes a subcutaneous myotomy, acting upon the analogy of the condition to that of fistula in ano. He has always succeeded in obtaining perfect control, both of gas and liquids. Dr. Kelly said that the flap described by Dr. Johnstone was for a different purpose, that of obtaining broader surfaces of union, not of acting as a protective. In the operation he had advised, there was no need of "educating the sphincter." The patient knew that she had control at once.

Dr. Kelly's second paper was entitled **The localization of obscure pain in the side.** It was a contribution to the further use of the renal catheter as a diagnostic aid, with especial reference to those cases in which it is difficult to determine whether or not the kidney is at fault. If the usual catherization and analysis of the urines thus obtained fails to localize the lesion, it is his practice to adopt the following procedure for each ureter in turn: He catheterizes the ureter and then washes out the pelvis of the kidney thoroughly, and injects a quantity of some bland liquid. By obstructing the catheter an artificial renal colic is produced, and the patient will at once tell if this is in the same place as the pain hitherto complained of. The method is invaluable in cases in which the pain is deep in the viscera and in which the surgeon can only conjecture. Cases were cited illustrating the procedure. He has thus far been led into no false conclusions, but thinks the method applicable only in vague cases. Dr. Reynolds, of Boston, recognizes the value of Dr. Kelly's procedure, but prefers a method of his own which he has used for some time. He makes his patient drink large quantities of water for some time before the catheterization, and when the kidneys have begun to secrete freely he catheterizes, first on the side to which the pain is referred, obstructs the catheter and produces artificial renal colic by dilatation with the patient's own secretions, thus obviating the necessity for the introduction of foreign material. If no identification of pain is produced, the other kidney is treated in the same manner, with often the discovery that the pain is a referred one, the condition existing in the kidney not complained of; the patient who has complained of a pain on the left side, exclaiming upon production of a right renal colic that it is the same pain and in the same place as that she had felt before. Dr. Vineberg, of New York, said that there seemed to be an impression in the profession that it was a difficult matter to use the renal catheter. He wished to call attention to its comparative ease if rightly done.

Dr. Joseph Tabor Johnson then read the **President's address.** He reviewed the progress made in the gynecologist's work, the gradual embracing of work upon the kidney, the gallbladder, the appendix, and stated that expansion in this direction was not a natural gynecologic idea, but was the outcome of the situation. The successful abdominal surgeon was made, not born, and no man could be a specialist by declaration; it required practice and development. He discussed the prevalence of cancer, and the importance of early diagnosis. It would be well in all cases of abdominal pain to first of all exclude hysteria instead of being so prone as is the usual general practitioner to refer all cases to this cause until a definite pathologic lesion is forced upon his notice. Too often tinkering with local remedies and temporizing with the hope that the symptoms were merely incidental to the menopause, delayed scientific treatment until too late to hope for success. He deprecated any recourse to the vaginal route in cases of cancer, and thought the best results could only be obtained first by early diagnosis, and second by early and thorough extirpation through the abdominal incision. It was impossible to be sure that all infected tissues had been removed if vaginal hysterectomy was practised, and this is why vaginal hysterectomy was so frequently followed by recurrence. In such cases the truest conservatism may include the most radical operation. The pride in the ability to save tissues or organs is too often a spurious conservatism that catches the fancy of the timid. If it be possible, without doubt as to their freedom from infected process, it is well to retain portions of the ovary.

Dr. Henry C. Coe, of New York, read a paper on **Thrombosis following celiotomy in aseptic cases.** It has for years been a partially if not fullformed conception that sepsis was a prominent factor in the causation of phlegmasia, even in mild cases, but he doubts whether sepsis can be assigned so prominent a role as has been done. The thrombus may be present in some cases before the operation, but the fact that during operation the intraabdominal pressure sinks and the veins become dilated is in his opinion of greater importance. He contrasted intrapelvic with crural thrombosis. The condition is one that cannot be regarded with indifference, but he thinks that it cannot be influenced by any medicinal means thus far advocated. He finds it safe practice to keep the patient in bed so long as the pulse remains at 90 or over, and thinks that many cases occur from permitting the patient to move too soon after operation. He thinks that the prone posture should be maintained at least 3 weeks. Dr. T. A. Emmet suggested that traction upon the vessels during the progress of operation might be a cause of the condition. Dr. Howard A. Kelly thinks it quite probable that sepsis is not the cause of thrombosis. Not all cases were characterized by the suddenness of death; in some instances there were warning attacks of heart-failure, dyspnea, etc. Pelvic thrombosis is more likely to cause embolism and death than crural. Danger-signals are slight elevation of temperature and acceleration of the pulse, a localized hardness and tenderness with a complaint of a fixed pain, usually on one side. Avoid exertion of all kinds, and especially straining at stool while in a sitting posture. He related an interesting case of axillary thrombosis, possibly caused by the elevation of the arms during the operation. Dr. W. E. Ford, of Utica, detailed the case of a patient who died suddenly while at stool, 8 weeks after the operation for a growth upon the round ligament. There was no traction upon the vessels at this operation, but there was an enlarged vein at the site of operation. He thought some cases of sudden death may be traced to the presence of an overlooked myocarditis. Dr. A. P. Dudley, of New York, reported a case of sudden death following operation in his practice. He thinks that undue traction together with prolonged pressure of the forceps may be responsible in some cases for the condition of thrombosis. Sometimes the operator places the forceps during the operation on some of the soft tissues, and it is often that the trouble starts there. Dr. Hunter Robb, of Cleveland, Ohio, had a case of sudden death that at first was attributed to thrombosis, but was shown at the postmortem to have been due to a cyst involving the pia arachnoid. Dr. Peterson, of Chicago, considers thrombosis due to sepsis rather than to either traction or pressure of the forceps. Dr. McLean, of New York, thought that personal idiosyncrasy must not be overlooked as an etiologic factor. Thrombosis, especially that form known as phlegmasia dolens, has been known to occur without a lesion. He cited cases in which the formation of a thrombus was coincident with the presence of the tendency as shown by its occurrence in other members of the family. Dr. Noble, of Philadelphia, doubted whether clamping by forceps cut any figure in the etiology of the condition, as it was likely to occur in hysterectomy when no clamping was necessary, and also in operations upon the round ligament in which no clamps were used. He inclined to the belief that some septic condition was the chief factor. Dr. Jarman, of New York, stated that he had assisted Dr. Coe in the operations detailed, and they were *aseptic*. The question asked was why thrombosis would occur in aseptic cases. Dr. Vineberg had noted that most of the cases had occurred at or about the ninth day after the operation, or just about the time required for the catgut to dissolve. He thought that this might be a factor in unsuspected sepsis. Dr. Coe thought that possibly the general use of the Trendelenburg position in operation might be a factor, from the interruption of the venous circulation. He could not think the catgut at fault, as he had taken precautions to see that all he used was thoroughly tested. Still it was the only possible cause of sepsis. His cases had all occurred about the eighth day after the operation, and approximately about May 20.

Dr. Bernard Browne, of Baltimore, Md., read a paper on **Inversion of the uterus.** He embodied in his paper much valuable historical matter, and considered relaxation of some part or all of the walls, considerable enlargement of the uterine cavity, delivery in an upright or kneeling posture, a short cord wrapped around the neck of the fetus, hydatiform moles, the insertion of the placenta at the fundus, and lifting heavy weights during menstruation, the chief predisposing factors. The condition is liable to occur several times in the same woman, and in its chronic state is liable to be confused with polypus or fibroid tumor of the womb. The best diagnostic point is the recognition of the uterine orifices of the fallopian tubes. The ordinary mode of treatment has been by taxis in its different forms. Dr. Browne makes an incision in the posterior part of the fundus, passes a Sims' dilator, and expands it fully. He then passes the finger to ascertain that there are no adhesions, fully dilates the cerrix, sutures the incision, and finds no difficulty in returning the womb through the dilated cervix. It may then be retained by passing a silver-wire suture through the cervix. The method is particularly applicable in chronic inversion of the uterus. It is not intended to supersede ordinary taxis in acute cases. It is not more dangerous, and is more certain than prolonged and rapid taxis. It avoids the danger of bruising the tissues and of rupturing the vagina. It is ess dangerous than laparotomy unless numerous adhesions have formed, which is of very rare occurrence. There is always certainty of reduction at one operation. **Dr. Andrew F. Currier**, of New York, prefers the suprapubic operation to dilate the cervix. He thinks there is danger in dilating through the incision. **Dr. Coe** thinks that in acute cases too much time is spent in manipulation. The surgeon should act as soon as satisfied that manipulation will be tedious. He advises early section of the abdomen for exploratory purposes. **Dr. Kelly** thought the anterior vaginal incision he best to make for the operation. He saw danger in dilatng through incision in the fundus. He detailed a case in which abdominal section was made for the purpose of dilaion, but in which this was found impracticable, and the uterus was finally extirpated by the vagina. **Dr. Palmer Dudley**, of New York, had seen 12 or 15 cases of inversion of he uterus, all of them in cases which had been delivered by midwives. He had never had difficulty in effecting replacement when the case was seen early. He keeps the patient on the back, keeps the bowels open daily, and uses copious rrigations of hot water, with a large tampon, preferably of wool, in the vagina to retain the uterus in position. In even ifficult cases persistent gentle manipulation has ensured uccess. **Dr. E. P. Davis**, of Philadelphia, thought that one ause of inversion of the uterus was a misapplication of the Credé method for the expulsion of the placenta. Extraordinary are should be taken to avoid causing any dimpling of the undus. **Dr. C. P. Noble**, of Philadelphia, thinks that traumatism by manipulation is a source of failure that must lead o the eventual amputation of the uterus. **Dr. Peterson** wished to call attention to the necessity for hysterectomy n acute cases which do not yield to ordinary means and in which the patient has suffered much loss of blood. The use f the normal salt-solution must not be neglected in such ases. **Dr. Browne**, of Baltimore, advocated suturing the ervix with silver wire to prevent recurrence, not as a part f the operative procedure. He had performed this operaon in 1883, or 10 years before Küster's operation. His peration also had the merit of simplicity in that he made is incision directly into the fundus and not into the posteor culdesac as Küster had done, thus entering the perioneal cavity.

Dr. Robert L. Dickinson, of Brooklyn, discussed the uestion, **Is a sloughing process at the child's navel onsistent with asepsis in childbed?** It was largely plea for the adoption of surgical methods of asepsis in the are of the umbilical stump, advocating the severing of he cord at the skin margin, and the necessary ligating, nd dressing in accordance with surgical methods afterard. There was a complete summary of the literature pon the subject, adding greatly to the value of the aper, as this has never heretofore been done. He classified he two methods of dressing the cord in reference to the reults to be obtained as (1) excluding the air for the purpose of reventing infection, and (2) admitting the air for the purpose of causing mummification. **Dr. E. P. Davis** called attenon to the frequency of sepsis abroad and attributed it to e fact that foreign nurses are not practised in keeping clean. e advocates compression of the cord.

Dr. I. S. Stone, of Washington, read a paper considering **he use of the compression-forceps in salpingo-ophorectomy and hysterectomy, with remarks pon the angiotribe.** He considered that great and connued pressure would serve the purpose of hemostasis better han the application of forceps which might slip and which ould not render the parts so homogeneous as they could be ade by the use of an intrument like the angiotribe, illusations of which were passed around. He thought there as less danger of hemorrhage, and that the wound was not apt to slough, as with the use of either ligatures or the rceps. The matter of time-saving was also of great imortance, as with the use of the angiotribe, the operator apying the instrument and guiding it, and an assistant applying the pressure, a few seconds would be consumed in what otherwise would take minutes. He had seen operators who would crowd the vagina with an assortment of a dozen or more forceps, and certainly this instrument would present great advantages over such methods. **Dr. H. D. Hanks** commended the use of the angiotribe. It tended to simplify, and everything in the direction of simplification was also in the direction of good surgery. **Dr. J. Duncan Emmett** thought the instrument would prove a great convenience in private practice. **Dr. Harris**, of New York, advised caution in either too hastily adopting or condemning the instrument. He thought it presented some elements of weakness, and could not convince himself that it could exert the degree of force that was claimed for it. The length of the lever was proof that too much had been claimed for the instrument in this matter. He saw no necessity for allowing forceps to remain 48 hours in the ordinary case. He had usually found 24 hours a sufficient time. **Dr. C. P. Noble** thought it best to make haste slowly in endorsing so clumsy and awkward an instrument as the angiotribe. He considered the enthusiasm concerning its use merely the reflex of a passing fad. He saw no reason for discarding the use of ligatures, but admitted that the conditions for their use must be favorable. **Dr. Janvrin** has had success with the angiotribe, but personally prefers the forceps. He has used ligatures as well and finds all these means of use in the conditions adapted to them. He removes them in 24 hours generally, always within 48 hours. Would consider the angiotribe preferable in vaginal work, and considers that it saves the patient much nervous irritation and pain. He generally removes the clamp-forceps in 24 hours. **Dr. Goffe**, of New York, thought the angiotribe saved time over the application of the forceps, and thus presented a decided advantage. He has found it serviceable and not clumsy nor tiresome, especially if an assistant is at hand to turn the screw. **Dr. Edebohls**, of New York, does not like the angiotribe. He prefers to use ligatures. He thinks the chief disadvantage of the instrument lies in the fact that it is impossible to see just what is being clamped between its powerful jaws, as it is impracticable to decide by touch beyond the point of the instrument. It should certainly not be used in a narrow vagina. **Dr. Stone** admitted the indictment as to the size of the instrument and its consequent clumsiness, but claimed that it was constructed upon correct surgical principles, and that future modifications would obviate the defects pointed out, particularly in the line of reduction of size without loss of power. He never uses ligatures except of catgut.

Dr. T. J. Watkins, of Chicago, read a paper on **The treatment of broad-ligament cysts by vaginal incision and drainage**, in which he advocated vaginal puncture and drainage, claiming there was no more danger of the cyst refilling than there was in the analogous condition of hydrocele. The danger of malignancy was slight. Care should be taken to differentiate between a multilocular cyst and a unilocular one, the procedure being applicable solely to the latter. **Dr. Pryor**, of New York, thought the condition was apt to be bilateral, and advocated the incision through the culdesac to the anterior incision recommended by the essayist. He also made it a rule to never adopt the vaginal route in cases in which the cyst extended to umbilicus or above.

Third Day.

Dr. Henry T. Byford, of Chicago, considered **The remote results of shortening the round ligaments by vaginal section.** In the operation referred to, he used a modification of the Alexander operation, performing hysteropexy over the bladder with shortening of the round ligaments, suturing the uterus to the peritoneum at two separate points. He has had a uniformity of good results, and has found but few drawbacks. The operation is not offered as a substitute for Alexander's, but as a procedure adapted for certain special cases.

Dr. A. Lapthorn Smith, of Montreal, took for his subject **vaginal celiotomy.** He compared the advantages of the vaginal and the abdominal routes and analyzed 11 cases in which he had operated through the vagina. A number of these were for retroversion of the uterus, one was for a tubal pregnancy, one for a pus-tube, one in which the uterus was fixed with matted adhesions to the intestines, and one case in which in spite of the hysteropexy to the anterior vaginal wall, the uterus retroverted again. In operating he prefers the anterior incision, crossing it by another midway, if this does not afford sufficient room to work. He does not think it so much to be relied upon as the abdominal incision, and thinks its use is only justified in minor cases in which the absence of adhesions has been demonstrated. He prefers, in the cases in which he has adopted its use, to make the anterior incision, and in case it is impossible to obtain room enough to work through this, he increases its size by the crucial incision. He thinks the vaginal route is indicated for uncomplicated retroversions. If the uterus is retroverted but movable he prefers Alexander's operation. The removal of pus-tubes is more difficult by the vaginal route unless the womb is removed also, but the route has the advantage of affording drainage. The vaginal incision presents the advantage that the intestines are not handled, there is less pain to the patient, no scar is left, and there is no danger of hernia. He would make the distinction that the vaginal route was preferable when the trouble was small and low down in the abdomen, but the abdominal section was to be advised when the trouble was high and great.

Dr. J. Riddle Goffe, of New York, read a paper on **The scope of vaginal work.** He uses the anterior route, occasionally combined with the posterior incision, for greater facilities in work and also in drainage. He finds the anterior incision most satisfactory for exploratory purposes, and has never had the occurrence of symptoms referable to the urinary apparatus to follow his operations. He finds that patients thus operated on experience less shock, and have a smoother convalescence. He uses the vaginal route in ovarian cysts and retroversion of the uterus, adopting the posterior incision when there is a short anterior vaginal wall. Dr. A. P. Dudley, of New York, endorsed the considerations advanced by Dr. Lapthorn Smith in favor of the vaginal route. He had a record of 126 consecutive cases without a death, and, therefore, it would seem impossible to verify his statement as to the advisability of the operation, were it not that in two of these cases abdominal section was afterward made for the relief of other conditions, in which, inspection of the parts showed perfect success. The operation was for hysteropexy, and on section the uterus was found firmly adherent to anterior wall where it had been sutured. In this series of 126 ventrofixations, he could report 18 subsequent pregnancies. Dr. Reynolds, of Boston, prefers the abdominal route. He does not think the methods advocated enough of an operation to rival established procedure. Dr. Henrotin, of Chicago, considered that the Alexander operation was devised to meet a special condition, and that it was seldom called for. The timid conservative is apt to advocate the use of the vaginal route, but he considered that true conservatism required in most cases the adoption of the abdominal route, if only for the reason that so many conditions were masked and could only be recognized after section. It is very nice to avoid producing an abdominal scar, but it must be remembered that the uterus of the American woman is not so much at the disposal of the surgeon as is that of the woman abroad. When a surgeon in France or Germany makes a vaginal incision and meets with an unexpected difficulty, he is very apt to cut the Gordian knot by amputating the uterus; but we cannot practise hysterectomy in these cases. We must expect to resort to abdominal section, and thus have two wounds to deal with instead of only one. The truest surgery would indicate the using of the route which is the shortest distance to a given point, and this is the advantage furnished by the ventral incision. Dr. Pryor, of New York, advocates the attacking of acute infectious cases from below, as there is less danger of extending the infective process. In early ectopic gestation he advocates the posterior vaginal incision as the method best suited to reveal the true state of affairs and permit of dealing with them. Dr. Bovée, of Washington, stated that there was danger of overlooking the fact that there was no general operation for the conditions alluded to. Every case is a special case, and must be individually considered and treated. It is necessary to find the cause of the condition, and so near as possible apply the remedy to the seat of error. He cannot agree with the recommendation of Dr. Pryor to attack acute infectious cases from below. So far from lessening the danger of infection it was apt to increase it, as it was quite possible to leave some infective process behind when it was impossible to fully inspect the seat of operation. Dr. Wathen, of Louisville, Ky., thought, in selected cases, the vaginal route was preferable, as better work could be done. He fails to see the force of the argument that one is working in the dark in the vaginal route. He does not consider it more obscure than a small ventral incision and is in the habit of bringing the parts upon which he operates down in the vagina in order that he can see. He objects to the use of 3 or 4 retractors. He can do better work with less instruments, and has less subsequent trouble. He has used the route for 11 years, for such operations as hysterectomy, etc. and in all that time has never wounded an important organ. He has had perfect recovery, and does not even excep fibroid from this method of treatment. Dr. Lapthorn Smith has had no difficulty in obtaining perfect fixation o the uterus by the anterior vaginal incision. It must be remembered to scarify the fundus and suture in two places in order to form firm adhesions. He would be ashamed to use the ventral incision when the condition can be cured without it. He thinks it desirable to fasten the uterus to a fixed point. He considers it a much more surgical procedure to cut a diseased ovary than to cauterize. Scar-tissue should be avoided so far as possible. Dr. J. Riddle Goffe thought that in hysteropexy it was advisable to anchor the uterus to a movable point. The mobility of the organ should be preserved as far as possible. He thinks the vaginal route applicable in cases of ectopic gestation. We have advanced far beyond mere vaginal puncture and drainage.

Dr. Edward Reynolds, of Boston, read a paper on **Tuberculosis of the kidney as an indication for nephrectomy.** He thinks the lesion is often unilateral, and chronic. He would advise nephrectomy when the symptoms are trifling, slow and insidious, and when the condition occurs in resistant women. In the cases he cited the condition had continued 8 and 20 years respectively. It was an interesting point that in one case the pain was referred to the sound side, but the lesion was localized by catheterizing the ureters and producing artificial renal colic in the method described in the discussion of Dr. Kelly's paper. His operation in these cases was a simple nephrectomy, but hereafter he will perform nephroureterectomy. He thinks the large mortality attending the procedure may be accounted for upon the ground that it is used as dernier ressort. Improvement of technic and more favorable statistics will follow greater frequency of the operation. Dr. Noble was more hopeful in his prognostications than the essayist. He thought the operation justifiable even as a last resort, as it could not fail to be productive generally of more good than a simple letting alone. He cited two cases in which he had very good results, although in one the patient was almost moribund when seen, and the bladder also presented tuberculous lesions. He would advise operation, and thinks the operator will generally obtain far better results than he anticipates. Dr. Arthur W. Johnstone would advise the cauterization of lesions existing in the bladder in connection with the operation discussed. Dr. A. Palmer Dudley related a case in which he encountered considerable difficulty in closing a double wound, lumbar and ventral.

Dr. Seth C. Gordon, of Portland, Me., read a paper entitled **Conservative gynecology.** This was in the nature of a criticism of a paper read last year advocating myomectomy instead of hysterectomy as a conservative procedure. He analyzed cases reported and condemned the so-called conservative operation in women proved sterile or who had passed the menopause. He believed that in such there was no indication for retention of the uterus at the risk of recurrence of the condition. Other considerations should enter into the operation than the mere desire of a surgeon to show skill by the preservation of as much tissue as possible. The matter should be considered more from the standpoint of the woman with regard to her health and condition after operation. The woman was not merely an entity because she was possessed of generative organs, and it was the preservation of health and life that should be considered, not of organs. Many factors entered into the matter, including the social condition of the patient with reference to hard work, etc., her own desires and her time of life. Dr. Pryor, of New York, said that no one had a more exalted idea than he as to the importance of preserving to a woman her sexual life whenever possible, but there were conditions when this must be set aside. He considered a fibroid uterus an indication for total extirpation. There was such a thing as a diathesis for the formation of these new growths, and whenever their existence had been demonstrated it was well to erform a radical operation to prevent recurrence. Some omen preferred death and suffering to the loss of the gans, but in certain instances this was a false conception, ad if possible should be removed by educating the patient. t any rate the conditions existing and the probable event the so-called conservative operation should be plainly ated that she might make her choice intelligently. DR. HAD. REAMY thought that the ethics of the surgeon had othing to do with the question. The operation should be onsidered solely from the woman's standpoint, and every ndeavor possible should be made to preserve to her her xual life. No man had the right to arrogate to himself e function of judge and decide that this or that woman ould be asexualized. No one could say what would be e career of the offspring of any given woman. The ild born in a hovel might become the ruler of a great ation, an orator of a world-wide fame, a poet of wondrous orth. The man who presumed to decide such a question as no true physician, but emphatically a dangerous man. R. DUDLEY, of New York, agreed with the proposition that e surgeon must consider the advisability of removal solely pon the merits of the case. He should regard the request the patient for retention, but not allow any request for tal removal to influence him in his decisions. DR. BALDY, of hiladelphia, considered the tendency towards the adoption myomectomy as the operation of choice as distinctly bad nd to be deprecated. He thinks it is frequently done just r the sake of doing the operation. But few cases are ap- icable to the operation. He considers it solely as an opera- on of necessity, and always performs it with reluctance. R. NOBLE, of Philadelphia, declared himself in favor of the eration, thinking it an example of true conservatism to eserve to the woman all of her functions. DR. GORDON said is was not a question of preserving to a woman her func- ons, but of considering the best operation when such func- ons were hopelessly impaired. The woman had a right to mand of the surgeon when she submitted herself for opera- on that he make every effort to *cure*, not simply alleviate. his is the woman's standpoint, and the woman's standpoint ust be the standpoint of the surgeon.

DR. J. WESLEY BOVÉE, of Washington, read a paper on **bdominal conditions complicating typhoid fever,** which he cited several instances of abdominal section dur- g the course of typhoid fever, undertaken for other condi- ons than those relating to the disease. The fever was not spected in one case, because of the abdominal lesion mask- g the onset of febrile symptoms. The Widal reaction was tained the third day following operation. The patient d been exposed to typhoid fever in the hospital. DR. DUD- Y, of New York, advocated laparotomy, irrespective of the phoidal condition in cases in which grave abdominal con- tions existed. He thought the existence of appendicitis d of peritonitis due to tympanites indication for section en at a high stage of the fever. It must be remembered at the free use of the normal saline solution is antidotal to e typhoid poison, and opportunity is surely afforded for this medial agent. He thinks the gravity of operation during phoid fever has been somewhat exaggerated, yet would not vise it, save in very grave cases. DR. FRY reported a case, which operation was followed, 4 or 5 days later, by typhoid er, which resulted in the patient's death.

[From our Special Correspondent.]

AMERICAN LARYNGOLOGICAL ASSOCIATION.

venty-first Annual Congress, held at Chicago, May 22–24, 1899.

FIRST DAY.

President's Address, delivered by DR. WILLIAM E. SSELBERRY, of Chicago. I think all are conscious of the ange in the drift of laryngological practice wrought of ent years; first by the evolution of nasal pathology, and condly by the appropriation of the ear. From a physician ating affections of the throat and chest, the laryngologist fast becoming a surgeon with a routine limited to local asures as applicable to the upper respiratory tract alone. hile freely conceding that practice has been realized along local surgical lines, I deprecate the tendency of the day to deal with the throat and nose exclusively in a mechanical way as if they were organs detached. I believe it engenders narrowness of thought and that through habitual disuse there is gradually lost to the physician much of that fundamental knowledge of pathology and therapeutics which is so essential to the welfare of the patient. There are now nasal enthusiasts whose idea of the entire subject seems to consist in the establishment of a wide patency of the nostrils. The intimacy of the ear with the nose and throat is conceded. The laryngologist has the treatment of aural affections actually thrust upon him. Even the patient's discernment convinces him that the laryngologist's skill and equipment are the means best adapted to the end, and having appropriated the ear, one should cultivate an exhaustive knowledge of the organ, but as an addition to laryngological lore, not as substitute for a part thereof. It is not claimed that the laryngologist must of necessity embrace in his practice all pulmonary diseases, but it is urged that he be ready to apply all the arts of diagnosis and that he be conversant with every resource known to medicine in the treatment of pulmonary conditions in their relation to the throat. Nor will it answer to omit attention to the heart, aorta, or mediastinal contents. Paralysis of a vocal cord through pressure on the recurrent nerve by an aneurysm is a simple proposition, but more complicated ones which require a high degree of diagnostic skill are continually encountered. Above all, one should study the conditions of natural immunity and susceptibility in order that having made an early diagnosis, one may direct the mode of life and place of abode best adapted to arrest the disease and overcome the susceptibility. This implies a ready familiarity with sanitation, hydrotherapy, climatology and sanitarium resources and methods. All laryngologists are familiar with the many throat-conditions which appear as salient features of underlying systemic states, and yet in the overswing of the movement toward localism general pathologic data, systemic therapeutics and hygienic aids are not always utilized to the utmost. The laryngologist should continue to be first of all a good physician and after that, something more—a specialist.

Is the so called American voice due to catarrhal or other pathological conditions of the upper air-passages? by DR. JOHN W. FARLOW, of Boston. By American voice is meant the characteristic nasal twang so commonly noticed. Conditions of the larynx and fauces, which cause their own distinctive vocal impairment are not here considered, as we do not mean by American voice the thick voice, and that of low carrying power. Any condition which hinders the passage of air into the nose tends to diminish the nasal resonance, and does not contribute to the production of the nasal voice. When anterior septal deviations and spurs exist the air during vocalization vibrates abnormally in the nasal chambers, so also when the nose is narrowed at the tip which, perhaps, may be bent downward and when there are anterior polyps and anterior turbinal enlargements, chronic catarrhal inflammation of the mucosa often occurs without hypertrophy. From all these causes there result anesthesia and paresis of the soft palate, and some of the tones which should be formed in the mouth are formed higher in the nasopharyngeal space. This explains the occurrence and persistence for a while after operation of the peculiar voice in adenoids until the palate has regained the tones lost from disuse. Atrophic rhinitis does not seem to cause a nasal voice. In those under 12 years old the nasal voice is common, but the lesions enumerated above which might seem to stand in a causative relation thereto are not common. In those between 12 and 30, they are more common than in the first class, but the occurrence of the nasal voice is not more common and does not appear, therefore, to have any constant relation with the apparent formative causes. In those over 30 the nasal voice is less common than earlier in life. It is thus obvious that the nose is not the determining factor in the formation of the nasal voice, because the nasal lesions do not determine the classification into nasal and non-nasal voices. The voice can often be improved by training without any medical or surgical intervention, and pathologic states have more to do with the range and power of endurance of the singing voice than with the quality in the middle register. The nasal voice is more often merely a matter of imitation. Good public speakers and actors with good voices have, from a purely anatomic point of view, very poor vocal organs. Anterior nasal obstructions are common in all civilized races. Some of the most pronounced nasal voices are heard in our country villages. The great influx of foreigners has introduced all sorts of vocal sounds and methods of speaking English into common speech, and we are quite indifferent as to the best methods of speaking. Hence children should be carefully trained in this respect, for in them, imitation of the vicious vocal methods they constantly hear is the most potent factor in the production of nasal voice. In discussion, Dr. G. Hudson Makuen, of Philadelphia, said, that far more attention should be given to proper vocal methods. As a rule, physicians knew little about the subject. Laryngologists should instruct singing teachers. The American voice is due to the excessive tension of modern American life. The active anatomic factor in nasal voice is probably a low-hanging palate during speech. The sound-vibrations are centered in the postnasal space. We must train the levator palati muscles, which can be done by having the patient practise several times daily with *open* mouth before a mirror. Dr. I. Amory DeBlois, of Boston, thought that racial condition had much to do with the character of the voice. We are all familiar with the guttural of the German, the vibratory nasal French voice, and the high-pitched voice of the Yankee, while the English voice, no matter what the social rank, is always of an agreeable low pitch. Dr. John O. Roe said that the nasal sinuses had much to do with voice-production, as they acted as resonators. The voice depends on the shape and size of the cavities, which vary greatly. Anterior nasal obstruction does not cut off the influence of the resonators, while posterior obstruction does. So, also, the peculiarities of the various languages are a factor. Those who use many consonants, as Germans and Russians, have low-pitched voices, while an excessive use of the vowels conduces to the opposite result. Dr. A. A. de Roaldes, of New Orleans, spoke of American conversational habits, and of the fact that in the South the conversational tone is much lower than in the North. This may be due to a mixing of various race-bloods in the former, and to the lazier mode of life. The negro voice was not much addicted to tonalities. Dr. Thomas Hubbard, of Toledo, thought that much of our high-pitched speaking was due to the noise of our American cities, where it was often necessary to speak in a loud high tone in order to be heard. So, also, from the noisy environment the ear becomes obtunded to the appreciation of such misuse of the voice. Dr. Farlow said that the low palate was often due to a lack of use, but was not the original cause of the nasal voice. Its causative relation was secondary not primary. He had noted that nasal voice was common in children, in whom the sinuses were scarcely at all developed. English is spoken in many countries, in none of which does the voice have the same qualities as in this country. Voice is not, therefore, primarily a matter of language. He had often noticed the most pronounced cases of nasal twang in country villages.

Adeno-carcinoma of nose, with report of case, by Dr. James E. Newcomb, of New York. Up to last year there were on record the notes of 23 similar cases in which the clinical diagnosis had been verified by microscopic examination. This case was that of a widow, aged 61 years, of American parentage, who had suffered since June, 1898, with obstruction in the left naris and almost daily nosebleed, severe on one or two occasions, but never requiring operative interference. At times there had been a slight watery discharge with a slightly offensive odor. She had lost some flesh and strength. In September last, she had blown from that side of the nose what she described as a "fleshy bean" and which was probably an ordinary polyp. The left middle turbinate was considerably enlarged and the mucosa over it seemed to be in a condition of polypoid degeneration. About it were some fleshy proliferations which bled easily upon manipulation with the probe. There were no glandular enlargements and no pressure-symptoms. The masses were removed under cocain-anesthesia without incident. The report of the microscopist was adeno-carcinoma. Radical interference was refused by the patient. Cancer of the nose is relatively rare. It is claimed that there is nothing more than coincidence between the association of the ordinary polyp with carcinoma. Tissier does not believe that the epitheliomatous degeneration of simple polyps has ever been definitely proven. What we know, he says, about the etiology of polyps explains their occurrence in a cancerous nasal fossa. On the other hand, Plique states that it is pretty frequent after the ablation of numerous benign polyps, to find new polypi appearing, composed this time of epitheliomatous tissue. Dr. Newcomb could hardly accept the truth of the latter statement, for polyps were very numerous and were often removed by very crude means, while the occurrence of cancer here was so rare. Dr. G. V. Woolen, of Indianapolis, related the history of a case of malignant disease of the nose occurring in a girl of 8 years, following an injury received two years before. Nasal polyps, so called, were removed and pronounced by the microscopist to be nonmalignant and only simply mucoid in character. Pressure-symptoms were prominent. The growth was found to recur over an increasing area, and the case was pronounced to be nonoperable. Later clinical history clearly demonstrated the fact of malignancy. Dr. J. L. Goodale, of Boston, mentioned a case of adenocarcinoma of the nose occurring in a man of 51 years. The left naris was filled with a soft bleeding mass showing after removal and examination a fibrous stroma with epithelial cell-nests. There was bulging of the eye, much pain and nasal obstruction. Removal was followed by recurrence. Dr. Newcomb urged more hearty cooperation and association of the clinician with the microscopist in the early management of cases of doubtful nature in their incipiency.

Removal of foreign body from bronchus through tracheal opening was a paper by Dr. A. Coolidge, Jr., of Boston. A teamster, aged 23, was admitted to hospital a year ago, having worn a tracheal tube for 20 years. Twelve hours before admission the tube had become detached from the shield and had been drawn into the bronchus. On admission, severe cough, dyspnea and noisy breathing were present, Examination by x-ray was negative. Patient was etherized on the back with the shoulders over the end of the table with the head held downward and rotated to the right side. The tracheal wound was enlarged downwards. A urethroscope one-half inch in diameter and three inches long was passed down the trachea with the stiletto in place, and when the stiletto was withdrawn, a speculum was pushed down the trachea without any difficulty to within about one inch of the bifurcation. Under sunlight illumination with the hand-mirror, the tube was seen in the right bronchus with its upper end half an inch below the bifurcation. Alligator forceps introduced through the speculum extracted it without difficulty. No ill after-effects were noted. There was some inconvenience at first from coughing, but none from secretion. The mucosa of the trachea was cocainized. In case a body is large enough to make it probable that it has gone no lower than a primary bronchus, immediately tracheotomize and explore by means of straight tubes as large as possible. If the body is in a secondary bronchus operative interference is justifiable if there is a good chance of reaching it after illuminating the primary bronchus, as would be the case, especially on the right side. A body loose in the trachea is much less dangerous than the same body impacted in a bronchial tube, and hence any violent respiratory excitement should be avoided. It is better to tracheotomize under cocain than under ether. In special cases tracheotomy may be avoided by introducing straight tubes through the glottis from above, but if the body is being rattled to and fro in the trachea, it would not be justifiable to run any farther risk of its being inhaled. Even when it is in the larynx in such a position that attempts at removal are likely to push it farther down, it is safer to do a tracheotomy and reach it from below. That absolute surgical cleanliness is necessary to present septic pneumonia goes without saying. A favoring circumstance in the use of the straight tubes is the flexibility of the lower part of the trachea and bronchial tubes, which permit considerable straightening or bringing into line the bronchus under observation. Dr. H. L. Swain, of New Haven, said that statistics show that foreign bodies are frequently expelled, sometimes months after they have entered the air-tubes. Ulceration is set up and they became dislodged. Dr. Roe stated that in thousands of instances the body had been expelled. The best results came from leaving it alone if it is not producing active symptoms. Dr. de Roaldes believed that we should not hesitate to operate. In 7 out of his 8 cases, the body had been removed through the tracheal wound. A low tracheotomy should be done and the bronchus titillated so as to excite cough, the edges of the tracheal wound being held open. We ought not to advise non-interference. Dr.

Woolen thought that if there were no immediate symptoms and if we knew the body to be of such a nature that it could be easily expelled it was advisable to defer operation.

Exhibition of a case of stammering with demonstration of methods employed in the treatment, was considered by DR. G. HUDSON MAKUEN, of Philadelphia. The patient was a civil engineer, aged 29, who had stammered since the period of voice-formation. There was no assignable cause for the affection, which seemed to be the outcome of a congenital neurosis. The chief characteristic of the defect was spasmodic contraction of the muscles of the soft palate resulting in sudden closure, during attempts at vocalization and articulation, of what Dr. Makuen called the posterior palatolingual chink. These spasms were of variable frequency and duration and came on at most unexpected times. They gave the speech a peculiar jerky character and sometimes blocked it entirely. The defect was more pronounced in reading than in speaking. There was also a sort of mental hesitation and he could not always think correctly. In normal speech, the action of the muscles is entirely automatic, and when any of the mechanisms employed fails to perform its functions this automatic action becomes impaired and it is the effort to control the lagging mechanism and to bring it into harmony with the other mechanisms that constitute the chief difficulty of the stammerer. In this particular instance the respiratory mechanism was at fault. Resort was had to direct nerve-muscle training, that is the singling out of the muscles with faulty action and by training them by means of voluntary exercises to properly functionate. This is superior to the indirect method which leads the patient unconsciously by means of approximately correct speech to use the muscles properly. The former method develops the nerves as well as the muscles and establishes a volitional control over the faulty mechanism.

Report of cases of chronic empyema of the antrum of Highmore operated upon by the Caldwell-Luc method was made by DR. A. W. DE ROALDES, of New Orleans. Five cases were reported, in all a radical and speedy cure being obtained. It is surprising that this plan of operation, originally devised in this country, has not been more generally followed. It is believed to be superior to the older plans. The various steps of the operation can be summarized as follows: (1) A buccal incision is made parallel with and near enough to the upper gingivolabial fold in order to allow of the subsequent easy union of the muco-periosteal flaps. (2) The anterior wall of the antrum is opened in the canine fossa, the opening being ovoid in shape. Its extremities give easy access to the tuberosity on one side and to the nasal wall on the other. (3) The cavity is thoroughly curetted and all diseased tissue removed. (4) A portion of the anterior extremity of the inferior turbinate is removed. (5) A large artificial opening is made in the nasal wall of the antrum as close as possible to the angle formed by the floor and anterior wall. (6) The cavity is finally inspected, cleansed, dried, and lightly dusted with iodoform, followed by suture of the mucoperiostal flaps. Iodoform gauze is gently packed into the antrum and also into the nasal fossa, changed on the third to fifth day and afterward on alternate days until the twelfth day. The patient is then allowed to irrigate the cavity with a syringe and cannula, using boric-acid solution. In one case a little secretion could sometimes be found at the entrance of the sinus, but this was ascribed to an old ethmoidal trouble, the pus leaking into the sinus through an opening in its nasal wall from old necrosis. Dr. de Roaldes dwelt especially upon the importance of locating any other possible focus of suppuration, as the latter may prove a serious complication or materially retard healing. DR. ROE said that we ought to consider the level of the antral floor with reference to that of the nose, and also that the existence of pockets or septums in the antrum often prevents proper drainage of the latter even after incision has been made. DR. E. L. SHURLY, of Detroit, did not believe that operation was always necessary. Acute cases (as after grip) often get well of themselves, but in chronic cases cureting will often be necessary. He did not believe there was any positive evidence of infection through the mouth, but the opening into the nasal fossa would in his judgment offer far greater chance of such infection. DR. MAKUEN said that the law of gravity did not seem to hold good in normal drainage of the antrum, as the opening was nearer the top than the bottom. Drainage seemed to be regulated by some sort of capillary attraction. DR. G. A. LELAND, of Boston, remarked that man was not always an upright animal and that when lying down, the antrum was drained by gravity. If the natural opening could be kept patent, many of the cases could be cured without operation. The Caldwell-Luc method was really a combination of those of Mikulicz and Jansen.

Septic phlebitis with thrombus as a complication of peritonsillar abscess, report of two cases, was the title of a paper by DR. M. R. WARD, of Pittsburg. His first personal case was that of a woman, aged 30. Three weeks previously she had had pain and soreness in the left tonsil, which subsided. Three days later there was a right peritonsillitis, with a tumor in the right side of the neck, and enlargement of the postcervical glands. Palpation did not detect fluctuation. The muscles of the neck swelled, fever developed, with evidence of pneumonia in the lower lobe of the right lung, and of pus beneath the superficial fascia of the neck. Incision was made, but pyemia proved fatal on ninth day. Autopsy showed a thrombus in the internal jugular, with septic phlebitis running to the tonsillar plexus. His second case was that of a German male, aged 42, who had an ordinary quinsy, which was incised. Two days later there was a chill with renewal of all throat symptoms. Death occurred on the sixth day from pyemia. Autopsy as in first case, with, in addition, multiple abscesses in the kidneys.

Acute suppurative processes in the faucial tonsils was the subject of DR. J. L. GOODALE, of Boston, and was based upon a study of 8 cases of intrafollicular abscess, calling special attention to the etiologic relation of special bacteria to these cases, of the latter's relation to peritonsillar abscess, of their prognostic significance, and their clinical recognition. Streptococci were more numerous than staphylococci. Of the 8 cases, 2 were followed by peritonsillar abscess. In all there was severe infection, as evidenced by the swelling in the neck, temperature-curve, and general course of the symptoms. In most cases the tonsil presented no gross appearance, which would suggest intrafollicular abscesses, which varied in size and number. The fibrinous exudation was more marked than in simple proliferative tonsillitis. The pyogenic infection of the follicles seemed secondary to that of the crypts, and in the two peritonsillar cases there seemed to be a discharge of the abscesses into the efferent lymph-channels.

Peritonsillar abscess was considered by DR. G. A. LELAND, of Boston. The best method of relieving these cases is to make a long incision vertically through the tonsil, and then with the sterilized finger to thoroughly explore through this incision the pus-pockets. The method is not dangerous, but is very painful, and a few whiffs of an anesthetic may be necessary. Its advantages are that the abscess is drained from the bottom, recovery is prompt, and there are no relapses. The patient is able to swallow liquids in 6 hours, and solids in 12. In case the incision is slow in healing, applications of iodin and glycerin are made to the bottom. This operation is really a century old, but has fallen into disuse.

Peritonsillar abscess associated with diphtheria: report of cases, was a paper by DR. THOMAS HUBBARD, of Toledo. A farmer aged 30 had acute tonsillitis. Five days later a right peritonsillar abscess developed. Löffler bacilli were present on tonsil. Antitoxin was given, but the next day there was evidence of membrane in the trachea. Dyspnea soon became so marked that tracheotomy was done. The patient stopped breathing, but was brought around after an hour of artificial respiration. Death from pulmonary edema followed in 18 hours. A second similar case was described. In the latter instance different members of the same family were variously affected, ranging from ordinary simple tonsillitis to fatal diphtheria. In incising such cases care should be taken to definitely locate the pus so that the knife should pass through tissues devitalized by softening. DR. F. C. COBB, of Boston, exhibited some photographs illustrating wax injections through the tonsillar crypts into the pharyngomaxillary space, the injections showing the same direction of extension as did the pus in the course of the actual abscess-cases. DR. NEWCOMB mentioned a case (recently reported by Sendziak) of diphtheria associated with multiple abscesses in the various tonsils and empyema of both antral cavities. The phlegmon about the lingual tonsil opened spontaneously and a profuse hemorrhage ensued.

A case of **fibro-lipoma of tonsil** was reported by Dr. T. Amory DeBlois, of Boston. Patient, male of 30 years, presented a growth in left tonsil, pedicled and of the size of a peanut-kernel. Removal was done under cocain and with the cautery snare. A section of the growth was shown under the microscope.

Second Day.

Discussion: The Relation of Pathological Conditions in the Ethmoid Region of the Nose and Asthma. Dr. Henry L. Swain, of New Haven, in considering the pathologic side, said asthma means a hyperesthesia of the bronchial lining with a resulting explosion of energy. In addition, some other structure is diseased, irritations of which sets up the bronchial spasm, a condition called the neurotic habit. The nose is only one of many diseased sites which can produce an asthmatic attack. It may arise from some intranasal irritation. Certain irritations applied to certain nerve-fibers will produce congestion and chronic inflammation with swelling and watery discharge. Then come soaking of the tissues, edematous changes and polypi. In many of these cases of hyperesthetic mucosa there seems to be all over the body a thinness or flabbiness of the blood-vessel-walls and a vasomotor responsiveness, which make possible the explosions which are the bane of the existence of these afflicted mortals. This character of vessel-wall may be the inherent peculiarity of the neurotic subject. Such a theory would explain the headache, asthma, neuralgia, etc., which at the start are only vasomotor spasms. Later, by continued distension of the vessels, their walls become permanently stretched and flabby, and thus organic lesions are possible. In general, the ethmoid or middle turbinate changes in all these cases are hypertrophic and confined to the mucosa. Septal spurs and bends tend to keep up the middle turbinate disease and increase the possibility of pressure. Repeated irritations gradually lead to vascular relaxation and the occurrence of edematous tissue. In turn, come contact areas and areas of pressure. With the latter present, the initiative of the asthmatic attack is easy if at the same time the bronchial apparatus is also diseased or susceptible. The clinical phase of the subject was discussed by Dr. E. Fletcher Ingals, of Chicago. In 3 cases the patients had asserted that they had had spasm in only one lung which corresponded to the side in which intranasal lesions were present. One patient was subject to attacks when on the ground, but was relieved by going to the sixth story of a building. Removal from one house to another of the same character only a few blocks away has cured others. Even a change from the brick portion to the wooden portion of the same building has sufficed to relieve some cases. Dr. Ingals had found that a spray containing 3% of cocain and 5% of soda nitrite would often relieve apparently by a reduction of the sensitiveness of the bronchial mucosa. Treatment was discussed by Dr. F. H. Bosworth, of New York. He believed that the whole question turned upon the integrity of the respiratory function of the nose. The bronchi were only air-conductors, but there was an intimate relation between their mucosa and that of the nares. In asthma the condition was one of vasomotor paresis, not of muscular spasm. Behind the polypi, the polypoid degeneration and the edematous hypertrophy, is an ethmoiditis. The great indication for treatment is to relieve the ethmoiditis, to relieve the intracellular pressure by breaking down the honeycombed mass. A radical operation is necessary. It is not enough merely to remove the polyps. We must uncap the eggshell-like ethmoid. Points of contact should also be eliminated, not so much because of the pressure there exerted but because they encroach upon the lumen of the nares. In his own experience cutting forceps were unsatisfactory. He used rounded and oval burrs from one sixteenth to one quarter inch in diameter driven by power. We should burr down, stop, use burr as probe, revolve it again until all the thin trabeculæ are broken down and free drainage is established. In nearly every case treatment confined to the anterior cells is sufficient. Dr. Bosworth stated that he had never had any bad results in following the above rules. He formerly held that if cocain applied to the nose did not relieve an asthmatic attack it was useless to do any intranasal operation, but later experience had led him to modify this view. Purulent ethmoiditis does not cause asthma, but inflammatory disease does. Many colds in the head are doubtless acute ethmoiditis. In the general discussion Dr. E. L. Shurly remarked that the question was a difficult one on account of the complex physiology of the vasomotor system. We should look farther back than the ethmoiditis and the edematous rhinitis. Recent experiments have shown that the filaments from the cranial nerves and the spinal cord are really conducting cables and that in the same one there may be filaments for various functions. In different animals and in different individuals of the same group, there is a great difference in the communicating branches between the nerve-trunks. These anatomic variations explain the pecularities in individual cases. Moreover, it must not be forgotten that the nose has an olfactory as well as a respiratory function, though in man the former is very rudimentary. Impulses may travel along the sensory filaments and owing to defective insulation, as it were, may produce hyperesthesia. Even asthma-cases should be divided into those due to local disease and those due to psychic influences. He must take exception to the statement that the bronchial tubes were mere air-conduits. There is a peculiar arrangement of the adenoid tissue in them, the function of which we do not know. Dr. Mackenzie said that the primal cause of asthma was not confined to any special peripheral organ, but that it resides in the individual as a whole. The area of nerve-explosion depends on the seat of the local pathologic process. Irritation may come from a peripheral organ as the nose, a distant organ as the uterus or from a general dyscrasia as gout. On this theory mere contact-areas and pressure-points are of no value. Nasal cough may arise in atrophic states of the organ. Final explanation is not to be sought in nasal or bronchial abnormities, for all the theories thus far advanced fail to conform to the requirements of a logical hypothesis. All polypoid degeneration is not due to an ethmoiditis, as is evidenced by both clinical and pathological observation. As to treatment he had no difficulty with the forceps. It is useless to temporize and we must curet, burr, and gouge freely. Dr. Makuen said that asthma depended on faulty nervimuscular action which might be due to any one of a thousand causes. Dr. Hubbard called attention to the autoxemia-theory. Such autopoisoning may be due to gastroenteric absorption or faulty elimination. Such a possible factor must be borne in mind in the study of each individual case.

Recurrence of the tonsil after excision: a case of hysterical larynx, was the title of a paper by Dr. F. E. Hopkins, of Springfield, Mass. In discussing the subject of the recurrence of tonsils after excision, Dr. Farlow remarked that partial removal left behind diseased tissue, especially in the lower prolongation of the organ where the irritation of the lingual movements against the hardest part was apt to produce recurrence. Guillotines were usually employed for removal, but the ideal instrument was one which would actually get in between the anterior and posterior pillars. All tonsillar tissue should be removed and not merely the part projecting beyond the pillars. Dr. Farlow strongly advocated the use of scissors or forceps. He also called attention to the development, especially in young adults, of the plica triangularis, or fold of tissue running down diagonally over the anterior surface of the tonsil, which was often mistaken for a portion of the anterior pillar. It should be included in the tissue to be removed. Dr. Newcomb believed that recurrence often happened in tenement-house children who, after operation, were compelled to go back to the same general bad surroundings. Dr. Woolen said that a tonsil once removed can never return. He believed that what we call a tonsil is really a pathologic product which he viewed as he would a wart or a papilloma, not indeed always requiring removal. He preferred the term "enucleation" to "excision." He used a guillotine without a fork—lifting the tonsil from its bed with a vulsellum. He tested the organ removed with a probe passed down through the crypts, and if it reached a solid bottom, he knew that he had removed the follicles entire, but if it easily passed through and came out on the other side, he was convinced that the operation had been incomplete. These roots of tissue left behind might easily provoke a quinsy. Dr. D. Braden Kyle, of Philadelphia, would look upon a recurring tonsil as a purely pathologic product, benign, it is true, and of a hyperplastic nature. It was the soft and spongy tonsil which was apt to recur. The recurring mass was more of a tumor than a tonsil, and somewhat on the order of an adenoma. Dr. Makuen alled attention to the necessity of properly separating ad- erent faucial pillars before any instrument for removal was pplied, and had devised for that purpose a special set of itting blades.

Third Day.

Fibro-lipoma of the epiglottis and base of the ongue was the subject of Dr. E. Fletcher Ingals, of Chi- go. His patient was a farmer, aged 28, who, for 3 or 4 ears, had had difficult breathing, swallowing, and speaking. 1896, the cautery had been used on the base of the tongue, ong with the snare and scissors, and a mass removed. He me under Dr. Ingals' observation in February of the pres- t year. Symptoms had all increased in severity during the o preceding months, especially dyspnea on lying down. n examination, a smooth mass, with a congested surface, uld be seen in the laryngopharynx, apparently attached to e right side of the pharynx and base of the tongue, being parently of a fibrous nature. On attempting its removal th a cold snare, carrying a No. 5 wire, the latter broke 3 nes. Later, a properly-bent uterine ecraseur, carrying a o. 8 wire, was used, and removal effected without difficulty. veral sittings were necessary to secure entire removal. Some the masses were purely fibrous, some fatty, and some of e mixed type. Attachment was, as above noted, with, in dition, the right side of the epiglottis. The patient was cently seen, and it was noted that the right side of the epi- ottis had become adherent to the right side of the pharynx d the base of the tongue. Such adhesions would prevent e epiglottis from closing down over the larynx, during deg- tition, but in this case there was no difficulty with this nction. Dr. Woolen mentioned a somewhat similar case. e patient had been exhibited several times to students pre- us to operation, and the wire slipped over the growth, in der to show them the mode of removal. When the latter s actually attempted, the patient suddenly stopped breath- g. Artificial respiration restored him, but upon a second empt, the same accident recurred, and this time proved al. No anesthetic, local or general, had been used. If h had been employed, the sudden death would probably ve been ascribed to its use.

onfined suppuration of the frontal sinus with ontaneous rupture, including report of a case, s the title of a paper by Dr. D. Braden Kyle, of Philadel- ia. The patient was a woman, aged 60, who was seen in uary, 1898. Her trouble had begun with an initial ful- s at the inner angle of the left orbit and a profuse nasal charge from the corresponding naris. Her face was swol- and the frontal region tender. Two months later the ital swelling began to increase in size, and finally a rup- e with the escape of pus occurred on the forehead a little he left of the median line. It took 2 months after rup- e to heal the wound. Dr. Kyle had been unable to find ther case identical in all particulars with his own, though eral resembled it in many particulars.

he presence of partitions and diverticula as a se of retarded recovery in the treatment of uses of the maxillary antrum was a paper by Dr. n O. Roe, of Rochester, who remarked that in the treat- nt of antral diseases we should take into account the ition of the sinus, its size, shape, and conformation, the kness of the walls, and the relation of the tooth-roots to interior. The above points were demonstrated upon a es of beautifully prepared skulls. Dr. Roe also showed 'antrum searcher," consisting of a probe-pointed flexible l spring, running in a cannula, and capable of being pro- ed from the latter after it was in the antrum. With this ice the cavity could be thoroughly explored through a small opening. Dr. Roe used a fine saw to enlarge the ning, rather than the rongeur forceps, which were apt to nter the edges of the bone. Dr. Mackenzie did not think ways necessary to interfere with septums in the antrum. as important to remember that in some antrums the um maxillare was high up and posterior to its normal In such cases the discharge would be more apt to drain eriorly and high up in the nasopharynx, and such loca- might determine failure in operation. In cases of pain- inusitis, politzerization of the cavity through the natural ning would often afford almost instant relief, and, in cases ain extending over a wide area, often enable the determining of the exact point of origin. He was inclined to regard drainage-tubes as pus-producers.

"Taking cold" was considered by Dr. G. V. Woolen, of Indianapolis, who summarized the current views upon this topic. He believed that external influences were reflected upon internal surfaces, thereby causing disturbances of nutrition and the latter produced deficient calorification. By a series of observations he had found that patients who habitually take cold have a subnormal temperature, even as low at times as 95° in people who appear perfectly well-nourished, and this subnormal temperature may explain much of their indefinite malaise. There is deficient hematosis, and this deficiency appears in the circulatory apparatus through vasomotor agencies. In some persons this condition dates back to improper care as to bathing, etc., during the first week of life. This may be the critical period. If a child passes into adolescence without getting into the "taking-cold" habit, he regarded it as safe in this respect for life. This habit may in some instances be the reflection of hereditary syphilis in the third or fourth generation. This same deficient hematosis may also arise from nasal stenosis and precisely the same train of symptoms be set up. Dr. Goodale said that we must not forget the role played by microorganisms which appear to affect the lymphoid tissue. The symptoms of an ordinary cold are in a mild degree those of an ordinary infection. In moderately severe cases the staphylococcus, and in very severe, the streptococcus predominates. Dr. Bosworth could not quite agree with the preceding speaker, for the rapid onset of a coryza does not always allow bacterial agencies to come into play. We take cold in many ways other than in the head. Acute rhinitis is only a local expression of a general disturbance. Prophylaxis may be summed up in two words, clothing and cold bathing.

During the executive sessions the following were elected to active fellowship: Dr. F. C. Cobb, Boston, thesis, "Peritonsillar Abscess;" Dr. J. F. McKernon, New York, thesis, "A Contribution to the Technic of Modern Uranoplasty;" Dr. Max Thorner, of Cincinnati, thesis, "Direct Examination of the Larynx in Children."

Election of officers for the ensuing year resulted as follows: President, Dr. Samuel Johnston, of Baltimore; first vice-president, Dr. T. Amory De Blois, of Boston; second vice-president, Dr. Moreau Brown, of Chicago; secretary and treasurer, Dr. Henry L. Swain, of New Haven; librarian, Dr. Joseph H. Bryan, of Washington; member of council, Dr. William E. Casselberry, of Chicago. Committee of arrangements, Dr. T. Morris Murray, of Washington.

The next meeting will be held in Washington in connection with the Triennial Congress of the Association of American Physicians.

The Dangers of the Long-Tube Nursing-bottle.—Ernest Wende (*Albany Medical Annals*, March, 1899) says the causes responsible for the deplorable rate of infantile mortality from diarrheal diseases are briefly: bad air, summer heat, ignorance of simple hygiene and especially artificial feeding. No factor has been more deadly than the long-tube nursing-bottle. Wende has carried out a series of investigations on this subject microscopically, bacteriologically and mechanically. Microscopic examination of transverse sections cut from the rubber tubes of nursing-bottles bought at various drug-stores show that they are usually manufactured out of rubber-sheeting cemented together at their longitudinal margins and imperfect seams are almost invariably found. Moreover, the material used is very porous, and it is obvious that any foreign material gaining entrance to these seams, sinuses and porosities cannot be removed by any of the ordinary methods of cleansing, however faithful be the mother or nurse. On the rubber tubing which had been used, is found a deposit of decomposing material, which is thickest in the portions in close proximity to the nipple and glass tubing. This debris was found to consist of coagulated casein in which are found innumerable bacteria. The more common are the bacillus of lactic acid, the staphylococcus pyogenes aureus and the ouidium albicans. Several of the species found have not yet been isolated. Five decigrams of this material was dissolved in 2 cc. of sterile water and injected in the peritoneal cavity of 3 full-grown guineapigs. It produced death of the animals in from 48 to 63 hours. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending June 10, 1899 :—

Monday, June 5—Academy of Surgery.
Wednesday, June 7—College of Physicians.
Thursday, June 8—Pathological Society.

Tri-State Medical Association of Western Maryland, West Virginia, and Western Pennsylvania.—The next semiannual meeting will be held in Markleton, Pa., June 22, at the Markleton Sanitarium.

Pittsburg (Pa.) Pathological Society.—At a regular meeting held May 11, Drs. N. G. L., and G. L. Shillito gave a demonstration of various pathologic tissues with a stereopticon, using lantern-slides and the projection microscope.

Antitoxin for the Poor.—Announcement is made by the Bureau of Health of Philadelphia that a supply of diphtheria-antitoxin for use among the poor will be placed at the various police-stations, and that physicians may procure as much as may be requisite by giving a receipt for it.

Dr. Daniel G. Brinton, professor of American archeology and linguistics at the University of Pennsylvania, has presented to the University his entire collection of books and manuscripts relating to the aboriginal languages of North and South America, representing the work of 25 years, and embracing about 2,000 titles.

Bradford County (Pa.) Medical Society.—At the meeting announced for June 13, in the Court House, Towanda, Pa., reports of delegates will be received, and a clinic in diseases of the nervous system will be held by Dr. John K. Mitchell, of Philadelphia. Members of the society are requested to present patients.

University of Pennsylvania.—At a recent meeting of the faculty of the Medical Department of the University of Pennsylvania the following nominations were made to the Board of Trustees: Dr. James Tyson, professor of clinical medicine, who has been in charge of the department of medicine since the death of Dr. William Pepper, to be appointed professor of medicine and clinical medicine and continue in charge of the department; Drs. John H. Musser and Alfred Stengel, to be professors of clinical medicine; Drs. Judson Daland, M. Howard Fussell, John K. Mitchell, and Frederick Packard, to be assistant professors of clinical medicine; Dr. Gwilym G. Davis, to be assistant professor of applied anatomy to succeed Dr. John B. Deaver, recently resigned.

Dinner to Dr. John Guiteras.—On May 24, a complimentary dinner was tendered to Dr. John Guiteras, recently resigned as professor of general pathology and morbid anatomy in the University of Pennsylvania. There were present about 150 of the friends and former pupils of Dr. Guiteras. Speeches were made by Drs. H. C. Wood, John Guiteras, Joseph McFarland, J. B. Walker, Surgeon-General Sternberg, and Surgeon-General Wyman. The committee of arrangements consisted of Drs. H. C. Wood, James Tyson, J. William White, George E. de Schweinitz, H. A. Hare, Edward Martin, W. W. Keen, and J. H. Musser. The day following the dinner Dr. Guiteras departed for Europe where he will remain about a year, and will then take up his residence in Havana, Cuba.

Vital Statistics of Philadelphia for the week endin
May 27, 1899 :—

Total mortality		384
Children under 5 years of age		102
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis		55
Nephritis 25, uremia 9		34
Heart-disease		30
Pneumonia 23, congestion of the lungs 4		27
Apoplexy 14, paralysis 6, softening of the brain 3		23
Inflammation of the brain 13, congestion of the brain 5		18
Diphtheria 12, membranous croup 6	71	18
Carcinoma		17
Senility		15
Convulsions		15
Typhoid fever	69	14
Casualties 9, burns and scalds 2		11
Cerebrospinal meningitis	2	3
Scarlet fever	48	1
Smallpox	29	
Measles 9, bronchitis 8, gastroenteritis 8, inanition 6, erysipelas 5, cyanosis 4, gangrene 4, debility 3, diabetes 3, drowned 2, dropsy 2, peritonitis 2, pleuritis 2, appendicitis 2, rheumatism 2, pertussis 2, abscess 1, anemia 1, cholera infantum 1, cirrhosis of the liver 1, hemorrhage 1, influenza 1, teething 1.		

Philadelphia County Medical Society.—At a meeting held May 14, Dr. James P. Mann exhibited a patient aged 12 years, affected with **macropodia,** upon whom h had operated with a most successful result.

Dr. Edward Jackson, ex-president of the society, and wh removed to Denver, Colo., shortly prior to the expiration o his term in office, delivered his **presidential address.**

Dr. F. O. Stem, of Berlin, N. J., by invitation, reported tw cases of **congenital atresia of the vulva.**

Dr. William J. Taylor read a paper entitled, **The necessity for the early recognition and prompt removal of all so-called benign tumors of the femal breast.** He related his experience in the treatment o many so-called benign tumors of the female breast and emphasized the tendency of such growths to become malignant He referred to several cases to illustrate the importance o the recognition of such growths and their prompt remova by operation. One case was of an adult woman, who ha noticed the growth for but several months. Clinically it appeared to me an encapsulated adenoma. At operation it wa readily removed, being well encapsulated. Upon microscopi examination the well-known appearances of adenoma wer revealed, but in the center of the growth carcinomatou metamorphosis had already occurred. Another case wa that of a middle-aged lady, who for some time refused t permit of the removal of a similar growth. Subsequentl the tumor underwent carcinomatous change, broke throug one section of the capsule, and implicated the breast. It wa then necessary to remove the entire mammary gland.

Care of Soldiers and Sailors.—At a meeting of th delegates of the Philadelphia County Medical Society, to th American Medical Association, held May 31, it was decide to present the following resolutions to the America Medical Association for adoption :

Whereas, The morbidity and mortality statistics of the late wa have served to call to the attention of physicians of the United State the weighty and enlarging problem of the care of soldiers and sailor in peace and during campaigns, under widely varying conditions o climate and environment, now, and in many respects presentin themselves for the first time.

Therefore, be it Resolved and Recommended by the American Medica Association :

1. That the Medical Corps of the Army and Navy be enlarged t meet properly all demands that may be made upon them.
2. That transportation of medical supplies be under the control o the medical department.
3. That a corps of sanitary inspectors be created, whose duty i shall be to examine into the sanitary condition of camps and bodie of troops in transit, and advise in relation thereto.
4. That the Government establish permanent camp sites, the selec

tion to be subject to the approval of the Surgeon-General, for use in the mobilization of large masses of troops.

5. That a professor of Military Hygiene be appointed at West Point to instruct the cadets in the principles of sanitation.

6. That the medical officers of the National Guard be subjected to rigid examination both for admission to the service and for promotion.

7. That the Surgeon-General of the Army and Navy in time of peace and war be empowered to call into requisition the services of skilled specialists.

8. That the President of the United States be respectfully urged to recommend to Congress the appointment of an Army Medical Commission to be composed of physicians and sanitarians to be taken from military and civil life, including the Surgeon-General of the Army and Navy, whose duty it shall be to prepare a report containing a detailed plan of a modern system to govern the medical departments of the Army and Navy in peace and war.

9. That a national department of public health be established with a cabinet minister at its head.

Be it furthermore Resolved, That a committee be appointed by the president of the American Medical Association to wait upon and present these resolutions to the President of the United States for his favorable consideration.

The committee on transportations has made arrangements with the Baltimore & Ohio R. R. to have a special car run to Columbus for the delegates and their friends. This will leave on Sunday, June 4, at 4.20 P.M. Those desiring berths reserved should communicate at once with the secretary of the committee. Members who wish to leave early in order to attend some of the other medical meetings, or who desire special stop-off privileges, should communicate with the chairman of the committee. Round trip fare, $18.67.

Alumnæ Association of the Woman's Medical College of Pennsylvania.—The following was the scientific program of the annual meeting:

Valedictory Address: Are the Dangers of the Menopause Natural or Acquired? by Dr. Anna M. Galbraith, of New York. College Education a Factor in the Physical Life of Women, by Dr. Elizabeth Thelburg, of Vassar College, New York; Discussion: Dr. Bitting-Kennedy. Report of a Case of Infection with the Bacillus Ærogenes Capsulatus, by Drs. Frances C. Van Gasken and Adelaide Ward Peckham, of Philadelphia; Discussion: Drs. Everitt, Israel and Garvin. The Practice of Preventive Medicine, by Drs. Lewis, Spiegle and Welsh. Pupillary Phenomena in Some General Diseases, by Dr. Jeannie S. Adams, of Philadelphia; Discussion: Drs. Barton, Bundy, Walker and Mayo. A Report of a Case of Leukemia, by Dr. Frances R. Sprague, of San Francisco. Epidemic Influenza, by Dr. Mary V. O'Callaghan, of Worcester, Mass.; Discussion: Drs. West and Webb. The Treatment of Pneumonia, by Dr. Mary Greenwald, of Stroudsburg, Pa.; Discussion: Drs. Gaston, Richards and Thomas. Report of the Cases of Typhoid Fever Treated in the Woman's Hospital of Philadelphia during the winter of 1898-99, by Dr. Ella B. Everitt, of Woman's Hospital, Philadelphia. Notes on the Diagnosis and Treatment of Typhoid Fever, by Dr. Mary H. Cotton, of Portsmouth, Ohio: Discussion: Drs. Peck, Macfarlane, Goodwin, Wenzel, and Jones. Report of Some Cases of Insanity, by Dr. S. Elizabeth Winter, of Conshohocken, Pa.; Discussion: Dr. Luther. Report of a Case of Pachymeningitis, by Dr. Louise H. Llewellyn, of Elwyn, Pa.; Discussion: Drs. Dercum and Gilmore.

In addition to the above program, many topics in the interest of the College, and of medical women in general, were discussed. In this connection the dean of the College, Dr. Clara Marshall, made some remarks in reference to a fitting celebration, in 1900, of the fiftieth anniversary of the founding of the College. Dr. Marshall suggested that a subscription should be started to raise a sufficient sum of money to secure a good portrait of Dr. Ann Preston, the first dean of the College and the founder of the Woman's Hospital. Dr. Marshall further proposed that this portrait shall be unveiled at the next Annual Commencement. The proposition was received with much enthusiasm, and a portion of the amount required has already been subscribed. It was also proposed by the dean, that since the Woman's Medical College of Pennsylvania is the oldest college in the world for the education of women in medicine, it might further celebrate its fiftieth anniversary by holding an international congress of medical women. This plan was also received with approbation and enthusiasm on the part of the Alumnæ present.

On the evening of May 18, a banquet was held at the Art Club, the Alumnæ and invited guests (all women) numbering 80, including the following officers: President, Dr. Anna M. Galbraith; vice-president, Dr. Eleanor C. Jones; recording secretary, Dr. Frances C. Van Gasken; corresponding secretary, Dr. Martha G. K. Schetky; treasurer, Dr. Anna P. Sharpless. Dr. Clara Marshall acted as toastmistress.

The toasts were as follows:

Women in the Learned Professions — In Law: Miss Diana Hirschler (Graduate in Law). In the Ministry: Rev. Anna Shaw (Unitarian Minister and Lecturer). In Literature: Mrs. Margaret E. Leicester-Addis. In Medicine; A Look into the Future: Dr. Gertrude A. Walker (Clinical Professor of Ophthalmology in the College), and Dr. Elizabeth Thelburg (Resident Physician of Vassar College). The Fellowship Fund: Mrs. L. M. B. Mitchell (Member of the Board of Corporators).

The following are the officers elected for the ensuing year: President, Dr. Lilian Welsh; first vice-president, Dr. Elizabeth L. Peck; second vice-president, Dr. Ruth Webster Lathrop; recording secretary, Dr. Gertrude A. Walker; corresponding secretary, Dr. M. G. K. Schetky; treasurer, Dr. Anna P. Sharpless. Directors: Drs. Annie B. Hall, Eleanor C. Jones, Elizabeth R. Bundy. Entertainment Committee: Drs. Elizabeth R. Bundy, Margaret Butler, Miriam Butt, Clara Dercum, Annina C. Rondinella.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held May 15, Dr. F. F. Simpson reported a case of **cholelithiasis,** operated upon by Dr. X. O. Werder, with no jaundice and but slight pain.

At operation a very large stone (a cube with rounded corners, 3x3 cm.) was found to have ulcerated through the wall of the gallbladder, over which the omentum was adherent. A number of other calculi were removed, but none were found in the ducts. The operation was done as advised by Murphy, of Chicago.

Dr. E. H. Small reported a case of **persistent hiccough,** in a girl of 19, with a history of some gastric disturbance.

The condition had been present for a week when first seen. The stomach was washed out and hiccough ceased for a time, only to return. He then had the patient open her mouth and protrude the tongue as long as possible. This gave relief for several days only, when the same procedure was employed with apparently permanent results. Dr. T. J. Elterich asked concerning the nature of stomach-trouble, and reported 3 cases of a similar nature, in one of which large doses of morphin, hypodermically, controlled the hiccough. Dr. T. C. Christy mentioned a case in which morphin, hypodermically, failed, but which was relieved by a combination of chloral, bromid, and morphin, internally. He did not think Dr. Small's case should be classed as one of persistent hiccough. Dr. J. C. Thompson related a case of obstinate hiccough due to hysteria. Dr. E. S. Montgomery spoke of a case that yielded only to nitroglycerin, hypodermically, and Dr. Willets related one relieved by musk in doses of 5 grains. Dr. Pettit referred to a case he had seen in Dr. Da Costa's clinic, in which the hiccough was controlled by forcibly compressing the sides of the chest with the hands in the region of the diaphragm, followed by the application of a firm bandage. He had used the same procedure with good results. Dr. E. B. Heckel had seen a case in which the patient controlled the hiccough by taking several swallows of water while the external auditory canals were tightly closed with the finger-tips. Dr. Small stated that an exact diagnosis of gastric trouble had not been made, but that he believed the case was one of persistent hiccough caused by reflex influence from the stomach.

Dr. I. J. Moyer reported a case of **adherent placenta.**

Dr. Elterich reported a case of **tricuspid insufficiency with a mitral lesion.** Compensation was lost during an acute exacerbation of chronic bronchitis. Hepatic pulsation was distinct.

Dr. Small reported a case of most tumultuous heart-action with a double aortic murmur. Autopsy revealed an **adhesive pericarditis with retracted aortic valves and vegetations of tricuspid valves.**

Dr. T. G. Simonton reported a fatal case of **atropin poisoning** with typical symptoms in a child of 2½ years. Amount taken was unknown.

Dr. T. C. Christy read a paper entitled **Heart-pain.**

The derivation of the word angina and its original meaning—to strangle or suffocate—was given and compared with its modern significance—a shortness of breath associated with or caused by a sensory disturbance of the heart, painless or attended by varying degrees of pain. The intensity of cardiac pain bears little or no relation to the organic changes found in or about the heart. Musser's classification of heart-pain was referred to and the physiology of the heart with its nerve-supply was given *in extenso*. A case was cited of a vigorous young laboring man who a short time after having partaken of a hearty meal was seized with most agonizing heart-pain. This ceased at once after emptying the stomach. Irregularities of the digestive function are said never to induce death; but this is, to say the least, questionable. The case of a woman of middle age was narrated who suffered from attacks of heart-pain, rapid heart, pallor, sweating. An aortic obstructive murmur was present. Calomel seemed to relieve these attacks promptly. Another case was in a bookkeeper who suffered from pain the nature and course of which seemed to indicate involvement of the spinal accessory nerve. Attacks came on only when walking and ceased upon sitting down. Death was sudden, with no autopsy obtainable. Discussion was participated in by Drs. Pettit, Thompson, Moyer, Heckel, Stewart, and Simpson, who referred to the following points: That death from functional disturbance of heart with pain is rare, but undoubtedly occurs; that it is the disposition of these nervous disorders of the heart to recur when they have once taken place—like epilepsy in this respect; that there is little relation between pain and organic disease of the heart; that the capillary pulse and retinal pulsation may be present without organic heart-disease.

Pathological Society of Philadelphia.—At a meeting held May 25, Drs. Coplin and Thornton presented a specimen of **aneurysm of the aorta that had ruptured into the pulmonary artery.**

The patient was a man past middle age. A couple of months prior to his death, acute manifestations on the part of his heart, together with aneurysm, necessitated his being confined to bed. Under treatment, consisting in large part of the constant application of ice to the chest for 3 weeks, all the signs of aneurysm disappeared, so that a diagnosis of mediastinal tumor was made by competent clinicians. At the necropsy the heart and aneurysm weighed 1,880 grams.

Dr. J. N. Hunsberger presented a **bilocular heart,** from a girl aged 12 years.

As an infant she was strong and healthy. When about 2½ years of age it was noticed that she became readily tired and very cyanotic. These increased until she was 5 years of age, when she could scarcely walk and was constantly cyanosed. In later life it was noticed that she was dull and irritable, and that cyanosis was excessive. There was a systolic murmur with maximum intensity at the second or third rib near the sternum. A couple of months prior to her death, she became affected with left-sided hemiplegia and aphasia. She improved somewhat, but later died suddenly. At the necropsy the heart was found to be composed of but a single auricle and a single ventricle. In addition there was a remarkable growth of vegetations on the valves separating both cavities. Toward the apex there seemed to be an indication of another cavity. It seemed remarkable that extrauterine life had been maintained so long, the patient eventually dying of cerebral embolism. The discussion on anomalous conditions of the heart was participated in by Drs. Joseph Sailer, David Riesman, W. E. Robertson, A. E. Taylor, and J. N. Hunsberger.

Dr. F. P. Henry presented a heart with a **defect of the auricular septum.**

The patient was a woman, aged 58 years. Clinically it was of interest that there had been absence of cyanosis and clubbing of the fingers.

Dr. W. E. Robertson presented an **aneurysm of the innominate artery,** 2 cm. in length, from a man aged 39 years; a specimen of **rupture of the left ventricle of the heart** from a woman, aged 74 years, who died suddenly; a specimen of **marked hypertrophy of the heart associated with aortic incompetency and atheroma,** from a man, aged 55 years, the heart weighing 1,232 grams; a specimen of **hypoplasia of the heart associated with metastatic sarcomatous nodules of the epicardium,** following sarcoma of the ovary, from a middle-aged woman.

Dr. James Hendrie Lloyd presented a specimen of **tumor of the hypophysis,** from a man aged 51 years.

The clinical diagnosis had been atypical general paralysis. There was no akromegaly. At the necropsy there was found disseminated pulmonary tuberculosis, interstitial nephritis, and the growth of the hypophysis. There was some atrophy of the cerebral convolutions, but the membranes did not appear especially adherent to the brain. In the discussion Dr. Joseph Sailer spoke of the relations of tumor of the hypophysis to akromegaly and the theories that have been advanced to account for these. Dr. H. W. Cattell mentioned a case of akromegaly that he had studied. This was associated with a sarcoma of the hypophysis which it was surmised bore some relation to an epulis of the jaw of the patient. Dr. McCarthy mentioned that the atrophy of the cerebral cortex and the condition of the membranes might be accounted for by the tuberculosis with which the patient was affected. Dr. David Riesman referred to 2 cases of tumor of the pituitary body with akromegaly that he had observed. He stated also that in some cases, clinically undoubted general paresis, the membranes strip readily. Dr. W. M. L. Coplin spoke of a case of akromegaly with sarcoma of the hypophysis, and queried whether these sarcomas give rise to metastasis. He believed they did not.

Dr. David Riesman presented a specimen of **hernia of the appendix** from a man aged 63 years. The appendix had been found accidentally at the necropsy in the right inguinal canal. He presented also a **cholesterin-cyst of the spleen with a calcified capsule,** from a man aged 40 years.

The spleen was enlarged, and one-half of it occupied by a cyst with a bony capsule, and contents composed of fat, detritus, and cholesterin plates. It was thought that this had resulted from a hematoma rather than from a hydatid cyst, or an abscess that had been inspissated and surrounded by a calcified capsule.

Dr. Riesman presented, also for Dr. A. A. Eshner, specimens of **extensive tuberculosis of the mesenteric and retroperitoneal lymph-glands.**

The patient was a man, aged 25 years. The Widal reaction had been positive, and tubercle-bacilli had been detected in the sputum. Clinically the case was considered one of typhoid fever and tuberculosis. At the necropsy there was found no evidences of typhoid fever, but on the other hand the extensive glandular tuberculosis as related above and tuberculosis of the lungs and spleen. In the pelvis there was a quantity of milky fluid, containing a few leukocytes, many erythrocytes, endothelial cells, and many cells containing granular matter. This was thought to represent a peculiar form of chylous ascites.

Dr. Riesman presented also a microscopic specimen of **supernumerary spleen in the pancreas.**

In the discussion Dr. McCarthy stated that the milky character of the fluid from the case of tuberculosis might be due to the large number of desquamated endothelial cells. Dr. A. O. J. Kelly referred to a cyst of the kidney, from a patient of Dr. B. F. Stahl, that he is at present studying. In many respects it resembles that of the spleen presented by Dr. Riesman, being provided with a capsule of stony hardness, and containing fat, detritus, and cholesterin.

The president, Dr. W. E. Hughes, presented specimens of

chronic nephritis (large white kidney), and **superficial ulcers of the rectum** that had led to a fatal issue in a man aged 65 years. He presented also the heart from a case of **purpura** presenting an **extensive hemorrhagic infiltration of the entire wall of the right auricle.**

NEW ENGLAND.

Yale University.—Among the recent resignations is that of Dr. Louis S. DeForrest, clinical professor of medicine in the Medical School.

The Free Hospital for Women in Brookline, Mass., has received $7,000 as a gift for the endowment of a bed in memory of Eliza B. Skinner. Dr. Edward A. Pease has been appointed surgeon to out-patients.

Suffolk Section of the Massachusetts Medical Society.—The following are the officers elected for the ensuing year: President, Dr. Herbert L. Burrell; vice-president, Dr. Thomas M. Rotch; secretary, Dr. H. A. Lothrop; treasurer, Dr. Augustus Knight; librarian, Dr. B. Joy Jeffries.

Massachusetts Medical Society.—An especially attractive program will be presented at the 118th annual meeting of the Massachusetts Medical Society, June 13 and 14. The Shattuck lecture will be delivered by DR. JAMES PUTNAM, of Boston, subject: "Mental Therapeutics, from the Standpoint of the Physician and the Psychologist." DR. EDWARD H. BRADFORD has the honor of giving the annual address. One of the noteworthy features of the medical section will be a paper on "The Prognosis of Nephritis; a Study of 500 Cases," by DR. RICHARD C. CABOT. In the surgery section, Dr. MAURICE H. RICHARDSON will give "The Completed History of a Case of Gastrectomy with Remarks upon the Surgery of Gastric Cancer." The experience of the war will be voiced in several papers. DR. W. H. DEVINE, Brigade-surgeon U. S. V., reads upon "Improvements in Army Medical Service, Suggested by Experience in the Late War." DR. J. J. CURRY, acting assistant-surgeon U. S. A., and pathologist to the U. S. General Hospital at Savannah, Ga., will present "A Report of the Blood-Examinations in Typhoid Fever and Malarial Fevers." DR. E. G. BRACKETT, who was at Santiago, will review "Methods of Conducting Volunteer Aid in Foreign Territory." There will be other papers of general interest to the profession.

Gen. Leonard Wood, of Santiago fame, was once a house-officer at the Boston City Hospital. His energy and zeal so far outran his regard for the precedents of the institution that he was obliged to forego the pleasure of completing his course. It is said to have happened in this way: Dr. Wood in one of his wards had a little girl who had been severely burned. It occurred to him that it was not in accordance with the highest vital economy for one child to suffer from lack of cuticle while all around the ward were other children with skin to spare. Accordingly, without askng permission of anyone, resident physicians or visiting taff, Dr. Wood over night took enough skin from the legs of a dozen children in the ward to cover the denuded surface of his little charge. The experiment was a success, and the offence of such an able and popular young house-officer would have been disposed of with a severe reprimand, if it had not been for the mothers of the children. They seemed o have a prejudice against having their children "skinned alive," as they termed it, either in the interests of science or of philanthropy. So Dr. Wood had to go, and thereby missed all chance he might have had to distinguish himself in the coming athletic games of the City Hospital staff, in June. Dr. Wood is, however, by recent election, an honorary member of the Boston City Hospital Club, and the club feels honored in honoring him.

Harvard Medical School.—Some radical changes have been made in the course of study at the Harvard Medical School. In the future, a plan known as the concentration system, which has been adopted to some extent by Johns Hopkins, will be followed with respect to the work of the first two years. Instead of carrying 4 or 5 different courses through the year, with an average of 3 lectures a week in each course, the student will take during one half-year one branch of the study of medicine with its allied subjects. At the end of that half-year he will take an examination, and then for the remainder of the year pursue a new line of study.

Such a system, it is believed, has several distinct advantages. Not only is the student able to concentrate his time and energy upon one branch of the subject, but he also gains from 2 to 4 times as many hours for each course. Similar changes will be made in the work of the last 2 years when it is seen how the new system works.

The changes are in detail somewhat as follows: Hitherto the first half of the first year has embraced the study of anatomy, physiology, physiologic chemistry, and histology, on a scheme of lectures and laboratory hours much like that pursued in the college proper. By the new plan, all the mornings of October, November, and December and the mornings and afternoons of January will be devoted to anatomy, the allied branches of which, biology and embryology, will be taken up in the afternoons of the first 3 months. During the second half-year, which until now included anatomy, physiology, physiologic chemistry, bacteriology, and embryology, the student will hereafter study physiology for the mornings of February, March, April, and all day in May, with physiologic chemistry on the afternoons up to the first of May.

The changes in the second year's work are of even more importance. Full courses in pathology, clinical chemistry, second-year anatomy, and therapeutics, together with half-courses (without examinations) in auscultation and percussion, theory and practice, clinical medicine, bandaging, and surgical pathology have heretofore comprised the second year's course. In place of these, which run throughout the year, the first half-year's work will be on pathology during the mornings of October and November and all day in December. For the afternoons in October and November there will be a course in bacteriology. The work for January will comprise a number of optional courses in pathology. During the last half of this second year the student will study a number of elementary subjects introductory to the clinical work of the third and fourth years. These subjects are auscultation, clinical chemistry, pathology, bandaging, and clinical medicine. They will occupy 26½ hours a week.

Study of a Thousand Cases of Scarlet Fever.—DR. J. H. MCCOLLOM, resident physician of the "South-Department," as the isolation wards of the Boston City Hospital are known, has made a study of 1,000 cases of scarlatina. His facts and conclusions appear in the medical and surgical reports of the hospital, published this week, for private circulation. He finds that Boston for 7 years, 1892 to 1898 inclusive, has had a higher death-rate from scarlet fever than Brooklyn, New York, Philadelphia, or St. Louis, in every year save 1895, when New York's rate was slightly higher. In 1893

Boston also had more deaths per 10,000 of the living than Liverpool, Glasgow, London, Berlin, or Paris; in 1894 it was second to Liverpool, in 1895 it dropped below Berlin, Liverpool, and Glasgow, and in 1896 and 1897 was second only to Liverpool. This shows that scarlatina is unusually prevalent in Boston, as compared with most other places. The ratio of deaths is, however, less per 10,000 living than either diphtheria or typhoid fever. The diminution of scarlatina was greatest in 1898, dropping from nearly 3 in 10,000 living to .61. The morbidity per 10,000 has varied from 62.87 in 1892 to 16.77 in 1898. The added facilities for isolation afforded by the new isolation hospital have decreased in a marked degree both the number of cases reported and the death-rate. The percentage of mortality in the 1,000 cases treated at the "South-Department," including moribund cases, was 9.8. A summary of these 98 fatal cases shows that scarlet fever uncomplicated, caused 56 deaths; bronchopneumonia, 15; diphtheria and scarlet fever combined, 10; diphtheria alone, 9; pneumonia, 4; scarlet fever and erysipelas, 1; tubercular meningitis, 1; and two died from various complications. Dr. McCollom considers nephritis, pneumonia, bronchopneumonia, pericarditis, endocarditis, dilatation of the heart, otitis media, and any streptococcous infection as integral parts of the scarlatinal process. Diphtheria, on the other hand, though frequently occurring with scarlet fever, is not essentially a part of it. Dr. McCollom distinguishes 5 types of the disease. The first or malignant type causes the death of the patient in from 24 to 48 hours, and shows frequent hemorrhages from mucous surfaces, and in places a hemorrhagic eruption. The temperature is very high, the patient, as a rule, unconscious. The second type has a temperature of 102° to 103°, marked throat-symptoms and profuse nasal discharge containing streptococci; the patient is mildly delirious or semiunconscious; eruption brilliant. The third type has a very high temperature and a brilliant rash; throat-symptoms not prominent; no nasal discharge. In the fourth type, the eruption is not brilliant and is most marked in the axillary and inguinal regions. Temperature 99° to 100°. The fifth type has no eruption on the body, temperature little elevated; hands dry and hard; the only sign is the enlargement of the papillas at the tip and edges of the tongue. Dr. McCollom places the strongest emphasis on the examination of the mouth in cases of doubtful diagnosis. He says:—"The appearance of a punctate eruption in the armpits and in the groins together with the congestion of the tonsils and a punctate eruption in the roof of the mouth, no matter whether there is any eruption elsewhere or not, are positive proofs of scarlet fever. The most characteristic feature of the disease is the enlargement of the papillas of the tongue. It appeared as the one constant symptom in each of the 1,000 cases." It is often important to make a diagnosis of scarlet fever after the rash has subsided, in order to prevent infection during the period of desquamation. "Here the existence of a white line at the junction of the pulp of the finger with the nail, is of great assistance." "There is no doubt," he says, "that many unexplained outbreaks of scarlet fever could have been traced to this source by a careful examination of the papillas of the tongue, and the tips of the fingers." Regarding treatment, Dr. McCollum says that rest in bed diminishes the probability of renal complications and lessens the chance of heart-trouble. The diet should be milk, preferably. Irritant diuretics should not be used. Tincture of chlorid of iron is of doubtful advantage; alcoholic stimulation is required in the graver cases. A temperature above 103° should be reduced by cold bathing—either sponge bath, cold pack, or fan bath. Coal-tar products should not be used in reducing temperature in scarlatina. Digitalis seems better than strophanthus in heart-complication, and copious draughts of water are best for flushing out the kidneys. Hot packs are better than pilocarpin in suppression of urine. Paracentesis of the membrana tympani should not be delayed if there is any bulging. The period for isolation of scarlet fever, in order to be effectual, should be continued for at least 50 days.

Pathology of Scarlet Fever.—Following Dr. McCollom's report in the same volume is a very careful and thorough consideration of the bacteriology and gross and minute anatomy of scarlet fever, by Dr. Richard Mills Pearce. His general conclusions are: That no light can be thrown on the etiology of the disease; that the only constant gross change is a hyperplasia of the lymphoid tissue in every part of the body; that the anatomic points on which a clinical diagnosis is based are not usually seen post-mortem.

The microorganisms producing secondary inflammations he found to be the streptococci, staphylococci, and pneumococci, with frequency in the order named. The more important inflammatory complications observed are, in the order of their frequency: acute bronchopneumonia; otitis media without extension to the mastoid cells; cervical adenitis, acute pleurisy, and inflammation of the antrum of Highmore. The middle ear, antrum, and sphenoidal sinuses were all infected in a large percentage of cases. Acute interstitial nephritis is the most important renal lesion of scarlet fever. Glomerular lesions occur late in convalescence.

CHICAGO AND WESTERN STATES.

Rush Medical College, Chicago.—Dr. Arthur Dean Bevan has been transferred from the department of anatomy to that of surgery, with the title of Associate Professor of Surgery.

The Northwestern University Medical School (Chicago Medical College) has secured $200,000 necessary for the establishment of a large Charity Hospital, to be used solely for the purpose of instruction and to be officered by the medical faculty.

Revocation of the Right to Practise Medicine.—The Supreme Court of Iowa recently rendered a decision declaring that the State Board of Medical Examiners possessed the right to revoke the license of any physician whom it considers incompetent to practise medicine.

Chicago Medical Examiners' Association.—At a meeting held May 23, Dr. H. N. Moyer read a paper on The relation of mental diseases or residence in asylums or sanitariums to life expectancy, and Dr. Weller Van Hook, a paper on The relation of rectal diseases to life expectancy.

Cruelty to Animals.—We would respectfully call the attention of our friends, the antivivisectionists, to the deplorable conditions of certain animals in transit from Wisconsin to Illinois. It seems that the railroad distance from Trevor, Wis., to Chicago is 60 miles, and that it requires the railroad of that progressive region 18 hours to transport the animals from the former to the latter place. Not only is the railroad service so slow, but many of the animals are said to reach their destination either dead ar badly trampled. These facts so enraged a prominent cattle-owner that he wagered that he could beat the train by walking. He successfully accomlished the trip, with 5 hours to spare, and won the wager $500. Such lack of regard for the comfort and life of aniials as this—and we fear many other instances could be iearthed—should engage the serious attention of all lovers animals.

Jewish Hospital for Tuberculous Patients in enver, Colo.—The District Convention of the Independit Order of B'nai B'rith, which closed at Louisville, Ky., ay 23, pledged the Order to support a Jewish hospital for onsumptives in Denver, at an annual cost of $15,000. This firmary will be under Hebrew officials, but will be open to l.

The Chicago Society of Internal Medicine.—At e annual meeting, held May, 25, there was a general disission upon the **prophylaxis and management of oplexy.** The following officers were elected for the ening year: President, Jno. A. Robinson; vice-president, N. Davis; secretary, Edw. F. Wells; treasurer, M. L. Goodnd.

Cincinnati Academy of Medicine.—On May 22, the ademy discussed at length the organization in Cincinnati the so-called **Red Cross Medical Society.** This soety was quite recently organized and proposes to give edical attention to families for $1 per month. Its advent Cincinnati was not hailed with delight by the profession. resolution was offered in the Academy to expel all memrs who should in any way affiliate with this so-called Red oss Society. This resolution was lost on the ground that e subject of contract medical work was too big a one for al action at the present time. A resolution was adopted ndemning the formation of the society and urging the embers of the Academy not to join it.

Deportation of Insane Asiatics. — Arrangements ve been made by the California State Commission in nacy to have 5 Japanese and about 85 Chinese now in the ckton State Hospital for the Insane returned to their tive countries. Negotiations have been in progress for ne time with both the Chinese and Japanese Governments, d both have expressed a willingness to take the afflicted es back to their native lands. The Japanese will be taken July 27 and the Chinese will be shipped in the same nth. When the treaty was made with China in President eveland's last administration, an effort was made to arrange the deporting of insane Chinese, but the movement was gun too late, and the matter has been in abeyance until present time. The deportation-agreement extends to all hospitals of the State of California.

hicago Medical Society.—At a meeting held May 24, . Gustave Kolisher read a paper on **Enuresis nocrna in the female.**

Ie stated that enuresis nocturna can be caused by: (1) atomic changes in the urinary apparatus itself; conglutiion of the clitoris with its prepuce, coalescence between tuberculum urethræ and cords, drawing to the hymen, ropium of the urethral mucous membrane, projections of urethral epithelium into the trignonum. (2) Pathologic inges in remote parts of the body; hypertrophy of the ichæ, adenoid vegetations in the pharynx. (3) General eases: Chorea minor, rachitis, anemia, scrofulosis, tic diathesis. (4) Insufficient development of the sphincmuscle; to the last condition is to be added, that the ldren when awake can support the involuntary sphinctersele by the accessory sphincter-muscles in the pelvis, ich conscious factor is lacking when the children are ep. Therapy is operative in the first two groups. Loosen of the prepuce from the clitoris, severing of the hymenal cord, galvanocauterization of the ectropium urethræ, galvanocauterization of the epithelial projections by means of the operation-cystoscope; extirpation of the hypertrophic conchæ, removal of the adenoid vegetations. Therapy in the third group: Quinin in chorea minor, general treatment for the other diseases. Fourth group: Electricity, Trendelenburg's position during the night; all so-called specific drugs did not prove reliable. The only method which gives regularly good and permanent results is the elastic, interrupted, repeated dilatation of the urethra. A short, straight urethral sound is introduced through the urethra into the bladder; the urethra is then by movement of the sound dilated downward, to the left and to the right—each dilation performed several times powerfully, but only lasting a few seconds; few sittings are sufficient. Additional measures; the patients are prevented from drinking any fluid some hours before retiring; the bladder has to be emptied completely just before going to bed.

Dr. Jacob Frank read a paper on **An absorbable intestinal coupler.**

The coupler is made of two disks of decalcified bone, held together by a piece of ordinary rubber drainage-tubing, which is sewed to the disks. A purse-string suture, which includes the mesenteric peritoneum, is placed about each severed end of the intestine, the coupler is then taken by the operator and introduced into one end of the bowel, while the assistant takes charge of the ends of the purse-string suture. The operator gently spreads the coupler apart and the intestine is slipped over it, the assistant makes one knot and draws down until he strikes the rubber tube; he then makes the second knot and the ends of suture are cut short. The other end of intestine is treated in the same manner, and the anastomosis is complete. The couplers are held in apposition by the rubber tube; when the ends of intestines are crowded between them the rubber tube is put on the stretch, affording an adequate amount of pressure to produce a pressure-necrosis on the engaged intestines. A few Lembert sutures should be taken to make the work more secure. It has been used successfully by different operators 63 times to my knowledge. It presents all the advantages of the Murphy button: (1) timesaving, (2) simplicity of technic, (3) it insures a juxtaposition of all the layers of the bowel, (4) the resulting constriction is very slight. It produces a pressure-necrosis. The great advantage of the coupler over any metal contrivance lies in its absorbability, an additional feature of the coupler being its lightness, permitting the intestines to float in it. The rubber tube which is left after the couplers have dissolved, passes about the sixth to the ninth day; it is soft and hence can not ulcerate through the bowel, nor produce obstruction, even if retained in the canal it will in time be absorbed.

Cleveland Medical Society.—At the meeting held May 19, Dr. Marcus Rosenwasser reported 4 cases of **ectopic pregnancy** operated on in less than 4 weeks.

He laid special stress on the importance of the history in making the diagnosis, pointing out that bimanual examination alone is often misleading. Irregular menstruation, scant vaginal discharge for several weeks, sudden severe pain followed by swelling of the abdomen due to blood, tenderness of the abdomen, and the great pallor and anemia due to hemorrhage into the abdominal cavity and evidently greater than the external bleeding would account for, are the cardinal points in the history which warrant a diagnosis. Dr. Hunter Robb also emphasized the importance of the clinical symptoms in making the diagnosis of extrauterine gestation. Even then a difficulty at times occurs as between this condition and appendicitis. He reported a recent case in which the conditions coexisted.' The gestation-sac ruptured with hemorrhage into the peritoneal cavity with grave symptoms. Her family physician had diagnosed appendicitis, but a puncture of the enormously distended abdomen showed blood in the peritoneal cavity. After closing up the ruptured right fallopian tube a suppurative appendix, about to rupture, was found.

Dr. R. D. Fry read a paper upon **Mastoiditis.** In the discussion, Dr. H. S. Straight said he had found the best way to treat it was by preventing its occurrence.

It is a mistake to give anodynes to a patient with purulent middle-ear inflammation instead of promptly making a paracentesis, and it is not difficult to tell the suppurative from the catarrhal form of the disease by the sharp reddening of the upper posterior quadrant of the drum in the former cases. Such a patient should be kept quiet, preferably in bed, until the discharge ceases, then mastoiditis will not supervene. Dr. R. J. Wenner suggested that the ordinary ear-syringe is a frequent cause of mastoiditis in cases of chronic middle-ear inflammation. It is absolutely necessary when operating to remove all the mastoid cells, or there is danger of recurrence. Dr. G. A. Ehret noted that while the diagnosis of acute mastoiditis is usually easy, that of chronic mastoiditis is frequently very difficult.

Dr. John J. Thomas reported a case of **spina bifida** in a child which lived but a short time.

Dr. W. E. Wirt had tried the treatment by injection with great reduction in the size of the tumor, but as the child suddenly died the result was uncertain. Dr. L. B. Tuckerman had removed a spina bifida from a 4 days' old baby, December 17, and the child is in good health at present. Dr. J. B. McGee reported a case in which the tumor was the size of a large orange, and there was paralysis of the legs, but control of the sphincters was not lost. This tumor was incised, packed with iodoform gauze, and allowed to heal by granution. Now, after the lapse of over two years, the child has but a small lump where the tumor was and has control of its legs. Dr. W. T. Howard noted that Dr. Thomas' patient did not die from spina bifida and meningocele, but from cerebrospinal meningitis caused by the **colon-bacillus,** great numbers of which were found in the pus in the meninges. He had seen one other case, one of imperforate anus, in which fatal abscess of the brain was due to the colon-bacillus.

Dr. Robb exhibited **rubber sleeves** used in abdominal operating by himself and assistants for 5 years, which he thought had contributed greatly to keeping infection away from the field of operation.

In 76 consecutive cases without a death, only 4 had slight local infection. The sleeve is especially valuable in preventing infection by the assistants. He then reported a case of **hysterectomy for complete uterine prolapse.** The patient died 17 days after operation, and death was found at necropsy to be due to **congenital cyst of the brain.** Dr. R. G. Perkins showed the brain of Dr. Robb's patient, noting that the general necropsy revealed no disease elsewhere, and no infection or abnormity of the operation-wound. A large cyst occupied most of the place of the cerebellum. The cerebellar fossas were small and flat. The right lobe of the cerebellum was $1\frac{1}{2}$ cm. wide, and the left about 3 cm. The intercerebellar fibers were entirely lacking. The left lobe passed under the right beyond the median line. The cranial nerves were all normal, except for the absence of the right sixth, but as there had been no eye-symptoms, its place had evidently been taken by some of the other nerves of the orbit. The velum normally passing over the superior peduncles and closing in the fourth ventricle was absent, and the ventricle was in direct communication with the cyst, so that the nuclei in the floor of the ventricle could be seen with the naked eye. Dr. C. J. Aldrich pointed out that the cyst must have been congenital, being formed simply to fill up the vacancy caused by the absence of most of the cerebellum. How in adult life such an anomaly could cause sudden death he was unable to see. Dr. Howard noted that it is well known that when a part of the brain atrophies, its place is filled up with serum. The real and exact cause of death from any apparent cause is often impossible to determine satisfactorily. Still, if ever a death occurred from a congenital anomaly, he thought this was a case in point. A sudden increase in the fluid of the cyst, with its consequent pressure upon the centers in the floor of the fourth ventricle, would readily account for sudden death.

SOUTHERN STATES.

College of Physicians and Surgeons, Baltimore, Md.—Dr. William F. Lockwood has been elected professor of therapeutics, materia medica, and clinical medicine, and Dr. Samuel J. Fort, professor of materia medica and pharmacy.

A Medical Man Turns Musician.—Dr. John C. Hemmeter, of the faculty of the University of Maryland, and widely known as the author of a treatise on diseases of the gastrointestinal tract, has recently written the music of the 23d Psalm. The style is what is generally understood to be modern. The composition is written for full male chorus, solo quartet, and orchestra. It was produced for the first time by the United Singers of Baltimore, with orchestra, May 28, in the Germania Maennerchor Hall. Dr. Hemmeter is also the composer of a cantata, "Hygeia."

MISCELLANY.

American Pediatric Society.—The meeting at Deer Park, Maryland, has been postponed until June 27, 28 and 29.

Thirty cupfuls of tea the daily allowance—nervousness, weakness, liver-disease, death the result. Such in brief is said to be the history of a man who died recently in Bellevue Hospital, New York.

Yellow Fever at Vera Cruz.—It is stated that United States Marine-Hospital officer Hamilton, of Laredo, Texas, has received information from the U. S. Marine-Hospital Service officer at Vera Cruz, Mexico, that yellow fever of a very malignant type is prevailing there. From May 1 to May 20 there were 148 cases, of which 67 proved fatal.

An Expert Opinion on Osteopathy is the title to an article in the *Philadelphia Journal of Osteopathy*, by Prof. E. H. Pratt, M.D., LL.D., of Chicago, in which the famous orificialist defends the osteopathist. Upon the opposite page the *Journal of Osteopathy* joins the ranks of the antivaccinationists. Birds of a feather do not flock all alone by themselves!

The "Index Medicus."—It is with great regret that we chronicle the discontinuance of the *Index Medicus*. It is to be greatly deprecated that a publication, the immense value of which to every medical man is acknowledged, could not receive the support of the profession that it merited. Dr. Fletcher is to be thanked for the long years of scholarly labor that he unselfishly devoted to the work.

Obituary.—Dr. D. B. Holzburg, Granville, Putnam County, Ill., April 1, aged 58 years.—Dr. Charles W. Pfeiffer, New York, May 22, aged 45 years.—Dr. Emory Alford Grant, Louisville, Ky., May 26, aged 75 years.—Dr. William Edward Sparrow, Mattapoisett, Mass., aged 75 years.—Dr. Henry E. Crampton, treasurer of the New York Academy of Medicine, and for many years vice-president of the Association for Improving the Condition of the Poor, at Glen Ridge, N. J., May 28, aged 62 years.—Dr. J. Bordon Fulton, Irvington-on-the-Hudon, N. Y., May 20.

Typhoid Fever in Dawson City, in the Klondike.—With the return of spring to Dawson come renewed fears of pestilence and death. Stringent sanitary measures are being adopted. Health Officer Good has posted public notices throughout the town forbidding all persons to gather ice or take water from the Yukon at any point nearer than a mile above the city. The Yukon Council is planning a system of drainage on the flats upon which the city is situated, and an ordinance has been passed requiring the inhabitants to use the utmost care in cleaning their premises prior to the breaking up of the river. Notwithstanding all these precautions, physicians predict an unusual prevalence of typhoid owing to the accumulated filth of the winter, which now encumbers the site of the city.

Eligibility to Marriage.—At the closing session, May 23, of the twenty-sixth national conference of Charities and Correction, held in Cincinnati, resolutions were adopted as reported by Homer Folks, of New York, as follows: "That the president of the conference be authorized to appoint a committee of three to cooperate with similar committees that may be appointed by the Medico-Psychological Society, the Medico-Legal Society, the National Prison Congress, the American Bar Association, the Association of Officers of Institutions for the Feeble-Minded and Epileptic, or other kindred bodies, for the purpose of investigating the subject of limiting the eligibility to marriage and of considering what legislation, if any, should be enacted with regard to it. That the general secretary be directed to send a copy of the report of the committee on immigration to the members and officers of the several State Boards of Charities and Correction and State commissioners in lunacy, and to the Governors of the various States for their information."

The conference then adjourned to meet next May at Topeka, Kan.

In re "Ophthalmotrician."—The following resolutions presented by Dr. Louis F. Lautenbach, of Philadelphia, Pa., and supported and seconded by Dr. S. S. Towler, of Marionville, Pa., were unanimously adopted by the Medical Society of the State of Pennsylvania, on May 17, 1899, at Johnstown, Pa.

Resolved, That it is the opinion of the Medical Society of the State of Pennsylvania that opticians are not qualified by their training nor are they legally qualified, to perform the work of the oculist, and they should not be the consultants of regular physicians. Further it is

Resolved, That all physicians are requested to call their brother physicians in consultation, thus discountenancing the growing pretences and assurances of the optician and his brother, the graduate optician, or, as he is beginning now to call himself, the "Ophthalmotrician."

It is the purpose of Dr. Lautenbach to present similar resolutions substituting "American Medical Association" for "Medical Society of the State of Pennsylvania" for adoption by the American Medical Association at Columbus, on Tuesday morning, June 6. It is hoped that the resolutions will receive the unanimous approval of the members.

Examination for Surgeoncies in the U. S. Marine-Hospital Service.—The following circular has been issued by the Supervising Surgeon-General of the U. S. Marine Hospital Service:

A board of officers will be convened at New York, N.Y., Tuesday, June 27, 1899, for the purpose of examining candidates for admission to the grade of Assistant Surgeon in the U. S. Marine-Hospital Service. Applications for this examination must be received on or before June 24.

Candidates must be between 21 and 30 years of age, graduates of a respectable medical college, and must furnish testimonials from responsible persons as to character.

The following is the usual order of the examination: (1) Physical. (2) Written. (3) Oral. (4) Clinical.

In addition to the physical examination, candidates are required to certify that they believe themselves free from any ailment which would disqualify them for service in any climate.

The examinations are chiefly in writing and begin with a short autobiography by the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery and hygiene.

The oral examination includes subjects of preliminary education, history, literature and natural sciences.

The clinical examination is conducted at a hospital, and when practicable candidates are required to perform surgical operations on the cadaver.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order as vacancies occur.

Upon appointment the young officers are as a rule first assigned to duty at one of the large marine hospitals, as at Boston, New York, New Orleans, Chicago or San Francisco.

After 5 years' service Assistant Surgeons are entitled to examinations for promotion to the grade of Passed Assistant Surgeon.

Promotion to the grade of Surgeon is made according to seniority, and after due examination as vacancies occur in that grade. Assistant Surgeons receive $1,600, Passed Assistant Surgeons $2,000, and Surgeons $2,500, per annum. When quarters are not provided commutation at the rate of $30, $40 or $50 a month, according to grade, is allowed.

All grades above that of Assistant Surgeon receive longevity pay, 10% in addition to the regular salary for every 5 years' service up to 40% after 20 years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses. For further information or for invitation to appear before the Board of Examiners, address,

Supervising Surgeon-General,
U. S. Marine Hospital Service,
Washington, D. C.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service during the week ended May 27, 1899:

Smallpox—United States.

			Cases.	Deaths.
California:	Los Angeles	May 6–20	4	
District of Columbia:	Washington	May 6–20	2	1
Florida:	West Tampa	May 13–20	3	
Georgia:	Savannah	May 9–24	10	
Indiana:	Evansville	May 13–20	7	
Kentucky:	Louisville	May 11–23	18	
Louisiana:	New Orleans	May 12–20	5	
"	Shreveport	May 13–20		1
Massachus'ts:	Swampscott	May 19	1	
Minnesota:	St. Paul	May 6–13	1	
Missouri:	St. Louis	May 2–22	12	
Ohio:	Cleveland	May 13–20	13	
Pennsylv'a:	Johnstown	May 13–20	1	
"	Nicetown	May 25	25	
"	Philadelphia	May 13–20	6	
Porto Rico:	Ponce	April 29–May 6	4	
Virginia:	Newport News	May 24	4	
"	Norfolk	May 19–25	9	
"	Portsmouth	May 19–25	14	
Washington:	Spokane	May 13–20	4	
Wisconsin:	Milwaukee	May 13–20	2	

Smallpox—Foreign.

Belgium:	Antwerp	April 22–29	14	3
"	"	April 29–May 6	4	2
Bohemia:	Prague	April 29–May 6	6	
China:	Hongkong	April 1–22	28	16
England:	London	April 22–29	3	
Germany:	Hamburg	April 29–May 6	3	
Greece:	Athens	April 29–May 6	21	8
India:	Bombay	April 18–25		9
"	Calcutta	April 1–15		3
"	Madras	April 15–21		1
Japan:	Nagasaki	April 1–20	4	1
"	Osaka and Hiogo	April 15–22	1	
Mexico:	Chihuahua	May 6–13		3
"	Mexico	May 1–14	35	10
"	Nuevo Laredo	April 29–May 6		1
"	" "	May 6–13		1
Russia:	Moscow	April 15–29	14	9
"	Odessa	April 29–May 6	1	2
Nicaragua:	Bluefields	April 29–May 6	1	
"	"	May 6–13	1	
Straits Settlements:	Singapore	Feb. 1–28		16
"	"	March 1–31		18

Yellow Fever.

Mexico:	Vera Cruz	May 4–11		22
"	" "	May 11–18		23

Cholera.

India:	Bombay	April 18–25		6
"	Calcutta	April 8–15		9

Plague.

China:	Hongkong	April 1–8	19	14
"	"	April 8–15	10	12
"	"	April 15–22	31	31
India:	Bombay	April 18–25		442
"	Calcutta	April 8–15		135
"	Madras	April 15–22		1

Preliminary Program. American Neurological Association.—The twenty-fifth annual meeting of the Association, to be held at the Hotel Dennis, Atlantic City, N. J., June 14, 15, 16, 1899:

An Address commemorative of the Twenty-fifth Anniversary of the Association will be delivered by Dr. Wharton Sinkler, of Philadelphia; Isolated Finger Paralysis, by Dr. William Browning, of Brooklyn; The Pathology of a Case of General Cutaneous and Sensory Anesthesia, by Dr. Henry J. Berkley, of Baltimore; Hemorrhagic Pachymeningitis of the Convexity, with Cervical Pachymeningitis Occurring in a Case of Tubercular Cerebral Tumor, by Drs. Charles W. Burr and J. McCarthy, of Philadelphia; Report of a Case of Asthenic Bulbar Paralysis, by Dr. John Punton, of Kansas City; Facial Paralysis of Unusual Distribution—Probably Congenital, by Dr. F. W. Langdon, of Cincinnati; Rigidity of the Spinal Column, by Dr. Philip Zenner, of Cincinnati; Two Cases of Muscular Dystrophy, with Necropsy (one of the Facioscapulohumeral Type), Reported Clinically by Duchenne of Boulogne, Landonzy, and Dejerine, by Dr. William G. Spiller, of Philadelphia; Tumor of the Pituitary Body, by Dr. George L. Walton, of Boston; The Influence of Treatment in Paralysis of Ocular Muscles, by Dr. William M. Leszynsky, of New York; The Origin and Development of Obsessions, by Dr. Smith Baker, of Utica; Some Interesting Cases of Brain Disease, by Dr. William C. Krauss, of Buffalo; Tuberculous Myelitis, by Dr. Joseph Collins, of New York; A Case of Subdural Hemorrhage Causing Partial Word-deafness in which there was a Marked Inability to Name Objects and Persons.—Site of the Lesion Disclosed by an Operation, by Dr. Graeme M. Hammond, of New York; Sensory Disturbances in Hysteria and Epilepsy, by Dr. E. D. Fisher, of New York; Anomia and Paranomia, with Report of Cases, and Remarks on the Sites of Lesions, by Dr. Charles K. Mills, of Philadelphia; Purulent Encephalitis and Cerebral Abscess in the Newborn Resulting from Infection Through the Umbilicus, by Dr. Guy Hinsdale, of Philadelphia; The Forms of Cerebral Meningitis, by Dr. Charles L. Dana, of New York; Hematomyelia and other Traumatic Affections of the Cervical Region of the Spinal Cord, including a Case Simulating Syringomyelia, by Dr. James Hendrie Lloyd, of Philadelphia; Notes on the Arrangement and Function of the Cell-Groups in the Sacral Region of the Spinal Cord, by Dr. B. Onuf, of Brooklyn; A Case of Internal Hemorrhagic Pachymeningitis in a Child of 9 years, with Changes in the Nerve-Cells, by Drs. William G. Spiller and J. McCarthy, of Philadelphia; Some Considerations from a Clinical and Anatomical Analysis of one hundred and three Autopsies on Cases of Motor Aphasia, by Drs. F. Frankel and B. Onuf, of New York; Asthenic Bulbar Paralysis, with Report of a Case, by Dr. Wharton Sinkler, of Philadelphia; Tumor of the Medulla Presenting Ataxia and Astereognosis as the most Prominent early Symptoms, by Dr. F. X. Dercum, of Philadelphia; The Unity of Acute Psychoses, by Dr. Philip Coombs Knapp, of Boston; Landry's Paralysis, by Drs. John Jenks Thomas and Philip Coombs Knapp, of Boston; The Nervous Equivalents of Fever, by Dr. Henry S. Upson, of Cleveland.

Changes in the U. S. Marine-Hospital Service,

for the seven days ended May 18, 1899:

Murray, R. D., surgeon, upon being relieved from duty at Mobile, Ala., and upon expiration of leave of absence granted by Bureau letter of the 11th instant, to proceed to Key West, Fla., and assume command of the service. May 15.

Godfrey, John, surgeon, Bureau order of May 10, 1899, directing Surgeon Godfrey to report to the Chairman of the Board of Examiners at Detroit for examination to determine his physical condition, revoked. May 15.

Mead, F. W., surgeon, upon being relieved from duty at Portland, Me., to proceed to Vineyard Haven, Mass., and assume command of service. May 15.

Peckham, C. T., surgeon, relieved from duty at Pittsburg, Pa., and directed to proceed to Galveston, Tex., and assume command of the service. May 15.

White, J. H., surgeon, to proceed to New York, N. Y., for special temporary duty. May 11.

Magruder, G. M., passed assistant surgeon, granted leave of absence for 13 days from May 19, 1899. May 18.

Smith, A. C., passed assistant surgeon, to rejoin station at Norfolk, Va., reporting at Washington, D. C., en route. May 17.

Eager, J. M., passed assistant surgeon, to proceed to Detroit, Mich., and report to medical officers in command for duty and assignment to quarters. April 28.

Stewart, W. J. S., passed assistant surgeon, upon being relieved from duty at Vineyard Haven, Mass., to proceed to Mobile, Ala., and assume command of the service. May 15.

Thomas, A. R., assistant surgeon, Bureau letter of March 30, 1899, directing Assistant Surgeon A. R. Thomas to proceed to the Tortugas Quarantine Station and assume command of the service, revoked. May 18.

Cumming, H. S., assistant surgeon, granted leave of absence for one day. May 12. Bureau order of March 30, 1899, assigning Assistant Surgeon Cumming to duty at the Cape Charles Quarantine, revoked. May 15. Upon being relieved from duty at Norfolk, Va., to proceed to the South Atlantic Quarantine Station and assume command of the service. May 15. Granted leave of absence for 27 days. May 18.

Clark, Taliafero, assistant surgeon, upon being relieved by Assistant Surgeon H. S. Cumming to report to him for temporary duty. May 15. Relieved from duty at the South Atlantic Quarantine Station and directed to proceed to the Tortugas Quarantine Station and assume command of the service. May 15.

McMullen, John, assistant surgeon, relieved from duty as sanitary inspector on U. S. transport "Buford" and directed to report to medical officer in command U. S. Marine Hospital service at the Immigration Depot, New York, N. Y., for temporary duty. May 15. Relieved from temporary duty at the Immigration Depot, New York, N. Y., and directed to proceed to Portland, Me., and assume temporary command of the service. May 15.

Anderson, J. F., assistant surgeon, to proceed to Norfolk, Va., on special temporary duty, and then to proceed to New York, N. Y., and report to medical officer, M. H. S., at the Immigration Depot for temporary duty. May 13.

McAdam, W. R., assistant surgeon, relieved from duty at Key West, Fla., and to continue in temporary charge of the Tortugas Quarantine Station. May 15. To report to medical officer in command of Tortugas Quarantine Station for duty. May 15.

Craig, R. C., acting assistant surgeon, relieved from duty at New York, N. Y., and directed to proceed to Pittsburg, Pa., and assume temporary charge of the service. May 15.

Burford, R. E. L., sanitary inspector, granted leave of absence for 30 days on account of sickness. May 17.

APPOINTMENTS.

Merrill, Walter E., of Maine, appointed acting assistant surgeon, U. S. Marine Hospital Service, for duty at Portland, Me. May 11.

Henderson, W. S., of Michigan, appointed acting assistant surgeon. U. S. Marine Hospital Service, for duty at Port Huron, Mich. May 11.

Changes in the Medical Corps of the U. S. Navy

for the week ending May 27, 1899:

Rogers, F., surgeon, ordered to the Marine Rendezvous, Philadelphia, Pa., May 23, for duty in connection with recruiting.

DeLancy, C. H., assistant surgeon, detached from the Marine Recruiting Rendezvous, Savannah, Ga., and ordered to the "Amphitrite."

Wright, Barton L., assistant surgeon, appointed May 16.

Marsteller, E. H., surgeon, detached from the "Raleigh" when put out of commission, and ordered home to wait orders.

Moore, J. M., passed assistant surgeon, detached from the "Raleigh," when put out of commission, and ordered home to wait orders.

Arnold, W. F., passed assistant surgeon, sick leave extended two months.

Changes in the Medical Corps of the U. S. Army.

Hooper, Vernon J., acting assistant surgeon, is granted leave for 12 days.

A board of medical officers to consist of Colonel Dallas Bache, assistant surgeon-general; Major Louis A. LaGarde, surgeon, and Captain Charles M. Gandy, assistant surgeon, is appointed to meet at West Point, June 1, for the physical examination of candidates for admission to the U. S. Military Academy, and of such cadets at the academy as may be ordered before it.

Byrne, Colonel Charles C., assistant surgeon-general, is granted leave for three months from about June 15.

Greenleaf, Colonel Charles R., assistant surgeon-general, will proceed to Camp Meade, Pa., on business pertaining to the sanitary inspection of that camp, and on completion of that duty will return to his proper station.

Ireland, Captain Merritte W., assistant surgeon, in addition to his duties as surgeon at Fort Wayne, is assigned to duty as examiner of recruits at Detroit, Mich.

Fauntleroy, First Lieutenant Powell C., assistant surgeon, is relieved from further duty at the U. S. General Hospital, Savannah, Ga., and will proceed to San Francisco, Cal., and will report to the commanding general, department of California, for assignment to duty.

Ford, First Lieutenant Clyde S., assistant surgeon, will proceed from Camp Meade, Pa., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Girard, Major Alfred C., surgeon, is assigned to duty as medical inspector in the construction of the new general hospital now in progress at the Presidio, relieving Major W. S. H. Matthews, brigade surgeon.

Schreiner, First Lieutenant Edward R., assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

A board of medical officers, to consist of Major Robert J. Gibson, surgeon, Captain Thomas U. Raymond, assistant surgeon, is appointed to meet at headquarters, department of California, for the purpose of examining First Lieutenant Ora E. Hunt, Eighteenth Infantry, and reporting upon his present physical condition.

Peake, W., hospital steward, is relieved from duty in the department of Havana and assigned to the medical supply depot, head quarters division of Cuba.

Vaughan, Major Victor C., division surgeon, is assigned to duty in Washington, D. C., for an additional period of two months.

Shakespeare, Major Edward O., brigade-surgeon, is assigned to duty in Washington, D. C., for an additional period of two months.

VIANCE, Captain Wm. E., assistant surgeon, will proceed to San
Francisco, Cal., and report not later than June 7 to Major-
General William R. Shafter for assignment to duty to accom-
pany Major P. Henry Ray, Eighth Infantry, to his station in
Alaska.

following changes in stations and duties of officers are ordered :

LSON, Captain William H., assistant surgeon, is relieved from
duty at the Josiah Simpson U. S. General Hospital, Fort
Monroe, and will proceed to San Franciseo, Cal., and report to
the commanding general, department of California, for assign-
ment to duty.

JNER, Robert H., acting assistant surgeon, is relieved from
further duty at Camp Meade, Pa., and will proceed to San
Francisco, Cal., and report to the commanding general, depart-
ment of California, for assignment to duty.

Foreign News and Notes.

GREAT BRITAIN.

Bequests to Dublin Hospitals.—By the will of the
Mr. Weir, $600,000 are bequeathed to the various hospi-
s of Dublin and vicinity.

Dr. John Moir, the oldest medical practitioner in Edin-
gh, died on May 14, at the great age of 91. He took
first medical diploma 70 years ago, and had for many
rs a great practising and consulting clientele as obstetri-
n.

A medical dog-show will be held at the London (Royal
e Hospital) School for Women, beginning June 3. The
w is to be for the benefit of the school-building fund, and
dogs owned by medical practitioners are eligible for
nission.

A portrait of the late **Sir William Roberts** a brief biog-
hy of whom appeared in the Journal a few weeks ago,
been presented to the Royal College of Physicians of
ndon by his niece. It is from the uncompromising brush
the veteran Royal Academician, Mr. G. F. Watts.

Glanders in Belfast.—During the last eight months
eral cases of glanders have occurred in Belfast, and the
horities have become very anxious lest the infection
uld spread. The Veterinary Department of the Irish
vy Council have ordered the disinfection of all drinking-
ntains, and have also given powers for the closing of any
hese should it be deemed necessary.

A Café Chantant, a sort of "At Home," with an enter-
nment, program comprising musical and theatrical fea-
es, was held in the Hotel Cecil, London, on May 15,
ler the presidency of H. R. H. Princess Christian of
leswig-Holstein (Princess Helena, of Great Britain) in
of the Fund of the Royal British Nurses' Association. A
ge sum for this useful charity was realized.

Jubilee of the London City Coroner.—On June 6,
. Samuel F. Langham will celebrate the completion of 50
rs' continuous service as coroner. On June 6, 1849, he
appointed deputy coroner for Westminster, but resigned
t position when he was subsequently appointed coroner
the city of London. At present he also acts as coroner
Southwark. It is said that at times he attends as many
14 inquests in a single day.

Accident to Dr. Playfair.—Dr. W. S. Playfair, con-
ting obstetric physician to King's College, London, and
hor of Playfair's Midwifery, sustained recently a bad ac-
ent. He was riding in a motor-car in the suburbs of Lon-
, when the car got out of control, began to run back-
rds, and finally turned over and fell upon him. He was believed at the time to be very seriously hurt, but it is now authoritatively announced that he sustained no serious injury. The shock and the bruising were, however, severe. The other riders escaped unhurt.

The Pathological Diagnosis Society of Liverpool.—The second annual report states that the number of subscribers is slightly less than last year, viz., 140 as against 163. The work done, on the contrary, has increased, nearly 600 reports having been sent out. In the Thompson-Yates Laboratories a special room had been devoted to the work with a laboratory assistant, so that in all urgent cases, as in the bacteriological diagnosis of diphtheria and typhoid fever, a reply can be given within 24 hours. Two hospitals—viz., the Liverpool Infirmary for Children and the Royal Albert Edward Infirmary, Wigan—have joined the society during the past year.

Shakespeare and the Medical Society of London.—The annual oration of the Medical Society of London was delivered on May 15 last by Mr. Alban Doran, the president of the Obstetrical Society of London. Mr. Alban Doran is the son of the late John Doran, who was editor of *Notes and Queries* and for a short time of the *Athenæum;* and he showed in his humorous address that he was heir to his father's literary proclivities. He took for his subject "Shakespeare and the Medical Society," and proceeded to show very wittily that in Shakespeare the medical man can find rules of conduct, advice, encouragement and reproof to meet all the emergencies of professional life as they arise in the proceedings of a modern medical association.

Overcrowding in Edinburgh.—The ancient city of Edinburgh has a low death-rate owing to the strenuous action of its medical officers and its municipality, but it pays the penalty in some ways of its medieval construction. Dr. Williamson, the chief sanitary and market inspector of the city, has just issued a report of the work done in his department during the last year in which he mentions 686 cases of overcrowding. The worst cases occurred in the St. Giles' and Canongate districts, and their occurrence is attributable to the insufficient supply of small houses. The houses were built large and lofty for a different kind of tenant to the poor unfortunates who now surge into them. When once a large house, not built on the flat system, gets adapted in response to circumstances for the reception of a number of different poor families, overcrowding is sure to follow, for every separate tenant persists in exercising the right to take lodgers. And such overcrowding is a fruitful source of disease in the ancient cities of London, Edinburgh and Dublin.

A New Home for London University.—The tenancy of London University of the buildings in Burlington Gardens is approaching its end, and the Government, to whom the whole block belongs, proposes to devote the site to other purposes. The authorities of London University, now under reconstitution, view with resignation their approaching ejection, for, truth to say, the premises have long been perceived to be quite unsuited for the headquarters of a modern university. They are, to begin with, far two small to admit of proper facilities, either for original work or for the holding of examinations, and having said that much it is unnecessary to look further for reasons to condemn them. The position of a new home, where the university might take up with vigor the much enlarged scope of work that will be before it under its scheme of reconstitution, has been under consideration for some time. Both the old colleges of the university, viz., King's College in the Strand, and University College in

Bloomsbury, were mentioned as places which might be made the nucleus of new buildings, but, other difficulties apart, it was felt that, to choose either of these sites would mean an unfair identification of the fortunes of the whole university with those of one separate institution in the university. It was proposed that the Government, being apparently in a spending humor, should build a new university on some central spot (like the Thames Embankment in the neighborhood of Whitehall), but the proposition met with no great support. At last, however, a definite decision has been reached. The Imperial Institute, an enormous palace in South Kensington, built to commemorate the fiftieth anniversary of Queen Victoria's accession to the throne, has long been in a precarious pecuniary plight. A museum for the display of colonial produce has not proved a draw to the British public, and the managers of the institute, frankly recognizing this, are willing to hand over a substantial portion of their buildings to London University. The details of the transference have not been settled yet, but the university has practically decided to set up housekeeping in the Imperial Institute. To scientific and medical men this is a great source of satisfaction. The scientific and medical students are the backbone of London University, and now that the university has decided to exercise the teaching functions that have so long been desired for it, it is absolutely necessary that the professors, teachers, and examiners should have adequate premises wherein to do their work. The Imperial Institute, though too far west in its situation to be an ideal site, is yet an accessible building, and one of the finest examples of modern architecture in England.

CONTINENTAL EUROPE.

School of Medicine of Amiens.—Dr. d'Hardivillier has been appointed professor of histology.

Dr. Ernst Küster, professor of surgery in the University of Marburg, has been elected a life representative of the University in the Prussian House of Lords.

University of Basle.—Dr. Otto Hildebrandt, extraordinary professor of surgery in the University of Berlin, has been appointed ordinary professor of surgery, to succeed the late Professor Socin.

The Spanish Pharmacopeia.—The *British Medical Journal* states that the Spanish Royal Academy of Medicine has named Drs. Juan Manuel Mariani, Simon Hergueta, Juan Ramon Gomez Pano, Joaquin Olmedilla, and José de Pontes to be members of the committee charged with the preparation of a new edition of the Spanish *Pharmacopeia.* The last (which was the sixth) edition of the *Pharmacopeia* appeared in 1884.

The 500th anniversary of the foundation of the medical faculty of the University of Vienna will be celebrated during the present year. Although the statutes of the old Vienna medical faculty date from April 1, 1389, and the faculty was at that time completely organized, its activities did not really commence until May 10, 1399. For various reasons the celebration of this anniversary has been postponed until autumn.

Obituary.—John Moir, M.D., F.R.C.P., F.R.S., Edinburgh, the father of the Royal College of Physicians of Edinburgh, and an ex-president of the Obstetrical Society and the Medico-Chirurgical Society, at Edinburgh, May 15, aged 91 years.—Henry Bendelack Hewetson, M.R.C.S., F.L.S., F.Z.S., ophthalmic and aural surgeon to the Leeds General Hospital, England, May 15, aged 49 years.

The Latest Italian Contribution to the Therapeutics of Tuberculosis.—According to the *Lancet*, at Palermo, Dr. Vincenzo Cervello, professor of pharmacology in the University, has just communicated to the Academia della Scienze Mediche, of which he is president, an elaborate report of 26 cases of carefully diagnosed phthisis pulmonalis treated by him in the Guadagna Hospital for Consumption. Inhalations of "formalina," entering largely into a medicated vapor to which he has given the name of "gazolo," were tried for the first time on January 15 on the 26 patients referred to. In 19 of them, at varying intervals, the inhalations induced a return to the normal temperature; coincidently with the cessation of the pyrexia, the cough and the characteristic rales ceased and from the sputum the tubercle-bacillus had disappeared. At a final consultation with his colleagues 10 of the patients were pronounced cured and 9 progressing towards recovery; of the other 7, 3 were distinctly improved, 2 were stationary, and 2 died. These latter, when admitted to hospital, were found to be "in condizioni gravissime." On concluding his report Professor Cervello introduced the 10 *guariti* to the Academia. All of them looked healthy, "con un aspetto florido," and on examination they were found to be absolutely free from the characteristic marks of tuberculosis. These results have so far satisfied Professor Cervello that he is now following up his "gazolo" treatment on a scale sufficient to justify a sound clinical induction, for which with commendable munificence a Palermitan banker (Signor Florio) has placed at his services an ample sanatorium equipped up to date; and has also founded "Un Instituto Cervello," on the model of the Pasteur Institute in Paris, the whole at a cost of 5,000,000 lire ($1,000,000).

The Treatment of Appendicitis.—According to the *Lancet*, the discussion upon the treatment of appendicitis which has been going on at the Society of Surgery, of Paris, during the past 3 months has just come to an end, possibly to the relief of the medical world.

> Every surgeon successively laid before the meeting his views upon the origin and course of appendicitis, together with that most important point, the conditions which in his opinion made it necessary to interfere by operation or the reverse. At the same time the physicians discussed the matter at their own particular society—namely, the Hospitals Medical Society—and the question was also argued by both physicians and surgeons at the Academy. One rather remarkable result was arrived at: the physicians, with Professor Dieulafoy at their head, insisted that appendicitis ought to be treated at the earliest possible moment by operation, while the surgeons, led by Professor Tillaux, considered that in many cases a waiting policy and medical treatment were quite sufficient and that this was especially the case in a first attack. Professor Dieulafoy says that there is no such thing as medical treatment of appendicitis. Many of the younger surgeons, however, supported the opinion of Professor Dieulafoy and their ideas appear to have won the day in this long discussion. The Society of Surgery has not yet definitely set forth a pronouncement on the matter, but at the meeting held April 26 a communication was received from M. Poirier which virtually reflects the general opinion and lays down the following precepts: (1) there is no medical treatment of appendicitis; (2) in acute cases operate as soon as possible after the diagnosis is made; (3) in doubtful cases it is better to operate; (4) in subacute cases it is possible to wait and operate *à froid—i.e.*, between the attacks—but most of the members of the society prefer to operate at once; (5) suppurative appendicular peritonitis demands instant operation; (6) in slight cases it is less risky to operate at once than to wait and operate *à froid* and diagnosis especially in the early stages is anything but easy; and (7) the steps of the operation must vary according to the needs of each particular case; resection of the appendix should be practised in every case where the search for it does not involve much injury to the tissues. The possibility of a ventral hernia (*éventration*) after the operation *à chaud—i.e.*, in the acute stage—is not a reason for putting off operation, for the risk of this occurring is less than the risks from waiting. M. Poirier added that if any definite rules for the conduct of a case of appendicitis had been arrived at the credit was due to Professor Dieulafoy.

The Latest Literature.

British Medical Journal.

May 13, 1899. [No. 2002.]

Remarks on Encysted Vesical Calculi, with an Account of 27 Cases. W. Bruce Clarke.
Antistreptococcic Serum in the Treatment of Smallpox. W. J. Lindsay.
The Treatment of Inguinal Hernia in Children. W. McAdam Eccles.
Two Cases of Resection of the Large Intestine, with Recovery. Frederic Eve.
A Case of Arrested Development of the Third and Fourth Ribs. Alfred G. Levy.
A Partial Amputation of the Foot. John Hern.
The Treatment of Dysentery. D. M. M. Ross.
Cheyne-Stokes Respiration. F. P. Atkinson.
Picric Acid in Superficial Burns. Ian MacDonald.
Dislocation of Acromial End of Clavicle. J. D. Reckitt.
A Case of Mastoid Suppuration with Hyperpyrexia and Jaundice; Operation; Recovery. T. Harrison Butler.
Influenza and Otitis Media. F. Ashton Warner.
Venesection in Cerebral Hemorrhage. Oliver Withers.
Fibro-Adenoma of the Male Breast. H. W. Webber.
A Case of Poisoning by Coal Gas; Recovery. Herbert E. Friend.
Hypodermic Injection of Quinin in Malaria. Chas A. Johnston.
Two Unusual Cases. R. H. Stern.

1.—In reporting an additional series of 21 cases of **en-**
sted vesical calculus Clarke points again to the fact
t many of the symptoms ascribed to vesical calculus are
nting, and as a consequence the disease assumes consider-
e proportions before it is detected. A stone which is fixed
es not, as a rule, give rise to hematuria, and the acute
n, which is generally a consequence of the stone becom-
grasped by the neck of the bladder, is usually remark-
e for its absence. It may be added that in some cases the
ne is so deeply imbedded in the bladder-wall as to elude
beak of the sound, and only proclaims its existence
en an attack of cystitis has supervened. He believes that
majority of these sacculi that are found to contain cal-
i are formed by the adhesion of the calculus to the blad-
-wall and the formation of the sacculus for the calculus
it grows larger. He is convinced that the sacculus is formed
the muscular layers of the bladder-wall. Their treatment
pends upon their size, the size of the opening into the blad-
and the amount of inflammation that has taken place.
hen they are small and readily drain in the bladder they
ally close of themselves by cicatrization. When they are
ger some mode of drainage must be established either
ough the perineum or into the rectum. There are no
ferential diagnostic symptoms which separate this condi-
n from ordinary cystitis, although the majority of his cases
re found in men late in life; some were seen at earlier
iods. The difficulties in the way of diagnosis were en-
nced by the fact that in several instances washing out the
dder was quite sufficient temporarily to restore the urine
a healthy condition. In several instances the stones were
thickly covered with mucus that they did not give an
dible sound when struck with an exploring instrument.
e fact that the presence of a stone was not known in half
cases operated upon and the difficulties that lie in the
y of diagnosis lead the author to advise suprapubic cystot-
y and exploration in all cases of cystitis that became
onic and are rebellious to treatment. In one case castra-
n had been performed for an enlarged prostate in which a
culus was present that aggravated the symptoms and was
ly found at the postmortem. [C.L.L.]

2.—Lindsay, believing the **purulent change in the**
sicles in smallpox due to pyogenic organisms en-
ing the vesicle from without and not through the lym-
atic system, suggests as a means of eliminating this ele-
nt two methods: (1) prevention of suppuration in the
sicle; (2) by injecting the antitoxin. The difficulty of
plying the former method clinically is so great, and the
ult so uncertain, that it is of no practical value. Owing
the frequent presence of extensive cellulitis, Lindsay
thought that the streptococcus pyogenus aureus was in all likelihood the predominant organism, in consequence of this he injected antistreptococcus-serum in carrying out the second method suggested. Those cases only were chosen in which the prognosis was gravest. The serum was injected aseptically into the subcutaneous tissue of the abdominal wall, either just before or coincident with pustulation. These injections being usually given at intervals of 12 to 24 hours. Together with these, digitalis, tincture of chlorid of iron, or liquor strychniæ, were given every 4 hours. In no case were more than 3 injections given. The critical period following the absorption of the pustules was shortened, the intensity of the toxemia seemed to be less, and there was much less tendency to cardiac failure or collapse. The pulse, though rapid, was regular, and the strength of the beat well maintained. Convalescence set in earlier and progressed more rapidly. These patients were out of danger and out of bed before others with attacks of similar intensity. Not one of the 4 patients treated with serum, who recovered, developed a single abscess throughout convalescence. That the severity of the attack in these cases was as great as in those often fatal, in which complications arose, is shown by the fact that they, too, suffered from acute furunculosis, almost complete alopecia, and rapid emaciation. No local pain, local abscesses, arthritis, or hyperpyrexia ensued in any of the cases. [S.M.H.]

3.—The use of **hard rubber trusses** in the treatment of **hernias in children** is strongly advocated. Eccles believes that they are capable of effecting a radical cure. He does not believe that phimosis has any bearing upon hernia or that the presence of a hernia and phimosis are of themselves an indication for circumcision. The fact that the truss will cure such a large majority of cases restricts the radical operation to a few. The indications for the radical he gives as follows: (1) When a child is being properly fed, but in whom a hernia after a fair trial is not retained by a suitable truss, so that there is little or no chance of spontaneous cure; (2) when part of the contents of the sac are irreducible; (3) when a truss has been worn for at least 3 years, but with no apparent cure of the protrusion; (4) when a child has reached the age of at least 3 years but has never worn a truss; (5) when herniotomy has to be performed for strangulation. The rarity of any one of these conditions in childhood makes this operation very rare. Unless there has been a large protrusion with stretching of the ring he advises a simple suture of the internal ring as the best means of cure, after a careful dissection of the sac under most rigid aseptic precautions. [C.L.L.]

4.—The cases reported were for **strangulation and gangrene of lamina** and for **carcinoma.** They both illustrate the wisdom of postponing, when obstruction exists, the resection. This postponement and drainage of the intestine at the first operation, the author believes, is as good surgery now as it was before the days of rapid anastomosis. The patient should have time to recover from the shock of obstruction before he is subjected to the serious additional shock of a graver operation. [C.L.L.]

5.—Levy observed a poorly developed boy of 13 years, the front of whose right chest presented a striking depression over the position corresponding to the third and fourth ribs. This appearance was accentuated by the exaggerated development of the clavicular portion of the pectoralis major, and of a small neighboring portion arising from the first-rib cartilage. There was no further trace of pectoral muscle, either major or minor. The third-rib cartilage was about half an inch in length, and the fourth 2½ inches long, lying close along the upper border of the fifth cartilage. The end of the curtailed third rib could be obscurely felt in the axilla just under the margin of the pectoral muscle and lying close to the second rib, while that of the fourth was found a little further back in the axilla. There was a well-marked dorsal curvature, with little compensatory growth either in the lumbar or cervical regions. The spinal column was deflected towards the malformed side. This type of deformity is rare. [S.M.H.]

6.—The **amputation of the foot** is on the lines of Chopart's operation. All of the tarsus is removed except the os calcis, which is drawn forward between the malleoli and fastened firmly in position by a wire suture. This places the weight of the body upon the heel while the drawing forward of the os calcis prevents the harmful action of the tendo-Achillis. [C.L.L.]

7.—Ross adopts the following plan in the **treatment of dysentery:** Rest in bed, as much rest for the alimentary canal as is compatible with a sufficient supply of nourishment, fomentations to relieve colic, removal and prevention of accumulation in the bowels, and relief of engorgement by the administration of ipecachuana, magnesium sulphate, or castor-oil. When it can be borne, he gives warm intestinal injections of permanganate of potash or boric acid solution, followed, if necessary, by starch and opium enemas to relieve tenesmus. When the stools become fecal, gradual substitution of the intestinal antiseptics, bismuth salicylate or subnitrate, salol, resorcin, naphthol. If the ulcers are slow in healing, astringent injections should be carefully made. Tonics, and when possible, change of air, are valuable in convalescence. The less opium used in these cases, the better. The circulatory system in severe cases should be carefully watched. [S.M.H.]

8.—Atkinson had a patient, a male, the subject of gout, who had very distinct **Cheyne-Stokes respiration** occurring at varying intervals. He frequently voided red, peppery granules in his urine. The irregularity of breathing seemed to fluctuate with the presence and absence of uric acid. After some time, by careful dieting, the uric acid entirely disappeared, and with it the irregular breathing. As a further proof that high arterial tension is at any rate one of the causes of this condition, Atkinson mentions the fact that it can be temporarily arrested by the use of erythrol tetranitrate. [S.M.H.]

9.—McDonald has found **picric acid useful in the treatment of superficial burns,** and recommends it, (1) because of its simplicity of application; (2) its painlessness; (3) the rapidity of its healing power; (4) absence of local irritation or of general toxic effect, and (5) the production of a smoother, more natural cicatrix than that obtained with other methods. [S M.H.]

10.—The **acromial end of the clavicle** was not held in position by a Sayer's adhesive-plaster dressing, but it was noticed that when the elastic suspender was tightened it readily served to hold it in its proper position. [C.L.L.]

11.—The case of **mastoid suppuration** was remarkable for the irregularity of the temperature, the presence of marked jugular tenderness without the involvement of the lateral sinus, the absence of marked cerebral symptoms and the absence of rigors and sweating, although there was jaundice, and the patient made a good recovery after the removal of the source of suppuration in the mastoid. [C.L.L.]

13.—The result of bleeding in cerebral hemorrhage is illustrated by the report of a case in which bleeding relieved alarming symptoms and secured a recovery. [C.L.L.]

14.—Microscopic examination showed a tumor of the male breast to be a fibroadenoma. [C.L L.]

15.—Friend reports a case of **coal-gas poisoning** in which the patient was found in a state of profound coma. The body was in a position of marked opisthotonos; the eyes open with the pupils widely dilated; the face dusky, especially about the lips. The heart was very feeble, the respirations shallow and sucking. Injections of strychnin and digitalin and the administration of oxygen brought about an improvement in the symptoms. Complete consciousness did not return until the following day; by the second day the patient was well. [S.M.H.]

16.—Johnston finds hypodermic injections of 1 grain of the solution of quinin sulfate gives most excellent results in the estivo-autumnal forms of **malarial fever** when enlargement of the spleen is present. [S.M.H.]

17.—This rare case of **rupture of the heart** was due to the blocking of a coronary artery by a thrombus and consequent fatty degeneration and weakening of the ventricle. Two ounces of blood-clot were found in the pericardium, while the orifice was partially closed internally by fibrin. [C.L.L.]

18.—This case of **osteoma of the dura mater** was found on postmortem in a patient, 74 years of age, who showed marked atheromatous changes in other portions of the body. On opening the dura, a bony tumor, the size of an English walnut, was found attached to it. It lay upon the tentorium, through which it had impressed itself upon the superior surface of the cerebellum. There was also a concave depression in the inferior surface of the right occipital lobe. The tumor weighed one ounce. There were no symptoms of the tumor during life. [C.L.L.]

Lancet.

May 13, 1899. [No 3950.]

1. Secondary Melanotic Sarcoma of the Liver. H. D. Rolleston.
2. A New Method of Reduction in Separation of the Lowe Epiphysis of the Femur. J. Hutchinson and Harol L. Barnard.
3. Deaths after Abdominal Celiotomy. W. J. Smyly.
4. Homicidal Injuries to the Rectum and Vagina. E. M Hainworth.
5. A Case of Cysticercus Cellulosæ. John H. Goodliffe.
6. A Case of Colloid Carcinoma of the Breast; Recurrenc and Dissemination. C. E. M. Kelly and W. D'Est Emery.
7. A Suggestion for Treating the Attached Border in Simpl Suture of the Intestine. J. Ernest Frazer.
8. A Contribution to the Anatomy of the Peritoneum Fred. J. Smith, C. Mansell Moullin and Arthu Keith.
9. Cases of Gasteroplasty and Pyloroplasty. Thomas H Morse.
10. Garbage-mongers. F. W. Alexander.
11. Notes on a Case of Acute Pneumonia Treated by Continuous Inhalation of Oxygen-Gas. George Stoker.
12. A Case of Ear-cough. Mayo Collier.
13. A Note on Hemophilia: Its Treatment by Red Bone Marrow and by the Continuous Administration o Chlorid of Calcium. E. Mansel Sympson.
14. A Note on X-rays and Color-blindness. Sydney Stephenson and David Walsh.
15. A Case of Tetanus Treated by the Injection of Roux's Antitetanic Serum into the Subdural Space; Recovery. H. S. Collier.
16. A Case of Tetanus Treated by Tetanus-Antitoxin; Death. Cyril Wace.

1.—A man, aged 59, who had had his right eye removed for **melanotic sarcoma,** was admitted to the hospital with enlargement of the abdomen. The cutaneous veins were prominent; no ascites could be discovered, but the liver was knobby and irregular. The patient became progressively weaker and died 18 days later. At the necropsy no local recurrence was found; the liver weighed 15 pounds 12 ounces and showed discrete growths in the capsule and on the section; one part of the liver-tissue was replaced by a black infiltrating growth somewhat softened and oozing black juice. Microscopic examination showed the growth to be alveolar and composed of spindle and oval cells, some of them typically pigmented. [M.B.T.]

2.—Four cases of **separation of the lower epiphysis of the femur** are reported; the first occurring in a boy of 8 who was hanging on behind a cart and got his legs entangled in the wheel. Gangrene of the leg followed and amputation was performed through the lower third of the thigh. On dissection of the leg the popliteal artery and vein were found torn across and the lower end of the artery was entirely occluded. In the second case a boy, aged 11, while climbing about a stationary wagon, slipped between the shafts and the wagon and then fell backward. The epiphysis was slipped into place and the leg kept extended on a splint for 2 weeks when a plaster-of-paris bandage was applied. After removal of the cast he walked perfectly. In the third case a boy of 9 was kicked by a horse. The condition was not recognized for 10 days when an operation had to be performed, chiseling off the diaphysis. In a fourth case a boy of 9 years caught his leg in a wheel. Perfect recovery followed treatment by means of a splint. The value of full flexion of the knee in effecting reduction is urged. [M B.T.]

3.—Smyly discusses the **causes of death after celiotomy,** and considers the following: (1) Shock; (2) hemorrhage; (3) ileus; (4) uremia; (5) inanition; (6) tetanus; (7) embolism; (8) sepsis. The preventive treatment of shock is as follows: In weak and debilitated patients with weak hearts and rapid pulse, operation should be, if possible, postponed or abandoned. The operating-room should be heated to 75° or 80° F.; prolonged exposure of the surface of the body, but especially of the intestines, should be carefully guarded against. The loss of blood should be reduced to a minimum, and the first symptoms of depression should be carefully watched for and actively treated. In the treatment of shock, hemorrhage should be at once controled, and when the loss has been considerable, sterilized salt-solution should be infused either into the subcutaneous connective tissue or directly into a vein. In all cases of shock, whether due to loss of blood or other causes, the patient should be placed in a warm bed between blankets with her head low, heat should be applied by means of hot-water bottles, and enemas of hot saline solution and stimulants should be administered. The best enema in such a case is, according to Howard Kelly, one containing 2 ounces of brandy, 20 grains of carbonate of ammonia, and hot water or beef-tea to 8 ounces. At the same time brandy, ether, and strychnin are administered hypodermically. Opinions differ in regard to morphia, but Smyly thinks its use should be restricted to cases in which pain is an important factor in the nervous depression. Except in cases in which loss of blood has been considerable, saline infusion is of little value, though in some cases of protracted shock it might, as Watson Cheyne has pointed out, prevent coagulation of blood in the pulmonary vessels, a recognized cause of death under such circumstances. [W.K.]

4.—Hainworth reports a case of **homicidal injuries to the rectum and vagina.** The patient, a prostitute, died 12 hours after certain injuries inflicted by her paramour. At the autopsy the anus was found dilated and the mucous membrane lacerated in all directions; there were also extensive lacerations of the vagina. The peritoneal cavity was full of turbid blood, a stained, foul-smelling fluid, evidently due to intestinal perforation. The rectum showed a longitudinal perforation 2½ inches long, in the anterior wall opening into Douglas' culdesac. A cake of soap, 3 inches long by 2 inches broad and ¾ inch thick, was found in the peritoneal cavity. The conclusion seems to be that the injuries were inflicted in the clumsy attempt of the condemned to remove the soap which had been previously introduced into the rectum of the woman who was a consenting party to the attempt.

5.—Goodliffe reported a case of an **epileptic dement** which had been 5 years in his care in an asylum. The patient had lived a considerable time in India and was in the habit of eating leaves and rubbish which she picked up. She never had any definite symptoms. Death was due to diarrhea and exhaustion. There was no suspicion during life of the condition discovered at the necropsy, which consisted in the presence of **small, calcareous nodules in the subcutaneous tissues about the body.** They could be easily felt through the skin in most parts and were movable. The heart was studded with these bodies, varying in size from that of a pea to that of a small marble. There were a few containing clear fluid, some of which had calcareous deposits in their walls, while others had calcareous matter in the form of granules lying loose in the fluid contents. The condition was best seen in the posterior aspect of the left ventricle. There was no pericarditis. On opening the heart the growths were seen in all stages. There were 30 in the entire heart. The pia arachnoid was studded with these bodies, which in this region were somewhat larger in size. The membrane stripped easily. The brain contained numerous cystic bodies embedded in its substance, situated chiefly in or just beneath the cortex; 2 large ones, as big as walnuts, bulged into the floor of either lateral ventricle. The brain-cysts were all soft and translucent, white and showed no calcareous deposits. There were 40 of them. No daughter-cysts were found. Microscopically the wall of the cyst was finely fibrous in structure with indistinct lamination. The fluid contents showed numerous granules and some spicules. There was one almost perfect specimen of the head of the cysticercus having 4 suckers and a row of hooklets. [S.M.H.]

7.—The fact that **serous membranes** form **adhesions** more rapidly and firmly to tissues which are not serous is well known. In view of this fact it is suggested that in intestinal anastomosis both ends of the bowel be rotated a little distance on the longitudinal axis so that the plane of the mesentery of one segment lies a little beyond that of the other. [M.B.T.]

8.—Smith, Moullin and Keith report the following cases: The first patient had an acute peritonitis. Laparotomy was shortly followed by death. At the postmortem a dense, hard, fibrous ring was discovered situated just at the lower end of the ascending colon nearly opposite the cecum, an inch or so from its inner border. The ring itself was very hard and definite. It was about 2 inches in diameter with a complete uniform circumference. Before the herniated gut could be withdrawn the ring required to be freely incised. There were no signs of strangulation, but there was a perforation at the neck of the mass, due apparently to an attrition against the hard, unyielding ring of the sac. The second patient died as the result of a fracture of the spine. On opening the abdomen and lifting the omentum the small intestines, instead of being loose and movable upon one another, were enclosed in a large sac with a thin peritoneal covering in front of them, so that the coils could not be actually touched or individually separated. The ascending colon was situated a little to the left of the midabdominal line and had almost all of the small intestines lying to its right. This was due to the fact that the small gut had slipped through a hole at the lower inner margin of the ascending colon situated in precisely the same spot as in case 1. The marginal ring of the cavity was definite and defined enough, but very thin, membranous and lax, and had exerted no strangling or incarcerating influence on the contents of the sac. After passing through the ring, the small intestine had insinuated itself upward and downward along the whole length of the ascending colon, cecum and appendix in the spaces ordinarily termed retroperitoneal, moving them entirely from their usual position and relations on the right of the abdominal cavity and lifting them bodily to or beyond the middle line. The ring and tissues of the sac were so thin that it was impossible to state whether between the herniated intestine and the omentum there were 1 or 2 layers of peritoneum. Keith considered case number 1 the very rare **hernia-iliaco-subfacialis** which was proved positively by the external iliac artery skirting the inner wall of the sac. Case 2 was probably an example of the very rare right **duodenal hernia** described by Moynihan. [S.M.H.]

9.—A man of 60 had suffered from vomiting and pain in the stomach of a griping, gnawing character, which was aggravated by food. An exploratory operation was performed and the **stomach** was found to be constricted by adhesions causing it to assume an **hourglass** shape. The adhesions which were drawn up under the liver were separated, an incision 3 inches long was made in the long axis of the narrowed portion, and the longitudinal wound was drawn into a transverse wound and sutured with Halsted's fine silk sutures. No food was taken by the mouth for 27 hours, but nutrient enemas were given. After the tenth day the patient digested solid food without difficulty, pain or sickness, and in the next 3 months he gained 60 pounds in weight. In a second case a man of 36 had suffered from pain in the stomach, nausea and vomiting for 14 years. His condition was improved by dieting, but pain was constant after solid food was taken. He had lost weight considerably and pain became almost continuous. Exploratory operation was performed and the pylorus was found to be thickened; a few adhesions were separated and a hole was torn in the gastro-colic omentum. The pylorus was found to be surrounded by dense adhesions and was so small that force had to be used to pass the finger through it. The pylorus was slit up by an incision 3 inches long in its long axis and **pyloroplasty** was performed, transforming the wound into a transverse wound and suturing with fine silk Halsted sutures. Nutrient enemas were administered for the first 48 hours. Since recovery the patient has a ravenous appetite, digests his food without pain and is gaining in weight at the rate of 3 pounds a week. [M.B.T.]

10.—Stoker reports a case of **acute pneumonia** treated by continuous inhalation of oxygen gas. The oxygen was inhaled by means of a tube attached to a gasbag and ending in a soft bulb which was inserted into the nostril. It is always essential to use a gasbag into which the oxygen is decanted before being inhaled, for the following reasons: (1) The oxygen in the cylinders and issuing from them is too cold to be used with safety for inhalation; (2) in this way the amount of extra oxygen used can best be measured; and (3) the pressure and amount of gas inhaled per hour can thus be regulated. The effect on the present case was rather remarkable in that all the symptoms disappeared, recrudesced, and finally entirely cleared up inside of 8 days. [S.M.H.]

11.—Collier had a patient, aged 16 years, under his care who was suffering from a most distressing **cough.** It was peculiar, harsh, and resonant. It had come on suddenly several weeks before and was incessant, except for short intervals between the attacks, and abated only during sleep. There was no expectoration, pain nor fever. There was a **discharge from the right ear** which had existed since infancy. Examination showed a discharge of creamy pus emanating from the right auditory canal with defective hearing in this ear. On cleansing the auditory passage a large bright red polypus was discovered, which completely obscured the drumhead and filled up the adjacent part of the auditory canal. This was removed under cocain, and after a brief local treatment of the stump, the cough finally entirely ceased. [S.M.H.]

13.—Sympson has had fairly satisfactory results from the use of tabloids of red bone-marrow in the **treatment of hemophilia.** It improved the patient's appetite, and brought him around much quicker after a severe hemorrhage than had been the case when it was not used. It has no effect on the bleeding, but is a most useful food and stimulant to eating while bleeding is going on. Calcium chlorid seemed to decrease the number and size of bruises in a case of hemophilia in a little child, and when active bleeding from injury occurred, the clots were made firmer, and the effusion of blood was less when he was freely dosed with the calcium chlorid. [S.M.H.]

14.—Walsh, in order to test the statement that the **retinas of color-blind persons** were **acted upon strongly** by the **Röntgen-rays,** subjected 4 color-blind children to the rays emitted from an ordinary bianodal focus-tube attached to a 12-inch coil working at 9 inches. He found no reason to conclude that the retinas of these 4 color-blind children reacted to the focus-tube in any way differently from those of folk with normal color-sense. [S.M.H.]

15.—Collier has used Roux's **antitetanic serum in 2 cases of tetanus.** In the first case the incubation-period was 7 days. The disease lasted only 48 hours, and although 20 cc. of antitoxin was injected, death occurred at the end of this time. The other case, a patient aged 27 years, 14 days after having cut the tip of his left thumb, developed symptoms of tetanus. On the fourth day of the disease 10 cc. of the serum was slowly injected into the subdural space instead of into the substance of the brain. The symptoms immediately began to improve and the patient gradually recovered. [S.M.H.]

16.—Wace reports a **case of tetanus** in which the symptoms began a week after an injury. On the second day of the disease 20 cc. of tetanus-antitoxin was injected subcutaneously. Death followed on the third day. The case was acute as regards onset and duration, but the spasms were not at any time marked. The head was held stiff and slightly retracted, but at no time was there opisthotonos or anything approaching the head-heel position. [S.M.H.]

New York Medical Journal.

May 27, 1899. [Vol. lxix, No. 21.]

1. The General Diagnosis of Syphilis of the Brain and Spinal Cord. B. SACHS.
2. Intention: A Study of the Bovine Brain. WALLACE WOOD.
3. Retention of Urine. RAMON GUITÉRAS.
4. Inhibition. S. J. MELTZER.
5. A Little Point of Great Importance in Transfusion. LOUIS JULIAN Y GENELLA.
6. Landry's Paralysis. W. H. HAYNES.
7. Antistreptococcic Serum in Puerperal Septicemia and Pelvic Cellulitis. A. G. DEARDORF.

1.—According to Sachs, from 15 to 25 of each 1,000 persons affected with syphilis develop some specific disease of the central nervous system, exclusive of those who develop either tabes or general paresis. **Syphilitic nervous disease appears to be increasing.** Syphilitic nervous manifestations are supposed to follow hard chancres, but not infrequently they occur in patients giving a clear history of soft chancre. The greatest number of cases of cerebral syphilis result from mild and moderately severe forms of the disease. Every patient presenting the symptoms of syphilitic disease of the nervous system should receive a most thorough course of specific remedies, even if the initial stage has been satisfactorily treated. Syphilis of the nervous system is not always a late manifestation of constitutional disease. In 11% of cases of syphilis of the brain, the cerebral symptoms have occurred within the first half year after the initial affection, and in 24.6% of all the cases between 6 and 10 years after the primary sore. The brain and spinal cord are affected much more frequently than the peripheral nerves, and in them it may manifest itself by the formation of gummas, by the development of gummatous infiltration starting from the meninges, which may be associated with a single well-defined tumor, and which may or may not invade the substance of the brain or spinal cord, and lastly it may do mischief through disease of the bloodvessels. The distribution and microscopic and macroscopic appearances of gummas are described at length. The capillary vessels are important factors in the development of syphilitic neoplasm, but the larger bloodvessels of the brain as well as of the spinal cord are also the seat of syphilitic changes. Syphilitic disease of the bloodvessels is generally manifested by changes in the intima, but all the coats of the bloodvessels may participate in the proliferating process. There occurs ultimately occlusion with subsequent softening of the area supplied by the vessel. This occlusion need not be permanent. The pathologic appearances at times closely resemble tuberculous and sarcomatous affections. The character of the morbid manifestations, the multiplicity of the lesions, the evidences of a tendency to retrogressive changes, the formation of scar-tissue, and the general benign character of the process, lead to a proper recognition of the nature of the lesion. Syphilis of the central nervous system is characterized above all by the multiplicity of the symptoms, and by the tendency to remissions and relapses. These general symptoms will serve to indicate the character of the morbid process, all other manifestations being dependent upon the special localization of the disease in some one, or in several, parts of the nervous system. No set of symptoms is pathognomonic of syphilis of the brain or spinal cord. Their great tendency to multiplicity need not imply that all the lesions are coexistent. The presence of constitutional syphilis is more easily suspected and proved from the study of the pupils than from any other symptom that the patient may present. These pupil-changes are: (1) inequality of the pupils, one contracted and the other dilated; (2) unequal response, the one reacting to light, the other failing to respond; (3) the complete immobility of the pupils, both to light and during accommodation; (4) a marked departure from the circular form in cases in which there has been no preceding iritis. Chronic forms of headache in an otherwise healthy individual continuing for days, but often intermittent, possibly worse at night, dependent largely upon the position of the head, are of syphilitic origin. Vertigo is an early symptom. Single epileptoid seizures, transitory hemiplegias, and transitory motor aphasias occurring in the absence of renal disease are suspicious signs. Apoplectic attacks occurring in middle life in persons who have neither renal nor cardiac disease may be safely attributed to syphilis. Anatomic investigations have shown that syphilis may lead to degeneration of the ocular motor or other cranial nerve nuclei, but what appears to be a nuclear palsy has been shown to be due to a syphilitic infiltration of the extra cranial root-fibers of the third nerve, this infiltration choking some of the fibers without invalidating all. It seems, therefore, important to know that presumably nuclear palsies may be and often are of specific origin. It is always well to bear in mind before giving an absolutely fatal prognosis in case of double optic neuritis, that this condition may possibly be specific in origin. Specific disease involving the optic chiasm is especially interesting because it gives rise to disturbance of the visual field which could hardly be explained upon any other supposition than that of a partial infiltration of the nerve-fibers composing the chiasm and the optic tracts. Ocular nerve-palsies of varying kinds are often among the earliest symptoms of tabes dorsalis, and it is a question whether some of these forms of tabes, beginning with ocular palsies, are not truly specific types of cerebrospinal syphilis. When there is evidenc of symptoms which could not be due to a single lesion, the suspicion of an underlying specific disease is raised almost to a certainty. Thus, often brain-symptoms are associated with those pointing to disease of the lower or lowest portions of the spinal cord. Spastic or paralytic symptoms, which may be symmetric, but often invade one side long before the other is diseased, are suggestive of spinal syphilis. These symptoms, chiefly in the lower extremities, may exist for a long period without any of those other signs so common in affections of the entire cross-section of the cord. The paralysis may last for years before it becomes complete. Sensory symptoms, if superadded, may remain slight. Syphilitic disease of the spinal cord causes sensory and atrophic paralytic symptoms often enough to make it uncertain whether it is wise to restrict the term syphilitic spinal paralysis to the spastic forms alone. It is natural to inquire why the lower levels and the marginal regions of the spinal cord should be invaded so much more frequently than the cervical-dorsal segments and the central gray matter. It has been shown that the spinal arteries become narrow in the lower dorso-lumbar regions, that the posterolateral regions have a relatively scanty blood-supply at all levels and that while he vascular distribution in the spinal cord is unfavorable to he occurrence of hemorrhage and embolism, it is distinctly avorable to thrombosis. The areas having the poorest blood-supply will be the most likely to undergo softening and will be the least able to resist the invasion of a menngeal infiltration. If the morbid process itself invade the posterior portion of the cord, and if before doing so it compresses the posterior root-fibers, the symptoms will closely resemble those of posterior spinal sclerosis. These ases of syphilitic pseudotabes can be distinguished from eneral tabes dorsalis, and in the former the prognosis is o much more favorable that the distinction has a decided ractical value. In pseudotabes syphilitica the disease often nvades one leg long before it does the other. The ataxic ymptoms are often very slowly developed, and it is just in hese cases that the absolute immobility of the pupil, in ontradistinction to the Argyll-Robertson pupil, gives good eason to believe that what is supposed to be tabes dorsalis s a syphilitic pseudo-tabes. Syphilitic infection and poserior spinal sclerosis or tabes dorsalis are related. The relationship between them will not be satisfactorily estabshed, however, until a careful investigation of the condition f the bloodvessels of the spinal cord shall have been made n the earliest stages of posterior spinal sclerosis. [S.M.H.]

4.—Meltzer concludes his article on **inhibition** as folows: In the face of the ubiquity of inhibition, and in considration of the manifold experience gathered with regard to s actual complicity in the manifestations of life, we are jusfied in drawing the following fundamental conclusions:) Inhibition extends as far as the existence of irritability, nd is an integral part of it. All irritable tissues of the livng body respond to a stimulus with a specific activity, as ell as with an inhibition of this activity; the actual effect a stimulation is always only a resultant of the two opposng factors, but mostly, perhaps, with a greater leaning toard one or the other, according to external circumstances. either the impulse of activity nor that of inhibition is wiped ut; they often run out their course in a manner imperceple to us. (2) All the actual phenomena of life are not the ure manifestations of one of these factors, but are the resulnts of the two antagonistic forces; there is no absolute rest a living part, and there is no action without any admixre of inhibition. The state of life in each part of the body epends upon the general relations between the two antagostic forces in the entire body, and upon the special relaons existing in this special part. All admitted biologic laws hich have been formulated under the presupposition that ey were being derived from a study of the behavior of the ure activity will have to be revised. (3) In the peripheral, well as in the central organs, activity and inhibition are parently separately accessible by special nerve-fibers, of hich the government of the body is making use in such a urposeful manner as to cause a required degree of inhibition a part, the antagonist of which is ordered to action. The ualistic conception of the phenomena of life is destined to ake a profound impression upon medicine and therapeus, and the discovery and development of inhibition are mong the greatest achievements in biology of the dying entury. [S.M.H.]

5.—The principal danger in **transfusion** seems to be the troduction of air. As a precaution it is suggested that 3 atures be placed about the vein; the one farthest from the art is tightly tied, the second ligature is not tied and the third ature $\frac{3}{4}$ of an inch above the second is tightly tied with a p knot. Incision is made between the two tied ligatures and the fluid allowed to flow out around the sides of the incision, thus washing out any air. The second ligature is tightened to hold the cannula, the slip knot is then removed, and the fluid then enters the general circulation. [M.B.T.]

6.—Haynes communicates a brief article on the symptoms, diagnosis and treatment of Landry's paralysis. [S.M.H.]

7.—Deardorff reports 2 cases in which **antistreptococcic serum proved of great benefit,** and he considers that we now have in this agent a specific for puerperal and other infections, and that its field of usefulness will steadily widen. Besides using it in puerperal cases, he has employed it in certain bad cases of tuberculosis exhibiting pus in the sputum, and always with marked benefit. [W.K.]

Medical Record.

May 27, 1899. [Vol. lv, No. 21.]

1. Mosquitos Considered as Transmitters of Yellow Fever and Malaria. Charles J. Finlay.
2. The Failure of Antitoxin in the Treatment of Diphtheria. J. Edward Herman.
3. New Operation for Epithelioma of the Lip. W. W. Grant.
4. Epistaxis: Its Cause and Treatment. Carl Seiler.
5. Some Clinical Features About Vaccination. Lucien Lofton.
6. Recurrent Strangulation of a Left Oblique Congenital Entero-Epiplocele in an Infant Six Weeks Old; Herniotomy; Recovery. Herbert Marion Stowe.
7. Treatment of Influenza. L. D. Sheets.
8. An Unusual Case of Sinus Thrombosis and Epidural Abscess Complicated by Malaria; Operation; Recovery. M. D. Lederman.

1. Finlay observed that **malaria was very prevalent** among the soldiers under his care in the Santiago campaign, and that there were no mosquitos. He is therefore inclined to believe that flies carried the infection. His theory that **mosquitos carry yellow fever** is based upon his belief that he has produced the disease by allowing contaminated mosquitos to feed upon susceptible persons, and that immunity was acquired through inoculation by mosquitos. He also states that he has found the same organisms in the blood of yellow-fever patients and on the proboscides of mosquitos that had fed upon those ill with yellow fever. [The microorganisms described do not show any relation to the one that is probably the cause of the disease, and the other statements are so remarkable as to make their confirmation very desirable. D.L.E]

2.—The article is a tirade against the use of diphtheria-antitoxin. [D.L.E.]

3.—Grant believes that extirpation of the submaxillary lymph-glands is as important in **operation for epithelioma of the lip** as is the removal of the axillary glands in carcinoma of the breast. The excision of a V-shaped piece of tissue is a good operation for the removal of very small growths, and in case of large mouths, but if considerable tissue is sacrificed the mouth is changed from an oval to a round sucker-like appearance and the upper lip is prominent while the lower is retracted. To avoid those features, the following operation is suggested as simple, easily performed and likely to yield excellent results. A straight perpendicular incision is made on each side of the diseased area, extending well below it. These incisions are united by a transverse incision, removing a quadrangular block of tissue. From each lower angle of the wound an incision is made obliquely downward and outward over the lower surface of the chin and upper part of the neck. Through this incision the removal of the lymph-glands is possible, and the incision give 2 large triangular flaps which may be slid with little traction to cover the defect in the chin. [M.B.T.]

5.—Lofton states that the negro rarely has any distress after vaccination. He has vaccinated almost 400 people with glycerinated lymph with no untoward results. [D L.E.]

6.—The case of a male infant is reported who, when 2 weeks old, had vomiting, general abdominal distention, and pain particularly over the left inguinal region. A **hernia** was discovered, and when reduced the symptoms improved. A second and third similar attack occurred. When the child was 6 weeks old the last attack occurred. The patient was not seen until 18 hours after the onset. Attempts to replace the hernia had been unsuccessful; collapse was setting in and the temperature was 103.2°. **Herniotomy** was performed. Two knuckles of intestine were found deeply congested, but they reacted to hot water. The steps of Bassini's operation were then carried out, and a good recovery followed with union from first intention. [M.B.T.]

8.—A man, 29 years old, was seen during the second attack of **inflammation of the middle ear.** The mastoid region was swollen and tender. The usual mastoid operation was performed on the thirteenth day; the lateral sinus was exposed and pus was aspirated from it by a hypodermic syringe. It was opened; considerable pus escaped, and the clot was removed with a small wire curet until free bleeding occurred. The internal jugular vein was not ligated. Good recovery followed. [M.B.T.]

Medical News.

May 27, 1899. [Vol. lxxiv, No. 21.]

1. Non-Tuberculous Inflammation of the Spine. T. HALSTED MYERS.
2. African Black-Water Fever. FRANKLIN PIERCE LYNCH.
3. The Relative Death-Rates from Cancer and Consumption. JOHN H. PRYOR.
4. Codliver Oil. THOMAS E. MCARDLE and W. H. WILEY.
5. Eight Cases of Toadstool-Poisoning. WM. MCD. STRUBLE.

1.—Myers believes that outside of tuberculosis too little attention is paid to the etiology of **spine-disease,** and that a considerable number of cases of kyphosis are considered tuberculous which are really the result of syphilitic, malignant or infectious diseases, or possibly traumatism. Several practical points are suggested by his consideration of the nontuberculous lesions of the spine. (1) Syphilitic treatment should be pushed when there is a possibility of this disease being present; (2) fractures should be more carefully protected, and for a longer time; (3) in rheumatoid arthritis care should be taken to secure good position when ankylosis takes place; (4) from a medicolegal standpoint it is important to remember that not all chronic increasing kyphoses are tuberculous, and, therefore, exorbitant damages should not be awarded in all cases; and for the same reasons life-insurance should not be refused such subjects. [G.B.W.]

2.—Lynch describes **blackwater fever** as coming on only in the white residents. It begins abruptly with the discoloration of the urine, more or less high fever, great apprehensiveness, oftentimes severe vomiting. If improvement does not occur within 3 days the prognosis is fatal. Quinin he considers a specific. He administers calomel and rectal injections of normal salt-solution, then gives diaphoretics and sweats the patient by rolling him in blankets and surrounding him with hot-water bottles; 20 grains of antipyrin are administered. As soon as the temperature begins to lower he gives quinin and continues it for some time after. Under this treatment he secured 17 recoveries in 18 cases. [D.L.E.]

3.—Pryor thinks that Park's recent statement that by 1909 cancer will cause more deaths in New York State than consumption, smallpox and typhoid fever combined, is an unscientific and unjustified prediction. He demonstrates the fallacies inevitable in prophecies based upon statistics, and further states that the idea that there is a **"cancer-belt"** in New York State, with its center at Buffalo, is erroneous. There has been no greater increase of cancer in New York State than in a number of other commonwealths, and the decrease of consumption has been exaggerated. There is but slight possibility that the death-rate from cancer can exceed that from consumption by 1909. [D.L.E.]

4.—The authors find that preparations made from the whole **codliver oil** are usually what they are advertised to be, while those called "wines" and "extracts" contain no nutritive principles of the oil. [D.L.E.]

5.—The 8 cases of **toadstool-poisoning** had in common the following symptoms: painless vomiting coming on at from 9 to 18 hours after taking the toadstools and being seemingly of centric origin; subsequently marked heart-depression and collapse and with this a profuse serous diarrhea which was the gravest stage and in which 3 died. These symptoms are not those commonly produced by muscarin—the active principle of the amanita muscaria—and the toadstool was probably the amanita phalloides or "death-cup." The treatment recommended is free emesis and purging by croton-oil or hypodermics of magnesium sulphate, followed by strychnin and atropin and large subcutaneous injections of normal salt-solution. [D.L.E.]

Boston Medical and Surgical Journal.

May 25, 1899. [Vol. cxl, No. 21.]

1. The Value of Posture in the Treatment of Occipitoposterior Positions. CHARLES M. GREEN.
2. Report of a Case of Perforation in Typhoid Fever Closed by an Adherent Tag of Omentum, followed by a Relapse, Second Perforation and Death. D. J. MILTON MILLER.
3. Compound Fracture of the Skull, with Escape of Brain-Matter. HENRY DU R. PHELAN.
4. A Case of Typhoidal Cholecystitis Associated with Gallstones; Operation; Recovery. S. J. MIXTER.

1.—Green speaks of the various **expedients** employed **to promote normal delivery,** in the skilful management of labor, in the posterior position of the presenting occiput, and testifies to the value of the force of gravity as a factor in the promotion of anterior rotation. [W.K.]

2.—Miller reports the case of a girl, 11 years of age, suffering from a severe attack of typhoid fever. Several hemorrhages were accompanied by increased tympany, tenderness and rigidity of the recti. The tubbing was continued and the patient seemed to improve. Three days later, there was a pronounced fall of temperature after the sponge and the following day the tympany had increased considerably. From this time convalescence progressed until the 35th day, when a typical relapse began. Hemorrhage reappeared, the temperature fell after a sponge. There was tympany and tenderness. There was then a sudden fall of temperature followed by a rise, with the development of symptoms of perforation. At the autopsy two perforations were found, one old and covered by adherent mesentery, and the other recent. The author believes that persistent abdominal tenderness, with muscular rigidity, are always to be regarded as indicative of impending perforation, although he relates a case in which they existed and operation was performed without finding a perforation. The patient recovered. [J.S.]

3.—A private was struck on the top of the head by a Filipino armed with a sharp instrument. Through the resulting wound protruded the lacerated meninges and a small quantity of grey matter. There was consciousness all the time, but considerable shock existed, and **sensory and motor paralysis** of the right leg and foot, with temporary loss of power in right arm, were also present. "The left parietal bone was trephined two inches from the median line of the skull, and the opening enlarged by means of a rongeur. The depressed bone was elevated, the lacerated meninges trimmed off, and the protruding brain-matter replaced." Drainage was provided and the wound sutured. The patient made an uninterrupted recovery, but at the time of writing there was still paralysis of the right leg and foot. [G.B.W.]

4.—This case of **cholecystitis** developed about a month after the cessation of the typhoidal temperature. About 30 stones were found in the bladder and 2 in the common duct, and cultures made from the gallbladder gave pure cultures of the typhoid bacillus. [G.B.W.]

Journal of the American Medical Association.

May 27, 1899. [Vol. xxxii, No. 21.]

1. Eye and Nervous System. F. C. HOTZ.
2. Colored Children: A Psycho-physical Study. ARTHUR MACDONALD.
3. Catheter-inflation of Tympanum. B. ALEXANDER RANDALL.
4. Amputation of the Breast. EMANUEL J. SENN.
5. The Medical Witness. JAMES B. BAIRD.
6. Report on Massage. DOUGLAS GRAHAM.
7. Diphtheritic Conjunctivitis. CHARLES P. PINCKARD.
8. Medical Treatment of Intestinal Obstruction. C. D. SPIVAK.
9. Spindle-celled Sarcoma of Thigh. JACOB FRANK.
10. "Deaf-Mutes," with Clinic. MAURY M. STAPLER.

11. Mouth-breathing. James M. Crawford.
12. Cardiac Disease in Pregnancy and Labor. W. Reynolds Wilson.

4.—Senn advocates **removal of the breast** without incision into the axilla. The breast is circumscribed by 2 curved incisions which meet above at the border of the pectoralis major muscle; the incision is continued slightly internal to the outer border of this muscle in an upward direction to about 1 inch above the apex of the axilla, and then curves outward in the deltoid region, terminating at the level of the apex of the axilla. Among the advantages of this incision are mentioned the fact that a larger field is exposed for radical work, the incision is so stitched that the scar is not dragged upon by the motion of the arm, and it does not impede arm-motion. The axillary space is always difficult to render aseptic and unfavorable for primary wound-healing. [m.b.t.]

6.—Abstracts are given from the writings of various authors, who have found massage of value in the treatment of acute Friedreich's disease, locomotor ataxia, skin-disease, ulcers and for movable kidney and displaced semilunar cartilages. [m.b.t.]

7.—A man, 23 years old, developed **conjunctival inflammation** after some dust blew into his eye. A grayish membrane formed on the conjunctiva which bleed freely when detached. Examination of the discharge showed characteristic **Klebs-Löffler bacilli.** Three doses of antitoxin of 2,000, 4,000, and 2,000 units each were administered with beneficial effects. There were no complications in the nose and throat nor were the constitutional symptoms marked. The cause of infection is not known. [m.b.t.]

8.—In concluding his paper Spivak emphasizes his opinion that 90% of patients suffering from **intestinal obstruction** recover without surgical intervention. Lavage, cathartics and absolute abstinence from food and drink are advised. [m.b.t.]

9.—A woman, 38 years old, who had been in good health noticed a slight tumor and tenderness about the right thigh 2 years previously. A large tumor developed which was proved to be a **large spindle-celled sarcoma,** after microscopic examination. Metastasis was thought to have taken place and operation was not undertaken. [m.b.t.]

10.—The case of a deaf-mute, 18 years old, is reported. He had none of the eruptive fever to which the **deafness** could be traced, and was believed by his mother to have been born deaf. Under cocain-anesthesia the electrocautery was applied upon the fibers of the tensor palati muscle with the object of shortening some of the fibers by cicatricial contraction and making a new fixed base from which they could act in opening the Eustachian tube. The patient's hearing increased so that he now understands ordinary conversation and can hear a watch tick at from 4 to 6 inches. [m.b.t.]

12.—Wilson considers **chronic heart-disease,** when compensation exists, not a contraindication to marriage. In heart-disease in its early development occurring in pregnancy, drugs should be avoided. If the heart's action remains regular in the later stages, cardiac stimulants must be given. Much can be accomplished by diet and rest. Lactation is not advised on account of the physical strain and the depleting effect. The induction of labor should be reserved for those cases in which further progress means the death of the patient. Labor, when it occurs naturally, even in advanced cases, is usually rapid and free from great pain and stress. In difficult cases the use of the forceps is indicated and in case of sudden death, if the child is viable, celiohysterotomy should be performed. [m.b.t.]

American Gynecological and Obstetrical Journal.

March, 1899. [Vol. xiv, No. 3.]

1. Myomectomy by a New Method. Alexander J. C. Skene.
2. General Principles, Indications, and Contraindications of Mechanical Support for Uterine Deviations. E. C. Dudley.
3. Electricity in the Mechanical Treatment of Malposition of the Uterus. Franklin H. Martin.
4. The Use of Massage in Malpositions of the Uterus. William H. Rumpf.
5. Tampons and Pessaries in the Treatment of Displacement of the Uterus. T. J. Watkins.
6. The Relations of Pelvic Cellulitis to Recent Pelvic Surgery. Ely Van de Warker.
7. Dangerous Thinning and Elongation of the Lower Uterine Segment: Including Three Cases of Rupture. Robert L. Dickinson.
8. An Elective Cesarean Section. G. M. Boyd.
9. The Value of Ethyl Bromid in Gynecology and Obstetrics. Frank C. Hammond.

1.—Skene describes his method of performing **myomectomy** in which he uses hemostatic forceps heated with electricity. After enucleation of the tumors, the capsule is gathered together and seized with the hemostatic forceps close to the uterus, compressed and heated sufficiently, thoroughly to close the vessels, fuse the tissues together, and form a dry stump an eighth to a sixteenth of an inch thick. This method is also employed in dealing with omental, interstitial, and pelvic adhesions. [w.k.]

2.—Dudley discusses the principles of the **mechanical support of the uterus,** its normal position and movements, and gives the indications and contraindications for mechanical support. The pessary is always contraindicated until the uterus has been replaced. Failure of replacement will cause it to press upon the sensitive uterus and one of three unfortunate results may occur: (*a*) the pessary may not be tolerated on account of pain; (*b*) it may be forced down by pressure from above so near to the vulva that it will fail to do the least good; (*c*) the uterus, finding it impossible to hold its position against the pessary, instead of taking its proper position, may be bent over it in exaggerated retroflexion, with the cervix between the coccyx and the pubes; or the whole organ may slip off to one side of the instrument into a malposition more serious than the one from which relief is sought. A properly adjusted pessary gives to the patient no consciousness of its presence. If the instrument causes pain it should be removed and search made for the tender places; it should then, if possible, be remoulded into such shape that it will not make pressure upon them. Often a slight indentation at some point will enable the patient to wear it with comfort. If it cannot be made comfortable it is contraindicated and should be abandoned. The intrauterine stem-pessary is a good thing to watch. It is rarely useful, often injurious, always dangerous. [w.k.]

3.—Martin discusses the value of electricity in the treatment of **malpositions of the uterus,** and details his treatment of uncomplicated retroversion as follows: He gives general tonics which have a predilection for toning muscles and a special aptitude for the pelvic organs. These tonics are strychnia, ergot, hyoscyamin, and, when necessary, aloin. He gives local stimulants which have a tendency to contract and tone the muscles of the vagina and perineum. These stimulants consist of hot-water vaginal douches, containing alum, a dram to the pint, not less than a gallon each at a temperature of not less than 115° F., taken with the patient lying in a recumbent position, administered twice daily. He advises postural treatment. This consists in the woman going to bed 4 times a day with clothes loosened and assuming the knee-chest position for two minutes, and while in that position accomplishing a ballooning of the vagina by retracting the posterior fourchet of the vagina sufficiently to allow the air to rush in. Lastly, he tones all the muscles of the pelvis by exercising them with a slow, interrupted faradic or sinusoidal electrical current once every day, or at least every second day, for a period each time of 10 minutes. For this purpose he uses electrodes of two varieties: The bipolar vaginal electrode, which combines the two poles in one vaginal instrument, and, on alternating treatments, a unipolar vaginal electrode and an abdominal electrode. He summarizes thus: (1) Electricity in the form of the faradic or the sinusoidal current slowly vibrated, will cause contraction of the striped and unstriped muscular fibers in the female pelvis. It is also an active promoter of nutrition; (2) displacements of the uterus dependent alone on muscular relaxation or muscular nondevelopment, if curable at all without operation, can be cured more quickly and better by electricity in the above forms than by any other method of treatment we now possess. [w.k.]

4.—Rumpf believes that by the use of **massage** in **malpositions of the uterus** we can relieve pain, make the uterus mobile, improve the symptoms from bladder and bowels, prepare the uterus for the proper use of pessaries, and insure a greater prospect of success in future operations. About 50% of the cases will require no other form of treatment. Massage has not been satisfactory in cases of anteflexion and prolapse. [W.K.]

5.—Watkins considers fine, sterilized **lamb's wool** the best material for **tampons** in the mechanical treatment of displacements of the uterus, on account of its elasticity. In order to be effective they should be used almost continuously; that is, soon after one is removed another should be inserted. By the use of some antiseptic powder, such as boric acid, the tampon can be worn 48 hours. The Albert Smith and Emmet pessaries fulfil about all the requirements of a pessary for the mechanical treatment of uterine displacements. The principle of the action of the pessary is to keep the cervix in or near its normal position, about 1 inch from the sacrum, and the external os about 2½ inches below the sacral promontory. With the cervix in this location, gravity and intraabdominal pressure will insnre the anterior position of the body of the uterus, if mobile, when the woman is in an upright position. The length, width, and amount of curvature of the pessary should be adapted to each individual case. [W.K.]

6.—Van de Warker continues his paper on the relations of pelvic cellulitis to recent pelvic surgery. [W.K.]

7.—Dickinson, in a well-illustrated article, reports a series cases of dangerous thinning and elongation of the lower uterine segment and details the method of treatment employed in each. In 3 of these cases uterine rupture occurred. [W.K.]

8.—See this Journal, Vol. III, No. 3, page 125.

9.—See this Journal, Vol. III, No. 3, page 126.

Berliner klinische Wochenschrift.

March 27, 1899. [36. Jahrg., No. 13.]

1. A Further Communication upon Active and Passive Immunity from Anthrax. A. G. Sobernheim.
2. The Clinical Anatomy of the Lungs, Liver, and Stomach in Relation to Enlargement of a Single Section of the Heart. G. Krönig.
3. Upon the Improper Use of Quicksilver. L. Lewin.
4. The Theory of Alimentary and Diabetic Glycosuria. J. Strauss.

1.—The present laboratory-method of producing **immunity to anthrax** gives rise to a very transient immunity, and in order permanently to protect animals that are spontaneously exposed, it is necessary to modify the method so as to deprive the immunity of it transitory character. By combining passive immunization (by means of serum) with active immunization, Sobernheim succeeded in this to a marked degree. Animals (sheep) received **mixtures of anthrax-serum and attenuated anthrax-cultures**, and were still immune to virulent cultures 1½ months afterwards. Animals immunized by former experimenters, though immune to subcutaneous anthrax-inoculation, perished when they were fed with the virus or when it was injected intravenously. Sobernheim was able to produce, both by passive and by active immunization, a resistance to anthrax introduced by the mouth. As the mouth is the avenue in the nature, these observations are important. To what extent combined active and passive immunization protects against alimentary infection has not yet been determined. [D.R.]

2.—The percussion-outline of the heart in various forms of disease is discussed and diagrams are given showing the typical areas of dulness. [M.B.T.]

3.—In East Prussia, in the same locality where ether-drinking is in vogue, the women use **mercury as an abortifacient.** The metal is rubbed up with lard or green soap, and is taken in doses of 3 grams, the dose being repeated once or twice if necessary. Abortion occurs generally under violent symptoms of illness, sometimes with a fatal ending. The men in the same region have the habit of swallowing metallic mercury in doses of from 5 to 30 grams, and then of collecting it again in a vessel as it issues from the bowels. The reason for the strange and dangerous custom could not be ascertained. Lewin suggests that the State take suitable action to prohibit the sale of metallic mercury by pharmacists. [D.R.]

4.—It has been asserted that **alimentary glycosuria ex-amylo**, *i.e.*, after starch-ingestion, is indicative of a diabetic disturbances of metabolism, while **alimentary glycosuria e saccharo,** *i.e.*, after the ingestion of 100 grams glucose, may but need not be a sign of a pathologic disturbance of carbohydrate metabolism. To determine the relationship of these two forms of glycosuria, Strauss has made a series of experiments on patients presenting glycosuria e saccharo. In 8 of 11 persons there was both glycosuria e saccharo and glycosuria ex amylo, although the amount of sugar excreted in the case of the latter was generally less. Of the 8 patients, 4 were alcoholics. In two pneumonia-cases, one croupous and one grippal, both forms of glycosuria were present, probably as the result of the febrile infection. The disposition to glycosuria ex amylo was briefer than that to glycosuria e saccharo, if it did not disappear synchronously with the latter. Persons who are predisposed to alimentary glycosuria, often suffer an impairment of their tolerance for carbohydrates after an abundant ingestion of starchy food. In none of the patients studied was the assimilating limit of glucose depressed after the causes that had lessened the tolerance were no longer manifestly active. Alcoholic patients, as long as they are under the direct influence of a debauch, are markedly predisposed to alimentary glycosuria. In 30 cases of chronic alcoholism, after a period of abstinence, the disposition was not observed. In intoxicated persons it was possible to produce glycosuria e saccharo or ex amylo only in a certain number. Various explanations have been offered for the glycosuria of alcoholics—the metabolic products of the yeast-cells, the large quantities of fluid, the carbohydrates in beer. It is probable that the nervous excitement to which drinkers are exposed plays a role in impairing the tolerance for carbohydrates. In ordinary epilepsy, alimentary glycosuria does not seem to occur, but in alcoholic epilepsy the author was able to demonstrate it, especially the day after the seizure. This feature may be of diagnostic value, although in exceptional cases alimentary glycosuria might occur in genuine epilepsy, as when alcoholism is associated with it. In the patients who were repeatedly under observation and in whom the noxious factor (potatorium) continued, the disposition to glycosuria e saccharo and ex amylo seemed to return in about the same degree; in 4 cases a tendency to progressive enfeeblement of the carbohydrate metabolism was observable, the alimentary glycosuria showing the characteristics seen in diabetes. The difference between alimentary glycosuria e saccharo and alimentary glycosuria ex amylo is chiefly one of degree. Noxious influences of mild degree seem to lead to the former, of severer degree to the latter. An important question presents itself, mainly whether alimentary glycosuria is often a precursor of diabetes mellitus. The author thinks the answer is in the negative. But a distinction must be made between those persons in whom a transient injury produces a transitory alimentary glycosuria and those in whom a persistent noxious influence continuously predisposes to alimentary glycosuria. In the latter the possibility of a future diabetes must be left in mind, especially when in addition to alimentary glycosuria e saccharo, alimentary glycosuria ex amylo can be demonstrated. [D.R.]

Centralblatt für innere Medicin.

May 13, 1899. [20. Jahrg., No. 19.]

The Activity of the Staphylococcus in the Pathogenesis in Chorea Rheumatica. Prof. Maragliano.

Maragliano refers to his own description of the presence of the **staphylococcus in rheumatic cases** and collects the cases reported by others. He decides that rheumatic chorea is an infectious process caused by various microorganisms, the symptoms being due to the action of the toxin upon the nervous system. The staphylococcus is the most frequent organism found; it has been present in 7 cases, a diplococcus in 2 cases, a bacillus in 2 cases. He thinks that this proves that chorea and rheumatism stand in close relation to each other, confirming his earlier statement to this effect. [The evidence offered is certainly too slight to be considered final, in spite of its probability. D.L.E.]

Centralblatt für Chirurgie.

May 13, 1899. [26. Jahrg., No. 19.]

The Prevention of Thrombosis of the Veins of the Lower Extremities after Operation. K. G. Lennander.

The case is reported of an elderly woman who was operated upon for superficial suppuration of the region of the knee. Some days afterwards she left the hospital to be treated as an out-patient. She had gone scarcely half the distance to her home when she fell and died within a few minutes. At the necropsy a fresh thrombus was found in the dilated veins below the knee and there was an embolus in the right pulmonary artery. There is danger of thrombosis after any operation, but particularly after all abdominal operations. Lennander has met this complication in 5 cases after operations for appendicitis. Out of a total of 160 such cases since the fatality mentioned occurred, Lennander has paid careful attention to the avoidance of this danger. The most careful asepsis is the first essential; frequently it is difficult to say what kind of infection exists or where it arises, although the infectious nature of the trouble is generally admitted. Other causes which tend to the formation of thrombus are the weakened circulation and slowing of the blood-current in consequence of the lessened heart-activity after serious illnesses. Fatty degeneration of the heart sometimes results from the use of an anesthetic, and the prone position tends toward sluggish circulation. In case meteorism arises the return flow of the blood is hindered by the distention of the intestines and increased intraabdominal pressure. In some cases there are local changes of the vessel-walls, endophlebitis or fatty degeneration of the endothelium which may be either primary, or secondary in consequence of infection. As preventive measures Lennander suggests that beside careful asepsis the lower extremities should be elevated to favor return venous circulation. If varicose veins are present elastic compression with a flannel bandage is recommended. The heart's action should be stimulated by the subcutaneous infusion of salt-solution and by suitable stimulating treatment; passive motion and light massage of the lower extremities is also useful. Since he has carried out these preventative measures Lennander has not seen a single case of thrombosis. [M.B.T.]

Münchener medicinische Wochenschrift.

March 21, 1899. [46. Jahrg., No. 12.]

1. Upon the Availability of Clay as Antiseptic and Aseptic Bandage-Material. Megele.
2. Upon the Manipulation of the Navel Cord in the New-born. Horn.
3. Gangrene of the Soft Parts and the Bones of Both Feet in a Paralytic; Cure Following Clay-Treatment. Fischer.
4. Clinical Experiences with Two Iodoform Substitutes—Amyloform and Iodoformogen. Heddaeus.
5. A Further Failure in the Orthoform Treatment of Wounds. Miodowsky.
6. A New Röntgen (X-ray) Instrument for Practising Physicians. Wiesner.
7. Upon the Result of Intraperitoneal Injection of Butter on Guineapigs. (*Conclusion.*) Grassberger.
8. Remarks on C. L. Schleich's Book, "Painless Operations." Braun.
9. A Quack of Ancient Times. Marcuse.

1.—In a most interesting article Megele discusses the **antiseptic** and **aseptic value of clay** as a wound-dressing. Bolus alba, argilla, or white clay, is a whitish, pulverulent substance, with a greasy feel, consisting chiefly of the silicate of aluminium. Stumpf had recommended it as a dressing by reason of its drying qualities; these, by an ingenious series of experiments the author was able to confirm. Its drying properties are exerted most strongly on the layer of substance with which it is in immediate contact, and in this layer putrefactive processes are arrested. The desiccating property depends on the power of clay of absorbing large quantities of water; in this way putrefaction is prevented. As a wound-dressing the desiccating action of the clay is not likely to injure the granulations, as the living tissues by their turgescence resist complete dehydration. As the bolus is readily sterilized, it seems in various ways to be a proper dressing for wounds. An interesting historic resume concerning the uses of clay completes the article. [D.R.]

2.—The use of cotton impregnated with powdered clay is advocated by Horn as a **dressing for the umbilical cord.** The powder should be renewed twice daily until the cord falls off. This method is believed to be simpler, equally efficacious, and cheaper than any other. [W.K.]

3.—In a case of **gangrene** of both heels and of the outer part of the left foot, with extension to the bones, occurring in a paralytic dement, Fischer employed **argilla (clay)** in the form of a dusting-powder, after the parts had been washed in permanganate of potassium-solution. The results were startling—in 3 days all odor was gone, and in a comparatively short time the feet were well. In another paralytic, argilla brought about, within one week, a cure of an obstinate **facial eczema.** It seemed, however, of no value in chronic nasal catarrh. [D.R.]

4.—**Amyloform** is a chemic **combination of formaldehyd and starch.** It is used in the form of a dusting-powder. Heddaeus has employed it in a number of cases and finds that it is a valuable **antiseptic,** especially in extensive superficial suppurative processes. **Iodoformogen** is an odorless **compound of iodoform and albumin,** containing 10% of the former. It is antiseptic, checks secretion, stimulates granulation, and has a specific action on tuberculous processes. Although probably not capable of replacing iodoform, it comes nearer to it in action than other preparations, and does not have its disadvantages. [D.R.]

5.—Miodowsky used a 5% **orthoform** ointment on a leg-ulcer in a woman of 68, and found that **moist gangrene** developed. Discontinuance of the orthoform, rest in bed, or borosalicylic acid paste brought about a cure. [D.R.]

6.—The chief advantage of the armamentarium briefly described by Wiesner lies in the interrupter. This, the invention of Friedrich Dessauer, is very efficient, and costs but a sixth of the price of that now in use. The complete outfit can be purchased for 480 m. ($120). [D.R.]

7.—Grassberger has studied the anatomic changes produced by the intraperitoneal **injection of market-butter** into guineapigs. Of 20 animals injected 10 presented characteristic changes, consisting in the presence of whitish-yellow, firm masses on the peritoneum. In the early stages these masses are made up of a delicate fibrinous frame-work enclosing remnants of butter and enormous numbers of bacilli. In smear-preparations these bacilli stain red with the tubercle-stain, but in preparations extracted with alcohol and ether for 24 hours, they stain blue. It was not possible, by the inoculation of the peritoneal masses into other animals, to reproduce the disease. In 6 cases cultures made from the masses yielded bacilli that were identical with or intimately related to the organisms described by Hormann and Morgenroth, which, though not resisting the decolorizing action of acids, are pathogenic when injected together with butter into animals. The bacilli are non-motile, grow in all the ordinary media and stain with Gram's method. When only briefly treated with acid, they may retain the red color of the fuchsin, but they never show the acid-resistance of the tubercle-bacillus. Injection of pure cultures into animals is either harmless, or, if large amounts are used, the animals emaciate and die; the bacilli cannot be removed from their bodies. When injected together with paraffin, the animals die and the characteristic masses enclosing bacilli are found. Subcutaneous inoculation of the bacilli in paraffin produced an extensive abscess containing the bacilli in abundance. The injection of butter or paraffin alone into the peritoneal cavity does not produce the fibrinous masses, seen when the injecting substance contains the butter-bacilli. The author was also able, by injecting with the paraffin a bacillus isolated by Kretz from timothy-grass, to produce the same lesions in the peritoneum as are caused by the butter-bacillus. In view of the similarity in cultural, morphologic, and tinctorial features, between the tubercle-bacillus on the one hand, and the butter-bacillus and certain others, found in timothy-grass, in cow-excrement, on the other hand, it is desirable to study them all with regard to their behavior after simultaneous injection of fat or fat-containing bodies. In examining butter for the presence of tubercle-bacilli, the simple injection of butter to be tested into animals, is unreliable—it is necessary to centrifuge the butter after the method of Obermüller. In the author's investigations, made on Vienna butter, no genuine tubercle-bacilli were found. [D.R.]

9.—Alexander, of Abonoteichos, the greatest charlatan of antiquity, lived in the second century of the Christian era. Early in life he wandered about with a traveling doctor, learning from him the preparation of love-philters, magic, and the art of alluring to himself both the sick and the well. His personality was striking; his energy, cunning and perseverance shrank from nothing. During the Antoninian plague he traveled through Macedonia, spreading fear and hope and the rumor that Apollo and his son Asclepios were coming to dwell in him and to found a new oracle. From all parts of the world men hastened or sent to him; he gave general directions under mystic formulæ, and dispensed well-known remedies under fanciful names. A physician of reputation was in his employ and assisted him in the oracles and the preparation of remedies. His income was $15,000 a year, and he died a natural death, in the fulness of honors and wealth. After his demise coins were struck in his memory, some of which have been preserved until this day. Involuntarily, writes Marcuse, the modern charlatanism and quackery comes to mind in reading the life of Alexander. The same methods are still employed, only in another guise, and now, as then, dishonorable members of our calling are found to participate in the fraud. [D.R.]

Sundry French Journals.

1. Urobilinuria and Renal Permeability. Ch. Achard and P. Morfaux. (*Gaz. Heb. de Méd. et de Chirur.*, February 2, 1899. 46me Année, No. 10.)
2. Lesions of the Hepatic-cells in Eclampsia. Bar and Guieysse. (*Gaz. Heb. de Méd. et de Chirur.*, February 2, 1899. 46me Année, No. 10.)
3. The Treatment of Constipation. Soupault. (*Gaz. Heb. de Méd. et de Chirur.*, February 5, 1899. 46me Année, No. 11.)

1.—Achard and Morfaux report the case of a tuberculous subject in whom, at first, there was fever with complete absence of urobilin from the urine. In a second stage of the disease the liver became large and painful, and urobilin and indican appeared in the urine. Still later, the kidneys became involved in the disease, the urine became albuminous, and the urobilin disappeared again, although its chromogen persisted, together with the indican. Finally, when anasarca developed, the albumin increased in quantity and the density of the urine was lower, and the chromogen and indican disappeared. At the latter stage of the disease the administration of phloridzin produced hypoglycosuria, which indicated a defective function of the kidneys. At autopsy the lesions of marked diffuse nephritis with amyloid degeneration, were found; the liver, also, was markedly diseased, and presented fatty and amyloid degeneration. Evidently, in this case, the improvement of the functional activity of the liver is not sufficient to account for the disappearance of urobilin, its chromogen, and indican from the urine. There was no arrest in the formation of pigments because the fecal matter contained urobilin in large amount. The blood also contained urobilin, and urobilinemia without urobilinuria can only be accounted for by supposing that a diseased kidney offers an obstruction to the passage of the coloring-matter into the urine. In order to demonstrate the influence that they consider the **permeability of the kidney** exercises on the passage of **urobilin** from the blood into the urine, the authors have studied the manner in which healthy and diseased kidneys act toward urobilin when the latter substance is injected under the skin. In a healthy subject the subcutaneous injection of 10 cg. of urobilin produced urobilinuria within an hour. In a patient that was suffering from lead-poisoning, accompanied by chronic nephritis and persistent edema, but without albuminuria, and, in another patient, suffering from syphilis and presenting from 2 to 3 gm. of albumin to the liter of urine, a similar injection was not followed by the presence of urobilin or its chromogen in the urine. The blood-serum of the latter patient, on the other hand, contained traces of urobilin. Another experiment was made in which 5 cg. of urobilin were simultaneously injected into a healthy patient, and into a patient that was suffering from very pronounced renal sclerosis, without albuminuria; in the first patient, the urine contained chromogen in an hour after the administration of urobilin. In the second patient, the urine remained unchanged. These experiments seem to show that a dose of urobilin that is sufficient to be excreted by a normal kidney, is unable to overcome the resistance offered by a diseased organ. Furthermore, the last experiment seems to demonstrate that the tissues of the organism are able to bring about the reduction of urobilin and its chromogen. The authors have also studied the comparative diffusibility of urobilin, its chromogen, abnormal biliary pigments and indican. By submitting different specimens of urine to dialysis, it was found that the chromogen of urobilin passed in 6 minutes, indican in 8 minutes, urobilin in 22 minutes, and abnormal biliary pigments in from 30 to 50 minutes. Whether or not one regards the kidney as a simple filter and an inert membrane, it is of interest to know that in the living subject the disappearance of urobilin, then of indican, and finally of the chromogen, conforms exactly to the order of diffusibility indicated by the above figures, and the point may be considered of value in determining the physiology of the organ. [J.M.S.]

2.—Bar and Guieysse made a report at the meeting of the *Société d'Obstétrique de Paris* on **the lesions of the hepatic cells in eclampsia.** The eclamptic liver is characterized by numerous subcapsular and periportal hemorrhages. These hemorrhages, however, are frequently wanting, and there is a certain number of cases in which it is impossible to find a trace of hemorrhage. In such cases very marked cellular lesions are found that cause one to ask if the hemorrhages are not secondary to the cellular lesions. Sections of the liver from such a case show that a large number of hepatic cells are completely degenerated. Under high power, islands of healthy cells may be seen surrounded by a zone of cells that are undergoing fatty degeneration, and by a second zone of cells that are completely necrotic. In two cases the authors have found a special lesion that was characterized by somewhat enlarged cells, the nucleus of which stained readily, and the protoplasm of which appeared to be retracted and granular. The condition resembles closely that found in the seminal gland of the salamander after the injection of toxins. Microscopic examination has shown that the hemorrhagic lesions in the eclamptic liver have been wanting in 6 cases out of 23, hence the hemorrhages may prove secondary. [J.M.S.]

3.—Soupault, after a study of the different forms of **constipation,** gives the following indication for its **treatment.** Accidental constipation should be treated by the use of saline purgatives. In habitual constipation, purgatives ought to be reserved for exceptional cases only, and hygienic regulation and dietetic measures should be employed before all other methods. If by these means the condition is not controled, suppositories and injections, that have for their object the excitation of the sensibility and the contraction of the intestine, should be employed. In all cases, however, the latter preparations should be considered merely as aids, and should never be employed systematically, since their abuse frequently renders the condition worse. After trying these remedial measures thoroughly, if the condition persists, laxatives may be employed. The choice of a laxative is not always easy, and should be made only after taking into account the susceptibility of the patient. The administration of laxatives in purgative dose should be tried with great care. The existence of abnormal fermentation, and the presence of liquid material in the large bowel, are an indication for the use of large intestinal irrigations, that act by producing a true cleansing of the gut. The foregoing statements apply particularly to atonic constipation. In spasmodic constipation the greatest precaution should be used in the administration of purgatives and laxatives. Those that are particularly suitable to this condition are the mechanical purgatives, oily purgatives, and calomel. Although it may seem paradoxical to recommend the use of preparations of opium and of morphin in the treatment of constipation, still they are sometimes useful, particularly when there are very painful crises. Massage and electricity are useful in cases of inveterate constipation of atonic origin. In cases of constipation with spasm, these methods should be used only if they agree with the patient. [J.M.S.]

Practical Therapeutics.

Under the charge of

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of Philadelphia.

Thiocol in Pulmonary Tuberculosis.—Maramaldi (*Therapist*, May 15, 1899) draws the following conclusions from his experience with thiocol in the treatment of pulmonary tuberculosis:—1. Thiocol exerts a beneficial influence not only on functional, but also on anatomic alterations.

2. In advanced cases, in which cavities were present, a more or less considerable improvement was obtained. Those who are still in the early stage of pulmonary tuberculosis may be completely cured.

3. Thiocol acts in the following manner:—The fever immediately abates, and within a few days ceases completely. Night-sweats also cease. (These effects are obtained even in advanced cases.) Cough and expectoration diminish, and then cease. On patients whose sputum shows, under microscopic examination, numerous bacilli of Koch, and elastic fibers, thiocol produces a decrease of both; and when, at the beginning of the cure, bacilli were rare, they immediately disappeared.

4. The pain in the chest, as a rule, very soon disappears. The general state of the patient improves. Appetite is excited. Strength returns.

5. Thiocol has never produced any disorder in the stomach or the bowels. Nay, in some cases in which, at the beginning of the cure, there was some trouble in digestion, it has disappeared under the influence of thiocol. By thiocol it is also possible to relieve the disorder of the bowels. The antiseptic action of thiocol is valuable against intestinal fermentations.

6. The dose to be administered is from 15 to 45 grs. per day. Whenever I have prescribed a larger dose than 45 grs. per day, the patient has always experienced intolerance to thiocol. On this point I cannot agree with Schwarz, who states that he has given as much as 150 to 225 grs. a day. To recapitulate: I am firmly convinced that thiocol is a gem of modern therapeutics and that it is destined to be of great service to physicians in the treatment of pulmonary tuberculosis. Among the patients that have been treated by me with thiocol, those who came in the very *early stage* of the disease, before cavities were present, have been *rapidly cured*. Patients in whom the disease was moderately advanced have likewise rapidly recovered. Of the very advanced cases, many have shown marked improvement, and many patients that I have declined to treat as being too far advanced, but who pleaded so hard for the treatment that I could not refuse, have impressed me by the wonderful improvement they have shown.

No other medicament produces such successful results. I consider myself, therefore, in duty bound to communicate these results to my colleagues, and to invite them to experiment and use thiocol in their practice in treating pulmonary tuberculosis.

[Thiocol is a derivative of guaiacol, but, unlike most compounds of the latter, it is soluble in water. Chemically it is guaiacol-sulphonate of potassium and appears as a white crystalline powder having somewhat the odor of guaiacol.]

Neurasthenia.

℞.—Powdered nux vomica	20 grains.
Iron arsenate	1¼ grains.
Calcium glycerophosphate	100 grains.

Make into 20 capsules. One 3 times a day, after meals.

Picric Acid in Superficial Burns.—Reckett (*British Medical Journal*, May 13, 1899) remarks that it is obvious that an antiseptic which by its mode of action directly promotes rapid healing will give the best results on such lesions as burns and scalds. An artificial scab is at once produced by picric acid consisting of coagulated albuminous fluids, and thus lessens the chance of sepsis. Healing in burns of the first and second degrees take place rapidly without suppuration.

The technic of the method is very simple. The punctured vesicles must be accurately flattened out. No impermeable material must be placed over the simple gauze, which should be dipped in a saturated aqueous solution of the acid and applied after being squeezed fairly dry. Absorbent wool and a light gauze bandage further encourage evaporation, and thus retard the growth of any bacteria which may have gained access to the wounded surface. A pair of thin rubber gloves may be used to avoid the unpleasant staining of the dresser's hands by the acid. Renewal of the dressing need not take place for four or five days, unless there are clear signs of suppuration. The gauze is best carefully stripped off in a dry condition.

In his experience picric acid has not caused toxic symptoms either in children or adults. He ventures to say that a closer examination of the so-called toxic cases will reveal the fact that the symptoms were precisely those of septic absorption so commonly observed in grave burns under any treatment.

The advantages of picric acid in superficial burn treatment may be briefly summed up as follows: (1) Simplicity of application; (2) painlessness; (3) rapidity of healing due to—(*a*) epidermistation, under scabs, (*b*) a favoring of epithelial growth, (*c*) a minimum of suppuration; (4) absence of local irritation or of general toxic effect; (5) a smoother, more natural cicatrix than that obtained with other methods.

Intestinal Colic.

Spirit of chloroform	½ ounce.
Spirit of camphor	2 drams.
Compound spirit of lavender, to make	3 ounces.

A dessertspoonful every 20 minutes for 4 doses.

—Hare.

The Administration of Somatose.—Joachim (*Pharmaceutische Zeitschrift*, No. 87) has found that patients are often unable to prepare solutions of somatose. The best method of preparing it is as follows: Fill a wineglass with cold water, and then add three teaspoonfuls of somatose, which must be sprinkled on the top of the water. The wineglass should be moved as little as possible, so that the somatose remains on the surface of the water. After a few hours the solution is ready for use. The quantity required during the day is best prepared the evening before. The three teaspoonfuls of somatose is sufficient for the day. In the morning a third part may be taken with milk, at lunch, and later at dinner; the remaider should be mixed with soup or porter.—*British Medical Journal*, January 14, 1899.

An Antiseptic Powder for Typhoid Fever.

℞.—Benzonaphthol	6½ drams.
Powdered charcoal	½ ounce.
Pancreatin	80 grains.

Make into 50 powders. Four to 6 powders a day.

—Huchard.

Lumbar Puncture in Meningitis.—J. Madison Taylor (*Therapeutic Gazette*, April 15, 1899) reports 4 cases of meningitis in which much relief was obtained from lumbar puncture. The writer concludes that when there are marked symptoms of intracranial tension imperiling life in many directions, not the least of which is the interference with sleep and the nutritive processes, lumbar puncture seems a useful and safe procedure. It is an operation which any competent medical practitioner can perform, the dangers being few, and almost no evidence is adduced to show that damage has resulted. Distinct relief can be expected to follow in many instances, though the testimony of observers varies.

Methylene-Blue.—Lemoine (*Bulletin Général de Therapeutique*, April 15, 1899) gives an interesting account of the employment of methylene-blue as a drug. He alludes to the discovery of Ehrlich that its administration causes a selective staining of the axis-cylinders and nerve-cells in living animals, and the further experiments of Combemale, 1891, establishing the occurrence of paralysis when the drug is persisted in, and which is attributed by him rather to methemoglobinization of the blood than to the local influence on the nervous system.

It was in sciatica that Lemoine originally tried the effect of methylene-blue, having first assured himself of a pure sample, and with unexpectedly promising results.

Methylene-blue rapidly effected the disappearance of pain in ⅘ of the patients, and oddly enough most conspicuously in those cases in which distinct alterations were present in the nerve. Some forms of neuralgia proved refractory, but rarely neuritis. In sciatica the pain commenced to subside in 24 hours, though in severe cases the dose might need to be increased to 50 centigrams daily.

Lasting cures were effected in obstinate cases of migraine and of trigeminal neuralgia, 30 to 60 centigrams being administered in divided doses during the day.

In two cases of zona the intense pain ceased in the space of 6 days with the smaller dose, the vesicles drying up rapidly.

The lightning-pains of tabes dorsalis appeared but slightly relieved by the drug, but the abdominal cases were markedly benefited by doses of ½ a gram to 1 gram in the 24 hours, given for 3 days, and renewed, if necessary, after 2 days' interval. At the same time the gait was improved.

Lemoine refers to 3 cases of angina pectoris published in the *Nord Médical* in 1895, and which recovered under this treatment. One instance was in a hysteric woman, another in an alcoholic subject with changes in the aorta, whilst the third was a typical angina developing in a man with vascular sclerosis. Baude d'Arras has since successfully treated two other cases in the same way.

Boinet and Trentiquan of Marseilles have established the efficacy of methylene-blue in intermittent fever in 6 cases, 50 centigrams of the *pure* substance being administered daily. Thayer, in America, has substituted this remedy for quinin sulphate, both in acute and chronic cases. Moncorco of Rio and Rouvier of Beyrouth, as well as those who tried the drug in Madagascar, have found it effectual in grave forms of paludism, rebellious to quinin, and valuable in removing the after-effects, such as the enlargement of liver and spleen.

In diabetes methylene-blue appears to act somewhat in the same manner as antipyrin. Marie and Le Goff, in the *Annales*, August 22, 1897, cite the case of a man, aged 45, passing 40 grams of sugar daily during a period of eight years, whose urine ceased to contain any sugar after treatment with this drug in doses of 60 to 120 centigrams for six weeks. A still more striking case associated with albuminuria is cited by Estay in the *Bulletin Thérapeutique*, July 15, 1898, and several other instances were communicated to the Congress of Medicine of Montpellier by Lemoine.

The drug applied locally diminishes the pain of gonorrhea and cystitis, and has proved very successful when administered in cases of rheumatism, either simple or gonorrheal. Methylene-blue appears to have properties similar to those of antypyrin and soda salicylate, and is best administered in pill, with about half its weight of powdered nutmeg, and in doses of 1 to 6 grains three times a day.—*Treatment*, May 11, 1899.

Internal Treatment for Acute Urethritis.

℞.—Solution of potassa	1 dram.
Balsam of copaiba	1 ounce.
Oil of gaultheria	10 minims.
Extract of licorice	½ ounce.
Saccharin, q. s.	
Mucilage of accacia to make	4 ounces.

A teaspoonful every 2 or 3 hours.

—Lydston, *American Textbook of Genito-Urinary Diseases.*

Irrigation of the Stomach in Infants.—Jacobi (*New England Medical Monthly*, May, 1899) gives the following directions for irrigating the stomach in children suffering from acute indigestion with fermentation: The irrigation of the stomach meets with difficulties in few instances only, with almost none in infants and children, in whom a catheter No. 25 or 30 French is sufficient. In the adult the post-laryngeal region may offer an occasional obstacle, which, however, is overcome by patience. When the pharynx is too irritable, or the patient refractory, the tube may be introduced through the larger, mostly the right, nostril. When it does not readily pass into the esophagus the patient should be made to swallow, when it will glide down. Salt-water solution of 7 : 1000 may be run through it from a funnel or a fountain syringe which is slightly raised above the level of the pharynx, and lowered when the fluid and stomach-contents are to flow out. This salt water may be mixed with a disinfectant, say thymol, 1 : 3000 or 4000, or, in cases of hyperacidity, with bicarbonate of sodium 1 : 200–500. The temperature should be that of the body when this is normal, somewhat or considerably cooler when there is a high elevation, or warmer when there is a reduction of the body-temperature. Alcohol should not be added to the injection, because its dilution is partly absorbed by the stomach. On the other hand, when water is injected without salt, it causes osmosis of the body-fluids into the stomach sometimes to such an extent as to visibly increase the amount returning from the stomach. The irrigations should amount to 100 and more ccm. in the nursling, 200 or 300 in the child, 500 or 700 in the adult. They should be repeated until they return clear. The tube should always be withdrawn quickly so as to avoid irritation of the fauces.

Uncontrolable Vomiting.

℞.—Menthol	2 grains.
Cocain hydrochlorate	4 grains.
Alcohol	2 ounces.
Sirup	1 ounce.

A small teaspoonful every half hour until several doses are taken. —*Journal des Practiciens.*

Cimicifuga in Tinnitus Aurium.—Robin and Mendel (*Therapist*, February 15, 1899) have obtained good results from cimicifuga in tinnitus aurium. The effects were noted in three days. Bishop (*North American Practitioner*, January, 1899) also recommends cimicifuga for noises in the ear, and states that the drug is especially useful in the tinnitus accompanying hypertrophic otitis media. The dose is 20 to 30 drops daily.

Pyopneumothorax Treated by Estlander's Operation.—J. P. Kimball (*Yale Medical Journal*, April, 1899) reports the case of a private in the United States Infantry who received a wound from a Mauser bullet in a fight near Santiago. The bullet entered the outer surface of the left arm, passed through the biceps near its center and escaped from the inner surface of the arm, entering the left side of the thorax, fracturing the fourth rib in the axillary line and perforating both lungs and escaping from the right side of the thorax beneath the fourth and fifth ribs in the postaxillary line. The flesh-wound healed by first intention; the wound of entrance with the fracture of the rib was followed by pyopneumothorax of the left pleural cavity. A drainage-opening was made in front and 22 days later a second opening below the angle of the scapula. The lung collapsed, leaving a large cavity which held 38 ounces of fluid. One month after the second operation Estlander's operation was performed, the incision extending from the left nipple down to the tenth rib and back to the fourth dorsal vertebra; a flap was raised and the fourth, fifth, sixth, and seventh ribs resected. The cavity was irrigated every other day with hot saline solution and dry dressing was applied, and it has gradually contracted until it holds barely an ounce of fluid. The patient is in good condition, but suffers from great dyspnea on exertion. [M.B.T.]

The Frequency of Contracted Pelves in the First One Thousand Women Delivered in the Obstetric Department of Johns Hopkins Hospital.—J. Whitridge Williams (*Obstetrics*, May, 1899) urges that pelvimetry be made an integral part of the examination of every pregnant and parturient woman, and states that any one regularly pursuing this course will be amazed to find how many contracted pelves exist. After a careful study of 1,000 cases cases at Johns Hopkins Hospital, he has reached the following conclusions: (1) In our material the frequency of contracted pelves (13.1%) corresponds very closely with the general average of frequency observed in Germany; (2) this is due, in large part, to the presence of a large black population in Baltimore, 469 out of our 1,000 cases being colored women; (3) contracted pelves are 2.77 times more frequent in black than in white women, and occur in 19.83% of the former and 7.14% of the latter; (4) the statistics of Reynolds Crossen and myself indicate that contracted pelves are observed in about 7% of the white women of this country, or about once in every 14 cases; (5) contracted pelves, accordingly, occur in our white women about as frequently as in many German clinics, notably Rostock, Breslau, and Basel; (6) and occur quite as frequently as in Paris (Pinard and Budin), and more frequently than in Vienna; (7) as every fourteenth white and every fifth colored woman possesses a contracted pelvis, the necessity for routine pelvimetry becomes apparent. [W.K.]

Original Articles.

HE EFFECTS OF VIOLENT AND PROLONGED MUSCULAR EXERCISE UPON THE HEART.[1]

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AND

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THE following observations are based upon an ex- nination of the contestants in the recent Marathon ce given under the auspices of the Boston Athletic ssociation, April 19, 1899.

Our thanks are due to the Governing Committee of e Association, and to Mr. John Graham, its athletic anager, without whose assistance the investigation ould have been impossible; also to the athletes them- lves who, with one or two exceptions, lent their cor- al cooperation.

A Marathon race is a road-race, corresponding in stance and conditions to the course from Marathon Athens. It was instituted at the ancient Olympic mes in commemoration of the performance of the essenger who ran from Marathon to Athens after the eat battle, to announce the victory of the Greeks. his race was revived at the recent Olympic Games in 96, and the course was laid out from the town of arathon to the Stadium in Athens.

Since 1896 an annual Marathon race has been given the Boston Athletic Association. The course ex- nds from the town of Ashland to the Club House in ston, a distance of 25 miles, over smooth roads, up d down several hills, many of which are both steep d long.

The conditions are such that the contestant must ver the distance without the aid of other locomotive wer than his own. He can walk or stop if he so cts, but he can receive no locomotive assistance. e winner is the contestant who performs the distance the shortest time. Each contestant, in case of acci- nt, is accompanied by a member of the ambulance ps of one of the militia regiments, mounted on a ycle. In relief of possible apprehension I would in advance that no accident occurred in the present e except to a member of the ambulance corps, whose ycle collided with a dog.

he weather on the day of the race was pleasant, but easterly wind, which was a head wind, greatly im- led the runners. There was considerable dust. The an temperature of the air was 44° F.

he time made by the winner was 2 hours 54 minutes 38 seconds, about a minute less than the Athenian record, but 12 minutes more than the Boston Athletic Association record of last year. The time of the winner thus averages a little better than a mile in 7 minutes for the 25 miles, from which it can be seen that he did not avail himself of the privilege of walking or resting to any considerable extent.

The physicians associated with me in the examination were Dr. H. D. Arnold, Out-patient Physician to the Boston City Hospital; Drs. H. S. Dearing and H. W. White, of St. Elizabeth Hospital, and Dr. E. C. Stowell, Physician to the Boston Dispensary, all of Boston, and all members of the Department of Clinical Medicine in the Tufts College Medical School. We are indebted to Drs. A. E. Austin and L. H. Coriat for the urinary analyses, and to Dr. Batchelder for the examinations of the blood.

PRELIMINARY EXAMINATIONS.—Prior to the race preliminary examinations were made upon the athletes in training, before and after long practice-runs. The results of these examinations, apart from their enabling us to arrange a program of procedure to be adopted on the day of the race, were interesting in themselves.

Blood-counts were made of two runners before and after long practice-runs, with the following results:

BLOOD-COUNTS.

No. of Runner.	Distance.	Before.	After.	Remarks.
1	10 miles.	6,700,000	6,000,000	Peripheral anemia.
4	5 miles.	5,050,000	5,716,000	Peripheral hyperemia.

The temperature of No. 1, before the run, was 97.5° F., and after the run, 97°. From these combined observations it was concluded that the athlete was approaching the condition technically known as "staleness," *i. e.*, a condition of reduced bodily vigor, and the man was advised to temporarily refrain from further practice-running, and to partake of more carbohydrates in his food (his diet having been largely albuminous), with the result that on the day of the race his initial temperature was 98.2°, and that he was one of the winners of the race.

This fact goes to show the value of medical supervision in cases of this nature, as it is safe to say, in view of the facts to be described, that if this contestant had entered the race with a temperature of 97°, he would have been unable to complete the distance in the time accomplished.

As a result of these preliminary examinations a uniform method of procedure was decided upon. It was further decided that the blood-counts did not justify the labor and difficulties involved. They were accordingly abandoned.

THE RACE.—In the race itself there were 17 entries; 14 completed the distance. Notes were taken of 13. The contestants were examined in Ashland during the

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ead before the American Climatological Association, New York City, May 399.

hour and a half preceding the race, and in Boston during the first few minutes after the race. The history was taken of 11 who finished. The oldest was 28, the youngest 19; average age 22. The parents of all were living, with a single exception. The occupations of the contestants were, clerks 4; plumbers 2; blacksmith 1; oiler 1; printer 1; steward 1; cigar-maker 1. Four had had scarlet fever; 1 typhoid; none rheumatism. Nine drank tea; 5 coffee. Three use tobacco (one a cigaret-smoker). None use alcohol. Eight were of neurotic temperament. Three had competed in Marathon races before. For two men it was their third competition.

Training.—The training was noted in 14 contestants. Maximum, 7 months; minimum, 2 weeks; average duration, 2 months. With the single exception of an athlete who trained 4½ weeks, it may be said that those who trained under 2 months were least successful in the race. The training in all cases consisted of a mixed diet, with increased albuminoids and decreased carbohydrates, and practice-runs three or more times a week. One of the men was taking strychnia; one ate apples on the way. One man who had been training but two weeks dropped out.

Physical Examination.—*General inspection* was altogether favorable. Each contestant appeared a healthy, vigorous young man. After the race the general inspection showed a greater or less exhaustion in every case. Three were dazed and confused; 1 cyanotic; 1 of an ashen color. Three had to be carried to the examining room.

The Pulse.—The radial pulse was taken before and after the race in 10 individuals, after the race in 13.

PULSE.

	Number of Athlete.[2]												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Before . . .	72	. .	. .	70	80	72	72	78	85	88	. .	80	88
After . . .	120	120	104	108	120	112	120	70	60	112	112	106	108

Nos. 8 and 9, showing the lowest pulses, were the most exhausted men; in No. 8 it was intermittent, in No. 9 irregular.

Before the race the pulse was strong in all. After, it was very weak in all; in 1 the radial could not be felt for several minutes after the finish; in 1 it was intermittent.

Temperature.—The temperature was taken in the mouth before and after the race in 11 cases. After, alone, in 3.

The temperature in the following table marked 94–° show that they were below 94°. The thermometer employed (registered Yale) only registered temperatures above 94°. This complication of extremely low temperatures was not foreseen; otherwise another would have been provided. It would be of great interest to see how low it might go in these similar cases.

	Number of Contestant.												
	1	2	3	4	5	6	7	8	9	10	11	12	13
Before . . .	98.2°	.	. .	99.4°	99.6°	98°	99.4°	99.4°	99.6°	100°	. .	99.8°	100
After . . .	94– °	97°	94 6°	94.5°	94°	94–°	97–°	94– °	94– °	95°	94–°	97°	98

Respirations.—The respirations were noted in eleven cases.

RESPIRATIONS.

	Number of Contestant.										
	1	2	3	4	5	6	7	8	9	10	11
Before	20	. .	. .	24	24	24	26	20	24	24	. .
After	26	40	34	24	36	32	40	36	28	32	30

The weight was noted in ten cases.

WEIGHTS.

	Number of Contestant.												
	1	2	3	4	5	6	7–8	9	10	11	12	13	14
Before . . .	160½	. .	. .	117	125	126	143	115	139	. .	116	133½	134
After	155	. .	. .	112½	122	122	139¾	112½	135½	. .	114¾	132	127½
Loss	5½	. .	. .	4½	3	4	3¼	2½	3½	. .	1¼	1½	6½

Urine was examined before and after in 6 cases; after, alone, in 1. It showed the presence of albumin and casts in every case after the race.

URINE.

	Number.						
	4	5	7	8	9	10	13
Before.	Albumin, trace; occasional blood-corpuscles.	Normal.	Normal.	Large trace.	Normal.	Trace; blood-corpuscles.	. . . .
After..	Albumin, $\frac{1}{10}$ %; casts.	Albumin, a trace; casts.	trace; numerous casts.	$\frac{3}{8}$ % albumin; casts.	A trace; casts.	Same; with numerous casts.	A trace casts.

Examination of the Heart.—Inspection of the chest before the race was made in 13 cases. The points looked for included bulging of the chest-wall, abnormal pulsations, right ventricular heaving, retraction of the intercostal spaces, carotid and jugular pulsation, and the position and diffusion of the apex-beat.

Bulging was noted in 9 cases, and consisted in a relative projection of the left costal cartilages of the fourth and fifth ribs as compared with the right. Other abnormities were absent with the exception of slight visible pulsation of the carotids behind the angle of the jaw in 2 cases, and slight epigastric pulsation in 1. In both these points were attributed to thinness and excitement. Inspection of the chest after the race was made in 11 cases. Carotid pulsation was noted in 8; jugular pulsation in 1; diffuse epigastric in 1.

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[2] The numbers of athletes in these tables are not the race numbers, but are arbitrary numbers used instead of names to distinguish the athletes. In all the tables these numbers correspond.

Palpation.—Palpation before the race was noted in 9 cases. The force of the apex-beat was described as thrusting in 7; normal in 1; diminished in 1. The force of the impulse projected the left costal cartilage in 1. There were no thrills. After the race the apex-beat was noted in 5 cases: thrusting in 1, ticking in 2, and weak in 2.

Percussion.—By percussion we attempted to show the area of relative cardiac dulness, first as compared with the normal chest, and second in order to compare this relative area in each individual before and after the race. The freedom of the chest-walls from adipose tissue rendered this examination easier and more exact than in the cases of ordinary men.

The method employed consisted in marking out the area of comparative dulness on the chest with water-color paint, after which a tracing was made upon tracing-paper. The paint was then removed, so that no lines remained on the chest to bias the judgment on the second examination. As this relative area differs so much in the percussion of individual examiners, each case was percussed in the " Preliminary Examinations " by 3 examiners, and the results compared.

A reduced photograph of the superimposed tracings of 3 examiners upon one of these athletes shows how closely these observations coincided, and demonstrates the accuracy of percussion in a thin chest with an hypertrophied heart.

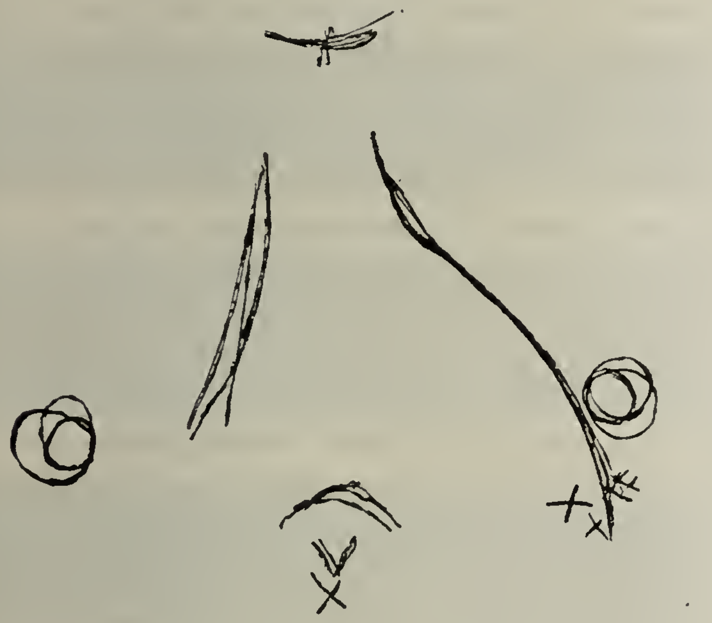

Plate I.—Reduced photograph of the superimposed tracings of three examiners, showing area of comparative dulness.

This method was found to consume so much time that at the race each runner was percussed by only 1 examiner, in each instance the same examiner making the observation before and after the race. In view of the fact of the close agreement in the percussion-dulness obtained by the 3 examiners, the constancy of enlargement is striking.

Thirteen examinations by percussion were made before the race; 10 of these after the race. Of the 13 made before, 11 showed the area of comparative dulness relatively large as compared to the normal heart. Two showed a diminished or normal area These two showing the normal or diminished area did not finish.

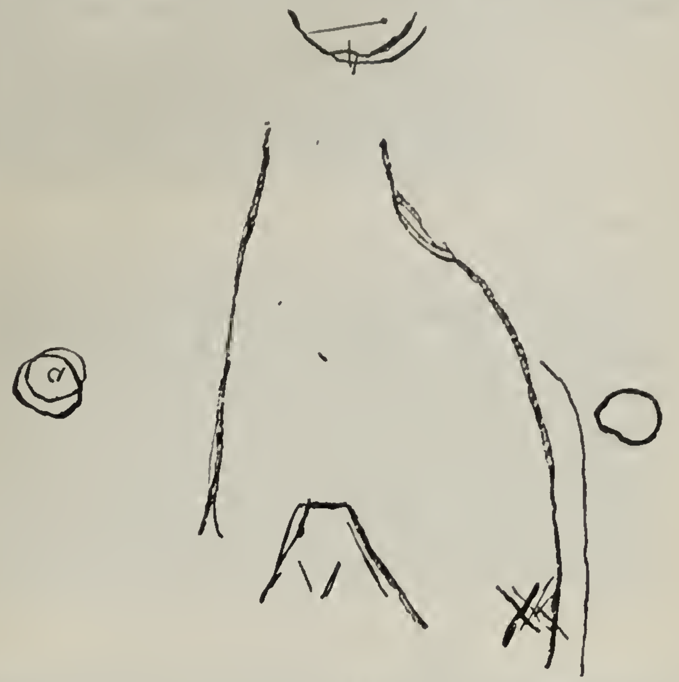

Plate II.—No. 12. Before and after. (Outside lines, after.)

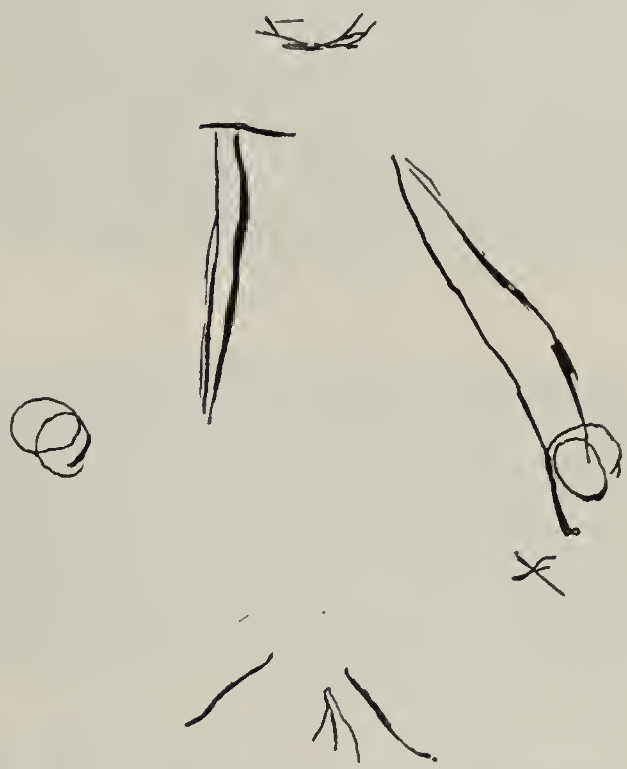

Plate III.—No. 5. Before and after. (Outside lines, after.)

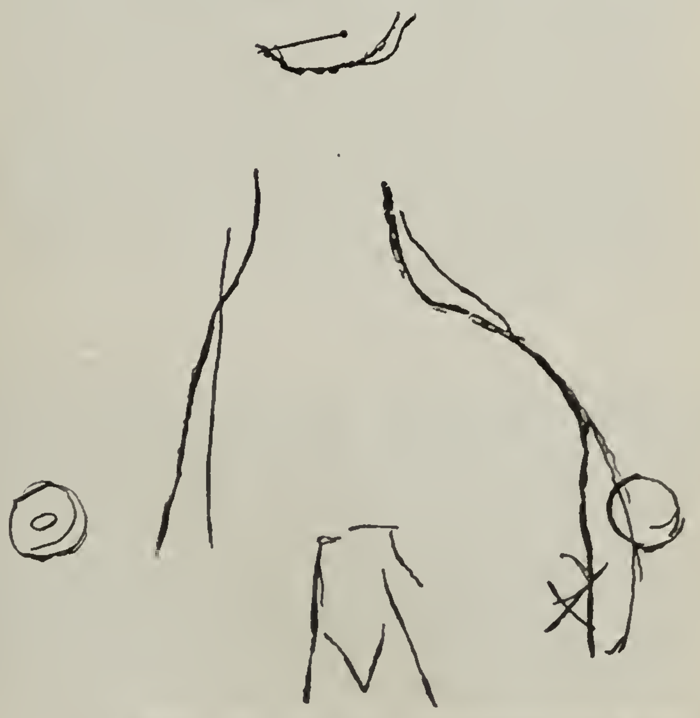

Plate IV.—No. 6. Before and after. (Left outside lines, after.)

One showed a relatively large area, but started with a temperature of 99.8°, and had a sore throat. He did not finish.

Of the 10 observations made before and after the race, 7 showed a relative increase of the cardiac dulness extending chiefly to the left, and corresponding to the position of the left ventricle, while two showed a decrease of the area of dulness in the same position. One showed nothing.

A comparison of the percussion-areas of one of the best with one of the poorest men, the men weighing the same, was made. The man with the smaller area had only trained 3 weeks. He dropped out after running a few miles.

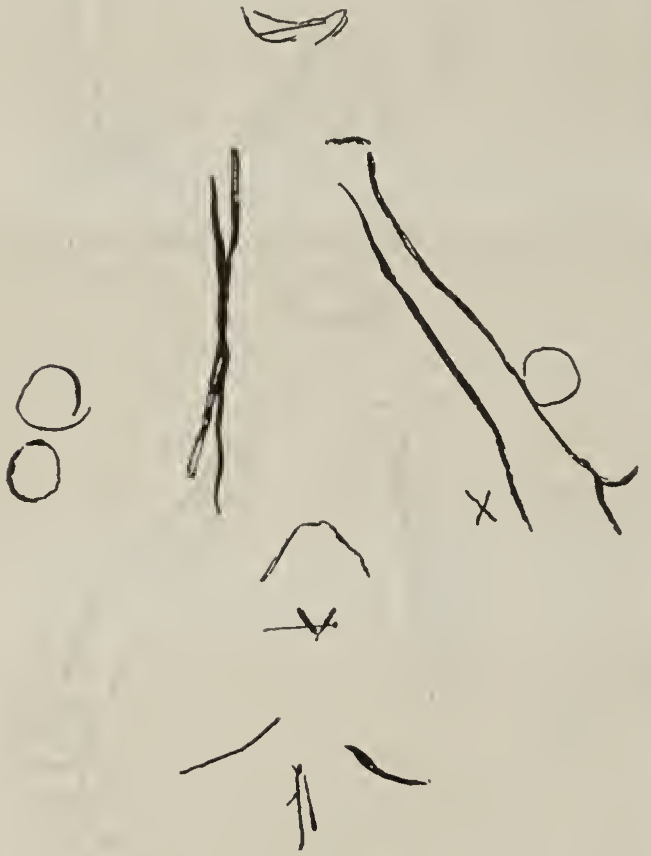

PLATE V.—Comparison of area of dulness of winner with one of the unsuccessful.

AUSCULTATION.—Auscultation was practised in 11 both before and after the race, in 13 in all after the race. The heart-sounds were found normal in all examined previous to the race. They were unusually loud and full in all. As those who were not examined before the race succeeded in accomplishing a run of 25 miles, it would seem evident that their hearts were normal at the start, and that for the purposes of comparison the 13 cases should be considered together.

After the race, auscultation was practised with the binaural stethoscope immediately on the arrival of the men. They were brought to the examination-room in the elevator, and examined as quickly as their clothing could be removed from the chest. The heart-sounds in all were weak. Of the 13 men so examined, in 2 there were no murmurs. In 11 cases murmurs were noted. In all cases murmurs were systolic in time, and their point of greatest intensity was at the base, slightly to the left of the sternum in the second interspace. They were in all instances transmitted downward to a greater or less extent in the line corresponding to the left border of cardiac dulness. In 6 cases this murmur was transmitted to the apex, in all of which it was heard in the back, between the left scapular angle and the median line. Accentuation of the pulmonic second sound was sought for, but was not distinguishable in any case, probably due to weakened action of the heart. These murmurs were ephemeral in character, and in all instances disappeared before the athletes left the examining-room.

SPHYGMOGRAPHIC TRACINGS.—Sphygmographic tracings were taken of 10 before and after; of 13 after the race alone. If the capability of running 25 miles can be regarded as proof of a normal heart at starting, these 13 tracings can be considered together. The tracings before the race, considered as a whole, showed a series of strong regular pulses of high arterial tension. This was marked in 8; less marked in 1, whose tracing shows rather a low tension than otherwise; and exceedingly low in another, who had been taking strychnia.

The 13 tracings taken after the race show exceedingly low tension in 10. Four of the tracings correspond with the pulse of mitral regurgitation. In all these cases the murmur above described was heard. In one there is a suggestive mitral regurgitation-tracing, but no murmur. This man did not complete the whole distance, but came in on a car. Possibly the murmur had disappeared before he presented himself for examination one hour after he stopped running.

SUMMARY.

It is to us a source of regret that we cannot enter into the discussion of the tables in the limited time at our disposal. They are introduced here for the twofold purpose of completing the report and showing the exhaustion of the men. Had the time been longer, it would have been of interest to have pointed out how greatly these results are at variance with the conventional statements of the textbooks. For example: It is stated that the temperature of the body is raised during exercise (American Text-Book of Physiology). We found it invariably lowered, varying from 5½° to 2°. Albumin in the urine is spoken of as physiologic—we find it invariably associated with casts, thus forcing the conclusion that casts are in some instances physiologic, or that this albuminuria may at times exceed the physiological limits. We are told that prolonged muscular exertion "enormously increases the blood-pressure in the arteries" (see Osler's Practice of Medicine, p. 736), whereas in the foregoing observations it is enormously decreased.

The results of these observations taken collectively show that general statements made in regard to the effects of muscular exercise may be misleading unless the character of the exercise and the condition of the individual are taken into consideration.

That the effects as stated do result in individual cases, under certain circumstances and conditions, undoubtedly is true, but the logical fallacy of arguing from the particular to the general is in no way more strongly emphasized than in regard to these conclusions drawn with respect to the effects of muscular exercise upon the heart.

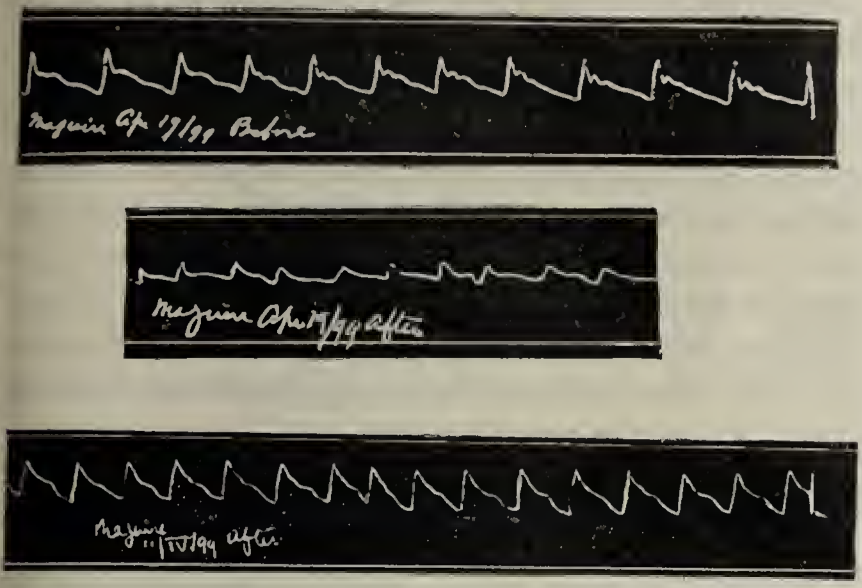

Plate VI.—Sphygmograms of No. 4. 1. Before race. 2. After race. 3. After five miles' practice run.

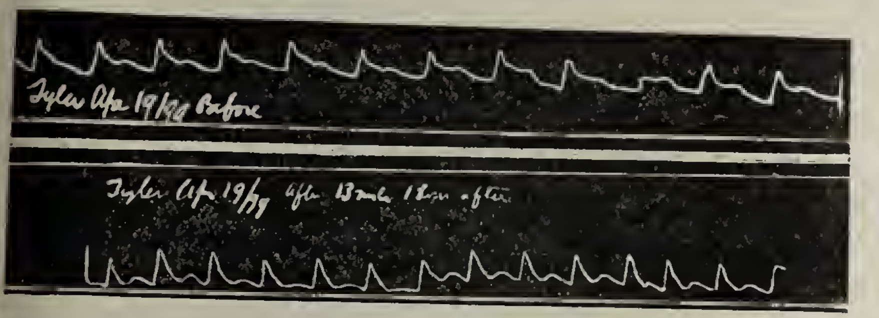

Plate VII.—Nos. 1 and 7. Dropped out. Suggestive mitral sphygmogram.

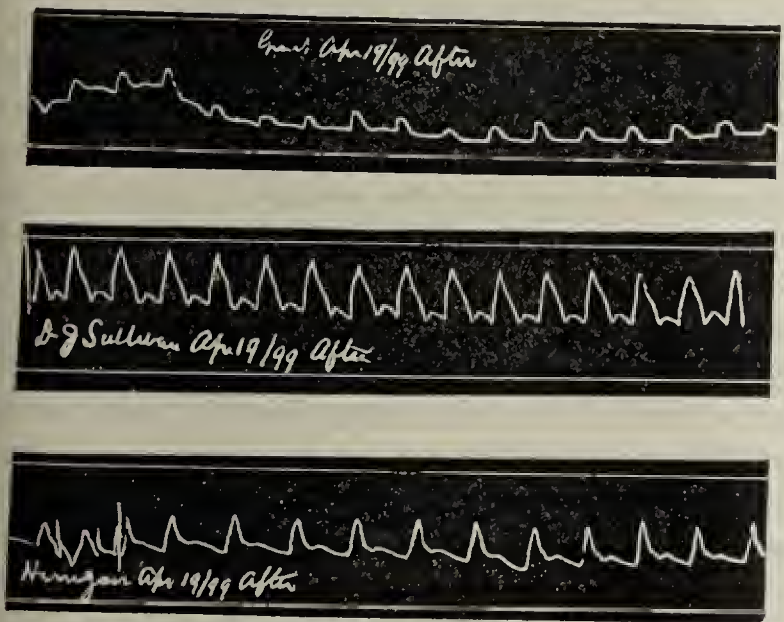

Plate VIII.—Nos. 2, 7 and 11. After race, showing low arterial tension

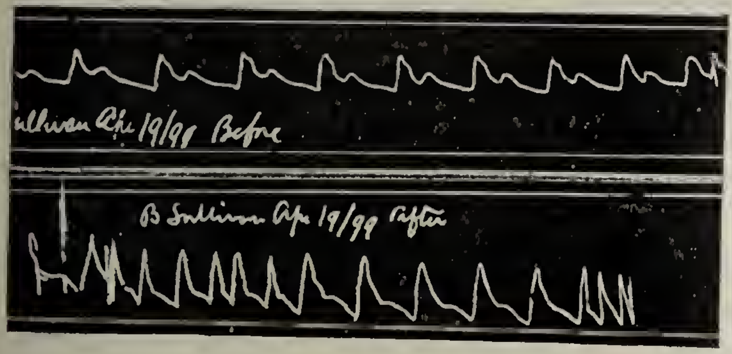

Plate IX.—No. 3. Before and after.

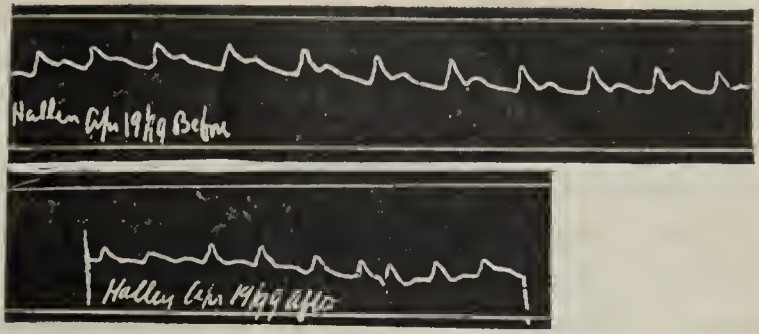

Plate X.—No. 5. Before and after.

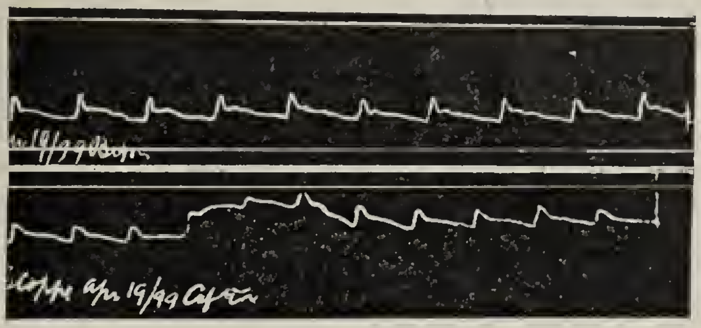

Plate XI.—No. 6. Before and after.

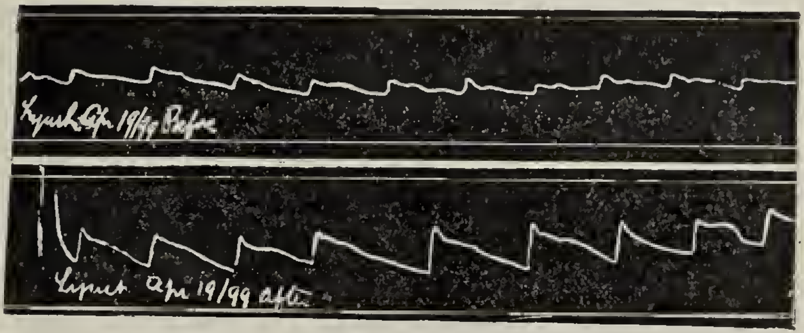

Plate XII.—No. 8. Before and after.

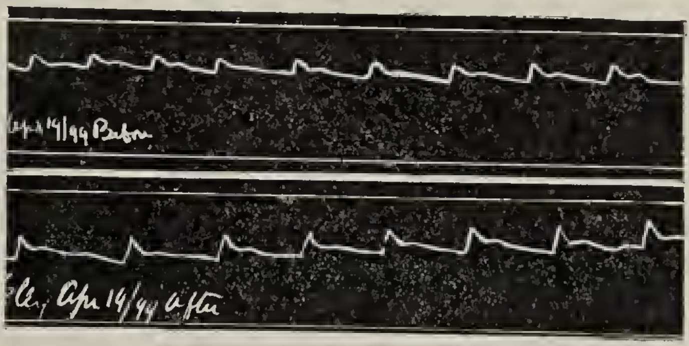

Plate XIII.—No. 9. Before and after.

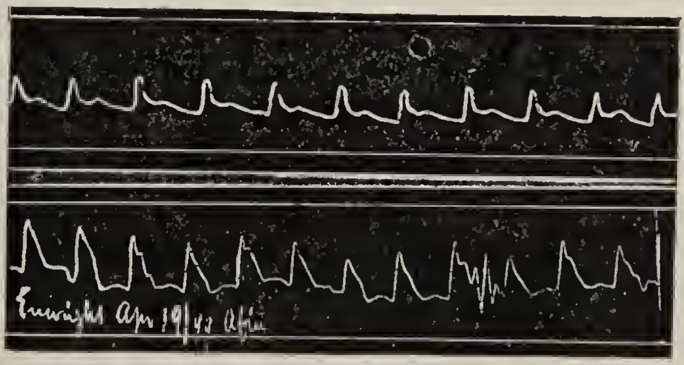

Plate XIV.—No. 10. Before and after.

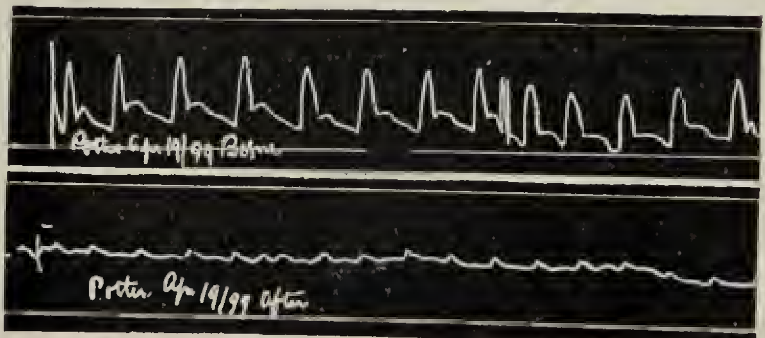

Plate XV.—No. 12. Before and after.

The conditions existing in the case of a middle-aged sedentary man ascending a mountain, and a carefully prepared athlete running a 25-mile race, are no more similar than are those existing between a new and strong pump subjected to extremes of varying pressure, and one which performs its monotonous but temperate function with a worn and leaky valve. In judging the effects of exercise upon the heart every participating individual and every form of exercise should receive special consideration.

The case of No. 4, Plate VI, compared after a practice-run and after the race, is an excellent illustration of this truth. After a practice-run of 5 miles he showed a temperature of 98°, pulse 100, respiration 32, a faint trace of albumin and a sphygmographic tracing of high arterial tension. After the race he showed a loss of 4.9° in temperature and of 4½ pounds in weight, respiration 24, $\frac{1}{10}$% of albumin with numerous casts, and a pulse of 104 and of exceedingly low tension.

One of the most interesting of the conclusions of the examination is the evidence of the preparatory enlargement that the heart undergoes, showing the truth of Osler's statement that "no man becomes a great runner or oarsman who has not naturally a capable if not a large heart." This hypertrophy was shown in these cases by the bulging left intercostal cartilages; the thrusting force of the apex-beat; the enlarged percussion-area; the booming heart-sounds; the high arterial tension, and the increased area of cardiac dulness.

In drawing conclusions from the data given, remembering also that we are solely considering the effects of long-distance running upon the heart of healthy and strong men, and freeing our minds from preconceived notions and theories, the whole result of the examination can be summed up as showing an extreme condition of general muscular exhaustion. In this condition the heart, a muscular structure, participates with the other muscles. Its muscular valves, the mitral because of their most essentially muscular structure, are the first affected, and soonest fail to perform their function, thus permitting regurgitation of the blood into the left auricle. When this regurgitation is extreme, it may even go so far as to lead to backing up of the blood sufficiently to cause stress upon the right heart, *vide* the jugular pulsation which was present in one of the cases (No. 9, Plate XIII).

In regard to the timing and placing of the murmurs heard in the position named, the anatomic situation of the heart-valves must be borne in mind. Anatomically the periphery of all these valves can be included in the circumference of the large mouthpiece of the ordinary stethoscope. Anatomically the semilunar, the mitral and the pulmonic are included in a still smaller circle, and the value of faint murmurs heard in the second left intercostal space must be judged by their transmission by the blood-currents and such other favorable sound-conductors as the hypertrophied muscular tissue of the left ventricle and the residual blood in its dilated cavity. The conduction of these murmurs heard in this position in the direction of the hypertrophied left ventricle and their systolic synchrony; the fact that in some instances they were conducted to the apex; that they were heard in the back; together with the increased dulness over left ventricle showing slight dilatation, and the sphygmographic corroboration afforded in the 5 cases would seem conclusive evidence that the common-sense explanation of what happened in these 14 tired and exhausted hearts was muscular incompetence of the muscular mitral valve, which was physically unable to perform its function, because of its participation in the general muscular weakness. Another significant fact was that those winning first and second place had no murmurs, showing a greater relative muscular vigor of the heart.

In corroboration of this view the researches of Hesse are of value. Hesse has shown that during diastole the mitral orifice is too large to be closed by the mitral valves alone. The orifice must first be constricted by the sphincter-like action of the circular muscular fibers around it. Probably with the muscular incompetence of this sphincter there is also associated a muscular incompetence of the left papillary muscles, which muscles are much larger and stronger than those of the right side. Also it is probable that the muscular fibers of the left ventricular wall, which is thicker and stronger than the right, bear their proportionate share in this relative muscular weakness. Indeed it would seem that nature which had constructed this valve after a distinctly more muscular pattern, had provided a physiologic safety-valve for long-continued muscular strain. It is not our intention to enter into the discussion of Drs. Balfour and Russell upon the significance of murmurs heard in the so-called pulmonic area. Suffice it to say that while we agree with Dr. Balfour in his deductions as to the significance of these murmurs, we must agree with Ball, of Philadelphia, in our belief that the anatomic basis of Balfour's deductions founded upon Naunyn's observations is "not proven." In other words, while we regard these murmurs as mitral we do not feel absolutely convinced that they are transmitted by the left auricular appendage. In these cases we believe them to be transmitted by the hypertrophied ventricular wall.

The dictum of Sansom that a systolic murmur heard at the apex and in the back fulfils all the requirements of a mitral organic murmur is a statement upon which we are ready to rest our case. Six out of 11 fulfil all the requirements of authorities as to mitral murmurs. Are we not justified by the premises and by the exactly similar conditions in the conclusion that the five other murmurs are also mitral, differing only in degree?

To sum up the significance of those heart-murmurs, it seems to me conclusive that they are simply to be regarded as the participation of the muscular mitral valves in the general muscular exhaustion.

With respect to the effect upon the individual of such contests, a question we are often asked, we can only say that we do not see how such a contest can be in any respect more injurious than any other form of exhausting muscular exercise, such as long-distance bicycle-riding, swimming and the like. The injurious effects, if any, are due to the supreme stress of the contest and not to the nature of the exercise. Long-distance running under suitable conditions and without the contest should be beneficial rather than otherwise. Personally I regard it with the contest as far less injurious than other practices indulged in by exuberant young men.

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NUCLEAR OPHTHALMOPLEGIA.

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By nuclear ophthalmoplegia is meant an affection in which the muscles of the eyeballs and upper lids are paralyzed by reason of disease of the nuclei of their motor nerves. In other words, it is a disease of the third, fourth, and sixth nerves, located in the nuclei of these nerves in the mid-brain and pons. These several nerves, however, may be unequally affected in different cases, or in the same case at different stages; this is because the disease is insidious and progressive. Hence these cases present many combinations of ocular palsies, from mere paresis of some branches of the third nerve to total and complete paralysis of all the muscles supplied by the three orbital motor nerves.

Recognizing these varieties, Hutchinson, Brissaud, and other clinicians have analyzed and classified these cases. Hutchinson, who was one of the earliest observers, described, for instance, an ophthalmoplegia *xterna*, in which the branches of the third nerve supplying the iris and ciliary body escaped. He insisted hat this was a common form—a claim which has not been entirely supported by other observers. As, however, these branches to the *interior* muscles of the eyes have their separate nuclei of origin, situated far anterior n the chain of third-nerve nuclei, it is quite conceivable hat cases may arise in which these nuclei are either not involved at all, or not until the case is well advanced.

Brissaud, in a critical study of the ophthalmoplegias arising from all possible causes (including not only the nuclear cases proper, but also the peripheral cases, *i. e.*, those caused by trauma, meningitis, etc.), proposed a classification based upon, first, the *extent* of the involvement, and, second, the *completeness* of the paralysis. Thus the ophthalmoplegia is *total* if all the muscles, both exterior and interior, are involved; but *partial* if only some and not all are paralyzed; while the affection is *complete* if the paralysis in the affected muscles is absolute, and *incomplete* if the affected muscles are not absolutely paralyzed, but are only paretic. These distinctions of Brissaud are of some clinical value, and serve a purpose in aiding in the localization of the lesion and even, to a minor extent, in determining approximately its nature. For instance, a *total* and *complete* ophthalmoplegia, *i. e.*, one in which *all* the muscles are involved, and all the involved muscles are *absolutely* paralyzed, points to a nuclear affection of the third, fourth, and sixth nerves. Such a case, however, would doubtless have gone through precedent irregular stages in which one after another of the muscles would have been implicated. A bilateral paralysis of the sixth nerve, without involvement of the third and fourth nerves, would, in Brissaud's classification, fall under the designation of a *partial* ophthalmoplegia, and, if the paralysis of the external recti muscles was absolute, it would be named in addition *complete*. Such an affection would not likely be a nuclear disease, such as here described, but would probably be due to a peripheral or radicular lesion, involving these nerve-trunks as they emerge in close proximity to each other from the pons. On the other hand, a case in which all the muscles of only one orbit were involved (whether these were completely or incompletely paralyzed) would unmistakably indicate a peripheral lesion, because it is highly improbable that a completely destructive process should invade all the nuclei on only one side. Such a case of unilateral, total, and complete ophthalmoplegia has been recorded by the writer. It was found postmortem to be due to a syphilitic neoplasm just back of and even invading the orbit.

Wernicke, regarding the subject rather from the pathological than the mere clinical standpoint, proposed to call the disease in which the nuclei of the orbital nerves are solely involved, superior polio-encephalitis. He believed that the affection was analogous, as a pathological process, to the degenerative disease which sometimes attacks the motor nuclei in the medulla oblongata, and which is usually called bulbar palsy. In this latter disease the muscles of the lips and tongue and those of deglutition are involved. For this bulbar affection Wernicke proposed the term inferior polio-encephalitis. According to this view, these affections are due to a degeneration of motor nuclei, precisely similar to that seen in the spinal cord, and called anterior poliomyelitis. In fact, two of these processes, anterior poliomyelitis and bulbar palsy, are sometimes seen associated in the same patient, but this is not commonly so with nuclear ophthalmoplegia. Wernicke's distinctions and analogies are suggestive and valuable, but his nomenclature is not altogether satisfactory.

Sir Jonathan Hutchinson, whose name is associated with the early history of this subject, believes that syphilis is a potent cause of nuclear ophthalmoplegia, but this contention is hardly supported by all the cases reported.

The peculiar selective action of this disease-process is worthy of special note. The nuclei of the third, fourth, and sixth nerves are anatomically quite distinct, and that of the sixth nerve is located in the pons quite remote from the other two. It is, in fact, much nearer the nucleus of the seventh nerve and the motor nucleus of the fifth than to those of the third and fourth. In spite of these anatomic facts the poison, or whatever it is that causes the disease, selects exclusively as a rule the nuclei of the motor nerves of the eyes. The fifth and seventh nerves escape, and what is even more significant, the optic nerves themselves escape, for there is no affection of sight. Exceptions to this rule, if any occur, probably indicate that the disease in such exceptional cases is more than a mere nuclear disease (for instance, a neoplasm of the cerebellum, pons or midbrain, or a syphilitic lepto-meningitis at the base), and hence, such exceptional cases could not properly be included in the class here described.

The following case is quite a typical example of nuclear ophthalmoplegia, and as such is deemed worthy of special record. The disease is a rare one—so rare that this is perhaps the first, certainly not more than the second case, which has occurred in the extensive service of the Philadelphia Hospital during a period of at least twelve years. The notes are from the record of the case as kept by Dr. J. M. Cruice, resident physician.

The patient, Anne B., is a white woman, a native of Germany, aged 35 years. The family and social history is not significant. The patient is a widow and has borne 2 children. She gives no history of alcoholism, syphilis or tuberculosis. Her general health is good. The urinalysis is negative. In May, 1898, she began to have pain in her right eye, and noticed that it was turned outwards. She allowed the eye to go practically without treatment, and in August noticed that the right eyelid was beginning to droop. This has increased to such an extent that she can now scarcely raise this lid at all. The left eye also gradually developed external strabismus, and on the day before Christmas ptosis appeared suddenly in that eye. Ever since the disease began she has suffered with headache, which is located about the eyes, temples, and root of the nose. The pain has been severe sometimes, and lately has tended to grow worse. During her menstrual periods the headache is worse, and she then has attacks of slight vertigo. There has never been any vomiting nor any convulsive seizures. Her vision is unimpaired. There is no paralysis of any muscles supplied by the fifth or seventh nerves, nor any anesthesia in the distribution of the fifth nerve. She has never been paralyzed in any of her limbs Her hearing is good. Her station and gait are good. She is emotional about herself at times, but she presents no true hysterical stigmata.

An examination of the eyes by Dr. Charles A. Oliver gave the following results:

There is marked divergence in each eye. When attempts are made at convergence there are a series of ataxic movements in right eye. All extra ocular motion is gone except in the left external rectus. When attempt is made to rotate the right eyeball outwards a series of ataxic movements takes place. When looking straight ahead, the left palpebral fissure measures 1 cm. in width at its widest point, in the center; the right palpebral fissure being 6 cm. The left eyeball is lower than the right. The patient is able to lift the right eyelid alone at times, and during this movement the eyeball presents a series of horizontal movements:

O. D. pupil is larger 5 × 6 m.m. long axis at 120°.
O. S. pupil is 4 × 5 m.m. long axis at 110°. (No mydriatic used.)
Tension is normal.
Vision in right eye is ⅓ of normal.
Vision in left eye is ½ of normal.
O. D. with + spherical 2 D. lens, + 1.50 D. type accommodation is 9½ to 10½ inches.
O. S. with spherical 2 D. lens and 1 D. type accommodation is from 7 to 11 inches.
Eyegrounds healthy.

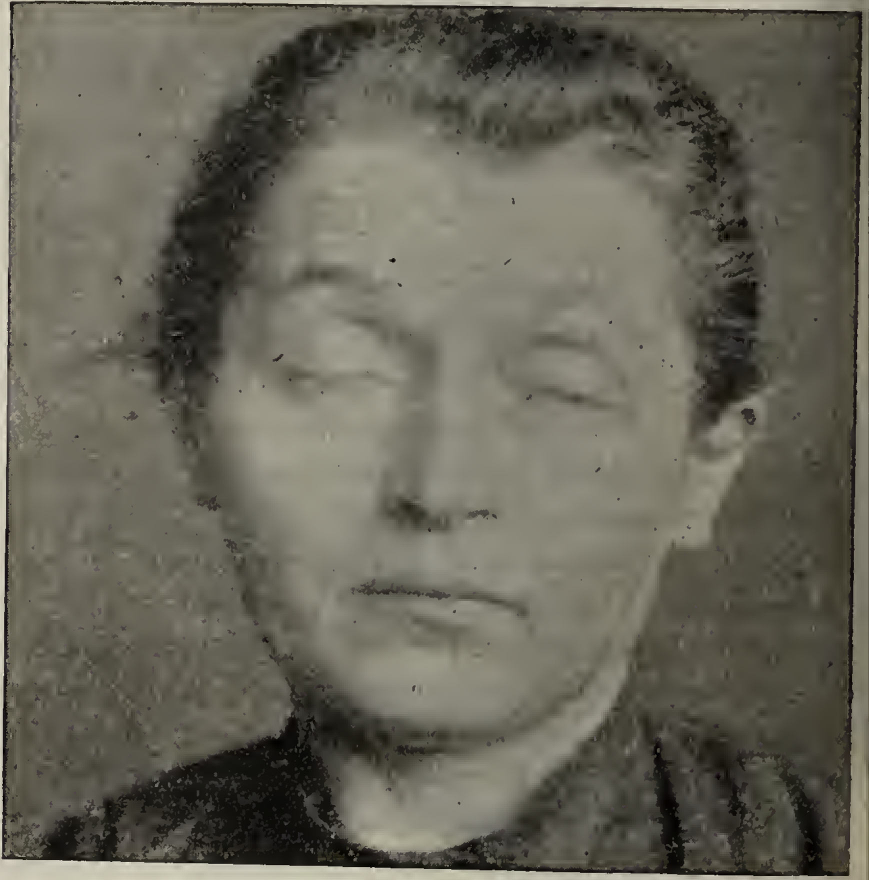


FIG. 1.—Nuclear Ophthalmoplegia.

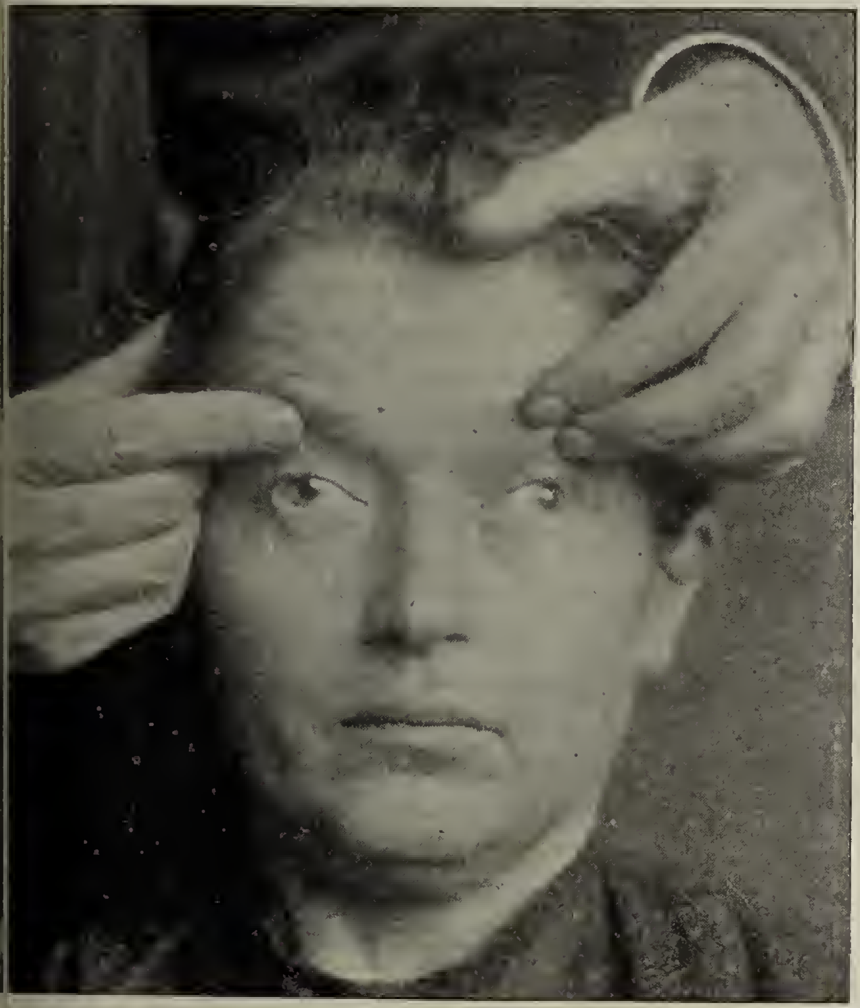
The visual fields are diminished, more markedly so in the the right eye, with a tendency to left homonymous hemianopsia. The lower margin of the left cornea is on a lower level than the lower margin of the right cornea. When the patient is made to fix her eyes on an object in the median line attempts are made to bring in the right eye, while the left eye remains fixed. During the efforts at elevation of the eyelids there is compensatory action of the occipito frontalis, which is more marked on the left side.

The patient's kneejerks are abolished, but she has no fulgurant pains, no ataxia, no swaying with her eyes shut. In other words she has no true tabetic symptoms. Sensation is normal over the whole body.

In making a preliminary report of this case it is necessary to note especially the headache, the tendency to homonymous hemianopsia, and the abolition of the kneejerks.

Headache in such cases is not, I believe, a usual symptom. In the present case its significance is not quite clear. After a whole year's duration there are no positive symptoms of a neoplasm, such as might be suggested. For instance, there is no choked disk, no affection of gait or station, no vomiting, nor any paralysis except in the ocular muscles. The tendency to homonymous hemianopsia is only a tendency, *i. e.*, the condition is not unmistakable. The diminution of the visual fields, without organic changes in the optic nerves, is a little suggestive of an hysterical element, which might well be present in such a patient as a mere epi-phenomenon.

The abolition of the kneejerks is not easily explained. As said already, the patient has none of the ther symptoms of posterior sclerosis—such as fulgurnt pains, ataxia, and swaying with closed eyes.



IG. 2.—Nuclear Ophthalmoplegia. (Upper eyelids supported to show position of eye-balls.)

The treatment has been directed to a possible syphilitic taint, although there is neither evidence nor history of such an affection. Still, following Hutchinson's uggestion of a syphilitic origin for nuclear ophthalmolegia, I instituted active antisyphilitic treatment with inunctions of mercury and large doses internally of the iodid of potash. The inunctions were continued until well-marked salivation was caused, but the symptoms ave not abated. The paralysis of the ocular muscles nd the headache remain unchanged.

It is hoped that the case can be kept under continued observation, and that this preliminary report can e supplemented in the future, especially if the clinical manifestations undergo any change.

ON TABES.[1]

BY M. ALLEN STARR, M.D., PH.D.,
of New York City.
Professor of Nervous Diseases, College of Physicians and Surgeons, Columbia University, in the City of New York.

THE study of degenerative disease in the neuron, as revealed by the recently invented staining-methods of Nissl and Marchi, has forced upon pathologists a modification of older views regarding the origin and nature of sclerotic processes in the spinal cord. It has also thrown light upon the hitherto mysterious limitation of such sclerosis to particular tracts, and has revealed the true nature of the so-called "system-diseases." The view of Weigert, that sclerosis is merely a secondary product of nature to supply a defect when disease destroys tissue, must be accepted. And in consequence the sclerosis becomes of less interest than the primary degenerative process which precedes it. This primary degeneration appears in many cases to affect one physiologic set of neurons only. Thus the motor neurons are attacked by the infective agent, producing infantile spinal palsies. Alcohol attacks both motor and sensory neurons; and in tabes it is the sensory neurons which alone present the features of disease. Hence the sclerosis is confined to the regions through which the affected neurons pass, and in tabes is limited to the area of sensory neurons. The sensory neurons are of many kinds and have different situations; but it is only two particular sets of these neurons which appear to suffer in tabes, viz., the sensory elements of the optic apparatus in the brain and the sensory elements of the spinal cord, whose primary centers are in the posterior spinal ganglia, and whose double branches extend to the surface of the body in the peripheral nerves and to the medulla oblongata through the posterior columns of the cord. It is true that auditory atrophy and loss of the senses of smell and taste have been recorded as occurring in the course of tabes, and we may perhaps admit the possibility of every form of sensory neuron being involved in the degenerative process. But such cases are rare, so rare in comparison with the general run that we may consider them the great exception. While then in the ordinary disease the spinal and optic neurons seem to be the ones most vulnerable, it is to be noticed that they are by no means uniformly involved together. In 300 consecutive cases of tabes, optic atrophy was present in 30 only.

Nor are these neurons attacked simultaneously. In 25 of the optic atrophy cases blindness was present many years before any other symptoms of tabes, except the loss of kneejerk, developed. In fact I have long been impressed by the fact that cases of tabes in which optic atrophy is an early symptom rarely presented the typical symptoms or the usual course of ordinary cases of tabes. Thus pains, numbness, incontinence, and ataxia may never develop in these cases, or if they do, may be isolated symptoms and may be insignificant for years. It seems, therefore, entirely justifiable to separate the spinal type of tabes from the optic type of tabes and to consider them both degenerative diseases of the sensory neurons, but not the same disease. In the spinal type it is true that optic atrophy may appear late in the course of the case. In the optic type spinal symptoms may eventually develop; but in their onset, origin, and course these types seem to be as distinct from each other as are the sensory neurons which are the subject of degeneration.

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[1] Read before the 14th annual meeting of the American Association of Physicians, held at Washington, D. C., May 2, 3 and 4, 1899.

No one can observe a large number of cases of spinal tabes without reaching the conviction that in different cases the course of the disease is so various as to present several different types. This renders the prognosis in the early stage most difficult. Thus some patients will have acute pain, attended by irritability of the bladder, by muscular twitching, and by general defective nutrition. They may emaciate rapidly and develop extreme ataxia within a year. They are subject to many of the multifarious symptoms, they suffer intensely, and they die soon of some complication; and no care in treatment seems to avail to arrest the disease or to mitigate its severity. Other patients, on the contrary, suffer little, or have only occasional attacks of pain, for many years after the physical signs of the disease—the loss of kneejerk, the loss of pupil action to light, and the swaying in the dark—are well marked. They present few symptoms and none of the rare complications. These patients sometimes go on for years without showing a true ataxia, and, even if a little unsteady in gait, are perfectly able to go about and conduct their affairs for 20 years after the onset of the disease.

Surely the nature and degree and progress of the degenerative process in these cases must be wholly different, and even if the eventual lesion is the same its development varies. I wish to emphasize these different types of tabes for the purpose of calling attention to the necessity of treating them in a different manner. I believe that the course of the disease can be modified by treatment, and that the result of treatment in various places and by various methods has been of benefit very largely because the element of degeneration has been successfully combated.

I have seen cases which I regarded as hopeless and incurable very materially benefited by certain measures. And I have seen cases which I took to be chronic and slow made rapid and fatal by certain measures. I wish therefore to call attention to certain therapeutic considerations in the care of tabetics which I believe will tend to alleviate symptoms, to prolong comfort, and to prevent a rapid course of the disease. It is the pathologic point of view which directs to the proper line of treatment. We are treating a degenerated condition.

Of the first importance in any case is the general nutrition of the individual. To build that up is the primary object. This is to be done by generous diet, by moderate stimulation, by every possible means to promote the assimilation of food, such as country-life out-of-doors, moderate exercise just short of the point of fatigue, general massage, and particularly by warm baths, long-continued, never attended by shocks or forcible douches, but accompanied by rubbing. The use of antisyphilitic remedies, often indicated, since at least 60%, and probably 70% of the patients have had this disease, should be put off until the first object has been attained. For if an anemic, ill-nourished tabetic is given mercury and potassium iodid with hot baths, as at Arkansas Hot Springs, or Aix-la-Chapelle, he may be rendered infinitely worse. On the contrary, if he is first built up and made robust and red with good blood, the same cure may be of the greatest value, even arresting the progress of the case for years.

There is at present too great a tendency on the part of some practitioners to resort to very limited methods of diet. I wish to point out the danger of this to tabetics. I have seen patients with gastric and intestinal crises assured that some particular diet directed to their digestive organs would cure them, and I have seen them later, after living on milk alone, or on meat and hot water alone, or on diabetic diet alone, reduced to skeletons and subject to many more symptoms of their disease than they had at first. There is every reason for a tabetic to use any form of food that he can digest and assimilate by natural or by artificial means. There is never a reason for starving him. I think alcohol in such cases is not to be excluded, as in moderation it may help digestion, though in excess it certainly increases the pain and ataxia.

I have been very much impressed by the remarkable improvement which has followed water-treatment in a number of my patients. Some have gone abroad to La Malou, or to Nauheim, or to Baden, or to Luchon. Some have merely taken baths in some one of the now numerous water-cures or hydropathic establishments here or in England. I have rarely failed to see benefit from this method of treatment. Perhaps the course at La Malou may be taken as the best. There the patient sits for ½ to 1 hour in water of a temperature of 85° to 90°, is then rubbed down and sprayed off with a little cooler water, is never shocked by a forcible douche or by very cold water, is made to lie and rest for an hour after the bath, and is made to spend hours in the open air and sunshine. I imagine that the exact temperature of the water or the exact duration of the bath is really of little moment. What is important is the increased rapidity of the capillary circulation, the increased activity of the metabolic process which is induced by the better supply of blood, and the consequent direct increase in nutrition in the spinal ganglia nd in the peripheral nerves secured by these means. The same may be said of massage, and its recent exaggeration, osteopathy. It helps a tabetic in so far as it timulates the circulation and increases the nerve-utrition.

A word finally about exercise. The method of Frænkel, by which skill in coordinated movement is cquired by practising certain definite motions by the eet, has been of great benefit to almost every patient vho has tried it faithfully. Such patients are too liale to overdo, and I have seen harm done by too contant practice and by over-exertion in walking. Hence, vhile exercise is not to be forbidden, it is to be used in noderation. Frænkel movements should not be done or more than 10 minutes in half an hour, and should ot be done more than three times in a day and should lways be followed by rest.

So far as medication is concerned, it seems to me hat codliver oil, the glycerophosphates, arsenic, and ll forms of tonics are of more value than any other rugs, since they delay the degenerative process.

The object in the care of tabetics should be to recogize the fact that they carry about with them some oison the influence of which tends to cause a degenrative process in the sensory neurons, and to attempt counteract the effect of this unknown poison by romoting the general nutrition of these neurons by very means at our disposal.

HE DIAGNOSIS OF TRICHINOSIS MADE THROUGH THE INCREASE OF EOSINOPHILIC CELLS IN THE BLOOD.

By A. DUVAL ATKINSON, M.D.,

of Baltimore, Md.

AFTER the very complete and exhaustive report on ichinosis, by Brown, which appeared in the *Journal Experimental Medicine* for 1898, and that by Cabot in e fall of the same year, together with the study of e clinical features, in the *American Journal of the Medl Sciences* for March, 1899, by Ósler, there is practilly little to be added. I desire to offer, however, one ore case to their series, as showing the value of bloodaminations in all doubtful febrile disorders.

The routine-examination of both fresh and dried ined-blood specimens is becoming more and more iversal, as the value of the blood-changes in many seases, both acute and chronic, is recognized as aidg us in reaching a perfectly definite and logical diagsis. Especially is this seen in dispensary work, in ich only too often the real state of affairs is entirely erloaded, by neglecting this very simple method of estigation, and the list of undiagnosed cases and se put under the heading "Malaria," etc., without a od-examination, are too much in evidence.

B., male, aged 32, occupation cook, came to the out-patient department of the Hospital of the University of Maryland, January 6, 1899, complaining of pains in the body and limbs, accompanied by fever. His family-history was negative and previous history good, giving no history of syphilis; he admitted, however, having had a urethritis some years previously. He had never had an attack similar in character to this. His fondness for raw meats was marked, and while serving as cook in a restaurant he would often indulge in uncooked meats, sausage, and fish, eating handfuls at a time. The present illness he dated from December 30, 1898, 8 days before applying for relief at the dispensary. The first symptoms seemed to have come on rather suddenly with a rigor of marked severity, followed by fever, and later by profuse sweating. Almost immediately afterward he was seized with intense muscular pains, extending over the trunk and limbs; these pains were agonizing in character, increased on the slightest exertion and had been present, with varying degrees of severity, until his admission. They prevented him sleeping, and were spoken of by the patient as being not unlike rheumatism, *i. e.*, dull and aching; while he was in the recumbent posture becoming intensely lancinating as soon as the slightest exercise was attempted. His appetite, which had previously been of the best, was absolutely lost and he had eaten nothing for 3 days. With the exception of some slight frequency of micturition and a slight cough, with expectoration, there was nothing else of importance in the history of the illness.

On examination the following note was made: The patient is rather a large, well-formed man, muscular; the lips and mucous membrane of good color; tongue moist and with a slight white fur. The eyes are markedly infected, the eyelids slightly but distinctly edematous, and an erythematous area above the swelling. The thorax is symmetrical; expansion good and equal. Negative results were everywhere on auscultation and percussion, except at the bases of both lungs behind, where a few moist rales were made out. The heart-sounds were quite clear. The liver and spleen were not palpable, the abdomen was soft and natural in appearance, negative results being obtained on palpation. No rose spots were seen. There was no superficial glandular enlargement and no edema of the shins. Pulse was 100, respiration 24 to the minute, temperature 103° F. The urine was normal, yellow in color, acid, specific gravity 1026. Microscopically it showed pus-corpuscles in considerable quantity, epithelial cells, and a few mucous cylinders.

Here, then, was a patient presenting nothing remarkable. As a matter of fact, on first appearance, this whole aspect suggested either typhoid fever or a severe case of grip, and it was not until the edema of the eyelids was noticed that I began to question him about the character of his food. Upon an examination of a fresh specimen of blood, there was a marked leukocytosis, and a marked increase in the eosinophiles. No malarial parasites were found. The large number of coarsely granulated leukocytes, together with the edema of the eyelids, the history of raw flesh eating and myositis made me very suspicious of trichinosis. Upon his admission to the ward about a half-hour later, his temperature registered 102.5° F., and during his entire stay (26 days) it never again reached that height, except during an attack of acute tonsillitis.

On January 7, a piece of muscle excised from the gastrocnemius under cocain, showed no trichinas in the freshly teased specimen.

January 14, differential leukocyte-count showed (specimens $\frac{3}{4}$ hour on copper box $\frac{1}{2}$ inch inside of boiling point, stained 3 minutes with Ehrlich's triple stain): Polymorphonuclear neutrophiles, 31.1% ; small mononuclear neutrophiles, 3.1% ; large mononuclear neutrophiles, 2.3% ; transitional forms, 4.1% ; eosinophiles, 58.5%. The patient suffered little or no pain; the bowels were costive, and no trichinæ were found in stools.

January 17, a few nonencapsulated trichinas were found in a section of the muscle. The patient complained of suffering with headache.

January 18, the hemoglobin was 93%, the red corpuscles 5,528,000 per cubic millimeter; white corpuscles 28,000 per cubic millimeter. A differential count showed polymorphonuclear neutrophiles, 21.5%; small mononuclear neutrophiles, 15.3%; large mononuclear neutrophiles, 4%; transitional forms, 4.8%; eosinophiles, 54.3%. In some instances it was very difficult to distinguish between the polymorphonuclear neutrophiles and the eosinophiles; *i. e.*, there were cells that presented points in their make-up characteristic of each; in some the granules were larger than neutrophilic granules, but lacked the characteristic acid fuchsin staining qualities of the normal eosinophile, while others showed ordinary-sized neutrophilic granules, but seemed to take a more brilliant color than usual. Many eosinophilic granules did not have the typical size, but took well the acid fuchsin stain.

January 25, there were polymorphonuclear neutrophiles, 25.6%; small mononuclear, 15.2%; large mononuclear, 4.4 transitional forms, 3.0%; eosinophiles, 51.8%. The general character of the cells was the same as previously noted.

January 28, the count showed polymorphonuclear neutrophiles, 39.8%; small mononuclear, 19.0%; large mononuclear, 3.8%; transitional forms, 3.8%; eosinophiles, 35%. There was much less difficulty in distinguishing the polymorphonuclear neutrophiles from the eosinophiles; in only one or two instances was there any question.

January 31, the count showed polymorphonuclear neutrophiles, 43.4%; small mononuclear, 11%; large mononuclear, 2%; transitional forms, 3.6%; eosinophiles, 40%.

The treatment consisted in an iron, quinin, and strychnin tonic, together with nourishing food and an occasional purge. With the exception of a rise in temperature from January 28 to January 31, due, we thought, to an attack of acute tonsillitis, he never could have been considered seriously ill. Towards the end of his stay he frequently assisted the orderly in his duties. February 10, he was discharged in good condition.

The case well illustrates the observation made by Brown that the marked increase in percentage of eosinophiles in the blood ought always make one suspicious of trichinas, and the fact that no parasites were found in the fresh teased specimen is no criterion that there are none to be found. The specimens should be hardened in increasing percentages of alcohol, transferred from thence to equal parts of alcohol and ether, in which they should remain for from 24 to 48 hours, cut and stained in the ordinary way, in hematoxylin and eosin. By this method almost every portion of the excised piece of muscle may be thoroughly examined.

The body temperature and percentage of eosinophiles seem to bear no direct relation; in this case the eosinophiles seem to be gradually diminishing as the patient's general condition improved. That there is a direct relation between myositis, occasioned by the invasion of the muscles by the trichinæ and the eosinophilia, there can be but little doubt, but whether or not there will exist paroxysmal eosinophilia in an individual who has once been infected by trichinas remains to be seen. In regard to the source of the increased number of eosinophiles, I am inclined to agree with Brown's suggestion that they come from the neutrophiles. In my notes of January 18 and 25, the gradations in size and staining property of the granules I thought suggestive; however, one must always take into consideration in examining dried and stained specimens, the effects of overheating or underheating, together with the length of time of staining. Brown's observations on the blood are of especial clinical value, insomuch that we have at our disposal what certainly seems to be a positive means of diagnosis of a disease that has for so long (except when it has appeared in epidemics) been unrecognized except on the autopsy-table.

ARSENIC IN CHRONIC MALARIA.

By CHARLES E. WOODRUFF, M.D., U. S. Army,
Benicia Barracks, California.

At the present time there are probably a large number of men in this country still suffering from malaria contracted last summer in Cuba. I have personally seen quite a number of cases among soldiers, and have heard from a certain part of the country that as late as January there were a large number of discharged "Rough Riders" still disabled with the disease and in very bad condition. Indeed, my informant said that about every rough rider in that neighborhood was still suffering. In the regular army quite a number are still sick, and some, indeed, have gone to the Philippines. It was very sad, indeed, to see these men depart. Their haggard faces and bad complexion left no doubt as to the serious poisoning. It is not strange that these patients have not been cured, when we remember that such a small percentage of our physicians have ever seen malaria contracted in the tropics, types so different from the vast majority of those contracted at home. These cases prove two things: First, that there are a number of cases of malaria, probably 5%, which are not, and perhaps cannot, be cured by quinin, no matter how faithfully we administer the drug. Second, that the profession at large, or at least those physicians who have had charge of these cases, are ignorant of the fact, that large doses of arsenic will cure them if they are not too far gone. About ten of these cases have fallen into my care, and as not one of them had had large loses of arsenic, it was at once administered as described below. As each case is apparently well after an interval of from 2½ to 3 months without a chill or any fever, it seems to me a duty to publish the facts; for from now on we shall constantly have cases of malaria occurring in parts of the United States where it has never been known except as a rare importation, and where it is presumed the physicians are ignorant of the practice in vogue in tropical countries.

The use of arsenic in large doses for cases not cured by quinin is an old, old treatment, and we may almost call t a specific in such cases. As students we were taught hat it was a specific in acute cases—a specific almost as reliable as quinin, though we do not believe such eaching now. It is rather surprising, then, to find that when arsenic is ordered it is given in doses entirely oo small. Not only are large doses given in tropical America, but I found it a routine treatment in far-off Manila. The most prominent physician in the Philippines, Dr. Donelan, informed me that in their experince arsenic was not beneficial in cases curable by quinin, but it was almost always successful in cases which resisted quinin. As quinin is a specific in fully 5% of cases, if given vigorously, we can then see he reason for the routine treatment of large doses of uinin until we fail, and then a resort to arsenic.

In these few cases I have had, it was found that nearly ll of the patients had taken enormous quantities of uinin in the previous 4 or 6 months. Some had become iscouraged and stopped treatment, hoping the disease would "wear itself out," only to spend an occasional day ı bed. After a chill, they would load up again with uinin a few days, then have a feverless interval of from to 20 days, ended by a prostrating chill as bad as ever. If the patient had not taken quinin recently, it was nmediately given to him in 10-grain doses three mes in the morning for three days, and then twice in ıe morning for three days. This usually produced a ery slight tinnitus or headache. But in cases in which ırge quantities had been taken it was difficult to pro- uce cinchonism. The quinin was then reduced to a nall dose night and morning, say 3, 4 or 5 grains, but is not quite sure that this was necessary. After we ere certain that the blood had been pretty well satuıted with quinin, then arsenic was begun. Fowler's ılution is of course preferable for ease in changing the ose. It is said to be best to begin with smaller doses, to 10 drops, three times daily, increasing the dose aily by one drop until slight puffiness of the lids ıows that saturation with the drug has been attained. When in a hurry to get the full physiologic effect, the rug is given before meals, well diluted with water, ut if this produces any gastric disturbance it will have be given after meals. After the full physiologic fect has been produced, the dose may be dropped at ıce to 10 or 5 drops, and then continued three or ur weeks longer. It has been my rule to impress on the patients the fact that they are liable to a return of their chills for a long time after they think they are well. By this means we can induce them to keep up the rather irksome treatment. A good brisk mercurial purge is, of course, a routine and necessary beginning of the treatment of every case.

Until this war it had never been my lot to be stationed in any part of the country where I had malarial fevers to treat, except importations from other districts, and these promptly recovered under quinin, and this method of giving arsenic faithfully to the cases in which quinin had failed was the method taught to me by specialists in tropical affections in the South and in Manila. Though we expected the patients to get well in time, it certainly was a matter of much astonishment to watch the rapid improvement, the change in complexion, gain in weight, return of spirits and energy and full restoration to the condition they were in prior to the war.

From all these facts it seems that a routine practice of giving arsenic in all cases of malaria is justifiable, unless the case is promptly cured after the first chill. Some physicians recommend it in all cases, and surely it should be tried in the cases originating in the tropics, for our experience shows us we have been dealing with a far more malignant infection than the malaria usually found in the United States.

SUCCESSFUL INOCULATIONS FROM A CASE OF RABIES.

By J. HARTLEY ANDERSON, M.D.,
of Pittsburg, Pa.
Assistant Surgeon West Penn Hospital; Assistant to Chair of Principles of Surgery, West Penn Medical College.

It is not an unfair estimate that two-thirds of the medical profession are in doubt of the occurrence of rabies in man. This skepticism is such that cases of possible hydrophobia are not reported in medical journals for fear of ridicule, but are readily given to the public press. On the other hand, criticism and arguments against "newspaper-diagnosis" are always published in medical journals. Hence there has grown up a generation of physicians not having seen rabies who do not believe in its existence.

There is no acute cerebrospinal disease which is harder to diagnose early from the symptoms than rabies. It has been mistaken for hysteria, tetanus, epilepsy, delirium tremens, certain forms of acute mania, and uremia. The efforts to make a diagnosis postmortem have failed. Microscopic examination is scarcely better. Some minute changes have been recorded by Ross, Allbutt, Greenfield, Coates, and Horsley, such as minute extravasations, leukocytosis of the perivascular lymph-spaces, leukocytosis of certain centers and nerves, yet no lesion accountable for death has been noted. The bacteriology has not advanced sufficiently to demonstrate the cause of rabies, much less aid in early diagnosis. There remain but 2 methods, the clinical, in which the history of inoculation is still of the highest importance, and inoculation-experiments of lower animals.

In the clinical symptoms the more the intellectual centers are disturbed the greater the difficulty of diagnosis. In most cases in man, however, the intellect is untouched until the last moments. In timid persons there may be fear of death as they perceive the gravity of their disease. The great symptom is not "hydrophobia," but a disarrangement of inhibitory control of automatic reflexes of the throat and chest and muscular system, hyperesthesia of the senses and skin, and a tendency thereby to convulsions. Sometimes the intellect is badly affected and it can be readily imagined that an infection of the central nerve-ganglion may be more intense at one time in the sensorimotor, and at another in the psychical centers. In these cases we get the perversions of the imagination and senses, as in furious rabies of guineapigs, horses, dogs, and man in cases said to resemble hysteria, delirium tremens, and acute mania. In the paralytic cases, as seen in rabbits, guineapigs, dogs, and sometimes in man as reported by Gamelea and others, the paralysis is an expression of the intensity of the disease in the sensorimotor areas.

But that any gross pathologic condition, such as cerebral tumor or suppuration, could assemble symptoms to mimic the diffused effect of rabies-infection and produce the same incubation-order of symptoms and method of death seems utterly impossible to me. The symptoms of tetanus, epilepsy, and uremia are so definite and totally different that the confusion can be momentary only. In hysteria, delirium tremens, and acute mania in which the psychical conditions are more equivocal and the convulsive conditions are more similar, an error is more liable to occur.

My object is to report the successful inoculation of guineapigs from a rabid dog which had bitten two men. The cases are those reported in the *Pennsylvania Medical Journal*, January, 1899, by Dr. R. J. Murry, of Sewickley, Pa. As I did not see either case, I will merely abstract from his report:

> Two men, Dr. Feucht and W. L. Mitchell, were bitten by the same dog on November 10, 1898. Dr. Murry was called in to see Dr. Feucht December 9, 1898, and Mr. Mitchell December 11, for a suddenly developed nervous disease associated with hyperesthesia, dysphagia, and difficulty of breathing. Both men died within 3 days from the first appearance of the disease, Dr. Feucht December 12, and W. L. Mitchell December 14. Both remained rational until near the end. They were both brought to Pittsburg hospitals.

November 10, 1898, the evening newspapers reported that the two men had been bitten by a mad dog. I took measures immediately to secure the brain and cord of this dog, which after much trouble I was able to do. Under strict antiseptic precautions the subdural space of a guineapig was inoculated from the medulla of the dog, November 13. It is not necessary to give a daily report except that the wound healed by first intention and at the end of a week the pig was as healthy and lively as ever. December 13, the day after the death of Dr. Feucht, the pig began to squeal a great deal, becoming much excited. It dashed around the box, in and out the water-pan, regardless of bumps apparently not feeling pain or fear. This pig died in less than 24 hours, December 14, after the first appearance of the disease.

From the medulla of this pig a second was inoculated subdurally, December 15. It was perfectly well until December 29, when it began to be excited and squeal, keeping this up during the night. In the morning I found it in a state of furious rabies, biting everything that came in its way or was placed in front of it. During the night of December 30 it died. I did not see the last stage in either of these guineapigs, but judging from numerous experiments that I have made in the past when I was able to note every detail to the last in this form of death, I am safe in saying that they had occasional convulsions, the hind legs became paralyzed first, the animals still dragging themselves around the box, but finally rolling on one side, while the convulsions grew less in frequency and the respirations became irregular and finally ceased before the heart-beat.

Unfortunately for further continuation of this series of experiments I was unavoidably prevented from making a third inoculation before the dead pig was unfit for use.

Below is a comparison of the dates and the duration of disease in both the men and guineapigs:

	DATE OF INOCULATION	SITE	INCUBATION	APPEARANCE OF DISEASE	DURATION
Dr. Feucht,	Nov. 10, 1898.	Tip of nose	29 days.	December 9.	3 days.
W. L. Mitchell,	Nov. 10, 1898.	Right check	31 days.	December 11.	3 days.
1st guineapig,	Nov. 13, 1898.	subdural	30 days.	December 13.	24 hours.
2d guineapig,	Dec. 15, 1898.	subdural	14 days.	December 29.	24 hours.

I have carried out a series of 18 inoculations from the brain of a rabid horse with similar results, and in this series several methods were used to test the infectiousness of the nerve-tissue, saliva, and blood, and control-experiments were made to eliminate extraneous infections. In every case, when properly inoculated, rabies developed with the same cycle of incubation, symptoms, and death.

The case of Anton Bueckle, which I reported in the *Pittsburgh Medical Review*, October, 1896, was, I believe, the first case of hydrophobia in man experimentally proved in Western Pennsylvania.

It seems to me to be a very serious thing to educate the public that there is no hydrophobia when there remains so much evidence of its fatality and frequency, and it is even a greater sin to educate medical students to the same erroneous view. I hope the day is not far distant when by faithful investigation hydrophobia will be recognized as one of the most fatal infections.

AN ATYPICAL CASE OF APPENDICITIS.[1]

By W. H. ROBERTS, M.D.,
of Pasadena, Cal.

The following case of appendicitis is reported in rder to impress the fact that atypical cases do occur. he cardinal symptoms of appendicitis—pain, increased requency of pulse, and localized pain—while almost lways present after the first few hours of a developing ppendicitis sometimes do not appear until late in the ttack, as in the case now reported.

On the morning of October 8, 1898, I was called to see ate B., married, aged 40 years. I found a woman of low ature, weighing about 225 pounds, reclining on a sofa. he following history was obtained. Her general health had lways been good; she had no recollection of ever having had pendicitis, peritonitis, or pelvic pain. She had had one ild, which died in infancy; no miscarriages.

Her present illness began at noon the previous day with vere pain in her stomach, which had lasted continuously. e had felt nauseated but had not vomited. At the time of y visit she was complaining also of a severe headache.

Examination showed temperature, 97.5°; pulse, 72, full d regular; tongue clean; abdomen very fat and flabby. ere was some slight tenderness in the epigastric region, t absolutely none in any other part of her abdomen, no mpanites, no rigidity of the rectus muscles, and no tumor. inking, as did the patient, that she was probably suffering m an acute attack of indigestion, I gave her 15 drops of loranodyne, which immediately greatly relieved the pain, d 20 tablet triturates of calomel $\frac{1}{10}$ gr., with soda bicarnate one grain, instructing her to take one every half-ur. In the way of food she had nothing but milk. At P.M. I saw her again and found her feeling better, comining mainly of her headache. The tenderness in her domen had lessened, but seemed to be a trifle further wn, or in the upper part of the umbilical region, but no ver. Temperature was 100.3°; pulse 76. It was now about hours since the beginning of the attack.

On Sunday, at 9 A.M., the patient reported that she had ssed a more comfortable night than the preceding one and r bowels had moved freely. She did not sleep much, hower, for towards morning she became aware of a dull pain w locating itself in the right inguinal region. This pain s not at all severe, however, for at 6.30 she thought she well enough to get up, and, after doing so, on attempting walk across the room was seized with an agonizing pain the right inguinal region. On my arrival I found a fully veloped attack of appendicitis. The temperature was .8°; pulse, 94, and she had exquisite tenderness at Mcrney's point, with rigidity of right rectus muscle. I at e advised immediate operation. I telephoned to Dr. H. Sherk, asking for a consultation, and at 10 o'clock he the case with me. Her temperature was then 101.8° and se 97. He agreed with me in every particular and we ided to operate that afternoon. It was thought best not ttempt to remove the patient to a hospital because of her at weight and the danger of rupturing the abscess which thought existed.

bout 4 P.M. we began the operation. As her urine coned some albumin, chloroform was administered for 15 or re minutes by Dr. F. D. Bullard, an expert anesthetizer, the anesthetic was then changed to ether, as the former not the slightest effect upon her.

r. Sherk opened the woman's abdomen and found an endix about 13 cm. long, partly gangrenous, extending curved direction backward and inward, adherent through whole length to the parietal peritoneum, its distal exnity in contact with the right external iliac artery. The end of the appendix was shaped like a club finger and tained about 10 cc. of foul-smelling pus. The wall of appendix near this abscess contained a small perforation ch communicated with a small pocket likewise containpus, situated in the adhesions between the appendix and parietal peritoneum. In dissecting out the appendix the s of the abscess-cavity ruptured, allowing some of the pus to escape, necessitating the use of gauze drainage when closing the wound. The patient made a tedious but uneventful recovery.

From this case I deduce:

1. It is sometimes impossible in a secondary attack of appendicitis to get a history of a primary atttack. Of course the firm, dense, and necessarily old adhesions here at once told the story of a secondary attack, but not until several days after the operation did the patient call to mind an attack of pain in this region some 2 years before, diagnosed by a homeopathic physician "grippe of the stomach."

2. In spite of the absence of localized pain, fever, or rapid pulse for over 24 hours after the onset of the trouble, considerable headway was being made toward what would have been a fatal issue had we not operated.

3. The necessity for operation in *all cases of appendicitis as soon as possible after a diagnosis has been made*, for no one can predict the severity or extent of the local inflammation.

This patient, just before going on the table, did not appear to be in a very serious condition, compared with many I have seen with far less involvement of the appendix; yet here was a partly gangrenous appendix, a thin-walled abscess-cavity filled with pus, a perforation into the dense adhesions laterally already existing, with chances all in favor of a rupture and escape of pus into the free pelvic and abdominal cavities, had no attempt at removal been made.

I feel sure this woman's life was saved by our operating as soon as we could get ready after making the diagnosis. Had we waited 24 hours, as some advise, or even 12 hours, we would probably not have operated at all, for quite likely her condition would have apparently so much improved, for reasons given later, that we would have been tempted to delay the operation until the attack had subsided and then do an "interval" operation. This delay would have been fatal to the patient, either from another rupture or from sloughing off of the gangrenous appendix.

The apparent improvement in the patient's symptoms would have been caused by (1) lessening of tenderness, (2) lowering of temperature, and (3) a corresponding slowing of pulse.

This change would have been due to the gangrenous appendix. Owing to the intensity of the septic process going on in the appendix, the gangrene would have become more and more complete. As this occurred the symptoms would abate; for (1) a gangrenous appendix has little or no tenderness on pressure; (2) a gangrenous appendix will not absorb septic material, hence lower temperature and slower pulse.

Then, just as we would be congratulating ourselves that our patient had successfully weathered the storm, septic peritonitis would have set in and carried her off in a few hours.

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[1] eported before the Pasadena Medical Society, October 14, 1898.

How would this occur? The autopsy would show a sloughed-off gangrenous appendix floating in pus in the abdominal cavity.

REPORT OF A CASE OF RETROVERSION OF THE UTERUS, COMPLICATED WITH UTERINE FIBROMA. OPERATION: ENUCLEATION OF THE FIBROMA FOLLOWED BY VENTRAL SUSPENSION; SUBSEQUENT NORMAL PREGNANCY AND LABOR.[1]

By JACOB CHASE RUTHERFORD, M.D.,
of Providence, R. I.

I WAS called on the evening of June 6, 1896, to attend Mrs ——. She was in bed, suffering severe abdominal pain, of an intermittent character. Her countenance was pale and somewhat anxious; temperature was normal, and the pulse 110 per minute and of poor quality. She gave the following history:

White, American, age 31, married 5 years, never pregnant. Menstruation began at 14 and was regular and normal up to about 4 years ago, when the flow became more profuse and was accompanied by considerable pain. The flowing and pain have gradually increased until the present time, when each period lasts about 7 days. The amount of blood lost is considerable, soiling from 3 to 5 napkins each day, and she has on several occasions passed what she describes as pieces of flesh.

The present illness began June 2, and from the first the pain was unusually severe and the flowing excessive. Although it was, as she said, her regular menstrual period, the intermittent character of the pain, the flooding, and other symptoms led me to suspect abortion. Upon examination the uterus was found to be retroverted, the os soft and patulous and dilated to about the size of a five-cent piece, with a soft, yielding mass presenting. The surroundings were such that it was not deemed advisable to hurriedly empty the uterus by forcible dilatation and curetment at that time, and therefore the vagina was thoroughly cleansed and a gauze-and-cotton tampon introduced. This was held in place by a napkin. The patient was given ¼ grain morphin hypodermically, and was cautioned against moving about in bed or getting up for any purpose. She was also instructed to preserve the cloths and napkins for inspection, and to save all clots that might pass.

Upon visiting her the next morning she was found to be free from pain and to have a much better appearance than on the preceding night. The temperature was normal and the pulse 90. She had eaten a fairly good breakfast and was anxious to get up. There was no blood upon the napkin, nor upon the lower portion of the tampon; but upon its summit was found a complete cast of the uterine mucous membrane, which is presented for inspection. In a few days she was up about the house attending to her household duties.

She was not seen again until the following December, when she came to me for relief from a dragging pain in the back. Examination showed the uterus to be retroverted and bound down by adhesions, and that there was, upon the posterior surface of the uterus, at about the level of the internal os, a small, hard nodule, which was not discovered at the time of her illness in June. She told me that since June she had been free from pain at the menstrual period, but that the flow had increased, and that for the past two months there had been a constant dragging pain in her back. She was treated locally for the purpose of liberating the uterus from its adhesions; but, before much progress was made, became pregnant. In March, 1897, she had a slight bloody discharge; but a few days' rest in bed, together with small doses of opium, checked it. In April, however, she miscarried.

After recovering from the miscarriage, she again came for treatment. She was anxious to have a child, and asked if it were possible for her to do so. Upon examination the uterus was found to be in about the same position that it occupied in December, and the nodule was found to have increased considerably in size, being now as large as a filber After taking into consideration her present condition, t gether with the history of her past illnesses, including he miscarriage in April, she was told that it seemed hardl possible for a woman suffering as she was to carry a child t term; and in view of the fact that her condition would, i all probability, grow worse as time went on, it was suggeste that an operation for the liberation of the uterus, removal the fibroma—for that subsequently proved to be the charac ter of the nodule—and fixation of the uterus in its norma position, be performed. This suggestion met with her a proval, and was, after proper preparation, carried out Jun 26, 1897.

The abdominal incision was made in the median line wit the lower angle reaching about 1½ inches above the pubi With some difficulty the uterus was freed from its adhesion and brought up to the opening in the abdominal wall. Wit the patient in the Trendelenburg position, the fibroma wa seen to be subserous, and about ½ inch in diameter. straight incision was made in the uterine wall and th tumor shelled out. There was but slight bleeding, whic was readily checked; the incision was closed with fine sil sutures. The uterus was then brought up to the lower angl of the abdominal incision and the upper portion of the an terior surface slightly scarified. A silk wormgut suturewa then carried through the abdominal wall on one side, passe through the uterine wall at the level of the fallopian tube and out through the abdominal wall on the other side. An other similar suture was introduced in like manner ½ inc below the first. The ends were held by catch-forceps, whil the other abdominal sutures were introduced, the toilet the peritoneum completed, and the omentum tucked dow between the uterus and intestines to serve the purpose of curtain and prevent possible adhesions between those o gans. The uterine sutures were then tied and the abdom nal incision closed. The patient suffered somewhat fro flatus on the third day after the operation, but this yielde to enemas of epsom salt, glycerine, and hot water.

The convalescence was brief and uneventful. The abdom inal sutures were removed on the tenth day and the uterin sutures on the fifteenth day. Five weeks after the oper tion the patient went into the country, where she remaine until late in the autumn. She menstruated normally whil under observation, and afterward, until January, 1898, whe she again became pregnant. Her pregnancy was normal i every way. Frequent examinations were made during preg nancy, and at no time were there any symptoms callin attention to the point of uterine suspension. After th fourth month the uterus seemed to expand rather mor posteriorly than anteriorly, and the cervix was carried fa ther back into the hollow of the sacrum than it usually is but aside from that there was nothing out of the usual orde Apprehension was felt that there might be a dragging pain a the point of attachment between the uterus and abdomina wall, but there was not. In fact, the only discomfort sh had at all, and that was very slight, was an occasional dul pain in the right hypochondrium.

She was taken in labor at 4 A.M., October 20, 1898, an was delivered of a well-nourished female child at 11 A.M The lying-in was uneventful. Her health at the presen time is excellent; in fact, she says she is as well as ever sh was. She has a plentiful supply of breast-milk and is sti suckling her child.

January 13, 1899, I made a careful examination and foun the uterus in the normal anteverted position, with a sligh interval between the fundus and the abdominal wall. A other examination on February 20, 1899, showed the cond tion to be the same as on January 13.

Probably but few operators are favored as I hav been in this case. My patient submitted to frequen examinations, and was as deeply interested in the resul as I was myself. Nearly 2 years have elapsed sinc the uterus was suspended, sufficient to prove the suc cess of the operation, and 4 months since the birt of the child. The case is presented for consideratio with the belief that it will be thought worthy a plac in the statistics of ventral suspension of the uterus.

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[1] Read by title before the Rhode Island Medical Society, March 2, 1899.

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The meeting of the American Medical Association, as we go to press, is in the midst of an important and successful session. Some evidence of the work done may be gleaned from the telegraphic reports sent by our special medical reporters in attendance at the sessions. During the next two weeks we shall continue to publish reports of all the sections, so that our readers may have as perfect a picture as we can give of the labors for, and contributions to, medical progress of our national association. Each year the representative and progressive character of this body has been made more and more manifest, and more and better men are taking part in its deliberations. We trust this general advance may not only continue, but that it may be greatly quickened. The association we believe is seriously and downrightly determined to put down the self-advertisers and the politicians, and these, its chiefest curses in the past, will have to learn their needed lesson. The officious and the office-seekers, together with their near relatives, those who look upon the annual gatherings as opportunities for physical, moral, and professional debauches, will have to find more congenial occasions and fellows. The increased powers and duties of the executive committee are potent means of reform and progress. The limitations of programs by previous examination and judgment as to the admissibility of offered papers, is also conducing to vastly better and more concentrated scientific work. Lastly, under the new and accomplished editor, the official organ of the association promises to become a great aid in elevating professional journalism. Everything tends toward that most hopeful and desirable ideal—professional unity.

The eightieth birthday of Queen Victoria, which has been celebrated with the utmost enthusiasm not only throughout her realms, but also in America, Germany and other foreign countries, found her in excellent health of body and mind. The Queen of England is old, but old age has scarcely dimmed her faculties of perception and has in no way chilled her sentiments of sympathy and loving-kindness, so that were it not for the unanswerable evidence of history it would be difficult to believe that she is now entering upon her ninth decade. Queen Victoria has always enjoyed good health, a little rheumatism being almost her only pathologic foe; but her remarkable immunity from not only the grave infirmities, but the slight ailments so common to old age, must be attributed as much to her docility as to her splendid physical constitution. The routine of her life is largely suggested for her by her wise and faithful body-physician, Sir James Reid, and his directions are most faithfully followed by his imperial charge.

Progress in the nursing profession is demonstrated by the graduation at the Johns Hopkins Training School last week of the first class (of 27) in the world under the conditions of a 3-years' course, of not exceeding 8 hours a day of practical work, with a distinctively educational ideal, and without payment of fees or tuition. There are to-day many schools in the country demanding so much hard labor on the part of the "pupils" or "students" that intellectual exercise or educational acquirement is impossible; even if the educational ideal were encouraged its practice would be out of the question. It is one of the most grievous sins of the profession that we have permitted this old injustice to nurses to grow up under our hands and attain such a degree of wrong. The thing misnamed a "school" is too often a mockery so far as education goes, and girls are made not only to pay for what they do not get—education—but they are forced, as an additional blackmail, in order to secure their certificates, to work 12 or 14 hours a day for 2 years, for the very dura mater hospital. Under such conditions schooling is impossible. Such injustice does not in the long run pay, and we should all seek in the management of our training-schools for nurses to lengthen the course to 3 years, prohibit over 8 hours a day of practical work, demand educational acquirement of a high order, and all without payment. Her eight hours a day of labor should be enough for the nurse to pay for the teaching, even if that teaching is far better than she now gets.

The Volta Bureau, to which reference was made in a recent consideration of the subject of marriage among deaf-mutes in America, is the outcome of a fund established by Dr. Alexander Graham Bell, the inventor of the telephone, for the benefit of the deaf. Dr. Bell was in 1880 awarded by the French government the Volta prize of 50,000 francs, in acknowledgment of the great value of his invention and his electric researches. This sum was invested in another invention, which proved to be profitable, and the fund came to amount to $100,000. Some of this money was used in the organization of the Volta Bureau, whose work consists in the collection of all information with reference to deaf-mutes, both as a class and individually, and to deaf-mutism in all its relations. Subsequently, Dr. Bell gave $25,000 to encourage the promotion of the teaching of speech to the deaf, and the American Association for the Promotion of Teaching Speech to the Deaf was organized for this purpose. The fund is known as the Bell Volta Fund. It was later increased by a gift of $15,000 on the part of Prof. Alexander Melville Bell, the father of Dr. A. G. Bell. A handsome and substantial office-building for the Volta Bureau has been erected in Washington, including a fire-proof section for its valuable reference-library, containing important manuscripts and rare papers relating to the deaf and to methods connected with their education. Through the courtesy of the U. S. Bureau of International Exchanges connected with the Smithsonian Institution, the publications of the bureau, as well as others of a desirable character entrusted to it for distribution, have found their way to every known school for the deaf throughout the world, as well as to the most important public libraries and specialists.

Manner.—There is undoubtedly a large element of truth in the observation that manner has more to do with a physician's success than his scientific attainments or his therapeutic ability. Many a man is willing to charge his ill success up to "luck," or to the dishonorable practices of rivals, when it is all due to some little personal defect of speech, or gesture, some lack of office-tact, some unnoticed method of doing his work, which sticks in the memory of patients like a bur, and finally causes them to discontinue an unpleasant association. To the question, "Why did you leave Dr. ——," the answer is not that he was not a good physician, but that "He smiled too much;" "he was too coarse;" "he thinks more of his fee than of his patient;" "he is too much stuck on himself," etc., etc.

We suspect that the decisive factor often responsible for the manners of physicians will be found in the large psychologic law that men naturally make up for a deficiency of matter by extra attention to manner, and vice versa. We mean that if a man's whole mind and attention have long been riveted upon the fact (disease and its cure); if his desire has been to learn the truth and help his patients—naturally he forgets the influence of manner. Too single observation of the disease makes the doctor forget himself—nay, the patient is also forgotten. One of the most scientific and capable surgeons we have known was habitually harsh and brutal to every patient.

On the other hand, it is very patent that lack of scientific knowledge or therapeutic skill sometimes leads to a thoughtfulness about manners that wins hundreds of duped patients. This, par excellence, is the sin of sectarians and semiquacks. They do not know the methods of diagnosis, the signs of disease; their minds and training are too weak to pursue the subtle methods of differential diagnosis to the end, and in default of this they play the suave, gentle, sentimental, or gentlemanly game to hide their ignorance. We have in mind one so-called doctor who does not know plastic iritis when he sees it, and if he did he would not know enough to order atropin. He visits often the patient whose eye he is blinding, says the disease will be of long duration, he plays with the children, everybody loves him, his bill is high, his patient is blind.

The death of the Index Medicus is a sad thing. We have received many letters from librarians and physicians asking for or suggesting means whereby it might be revived and put upon a solid basis. We have investigated the conditions pretty thoroughly. One of the most depressing facts revealed by the letters received is an utter misconception on the part of the profession as to the means by which the *Index* has existed. One of those most urgent, that some one should take up the work and sacrifice his time and money to its continuance, betrays the most lamentable ignorance as to its compilation and printing in the past, and even goes so far as to blame somebody, number one, most bitterly for its discontinuance. At the same time he begs somebody, number two, to do the work and thus prepare for the same ingratitude when he shall have worn himself out as Dr. Fletcher has done for an indifferent and thankless profession. Well, we can only say that after 21 years of trial the unrich man would indeed be a fool in any worldly sense of the word to take up the work at his own risk. When Mr. Davis had lost enough money in its publication, Dr. Fletcher assumed the responsibility not only of the compilation, but for the printing and distribution, providing a certain number of guaranteeing subscribers at $25 could be obtained. This was done, but very soon the guarantors began dropping out, or ceased paying, while at the same time the increase of cost (due to the increase of medical literature) grew several hundred dollars each year. Instead of censure, Dr. Fletcher deserves the most profound gratitude of the entire profession for his self-sacrificing and heroic labors. Under no circumstances will he resume the task. How then can it be brought about? If the help of the medical libraries of the country and of the world could be unitized and secured, these libraries could possibly afford the expense. But there is no one to take the lead and bring about the unity. If all this were done there would remain the difficulty, amounting almost to an impossibility, of finding an editor. The labor of such an editor is great, and it requires a man with rare scholarship and abnegation. Such a man could be trained, and in time the *Index Medicus* would again attain that accuracy and value that has been given it by Dr. Fletcher. As the representative of the American profession we trust that the American Medical Association may be induced to guarantee the necessary expenses of the publication. We learn that a resolution to this effect has been introduced at the meeting in Columbus.

The Study of Tropical Diseases.—The daily press has recently brought the surprising news of the transfer by Spain to Germany of the Caroline, Palaos, and Marianne Islands. In addition to its political significance, with which in this place we have nothing to do, the event is of great importance for science in general and medicine in particular. Germany, since entering on a "Colonial-Politik," has shown herself such an enthusiastic patron of the study of tropical conditions, that during the few years of her activity as a colonial power, the literature of medicine and of anthropology has been greatly enriched. German physicians have also studied in tropical countries over which Germany has no direct suzerainty, as in Brazil, Mexico, Java, Borneo, etc.; and Virchow's *Archiv* for many years has annually contained a large number of valuable contributions from these men, as well as from those officially stationed in the German dependencies. In this connection, Koch's discovery of the cholera-germ in India comes to mind. After a period of comparative rest from his splendid labors, Koch last year headed an expedition having the study of malaria as its object, and another for the study of the African Rinderpest. Although his report upon malaria was somewhat spectacular in the circumstances of its delivery, and contained not much that was really new, it has served to stimulate a wide interest in the mosquito-theory of malaria, with which the names of Ross and Manson, as pioneers, will always be connected. We may add, parenthetically, that this theory of the transmission of malaria is by no means universally accepted, and that a competent writer, Beyfuss, has brought forth some weighty evidence against it. The German Government has recently made a large grant to another malaria-commission, of which Koch will probably again be the leader. Not long ago a journal was established in Germany for the exclusive purpose of publishing articles on tropical medicine, and a college has been founded at Witzenhausen for a study of tropical problems. Whether medical subjects will form part of the curriculum, we are not able to say. It may be confidently expected that the Germans will investigate diligently the diseases of their new Pacific possessions; and, in view of the propinquity of these to the Philippines, their discoveries are likely to be of great value to America. The establishment of schools of tropical medicine at London and at Edinburgh is also a most timely step, and promises much for the advancement of our knowledge of the diseases of the torrid zones. Great Britain, it must be admitted, has not hitherto made the fullest use of her magnificent opportunities in this direction. The time will also come, if, indeed, it is not already at hand, when courses in tropical medicine must be added to the curricula of our own medical schools. After all, the highest civilization that we can carry to our new insular possessions is not represented by factories, electric railways, trusts, etc., but by sanitation. Let us follow Germany and let us send to these islands schooled scientists,—for they are the true civilizers.

Collaboration-Books.—In the preface to one of the least defective of modern composite books we find the following words as the best excuse the authors can adduce for their work:

> "It is unnecessary to discuss the 'collaboration-method' employed, which has too often demonstrated its value to need either defense or explanation in this place, except to point out its greatest use, and the one to which no doubt it is indebted for its success—namely, that by its means the student gains the point of view of a number of teachers, reaping, in a measure, the same as would be obtained by following courses of instruction under different teachers."

We feel constrained to point out what we think is a great fallacy lurking in this statement. It would be true if the authors treated the same subjects; but it is plain that when they treat wholly different subjects the student learns only the opinion and teaching of the single author who writes on a single subject. It would also be true if the editors dared or would be allowed to so edit and transform the articles as to make them fuse into an organic or a homogeneous unity. When an author signs his article he would not allow an editor thus to make over his article. The result is that the whole body of teaching of the book represents the scientific and therapeutic results and beliefs of no one brain, and not one of the hundred separate authors would entirely, or frequently even in great part, assent to the teachings of the articles bound up with his in the same volume. This seems to us a fatal argument against the modern composite book, in which the multitude of authors preserve their distinct and separate individualities.

There are other objections to the composite book of the type criticized: Confined as he is to a definite and altogether too limited space, each author must deal in too many glittering generalities. To the student or practitioner the articles are not helpful; they do not enter into those details of diagnosis and treatment which are precisely what the uninstructed need. In a vague and soary way, the author who is brilliantly getting over his ground, showing off his own learning, but who is utterly indifferent to the state of mind and needs of his uninstructed reader, will say, for example, that a certain treatment may be tried, and that it sometimes succeeds and sometimes fails. All of which is quite as instructive as, and far less amusing than, the experiences of Violet, the Quangle-Wangle, and the 600 crusty crabbies. What kind of cases are adapted? How should the treatment be carried out? By what kinds of doctors?

Why and when does it fail? A hundred such questions arise in the mind of the average reader of nearly every page of the patch-work composite book.

Still another objection is evident: The learned authors must display an erudition equal to that of the other fellows; and thus meaningless omniscience stares at one from pages of mathematic formulas and diagrams for instance, which not a reader will ever comprehend or get a ray of light from. Colorless abstractions and showy shams are thrown in as if the poor student were as consummate a mental prestidigitator as the great author,—just as poor orators preface their profoundest and strangest bits of knowledge with, "You have all read," "As all are aware," etc.

In the big "systems," running into shelves-full of dumped-together treatises by a hundred authors, the unfilled gaps, the overlappings, and the contradictions have long been the butts of ridicule of men with scientific and literary training. Such books are good for publishers, but comparatively useless and surely wasteful of the money and house-room of physicians.

The only composite books that we judge of use to professional men are those in which the work of individual authors is rigidly wrought over, supplemented and rendered organically unitary with the rest, by the dominating control of the responsible editor. Better if the individual authors merge their work anonymously into the homogeneity desired. But, when possible, and better yet, we think, if authors preserve their own independence and make their work stand for what it is, the product of personal experience and judgment. All good work rests at last upon the character of the single man who actually did the job.

Forestry at the South.—In attempting to establish a school of forestry, and particularly in proposing to put its domain under practical forest management, the University of the South has done two wise things. The wisdom is shown not so much in providing another school for the training of foresters, for that is scarcely needed just now, as in making prominent in an institution where young men from all over the South are being educated, the idea of caring for the forests, and in making a practical demonstration of the possibility of deriving a revenue from a systematically worked forest.

In no part of the country is the belief that the forests are inexhaustible more prevalent than throughout the Southern States, yet it is the hope of many that before it is too late, some systematic management may be introduced into those magnificent woods that cover the mountains and many of the plains of the South.

The extent of the forests and their richness is beyond the belief of one who has not seen them; only in places here and there has the lumbering that has been carried on for years made serious gaps; but, as surely as Maine has lost her spruce, as Pennsylvania and Michigan have lost their white pine, will the whole South Atlantic Coast lose its yellow pine, and the mountain country behind lose its wealth of hardwoods. The main supply of the Northern and Eastern markets is now from the South, and, when local supplies shall have been quite exhausted, they must depend almost entirely on the Southern product.

But there is enough; enough, provided waste is stopped, and some thought given to reproduction after the old growth has been removed, and this is not difficult in that prolific country, where the sun shines and all nature laughs. No forester proposes to spare trees simply because they are beautiful, nor to grow them for the pleasure of it, nor to keep or to plant trees where the land is more valuable for something else; he asks only to be allowed to prove that, as a simple business proposition, it will pay to plant, care for, and harvest trees on much of the land of the South as well as of the North. According to a recent authority: "If all the forests in the South were conservatively managed, and protected from fire they would easily yield, for all time, about 30,000 million feet, board measure, per annum—enough to supply the entire country with lumber, and about 125 million cords of firewood, sufficient to supply the South constantly with fuel. The value of the lumber and cordwood would be, say, 140 million dollars per year, or a steady return of 4% on a capital of 35,000 million dollars. On the other hand, if the virgin forests in the South are lumbered out rapidly, and if fires are allowed to rage unchecked, thirty years more are sure to bring about the same condition in the South, which thirty years have brought about already in the Lake States."

This view is purely a commercial one, but the lesson that Pennsylvania and other Eastern States has learned, or is learning—that destruction of the forests on the hills means interrupted waterflow, drouth, freshets and disease—may easily find its counterpart in the communities of the South. In fact, the danger is probably greater, for, without the innumerable rivers and streams that flow from the Allegheny Mountains to the Atlantic and the Gulf, many parts of the Southern country would be uninhabitable.

The maintenance of the pine, cedar, and cypress forests in the lowlands and along the coast must also be regarded as of great importance, for the unquestioned benefit they have on the surrounding country.

The fact, then, that Sewanee proposes to spread abroad a knowledge of what forestry is and what it will do, is of good omen for the South. The University domain comprises about ten thousand acres situated on, and immediately under, a tableland in the Cumberland Mountains, Tennessee. The growth is almost entirely of hardwoods,—oak, hickory, poplar, maple, walnut, chestnut, etc., and although fires have been frequent and heavy in some parts, there is enough good timber to furnish the necessary income for the organization of the required force and the carrying out of needful work in regeneration, etc. It may take a few years to fully establish the forest on a paying basis, but, under the working plan prepared by Dr. C. A. Schenck, Agent for the Division of Forestry, a revenue to the University is expected.

Suggestions to Writers, No. 29: Another Spelling Difficulty.—Dr. P. Maxwell Foshay writes as follows:

> What good reason can be given for the cumbersome, common spelling of the word "Pharmacopœia"? Here we have an English word ending in a diphthong and two vowels (frequently rendered with four separate vowels, however), but only two sounds are made out of them. It is true that the Greek is "*Pharmakapoiia*," but poi-yah is understandable, while pe-ah for *pœia* is not. In your dictionary you go one step to the good and spell the word "Pharmacopeia," and pronounce it far-mak-o-pé-ah, but even your spelling does not truly fit your pronunciation. Now our English ancestors seem to have had no great difficulty in deriving *poem*, *poet*, etc., from the same origin—the Greek *poiein*, therefore, what necessity of lexicography requires any spelling but "Pharmacopea" whose pronunciation would be self-evident, whose etymology would be found in the dictionary the same as that of *poet* is now, and whose spelling would be really comprehensible to an English-speaking individual. Perhaps your reply to this may succeed in clearing up one more bad spot in medical spelling.

To which we assent, and can only say that the sole objection to adopting the suggestion is that a few objectors would raise a fuss. Logic has nothing whatever to do with English spelling or pronunciation, and nobody cares less for etymology than the pernickety sticklers who talk and make much of it. We remember to have had a very amusing correspondence with one such who was apparently deeply grieved because one poor editor omitted diereses and hyphens in spelling zoology, cooperation, intrauterine, etc. But in the very letter of the critic he spelled *dieresis* without the precious dots or hyphen, and this word *pharmacopoeia* should have been adduced as an additional instance. A still more striking one would have been such words as *diiodid*, *diiodoform*, which would require a very pepper-box of dots to satisfy demands. Diacritic marks of all kinds are against the genius of our language and people; they should, and will be, abolished. The only reason we fear to recommend *pharmacopea* is that every rival, envier, and hater on other than etymologic grounds will seize the occasion to belabor and to write scornful letters and editorials green with rage.

A memorial building has been opened in Dublin by Earl Cadogan, K.G., the Lord-Lieutenant of Ireland, in memory of the Rev. Dr. Haughton, a medical clergyman whose learning and tact made him during his life an influential member of the General Medical Council.

Correspondence.

A CORRECTION.

By G. BETTON MASSEY, M.D.,

of Philadelphia.

To the Editor of The Philadelphia Medical Journal:—

In the report of the proceedings of the recent meeting of the Pennsylvania State Medical Society in the Journal of May 27, page 1139, the reporter missed a portion of my reply to a query whether the cases of carcinoma of the breast had been subjected to histologic examination, thus placing the method employed in the position of lacking this corroborative evidence of its value. The reply to this query stated that about half of the cases that had been placed under the method of cataphoric diffusion had had such examinations made previously by surgeons who had operated upon them, they being regional recurrences. Of the remainder, some had been microscopically examined, but that it was thought unnecessary to make a wound for this purpose that would interfere with the application in many instances in which the clinical evidences of cancer were pronounced. I may add here that in these latter cases the diagnosis has been confirmed invariably by more than one physician.

I shall be greatly obliged if you will set me aright in this matter in your columns.

A REMEDY FOR THE DISPENSARY-ABUSE.

By ALEX. HERON DAVISSON, M.D.,

of Philadelphia.

To the Editor of The Philadelphia Medical Journal:—

If physicians are in earnest to have the dispensary abuse remedied, and are willing to use means at their disposal to counteract an evil that so intimately concerns themselves, would not the following be a simple and effective plan? Let every person who is an applicant for treatment at a dispensary receive at the first visit a card on which is printed: "The bearer (name) (address) is in my opinion a proper recipient of gratuitous treatment for the month of———." At the first visit, to give the applicant the benefit of the doubt as to his or her worthiness to receive gratuitous treatment, the card need not be signed. At the next visit, however, the patient must present the card signed by a reputable physician. Almost every person who visits a dispensary has some acquaintance, either personally, or through members of his or her own family, with some one physician or another.

If the applicant is worthy there should be no hesitancy about going to a physician to have the card signed, nor would the doctor hesitate a moment to give his endorsement. An unworthy person would not have the temerity to attempt to obtain such an endorsement, nor naturally would a physician give an endorsement whereby he would be doing himself or another physician an injury.

By this plan, at a little personal trouble to ourselves, we would be spared the sight of dispensary benches occupied by those of our patients who prefer to seek free treatment rather than pay a just bill for services already rendered. We would no longer see well-to-do property-owners receiving gratuitous treatment; nor would we be obliged to witness surgical operations performed at a cost to the patient of 100% less than the fee we had already named. Cases would cease to come to gynecologic clinics for "opinions." Men "might" find that getting rid of a venereal disease, like its acquisition, usually costs a trifle.

As for the dispensaries connected with institutions for teaching, were this plan of cooperation carried out, every physician should make it his endeavor that they should be supplied with the best and most useful material he could possibly control.

This plan of regulating dispensary-abuse should give control of the entire matter to those most concerned and who are the best able to discriminate—to the physicians themselves.

THE ADVANTAGES OF INDIVIDUAL INSTRUCTION.

By WILLIAM P. SPRATLING, M.D.,

of Sonyea, N. Y.

To the Editor of The Philadelphia Medical Journal :—

Your comment in the issue of the Philadelphia Medical Journal of May 27, on the above subject, taken in conjunction with what Dr. Rudolph Matas of the Tulane University is quoted in the same comment as having said on "individual instruction," should be the beginning of a widespread agitation of the whole subject of the teaching of medicine in this country.

Is it not a fact that the reason a great majority of those who would be the most successful teachers of medicine in this country cannot give their time to individual instruction is that, as busy practitioners of medicine on a large scale, they cannot spare the time? The work of individual instruction is therefore left to the adjunct professors, assistants, and clinicians. These men form a large class and they deserve great credit for the work they do, for they constitute really the teaching class of medicine in this country. They cannot, however, have had the vast experience that those who hold the principal chairs of instruction have had, and it would seem desirable that some arrangement be made whereby the students might gain directly from the chief teachers of the school the knowledge it is their privilege to acquire.

What a fine thing it would be if our great teaching medical men would consent to stand in the center of a small group of earnest and ambitious students, expounding, explaining, quizzing, correcting, and *teaching* them directly from their own individual storehouses of rich knowledge, just as it was my pleasure to see that marvelous man in the world of scientific medicine to-day, Dr. Rudolph Virchow, doing at the Institute of Pathology in Berlin a few months ago. It was a happy picture to see this remarkable man standing for two whole hours, calmly, gently, and patiently, in spite of his more than three-score years and ten, teaching the great truths of the science of pathology to an earnest and ambitious class. Under such instruction the dullest mind could not fail to be aroused and interested. Such teaching as that is the reason why so many American students go to Europe every year for the purpose of acquiring a deeper knowledge of scientific medicine. It is not that the teachers of medicine abroad know more than the teachers of medicine in America, but it is *because they teach it in a manner that enables the student to acquire it and retain it.* There the student comes into intimate contact with the master mind; here he gets such instruction from a subinstructor.

I do not believe, Mr. Editor, that the teaching of medicine in America can be radically changed until the schools are sufficiently endowed to permit of the chief positions being held by the most competent men, who will be satisfied with the emoluments they receive for such work, and who, consequently, will have no desire for additional gain from private practice.

Then, again, the opportunity for gaining hospital-experience is perhaps not taken advantage of as fully as it might be. The multiplicity of hospitals of all kinds is now so great that almost every student of medicine who earnestly desires to do so, may gain some hospital-experience. A double advantage would accrue from taking more young medical men into the public hospitals and public medical institutions: First, the experience gained by young physicians from such work would be of incalculable benefit to them; second, their services, in view of the great cost of the maintenance of these public charities, would have some economic value. There are many special hospitals and institutions that should have in training young physicians, who would acquire, while doing such work, an experience that it is impossible for them to get elsewhere.

May 29, 1899.

TWO AIDS FOR THE PHYSIOLOGICAL DEVELOPMENT OF THE MENTALLY DEFICIENT.

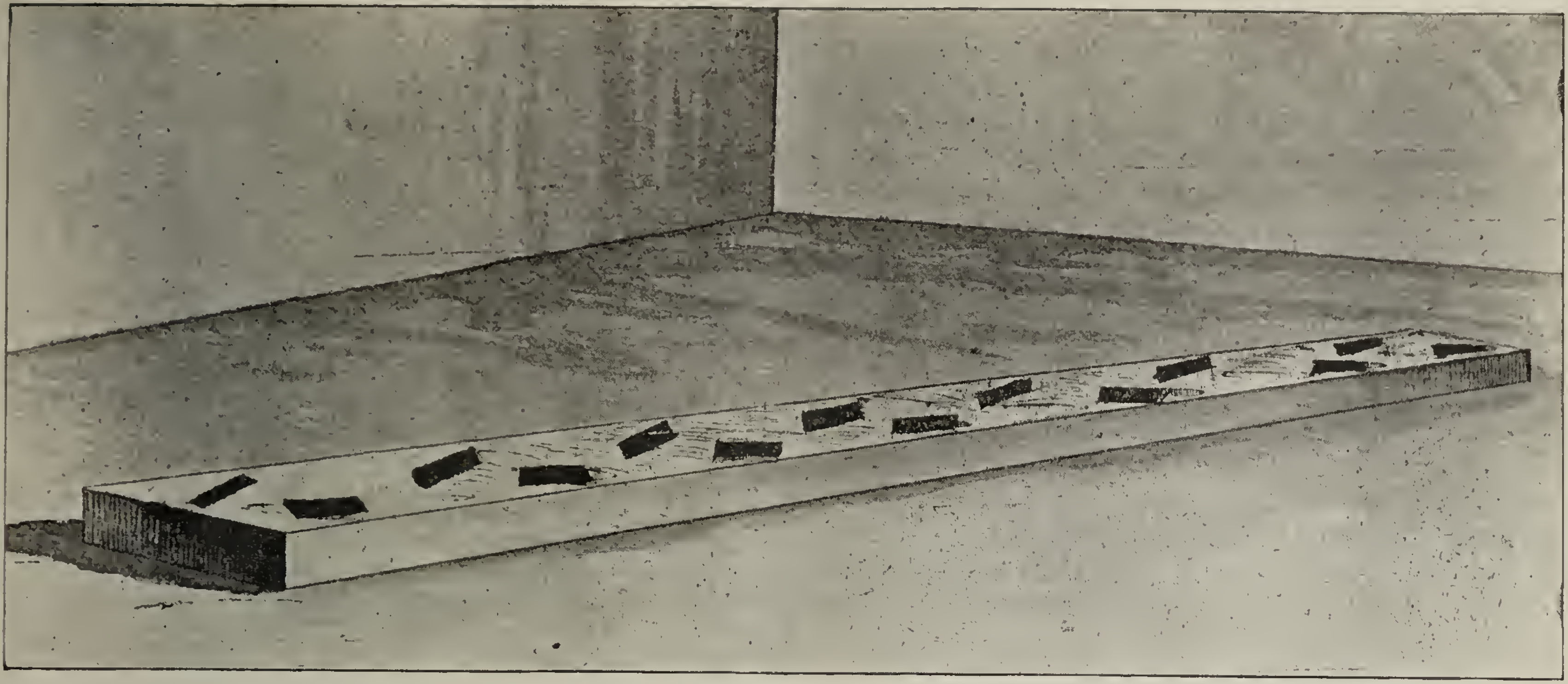
By JEAN W. COX,

of the Haddonfield Training-school.

To the Editor of The Philadelphia Medical Journal :—

In 1892 our attention was especially directed to the necessity of devising some method of training the pupils, not only in walking, but in raising the feet, *i. e.*, preventing the shuffling of the feet so characteristic of the feebleminded. After consulting the few authorities (the very few) who gave methods of training (or even suggestions), we came back to that good friend of the feebleminded, Dr. Seguin, and found in his "Physiological Education" that he recommended the use of an ordinary ladder or blocks laid on the floor for the children to step over. This set Miss Bancroft to thinking; there were serious objections to using the blocks; they could be pushed or kicked to one side—might slip and cause a stumble—get pushed together or far apart, making distance of steps uneven, thus risking a fall, etc., etc. After a little thought Miss Bancroft evolved the walking-ladder, which has had a fair test of over 6 years in the gymnasium. This ladder is 15 feet long, 2 feet wide, 3½ inches high. The upper part is covered with planks or boards, in which are cut at regular intervals of one foot alternately (first right then left) an opening sufficiently long to allow the entrance of the child's foot comfortably; this opening is lined or boxed so that there is no chance of the foot slipping or catching in raising, shaped outward toward the front so that the feet must point outward. The pupil in beginning is guided by the teacher, and if able to talk joins her while walking in saying, "Right, left, right, left," while lifting the corresponding foot. The ladder has been a great success, has never failed to help, and in several cases entirely cured the shuffling habit. The fact of having to lift the foot or fall (for a stumble would cause a fall, something the feebleminded rarely do) forms a custom of habitually raising the feet. The regular distance apart creates the habit of precision, and the erect position insisted upon while having the drill begets in time an erect carriage.

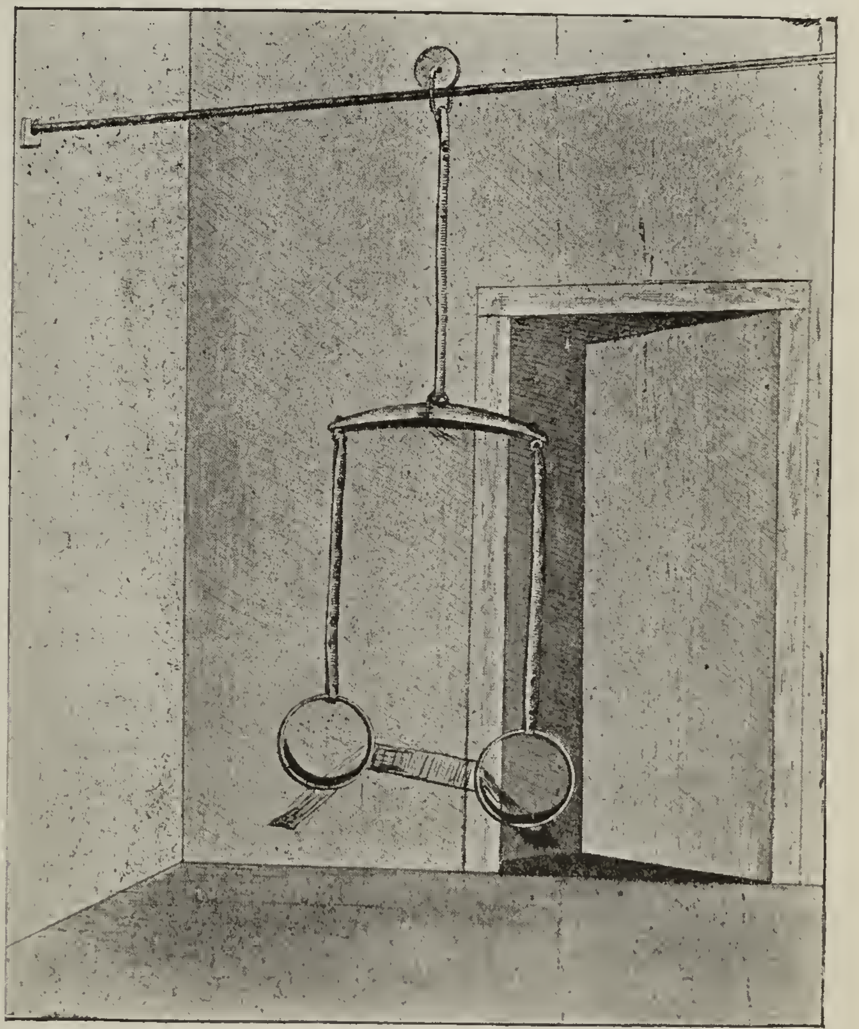
This is the first drill all children are given in the gymnasium, just as the saw is the first tool used in the manual department; a child has never fallen and it has been used by a little blind girl with wonderful success. At first two persons were needed to hold and guide, lift, and place her



feet. After three years' training the child could walk without assistance--erect, firm, and simply having hold of her teacher's arm. I should previously have said the pupil was so helpless when sent to school that her invalid carriage was forwarded to receive her on her arrival. The carriage was abandoned within a week as a detriment, the attendant insisting on placing the child in it on all occasions.

Various methods were used to strengthen the spine and limbs, such as electricity, massage, and Swedish passive movements; but the walking ladder was an important factor in her recovery, for to-day that little girl walks almost alone, only being guided on account of her blindness. There are no "shuffling" children in the Haddonfield Training-school. Other methods are used to break up the habit, such as drills in climbing, walking up stairs on the ball of the foot, etc., but no other means are so efficient as the walking-ladder. The ladder should be made to suit large or small children—the length of steps measured by that of a normal child of the age desired. The one described here is for the ages of from 5 to 10, height of all about the same.

The walking apparatus, another invention of Miss Bancroft, was the outcome of a desire to help a pupil suffering from partial paralysis. The girl was of fair mental development, highly nervous, sensitive, timid, and, partly from inability, partly from the excessive tenderness of parents, had grown sluggish, indolent, unwilling to make an effort. She was brought to the school for the physical help alone, for which the school is noted. It was found that she could walk only a short distance, even when allowed to balance herself by flinging her arms around in rotation, bending her body from side to side, etc., causing imminent danger of falling. Miss Bancroft had the blacksmith and carpenter make and put in place an iron rod 1 inch in diameter and the full length of the gymnasium, being fastened firmly into the joints; on this is an iron pulley from which depends a yoke about 2 feet long, and moving freely in any direction. This yoke is 3 inches wide, 2 inches thick; from each end of the yoke hangs a strap of calfskin 1 inch wide (looking like a trunk-strap), and so arranged that it can be lengthened or shortened at will. To this strap are attached two rings of iron 8 inches in diameter, covered and comfortably padded. These are joined together by a broad canvas belt with buckle, etc., ready to clasp. The method of using was to have the patient slip her arms through the rings, have the belt buckled around her waist, and the straps lengthened to hold her in a perfectly comfortable and natural position for walking. In this arrangement the walking-ladder bore an important part. It was placed directly under the rod, and all strain for fear of falling being removed, full attention could be given to taking steps, holding good position, keeping arms quiet, etc. This exercise was persisted in for one year, averaging 15 minutes twice daily. The improvement was very satisfactory, the child becoming able to hold herself well and quietly. It was a source of regret to us that circumstances prevented the continuation of the remedy.



Another little pupil of 7 has had this exercise since October. He, also, was partially paralyzed and quite helpless; could use his limbs when supported under the arms, but flung his arms out in a spasmodic manner, very high, and to the right and left. He has had massage, salt rubbing, Swedish movements, both passive and active, and the daily use of walking-ladder and apparatus, beginning with 5 minutes daily, increasing to 15 at the present date. The little fellow still needs support, but mainly, by holding to clothing, has almost ceased the flinging, swaying movements, has taken 4 steps alone, and frequently walks around as many as 15 feet by holding on to chairs; will stand alone with his back to the rib-stalls, raising his arms backward, and reaching up to the rail above his head, in taking drill. This boy was paralyzed on one side from infancy, he is growing straight, tall, stout, and there is much hope of making at least a partial cure. In all this there must be daily, patient, conscientious, intelligent work. If possible, have frequent advice from your physician as to the best measures to adopt, the amount of time to be given to exercises, diet, rest, open-air exercise, etc.—all these help—but the walking-ladder and apparatus will facilitate matters wonderfully. I hope the drawings, directions, and 3 instances cited may be of some help to many of the weak ones.

Special Article.

CLIMATE AND SEA VOYAGES IN THE TREATMENT OF TUBERCULOSIS.[1]

By Sir HERMANN WEBER, M.D., F.R.C.P.,

Consulting Physician to the German Hospital, London, and the Royal National Hospital for Consumption, Ventnor.

At the International Medical Congress at Berlin, in 1890, I had the honor of introducing the discussion on the Climatic and Hygienic Treatment of Pulmonary Tuberculosis. On that occasion I expressed my opinion that climatic treatment by itself was insufficient in most cases; that careful supervision and guidance of the patient by the doctor was necessary, and that, therefore, treatment in special establishments was to be preferred in the majority of cases, while for poor patients it was urgently required.

In the present Congress you have appointed me to introduce the discussion on climatic treatment. My opinion, gentlemen, is now more decided than at the former Congress, for I hold that climate is really important, but is insufficient unless there be careful medical supervision and hygienic and dietetic guidance. Obeying your directions, I shall endeavor in a short survey to explain what share climate can take in the treatment of tuberculosis. I will divide my rapid summary under four heads:

1. Climates of mountains and high altitudes.
2. Inland climates of low elevation, including those of forests, of deserts, and of Egypt.
3. Climates of the coast and of small islands; sea voyages.
4. Short indications for the use of different climates in different cases of tuberculosis.

I. Climates of Mountains and High Altitudes.

The differences are great between the various localities which are grouped together under this heading. While in the tropics an elevation of 1,800 to 3,000 meters over the sea is necessary, in the latitudes further from the equator (46° to 54°) an elevation of 400 to 500 meters is generally sufficient. When the surroundings of a place are much higher than the place itself, the effect of high altitude is in many respects diminished; the effect is increased when the surroundings are lower.

You know, gentlemen, that in former years the prevailing opinion was that consumption was more likely to be cured in warm health-resorts than in cold ones, and you know also how scanty were the grounds for this opinion. You are aware that in Lima, the capital of Peru, about 12° south of the equator, consumption is especially frequent, and runs a rapid and fatal course; but that patients, if they go early enough into the neighboring Peruvian Andes, at an elevation of 2,500 to 3,000 meters above sea-level, mostly get better. For the recognition of this fact we are chiefly indebted to the late Dr. Archibald Smith, who for 30 years exercised the medical profession, partly in Lima itself, and partly in the silver mines of Cerro de Pasco, nearly 4,000 meters above the sea. The custom of sending consumptives from the hot coast of Lima to the cool altitudes of the Andes is supposed to have existed from "unknown times." Although I myself have never been in Lima, yet by chance correspondence with the coasts of Peru and Chile, I have had the opportunity of confirming this fact in a series of patients.

In Europe we have mostly given the late Dr. Hermann Brehmer, of Goerbersdorf, the credit of having ascertained the influence of mountain climate in pulmonary consumption; but a recent excellent work by Geheimrath Bernhard Schuchardt, in Gotha, shows that others did this before Brehmer, and that foremost among them Brockmann, in an excellent contribution to Holscher's *Annalen* in 1843, proved the favorable influence of a stay in the Upper Hartz in regard to the prevention and cure of scrofula and tuberculosis, and that soon afterwards C. F. Fuchs, though unacquainted with Brockmann's publication, made similar communications. Brockmann wrote in 1843, Fuchs, in 1851, and the first edition of Brehmer's book on chronic pulmonary phthisis appeared in 1857, preceded by a similar work in 1856.

The main characteristics of high altitudes are: (1) low atmospheric pressure; (2) small amount of the absolute and relative humidity; (3) low temperature in the shade; (4) great warmth of the sun; (5) great amount of light; (6) rarity of clouds; (7) the purity of the air, especially in regard to microbes, to which the bright sunlight and free access of air are antagonistic.

The physiologic effects of high altitudes are: (1) amplification of the respiratory movements; (2) strengthening of the muscles of respiration; (3) strengthening of the heart and circulation; (4) increase in the amount of watery vapor and carbonic acid given off from the lungs; (5) increased activity of the skin; (6) increase of appetite and of the amount of food taken, improvement of the digestive functions; (7) improvement in the quality of the blood, and in the nutrition of the organs, particularly of the lungs; (8) increased activity of the nervous system.

We may say that mountain climates are highly stimulant and tonic, but require a certain power of resistance on the patient's part.

It is difficult to exactly ascertain the results of treatment. I myself could follow out the further progress of only a relatively small number of cases. In 144 patients only have I statements on the later condition. Of these 144 patients I have noted cure in 36; in 56 there was improvement in the local signs and in the general nutrition; in 52 cases there was either no improvement, or deterioration, or death within three years of the treatment. Only the smaller portion were treated in special sanatoria; in the remaining larger portion the medical supervision varied very much. The results would doubtless have been much better if the patients had placed themselves under stricter medical guidance, as they were advised. In many cases, as a consequence of false steps, relapses occurred which confined the patients for weeks and months to their bed or their room, and prevented recovery (which had previously seemed probable) from taking place. In 7 cases, however, recovery seemed nearly complete when through some mistake, mostly overexertion, a deterioration set in, which afterwards led to the fatal termination. I must, however, add that Dr. C. Theodore Williams, of London, records better results in his great experience than I do. Dr. Lucius Spengler's results published from his experience in Davos between 1887 and 1890 are also more favorable. Still more satisfactory, however, are the results which Dr. Turban has obtained in his sanatorium at Davos (66.1 per cent. of absolute and relative recovery), that is, obtained by an association of high Alpine climate with sanatorium treatment.

In regard to the prevention of tuberculosis by high altitudes, my results are decidedly better. In 40 cases of children from tuberculous families, education in the mountains, with good diet and plenty of fresh air, has had a favorable result, and only in 4 of these cases has tuberculosis under unfavorable conditions afterwards developed. Seaside places have likewise a prophylactic action; but, so far as I can conclude from my experience, they have a greater influence against the so-called typical scrofulous conditions than against pulmonary tuberculosis, whilst with high altitudes the reverse is the case. Amongst the elevated localities of which I have experience, I give certain places in the Peruvian Andes the preference over all others; especially Jauja and Huancayo, about 3,000 meters above sea-level, and the rather less elevated Quito near the equator. The advantages are—the great dryness and rarefaction of the atmosphere, the strong insolation, the medium temperature and equability of the temperature, which, day and night, summer and winter, is said to vary only between 14° and 18° C. The great drawback, especially for Europeans, is the long, tiring, and costly journey.

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[1] Read before the International Tuberculosis Congress at Berlin, May 24-27, and published from advance-sheets by courtesy of the Editor of the *British Medical Journal*.

The Rocky Mountains, in the United States of America, contain likewise many good, but mostly not yet developed, places. The best arrangements for medical treatment are afforded by Colorado Springs, Manitou, and Denver, the two first over 1,800 meters, the last about 1,500 meters above sea-level. These places are much less equable in their climatic features than are the localities mentioned in the Andes; in this respect they resemble much more the High Alps of Switzerland; the Rocky Mountains are, however, somewhat drier and warmer than Davos and St. Moritz, and also more windy. Denison, Solly, and C. T. Williams have reported on these places. Private sanatoria have as yet hardly been established in the Rocky Mountains; but are better represented in the lower North American mountains; and the excellent sanatorium in the Adirondacks, under Dr. Trudeau's management, offers an example which deserves to be copied. The flourishing Climatological Association of North America will, it is to be hoped, encourage the foundation of many sanatoria.

In the Swiss Alps all of you are acquainted with Davos, Arosa, St. Moritz, Wiesen, Leysin, and Les Avants. I shall, therefore, not consider these localities further, nor the places on the relatively lower German mountains; the latter are rich in sanatoria, which will probably be reported on by the opener of the discussion on sanatorium treatment.

In France the Société des Sanatoria de France is endeavoring to more extensively develop climatic treatment in the inland, whilst an analogous society does the same for the coast, and to this subject we will come back later. The Trespoey Sanatorium near Pau, and the Durtol Sanatorium in the Auvergne, are already open.

The highlands of South Africa 30 or 40 years ago were valued as unfailing climates, but experience has limited their reputation. Their disadvantages are the great heat and dryness in summer, the frequent alternation in winter of great heat in the daytime with great cold in the nighttime, and the frequency of wind and dust. However, of 21 cases, I have had 7 lasting recoveries amongst patients in the first stage of pulmonary tuberculosis; these patients settled there later, and occupied themselves or still occupy themselves with agriculture. Dr. Symes Thompson and Dr. Pillier, of London, have given us information regarding these regions.

Bloemfontein, Aliwal North, Kimberley, Burgersdorp, Pretoria, Beaufort West, and Cradock belong to the best known places in the more elevated regions (1,300 to 1,500 meters). Regular sanatoria are not yet developed. Harrismith, in the Drakenberg range, with a sanatorium there, would be of the greatest utility for the extensive less elevated regions of the southeastern coast of South Africa, and particularly for the not very hygienic but otherwise flourishing coast towns.

II.—INLAND CLIMATES OF LOW ELEVATION, INCLUDING THOSE OF FORESTS, OF DESERTS, AND OF EGYPT.

Like all of you, I have seen many cases of recovery on level land and even in large towns, but the proportion of recoveries to the number of patients was small. The recoveries have been chiefly in persons who spend much of their life in the open air and take sufficient food, especially milk, for instance, in the case of gardeners and those employed in agriculture, and landowners, but also in bakers who deliver the bread, and in Black Forest clockmakers who carry their clocks about for sale and who have exchanged their work in shut-up rooms for work in the open air. The proportion of recoveries was certainly greater at places with shelter from wind, much sunlight, and medium temperature, such as Pau, Gardone, Riviera, Arco, Meran, Montreux, Lugano, Locarno, and Pallanza; but repeatedly at these places also well-founded hopes of recovery have been destroyed by too long walks, by exciting games of cards in smoky rooms, and by other harmful factors.

In the question of the influence of forests on the soil and the air of a locality, Ernest Ebermeyer has made a valuable study, but our knowledge of the effects of forests in cases of tuberculosis is very limited. In general one may say that in a forest the ground (on the average for a year) is some degrees colder, and that the ground and the air are somewhat moister; the difference between day and night temperatures is less; the movement of the air is diminished; rain is more frequent; there is less light, and the amount of ozone in the atmosphere is increased. These characteristics are less marked in forests of pine than in forests of deciduous trees, and in the latter are less in winter than in summer, when the trees are in foliage. There are, however, other modifications in the atmosphere of forests which cannot be exactly estimated—possibly changes in the energy of the oxygen due to the vital processes taking place in the leaves—and which exert a refreshing influence. There are also exhalations from the trees to be taken in account, especially in pine forests, where the aromatic substances in the air may possess an antiseptic influence. Then the protection from wind should be considered, which is felt not only in the forest itself, but likewise in the neighborhood. It is therefore important to have a wood, especially of pine, in the direction from which the ordinary cold winds come. From cold local winds also a forest not rarely affords shelter. Thus one may observe on mountain declivities, when the upper part of the slope is covered with trees, that the tender plants and shrubs below the wood are thereby sheltered from the cold air, which during the night moves downward from the summit, whereas similar plants growing at an equal height, but at a spot not protected by forest, are frozen. From what has been said I should not be in favor of erecting sanatoria in level dense forests of deciduous trees, for the greater moisture of the soil (Bowditch and Buchanan) and the diminution of light cannot act favorably. However, on the slope of a wooded mountain, when there is a clear space with free access of air and light, a forest may constitute a favorable element in the climatic conditions, especially when the trees are pines.

In regard to desert climate, it is an old observation that the inhabitants of deserts, the Bedouins, as long as they live in tents, remain free from consumption; but that amongst those of them who live in houses the disease is not very rare. My own inquiries in Egypt and on the peninsula of Sinai led to similar conclusions. From Bedouins who accompanied me on an excursion to Mount Sinai I learned that as long as they travel no cases of consumption occur, but that some of their relatives who seek a livelihood in Cairo, Suez, and Alexandria die of phthisis. I have made similar observations amongst other wandering tribes who do not live in the desert. Several times in Asia Minor I have met with wandering bands of Turkomans; for instance, near ancient Sardis, the capital of the Lydian monarch Crœsus, I met a large horde, consisting of strong men and women, quite free from phthisis and likewise healthy in other respects. They told me by means of my interpreter that members of their horde who had obtained employment in Smyrna and Constantinople died there of consumption. Possibly, therefore, the immunity from phthisis depends not merely on desert climate, but on life in the open air in thinly-populated districts.

The characteristics of the climate of the desert are purity of the air, its richness in ozone, great warmth of the sun, abundance of light, dryness, and great rarity of rainfall. The disadvantages are the violent winds, mostly accompanied by dust, which not only obscures the sun like a dense fog, but gets into the clothes, penetrates into closed rooms, and is deposited on articles lying there. These dust-storms are not limited to the periodical khamseen (chiefly in March and April), but occasionally blow from one to three days at any time of the year. Another disadvantage is the absence of shelter, so that one is obliged to have tents and servants, which necessitate great expenditure. One is therefore seldom in a position to test the advantages of the desert, but in individual instances I have seen great benefit derived from it. If sanatoria were to be established near desert stations, the cost for each person would be much diminished.

Egypt is a term which, though often employed in climatotherapeutics, includes very different climates. Egypt is best considered after deserts, because the localities of which therapeutic use is made owe their characteristics mainly to their proximity to the desert. The features which they have in common during the winter months are: (1) Plenty of sunshine; (2) a clear sky in general; (3) a moderately high temperature, with considerable variation between day and night; (4) a low degree of humidity and rarity of rain; (5) a comparatively aseptic air in the thinly peopled districts, an advantage which is wanting in the crowded districts of Cairo. The disadvantages are: (1) The well-known strong dust-winds; (2) the short duration of the medical season; (3) the return in spring to places with great climatic change; (4) the long journey; (5) the absence of sanatoria. Moreover, the constancy of the meteorological features is by no means so complete as it is reputed to be. It is said that among health resorts it is only in Egypt that one may depend on settled weather. After two long visits to India I cannot confirm this belief. Cases for which Egypt has advantages are those complicated with albuminuria, with emphysema, and with frequent attacks of bronchitis; cases with tendency to diarrhea are to be excluded.

Of the places resorted to by invalids, Cairo is still unhygienic, and only the Ghezireh Palace which is outside the town and now a large hotel, can be recommended. Mena House, about 18 kilometers from Cairo, situated at the edge of the desert, close to the Great Pyramids, is only suitable from the end of December to about the end of March; before this time the neighboring delta is still flooded, and afterwards the heat is too great. Helouan, with its well-known baths, which can be reached by a short railway journey from Cairo, is probably at present the best place, because it lies quiet in the desert, and can be used during the longest period, from the middle of November to the middle of April. Luxor is a very interesting place to stop at; it consists of hotels and the unhygienic dwellings of the ordinary population. Assouan, the most southern of these places, has much of the exhilarating influence of desert climate, but is very windy, and, owing to the heat, has only a short season—from the beginning of December to about the middle of March. As yet there are no sanatoria anywhere. The patients and the European and American doctors who send invalids to Egypt trust too much to the mere climate without supervision by the medical man, and thus many lives are lost. If there were suitable sanatoria the Egyptian climate could be made good use of. One could prolong the season if one were to erect a sanatorium near Alexandria, preferably at Ramleh, where many patients could stop perfectly well till about the end of May. Inseparably connected with the climatic idea of "Egypt" is the Nile voyage, which can either be made on private ships—the so-called *dahabiyehs*—or on the passenger steamboats, which latter are provided with a doctor. The greatest care is required on these steamboats; colds are very often contracted. The wind is often very violent; a draught can hardly be avoided; the temperature on different parts of the ship—that is, in the sun or in the shade—is always unequal. Private ships are expensive, and the invalid should always have a doctor.

III.—Climates of the Coast and of Small Islands: Sea Voyages.

Among coasts and islands there are, first, the more humid and warm climates, such as Madeira, the Canary Islands, Mogador, Tangier, Cadiz, the West Indian Islands, the Peninsula of Florida, and the coast of Georgia and South Carolina, which can be termed sedative, or even relaxing. Formerly, when cold was feared and warmth was regarded as specially beneficial, these climates were much employed, but now they are much less so, though the islands of Madeira and Teneriffe are suitable for some cases of pulmonary tuberculosis with irritable weakness of the constitution.

Secondly, we have the drier climates with moderate warmth during winter. Among these the localities on the Western Riviera are especially popular; they are characterized by the great warmth of the sun, abundance of sunshine, dryness of the air, and moderate amount of rainfall, and may be termed stimulant or exciting. Special caution is required on account of the great difference between the temperature in the sun and the temperature in the shade on account of the sudden fall of temperature before and at sunset, and on account of the frequency of strong winds with dust. Allied to these climates are those of the Eastern Riviera and of Sicily (Palermo, Taormina, Acireale, Catania), but there is less shelter from cold winds. Algiers and Ajaccio may likewise be compared to them, but they are somewhat moister, and Ajaccio is nearly quite free from dust.

You will understand that on these localities and on many similar ones I must not enter more fully. There is a great want of sanatoria, and the majority of patients trust too much to the climate, and often only seek medical guidance when it is too late. My results here are still less favorable than in the case of mountain climates, but, with careful supervision of the patients, would be similarly much improved. I can likewise not stop to speak of the English seaside places, which have a moderate degree of humidity and a lower winter temperature. You are aware that till recently well-to-do English, including medical men, showed a great disinclination toward treatment in closed establishments, and that sanatoria and hospitals for the treatment of the poor, though they were not quite so lacking as in other countries, were yet insufficient to meet requirements, but you know also that the struggle against tuberculosis has seriously begun in England, that to the sanatoria which already exist, many new ones will soon be added, and that for those also who possess private means a few establishments have recently been founded.

Of great value are the places on the North Sea and the English Channel in the treatment and prevention of scrofula. They are likewise useful for the prevention of pulmonary consumption in cases of hereditary disposition, but, in my experience, not to the same extent as mountain climates are.

Ocean voyages are not really recommended because the following characteristics are attributed to them: (1) Purity of the air; (2) slight variation of temperature; (3) abundance of light; (4) constant movement of the air; and (5) mental rest. However, if one examines the conditions of an ocean voyage more exactly, one finds that these advantages are not always completely presented. For instance, the purity of the air is limited almost entirely to the deck, and is generally wanting in the sleeping cabins and the saloons; the pleasant movement of the air is often transformed into a violent storm, while in the zones of calm the reverse is the case; the temperature does not vary much from day to day, but on a long sea voyage the oppressive heat of the tropics has to be supported. Hence the treatment of a serious illness on a sea voyage is rendered difficult by the bad air of the small cabins. I must not pause to discuss the advantages and disadvantages of the different kinds of ships—sailing ships, steamships, wooden ships, iron ships, mixed kinds of ships. Moreover, in respect of the choice between different voyages, I must limit my remarks to mentioning that, to obtain the full effect, one of the longer voyages must be selected, one which lasts about six to sixteen weeks, without including the time spent on land between the voyage out and the voyage home. The best for patients are the voyages to Australia and New Zealand around the Cape of Good Hope (not Cape Horn on account of the great cold), and that to the Cape of Good Hope itself, which in suitable cases may be combined with a stay of several months on the highlands of South Africa.

Of my observations on the influence of sea voyages in pulmonary tuberculosis, I will only give those which relate to the voyages just mentioned, and which lasted from six weeks to seven months. In 70 cases there were 34 showing improvement, 18 showing little change, and 18 showing deterioration. The great majority of the cases were in the first or commencement of the second stage; only 7 were in the third stage.

From what I have observed I would give it as my opinion that sea voyages can do good service in a certain number of tuberculous cases, but that in most such cases other climatic and hygienic methods of treatment exercise at least just as good an influence. If, however, persons of strong constitution, who like sea voyages, develop phthisis under the influence of overwork or mental worry, long sea voyages are to be preferred to all other methods of treatment. A decided advantage of sea voyages is that patients are much more protected from excesses than at many well-known health resorts. Permanent weakness of constitution, very decided tendency to seasickness, unalterable dislike of monotonous diet, constitute contrary-indications. Some practical remarks are contained in the article Ocean Voyages in Phthisis, by Dr. Parkes Weber, in the *Practitioner*, June, 1898, p. 662.

It would be an advantage if there were well-arranged medical ships, a kind of "sea sanatoria," both for long voyages and for short ones—for instance, in the Mediterranean and to the West Indies during winter, and in the North Sea during summer; but this will be hard to arrange without great cost to the patients. In the case of rich persons I have for many years recommended—often with more favorable result—the use of yachts for climatic and hygienic purposes, generally with a medical attendant. Sea voyages can be recommended for prophylactic use against scrofula and also against tuberculosis. Among sailors and seafaring persons there is less phthisis than among soldiers of the same age on land. Out of 18 boys of very tuberculous families, whom I advised to enter the navy, only 2 became consumptive, whereas among their brothers and sisters who chose learned, mercantile, or sedentary occupations, the number of deaths from phthisis was at least three times as great.

IV.—Brief Indications for the Use of Different Climates in Different Cases of Tuberculosis.

1. It is very difficult to formulate exact rules, partly because tuberculosis occurs in such various forms and with such various complications, partly because the constitutions of the affected individuals are very different. In all our medical work we consider the constitution at the same time as the disease, and in tuberculosis we have to do this very particularly, in the apparently slight cases as well as in the severe ones. First of all, we must be clear as to whether we have to do with a strong or a weak constitution. This is often difficult to tell at first sight, because a naturally strong person may be so lowered in health—partly by the disease itself, partly by preceding unfavorable conditions—that he may seem to have a weak constitution.

In deciding this matter the family-history often helps us, not only as to whether the family is free from tuberculosis or not, but still more as to whether the patient belongs to a long-lived or to a short-lived family. If he belongs to a long-lived family, we may suppose that he possesses a strong constitution, even if other members of his family have died of tuberculosis. If he belongs to a short-lived family, we generally have to deal with an originally weak constitution, even if no member of his family have died of tuberculosis. This kind of hereditary tendency—to a long or to a short life—is very important in regard to prognosis and treatment. Another hereditary tendency, which points to a considerable power of resistance, is that towards gout, which to a certain extent is antagonistic to tuberculosis.

Among other circumstances which can guide us in forming an estimate of the power of resistance, the personal history may be mentioned. Those persons who from youth up always feel better, are more energetic, can eat better, and put on weight in warm weather, but in cold weather become less capable of work, generally belong to the class of weak constitutions, whereas those who have always done better in the cold possess stronger constitutions. Patients who from childhood onwards have always had high fever with every slight illness, and have recovered with difficulty, and who always have moist hands, must generally be reckoned amongst the weak, erethic constitutions—a conclusion which is mostly confirmed by the color of the skin and mucous membranes, the general appearance, and the weak and irritable action of the heart. If we have come to the conclusion that the patient has a weak constitution, we must be guarded in recommending high altitudes and long sea voyages, and give the preference to warm, sunny, and sheltered places, such as Beaulieu and Mentone on the Riviera, and Pau; sometimes Madeira and Teneriffe may likewise be recommended. On the other hand, in strong, somewhat torpid constitutions mountain climates are to be preferred, and occasionally also long sea voyages. In these cases one can do much by keeping them continuously in the open air, by good feeding, and by regulated exercise.

In regard to the following indications the constitution has always to be considered:

2. In cases with limited disease at one or both apices, without or with only a slight amount of fever, nearly all climates can be made use of, but especially high altitudes and sea voyages if the constitution is a strong one.

3. Cases with limited local disease and high fever must be at first treated in their houses or in the neighborhood of their homes.

4. Cases with extensive disease of one lung or of both lungs, without fever or with only slight fever, are more difficult to advise. In the majority of these cases treatment at an only moderate elevation, or at warm seaside localities, deserves the preference.

5. In advanced disease with fever, long journeys should be avoided, and, if possible, neighboring sheltered health-resorts, together with careful supervision, should be recommended.

6. In progressive tuberculosis with scattered foci in both lungs and much fever sheltered localities near the patient's home, or the home itself, are probably the best places.

7. In cases of chronic, slowly progressive phthisis I have seen, on the whole, better results from warm winter resorts, and sometimes from sea voyages.

8. Quiescent cases with extensive damage or cicatrization are generally better off at only slight elevations, such as Meran, or Arco, or Montreux, or Badenweiler, or on the Riviera, or in Egypt.

9. Cases with albuminuria without fever should avoid high altitudes, and select dry places like Egypt or the Riviera.

10. The complication of moderate diabetes does not exclude the use of high altitudes, but the latter are injurious in cases with advanced diabetes and emaciation. Similarly, high altitudes should be avoided in cases where the tuberculosis is secondary and the diabetes the primary affection.

11. Chronic cases with much catarrh require places with as little wind as possible, such as Pau and Arcachon, and, in England, Bournemouth; but in the case of young persons places of high elevation with little wind need not be excluded, and are often even to be preferred.

12. High altitudes are contraindicated in chronic cases with extensive emphysema; these cases require warm winter resorts, such as Madeira, the Canary Islands, Pau, or places with pine woods, like Arachon and Bournemouth.

13. When asthma is a complication, in persons whose idiosyncrasies in regard to localities are unknown, no certainty in the choice of climates is possible; but in the majority of relatively young persons high elevations should be preferred, whilst in older persons moderately warm localities at only slight elevations should be selected, such as Grasse (near Cannes), or Montreux, or Locarno, or Meran, or places amidst pine woods (like Arachon and Bournemouth).

14. In all climates for the treatment of tuberculosis the selection of a dwelling-house is of great importance; it should get much sun, should be sheltered from the winds and free from dust, and should be built on dry ground; it should be removed from stagnant water and swamps, and from the impure air of factories, and similar drawbacks.

15. For the prevention of scrofula and tuberculosis all healthy climates can be used, as long as a good diet and plenty of time in the open air can be obtained; but high altitudes and marine climates have advantages—the former rather against pulmonary tuberculosis, the latter (including sea-voyages) more against scrofula.

16. The cure of tuberculosis during the early stages is possible in all healthy climates. Some climates, however, have advantages for various cases over the other climates; for instance, notably those of high altitude. But climate by itself without careful medical supervision is generally insufficient. The patient's blind reliance on the climate often leads to errors, to aggravation of the disease, and to death. For the majority of patients, therefore, treatment in sanatoria should be preferred, but for the treatment of the poor it is a necessity. The erection of numerous sanatoria for the people is therefore a national requirement for the cure, the prevention, and extermination of tuberculosis.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending June 24, 1899:—

Wednesday, June 21—County Medical Society. Business meeting.

Thursday, June 22—Pathological Society.

Vital Statistics of Philadelphia for the week ending June 3, 1899:—

Total mortality		426
Children under 5 years of age		115
Diseases.	**Cases.**	**Deaths.**
Pulmonary tuberculosis		64
Heart-disease 29, inflammation of the heart 5, fatty degeneration of the heart 4		38
Nephritis 26, uremia 10		36
Pneumonia 27, congestion of the lungs 3		30
Apoplexy 16, paralysis 7, softening of the brain 3		26
Inflammation of the brain 23, congestion of the brain 1		24
Casualties 16, burns and scalds 8		24
Marasmus 14, inanition 6, debility 2		22
Diphtheria 16, membranous croup 2	81	18
Carcinoma 12, tumor 5		17
Gastroenteritis 13, cholera infantum 2		15
Typhoid fever	79	15
Senility		15
Convulsions 14, epilepsy 1		15
Scarlet fever	53	2
Cerebrospinal meningitis	4	2
Smallpox	11	
Bronchitis 6, peritonitis 5, dropsy 4, suicide 4, abscess 3, asthma 3, gangrene 3, appendicitis 3, jaundice 3, pertussis 3, alcoholism 2, anemia 2, cirrhosis of the liver 2, diabetes 2, septicemia 2, cyanosis 1, drowned 1, erysipelas 1, cystitis 1, inflammation of the liver 1, tonsillitis 1, ulceration of the stomach 1.		

NEW YORK.

The Woman's Medical College of the New York Infirmary for Women and Children has suspended in deference to the opinion of the trustees that the trend in medical education is toward the consolidation of medical schools with universities, and because they feel that Cornell University Medical College offers to students advantages that could not be obtained in their institution. The infirmary will be conducted as heretofore.

CHICAGO AND WESTERN STATES.

Rush Medical College, Chicago—Correction.—The correct title of Dr. Arthur Dean Bevan, who, having held the chair of anatomy for 10 years, has been transferred to the department of surgery, is now professor of surgical anatomy and associate professor of surgery.

SOUTHERN STATES.

International Association of Railway Surgeons.—At the annual convention held in Richmond, Va., last week, the following officers were elected for the ensuing year: President, Dr. Alfred I. Bouffleur, of Chicago; vice-presidents, Dr. Thomas A. Manley, of New York; Dr. N. P. Hinkel, of Mississippi; Dr. N. T. Pettijohn, of Maryland; Dr. H. P. Merrill, of Maine; Dr. W. L. Hoy, of Ohio; Dr. F. P. Drake, of Canada; Dr. N. C. Moore, of Iowa; secretary, Dr. Louis J. Mitchell, of Chicago; treasurer, Dr. Eugene R. Lewis, of Kansas City, Mo.; members of the executive board, Dr. C. W. P. Brock, of Richmond, Va.; Dr. W. D. Middleton, of Davenport, Ia.

MISCELLANY.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service during the week ended June 3, 1899:

Smallpox—United States.

			Cases.	Deaths.
California:	Los Angeles	May 27	3	
"	San Francisco	May 19	1 Soldier in Army hospital.	
District of Columbia:	Washington	May 20		1
Florida:	Jacksonville	May 27	1	
"	West Tampa	May 20	3	
Georgia:	Savannah	May 9–29	13	
Kansas:	Emporia	May 20	3	
Kentucky:	Frankfort	May 23	2	
"	Louisville	May 23 (to date)	475	4
"	Mt. Sterling	May 23 "	2	
Louisiana:	Morgan City	May 21	7	
"	New Orleans	May 22–29	9	
Massachus'ts:	Fall River	May 28	10	
"	Swampscott	May 31	20	1
Missouri:	St. Louis	May 12–22	12	
"	" "	May 22–29	4	
Nebraska:	Omaha	May 29	1	
New York:	New York	May 29		3
Ohio:	Cleveland	May 15–22	13	
"	Massillon	May 27	1	
Pennsylv'a:	Johnstown	May 15–22	1	
"	Philadelphia	May 27	29	
"	Pittsburg	May 26	2	
Virginia:	Newport News	May 25–30	9	
"	Norfolk	May 25–30	7	1
"	Portsmouth	May 25–30	7	
Washington:	Seattle	May 30	1	
"	Spokane	May 20	4	

Smallpox—Foreign.

Africa:	Sierra Leone	April 22–29	40	
Austria:	Prague	May 6–13	2	1
Brazil:	Bahia	April 15–30	3	
"	Rio de Janeiro	April 7–14	2	9
Egypt:	Cairo	April 22–29		2
England:	London	May 6–13		1
Germany:	Breslau	April 26	Black smallpox reported from consular district.	
Greece:	Athens	May 6–13	24	8
India:	Calcutta	April 15–22		2
"	Madras	April 22–28		1
Japan:	Formosa, Tamsui	March 11–31	19	
"	Nagasaki	April 21–30		2
Mexico:	Mexico	May 14–21	16	8
"	Nuevo Laredo	May 13–20		1
Russia:	Moscow	April 29–May 6	6	
"	Odessa	May 6–13	8	3
"	St. Petersburg	April 29–May 13	22	5
"	Warsaw	April 29–May 6		1
Turkey:	Constantinople	May 1–8		2
Uruguay:	Montevideo	April 1–8	2	

Yellow Fever.

Brazil:	Bahia	April 15–30	115	53
"	Rio de Janeiro	April 7–14	39	26
Columbia:	Carthagena	May 6–13	1	1
Mexico:	Vera Cruz	May 1–25	154	104

Cholera.

India:	Calcutta	April 15–22		16
Japan:	Yokohama	April 14–21	1	1

Plague.

India:	Calcutta	April 15–22		83
Japan:	Formosa, Tainan	April 24	24	18
"	Taichu	April 25	6	
"	Taihoku	April 25	2	
"	Tamsui	March 11–April 12	807	583
Straits Settlements:	Penang	May 27	Plague present.	

Obituary.—Dr. Joseph D. Wallace, demonstrator of anatomy in the Medico-Chirurgical College of Philadelphia, at Philadelphia, June 1, aged 31 years.—Dr. James H. Cantrell, Philadelphia, June 2, aged 69 years.—Dr. Robert W. Hargis, Pensacola, Fla., May 24, aged 53 years.—Dr. James M. Showerman, Batavia, N. Y., May 25, aged 60 years.—Dr. E. B. Ward, Laingsburg, Mich., May 12, aged 64 years.—Dr.

C. B. Buffington, Atwater, Ill., May 11, aged 52 years.—Dr. D. Harris, Whitney, Tex., May 15.—Dr. A. J. Hart, Pacific Grove, Cal., May 7, aged 67 years.—Dr. A. J. Longfellow, Fostoria, Ohio, May 15, aged 68 years.—Dr. A. B. Younkman, Bremen, Ind., May 16.—Dr. Abram E. Conrow, a member of the Board of Freeholders of Burlington County, N. J., in Philadelphia, June 5, aged 42 years.—Dr. Stephen S. White, passed assistant surgeon, U. S. N., of Maryland, at Juneau, Alaska, May 30.

Changes in the Medical Corps of the U. S. Army.

Lippincott, Lieutenant-Colonel Henry, district surgeon general, will proceed to San Francisco, Cal., thence to Denver, Colo., reporting upon arrival to the commanding general, department of the Colorado, for duty as chief surgeon.

Shields, Major George F., brigade-surgeon, is relieved as brigade-surgeon, First Brigade-Surgeon, First Division, Eighth Army Corps, and will report to the Commanding General, Third Brigade, First Division, for duty as brigade-surgeon; this in addition to his duties in connection with the board of health.

Mason, Captain Charles F., assistant surgeon, is granted leave for one month on surgeon's certificate, with permission to return to the United States.

A board of two officers is appointed to meet at San Juan, P. R., May 15, to examine and report upon the physical qualifications for promotion to the ordnance department of Second Lieutenant Chalmers G. Hall, Fifth Cavalry. Detail: First Lieutenant Frederick M. Hartsock, assistant surgeon; First Lieutenant Walter Cox, assistant surgeon.

Davidson, Wilson T., acting assistant surgeon, is assigned to the department of Puerto Principe.

Richard, Major Charles, surgeon, is detailed as a member of the examining board at Fort Monroe, vice Captain William H. Wilson, assistant surgeon.

Krick, Charles A., hospital steward, Fort Walla Walla, will be sent to the Presidio and will report to the commanding officer, district of Alaska, for duty.

Caherly, John, hospital steward, Fort Washakie, is transferred to Fort Walla Walla.

Stewart, Lyell R., hospital steward, is relieved from duty at the General Hospital, Santiago, and will proceed to Guantanamo for duty.

Greenleaf, Colonel Charles R., acting assistant surgeon, will proceed to Columbus Barracks for the purpose of making a sanitary inspection of that post, and on completion of this duty will proceed to San Francisco, Cal., for duty as sanitary inspector of the camp to be established for the muster out of volunteer troops returning from the Philippine Islands.

Arthur, Major William H., surgeon, commanding the U. S. Army hospital ship "Missouri," will proceed from the Morse Iron Works, Brooklyn, N. Y., to Washington, D. C., and report to the Surgeon-General of the Army for consultation, and on completion of this duty will return to Brooklyn, N. Y.

Davis, Major William B., surgeon, is granted leave for two months from about July 1.

The following changes in the stations and duties of officers is ordered:

Gardner, Major Edwin F., surgeon, is relieved from duty at Fort Logan and will join his proper station, Fort Grant.

Shillock, Captain Paul, is relieved from duty at Fort Grant and will report at Fort Apache for duty.

Mason, Captain Charles F., is relieved from station at Fort Logan and from duty in the department of Porto Rico, and upon the expiration of his present sick leave will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Changes in the U. S. Marine-Hospital Service,

or the fourteen days ended June 1, 1899:

Guilhache, Preston H., surgeon, detailed to represent the Service at the meeting of the American Medical Association, Columbus, Ohio, June 6-9, 1899. May 22.

Bauks, C. E., surgeon, to proceed to New York, N. Y., for special temporary duty. May 22.

Vertenbaker, C. P., passed assistant surgeon, to proceed to Savannah, Ga., for special temporary duty. May 23.

Abb, S. R., assistant surgeon, to proceed to Wilmington, N. C., for special temporary duty. May 23.

Nderson, J. N., assistant surgeon, department letter of April 29, 1899, granting Assistant Surgeon Anderson 30 days' extension of sick leave from May 1, amended so that said extension shall be for 14 days from May 1. May 22.

Orput, G. M., assistant surgeon, to report at Washington, D. C., for special temporary duty. May 25.

Ahn, Henry, hospital steward and chemist, to proceed to New York, N. Y., for special temporary duty. May 25.

Ott, E. D., hospital steward, to proceed to Wilmington, N. C., for special temporary duty. May 25.

Urray, R. D., surgeon, leave of absence granted by Bureau letter of May 11, 1899, temporarily suspended and directed to proceed to New Orleans, La., for special temporary duty. May 31.

Carter, H. R., surgeon, to rejoin station at New Orleans, La. May 31.

Cumming, H. S., assistant surgeon, leave of absence for 27 days granted by Bureau letter of May 18, 1899, revoked from June 1. May 31.

von Ezdorf, R. H., assistant surgeon, to rejoin station at New Orleans, La. May 31.

Fricks, L. D., assistant surgeon, upon being relieved from temporary duty at Savannah, Ga., to report to Commanding Officer, South Atlantic Quarantine Station for duty and assignment to quarters. May 29.

Hunter, S. B., acting assistant surgeon, granted leave of absence for 3 days from June 7, 1899. June 1.

APPOINTMENTS.

Dunlop, Moore, of Pennsylvania, commissioned as assistant surgeon May 31, 1899.

Stansfield, Halstead A., of California, commissioned as assistant surgeon May 31, 1899.

Ballard, James C., of Mississippi, to be acting assistant surgeon, U. S. Marine-Hospital Service, for duty at Natchez, Miss. May 23.

PROMOTIONS.

McIntosh, W. P., passed assistant surgeon, commissioned as surgeon, May 20, 1899.

Thomas, A. R., assistant surgeon, commissioned as passed assistant surgeon, May 16, 1899.

Wycks, H. W., assistant surgeon, commissioned as passed assistant surgeon, May 16, 1899.

Cumming, H. S., assistant surgeon, commissioned as passed assistant surgeon, May 16, 1899.

Changes in the Medical Corps of the U. S. Navy

for the week ending June 3, 1899:

Herndon, C. G., surgeon, ordered to Cleveland, Ohio, temporarily for recruiting duty at the branch hydrographic office.

Rogers, F., medical inspector, promoted to medical inspector.

Foreign News and Notes.

GREAT BRITAIN.

Sir Theodore Martin, the author of the *Bon Gaultier Ballads* and other less known but more serious works, has given £2,500 to the Brompton Hospital for Consumption to found a bed in memory of his late wife, the famous actress, Helen Faucit.

The London County Council and Medical Research.—The London County Council, in offering a scholarship of the value of £150 ($750) per annum for two years to students to carry on investigation into the preventable causes of insanity, is showing itself properly awake to the needs of the times. Preventive medicine does so much for the modern community that municipal bodies ought always to be ready to subsidize its efforts. This, we believe, is the one direction, so far, in which the London County Council has recognized the claims of preventive medicine upon it, but enlightened citizens are hoping that the good action we record is an earnest of bigger things in the future.

The Chair of Physiology in Edinburgh University.—The complete list of candidates for the chair of physiology in the University of Edinburgh, left vacant by the regretted death of the late Professor Rutherford, is as follows: Dr. Wace Carlier, Lecturer on Experimental Physiology and Histology and senior assistant to the late professor of physiology, University of Edinburgh; Dr. Noel Paton, superintendent of the Research Laboratory of the Royal College of Physicians of Edinburgh, Lecturer on Physiology in the School of Medicine of the Royal Colleges, Edinburgh, etc.; Professor Waymouth Reid, Professor of Physiology in University College, Dundee, St. Andrew's University; Professor Schäfer, Jodrell Professor of Physiology in University College, London; Professor G. N. Stewart, Professor of Physiology and Histology in the Medical School of the Western

Reserve University, Cleveland, Ohio; Professor Stirling, Brackenbury Professor of Physiology and Histology, Owens College, Manchester; and Professor Anderson Stuart, Professor of Physiology in the University of Sydney. If only one of these candidates, Professor Schäfer, holds quite the scientific position that was held by Professor Rutherford, it is none the less undeniable that the electors have a difficult task before them, for all the candidates can put forward a good record. Dr. Wace Carlier and Dr. Noel Paton have strong local claims. Professors Reid and Stewart represent the Cambridge school of physiology, whose distinguished lights seem always to obtain important appointments. Both are Fellows of the Royal Society, as is Professor Schäfer, the most widely known of all the candidates, being the general secretary of the British Association for the Advancement of Science and the editor of *Quain's Anatomy*, as well as the author of a large part of the later editions. Professors Stirling and Stewart have done good practical work.

The General Medical Council.—"This body," writes a frequent correspondent, under date May 27, "will be sitting when my letter reaches you. It has its work cut out for it during the imminent session, for many questions of vital importance to the English medical profession (on most of which the PHILADELPHIA MEDICAL JOURNAL has published notes from time to time) will be under discussion. A debate may be expected upon the propriety of raising the standard of preliminary education for the medical student, and the reason that will be *alleged* as calling for the increased stringency will be the growing necessity that the medical man should be a man of genuine learning and not a smatterer. The *real* reason for making the portal to the medical profession narrower is the idea universally felt by medical practitioners and occasionally loudly voiced, that the craft of healing is overstocked, a situation which leads some medical men, under the stress of severe competition, to undersell others. The necessity for amendment of the Medical Acts will also be brought before the Council. At the present time no lawyer, however astute, can gauge whether the prosecution of a quack will be attended with success or not. Some magistrates, and even some judges, differ from others in their interpretation of the law, with the result that the most flagrant impostors and audacious charlatans have escaped the penalties which they richly deserved, and which the medical profession in England believes that the existing Acts should be able to secure for them. Some quacks have been prosecuted in one part of England successfully, and have at once shifted their headquarters to another county, where the law has taken a different view and permitted them to continue their mischievous course unmolested. The Medical Defence Union, the largest and most active body whose business it is to protect the rights of the medical profession, has practically ceased its attempts to bring these imposters to book because the dispensers of justice are not unanimous in their reading of the law. Under these circumstances it is, I think, inevitable (and I know desirable) that the need for a new Medical Act whose phraseology shall contain no ambiguous terms should be pressed next week upon the attention of the General Medical Council."

CONTINENTAL EUROPE.

The International Tuberculosis Congress in Berlin.—The International Congress of Tuberculosis, promoted by the central German committee for the establishment of sanatoria for pulmonary diseases, was formally opened on May 24. Altogether the members of the congress number over] 2,000,—112 being delegates from foreign countries. Among the delegates from the United States were Dr. de Schweinitz, and two representatives of the American Medical Association, Dr. A. J. Banker, of Columbus, Ohio, and Dr. John Kolmer, of Indianapolis. Among those who represented Great Britain in various capacities were Sir Thomas Grainger Stewart, Dr. P. H. Pye-Smith, Sir William Broadbent, Bart., Sir Hermann Weber, Mr. Malcolm Morris, Mr. C. Rube, and Dr. A. P. Hellier. Austro-Hungary sent a large number of official representatives, including Professors Weichselbaum and Paltauf, Prebram and v. Jaksch, and Korányi. The French official delegates included Professors Brouardel, Nocard, Proust, Grancher, Cornil, Metschnikoff, and Dupuy, and Dr. A. J. Martin, Inspector-General of Sanitation in Paris. Italy was represented by, among others, Professors Simonetta and Maragliano. The Russian delegation was headed by Professor Botkin and includes one lady, "Frau Dr. Pawlowskaja," of St. Petersburg. Holland sent three delegates, Belgium eight, Japan the same number, Persia three, including Dr. Müller, honorary physician to the Shah; Sweden four, headed by Dr. von Printzsköld, president of the Swedish commission on sanatoria for consumption; Norway four, Switzerland five, headed by Dr. Schmid, director of the Swiss health department, and including Professor Sosser, of Geneva; Servia sent two official delegates, while the Argentine Republic, Bulgaria, Denmark, Guatemala, Mexico, Monaco, Montenegro, Nicaragua, Portugal, and Spain were each represented by one official delegate.

May 23, the Emperor received the Duke of Ratibor, who reported the arrangements made for the reception of the Congress. The Emperor showed great interest in the Congress, and it was arranged that the foreign delegates should be presented to him on May 28. Prince Hohenlohe, the chancellor, invited the members to a garden party on May 25. The Emperor also issued invitations to the opera on Thursday evening. A committee, under the presidency of Princess Elisabeth zu Hohenlohe, made arrangements for the benefit of ladies accompanying members of the Congress. These arrangements include visits to various schools, museums, nursing institutions, and model dairies, as well as numerous social entertainments and a visit to Potsdam and its palaces.

At the unofficial reception on Tuesday evening, the Duke of Ratibor and Professor von Leyden received the visitors, and many other distinguished men were present. Among these were Baron von Knescheck, representing the Empress, and Count Schœnburg, representing the Chancellor, Prince Hohenlohe.

The Congress was opened Wednesday morning, May 24, in the Chamber of the Reichstag. The Empress and suite entered a few minutes after 11, and were received in silence by the whole company standing. The Chamber was filled to its utmost capacity, and fully 1,500 members and delegates were present.

Count Posadowsky, Minister of the Interior, made an impressive speech, remarking that the presence of the Empress was a guarantee of success.

The Duke of Ratibor welcomed the visitors.

The Burgomaster of Berlin then stated that inasmuch as Berlin had been taking steps against the spread of tuberculosis for years, the Congress was one of special interest to the city. He hoped the foreign delegates would take away with them pleasant recollections of the city and its people.

Professor Waldeyer, Rector of the University, said practical measures had been rendered possible by the laborious scientific researches of Pasteur and of Koch.

Professor Brouardel, of Paris, spoke in French. He deplored the death of Pasteur, and congratulated Germany on having her best men still living.

Sir T. Grainger Stewart, who spoke in English, referred to the great part taken by the Prince of Wales in the prevention of tuberculosis. Discussing the open-air treatment of phthisis, he said that it was now found that cases could be treated satisfactorily in England, in spite of rain and west and east winds.

Representatives of Italy, the United States, Austro-Hungary, and Russia also spoke; after which the Secretary of the Congress stated that over 2,000 members had been enrolled.

Professor von Leyden gave a brief address; and the Duke of Ratibor thanked Her Imperial Majesty for her presence, whereupon the company rose and cheered.

At the conclusion of the ceremony a resolution was carried to send a telegram of congratulation to Queen Victoria on her eightieth birthday. In the evening a brilliant reception was given in the Town Hall by the Burgomaster of Berlin.

The first subject on the program, **the dissemination of tuberculosis,** was introduced by Dr. Köhler, the Director of the Imperial Health-Office in Berlin, who gave statistics as to the prevalence of the disease and the mortality which it produced in Europe. England, Belgium, the Scandinavian countries, and Italy showed the lowest mortality from tuberculosis, and Russia and Austria the highest. Naples, Buenos Ayres, and London had the lowest mortality from consumption of the large civilized cities of the world, Moscow, St. Petersburg, Vienna, and Buda-Pesth, the highest. While there was no evidence that elevation above sea-level had any effect upon the incidence of the disease, it was more prevalent in towns and industrial districts than in country districts. Finally, he pointed out that tuberculosis caused a larger number of deaths between the ages of 20 and 30 than any other disease. Dr. Krieger, of Strassburg, read a paper on the relations between the general condition of life and the spread of tuberculosis; Dr. Gebhardt, of Lübeck, on the prevalence of the diseases among the industrial population under the compulsory insurance scheme in force in Germany; Dr. Schjerning, the Chief Medical Officer of the German War Office, on tuberculosis in the army; and Professor Bollinger, of Munich, on the risk of infection through domestic animals, especially by the use of unsterilized milk and butter.

Saturday, May 20, the **Sick-Nursing Exhibition** (Ausstellung für Krankenpflege) was opened with elaborate ceremony. The German Empress, unfortunately prevented from appearing by indisposition, was represented by one of her Court officials. Dr. Bosse, the Cultus Minister; Herr von Gossler, the War Minister, with several under-secretaries of State and ministerial "Geheimräthe," represented the Prussian Government. The head-mayor, Dr. Kirschner, magistrates, and town councillors were delegated by the municipality of Berlin; the Princess Elisabeth Hohenlohe sat at the head of the ladies' committee, and many distinguished medical men and several general army surgeons were present.

Professor v. Leyden (President of the Organizing Committee) addressed the assembly on the art of sick-nursing, which he said was in our day recognized as a most important factor in therapeutics. He sketched its history, and dwelt on the progress achieved within the last ten years. He explained the arrangement of the exhibition, a large portion of which was devoted—in view of the Tuberculosis Congress—to the care of consumptive patients.

General-Army-Surgeon Dr. Schjerning spoke next, as President of the "Jury," and after him the chief Mayor, Dr. Kirschner, as the representative of the city of Berlin. He said that the Berlin municipality was conscious of its great responsibilities as regards the care of the sick; that it disposed of no fewer than 9,000 beds, of which nearly all were constantly occupied; that a new hospital, a new lunatic asylum, a new lung sanatorium, and enlargement of existing buildings were either in course of erection or planned.

Dr. Bosse then, in the name of the Committee, declared the Exhibition open, adding the hope that part of it might remain as the nucleus of a permanent museum for sick-nursing apparatus.

MISCELLANY.

Literary Notes.—The following are abstracted from the *British Medical Journal:*—

In the current number of *Janus* (April 15, May 15,) Dr. E. T. Withington gives some instances of the therapeutic use of brain substance in the olden time. According to the *Pharmacopœia Londinensis* of 1691, Spiritus cerebri hominis, or spirit of man's brains—the brain of a young man slain—is a noble antepileptic, and may be given in doses of 1 to 4 scruples. Moreover, the brain of a rabbit, a "fearful but fruitful creature," is credited with antidotal properties against poison.

Major John Ritchie, R.A.M.C., begins an interesting paper on the Fevers of West Africa in the May number of the *Glasgow Medical Journal* with the following quotation:

> O fierce dark land, unconquered still,
> Though doomed to our behest,
> *How long ere thou hast drunk thy fill*
> *Of the blood of England's best.*

The two lines here italicised have an appropriateness probably unsuspected by the poet in view of recent theories as to the part played by the mosquito in the production of malaria.

In the March number of Ιατρικη Προοδος (*Medical Progress*) a Greek medical monthly ably conducted by Dr. J. Foustanos of Syra, Dr. G. Lambrinopoulos of Vytina quotes a passage from Lycus, an ancient commenator on Hippocrates, as showing that nutritive enemata are not, as is generally supposed, a purely modern invention. Lycus recommends for conditions in which there is a strong aversion from food *τρόφιμοι κλυστῆρες* of farinaceous and amylaceous substances, decoctions of barley, wheat, etc. Dr. Lambrinopoulos suggests that although there is no diastase in the rectum, some saccharification of the starch might be produced by the microbes which are present there in great number and variety. The reference to the passage is given as follows: *Œuvres d'Oribase*, par Bussemaker and Daremberg, tome ii, p. 245.

The following anecdote may fitly find a place here. It is doubtless apocryphal, a fact which may perhaps be held to excuse its libelous character. A pompous old physician, being introduced to Dumas, said with something of Olympian condescension, "You produce tragedies, don't you, young man?" The dramatist modestly replied, "I do—like you. Only *your* tragedies are bound in oak."

Another story, though it has still less claim to be considered either medical or literary, may perhaps find favor, or at least tolerance here, for its own sake. A countryman who was present at the opening of the Pasteur Institute at Lille a few weeks ago, was heard to express surprise that the Ministers of Agriculture and of the Colonies were chosen to preside at the function. It was pointed out to him that those two great officers of the State were the most appropriate for the purpose, as the work of the Institute was so largely concerned with cultures and colonies.

Society Reports.

THE AMERICAN MEDICAL ASSOCIATION.

Fiftieth Annual Meeting, held at Columbus, Ohio, June 6, 7, 8, 9, 1899.

(Special telegraphic report for the Philadelphia Medical Journal.)

General Sessions.

First Day.

The General Session was held in the Grand Opera House. The association was called to order by the president at 10.30, and after the opening prayer by the Rev. Washington Gladden, of Columbus, the address of welcome was delivered by His Excellency, Governor Asa S. Bushnell. He stated that he had reasons to feel more in sympathy with the medical profession than the great mass of the people, as in his youth he had been an apothecary. Referring to the various medical institutions of his State, he brought forth hearty applause by his description of his efforts to remove these as far as possible from the influence of politics. The association was also welcomed to Columbus by His Honor, Mayor Samuel J. Swartz.

The **President's Address,** which appears elsewhere in this Journal (see page 1310), was then delivered by Dr. Jos. M. Mathews, of Louisville, Ky.

The following **Report of the Chairman of the Rush Monument Committee** was read by Dr. Henry D. Holton, of Brattleboro, Vt., in the absence of Dr. Gihon.

Mr. President and Members of the American Medical Association:—You may remember the enthusiasm that prevailed at the meeting of the association at Philadelphia, when the sum of $100,000 was fixed by common consent as the amount which should be contributed by the profession to erect a suitable memorial, not alone of the great medical patriot of the Revolution, but of the part which the profession of medicine represented by him had had in the foundation of this great republic, and as the expression of the patriotic sentiment and love of country of the medical men of the present day. You must also recollect how the delegates from State after State rose and pledged their several constituencies, each for its quota for this commendable project. You may further remember how at the meeting at Denver two States, New York and Colorado, redeemed that pledge, and a third, Pennsylvania, conditionally; and how, at my request, the permanent secretary was directed to communicate with the officers of the State medical societies, urging them to appoint, without delay, representative members of the committee from their several States and Territories. I know that he promptly performed this duty: Six State medical societies have appointed such representative members; $355.50 has been added to the monument fund, which now, by increase of interest upon the money invested, amounts to about $10,582.02 actually in the treasurer's hands. A Washington dispatch reads: "The sum of $4,200 was to-day (January 3) received at the office of the Lafayette Monument Commission from the Ohio State Commission, being the amount contributed *by school-children of the State of Ohio* for the monument to Lafayette to be erected in the city of Paris in 1900, with contributions sent direct from various schools, this makes $5,000"—one-half the fruits of fifteen years' appeals to over 100,000 members of the medical profession in the United States for a monument at their own national capital to their own countryman and professional confrère, whose services in the cause of national liberty were every whit as great.

Your Business Committee at Denver did not approve my request that the association should defray the expense of attendance at the meetings of at least one of the officers of the Rush Monument Committee. As these officers have continued over from year to year it is evident that the action of the Business Committee virtually requires them to contribute annually from their private means from $50 to $200, according to the distance traveled. In my own instance, by reason of my retirement from active duty in the navy by limitation of age, I am no longer eligible for official detail, and would be subjected to an outlay on account of the monument, which no other member of the association is asked to make.

Mr. President and Members of the Association:—After fifteen years of persistent, earnest effort, the time has come when I must admit that I can do no more. I told you at Philadelphia that, of the eleven men originally interested in this project, all but two had died since its inception. In February of this year, the Secretary of this Committee, George H. Rohé, of Maryland, my friend of friends for many years, my always enthusiastic colleague and active coadjutor, also died—so, lest death come unaware to me, as it did to him, it is expedient that I transfer this duty to some younger and, I hope, more successful worker. It has been from the first a labor of love for me. From the beginning of my professional life, and this was almost half a century ago, the personality of Rush was familiar to me through my preceptor, Dr. Rush Van Dyke, whose father, Dr. Frederick A. Van Dyke, a courtly, cultured gentleman of the highest type of the old-time physician, was himself a favored pupil of Benjamin Rush, whose name he bestowed upon his son, for whom he selected the honorable career, which his famous teacher and himself so worthily graced. I would that every physician of this day should appreciate his indebtedness to this great man, who, had he lived among us, would have been no less distinguished—this physician, who, great when he lived, is still the greatest physician this country has ever produced—this typical, manly doctor, whose faults were those which belong to every man of his impetuous, earnest, far-seeing, and far-striving nature. To honor him with a monument is only to honor our profession—and it must be a monument in keeping with the dignity of this greatest of human vocations. Hence, I felt you acted wisely at Philadelphia in determining one hundred thousand dollars as the proper sum to be devoted to its erection.

The Secretary of the Navy has assigned an unequalled site for the structure on the beautiful park fronting the U. S. Naval Museum of Hygiene, especially appropriate in that Rush was a pioneer in sanitary science, which men like the surgeon Gross and the physician Flint, as they laid down their lives, declared to be the highest aim and crowning glory of the science of medicine.

At the sluggish rate at which this fund has grown, in my hands, it would be futile for me to hope to see it reach the proportions, I think with you, it should attain, especially as I shall have left for an indefinite residence abroad when this report is presented. So, thanking you for your repeated expressions of approval of the little I have done and of the much I have sought to do, and cordially wishing success to my successor in office, I hereby resign the trust with which you first honored me in 1884 and have repeatedly renewed the past fifteen years.

Albert L. Gihon, M.D.
Chairman Rush Monument Committee.

Dr. Henry P. Newman, the treasurer of the association, presented his annual report, which showed a balance on hand at the close of 1898 of $21,729.95.

The Medical Corps of the Army and Navy.—The Philadelphia County Medical Society asked for the adoption of the following resolutions by the association:—

Whereas, The morbidity and mortality statistics of the late war have served to call to the attention of physicians of the United States the weighty and enlarging problem of the care of soldiers and sailors in peace and during campaigns, under widely varying conditions of climate and environment, now, and in many respects presenting themselves for the first time.

Therefore, be it Resolved and Recommended by the American Medical Association:

1. That the Medical Corps of the Army and Navy be enlarged to meet properly all demands that may be made upon them.
2. That transportation of medical supplies be under the control of the medical department.
3. That a corps of sanitary inspectors be created, whose duty it shall be to examine into the sanitary condition of camps and bodies of troops in transit, and advise in relation thereto.
4. That the Government establish permanent camp sites, the selection to be subject to the approval of the Surgeon-General, for use in the mobilization of large masses of troops.
5. That a professor of Military Hygiene be appointed at West Point to instruct the cadets in the principles of sanitation.
6. That the medical officers of the National Guard be subjected to rigid examination both for admission to the service and for promotion.
7. That the Surgeon-General of the Army and Navy in time of peace and war be empowered to call into requisition the services of skilled specialists.

8. That the President of the United States be respectfully urged to recommend to Congress the appointment of an Army Medical Commission to be composed of physicians and sanitarians to be taken from military and civil life, including the Surgeon-General of the Army and Navy, whose duty it shall be to prepare a report containing a detailed plan of a modern system to govern the medical departments of the Army and Navy in peace and war.

9. That a national department of public health be established with a cabinet minister at its head.

Be it furthermore Resolved, That a committee be appointed by the president of the American Medical Association to wait upon and present these resolutions to the President of the United States for his favorable consideration.

The resolutions were referred to the executive committee for consideration, as were also several other similar resolutions.

With reference to the important subject of **continuing the publication of the Index Medicus** Dr. George M. Gould, of Philadelphia, moved that the following resolutions be referred to the Executive Committee:

Whereas, The suspension of the publication of the *Index Medicus* is a deplorable event, which will result in greatly increased labor on the part of medical men in their literary work, and seriously hindering the progress of medical science, practical as well as literary.

Be it therefore Resolved, That the Executive Committee of the American Medical Association appoint a committee of three members of the association to take charge of the publication of the periodical, perfect plans for the same, and engage the service of an editor and of such editorial assistance as may be required; also to choose a publisher and make contracts with him for the printing, distribution, etc., of the work, all in such manner as to continue the high standards of accuracy and bibliographic usefulness so well established by the previous publishers.

Resolved, That the Treasurer be instructed to pay all bills of such committee in payment of necessary expenses of such editing and publication, providing that this outlay does not exceed annually three thousand dollars.

On motion, the resolutions were referred to the Board of Trustees. The general session adjourned shortly after noon.

Second Day.

Committee on Legislation.—The resolution calling for the appointment of a special committee on legislation consisting of three members, residing respectively in Washington, D. C., Philadelphia, and Baltimore, was reported to the executive committee.

National Bureau of Public Health.—The executive committee recommended, and the association adopted, the resolution favoring the establishment of a national bureau of public health, with a cabinet officer at its head.

Reorganization of Army and Navy Medical Departments.—The executive committee recommended the adoption of the resolutions introduced by the Philadelphia delegation calling for radical changes in the medical corps of the army and navy, and they were adopted after having amended them so as to secure a direct appeal to Congress, and the appointment of a committee consisting of a member from each State having a medical society, and from the Army, Navy, and Marine-Hospital service, whose duty it should be to memorialize the President of the United States on the subject.

Women Military Nurses.—The resolution introduced by Dr. Gould was also adopted, indorsing the bill presented to Congress favoring the employment of women as military nurses in the army.

The **address on surgery** was then delivered by Dr. Floyd Willcox McRae, of Atlanta, Ga. He had decided to discuss only some points in the surgery of the alimentary canal. The surgeon who would fail to give his patient the benefit of normal salt-solution, after prolonged or bloody operation, would be little less reprehensible than he who would knowingly place his patient to bed with bleeding vessels unsecured. Rubber gloves are of value in diminishing the danger of wound-infection by the hands of the surgeon and his assistants; Halsted and McBurney were given credit for their scientific and practical work in this field of research. Bacteriologic investigation has repeatedly shown the impossibility of absolutely sterilizing the hands. The microorganisms of the deeper layers of the skin gradually find their way to the surface during operations requiring prolonged manipulation, and while this source of infection by surgeons, who take care of their hands and clean them thoroughly, must be small, it deserves consideration. Four cases of complete gastrectomy are now on record—the celebrated case of Schlatter, of Zurich; one by Bingham, of San Francisco; one by Richardson, of Boston, and a fourth by McDonald, of San Francisco. The postmortem in Dr. Schlatter's case showed that there had been no dilatation of the part of the intestinal tract to take the place of the stomach which had been removed, and that death had been due to general infection, and not to inanition from removal of the stomach. The cases must be very few, indeed, that would justify the operation of complete gastrectomy. The Roux gastroenterostomy "en Y" is an original procedure that has received the highest professional commendation. A detailed description of the operation was made with illustrations. Roux has performed this operation 31 times with 3 deaths. In a series of 24 gastroenterostomies for nonmalignant affections of the pylorus he has not had a single death. A new impetus has been given to the discussion on penetrating wounds of the abdomen by reports of the cases of gunshot-wounds of the abdomen received during the late war, and which had resulted favorably without surgical intervention. These cases should not be taken as a guide in civil practice on account of the great difference in the character of the wounds and the conditions under which the injuries were received. In civil life practically the only hope is in prompt and thorough surgery and that no time should be wasted in waiting for definite signs of hemorrhage or peritonitis, or in the application of the hydrogen-gas test, which has only an affirmative value. He did not advocate operation in every case of apparent penetration-wounds of the abdomen; would, however, advocate operation in every case when the condition was not absolutely hopeless or when there was any doubt as to whether the abdominal cavity had been penetrated or not; he would not advocate operations under all conditions, as he did not believe there was any wound of the abdomen more dangerous than that made by a dirty and incompetent surgeon. Carefully prepared statistics show that recovery follows in inverse proportion to the time elapsing between the reception of the injury and surgical intervention, hence it is the duty of the surgeon to decide promptly and act immediately. The operation for intestinal anastomosis devised by Dr. Harris of Chicago, seemed to be almost ideal, in suitable cases, unless a more extended trial should prove that such invagination is more aptly to be followed by intussusception and stricture than is likely to follow the older approved methods. Drainage was advocated in cases with extensive soiling of the peritoneum. Carefully prepared statistics were presented of 107 cases of typhoid perforation that had been subjected to operation with a total mortality of 79.439%. The table showed a greater tendency to recovery when the perforation occurred late in the disease, and it seems reasonable to expect 25% to 30% of recoveries in operative cases, when operation is undertaken within 12 hours after the occurrence of the perforation. Statistics had also been collected of 601 cases of septic peritonitis with a mortality of 52.71%. Statistics of 2,903 cases of appendicitis published during '98 and '99 with a mortality of 13.744% were presented. Of these 457 were interval cases with one death—mortality 0.022. It seemed manifestly wrong and unscientific to lay down dogmatic and inflexible rules for the treatment of a condition so protean in type. The time at which the diagnosis is made is very variable and the advice to operate as soon as the diagnosis is made is exceedingly indefinite. The diagnosis of appendicitis is not always promptly made. Many cases have gone beyond the time for early intervention when first seen.

A very large proportion of the cases of appendicitis operated on during an acute attack when drainage is employed will eventually develop ventral hernias. Every case except one in which he left drainage for 48 hours or longer has a ventral hernia. (1) It would be safest to operate on every case of appendicitis if the operation could be done within 12 to 24 hours from the onset of the attack; (2) every case of fulminant appendicitis is an operative case and medical treatment is useless; (3) every individual who has recovered from a decided attack of appendicitis should be advised to have the interval operation done; (4) every case of relapsing appendicitis should be operated on during the quiescent stage if possible; (5) if after 48 hours under appropriate medical treatment there is a distinct improvement I continue medical treatment under careful surgical supervision, but if the symptoms are progressive immediate operation is indicated; (6) a sharp recurrence of the acute symptoms during the progress of a medical case pursuing an apparently favorable course also indicates operative intervention; (7) children under 12 bear appendicitis poorly and should be operated on at once; (8) appendicitis is a surgical disease and every case should be considered from a strictly surgical standpoint. It is especially pleasant to consider the brilliant work that has been done in the radical cure of hernia by American surgeons, notably Marcy, Bull, and Coley, De Garmo, and Halsted. To Dr. Marcy, of Boston, more than to any living surgeon belongs the credit of first advocating the closure of the separate layers of the hernial incision with buried animal sutures, and it was he who demonstrated to the profession the value of kangaroo-tendon of proper quality and carefully prepared which seems to be the very best material for suturing the deeper layers and the radical operation for the cure of either inguinal or femoral hernia. The mortality of the operation is probably less than 1%; the percentage of recurrence is comparatively small.

The **Address on State Medicine** was delivered by Dr. Daniel R. Brower, of Chicago, who selected for his subject **The medical aspects of crime.**

At the outset, he stated that the limitation and treatment of crime was one of the great questions of the day. The closing hours of the nineteenth century were full of wonders; the progress in medicine, in literature, and in arts had been marvelous. Medicine and surgery had made rapid strides. The insane, the feebleminded, the deaf, dumb and blind had received in these later years treatment that was scientific and successful. The care of the criminal was the one great question that baffled society, and difficulties had arisen from the fact that the medical aspects of crime had not been sufficiently considered. Criminology of to-day was much in the same condition that psychiatry was when Pinel and Tuke appeared and wrought their memorable reforms, substituting patient and scientific treatment for brutality and chains. This transformation in the care of the insane had been brought about by the medical profession, and it was our duty to-day, with equal zeal and earnestness to consider this question of criminality, find out its etiology, and provide means for its cure. Reference was then made to the work of the pioneers in criminal anthropology. These men had established the fact that the habitual criminal is an abnormal man, the abnormity manifesting itself, first, physically, in the criminal physiognomy, in stigmata of degeneration, in anomalies of the muscular, sensory, respiratory and circulatory systems; and second, psychically, in moral insensibility, lack of forethought, low grade of intelligence, vanity and egoism, and emotional instability.

In approaching the study of this subject one is surprised by the rapid increase in crime much beyond the ordinary increase in population. Dr. Brower then gave the census-reports of our own country from 1850 up to and including 1890.

The figures represented the criminals that were incarcerated, and it has been estimated that only about one-third of them are thus disposed of. The number of criminals in 1890 in the United States was about one-quarter of a million. The cost of maintenance, arrest and trial for them had been estimated at about $59,000,000. He then cited the statistics of the State of Pennsylvania, which confirmed our national statistics. The same is more emphatically true in New York City. The population of that city has increased in the last 10 years about 33⅓%, while crime has increased more than 50%. The speaker then gave the number of arrests in Chicago for 10 years, namely, from 1884 to 1893.

A consideration of the several reports leaves no doubt in the mind of anyone that crime is increasing throughout the United States in a vastly more rapid ratio than is the population.

The two great etiologic factors in crime are criminal parentage and environment. The effects of these two agencies are strikingly illustrated in the history of the Jukes family, as related by Dugdale. Another of these remarkable exhibits is the tribe of Ben Ishmael, studied by McCullock. Prof. Pellman, of Bonn University, has discovered and identified the descendants of Frau Ada Jurke, a notorious drunkard, who was born in 1740, and died in 1780, to the number of 709. Of these, 7 have been convicted of murder, 76 of other crimes, 144 were professional beggars, 61 lived on charity, and 181 were prostitutes. This family has cost the German government for maintenance, cost of courts, almshouses and prisons, $1,250,000.

An important factor in the cause of crime is intemperance. Fully 50% of the criminals arrested in Chicago are inebriates, and the police-reports of New York show about the same proportion. Ferri has shown beyond question that in France crime increases and decreases with the more or less abundant vintage, and we may safely attribute, at least, some of the increase of criminality and pauperism in the United States to the increase of intemperance, and it may be estimated that alcoholics are the direct or indirect cause of probably 75% of all crime committed.

The constant and rapid increase of the urban population is another etiologic factor. The recent growth of cities is one of the phenomena of our social system. When our government was established a century ago, its first census showed only about 3.3% of the inhabitants of the country living in cities of 8,000 and over. The census of 1890 shows such an increase that 27.6% of our population is urban.

The criminal laws and their unreasonable execution are another factor in the causation of crime. The code of to-day is largely the Roman code. In ancient Rome it did well because the death-penalty was common. The Coliseum had to be furnished with material for the amusement of the citizens, and, "To the lions!" was a common sentence. And then Rome had her Tarpeian Rock from which the defectives could be hurled and thus disposed of before the State could be troubled by their presence. To-day, with the death-penalty rarely enforced and with no such cutting off of the supply of criminal material, the law contributes to its increase rather than to its diminution. One of the absurdities of the law is the frequent conviction of the same criminal, which is not only expensive, but unprofitable. The case of Jane Cakebread, of London, with her 269 convictions was cited as being but an exaggeration of daily occurrences in our courts.

Our jails are schools of crime. The delay of the law gives children, sometimes arrested for trivial offences, weeks or months of tutelage under old and often incorrigible masters in crime, even before their guilt or innocence is established, and after conviction further instruction in the same arts, so that when they leave, after a brief period of restraint, they are experts and will do much damage to person or property before they are again sent up for further instruction.

Then, again, laws are defective because they are directed against the crime, and not the criminal, overlooking the important fact that the crime is an accident, and the criminal may be the product of a long line of etiologic factors demanding for his cure not punishment but reformation.

The habitual criminal, who constitutes the great bulk of the class, is a biologic study, and his anatomic, physiologic, and psychologic nature demands most careful investigation, in order that physicians may determine the ways and means to settle the various and vast questions to which he gives rise.

Dr. Brower then dwelt upon criminal physiognomy, dealing with prognathism, anomalies of the teeth, the degenerate ear, the criminal nose, pallor of the skin, the beard of criminals, the cranial capacity of criminals, etc., and gave the tabular statements of Talbot, Macdonald, Corre, and Ferri.

Speaking of the brain-weight of the criminal, he said that it does not differ materially from the noncriminal. The potentiality of the brain does not depend so much upon its size and weight as upon its structure. The brain of Gambetta was very small, but very elaborately convoluted, so that it doubtless contained more and better neurons than that of the average person, and one of the heaviest brains on record is that of a bricklayer who could neither read nor write. Flesch, out of 50 brains of criminals, did not find one without anomalies. From an examination of 28 brains, he found alterations in the meninges to the extent of 50%, in the way of adhesions, various forms of meningitis, hemorrhage, atrophy, and atheroma, and these observations have met with abundant confirmation. Benedikt, one of the most thorough and conscientious workers in this field of criminal pathology, found in an examination of 19 brains of criminals a confluence of fissures. Another anomaly noted by this observer is that the frontal lobe is sometimes divided into four convolutions instead of three, which he considers an evidence of reversion to the carnivorous type. He has found other anomalies in brain-structure in criminals.

The feet of the criminal frequently show a tendency to revert to the flatfoot of the lower races, and this is usually associated with a low instep.

The thyroid glands of the inmates of the Elmira and Pontiac reformatories were examined by Talbot, who has given the author the following figures:

	Normal.	Excessive.	Deficient.
Elmira, 1,045 examined	106	909	36
Pontiac, 465 examined	145	183	137

Bono, in studying the eyesight of criminals, found 60% of 221 young criminals color-blind. Biliakow, who made similar observations on 100 murderers, found 50% of them color-blind.

Tactile-sense, temperature-sense and pain-sense are rarely normal in criminals. They are usually much diminished, especially pain-sense. Anomalies of the patellar tendon-reflex are common; they are either exaggerated or very frequently absent.

In 50 autopsies Flesch found 20% which showed affections of the heart so grave as to be the cause of death. On calculating accidental affections of the pericardium and endocardium, the rate was 50%. In this respect the criminal resembles the insane. Much of the manifestations of insanity are due to cardiovascular disturbances, and this might reasonably be expected when it is remembered that the blood-supply of the brain is much more extensive than that of any other organ not concerned in blood-making or blood-purification.

On the psychic side of the criminal's character we find moral insensibility; a lack of forethought; a low grade of intelligence; vanity; egoism, and emotional instability.

The next important aspect of this question is the treatment, which should be based on etiology to be scientific, and as criminal parentage and environment are the two great causal factors, so the treatment should be directed against them. First, the propagation of crime should be stopped. It should be made impossible for there to be any more Jukes, Ben Ishmael or Jurkes families, and to do this marriage should be regulated. There should be no possibility under the law for these people to marry and propagate their kind.

The operation proposed by Dr. Ochsner, which consists in a resection of the vas deferens, does not mutilate the person. It does not destroy sexual power, but it does prevent propagation, and it is an operation attended with very little risk to life. In Dr. Brower's judgment it may be made a most useful agent in preventing an increase in criminals. Castration has been proposed by some, but the operation is vastly more dangerous. It is a great mutilation, destroys sexual power, and for these reasons is by no means as useful an operation as the one proposed by Ochsner.

The children of these degenerates should be taken in charge by the courts and placed at the very earliest possible age, certainly not later than seven years, in a favorable environment, and by this means the great bulk of them might be made useful citizens. Alcoholism is a very important and difficult etiologic factor to dispose of. The saloon is such a powerful factor in our political system that it seems to be impossible to have legislators enact laws that will regulate properly this great traffic. The way to accomplish positive results is for physicians to spread information among the people as to the baneful influence of intemperance, and so educate the old and the young as to the powerful influence of this great factor in politics, so that it may be neutralized. Legislation is needed for inebriates; authority to place them in prolonged confinement, during which they may undergo such treatment as may be necessary for their cure. Legislation is certainly needed to diminish the traffic in alcoholics, and by which the quality of the liquor furnished may be improved. But the best way out of it is not by prohibition at this time surely, but it may be by a high-license system. There should be some remedy provided against the constant increase in urban population. Some method should be provided for the restoration of the equilibrium; some way by which the unproductive citizen might be transported to the country and made productive.

The last etiologic factor, the laws and the unreasonable manner of their execution, demands such changes that those who are concerned in the sentencing of crimials should know something about their biologic condition, and surely the ordinary juror cannot possibly possess this knowledge. All sentences should be indeterminate; the criminal should be sent to a prison or reformatory, not for any specific time, but until he is reformed or cured, precisely as a patient is sent to a hospital. A person who has committed his first offense should not be permitted to associate with hardened criminals. Trials should be speedy and prompt. The pardoning power should be taken out of the hands of Governors of States and placed under the control of a Board of Pardons, whose members shall be skilled in criminal anthropology. For criminal minor children there should be reform schools, where, through a protracted period, these children should be educated by manual training, and taught some useful occupation that may be to them the means of earning an honorable livelihood, and when the time comes for their discharge, they should be furnished with means by which they may establish themselves in the occupation for which they have been trained. This is not an untried proposition, but is today a practice in Russia. There should be reformatories for the older criminals who are capable of reformation, and these also should be taught, not only the rudiments of an English education, but useful arts, and their confinement should last until they are able to withstand temptation, and earn an honest living, and, when released from the care of the reformatory, they, too, should be provided with a reasonable capital with which to make a start in life. And, lastly, for those who are incapable of reformation, there should be penitentiaries for their life-long incarceration, and these should be made as near self sustaining as possible by having the prisoners employed in useful occupations.

The **Oration on Medicine,** delivered Thursday, by Prof. J. C. Wilson, of this city is published on page 1289 of this issue of the Journal.

The nominating committee made the following selection of officers for 1900: For president, Dr. W. W. Keen, of Philadelphia; first vice-president, Dr. C. A. Wheaton, of Minnesota; second vice-president, Dr. E. D. Ferguson, of New York; third vice-president, Dr. J. M. Allen, of Missouri; fourth vice-president, Dr. Middleton, of Iowa; treasurer, Dr. H. P. Newman; assistant secretary, Dr. J. A. Joy, of Atlantic City, N. J. With the exception of the secretary, election for which office was deferred, the other officers were elected.

The meeting for 1900 is to be at Atlantic City, N. J.

The chairman of the **Committee of arrangements** is Dr. Philip Marvel.

The **orators for next year** are as follows: The address in medicine, Dr. J. E. Witherspoon, of Nashville, Tenn.; the address in Surgery, Dr. W. L. Rodman, of Philadelphia, Pa.; the address in State medicine, Dr. Victor C. Vaughan, of Ann Arbor, Mich.

Section on the Practice of Medicine.

First Day.

In a short address the Chairman, Dr. Frank Billings, of Chicago, called attention to the advantages of preliminary epitomes and was inclined to advise that a compulsory abstract be in the hands of the secretary by the first week in May.

The first paper read was by Dr. N. S. Davis, of Chicago, and was entitled **What are the physiologic processes or functions that impart to the living human body its vital resistance or immunity to the action of the toxic agents to which it may be exposed; and how can that be aided in the treatment of disease?** In discussing the subject Dr. Davis touched briefly upon physiologic processes by which the living body maintains its vitality and metabolism in health, how these natural processes are affected by the chief causes of disease, both chronic and acute, and the chief means by which the physician may effectually aid the natural processes in restoring health after disease or disorder has been produced. He strongly advocated the reinforcement of the vis medicatrix naturæ.

A comparison of the various methods of estimating hemoglobin was the title of a paper read by Dr. B. M. Linnell, of Chicago, Ill. The author considered the various color-tests, and basing his observations on a number of cases, pointed out the errors of both the Fleischl and Gower instruments. He also spoke of the variations between the different eyes and between the same eyes at different times and under different circumstances. He strongly advocated the approximate estimation by known dilution of the examined blood and considered by far the most accurate Hammerschlag's, or the specific gravity method, in his experience. The normal specific gravity, according to his method, was 1060.5 in healthy adult life. He believed that the variations in hemoglobin were not sufficient to interfere with the specific gravity tests, and also showed a convenient case for applying this method. In discussion, Dr. Judson Daland, of Philadelphia, remarked that there is a certain amount of error in the Fleischl instrument possible by its delimiting the field of observation and comparison by a perforated cap over the cylinder. He considered the Gower instrument subject to very wide ranges of error, and advocated a series of comparative tests by the three different methods. Dr. George Dock, of Ann Arbor. Mich., corroborated the testimony as to the efficiency of the Hammerschlag method and condemned the Gower instrument. He described an instrument already on the market similar to that suggested by Dr. Daland for limiting the field of vision, and recommended an improved pipet, in which definite quantities could be employed. This instrument, however, was very expensive and no better than the specific gravity apparatus. Dr. H. D. Arnold, of Boston, directed attention to the importance of the specific gravity method in cases of chlorosis, in which the blood has a very low specific gravity.

Dr. Lambert Ott, of Philadelphia, then read a paper on **The spread of diseases in schools and its prevention.** He contended that most children's diseases are obtained in the intercourse of school-life, by kissing, the common use of drinking cups, the habit of putting pencils in the mouth, etc. The diseases usually spread in school are diphtheria, scarlet fever, whooping-cough, measles, varicella and variola or varioloid. To prevent the spread of disease in schools he urged that children convalescent from contagious disease should not be allowed to return to their studies until a certain lapse of time. For diphtheria he fixed four weeks from the inception of the disease, with an additional week in outdoor life, and quite as long a period for scarlet fever. For measles at least two weeks should elapse from the inception of disease, and one week in outdoor life, before the child should be permitted to return to school. Children convalescing from smallpox should not be allowed to return before the expiration of two months from the onset of the disease, and should spend also at least one week in outdoor life. So long as there is a vestige of the symptoms, children convalescing from whooping-cough should be kept away from school. Teachers should be taught to recognize the contagious diseases and by what means they are spread, and children should be instructed in simple rules in hygiene. In all cities there should be a medical superintendent of public schools, and a trained corps of assistants to trace sources of contagion, etc. The author also spoke of the laws of Pennsylvania relating to smallpox and vaccination. In discussion Dr. Arnold, of Boston, described a very successful method of medical examination of the schools in that city by district physicians. He also thought that the period of absence from school prescribed by Dr. Ott was certainly not too short. Dr. J. H. Musser, of Philadelphia, considered the subject of such importance that he moved that a committee of three, with Dr. Ott as chairman, be appointed to bring it before the general session, which motion was unanimously carried. Dr. Reyburn, of Washington, believed that a partial remedy for the conditions considered might lie in forbidding children from being sent to school before the age of seven. No child during the period of its most rapid development should go to school for more than one session of three hours a day. Dr. Bragdon, of Minneapolis, and Dr. Axtell, of Denver, also participated in the discussion.

In a consideration of **Cerebrospinal meningitis** by Dr. T. N. Miller, of Rockford, Ill., the author presented the bacteriology and clinical types, the diagnosis and prognosis of this affection, and believed that it was not contagious. He considered symptomatic treatment useless, and hoped for the discovery of antitoxin. He advocated ergot and calabar in the early stages with perhaps bromids in children. He strongly advised against bleeding, even though it were apparently indicated. Opiates are of great use in all stages of the disease, and the continued use of iodids is advised. Counterirritation is of value, but he had never used cold application. The best hygienic surroundings should be provided for the patient. The author presented a clinical report of two cases of markedly intermittent type. The infection was evidently through the nasal chambers, and was accompanied by mucopurulent discharge, in which were found large numbers of the diplococcus intracellularis meningitidis. He gave extensive descriptions of the postmortem lesions. Dr. C. H. Mills, of Illinois, spoke of the rheumatic nature of the disease. Dr. J. C. Wilson, of Philadelphia, dwelt upon three points. First, the importance of König's sign. Second, the isolation of the patient, even though there is evidence to believe that the disease is not transmissible, if it is proven of microorganismal origin. Certainly any other means of procedure is fraught with danger. It is far better to be on the safe side. Third, the overwhelming importance of opiates in large doses often repeated. In the discussion Dr. Didama, of Syracuse, N. Y., gave a history of the successful use of opium many years ago by the advice of Dr. Da Costa. Dr. Musser, of Philadelphia, called attention to the value of lumbar puncture as a diagnostic feature and therapeutic measure. It is unattended with danger, is of the utmost importance for early diagnosis, and often gives great relief. He regarded laminectomy as a rational procedure in cases in which there was profound sepsis, or in which there is great pressure. He considered opium the only drug of value. Dr. H. Y. Fletcher, of Baltimore, had had an opportunity of studying a number of cases in Dr. Osler's clinic and confirmed Dr. Musser's view, but added that although there was evidently relief from the distressing symptoms and temporary prolongation of life, in no case in which lumbar puncture was used did recovery ensue. He called attention to the development of severe arthritis as one of the earliest symptoms, and placed on record the discovery of the causative organism in the joints and in the blood. Dr. Scott, of Iowa, spoke on the infectious nature of the disease. Dr. Mathews, of Missouri, had never seen evidence of contagiousness in an extensive practice. He believed that in its treatment sodium salicylate should be combined with opium on account of the analogy of the disease to rheumatism. Dr. Bradwell, of St. Louis, Mo., had made bacteriologic examination in a number of cases, and with a single exception found the diplococcus intracellularis. In one case he found the micrococcus lanceolatus and he believed this case to be of sporadic nature. He emphasized the importance of König's sign. He found Gram's method of differential staining to be very unreliable. Dr. Rabbold, of St. Louis, Mo., confirmed the statements of the previous speaker, and spoke of two cases in which there was reason to believe the disease was transmitted. The mortality in St. Louis the last year was 81%. He called attention to the fact that König's sign appears early, and that difficult deglutition was a fatal sign. Dr. Anders, of Philadelphia, cited one instance showing the noncontagious nature of the disease. However, he believed in isolation and he considered lumbar puncture as a most valuable diagnostic symptom. He was surprised to find in his consultation practice that almost invariably physicians used ergot instead of opium in treating cerebrospinal meningitis. In closing, Dr. Miller reasserted his belief in the efficiency of ergot in the early stages of the disease and opium throughout the course. He also emphasized the value of the iodids.

Second Day.

The following papers were read by title: **Illuminating-gas poison,** by Dr. W. B. Hill, of Milwaukee; **Have we in nature a basis for a science and art in medicine?** by Dr. H. J. Herrick, of Cleveland, Ohio; **Primary testicular mumps,** by Dr. Landon B. Edwards, of Richmond, Va.; **The fundamental principles of etiology and therapy,** by Dr. Elmer Lee, of New York; **Hodgkin's disease,** by Dr. S. E. Stewart, of Topeka, Kans.; **The vascular changes in Bright's disease,** by Dr. James Tyson, of Philadelphia.

Dr. Arthur R. Elliott, of Chicago, Ill., read a paper on **Treatment of the heart in chronic interstitial nephritis,** in which he reviewed the cardiovascular changes in granular kidney, and spoke of the friendly offices of the heart in compensating for the diseased organ. He believed that the extrarenal changes were not sufficiently considered in the routine treatment of nephritis. He considered it certainly narrow-minded medicine to focus attention purely on the renal symptoms, and in fact he considered the condition of the heart and bloodvessels sufficient evidence in itself of the renal changes. He dwelt upon the importance of mild exercise by the Scott method to reduce blood-pressure. Hygienic and dietetic treatment are of great value. Interference with the circulatory system by drugs when compensation is unbroken is vicious practice. The most important drugs in this disease are aperients and vasodilators. Nitroglycerin is especially efficient and the iodids are valuable. The vasoconstrictor properties of digitalis are especially to be guarded against. In discussion, Dr. R. H. Henry, of Illinois, believed in the efficacy of mercury and the iodids. Dr. Norman Bridge, of Los Angeles, said that although theoretically we should expect some direct curative effect from the iodids, clinical experience has not substantiated this thought. He pleaded for investigations to discover a curative agent for interstitial nephritis. He had seen patients die from toxemia before compensation was ruptured. Dr. Alfred Stengel, of Philadelphia, set forth that interstitial nephritis was a general disease to be met with by general remedies. He strongly advocated the Scott treatment and believed that the decrease in blood-pressure was greater than supposed. The continued use of small doses of mercury is permissible, and he believed sodium iodid is borne better than potassium salt. Dr. Wells, of Chicago, considered that a reduction of the daily work was necessary, and emphasized the importance of limiting the amount of nitrogenous food. Dr. Jenkins, of Iowa, dwelt upon the importance of nitroglycerin.

A paper on **A cause and differential diagnosis of accidental heart-murmurs** was read by Dr. George W. Webster, of Chicago. Every theory or fact in physical diagnosis should be, not the violation, but the realization of a physical law; arguments were given tending to show that no single theory accounts for all accidental murmurs; there is a probability that all accidental murmurs are, like those of organic disease, due to the production of "fluid veins." This may be due to temporary dilatation of the pulmonary artery, relative insufficiency of the tricuspid or the mitral valves, and possibly other causes. The diagnosis rests on: (1) the exclusion of organic disease as shown by (*a*), absence of a history of antecedent casual disease (*b*), absence of the results of valvular defects as evidenced by hypertrophy and dilatation, or by damaged or broken compensation. (2) By (*a*), history of such disease or conditions as acute intoxications, chorea, the anemias, etc., with which these murmurs are frequently associated; (*b*), the characteristics of the murmur as shown by rhythm, point of maximum intensity, area of audibility, posture, exercise, etc.

The transmission of systolic mitral murmurs, with special reference to the nature of the so-called anemic murmurs, was the title of a paper by Dr. Horace B. Arnold, Boston. The question of the nature of the so-called functional murmurs has been many times discussed, but the diversity of opinion among the best authorities still leaves it among the unsettled problems. Any contribution to our knowledge, however small, is welcome. The discussion has turned chiefly on the point of maximum intensity of these murmurs—their distribution has not received the attention it deserves. We shall consider mitral systolic murmurs and their distribution: why they are heard at the apex; their transmission to the left from the apex and from the left side of heart; their transmission to the back; systolic murmurs (mitral and others) over the "valvular" area; mitral murmurs in the second left interspace, and their distribution beyond this area; so called "anemic" murmurs in the second left interspace and their distribution beyond—similar to mitral; illustrative cases.

In an article on the **Use of quinin in malarial diseases,** by Dr. George Dock, of Ann Arbor, Mich., the author dwelt upon the importance of lessening the paroxysms of malaria on account of the disintegration of blood-corpuscles. As we have a specific in quinin it is certainly our duty to use it. In this country 15 to 20 grains is usually the daily dose, and in practice it is better to give 15-grain doses at once, or 5 grains at short intervals, followed by 15-drop doses of hydrochloric acid. Small doses repeated several times a day are of avail only in the tonic treatment during convalescence. He advised that the best time for administration was in the stage of decline. For prophylaxis against relapses 10 grains of quinin every 5 or 7 days should be given for several months. He believed that true malarial hemoglobinuria was quite uncommon and that many cases were so diagnosed incorrectly. Of course, quinin should not be used unless there was an absolute diagnosis of malaria.

In an article on **Hypodermic use of quinin in the treatment of malaria,** Dr. G. A. Fackley, of Cincinnati, after reporting 20 cases of positive malaria in which he had tried the hypodermic medication, condemned it as being successful in only 3 cases, while in the remaining 17 cases oral administration was successful. He attempted to explain the failure of the hypodermic method by the production of local irritation. He believed that the only indication was when the drug was rejected by the mouth or rectum. In discussion, Dr. Stockton, of Buffalo, suggested that as there was a distinct personal variance in the activity of gastric mobility and absorption there should be no rules for the time of dosage for all persons alike. Dr. Daland, of Philadelphia, grouped the failures of quinin under two heads (1) when the drug was not absorbed; (2) when the diagnosis was faulty. He was inclined to believe that the drug should be given during the decline of the paroxysm, and advocated the preliminary use of calomel to further absorption. Dr. F. S. Johnson, of Chicago, spoke of the advantages of very deep injections and of the use of quinin by inunction. He gave an interesting case in which the oral method had to be abandoned for the injections on account of accompanying mental delusions. Dr. H. A. Hare, of Philadelphia, regretted that Southern physicians who had by far the best opportunity to observe malaria had not done more scientific work in the study of the disease. He dwelt upon the importance of the preliminary hepatic stimulants as by the use of the mercurials and acids. He called the attention to the value of blood-examination in differentiating the disease from typhoid fever. He considered hypodermic injections almost useless on account of the precipitation by the alkaline fluid of the tissues, and local inflammation. In its place he would use the normal solution of quinin injected directly in the veins. He spoke of the dangers to the heart of large doses of quinin. Dr. Dunham made a plea for the hypodermic injection of the double salt of quinin dissolved in two parts of water, and advised to keep out of the muscles. Dr. J. C. Wilson, of Philadelphia, in answering Dr. Hare's objection to the hypodermic injection, said that the blood as well as the rectal secretions was alkaline, and that although quinin was first precipitated it was afterward absorbed. He preferred the hydrochlorate of quinin, and thoroughly believed in the importance of the hypodermic method in many cases of malaria of long standing. In closing, Dr. Dock pointed out that the deep hypodermic injections were superior to superficial ones, and that, after all, the method was not generally useful.

The following papers were read by title: **Syphilis of the liver,** by Dr. George L. Cole, of Los Angeles, Cal.; **Frequency of subcrepitant rales in healthy chests,** by Dr. Richard C. Cabot, of Boston; **Traumatic neurosis without ligation,** by Dr. Sidney A. Ford, of Boston; **The superstitious theories and treatment of both extremes of the century,** by Dr. Alonzo Garcelon, of Lewiston, Me.; **Treatment of aneurysms by gelatin injections,** by Dr. T. B. Futcher, of Baltimore, Md.

In a **general introductory paper** covering the **field of pneumonia broadly,** Dr. Edward F. Wells, of Chicago, opened a **Symposium on pneumonia.** He proposed the questions: Is the pneumococcus so often found in the mouth identical with that found in the lungs? How does it enter and what measures may prevent or destroy its virulence? He considered a pulse of 140 a dangerous sign, as well as dyspnea and the rising and falling of the trachea. He has collected 350,000 cases in which he found the high mortality of 21%. He spoke of the efficacy of venesection in phlethoric persons, and considered that in these cases the procedure had no satisfactory substitute. He also advised a simultaneous subcutaneous injection in the chest of a normal saline solution or the use of an enema of the solution to replace the quantity of blood drawn. From the beginning to the end of the disease vasomotor paresis must be met with by strychnia, digitalis and morphin.

A paper on **The pneumococcus,** by Dr. Gustav Futterer, of Chicago, Ill., was read by title.

In a paper on **The blood in pneumonia,** Dr. Alfred

Stengel, of Philadelphia, limited himself to the clinical examination practical to general physicians, omitting special examinations, such as bacteriology and the estimation of the quantity of fiber in the blood. He called attention to the presence of a chemotactic form of leukocytosis which had an important relation to the diagnosis.

In a paper on **Systematic infection in pneumonia; the complications and the sequelæ**, Dr. Robert A. Preble, of Chicago, considered as complications: (1) *Mechanic*—Plugging of the bronchi; effect on symptoms and physical signs; dilatation of the heart; jaundice; theories of causation. (2) *Infectious*—Septicemia; pleuritis; endocarditis; meningitis; pericarditis; arthritis; miscellaneous mixed infections. (3) *Toxic*—Delirium; renal changes. In the sequels he classed delayed resolutions; nephritis; induration; neuritis; abscess; gangrene.

In a paper on **The treatment of pneumonia**, Dr. Hobart A. Hare, of Philadelphia, said he believed that the abortive treatment by venesection, aconite, and veratrum viride was applicable only in a few vigorous cases and in the early stage. Heat and cold upon the chest are useful sedatives, and small doses of aconite and opium are permissible. Later on in the disease, venesection should not be used on account of the prolonged after-effect. He advised cold sponging and ice-bags to the head and over the heart. Antipyretic drugs are dangerous, and rarely, if ever, serviceable. As a rule, a failing pulse indicates sedatives rather than stimulants. He believed digitalis was given too often and in too large doses, and often in ineffective preparations. Belladonna was strongly recommended in vasomotor relaxation. He had little experience in suprarenal extract. He cautioned against the promiscuous use of strychnia as a stimulant. It should be used at the proper moment and then heroically. Such substances as alcohol and cocoa are far better for continuous administration. Nitroglycerin is useful in the aged and when the arterial tension is great; the value of oxygen-gas is problematic. In discussion, Dr. Musser, of Philadelphia, called attention to the fact that pneumonia is a systemic affection rather than a lung-disease. Very often, when there is complete absence of physical signs, we have intense symptoms of general infection. He referred to aberrant forms of pneumonia, and called attention to cases in which there was striking simulation of appendicitis. He believed that on account of its insidious onset pericarditis was often overlooked, and remarked on the occurrence of localized areas of intralobar pleural infection. He dwelt upon the value of dry cups in the treatment, and spoke encouragingly of the local application of cold cloths, not only for the local effect but for the relief of the general toxic symptoms. He had never used aconite or veratrum viride and doubted their indication. A most important point is the maintenance of the secretory functions by laxatives, diuretics, and diaphoretics. Large amounts of water should be given. In all toxic affections, so long as the urinary secretion is abundant there is no cause for alarm. He advocated the use of strychnin in emergencies and nitroglycerin in the later stages, but had seldom used digitalis. Dr. Stockton, of Buffalo, confirmed Dr. Stengel's statements that leukopyemia does mean a fatal issue. He cited an instance of pneumonia of the relapsing type. He did not believe in the use of stimulants if they could be possibly avoided early in the disease, as this prevented their later employment. He believed in large doses of calomel to rid the system of the toxic poisons. When needed in critical cases strychnia is indicated in large doses hypodermically, and so given has saved many lives. He took exception to Dr. Hare's fear of the nervous symptoms so induced, and if thought necessary he combated them with opium. Dr. George Dock, of Ann Arbor, believed in watching carefully the treatment of pneumonia, and added his voice to the value of strychnia and calomel. He believed the local application of ice-bags over the affected parts in previously healthy people far better than the use of the cold bath, and urged more general adoption. Heat does not relieve the pain so well as cold, and poultices are not always efficient, and are very inconvenient. He laid great stress upon the use of the aspirating needle and early bacteriologic examination in the diagnosis of pleural envolvement and in forming the prognosis. Dr. A. M. Holmes, of Denver, mentioned that in Cripple Creek, Colorado, which is in a high altitude, there was great prevalence and high mortality of pneumonia, and it was customary as soon as the diagnosis was made to get the patient in the lowlands. Dr. J. M. Anders, of Philadelphia, said that a serious phase of this question was the fact that while the mortality of typhoid fever and other infectious diseases has been steadily decreasing that of pneumonia has been increasing. He strongly advocated bacteriologic examination of the sputum to differentiate between streptococcic and pneumococcic infection; in this way only can the proper use of any antitoxic serum be made. He has found a moderate leukocytosis, as a general rule, and has found that it may persist as long as 24 hours after the true crisis. He cited a case of relapsing pneumonia in which neither the pneumococcus nor streptococcus was found in the sputum, and inferred that the rare relapsing cases might be due to some other microorganism. He approved of Dr. Hare's division of cases into sthenic and asthenic forms, although the former are rare in city practice. He considered moderate bleeding permissible in sthenic cases, and warned against the use of cardiac depressants. In the asthenic cases, he resorted to the hypodermic use of morphia, and of the repeated dry cupping. He concurred with the other speakers in the value of strychnin, and believed that when once given it should not be withdrawn abruptly. Turpentine should be accorded a trial in cases of delayed resolution. Dr. H. B. Favill, of Chicago, dwelt upon the fact mentioned by the other speakers that the disease was a general and not local infection. He believes that much was to be expected in the future from hydrotherapy. In closing, Dr. Wells said that while there was no doubt that the dangerous symptoms of pneumonia pointed to general infection, he believed that the disease originated in the lung. He hoped for advances in the field of prophylaxis. Dr. Hare explained that he was clearly misunderstood in regard to his attitude toward strychnin. When it was needed, he believed in heroic doses, but the drug should not be used in small doses repeated for several days. If he could have but two means of combating the disease, he would select the ice-bag and the hypodermic injection of strychnin.

A further report on the cataphoric treatment of cancer was made by Dr. G. Betton Massey, of Philadelphia. The cataphoric insertion of nascent salts of mercury in a strength that will deluge interstitially a given tract of tissue or an organ, constitutes a therapeutic procedure of this author. Besides its application in massive dose, generally in association with nascent zinc salts, in the interstitial destruction of the malignant cells or germs of cancer and sarcoma, the method is applicable to the treatment of tuberculosis of accessible portions of the body and to many other conditions where an interstitially-driven germicide will be effective; all ulcerations, cysts, cavities and morbid structures being rendered permanently aseptic by the diffused materials, until perfect healing has been secured. Tissues subjected to the application, whether a small dose has been used or a massive one under ether, show the development of two distinct zones, that nearest the electrode being a zone of total necrosis, around which a line of demarcation subsequently forms, beyond which appears a zone of infiltration-reaction, which shows much puffiness and redness for days subsequently, and within which there is evidence that stray malignant cells are killed and the physiologic resisting forces of the body roused. Details are given of cases of sarcoma and carcinoma, 10 in all, that have been successfully treated by the method.

A fallacy of the rest-cure treatment was the title of a paper read by Dr. G. M. Gould, of Philadelphia, who described three cases which he has treated and in which the general physician or neurologist had ordered the rest-cure without any inquiry as to the existence of eye-strain. A potent and frequent cause of the neurasthenia, hysteria, denutrition, etc., of patients needing the rest-cure, is eye-strain, the symptoms of which are frequently not traced to the true cause and which is thus ignored in the treatment. Mydriasis in such cases, continued for a time, would not only prove a certain means of differential diagnosis, but as good a method of cure as the rest-cure itself. In discussion, Dr. Massey, of Philadelphia, took exception to the assumption that neurologists considered the rest-cure the proper treatment for neurasthenia.

In an article on **The medical treatment of movable kidney**, Dr. Alfred Stengel, of Philadelphia, confined his remarks to medical measures for restoring the displaced organ. He considered two plans of treatment: (1) Overfeeding, to restore the necessary perirenal fat, which, however, was usually unsatisfactory. (2) The artificial support by an abdominal belt and pad. Most pads are improperly made. They should be so constructed as to exert pressure upward, backward and to the right, insead of directly upward as is usual. The pad he uses is of kidney-shape. He cited cases in which such a pad produced great relief. In discussion, Dr. Stockton, of Buffalo, said that in thin persons with movable kidney and enteroptosis overfeeding was impracticable. As a rule a pad is unnecessary, often a bandage is sufficient. He suggested the addition of Swedish gymnastics to Dr. Stengel's plan of treatment.

A paper on **Acute endocarditis,** by Dr. W. A. Nielson, of Milwaukee, was read by title.

The nominating committee made the following selections which were favorably acted upon by the section: For Chairman, Dr. George Dock, of Ann Arbor; Secretary, Dr. H. Y. Futcher, of Baltimore.

Section on Surgery and Anatomy.

First Day.

The first session of the section on surgery of the American Medical Association was "appendicitis day," there being eight papers read upon that subject. In the address of the chairman, Dr. W. J. Mayo, of Rochester, Minn., upon **Cicatricial stricture of the esophagus and its surgical treatment,** the author said that esophageal obstruction was a subject that must command the attention of every thoughtful surgeon; that the inaccessible situation of the gullet, its relation to important structures and the difficulty attending manipulations within its narrow lumen, all tend to place it among the surgical problems difficult of solution.

Considerations on the diagnosis and treatment of gallstones, was the subject of Dr. Joseph Ransohoff, of Cincinnati, who said that cholecystotomy was first done by Boggs in 1868, and that it was not made a formal operation until 10 years later by Marion Sims. Concerning the etiology of gallstones comparatively little is known, and experiments made to produce them around foreign bodies introduced into a normal gallbladder had almost always failed. Gallstones present but few varieties, the vast majority being formed either by pure cholesterin or of bile-pigments. Cholecystenterostomy had a limited field of application, *i. e.*, obstructive jaundice from malignant disease or impermeable cicatricial stenosis of the common duct.

In his paper entitled **Observations on the treatment of gallstones** Dr. A. J. McCosh, of New York City, said that it was believed by many that so-called biliary colic was not produced so much by the passage through or impaction of a calculus in the bile-passages as by inflammation of the gallbladder and ducts, and that as long as the bile and the biliary passages remain normal a gallstone would, as a rule, produce but few symptoms. He thought that one stumbling-block which was often found in the path towards a correct diagnosis was the idea that if a stone was impacted in the common duct the result would be a distended gallbladder. His paper was a very exhaustive one and dealt at length with the citation of individual cases. In discussion Dr. Walker of Detroit, spoke of drainage, and said that in his operations of late he had been in the habit of closing the gallbladder and letting it fall back into the abdomen. He had no trouble in utilizing the purse-string suture. Dr. Bevan, of Chicago, Ill., thought that a great deal was known of the etiology of gallstones; that he always looks for a history of typhoid or intestinal infection and that in a number of cases he had found typhoid bacilli in the gallbladder of patients. He advised the S-shaped incision, which he had previously reported. Dr. Morris, of New York, illustrated a method of closing the gallbladder. Dr. Murphy, of Chicago, Ill., Dr. Ferguson, of Troy, N. Y., Dr. Thomas, of Pittsburg, Pa., Dr. Porter, of Fort Wayne, Ind., Dr. Warren, of Columbus, O., Dr. Rodman, of Philadelphia, Dr. Moore, of Minnesota, and Dr. Marcy, of Boston, followed in discussion. Dr. W. E. B. Davis, of Birmingham, Ala., reported a case of obstruction of the gallbladder and common duct, in which a stone was not found, occurring in a pure negro, aged 70.

In a paper on **Appendicitis as a cause of inflammation of the right ovary and tube,** Dr. A. J. Ochsner, of Chicago, said that during the past 5 years surgeons had frequently observed the fact that appendicitis might occur in patients suffering from an inflammatory condition of the ovaries and tubes; that most of these observers had found difficulty in making a differential diagnosis. He was of the opinion that appendicitis was frequently the cause of inflammatory disease of the right ovary and tube, and occasionally the left, and that such a condition was likely to give rise to a chronic invalidism, owing to the periodic exacerbation resulting from congestion due to menstruation; that in operating for chronic or recurrent appendicitis in patients suffering also from dysmenorrhea the right ovary and tube should be examined.

Complications and sequelæ of appendiceal abscess was the title of a paper by Dr. John B. Deaver, of Philadelphia, who said in part that, "Of all the complications of appendicitis, peritonitis, that dreadful disease which has and is to-day carrying many a human soul into eternity, stands foremost in frequency and mortality. One, if not the most, distressing sequel of appendiceal abscess is a fecal fistula. The surgeon is too frequently held accountable for this terrible condition. I style it terrible, for I know no word that can better express it. Gentlemen, I repeat to you, appendicitis with pus-formation produces ravages of the worst description, the effects are often permanent and irremediable, and in my experience unequaled by any other affection occurring within the abdominal cavity. For me the lesson taught by the widespread disastrous lesions of appendiceal pus was long ago learned. In fact, these very complications but accentuate the necessity for early operation to usher in that prevention which is indeed cure. Would that my voice were strong enough to sound the note of warning against delay in the presence of appendiceal pus, its ravages, etc., from the Atlantic to the Pacific and far beyond, and from the Everglades of Florida to the glaciers of Alaska."

Dr. Robert Morris, of New York, in his paper on **Bad methods in appendicitis,** said, "I say shame upon any member of our profession to-day, no matter who he is or where he lives, who allows an appendicitis patient to become a chronic invalid and unfit to follow any occupation, provided he is in reach of intelligent resources."

Dr. G. G. Eitel, of Mineapolis, read by title his paper on **Anatomy and biology of the processus vermiformis.**

Diagnosis and treatment of appendicitis, with report of 100 cases, was the subject of Dr. Means, of Columbus, who said that of the 102 cases reported 45 were in females and 57 in males. In 9 cases the operation was made within 24 hours after the attack. It had been his observation rather than his experience that when there was profound septicemia, complete paresis of the bowel, with a pulse-rate entirely out of proportion to the temperature, an operation was useless. He believed that few diseases had a more uniform set of symptoms than appendicitis. He further stated that "The controversy that has been waged during the last decade as to whether appendicitis should be classed as a medical disease, a mixed disease, or a surgical disease, has been decided largely in favor of the surgeons. I maintain that it is the consensus of opinion of the profession to-day that appendicitis is essentially a surgical disease, and should be treated from that standpoint." He did not believe that the time for operation depended altogether upon pathologic conditions as found in the patient at the time of the first visit. Early operations gave the best results.

Inquiries in the etiology and treatment of appendicitis was considered by Dr. William H. Harsha, of Chicago. He thought that among the etiologic factors was age, appendicitis being essentially a disease of the young. A study of 157 cases occurring in some of the Chicago hospitals during the past year shows an average of 26 years, the oldest patient having been 62 and the youngest 1½ years old. Continuing, he said: "The greater frequency in males is no doubt due to their greater exposure to injury, fatigue, colds, and over-indulgence in eating and drinking. The seasons affect materially the frequency of attacks, the greater number occuring during the summer months." In discussion Dr. Keen, of Philadelphia, said in part: "Dr. Deaver, if I understand him rightly, considered a general suppurative peritonitis as a contraindication to operation. The very fact that a patient has a general purulent peritonitis as a result of appendicitis, means to me instant operation and thorough operation, for this very reason, that if you let such a patient alone he is just as absolutely sure to die as he is sick; that a majority of those who are taken with a suppurative peritonitis will die, operation or no operation, is certainly true, a majority of them, but every one rescued is rescued from the grave, and that those cases are not without hope I am absolutely certain, both from reading and from experience, for I could recount at least 4 or 5 cases in my own practice, in which life has certainly been saved simply by the ordinary operation for appendicitis, and by an operation on both sides, which would allow thorough flushing out, complete cleansing of the abdomen as far as can be done." DR. MURPHY, of Chicago, then took the floor, and in a question-and-answer form discussed with Dr. Keen the time for operating in all appendicitis cases. Eventually many interested members joined in a lively discussion. They were: DR. LEWIS, of Kansas City; DR. GRANT, of Denver; DR. JOHNSON, of Hartford; DR. WAGNER, of Chicago; DR. LAPLACE, of Philadelphia; DR. PORTER, of Fort Wayne.

Some radical changes in the postoperative treatment of celiotomy was the title of a paper read by DR. EMIL RIES, of Chicago, Ill. In the animated discussion which followed, interesting points were adduced by DR. MANLEY, of New York, and DR. BONNAFIELD, of Cincinnati.

SECOND DAY.

DR. A. I. BOUFFLEUR, of Chicago, Ill., read a paper on **Dermoid fibroma of the abdominal wall and plastic operation for successful repair of defect caused by its removal.**

In a paper entitled **Observations on prevention of surgical shock and collapse, based on clinical and experimental evidence,** DR. GEORGE W. CRILE, of Cleveland, O., said: Experimentally, as well as clinically, the brain cannot withstand long pressure; it produces shock by interference with the vasomotor system. Collapse may be produced on the brain by direct pressure, and interference with respiratory centers, which it has been shown are located on the base. In operations on the brain, in the presence of abscess or hemorrhage, or in the presence of intracranial pressure, it is necessary to give the patient a hypodermic injection of atropia. It guards the heart against the inhibitory action of the vagi. In operations on the neck he stated that experimentally he had been able to show that when the laryngeal mucosa had been subjected to treatment of cocain, this drug had an absolutely inhibitory effect on reflex action; that in any given case of operation on the neck, if the patient is given physiologic doses of atropia before the operation is begun, and if at the same time the laryngeal mucosa is properly treated with cocain, it is impossible, as long as these drugs have their effect, to produce collapse in any such operation. In reference to opening joints, Dr. Crile said that, as a matter of fact, there is no nerve-supply in a joint that is capable of producing collapse or shock to a great degree, but that the shock produced in operations on the extremities was caused by cutting of nerve-tissue, a large nerve trunk, a great bungling, sawing through the anatomic bone with the periosteum intact produces but a small amount of shock. In discussion, DR. LEAVING, of Milwaukee, said that in the matter of prevention of shock the physical and mental condition of the patient preceding the operation and at the time of operation was of importance; patients should be in the best possible condition. He was in the habit of putting his patients, for 2 or 3 days before an operation, under the influence of strychnin, because of its support to the heart during the time of operation and to the nervous system and heart subsequently. He thought also that the rapidity of the operation was a large factor. DR. ALLEN, of Cleveland, thought that as little time as possible should be lost in the operation and that as little blood as possible should be lost. He believed that temperature was an important element. He recited some interesting experiments performed on dogs in a very warm room. DR. O. OCHSNER, of Chicago, mentioned, as another factor in shock, traumatized tissues, superfluous number of stitches, the unnecessary manipulation of the tissues. DR. BULLETT, of Louisville, presented a differentiation between traumatic shock or shock arising from railroad injuries and that caused by hemorrhage or loss of blood incident to accident. DR. MURPHY, of Chicago, said that "the operator who makes a clean, rapid operation, without injury done, without traumatism, is the operator who takes his patient off the table in a good condition." DR. DAN MILLIKEN, of Dallas, Tex., referred to a brother practitioner in Sherman, who found that thoroughly washing out the stomach, or performing lavage, thus removing all mucus or foreign material, lessened to a great extent, the amount of shock.

DR. ARTHUR D. BEVAN, of Chicago, read a paper on **Operation for undescended testicle and congenital hernia.** He said that the malposition of the testicle is often complicated with hernia, and hernia of a very dangerous and distressing type. When the testicle is retained high up in the abdomen and does not reach the internal abdominal ring, a hernia is not very apt to coexist, but in one-half of the cases when the testicle is in or about the inguinal canal, a hernia is present. It is difficult to retain such a hernia with a truss, because the pressure upon the testicle is unnatural, and such pressure is apt to produce traumatic inflammation of the organ. A retained testicle in or about the inguinal canal is peculiarly liable to injury, both external injury from its exposed position, and also injury from bodily movements, exercise of any kind in which the abdominal muscles are strongly contracted, sneezing and coughing. He had had one case in which the patient was compelled to remain in bed whenever he had a slight cold, because the pain of coughing and sneezing was excruciating. Why should we refuse the cryptorchid the benefits of a surgical procedure, which if properly done, is as safe and sure as a Bassini hernia-operation, and which is of much more value to the individual, both from a physical and mental standpoint. I desire to refer to the best method of handling the vaginal process of peritoneum in operations for congenital inguinal hernia. I have until recently been in the habit of obliterating the vaginal process in these cases by a purse-string suture at the internal ring, and by whipping up the peritoneum around the cord with a continuous catgut suture, leaving enough to form a tunica vaginalis. In a careful dissection of a case of inguinal hernia, I found that when, as it was very difficult to separate the vaginal process from the cord proper, I opened widely the inguinal canal, so as to expose freely the internal ring, I could very easily separate the peritoneum from the cord, just where the cord separates into its constituent elements, where the vas turns inward and downward and the spermatic vessels pass upward. Here I could readily separate and cut off the vaginal process and close the abdominal cavity, as in treating the sac of an acquired hernia. Further, I found that by following the vas and spermatic vessels inside of the abdominal cavity with my finger, and freeing them from the peritoneum covering them, I could pull them a surprisingly long distance out of the abdominal cavity. Since that time I have had an opportunity of operating on 4 cases of congenital inguinal hernia, which I have handled in this way: An incision 3 inches in length is made over the inguinal canal. I then proceed by splitting up the entire length of the canal, exposing freely the internal ring, opening the vaginal process, freeing the vaginal process high up, where the vas and spermatic vessels separate, ligating the vaginal process with catgut at the internal ring and dividing a half inch below the ligature. Then, without stripping the vaginal process from the entire length of the cord and without removing any of it, I continue by throwing a catgut ligature around it and ligating so as to close it, forming a large tunica vaginalis. In discussion, DR. MILLIKEN, of Dallas, Tex., thought the operation for castration should be performed from 8 to 10 years of age; that 15 was a little too late. DR. LORD, of Omaha, reported a case of metastatic inflammation of the testicle. DR. HARRIS, of Chicago, thought the two factors involved were (1) the necessity of an operation; and (2) the functional capacity of the organ. He did not think it was advisable to operate these cases previous to the age of puberty. He had removed a number of testicles and in cases over 25 no living spermatozoa could be found. DR. McARTHUR thought that no testicle should be extirpated until extraperitoneal reposition of that testicle had been tried. DR. SHAFFER, of Chicago, was of the opinion that the operation for castration should not be performed until the age of puberty. Others who took part in the discussion were DR. BOUFFLEUR, of Chicago; DR. MANLEY, of New York; DR. REED, of Rock Springs, Wyo.

The morning session closed with the reading of a paper by

Dr. Elliott, of New York, entitled, **Contribution to the treatment of spinal caries.**

The afternoon session opened with two papers on **Exstrophy of the bladder.** Dr. Dudley P. Allen, of Cleveland, in his paper, said: "All methods which have been introduced for the formation of a covering for the exposed mucous membrane of the bladder have two objections. The first is that although by covering the exposed mucous membrane they preserve it from external circulation, they do not prevent the escape of urine. This escapes and soils the patient exactly as it did before the operation. The method which Maydl proposed and the one which I have adopted in the present case is to remove all of the exposed mucous membrane of the bladder, except that which is immediately around the openings of the two ureters. After this has been done the abdomen is opened, the ureters are mobilized and the sigmoid flexure is drawn from the abdominal opening. A longitudinal incision is made into the intestine and the extremity of the ureters with their mucous covering is inserted into the sigmoid and made fast by a series of sutures. When this has been done the intestine is dropped backward into the abdominal cavity and the abdominal cavity is closed. Up to the present time it seems to me that no method proposed gives as much relief as that used upon the patient whom I present to you to-day."

In the paper by the same title by Dr. C. A. Wheaton, of St. Paul, the doctor recited a case of hypospadias with rudimentary penis, a case of epispadias without exstrophy of the bladder, and a case of aggravated epispadias with exstrophy of the bladder, upon which he had operated. Two patients were exhibited, showing satisfactory results. The discussion on the two papers was opened by Dr. Rudolph Matas, of New Orleans. He thought that the surgical history of exstrophy of the bladder was a fair reflex or mirror of the progress accomplished in surgery, that the cure of ectopic vesicæ was a problem that had confronted and vexed the surgeon for nearly a century; the ancients simply referred to this condition and described it; to them it was a hopeless state. He pointed out "that all the autoplastic methods proposed for the cure of exstrophy of the bladder are unsatisfactory and at best simply palliative; that of all the radical methods which involve an incision of the bladder and a transplantation of the ureters to the rectum, Maydl's operation is by far the most complete, rational, and satisfactory from the technical point of view; that Maydl's operation offers the best conditions for the complete correction of the associate epispadias; that it should not be applied indiscriminately to all cases, but only to those patients whose general condition is such as to warrant a long, tedious operation likely to be attended by serious shock and whose eliminating organs, especially the kidneys, are normal and capable of effective elimination." Dr. DeForest Willard, of Philadelphia; Dr. J. Rilus Eastman, of Indianapolis; Dr. W. J. Means, of Columbus, O., and Dr. D. P. Allen, of Cleveland, joined in the discussion.

In a paper entitled **Tuberculosis of fascia,** by Dr. J. E. Moore, of Minneapolis, he said that every surgeon was familiar with tuberculosis fascia, secondary to disease of the glands, bones, and joints, but in these cases the communicating sinuses are found, and the relation between the disease of the fascia and the gland, bone, or joint is easily established. He said he had a history of a number of cases in which there was no disease of the gland, bone, or joint, and in which there was extensive disease of the fascia. The symptoms of fascial tuberculosis are a slowly developing swelling, accompanied by little or no pus, and a local rise of temperature which can be detected by a sensitive hand. The diagnosis is to be made largely by exclusion. In the majority of cases the disease is secondary as well as primary. The prognosis varies with the variety, the location, and extent of the disease. Treatment consists in thoroughly removing every trace of the disease with knife, curet, and scissors. He gave the history of 6 cases. In discussion, Dr. Willard, of Philadelphia, thought that Dr. Moore had struck the proper method of procedure in tuberculosis of the fascia, when there is no implication of the bone, by laying open the sinus. Dr. Sherman, of San Francisco, spoke of the x-ray in connection with diagnosing conditions.

The next paper was by Drs. W. W. Keen and W. S. Jones, of Philadelphia, and was entitled, **Two novel cases of surgery of the trachea: 1. Stricture of the trachea successfully removed by operation; 2. Successful removal of a diaphragm in the trachea following cut-throat and producing aphonia.** It is published in full on page 1295 of this Journal. In discussion Dr. Crile, of Cleveland, thought Dr. Keen's case highly interesting, and reported a case of stenosis of the larynx under his observation. Dr. Wyman, of Cleveland, said: I would like to know whether a more careful and painstaking suturing primarily of the case might not have averted the conditions that culminated in the operation by Dr. Keen. Dr. Keen said: In reply to Dr. Wyman, I beg to say that I did not refer to the early treatment of this case, simply because it was under the care of other surgeons. Dr. Jones and I never saw the case until more than a year after the cut-throat. I presume this little accident is quite as frequent in Philadelphia as in Michigan, and we try, in these cases, when we meet with them early, to repair the damage with immediate suture, as has been properly indicated by Dr. Wyman. In answer to Dr. Crile's question as to cicatricial stenosis, I should think that if the opening between the vocal cords is completely cicatrized there would be no great probability of any progressive stenosis. If there were, it could be readily met by reintroduction of the tube.

In a paper, **Longitudinal silver-wire suture in the closure of wounds,** Dr. M. L. Harris, of Chicago, Ill., said: "I cannot speak too highly of the longitudinal silver-wire suture in the radical operation for hernia, as the results have been so very gratifying. There are no absorbable sutures to soften nor no absorbable sutures to come out at some future time. Another advantage is its rigidity; it can always be sterilized; does not convey infection to the deeper tissues; edges of wounds are more coapted than by any other method; the narrow linear cicatrix is a great improvement in a cosmetic sense; the suture will withstand any desirable amount of traction without yielding; it is easily applied." In discussion, Dr. Lord said that he had discarded the deep silver-wire sutures, and that he was using silkwormgut and catgut for superficial skin-wound closures. Dr. Means, of Columbus, mentioned a new material for suturing wounds—annealed steel wire, galvanized, and said it was very economical. In answer to a question by Dr. Eggleston, of Seattle, as to whether the silver-wire was as easily removed as silkwormgut, Dr. Harris replied that it was.

Dr. J. C. Monroe, of Boston, read a paper on **Laminectomy** with report of cases, in discussion of which Dr. Ferguson, of Chicago, said he thought that laminectomy was a very major procedure for the amount of good obtained. Dr. Bouffleur, of Chicago, believed that shock was no contra-indication to laminectomy; on the contrary it was a positive indication. He did not believe that presence of sensation accompanied by paralysis is a contraindication to operation. He said: "The last case I had to recover, which was a year ago last September, was one in which sensation was present, but upon exposure of the cord we found a spicula of bone penetrating the cord and passing completely through it from behind, and doing a great deal of damage to the motor areas." Dr. Francis D. Patterson cited a case of spinal meningitis, ameliorated by lumbar-puncture. Dr. Baily, of Chicago, said he had operated on two cases. One was an injury to the lumbar vertebra from a serious traumatism; the other was a gunshot wound; both were doomed.

Dr. L. L. McArthur, of Chicago, Ill., read a paper on **Pancreatic cysts.** In discussion, Dr. Turck, of Chicago, reported a case of pancreatitis hemorrhagica associated with peripancreatitis in the clinic of the postgraduate medical school. Dr. French, of St. Louis, also reported a case.

Dr. A. F. Jonas, of Omaha, Neb., read a paper on **Resection for the cure of knee-joint tuberculosis with a plea for earlier operation.** He said that in the past 10 years he had had 55 cases under his care, and that the methods of treatment employed came under these different heads: Mechanical immobilization, with plaster-of paris or starch bandage and braces; intra-articular injections of iodoform emulsion, followed by compression; puncture with canula and copious irrigation with sublimate solution; free incision, and irrigation, with closure by suture without drainage and immobilization; para-articular operations, opening of abscesses, excavation of bone centers; arthrectomy; resection; amputation. In discussion, Dr. Moore wanted to go on record as to the uselessness of iodoform in the local treatment of joint-tuberculosis.

In a paper entitled, **Treatment of popliteal aneurysm by excision,** Dr. J. C. Oliver, of Cincinnati, O., reported a case of traumatic aneurysm of the popliteal artery in a syphilitic. He believes that the operation by extirpation is the most scientific of all methods thus far proposed for the treatment of aneurysms of the extremities; that it is by far the safest method; that it gives a greater percentage of cures and a less percentage of deaths than any other method; that the operation by extirpation should be resorted to without previous attempts to cure by any other method. In the absence of Dr. Souchon, Dr. Manly opened the discussion on the papers. He was followed by Dr. L. Freeman, of Denver, and Dr. Lord, of Omaha.

Femoral artery and vein; their destruction without loss of leg. B. Merrill Ricketts, Ph.B., M.D., of Cincinnati, O., said that obstruction of either one, or both, of these vessels does not mean amputation. Septic infection is more often the cause of gangrene than is simple occlusion. He reports 23 deaths from gangrene in 400 ligations of the femoral artery. He claims that clean surgery makes ligation less dangerous, and cites the reports of several cases in which ligation of femoral artery and vein was without loss of leg, to justify this assertion. There are six varieties of the femoral artery, any one of which may render it possible to save the leg, but it is impossible to determine the existence of any of them without dissection. Anastomosis of veins and arteries has proved to be of but little, if any, avail. It is therefore not advisable, for the reason that occlusion sooner or later occurs. Better apply ligature for occlusion. Ligation should be first resorted to before amputation.

Section of Obstetrics and Diseases of Women.

FIRST DAY.

The afternoon session was the first held by this section.

Dr. A. H. Cordier, of Kansas City, Mo., thanked the Society for the honor conferred on him in choosing him its chairman, and in the **annual address** commented on the progress of gynecic surgery in the United States. There has been a resurrection of old methods which have been made safe and life-saving. At the present time the adaptability of the human intellect, enabling it to accept the good and to reject the useless, is best evidenced in the medical profession. In commenting on the advances in the department of gynecology he spoke of the surgical treatment of cancer of the uterus, which has been so unsatisfactory in many respects; yet, early surgical intervention is justifiable. Calcium carbid has proved no more useful for this terrible disease than many other remedies that have been advocated. In cancer, early and correct diagnosis is most important. The early recognition of gonorrhea and the avoidance of uterine sounding diminishes the number of cases of pelvic suppuration. A few years ago, vaginal enucleation of the uterus and adnexæ for pus practically caused a war in the profession. In operating for abnormal conditions, both the vaginal and the abdominal methods have their good points, but he chose the abdominal route as being more complete and almost perfect. In the treatment of the insane the neurologist and gynecologist should work together. In operating on the insane, relief of pain and better general health only should be promised, and the alleviation of mental condition hoped for. Ectopic gestation is more frequently recognized than formerly. All cases should be operated on as soon as recognized, unless gestation be near its normal termination, when it is a question whether to wait or not for the viability of the fetus. The abdominal route should be preferred in the treatment of extrauterine gestation. Serious hemorrhage may occur by vaginal incision, which would necessitate celiotomy for its control. The loss of the child in cases of contracted pelves can now be avoided by the selection of obstetric operation. Postpartum douches are not only useless but harmful, and should only be employed in women with gonorrhea for the protection of the child's eyes. The origin of puerperal sepsis, and its production by unclean hands and instruments, is more clearly understood. Serotherapy promises, in the near future, to be of much use, and, in his opinion, puerperal fever may be relieved by immunizing and curative doses of antistreptococcic serum. Credé's ointment of the soluble silver salts has produced very remarkable results in the hands of some observers, results that have been so sudden as to astonish the physician. Time alone will determine the usefulness of this method in puerperal sepsis.

Dr. Augustus P. Clarke, of Cambridge, Mass., read a paper on **Pelvic tuberculosis,** in which he remarked that the sources of contamination of the serous tissue are numerous. The principal avenues of entrance are along the loins from the intestinal tract. The morbid conditions resulting in adhesions of a portion of the intestine to the fallopian tube and the subsequent ulceration or perforation of the united surfaces furnish, no doubt, one of the means by which the bacilli reach the adnexa. From the intestine to the mesentery and from that point to the peritoneum and to the uterine appendages the bacilli may pass uninterruptedly. In many cases, if not in most, tuberculosis of the genital tract occurs in connection with the general dissemination of the disease in the other organs. This not unfrequently takes place in childhood and before puberty. Tuberculous lesions of the adnexa originating through the blood-supply, though occasionally observed, cannot be regarded as a common process. The three forms of tuberculosis of the fallopian tubes usually mentioned may very properly be reduced to two classes, the miliary and the fibroid varieties. Miliary pelvic tuberculosis may not pass beyond the first stage, or the disease may remain latent for varying indefinite periods. It is in such cases that a mere abdominal incision may be followed by apparent recovery, but it is not safe to regard the seeming recovery that follows celiotomy resorted to for tubercular peritonitis as being permanent in results. The chronic form of fibroid tuberculosis in which the connective tissue is greatly increased may become arrested in its course or in recovery. The connective tissue in its embryonic development having, of course, its origin in the same fibrous layer tends generally to the production of conservative processes. The preternatural development of the fibrous tissue in the tube, ovary, or other pelvic structure exposes the mass to the danger of becoming, through its diminished vitality, the focus of malignant degeneration. Observation proves that the presence of bacilli in the testes of husbands of women who are found suffering from tuberculosis of the fallopian tubes should not be regarded as being positive evidence that the disease has been the result of transmission of bacilli from the husbands, for such infection of the male genital organs may have first been imparted from the female. Dr. H. A. Kelly, of Baltimore, feels sure that coitus has nothing to do with tuberculous infection, and has never seen a case due to that cause. The tubes are not frequently the site of the disease, although the uterus is affected more frequently than is generally supposed. In three cases he has made diagnosis by microscopic examination of scrapings from the uterine surfaces. Tuberculosis of the cervix is very rare, and he has seen one instance only. In operating, all diseased tissues should be removed. The tuberculous uterus should be extirpated. Retroperitoneal glands should be carefully examined. Dr. E. E. Montgomery, of Philadelphia, reported a case of tuberculous disease of tubes and ovaries occurring in a girl 13 years of age, the condition being associated with diverticulum of the bladder. The patient had suffered from inability to retain urine. The tuberculous appendages were removed. The bladder was irrigated later and a decided improvement was noticed. Dr. Goldspohn, of Chicago, believed that the removal of caseous tubes renders the development of tuberculous lesions elsewhere less probable. He believes that the uterus and part of the ovary, if possible, should be permitted to remain. Dr. C. C. Frederick, of Buffalo, N. Y., reported a case of double tuberculous disease of the appendages in which he performed supravaginal hysterectomy. The patient had a tuberculous abscess developing later, which was opened by the vagina and general pulmonary tuberculosis developed later. Ruth reported a case of large ovarian tumor, complicated with tuberculous omentum, in which pulmonary tuberculosis developed later. Dr. Cumston, of Boston, spoke of pulmonary tuberculosis coexistent with tuberculosis of the vermiform appendix and gave evidence that the infection did not have to come through the vagina. He does not remove the tubes unless they are absolutely degenerated, but opens the abdomen and thoroughly irrigates and as a rule permits the tubes to remain. Dr. James F. W. Ross, of Toronto, discussed the difficulty of diagnosis in these cases of miliary tuberculosis. Hemorrhage is often a symptom of tuberculosis of the appendages. It occurs most frequently in young, unmarried women and cannot come from infection through the vaginal tract. Marvelous cures result from simple celiotomy and irrigation. Dr. J. R. Eastman, of Indianapolis, Ind., called attention to the importance of diagnostic curetage and microscopic examination with isolation of the tubercular bacilli. Dr. D. Tod Gilliam, of Columbus, reported an interesting case of calcareous degeneration in a tuberculous condition in which the calcareous plates were removed and symptoms relieved. Dr. C. A. Reed, of Cincinnati, reported a case of general miliary tuberculosis of the intestines. One year later pulmonary tuberculosis developed. Dr. Dorset advocated the injection of antiphthisic serum and reported a case in which it had been used successfully.

In a paper entitled, **Gynecologic considerations of the sexual act,** Dr. Denslow Lewis, of Chicago, Ill., emphasized the fact that man first seeks to live, then he seeks to make others live. Medical men in their deliberations should take cognizance of this great factor in human life. Lewis believes that sexual matters should be taught the young at an early age. Girls particularly should know the usual consequence of sexual intercourse. Their modesty may be shocked, but their virtue will be saved.

Papers by Dr. John S. Pearson, of Louisiana, Mo., on **Mothers of yesterday, to-day, and to-morrow. Women of the past, the present, and the future,** and by Dr. Edwin S. Ricketts, of Cincinnati, Ohio, on **Obstruction of the biliary ducts in women,** were read by title.

The next paper on the program was by Dr. Clinton Cushing, of Washington, D. C., and was entitled **Cholecystectomy.** Dr. Cushing assumes that the gallbladder is not necessary to the health or well-being of the individual, that it performs no physiologic function. The indications for surgical operations on the gallbladder are: (1) Recurring attacks of biliary colic, with or without jaundice, whether the gallbladder is enlarged or not. (2) Enlargement of the gallbladder, whether there be pain or not. (3) Persistent jaundice, which is preceded or accompanied by pain in the region of the gallbladder with or without paroxysms resembling ague. (4) Empyema of the gallbladder or peritonitis in the region of the gallbladder. (5) Abscesses in region of gallbladder. (6) When the gallbladder is seriously diseased, as it is better than having it as a place for further accumulation of gallstones or as a point of new inflammations.

The next paper on the program, **The anatomy of the suspensio-uteri ligament,** by Dr. J. Wesley Bovée, of Washington, D. C., was read by title.

A new method of treatment of retroversion of the uterus was the title of the paper read by Dr. C. E. Ruth, of Keokuk, Iowa. Dr. Ruth described his operation for uterine retroversion as follows: After making a median abdominal incision the uterus is brought forward and a large ordinary full-curved needle, armed with a full-sized kangaroo tendon, is passed under the peritoneum directly across the anterior surface of the uterus, then along the interior of the round ligament, or when they are absent, through the interior of the peritoneal fold which presents their course. When the abdominal ring is reached the needle pierces the abdominal wall directly opposite the ring and emerges through the skin in contact with Poupart's ligament near its middle or on one side or the other. The needle is now unthreaded, the end of the tendon split, say two inches, one-half is again threaded into the needle and passes under Poupart's ligament to the opposite side of the same, and the ends are next tied together over the ligament. The long round ligament will be thrown in numerous folds and convolutions as it is taken up on this remaining thread. One case was reported in which this method was used. The following points were considered: (1) It exposes no denuded or traumatized surface to contract troublesome adhesions. (2) It does not permanently introduce any foreign material. (3) It enables the natural support to take up the work successfully. (4) It gives the desired position of the uterus. (5) It leaves the uterus with ample mobility. (6) It does not interfere with uterine developments in performing its normal function. (7) It is quickly performed. (8) The disease of the appendages may be dealt with through the incision.

Why vaginofixation and ventrofixation and suspension of the uterus should be avoided in women who retain any capacity for conception, was the subject of the paper read by Dr. Albert Goldspohn, of Chicago, Ill. Dr. Goldspohn believes the operations named in the title are unnatural, unsurgical, and unscientific. The essential features in the technic of these operations giving them any stability in good results that they may or are intended to produce, are in every detail directly antagonistic to the interests of the uterus in gestation and labor. They offer serious obstacles to the performance of uterine functions. A large number of authorities were cited to prove the danger of these methods. There are other surgical expedients generally available, which are entirely within the domain of normal anatomy and physiology, that help nature and are assisted by nature, because they exercise a parallelism and not antagonism of force. Goldspohn uses the original Alexander operation, greatly modified and improved, as the only operation that not only does not borrow from things pathologic and antagonistic in nature, as do all ventral attachments, and does not create obstacles to gestation or labor, but guarantees against a return of the retroversion afterwards, provided the operation is properly performed. He has performed the Alexander operation 170 times without a death. In closing the abdominal incision, he follows the principles and technic of the Bassini hernia operation, believing that he not only avoids the supervention of hernia, but incidentally cures a number of cases of inguinal hernia that are impending, or are fully developed. When the extended and modified Alexander operation is combined with inguinal celiotomy by way of the temporarily dilated internal inguinal ring for the removal of adhesions, for the resection or the removal of diseased appendages, and for the permanent restoration of descended ovaries to their normal location, it most nearly fulfils the highest ideals.

Second Day.

A paper by Dr. D. Tod Gilliam, of Columbus, on **What shall we do with the uterine fibroid?** was read by title.

A paper entitled, **Spontaneous rupture of the body of the uterus during labor,** was read by Dr. Henry P. Ingraham, of Buffalo. In investigating 48,000 cases of labor, 12 cases of ruptured uteruses had been found, 5 of these being traumatic and 7 spontaneous. Most of the cases occurred in the practice of midwives. A large proportion of the cases occur among the foreign-born population. Many cases are unrecognized. The condition, however, is less frequent now than formerly, owing to the advances made in obstetric technic. In the discussion which followed the paper, Dr. Goffe, of New York, said he thought many cases of uterine rupture are unreported. He reported a case in which death occurred without marked symptoms, in which the autopsy revealed complete rupture of the uterus, and also an unique case in which the uterus had been torn away by the vagina, it having been mistaken for the placenta, and removed with the child. Dr. Baldwin added 4 cases to the list of ruptured uteruses; in 3 of them death occurred.

In a paper entitled, **Uterine fibroids,** Dr. Fitzgibbon, of Milwaukee, discussed the varieties and position of these new growths. The purely myomatous tumor is rarely found. Various degenerative changes were described. The direct causation of these tumors is unknown. The colored race are very frequently affected. The symptoms were divided into (1) constitutional; (2) uterine; and (3) those due to pressure. Early diagnosis is sometimes difficult. Fibroids may be diagnosed as pregnancy, retained menses, flexions, malignant disease, subinvolution, and inflammatory exudate, and these in turn may be mistaken for fibroid. Treatment may be nonsurgical and surgical. Ergot is the best styptic, although hydrastis is often valuable, but the intrauterine use of styptics is to be condemned. Electrolysis is not satisfactory. Surgical treatment is palliative, either the vaginal or abdominal route being used according to indications. Ligation of the uterine arteries and broad ligament is not advisable. Oophorectomy has its uses in some cases. The intraperitoneal method of hemostasis is preferable. Myomectomy may be used in subserous fibroids. In section the abdominal incision should be made high to avoid injury of the bladder. Injury to the ureter is the greatest danger to be avoided. Three complicated cases were described in detail. In discussion, Dr. G. Betton Massey, of Philadelphia, condemned the use of the term "Electrolysis," meaning a chemical dissolution of the growth. He prefers the phrase "electricity applied by a careful technic." If results are not secured in a year let the case be turned over to the surgeon. The use of oxychlorid of mercury at the seat of application is advocated. In hemorrhagic cases and small tumors he advocated the use of electric treatment. **Dr. Wm. H. Wathen**, of Louisville, Ky., condemns the extraperitoneal method of treating the stump in hysterectomy for fibroids, believing it to be unsurgical and unscientific. If the cervix is permitted to remain there is a possibility of degenerative changes it it. He believes electricity has no field in these cases and that it does untold harm. We should be conservative, but when the ordinary medical treatment fails, surgery should be employed. Myomectomy is the ideal method in these cases. **Dr. T. A. Reamy**, of Cincinnati, O., thinks that electricity has its uses. He has knowledge of 50 cases in which the symptoms have been relieved, and protests against a dogmatic condemnation of methods other than surgical. **Dr. H. D. Marcy**, of Boston, is thoroughly satisfied that electricity produces no material benefit. He had invited Apostoli to demonstrate his method in his hospital and watched the results, which were unsatisfactory. The consensus of opinion in two continents is in favor of the surgical rather than the electrical method. **Dr. Albert Goldspohn**, of Chicago, believes that electricity relieves the pelvic hyperemia, and that this result can be obtained without the use of an electrode into the uterine cavity, or an invasion of the endometrium. The extrauterine method of electrical application is the best. In hysterectomy he prefers complete removal of the uterus. **Dr. Joseph R. Eastman**, of Indianapolis, believes that the delay occasioned by using electricity is detrimental to the patient and that the surgeon is best qualified to decide which cases should be treated surgically and which electrically. The use of electricity is exceedingly limited. The selection of method is to be suited to the individual case. **Dr. Palmer** thinks that the treatment must be adapted to the individual case. A study of the history of the case must be made. The use of medicines is very unsatisfactory, but ergot and hydrastis are the two most useful drugs we possess for the condition. He considers Baer's operation the best to employ when operation is advisable. Curetment does good in many cases. He believes it will arrest the growth and diminish the size of the growths. **Dr. J. Wesley Bovée**, of Washington, advises the application of any method that will relieve the individual case, and called attention to the danger of curetage in these cases, sepsis occurring afterwards.

In his paper on **Indications for an operative treatment of postpuerperal sepsis**, **Dr. John B. Deaver**, of Philadelphia, said that the frequency with which postpuerperal sepsis occurs, even at the present time, with our knowledge of asepsis in surgery, calls for some discussion. He reported a case of tubo-ovarian abscess with infection of the uterus following childbirth, in which the uterus, right tube, and ovary and left tube were removed. There are three forms of puerperal sepsis, from an anatomic standpoint, all of which are infectious and due to abrasion of the mucous membrane lining the cervical canal and uterus. They are endometritial, metritial, and parametritial. The most fatal form is the metritial form. It is characterized by multiple fossa infection and abscesses. The endometritial is the most amenable to treatment; viz., curetment of retained decidua and thorough disinfection of uterine canal. The parametritial form is most frequently mistaken for so-called pelvic cellulitis. Puerperal sepsis is of two varieties: that due to putrefactive changes in the retained portions of the decidua or bloodclots, and that which is the result of the introduction of microorganisms by means of denuded endometrium, through the sinuses, or as the result of injury to the external genitals following the use of instruments during labor. Dr. Deaver believes that the conditions frequently described as cellulitis and abscess originated from sepsis carried into the tube and through the tube into the pelvis, where the inflammatory exudate breaks down and forms an abscess which is circumscribed by an adventitious membrane so closely resembling peritoneum that operators pronounce it as such, and regard the case as one of abscess of broad ligament. He believes the curet is resorted to too often. It is an instrument that requires as delicate manipulative skill to use with safety as the lithotrite, and should be handled with the greatest care and gentleness. Two cases were reported in which the uterus had been perforated with the curet. In one case examination revealed the presence of a loop of intestine in the vagina. Celiotomy was performed and six inches of small bowel was found, semigangrenous and devoid of mesentery. The perforation in the uterus was about the size of a five-cent piece. Supravaginal amputation of the uterus with removal of the tubes was performed, the involved portion of the ileum resected, and end-to-end suture with needle and thread performed, the abdominal cavity thoroughly irrigated and drained, but death occurred from peritonitis on the evening of the fourth day. The treatment of septic endometritis was dealt with. Dr. Deaver prefers mercuric chlorid and carbolic acid to lysol as an antiseptic. Several cases of pelvic abscess were described which illustrated the valuable point that the early institution of so-called radical measures is true conservatism in surgery. In the discussion which followed the reading of Dr. Deaver's paper, **Dr. Charles P. Noble**, of Philadelphia, said that he believes that usually injuries to the uterus can be quickly and safely repaired, and prefers doing so to hysterectomy, in cases of perforation. **Dr. B. Sherwood Dunn**, of Boston, Mass., emphasizes the use and abuse of the uterine curet. He has seen two total hysterectomies as a direct result of the use of the curet. Curetment is a delicate operation and should be done with scrupulous and rigid aseptic precautions. **Dr. Henry T. Byford**, of Chicago, Ill., advocates the use of the finger to guard the curet, or to remove retained secundines from the uterine cavity. Thorough curetage is necessary to remove adherent shreds. **Dr. Dorsett** thinks that not one general practitioner in 50 should be allowed to use a curet. It requires as much skill as the most delicate operation in surgery. He advocates thoroughly cleansing and drying of the uterus and the insertion of a suppository of from 20 to 40 grains of iodoform, and the use of a gauze drain protruding into the vagina in cases of sepsis. **Dr. Henry** thinks none but a bungling operator would perforate the uterus with a curet. He uses pure carbolic acid to swab out the uterus and no drainage. **Dr. Haggard** believes that although the curet may be sterile, yet the endometrium is not, and a sharp curet disturbs the barrier nature has provided. The finger and the Bozeman dressing forceps for cleansing the uterus, and drainage with irrigation with a 40% solution of alcohol at frequent intervals, is useful. He does not believe that iodoform gauze drains effectually. **Dr. Paddock** believes that physicians who do not know how to use the curet should not practise obstetrics. Irrigation should be practised prior to curetment. The finger is not long enough to reach the entire uterine surface. The dull and not the sharp curet should be used. **Dr. T. A. Reamy**, of Cincinnati, uses a lithotomy forceps deprived of its teeth, for exploration. **Dr. Chauncey D. Palmer**, of Cincinnati, believes the finger is totally unadapted for emptying the uterus at term. He uses the dull curet after all abortions or after parturition at term. **Dr. Duff** believes the same result is obtained by all methods and discussed the etiology of puerperal sepsis. Many cases are caused by placenta succenturiæ and placenta spuriæ. Many cases are overlooked and all placentas should be carefully examined and the uterus explored for retained fragments.

At the afternoon session a **Symposium on vaginal vs. abdominal section** was held. A paper entitled **Vaginal or abdominal section in pelvic surgery**, by **Dr. B. F. Baer**, of Philadelphia, was read by title.

The advantages of vaginal section in the surgical treatment of pelvic disease in women was the title of a paper by **Dr. J. Riddle Goffe**, of New York, who believes that thorough and complete work can be done by the vagina. Celiotomy is a serious thing. The objections are (1) stitches; (2) adhesive plasters, which are annoying; (3) binder; (4) abdominal scar; (5) danger of ventral hernia. Great diversity of opinion exists in regard to the closure of abdominal incision. By vaginal incision is implied, not simply puncture, but a free incision, transversely, if necessary, and supplemented by incision posterior to the cervix, giving ample room for manipulation. Vaginal fixation has many objections. Goffe prefers the vaginal shortening of the round ligaments. He considers this the ideal treatment for retrodisplacements. No disadvantages during pregnancy occur and it is superior to suspensio-uteri and the Alexander operation. The objections to the Alexander operation are many, because (1) of its limited applications; (2) ligaments are often absent or weak; (3) two unsightly scars are caused; (4) there is danger of hernia, which has frequently occurred subsequently. Retroversion is best treated by shortening of round ligaments through the vaginal incision. Diseased appendages may be removed, adhesions may be broken up, and malpositions corrected. Pelvic abscesses can be treated thoroughly, satisfactorily, and safely by vaginal incision. If both adnexa are destroyed total hysterectomy is indicated. The intestines may be injured, but this accident also occurs during abdominal operations, but less frequently in vaginal than in abdominal section. Ectopic gestation, ovarian dermoids, fibroid tumors of the uterus, may all be dealt with by the vagina. The pain is much less and the convalescence smoother than after celiotomy. The simplicity and facility and comfort of this method commend it to every operator.

In a paper on **Technic of surgery of the uterus and adnexæ per vaginam,** Dr. William H. Wathen, of Louisville, Ky., said he believes that many cases may be treated equally well either by vaginal or abdominal section. The bisection of the uterus increases the value of vaginal section. After the uterus is bisected each half may be brought outside the vulva. He has never wounded ureter or intestine by the vaginal incision, but has been less fortunate in operating by the abdominal method. The adhesions above often prevent the prolapse of the intestine into the vaginal incision. There is less danger of infecting the peritoneum, or of postoperative sequels than in celiotomy. Too many instruments are generally employed in doing vaginal hysterectomy, which prevents perfect surgery. One retractor is sufficient. In early tubal pregnancy the ruptured tube may be removed by the vagina, unless the peritoneal cavity is filled with blood. Wathen has operated on 35 cases of ectopic pregnancy by this method without an untoward symptom. Postoperative septicemia may be treated and its further invasion prevented by vaginal incision and drainage.

A paper by Dr. Joseph Price, of Philadelphia, **What becomes of the patients after vaginal cureture and drainage,** was read by title, and a paper, with the same caption, was read by Dr. Fernand Henrotin, of Chicago, who advocates vaginal incision. The conditions for which it is now performed were detailed. It is adapted to women with a capacious vagina and thick, adipose, abdominal walls, or in case of cardiac weakness. The postoperative symptoms are so slight that many patients cannot believe any serious operation has been performed. The objection has been offered that these operations are incomplete, yet he believes that the operation by the vagina is ideal and truly conservative of function. Pus may be either intraperitoneal or extraperitoneal, and most frequently secondary to pyosalpinx. Diseased tubes may be better removed through the suprapubic incision, although pus may be evacuated through the vagina and cure follow. Ovarian abscesses may be treated by the vagina without removal of the ovary. Results depend upon the discrimination and skill of the surgeon. About 25% to 30% of cases of pelvic disease may be advantageously operated on by the vagina. In the discussion, Dr. H. A. Kelly, of Baltimore, said he agreed with Dr. Henrotin's views on the subject of vaginal section. Opinions have been radically changed during the past few years. Segond had long before advocated these methods, which, at that time, we consider was operating in the dark. Dr. Kelly is an adherent of both methods, preferring the abdominal method in diseased conditions affecting the upper part of genital tract, *i. e.*, conservative operation on upper portion, and using the vaginal route for disease below. For pelvic abscess, the vaginal route is the method par excellence, that is, in abscesses of ovaries and tubes, which are usually of gonorrheal origin. He gave statistics of 59 cases in patients from whom he had received letters, detailing the conditions a long time after operation. Of these, 39 were practically improved, showing very slight symptoms. Nine were still suffering some symptom. Four died, three from uremia and from general infection. Some of these cases were operated on while in a critical condition. Many spoke of having only begun to improve six months or a year after operation, and several of the patients now well suffered greatly for the first months. Rectovaginal fistula occurred four times, the sac having ruptured into the rectum, and when puncture was done between rectum and vagina, became complete. Of these the fistula was healed in three cases and unhealed in one. Dr. Joseph R. Eastman, of Indianapolis, is an advocate of vaginal method in selected cases. In fibroid tumors the operation will depend on position of growth, whether it is pedunculated or not, and the character of pedicle. He prefers the Sims position in working by the vaginal route, as he considers certain advantages are gained thereby. Small ovarian cysts may be removed after tapping by this route. Both routes have advantages, and selection will depend on individual operator. Dr. J. B. Murphy, of Chicago, believes that the patient should be cured by one operation, if possible; that after incision of a gonorrheal pyosalpinx through the vagina, and after the incision has been healed, subsequent stricture of tube will interfere with drainage of the tube, and the patient will suffer from much discomfort later. In case of postpuerperal infection, abscesses that form may be cured by vaginal infection. The pathology and origin of abscess must be considered. He should advocate the abdominal route for infection in cavities lined by epithelial cells, and the vaginal route for abscesses in the connective tissue. Dr. E. P. Davis, of Philadelphia, considers that the vaginal route is particularly useful when an abscess has formed. The uterus should be saved, if possible. He believes that the abdominal route is preferable in cases of gonorrheal infection. Dr. Charles P. Noble, of Philadelphia, thinks that vaginal puncture is an unfortunate term. A large incision should be employed and is indicated. Very seriously-ill persons may be saved that certainly would die if celiotomy was performed. In many cases pregnancy will occur subsequently. In the majority of cases he employs the abdominal method. He believes that the objection to the abdominal scar is very rare, as the style of women's dress has not changed so that it is necessary for this scar to be exhibited. Concealed hemorrhage may necessitate celiotomy to save patients after the vaginal incision. Many accidents to uterus, appendages or bladder may occur during the procedure. Dr. C. A. L. Reed, of Cincinnati, said the value of such discussion is that it brings out the truth that these operations, formerly opposed, are but supplemental. A few years ago the edict came from England that all such conditions should be treated by the abdominal route. Then came from France, almost immediately, the word to attack all such by the vagina. We have since been able to recognize that perhaps there is a soul of truth in all things false, as well as a soul of good in all things evil. When to adopt one method and when the other is only to be determined clinically and upon the spot, and frequently after the initial steps in the operation have been taken. To presume to determine beforehand just what condition will be found and what procedure will be adopted presupposes a degree of diagnostic acumen which he does not claim to possess.

The following papers were read by title: **Pelvic inflammation,** by Dr. O. Beverly Campbell, of St. Joseph, Mo.; **Lymphatics of the peritoneum,** by Dr. Byron Robinson, of Chicago, Ill.; **Surgical significance of certain physiologic, anatomic, and pathologic peculiarities of the peritoneum,** by Dr. H. D. Niles, of Salt Lake City, Utah.

Dr. Augustin H. Goelet, of New York, presented a paper on **Treatment of endometritis by drainage and irrigation,** in which he declared it was an error to regard every uterine discharge as evidence of endometritis and to treat such conditions by caustic and astringent applications which coagulate the discharge and defeat drainage by blocking the orifices of the glands. This and destructive curetage he designated unscientific. Hyperemia with hypersecretion, often mistaken for endometritis, requires no local application to the endometrium, in fact is often converted into an endometritis by such treatment. The danger of inserting instruments into the uterus, either for the purpose of diagnosis, treatment, or for operations when there is a so-called catarrhal endocervicitis, was pointed out. He declared that the staphylococci, streptococci, and gonococci are often found in the cervical secretion when it is most inoffensive in appearance, and that their presence or absence can only be determined by microscopic examination of the discharge. He insists that this method of examination should always be employed in these cases before the cavity above the internal os is invaded, either for the purpose of diagnosis, treatment, or operations within the uterus. In endometritis the disease is not confined to the surface, but has invaded the glandular structure beneath, and he believes the rational treatment is to free the orifices of the glands and drain them until the infective process is exhausted, at the same time employing repeated irrigation with some nonastringent, nonirritating solution to remove the expelled secretion from the surface and prevent migration of infective germs. This may be accomplished by a carefully executed curetage done in a manner not to destroy the mucosa, but merely for the purpose of removing projecting granulations upon the surface or superfluous tissue that may be blocking the orifices of the glands and preventing drainage. The dull curet with rigid shaft, he thinks, is sufficient, and the sharp curet should not be used upon the endometrium of the cavity in endometritis. It is both unnecessary and unwise to attempt to remove the entire mucous membrane, and caustic applications should not be used after curetage in these cases. They cause necrosis, and atrophy of the mucous membrane or agglutination of the sides of the cavity may result. He urges that curetage should only be regarded a preliminary step in the treatment and that more attention be given to the after-treatment, which he deems most important; this to consist of persistent drainage and irrigation until all evidence of disease, as revealed by microscopic examination of the secretion and inspection of the cavity by means of the uterine endoscope, has been effaced. He also urges endoscopic examination of the cavity, both before and after curettage; before, to decide the actual necessity therefor, and after, to determine the completeness or incompleteness of the work. In this way only may errors be avoided. He exhibited a uterine endoscope with a small electric lamp placed at the extremity of the tube for direct illumination of the interior of the uterus, after the plan of the Valentine urethroscope. A megaloscope is attached for bringing out more prominently the details of the surface.

In a paper on **Papilloma of the ovaries, omentum, and uterus; operation; recovery,** Dr. W. Branham, of Baltimore, reported a case in which the uterus, ovary, and part of broad ligament were removed. Vaginal drainage was employed and recovery ensued. No recurrence had been noted. An interesting point was the presence of elevation of temperature as a symptom.

Dr. W. H. Humiston, of Cleveland, Ohio, read a paper on **Clinic and microscopic differentiation of sclerocystic and cirrhotic degeneration of the ovaries, and chronic ovaritis.** He thinks the etiologic factor in these cases is unknown. The cirrhotic ovary is smaller than the normal, is hard and inelastic and deeply corrugated. The sclerocystic ovary is two or three times larger than normal and is globular rather than ovoid. The pathology, symptoms, diagnosis, and treatment were discussed. Internal medication is very unsatisfactory, and Humiston knows of no way to relieve this class of patients except by castration. Much may be done for chronic ovaritis by general supervision and by gynecologic treatment. Pelvic massage and galvanism with tampons soaked in ichthyol and glycerin carefully applied to exert a slight pressure will, in a few cases, greatly increase the mobility of the adherent uterus and its adnexæ and relieve to a great extent the dysmenorrhea and ovarian pain. Usually symptoms gradually decline after the menopause.

NATIONAL CONFEDERATION OF STATE MEDICAL EXAMINING AND LICENSING BOARDS.

The first session was called to order at 10 a.m., June 5, in the Senate Chamber, at Columbus, O., an address of welcome being made by Gov. Asa R Bushnell, on behalf of the State of Ohio, and another by Dr. C. A. L Reed, of Cincinnati, on behalf of the medical profession of the State. The response to the welcoming addresses was made on behalf of the Association by Dr. Joseph Mathews, of Louisville, Ky.

Dr. N. R. Coleman, of Columbus, Chairman of the Committee appointed last year, read an important **Report on the minimum standard of requirements,** the sense of which was that the successful completion of the four years' course of a recognized high-school should represent the minimum of preliminary work for a person purposing the study of medicine. The present system by which each college and each examining board has its own standard of requirements should be changed and a general standard of requirements should be adopted. The report was ordered printed and distributed among the members for discussion at the next annual meeting.

In delivering the President's **Annual Address,** Dr. William Warren Potter, of Buffalo, N. Y., dwelt with emphasis upon the great importance of a **higher standard of medical education.** He illustrated the necessity of the raising of the requirements for studying medicine by quoting a number of ludicrous mistakes made by graduates of medical colleges, and particularly from papers submitted to examining boards.

At the session held in the afternoon, Dr. T. J. Happel, of Trenton, Tenn., presented a detail of the **Methods adopted by the Tennessee State Medical Examining Board,** which was received and discussed with interest.

The old and the new in Nebraska was the title of the paper by Dr. C. F. Crummer, of Omaha, in which the writer detailed the advances made in that State since the adoption of methods looking toward the regulation of the practice of medicine. The general trend was toward progress, although, in the same manner as in other States, occasional discouraging legislation had been made.

Papers which had been scheduled to be read by Dr. August Korndoerfer, of Philadelphia, Dr. Paine, of Albany, and Dr. Westfall, of Columbus, were merely read by title and were ordered incorporated into the proceedings of the meeting.

At the annual election of officers the following were chosen to act until the meeting in 1900: President, Dr. J. M. McCormack, secretary of the Kentucky State Board of Health; first vice-president, Dr. N. R. Coleman, of Columbus, O.; second vice-president, Dr. C. F. Crummer, of Omaha, Neb.; secretary and treasurer, Dr. A. Walter Suiter, of Herkimer, N. Y.

It was resolved to hold the meeting in 1900 in conjunction with that of the American Medical Association, at the time and place by them appointed.

THE ASSOCIATION OF AMERICAN MEDICAL COLLEGES.

The Association of American Medical Colleges met in annual session at the State House, Columbus, Ohio, June 5, at 10 a.m., with an unusually large number of delegates in attendance.

Prof. Hodgson, of New York, read an entertaining essay on **The requirements of the medical curriculum,** which provoked considerable discussion. Prof. Hughes, of St. Louis, Mo., thought too much technical details should not be offered to the student of general medicine.

Prof. Reynolds, of Louisville, Ky., thought the instruction of the medical student should be conducted by trained experts in each subject taught, that the lecturers should all of them be specialists in their several departments.

Prof. G. C. Savage, of Nashville, Tenn., by invitation addressed the association on the condition of **Medical education under the regulations of the Southern College Association.** He pointed out the steps which had been taken to bring about the present announcements of the several colleges holding membership in the Southern Association to adopt the standards of the national body, and predicted that all the Southern colleges would be in the National Association before 1903. The president delivered a brief practical address and the association adjourned until 2 p.m.

At the afternoon session the Judicial Council reported unfavorably upon about 20 applications for membership, and favorably upon the application of the Medical Department of Cornell University, of New York, the Grand Rapids Medical College, and some others of less prominence. The chairman of the council presented a large mass of matter, all of which was adopted with the exception of the recommendation of three colleges for membership. It was decided that no college can confer the degree of doctor of medicine Adeundem.

A vacancy on the Judicial Council was filled by the election of Prof. Harold Williams, of Boston, Mass. Prof. Parks Ritchie, of St. Paul, was elected president; Prof. Bentley, of Little Rock, Ark., vice-president, and Prof. Bayard Holmes, of Chicago, was reelected secretary and treasurer.

Reports of National Societies.—Full reports of the annual meetings of the American Orthopedic Association at New York, May 31, June 1 and 2; the American Dermatological Association, at Philadelphia, May 30, 31, and June 1; the American Academy of Medicine, at Columbus, O., June 3 and 5; and the American Surgical Association, at Chicago, May 31, June 1 and 2, have been sent us by special correspondents, but are crowded out by press of other matter. Their publication will begin in the next issue.

[From our Special Correspondent.]

THE AMERICAN SURGICAL ASSOCIATION.

Twentieth Annual Meeting, held in Chicago, May 31, June 1 and 2, 1899.

The association met in the hall of the Chicago Medical Society, and was called to order by Dr. W. W. Keen, of Philadelphia.

Professor De Laskie Miller, of Chicago, delivered an **Address of welcome,** which was responded to by the president.

The first vice-president, Dr. Albert Vander Veer, of Albany, then took the chair, and President Keen delivered his address. He selected for his subject, **The technic of laryngectomy.** He began by saying that he has been ill satisfied with the usual technic of laryngectomy, and, as in a recent case he adopted a method which rendered the operation one of simplicity, caused but little loss of blood and little shock, and avoided the danger of aspiration-pneumonia, he ventured to bring it before the association in the hope that it will be tested by others so as to determine its real value. Instead of being a very severe and dangerous operation, as it has hitherto been regarded, he hopes this will place it in the category of safe operations.

Nearly all authors, whether surgeons or laryngologists, speak of the operation as an extremely severe and dangerous one, and this view is warranted by its past high mortality.

Thus Rutsch speaks of the "recovery as very doubtful." Sendziak states that up to 1881 30 cases had been operated upon with 17 deaths, a mortality of 56.7%, and that in all the 30 there was only one definitive cure,—that is, in which 3 years or more had passed without recurrence. Later statistics, fortunately, have proved progressively more favorable. Thus Sendziak tabulated, from 1873-1894, 188 cases of laryngectomy for carcinoma. The results are thus tabulated:

1. Recurrence, 32.45%.
2. Relative cure (less than 3 years), 6.9%.
3. Definitive cure (3 years or more), 5.85%.
4. Death, 44.7%.

Schmiegelow has tabulated 50 cases of total laryngectomy rom 1890 to 1897, and these still later statistics are far from ncouraging. His table shows:

1. Recurrence 20%, a fall of 12% from Sendziak's table.
2. Relative cure, 48%, a rise of 41% from Sendziak's table.
3. Definitive cure, 10%, nearly double that of Sendziak's able.
4. Death, 22%, one-half that of Sendziak's table.

The mortality, it will be observed, therefore, has been alved and the definitive cures doubled, as compared with endziak's statistics. Were the cases occurring from 1890 to 894 excluded from Sendziak's statistics, the relative difference would be even more favorable.

The causes of the mortality are chiefly (*a*) weakness of the atient by reason of the disease, the poor aeration of the ood, and the entrance of septic discharges from the diseased larynx into the lung before the operation; (*b*) shock, cluding hemorrhage during the operation; and (*c*) after e operation, septic pneumonia, due to the aspiration of infected wound-fluids. This is the greatest danger of all. The urces of these wound-fluids are twofold: First, the tracheotomy wound, if, as is usual, tracheotomy has been done; d, secondly, the wound left by the removal of the larynx. hese wound-fluids are usually infected from the food, the cretions of the mouth, and the packing by iodoform gauze hich renders primary union impossible.

While the method which Dr. Keen wished to describe did not obviate the weakness or any other unfavorable influence from the general condition of the patient prior to operation, it minimizes the other causes of death, and especially the possibility of pneumonia.

He cannot claim originality for any one of the steps, for they have all been employed, he believes, by others. Thus, Bardenheuer closed the communication between the trachea and the pharynx, but he only kept it closed until the wound became covered with granulations, and complications were no longer to be feared, say 14 days. The communication was then reopened for the insertion of an artificial larynx. After adopting this method he had had 4 recoveries, while by the former method he had had 4 deaths. Cohen united the stump of the trachea to the skin, one of the most important improvements in the technic, since it prevents in a large measure the access of wound-fluids to the lungs. Other surgeons also have used the Trendelenburg posture, etc. But as a systematically planned operation, combining many advantages, the present technic, as a *tout ensemble*, may be called original.

1. Preparation.—The general preparation of the patient is the same as for any other operation.

2. Preliminary Disinfection.—As in all cases about the mouth, nose, pharynx, and larynx, he is particularly careful to make a systematic attempt for two or three days beforehand, to secure at least partial disinfection. While partial disinfection is not as good as complete, yet the results in treatment of fractures of the base of the skull, in the extirpation of rectal tumors, etc., show its great value.

He has the teeth very carefully cleaned by the toothbrush. If there are any old stumps of teeth present it is better that they should be extracted, and the operation deferred a few days until these dental wounds heal. For two or three days before operation every two hours, when the patient is awake, he has the mouth and each nostril sprayed separately with a solution of boric acid, listerine, or both.

3. Tracheotomy.—Nearly all authors recommend a tracheotomy either as the first step of the operation or more frequently 10 to 14 days before operation. In the few cases in which dyspnea is great he should be disposed to do a tracheotomy, say 2 weeks before the laryngectomy; not, however, with a view of preventing the entrance of blood and wound fluids into the lungs by the introduction of a tampon canula, but for the purpose of improving the general condition of the patient. In the case which is the basis of this paper he did a tracheotomy at the time of operation, but removed the tracheal tube at the termination of the laryngectomy, immediately closed the wound in the trachea, and obtained absolutely primary union. In any future case he is strongly of opinion that it would be better to omit tracheotomy entirely. As he would show, it was not, in his opinion, needful, and by omitting it we would eliminate one cause of septic pneumonia.

4. Posture.—The entire operation, after the trachea is invaded, is done with the patient in the Trendelenburg position. He is quite persuaded that the majority of surgeons do not appreciate to its full the advantages which this posture possesses in all operations about the upper air-passages. As he had pointed out in a previous paper, he employs it in epithelioma of the lip, in extirpation, or other operations on the upper and lower jaw, in removal of the tongue, in cleft palate, in operations on the tonsils and pharynx, and all similar operations. Blood will not run up hill any more than water, hence, if we employ this posture in laryngectomy, we avoid one of the chief reasons for tracheotomy and the employment of a tampon canula.

The disadvantages of tampon canulæ are very great. Kocher, like himself, has lately dispensed with them entirely. The three most commonly used are those of Trendelenburg, Hahn, and Gerster. Of the three, Gerster's is distinctly, in his opinion, the best. It can be more accurately adapted to larynxes of varying sizes, and is much less likely to injure the parts either by undue pressure or by difficulty of introduction. In one case, in his attempts to introduce a Hahn canula, the rings of the trachea were considerably torn. The objections to Trendelenburg's canula are arrest of respiration, which sometimes follows its introduction, the production of pressure-gangrene in the trachea, obstruction to the lower end of the tube by the rubber ballooning into the trachea beneath it, the bursting of the rubber or its being cut, and if none of these mishaps occur, the air often gradually escapes, and thus renders it useless.

The Hahn canula cannot be made aseptic so easily as the others; and, as Lennox Browne has pointed out, it requires sometimes 20 minutes for the expansion of the sponge after its introduction.

5. Anesthesia.—This is done at first through the mouth, and is so continued until the larynx or trachea is invaded. A large tracheotomy canula (12 mm. in diameter) is then introduced, and held in place by disinfecting tapes tied around the neck. The inner tube of this canula is removed and the metal tube of a Hahn canula, which precisely fits it, introduced. A rubber tube connects this with the ordinary funnel for the administration of chloroform.

6. The Operation Proper.—He described the operation in connection with the case reported, and then indicated the improvement in technic, which he purposed adopting in the next case he might have.

7. The After-treatment.

a. *Posture.*—The patient is kept in the Trendelenburg position by placing a chair under the foot of the bed. This posture prevents any wound-fluids from running down (or rather up) into the lungs. This position is to be maintained for one day. On the second day the bed is lowered to the horizontal plane. On the third day he is allowed to sit up in bed on a bed-rest; on the fourth to get out of bed and sit in a reclining chair; and on the fifth day he may walk about the room.

b. *Food.*—For two days nutritive enemas only are to be used. After that a teaspoonful of liquid food is given, at first every half hour, always followed by a tablespoonful of sterile water to wash away any food that might possibly leak into the laryngeal wound. At the end of a week full diet as to quantity may be given, but no solid food is to be given until the tenth day. No catheter or esophageal tube is required. The present patient could swallow from the very first.

c. *Dressing.*—The primary dressing was described in connection with the case. On the day after the operation the small gauze drain is to be removed. Half of the stitches may be taken out on the fourth day, and the remainder on the sixth day. In the case reported the temperature on the day after the operation rose to 101.8° F., and fluctuated between the normal and 101° for a week, when it fell to the normal.

8. Objections.—The only objection to this method which occurred to Dr. Keen is, that it absolutely precludes the use of any artificial larynx. But the possession of voice is nothing when compared with a speedy recovery and a greatly diminished danger of a fatal result. Rutsch believes such a larynx is very unsatisfactory. Of course, the author recognizes the fact that one case does not prove the value of any method, but its advantages were so striking in this case that, as laryngectomy is a relatively rare operation, he has not thought it best to wait until he could accumulate a much larger experience before bringing it to the attention of the profession.

9. Final Results.—Of course, it is too early yet to draw any inference as to the possibility of recurrence in this particular case; nor is this his purpose. His intention has been rather to demonstrate a method of laryngectomy which would diminish more especially the immediate mortality of the operation and secure speedy recovery by primary union. The changes of recurrence are no greater, nor yet any less, after operation by this method than by any other. This particular patient has been able to go out in all weathers during the past extremely severe winter, though living as far north as Waterville, Me., where the thermometer has been many degrees below zero.

At the conclusion of the President's address, a symposium on **The surgery of the Spanish War** was taken up. The first paper was read by Dr. Nicholas Senn, of Chicago, entitled **The first-aid package in military surgery.** He stated that two things were brought out clearly during the Russo-Turkish War, namely, the value of a first-aid antiseptic occlusive dressing in the prevention of wound-infection, and the importance of immediate immobilization of compound gunshot fractures. Dr. Senn suggests the following first-aid package for field use and emergency work: Two pieces of lintin, a form of compressed cotton, 4 inches wide and 16 inches long, sterilized and folded twice lengthwise; a teaspoonful of borosalicylic powder in a small waxed aseptic envelope; between them a piece of sterile gauze, 44 inches square, with two safety-pins, folded to corresponding size with the lintin compress; all of these articles wrapped in tin foil; two strips of rubber adhesive plaster, an inch wide and 8 inches long, the whole to be sewed in an impermeable canvas or linen cover. In using the package the powder is to be applied to the wound, when the lintin is used as a compress, held in place by the strips of adhesive plaster, and the gauze bandage over it. If two wounds are to be dressed at the same time, as is usually the case in modern warfare, the contents of the package are equally divided and used, which can be done without materially impairing the efficiency of the dressing. The slight hemorrhage in wounds inflicted by the small-caliber bullet will soon saturate a part of the dressing, which by evaporation will soon convert the antiseptic powder and the cotton into a dry crust, the very best protection for the wound against infection. Many military surgeons have expressed themselves recently as being opposed to the employment of the first-aid package by anyone else except medical men. This position Dr. Senn thinks will be found untenable during any great war, when the number of wounded would greatly exceed the working capacity of the limited number of surgeons.

In summarizing he emphasized the following conclusions:

1. First-aid packages are indispensable on the battlefield in modern warfare.

2. The first-aid dressing must be sufficiently compact and light to be carried in the skirt of the uniform, or on the inner surface of the cartridge or sword-belt, to be of no inconvenience to the soldier or in conflict with military regulations.

3. The Esmarch triangular bandage is of great value in the school of instruction, but in the first-aid package it is inferior to the gauze bandage.

4. The first-aid package must contain in a waxed aseptic envelope an antiseptic powder, such as borosalicylic powder, sterilized pins wrapped in tin foil, and between this package and the outside impermeable cover, two strips of adhesive plaster 1 inch wide and 8 inches long.

5. The first-aid dressing must be applied as soon as possible after the receipt of the injury, a part of the field-service which can be safely entrusted to competent hospital-corps men.

6. The first-aid dressing, if employed behind the firing line, should be employed without removal of the clothing over the injured part, and fastened to the surface of the skin with strips of rubber adhesive plaster, the bandage being applied over and not under the clothing.

7. The first-aid dressing must be dry and should remain so by dispensing with an impermeable cover over it, so as not to interfere with free evaporation of the wound-secretion.

8. The first-aid dressing should not be disturbed unnecessarily, but any defects should be corrected at the first dressing-station.

Dr. N. M. Ferebee, Medical Inspector of the U. S. Navy, Norfolk, Va., followed with a paper on the **Battleship in war.** He described a modern battleship, spoke of the preparations for war and the conditions during war. He also narrated his experiences with modern rifle bullets and with shells, closing his paper by detailing interesting cases.

Dr. George R. Fowler, of Brooklyn, read a paper on the **Organization and equipment of military field-hospitals.** The question of the establishment of division-hospitals in the volunteer army met with lively debate and at times violent opposition early in the Spanish-American War. Regimental commanders, supported to a greater or less extent by the regimental surgeons themselves, took very decided ground against sending their sick away from their own organization. Experience and careful consideration impel the conviction that, as against small regimental hospitals on the one hand, and top-heavy division-hospitals on the other, the brigade-hospital offers a logical compromise. Under the head of organization, the essayist dealt with executive offices, dispensary, property office, post-office, quartermaster's office, commissary office, medical ward, surgical ward, operating tent or pavilion, pathologic and bacteriologic departments, cooking department, diet kitchens, sanitary and disinfection department. In referring to location and arrangement, he spoke of the selection of a site, of open spaces which he said were to be preferred to wooded areas, soil, drainage, arrangement of wards, sinks, the cremation of garbage and typhoid excreta, kitchens and mess tents. In referring to equipment, he spoke of tentage, pavilions, furniture, linen, medical supplies, anesthetics and antiseptics, instruments, sterilizers, operating-tent furniture, ligature and suture materials, dressing materials, splint material, and transportation facilities. Lastly, he dwelt upon the personnel, which comprises executive and administrative officers, professional staff, ward-officers, operating staff, ophthalmologist, aurist and dentist; officers serving in a professional capacity should be relieved of all property responsibility. He then spoke of male nurses, female nurses, hospital corps, medical department quartermasters, and commissaries.

Dr. Charles B. Nancrede, of Ann Arbor, Mich., followed with a contribution on **The effects of modern small-arm projectiles, as shown by the wounded of the Fifth Corps.** Reports show that about 1,400 wounded were cared for at the hospital with which he was connected, for nearly all of the injured in the Fifth Corps, who survived for twenty-four hours, sooner or later passed through their hands, so that flesh-wounds and serious injuries of a day to a week or more were observed. Flesh-wounds were always of a trivial nature, unless the ball became misshapen by striking some extraneous object, or by stripping its mantle, as it sometimes did. This immunity, enjoyed by the flesh-wounds caused by Mauser and Krag balls, resulted, first, from the slight amount of contusion caused by the rapidly-moving ball; second, the aseptic condition of the ball, and third, the rarity of the carriage of fragments of clothing into the wound, as was not uncommonly done by the 43-caliber Remington, brass mantled balls. If maintained aseptic, the majority of flesh-wounds healed almost as if they had been incised wounds, not uncommonly cicatrizing under the primary field-dressing made with the first-aid package. Contusions, or slight wounds of the great vessels leading to so-called traumatic aneurysms, or aseptic or septic sloughing of the vessels many days after the receipt of the wound, were far from uncommon. Thus, he saw one wounded subclavian when the patient survived over three weeks, to finally succumb to hemorrhage during an attempt to ligate the vessel which was torn for a long distance. He also knew of another dying on the table some weeks after being wounded during an attempt to secure the same vessel. He tied the one femoral artery for wounds and assisted a colleague in securing another, days after the receipt of the injury. He tied one radial for secondary hemorrhage, and ordered the tying of an ulnar for ball-injury several days after their division, and was compelled to amputate an arm, after failing to secure a bleeding brachial in an apparently aseptic wound, two weeks after the man had been shot. Largely because all important vessels which were wounded did not give rise to immediate death from hemorrhage, conjoined with the less severe character of the head, thoracic and abdominal injuries than was anticipated, the mortality on the field was much lower than was expected, about one-fifth of those struck perishing on the field. Some of the saving of life was doubtless due to the prompt aid given the wounded by the surgeons, who rendered aid under fire. The greatest advance in military surgery on the battlefield in recent times is the first-aid packet, and the greatest boon conferred on the wounded soldier has been asepsis and antisepsis, because, in the majority of instances, rendering his injuries so painless and their complications so slight, that even anesthetics no longer occupy the chief place as a blessing to the wounded, because comparatively rarely needed. Antiseptic occlusion also proved the best treatment for most of the thoracic, abdominal and articular injuries. The confidently prophesied violent hemorrhage from the small vessels of the lung-parenchyma did not occur in any case seen by him. The amount of bleeding into the chest-cavity never required primary intervention for its arrest, and, he is informed by others, rarely required operation later, even then, aspiration usually proving amply sufficient, because infection had been avoided. All perforating ball wounds of the abdomen operated upon, he was informed, perished, while a number he saw recovered without intervention, antiseptic occlusion being relied upon. Wounds of the liver and kidneys did not seem to give rise to dangerous infection in the small number treated. If section cannot be done before peritoneal infection has become well established, both civil and military surgeons have long believed that poor as are the chances of recovery, they are lessened rather than increased by a section.

Dr. M. H. Richardson, of Boston, read a paper on **Appendicitis. (*a*) Should Every Case be Operated Upon as Soon as the Diagnosis of Appendicitis is Made? (*b*) Should the Appendix be Removed in Every Case?** At the bedside, in a specific case of appendicitis, there would be doubtless little difference of opinion among even those surgeons who seem to differ materially in the expression of their views. What one may describe as a severe case, another may regard as a mild one; what one may consider a hopeless infection, another only a desperate one, and so on. The conclusions arrived at are the result of experience in more than 900 cases, personally observed and treated, and of personal observation of many others in the practice of hospital colleagues. The total number is 904. In 259 cases of operation in acute cases, 72 died; 4 of these deaths were in the hands of other surgeons; 189 acute cases were not operated upon. Of these 31 died, probably all moribund at the time of first examination. The total operations are 569, of which 238 were interval operations, without a death. Total number of operations in acute stage, 331; mortality in acute stage, 21.5. Many of these fatal cases were desperate ones. All were severe. The mortality in acute cases without operation was fully 31 in 189 cases. But practically all these fatal cases were moribund and hopeless when first seen. Had all acute cases been operated upon, the mortality after operation would have been reduced, because most of the acute cases not operated upon would have recovered also with operation. In fact, most of the cases were operated upon in the interval. Deductions from mortality-tables are misleading. It would be as unfair to conclude because a long series of bad cases had died after operations that therefore no operation should ever be performed, as to conclude that because practically all the author's acute cases unoperated upon recovered (excluding the moribund), therefore no operation is ever necessary. There is a wise middle course by which unnecessary operations are avoided, and necessary ones are performed. In the initial stage severe symptoms of onset demand immediate intervention. These symptoms are pain, vomiting, tenderness, rigidity, shock—those common to most acute abdominal emergencies. In many cases these symptoms will subside, but the general trend of a case cannot be determined at one observation. Exploration is therefore indicated. The surgeon must expect often to find other lesions than appendicitis at the initial stage, but lesions quite as important and often demanding intervention even more urgently. Cases of mild onset may well wait until a second observation shows the probable course of the case. Time thus spent is wisely spent. The most important question is not whether to operate in appendicitis, but rather *when* to operate. In view of the great mortality after operation in severe cases, of the disadvantages following the drainage necessary in septic cases, weakness of muscle, stretching of scars, hernias, and the like, the best time to operate is in the period of perfect health following the attack. In a large percentage of acute cases, recovery from the acute attack will take place, and operation can be safely performed through a small incision which will not weaken the abdominal wall. Cases must not be watched, however, unless there are reliable signs of convalescence. After the initial stage the question of intervention becomes more difficult. When observed for the first time on the second, third, or fourth days severe cases should be operated on at once, unless they are improving so rapidly that there is a strong expectation of complete recovery and interval operation. Intervention is still more strongly indicated if the symptoms are increasing in severity. Operation is indicated, too, if the symptoms after marked improvement recur as if, though moderate, they are not improving. In the consideration of symptoms after the early hours, the character and extent of pain, tenderness and rigidity are important as determining the width and depth of the area of infection. The constitutional signs are less reliable than the local; they may be deceptive guides. The chief objection to operating in every case is the danger of converting a localized into a general infection. Every case which at the time of operation has an uninfected general peritoneal cavity, and which dies with general infection after operation (and they are more numerous than we know) excites the doubt as to the wisdom of operating in every case. We know that very many cases of localized peritonitis recover and are successfully operated upon in the interval, cases showing improvement in an enormous proportion go on to recovery and intermediate operation. If the patient is improving with a successfully localized peritonitis of considerable extent, especially if centrally localized, as in the pelvis, let operation be postponed until intervention can be safely practised, because these cases comprise, in the absence of general peritonitis, the most dangerous ones. Moreover, intervention becomes safer with a few hours' or days' delay in improving cases: (1) because the general exudate, so easily infected during operation, becomes absorbed; (2) because the local exudate diminishes in size; (3) because walling off with gauze is practicable when the adhesions are firm, impossible when they are thin; (4) operation ruptures at once the localized peritonitis, and starts the too often fatal peritonitis. Moreover, the patient's general strength improves with the local improvement. If the patient is not actually improving, this serious danger must be deliberately encountered because the localized peritonitis will probably do so by itself, *i. e.*, rupture, which is chiefly to be feared at operation. When there is a tumor situated to the right side, or directly under the abdominal wall, so that walling off with gauze is practicable, operation may be performed under conditions that would contraindicate intervention when the tumor is centrally located or in the pelvis. Cases on the verge of death should obviously be let alone, on the ground that the simplest active intervention will turn the scales against the patient. In areas with firm walls, simple drainage by a small incision is preferable to removal of the appendix, because of the risk of causing general infection by separating adhesions. Of 105 cases of simple drainage, all recovered but 2. Many were operated upon subsequently for hernias and for removal of appendix. An attempt should always be made to remove the appendix whenever the peritoneal cavity is opened unless the patient's condition forbids prolonged search. In many cases of abscess with firm walls, a slough will be found which on examination will prove to be a necrosed or exfoliated appendix. In such cases no subsequent operation for removal of the appendix will be necessary. If, after recovery from simple drainage in acute appendicitis, there is evidence of renewed appendicular trouble, the appendix should be removed, the scar of the original wound incised and the wound carefully closed. This operation is especially desirable if there is hernia in the scar, or even stretching or discomfort. Hernia of itself, after all operations for acute appendicitis, should be operated upon if it causes disability or discomfort. In very rare instances there may be a recurrence of infection in the region of the ileocecal valve, even after removal of the appendix. In the writer's experience two such cases have been noted, one recovering from operation, the other requiring drainage.

The discussion on Dr. Richardson's paper was opened by Dr. John B. Deaver, of Philadelphia, who said that the paper had brought out many points on appendicitis about which an active warfare has been waged for some years. Upon the surgeon's individual decision at the bedside often depends the life of the patient, and in every case the very points about which the paper dealt have to be faced and a decision made. As to the question, Should every case be operated upon as soon as the diagnosis is made? his answer is yes, with two exceptions: First, acute active general peritonitis; second, collapse. Should the appendix be removed in every case of appendicitis? Yes, with the exception of those cases where the bowel forming a part of the abscess-wall has undergone necrotic changes, rendering the bowel friable and apt to rupture during the necessary manipulation. Dr. Richardson has most wisely divided his first heading into two classes: those in which the diagnosis has been made in the early hours—and the speaker takes it for granted that he means within 24 hours—and those in which a diagnosis is made after this period of time has elapsed. In answer to the first question, Dr. Deaver asserts most emphatically that the early hours is the time *par excellence* for operation in this most serious of intraabdominal affections. First, because practically all cases operated upon at this time get well, or at least give the lowest mortality, this mortality increasing with the interval between the onset of the attack and the time of operation. Thus, of 18 cases operated upon within the first 24 hours, only 1 died, a mortality of 5.5%; of 30 acute cases, on the other hand, operated upon within 48 hours, 10 died, a mortality of 33.3%. As far as his experience goes, a careful examination of the statistics of acute cases convinces him that the local pathologic changes reach by progressive stages their severest limit within the first 48 hours, and after that period the changes are more in the nature of sequelæ following the primary stage of infection. Second, the percentage of cases that have one attack, and then remain perfectly well and free from other attacks, is very small. Of 460 of his own cases, 312 of them had more than one attack. In fact, it seems to him unjustifiable to offer a patient the faint hope of any attack of appendiceal inflammation being the last. Should we operate when the diagnosis is made after the early hours, if the symptoms are severe? He would say that his experience has led him to the belief that symptoms are very unreliable, and are not in proportion to, nor do they indicate the severity of, the pathologic processes which are taking place in the belly. Many times he has opened the belly of a patient with a normal temperature, flat belly-walls, and a quiet, retentive stomach, in whom tenderness on deep pressure was the only sign of persistent trouble, and has found pus or a gangrenous and perforated appendix. The surgeon who waits in the case of appendicitis for the appearance of severe symptoms, or, worse yet, waits until the symptoms increase in severity, for an indication to operate, will have many unnecessary deaths to his credit. Should the appendix be removed in localized abscess with firm walls? The success in the removal of the appendix in a localized abscess with firm walls depends upon the skill and the technic of the surgeon. Under these conditions the appendix should be removed, the only occasion for a difference of opinion being as to the time of its removal, *i. e.*, at the primary operation or at a subsequent operation. If the appendix can be removed at the primary operation without additional risk to the patient, it seems to him that this is the time of election. That it can be done without additional or any risk has been repeatedly demonstrated, and in his own practice he does it in nearly all cases, because in 257 primary removals his death-rate in the past has been 16.7%, and in 13 secondary removals the death-rate was 30.7%. The reasons for the removal under these conditions are that surgeons do not subject their patients to the danger of an attack of acute appendicitis occurring before the secondary operation. There is less likelihood of fistulas, either fecal or simple. The patient is cured with one operation instead of two, with the consequent saving of a variable period of invalidism for the patient. When a patient's strength does not permit, a prolonged search for the appendix should not be necessary. The appendix can hold but one of a few positions. It must be either postcecal, pointing into the pelvis, toward the spleen, or confined in the ileocolic or subcecal or ileocecal fossa. If the appendix is embedded in exudate, the exudate itself will indicate its position. He agrees with the essayist as to the necessity of the ultimate removal of the appendix, differing from him only in the length of time before the complete operation is performed.

(To be continued.)

Malarial Disease Mistaken for an Affection of the Ear.—D. B. St. John Roosa (*Yale Medical Journal*, April, 1899) believes that in the course of ophthalmic and aural diseases, or in connection with them, and sometimes independently of any real disease of the eye or ear, ocular or aural symptoms arise which are due entirely to malaria, and which are erroneously ascribed, in some instances, to specific disease, in others to intraocular and intraural diseases or to errors of refraction. During the past year Roosa has treated 2 patients, both coming from regions noted for malarial diseases. One patient was affected with acute suppurative otitis and inflammation of the mastoid, the other with chronic suppurative otitis. In both cases there was sudden very high temperature without any cause in the condition of the ears to account for it, and in both cases relief promptly followed the administration of suitable doses of quinin. In one of the patients there was a relapse, but under treatment all the symptoms entirely disappeared within a month. [M.B.T.]

The Latest Literature.

British Medical Journal.

May 20, 1899. [No. 2003.]

1. Shakespeare and the Medical Society. Alban Doran.
2. A Series of Cases of Arthrotomy for the Relief of Pain and for Removal of Synovial Fringes, Loose Bodies, and Fibro-Cartilages. C. B. Lockwood.
3. On Lateral Curvature of the Spine; Its Prevention and Treatment. Richard Barwell.
4. The Interpretation of Skiagraphs. E. Muirhead Little.
5. Remarks on Laryngeal Growths in Young Children. G. Hunter Mackenzie.
6. Notes on a Case of Abscess of the Lung Successfully Treated by Drainage. J. W. Crerar.
7. A Modification of Neisser's Diagnostic Stain for the Diphtheria-Bacillus. Alfred C. Coles.
8. Neurotic Ulcers of the Mouth. Robert Kirk and Arthur Court.
9. Dislocation of the Head of the Fibula by Muscular Action. Robert T. Ferguson.
10. Bullous Dermatitis Due to Iodoform. Arnold H. Watkins.
11. Epidemic Acute Pneumonia, P. J. Hamilton.
12. A Case of Hydatid Mole. Frank A. Nyulasy.
13. A Case of Volvulus in an Infant; Laparotomy; Recovery. Lewis Marshall.
14. Rupture of a Cancerous Stomach During Operation. P. Clennell Fenwick.

2.—In 4 cases of diseases of the wrist-joint, **arthrotomy** was performed chiefly for the relief of pain. In all the cases the pain disappeared, and the condition of the joint greatly improved. In 2 cases, arthrotomy of the knee was employed with success to remove inflamed and elongated synovial fringes. Four cases of arthrotomy for chronic osteoarthritis are reported; in 3 good results are obtained, but in one considerable stiffness of the joint remained. During one of these operations the observation was made that the knee-joint contained more fluid when extended than when flexed. Two cases of excision of the internal semilunar fibro-cartilage gave most excellent results. Both of these cases became so absolutely cured that the joints might be regarded as normal. [G B.W.]

3.—In the treatment of **spinal curvature** dependent on deviations of the pelvis, the deviation of the pelvis must first be corrected before any good results in the treatment of the curvature are to be reached. Exercises having for their intent the cure of the curvature, must be of such a nature as to strengthen the erector spinæ on the convex side of the curve, as this is always the weakened muscle. For the untwisting of the rotation occurring in S-shaped curvatures, Barwell suggests what he calls the first and second *aphelic* positions. Great results are claimed for these positions. [G.B.W.]

5.—Mackenzie describes a **method for treating laryngeal growths** in young children to which he attributes great results. It consists in performing tracheotomy and leaving the tube in situ for 6 months, to a year or until the growth seems to have entirely disappeared. By this simple operation, the breathing is relieved and as time wears on we find that the growths, now freed from the irritation of coughing and phonation, gradually lose their vitality and become detached from the vocal cords, without any tendency to recur. [G.B.W.]

7.—Coles recommends a modification of Neisser's diagnostic **stain for the diphtheria-bacillus** by treating the films with a solution of iodin after staining with methylene-blue. The method is as follows: (1) The films from a culture or membrane are spread on slides or cover-glasses, preferably the former; (2) they are fixed in the ordinary way by heat or by immersion for a few minutes in equal parts of ether and absolute alcohol; (3) stained in Neisser's methylene-blue for 10 to 30 seconds; (4) after washing they are immersed in Gram's iodin solution or Weigert's modification for 10 to 30 seconds; (5) again thoroughly washed in water and stained in the Vesuvin solution for 10 to 30 seconds; (6) dried and mounted in Canada balsam. The exact time for immersion in these 3 solutions seems of little importance except as regards the depth of color; half a minute in each gives good results. Diphtheria-bacilli thus stained appear as slender rods of a yellowish-brown color, each containing a granule at both ends and sometimes one in the center. The granules are always contained in and appear somewhat larger than the bacilli. While thought to be oval, Coles thinks the granules are perfectly round. [S.M.H.]

8.—Kirk suggests that **neurotic ulcers of the mouth** may be due in some cases to perversion or partial failure of the thyroid functions. Court reports a case of neurotic ulcer of the mouth occurring in a woman aged 36 years. The condition had lasted for 10 years. The attacks last from 3 to 6 weeks or longer. The intervals in which she was quite free lasted for a few weeks only. The ulcers were circular, somewhat elongated, varying in size from a small pea to a sixpence. They attacked principally the gums and the inner surface of the lips and cheek; occasionally they appeared on the tongue and rarely on the fauces. The attacks were aggravated by anything that worried the patient. Treatment was not very beneficial. [S.M.H.]

9.—The patient in the act of making a vigorous kick at a football suddenly felt great pain on the outside of right leg, just below the knee. On examination the head of the fibula was found displaced posteriorly. By extension and counter-extension the bone was easily replaced in its proper position. [G B.W.]

10.—Watkins had under his care a nurse who, whenever she came in contact with the most minute quantities of iodoform, developed an **acute bullous dermatitis.** The attacks yielded fairly soon to lead and opium lotion. [S.M.H.]

11.—Hamilton had 9 cases of **acute pneumonia** under his care in patients ranging from 17 to 30 years of age, who lived near to each other. There was very marked similarity in the character of onset and the course of the various cases, all being of a remarkably severe type. There was a more or less unsanitary condition of all the dwellings. The combination of circumstances suggested that the pneumonias were probably due to a common infection. [S.M.H.]

12.—Nyulasy reports a case of **hydatid mole.** The remarkable disproportion between the size of the uterus and the known duration of pregnancy created a strong suspicion of mole. The absence of fetal parts and heart-sounds strengthened this suspicion. Hemorrhage occurring, an examination showed the os dilated, and a good deal of cystic material was removed by the finger. The uterus was emptied later under chloroform and the patient made an uninterrupted recovery. [W.K.]

13.—This case of volvulus is interesting in that the patient was a child and that the twist was in the small intestine instead of the large. [G.B.W.]

Lancet.

May 20, 1899. [No. 3951.]

1. A Survey of the Climatic Health-Resorts of the United Kingdom Compared with Those of the Continent.
2. The Respective Parts Taken by the Urine and the Feces in the Dissemination of Typhoid Fever. P. Horton-Smith.
3. Acute Inflammation of the Aorta Associated with Profound Myocardial Disease. F. J. Poynton.
4. A Case of Epithelioma of the Tongue: Survival for Over 23 Years after Removal of the Growth. Christopher Heath.
5. The Treatment of Insanity by Various Animal Extracts. Arthur W. Wilcox.
6. After-Progress and Treatment of Two Cases of Gastro-enterostomy. Richard Bevan.
7. Infection of Tubercle From Song-Birds a Fertile Though Unsuspected Source of Phthisis. A. Tucker Wise.
8. Note on Hernia of the Vermiform Appendix. W. McAdam Eccles.
9. Note on the Counting of the White Blood-Corpuscles. Arthur G. Phear.
10. Note on a Case of Syphilis with no Primary Sore. C. F. Marshall.
11. Two Cases of Filiariasis, One Exhibiting So-called Varicose Groin Glands, and the Other Chylous Hydrocele and Lymphatic Varix of the Spermatic Cords. Fred-

ERIC EVE and J. MCCARTHY, with Pathologic Notes by H. L. BARNARD.

2.—Horton-Smith, as the result of a careful study made of **the respective parts taken by the urine and the feces in the dissemination of typhoid fever,** concludes in reference to the stools that when they are separated from the urine they contain typhoid bacilli in fair quantities demonstrable up to about the beginning of the third week. After this date the number rapidly diminishes, soon to disappear. If a relapse occurs, it may be preceded by a reappearance of the typhoid bacilli in the stools, but during the greater part of the relapse and throughout convalescence they are not to be found. It follows from these facts that the patient must always be regarded as highly infectious during the early stages of the disease, and may again become so at the commencement of a relapse. This highly infectious character, however, soon becomes greatly diminished, but it is yet undecided how soon they become absolutely harmless. When typhoid bacilli have been described in the feces long after defervescence, as in some reported cases, the probabilities are that the feces have been contaminated with urine. As to the infectious character of the urine, he concludes (1) that it can no longer be doubted that typhoid bacilli occur in the urine of typhoid patients, probably in about 25% of all cases; (2) for the most part they are not present in sufficient quantity to alter the naked-eyed appearance of the urine, and in probably about 5% of all typhoid cases the urine is rendered turbid by their presence; they are nearly always in pure culture; (3) they occur first late in the disease, rarely, if ever, before the third week, and they may make their first appearance during convalescence; (4) they generally remain present for some weeks, or even months; (5) the character of the urine does not assist in diagnosing the condition unless it be rendered turbid by the bacilli; it may contain no albumin, often contains but a trace, sometimes has a great deal, sometimes has pus, all of which conditions occur quite apart from the presence of typhoid bacilli in the urine; (6) the prognosis of a case is not rendered more grave by the appearance of this condition. In contrasting the infectious character of the feces with that possessed by the urine, it must be noticed that (1) whereas the feces contain typhoid bacilli in nearly every case, this does not obtain with the urine; (2) typhoid stools are without doubt most dangerous early in the disease, within the first 3 weeks; the typhoid urine, however, only becomes dangerous towards the end; (3) typhoid stools may contain considerable quantities of typhoid bacilli, but very rarely, if ever, do they contain such myriads as may be present in the urine. It would seem on the whole that the urine, and this partially on account of the enormous numbers of the bacilli which may occur in it, and partially on account of the nature of the excretion itself, is more dangerous and more responsible for spreading the disease than the feces. The stools by their color and odor at once attract attention, so that the slightest soiling of the linen is readily noticed and the damage rectified; the same cannot be said of the urine. It is well to emphasize the fact that the urine must be regarded as highly infectious and that the same precautions should be taken in regard to it both during the disease and during convalescence as have for some years past been adopted in the case of the feces. Should the presence of the bacilli be proven in any particular case by bacteriologic examination it is wise to administer urotropin, 10 grains being given by the mouth 3 times a day. The bacilli totally disappear from the urine for good after 48 hours of such treatment. [S.M.H.]

3.—Poynton reports 2 cases of **acute inflammation of the aorta associated with profound myocardial disease.** The first patient was a woman, aged 38 years. Her previous health had been good, but she had been addicted to alcoholism. Four months before coming under observation she developed an occasional attack of precordial pain extending down the left arm, during which the arm became blue and useless. These attacks grew more frequent and severe, and were accompanied by vomiting and faintness. When observed in the hospital-wards, they were recognized as attacks of true angina. There was a short presystolic mitral murmur. The second sound was reduplicated at the apex and the base. Shortly after admission she died in a prolonged attack of angina. The autopsy showed the cardiac muscles pale and pink in color. The mitral orifice was slightly narrowed. There was no hypertrophy. The left auricle was a little thickened. The commencement of the aorta for the first two inches was extensively diseased, and this conditon extended in irregular patches along the arch. The intima of the vessel in this situation was raised from the general surface, and was pinkish-red in color where the disease was most acute. Some of these raised patches had a translucent appearance. Others were yellow, with a red flush around their bases. The appearance was that of acute aortitis supervening upon a more chronic inflammation. The large vessels springing from the aorta were unaffected, and the orifice of the right coronary artery was normal and easily admitted a large probe, and the walls of these vessels were macroscopically healthy. Microscopic examination of the aorta showed the intima swollen, and the vessels distended. There was free exudation of cells around the vessels, and the fibrous tissues were swollen. The cell exudate in some places reached the surface of the intima. The elastic coat was freely infiltrated with leukocytes which extended for some depth into its surface. There were extensive changes found in both ventricles on microscopic examination, which consisted of scattered foci of advanced disease surrounded by comparatively unaffected areas. The muscle-protoplasm had in many places completely lost its striation. Where the disease was advanced many dark granules were obvious around the nuclei, and in some fibers this change was so extensive that only a shell of muscle-fiber and a faint nucleus could be seen. In other parts the muscle had a homogeneous hyaline appearance. The osmic acid preparation showed fatty changes in some fibers and in those which were most diseased this was extensive. There was a considerable increase in the thickness of the outer coat in some sections of the large vessels, but there was no endarteritis. No organisms were detected in the aorta or in the cardiac wall. The second patient was a man, aged 63 years, who died suddenly in an attack of angina. The autopsy showed both ventricles dilated and the left hypertrophied, slightly. The cardiac muscle, especially in the interventricular septum, towards the apex of the left ventricle, was obviously fibrosed. The commencement of the aorta showed an extensive inflammation of the inner coat. The orifices of the coronary arteries were natural in size, there was no visible disease in their walls. There was some fibrosis of the kidneys and the vessels were distended with blood. There were no evidences of visceral syphilis in the other organs. Microscopically the intima of the aorta was increased in thickness and the vessels were distended. The cardiac muscle was extensively diseased in scattered areas. Some of the fibers showed striation, but many had lost all vestige of it. There was some fatty change and many granules around the nuclei of these fibers. The smaller vessels in places were distended and there was exudation of leukocytes pointing to an active process. There is evidence of a joint affection of the heart and artery dependent upon some common cause occurring as the result of infections, the disease in the heart and arteries not being dependent the one upon the other, but both the attributes of a particular infection. In these cases there was no evidence of an acute infection. The appearances of the vessels pointed to a condition of acute disease supervening upon a more chronic process, which would appear to be the rule in the case of acute primary aortitis. One would therefore naturally turn for the explanation to some chronic toxemia in which there are exacerbations of intensity, and syphilis is perhaps the most readily brought to mind. The condition of the cardiac wall in both these cases would be compatible with syphilitic disease, but in the absence of definite gummatous change it seems unwise to dogmatize. There was a history of alcoholism in the first case, and the appearances at the necropsy in the second were quite compatible with such a theory. [S.M.H.]

4.—In September, 1875, a man, aged 52, was admitted to the hospital with very extensive **carcinomatous disease of the tongue** and sublingual structures. In January, 1874, swelling of the submaxillary glands had been noticed and a sore soon appeared beneath the tongue; in September, 1874, the gland swelled and broke; the tongue became fixed to the floor of the mouth so that there was difficulty in speaking, saliva trickled constantly and the patient was unable to protrude his tongue. All the tissues beneath the jaw were indurated, the jaw was sawed on each side, the tongue was isolated and the whole diseased area enclosed with a wire of the galvanic écraseur. The parts removed included the middle three inches of the lower jaw, nearly the whole of the tongue, sublingual muscles and glands. On microscopic examination the condition was proved to be epithelioma. The gums and tissues at the root of the tongue, even to the jaw, were found to be affected. The halves of the jaw gradually fell together and united firmly and the stump of the tongue grew considerably, so that the patient articulated and masticated fairly. The patient lived until 1898, when he died from senile decay, aged 75, 23 years after the operation. [M.B.T.]

5.—Wilcox has used ovarin, cerebrinin, didymin and thyroid extracts in the form of tabloids each containing 5 grains, in cases of different forms of insanity. Sound bodily condition on careful physical examination of the patients was demonstrated, rest in bed for a few days before and after, as well as during the treatment, and during the time the patients were confined to bed the diet was restricted to milk, beef-tea and light puddings. The dosage consisted in the beginning of 15 grains daily, which was increased by 15 grains each day until 60 grains were given. The treatment was usually continued for 5 days or 7 days and longer, if thought advisable. The cases chosen for ovarian feeding were those in which there was complete amenorrhea, the most successful results being obtained in the insanity of adolescence. Female epileptics were treated by cerebrinin, male epileptics by didymin, while thyroid extract was administered in cases of melancholia, acute mania and dementia. In 5 cases in which the ovarian extract was given, the results obtained were sufficiently encouraging to warrant the perseverance of the treatment, particularly in the insanity of adolescence. The female epileptics treated by cerebrinin tabloids were in no way benefited. The same applied to the treatment of male epileptics by didymin. The results with thyroid extract were equally disappointing. [S.M.H.]

6.—The after-history is given of two patients who were operated upon by **gastroenterostomy,** for dilated stomach 3½ and 3½ years previously. To favor emptying the stomach, the patients were advised not to eat directly before retiring and never to lie down immediately after eating. They were also advised to gently knead and rub the stomach in the direction of the aperture into the bowel. Bevan believes that the necessity for making a hole in the highly vascular transverse mesocolon decidedly increases the risk from posterior gastroenterostomy. There is also danger of subsequent twisting and obstruction. The use of the stomach-tube is thought to have played an important part in promoting the health of the patients. It is believed that the lives of the patients were saved by operation. Digestion has continued to improve in both, and thirst, one of the most distressing symptoms, has disappeared. [M.B.T.]

7.—Wise believes that **tuberculosis** is disseminated through the medium of song-birds to a very much greater extent than is suspected. He records 10 cases illustrating this point. He says there is generally a high mortality among caged birds, especially if several are caged together, and tuberculosis being very frequent with these, the birds which become affected can doubtless spread bacilli during the course of the disease. [S.M.H.]

8.—The papers by Owen and by Battle on hernia of the appendix, which appeared in a previous number of the *Lancet*, are discussed. [M.B.T.]

9.—Phear believes that in **counting the blood-corpuscles** it is advisable to use a single preparation for the enumeration of both the red and white. The blood should be diluted with some suitable fluid at least fifty times, otherwise the red corpuscles are so closely crowded that no trustworthy count can be made. He recommends the use of a camera lucida for increasing the area available for the purpose of counting. For a differential count of the white corpuscles it is desirable to work with an immersion lens, and as the depth of the hemocytometer cell renders this impossible, it is necessary to prepare a special fluid film. [S.M.H.]

10.—Marshall reports a case of **syphilis** with secondary manifestations in which there was no primary lesion. The patient was under observation from the beginning of infection and the chancre was carefully searched for. [S.M.H.]

11.—A negro sailor, aged 24, was admitted to the hospital for tumors in both groins. Twelve years previously he fell from a tree among broken bottles, incising his right groin; soon afterward the swellings appeared and slowly increased; they have given the patient inconvenience but no pain. The left tumor was the size of two fists and extended from the anterior superior spine to the spine of the pubis; it felt like a lipoma. The tumor on the right side was limited to Scarpa's triangle. The blood was examined and filarial embryos were demonstrated. The **tumor in the left groin** was dissected out, the lymphatic vessels and bloodvessels entering the mass were ligated and it was removed; the right tumor was treated in a similar manner. Healing by first intention resulted and there were no untoward results. On examining the mass filarial embryos and at least a dozen parent worms were found. A second case, that of a man aged 25, is reported. The patient had visited Eastern tropical countries, and 6 years previously his left testis first began to swell; later his urine appeared milky and he was tapped for hydrocele. On microscopic examination, filarial embryos were found in the patient's blood. The hydrocele was again tapped, 4 ounces of chylous fluid withdrawn and a dram of iodin solution was injected. Filarial embryos were demonstrated in the chylous fluid. Two weeks later a right lymphatic varix was dissected out and treated as though it were a varicocele. It consisted of dilated hypertrophied and lymphatic vessels with thickened walls; on dividing them a milky fluid escaped which contained the embryos in active movement. One month after the patient left the hospital much improved. [M.B.T.]

New York Medical Journal.

June 3, 1899. [Vol. lxix, No. 22.]

1. The Doctor Outside of Medicine. William L. Stowell.
2. Some Further Observations on Obstetric Cases. John H. Barry.
3. The Occurrence of the Streptococcus Scarlatinæ (so-called) in Cultures from Throats in Cases of Scarlet Fever. John S. Billings.
4. A Case of Acute Transitory Mania occurring in a Syphilitic more than Three Years after Apparent Cure of the Syphilis. Charles O'Donovan.
5. Diphtheria: The Serum-Treatment in General Practice. Palmer Heath Lyon.
6. Antinosin in the Treatment of Enuresis, Cystitis, and Urethritis. R. F. Amyx.
7. A Case of Right Lateral Displacement of the Bladder with Fecal Impaction. L. C. Carr.

2.—Barry gives the results of 100 obstetrical cases in the last 3 years, in 82 of which the delivery was spontaneous and uncomplicated, and reports in detail the graver difficulties arising in the remainder. He regards malarial fever as a very common complication of the puerperium, especially in malarial districts, and says that he seldom fails to give quinin in the lying-in period when a history of malaria, recent or remote, can be elicited, as its administration serves the double purpose of insuring a quiet, uneventful puerperium, (other conditions being equal), and securing freedom from chills, fever, and other undesirable associated conditions. [W.K.]

3.—Billings reports the result of cultures made from throats in 17 cases of **scarlet fever.** They were made in accordance with the directions given by Kline. The results were practically negative. In only one instance was a streptococcus, corresponding in structural characteristics to the streptococcus scarlatinæ, isolated. This organism is therefore either not constantly present, or in the great majority of cases is isolated with great difficulty. Its presence is of very doubtful diagnostic value. [S.M.H.]

4.—O'Donovan reports a case of acute **transitory mania** in a man aged 25 years. The patient had had syphilis previously, for which he had received prolonged treatment and had considered himself well. About a week before coming under observation he had an epileptoid seizure. About 10 days later he had another, which lasted several hours and was rather a succession of epileptoid convulsions than one continuous seizure. Following this he had a heavy, dazed appearance about the eyes, was moody and inclined to be morose. Several times during the succeeding day he lost consciousness for a minute or two, during which he sat or lay with his eyes open staring in a fixed direction without convulsive movements. He was much worse during the following night and became delirious and excited, but was slightly better the next day. He was ordered large doses of potassium iodid with inunctions of blue ointment. Before any effect from treatment could be observed he became wildly delirious and had to be forcibly restrained. There were no more epileptoid attacks, but he had no lucid intervals and only short periods of sleep without succeeding benefit. In this condition he was removed to an asylum where he rapidly improved and was returned to his home perfectly recovered at the end of a month. [S.M.H.]

5.—Lyon considers the best locations for the introduction of antidiphtheric serum to be the surface of the abdomen, in either lumbar region or the external surface of the thigh. The amount injected should be anywhere from 1,500 to 3,000 or 4,000 units, depending upon the demands of the case. For immunization, a dose of from 500 to 1,000 units is sufficient. In order to be efficacious it should be administered during the first 3 days, preferably on the first day. The greater the time which elapses before the first dose the poorer the patient's chance of recovery. All exposed individuals should be at once immunized. The serum should be employed in all cases in which diphtheria is even suspected, without waiting for a bacteriologic diagnosis, as it is perfectly harmless if properly administered. The serum used should be a standard preparation not over 6 months old, and should be injected under perfectly aseptic conditions. The only unpleasant effect is occasional slight urticaria, which rapidly disappears. [S.M.H.]

7.—The patient upon examination presented a distended abdomen that was tympanitic with a very marked tumor in the right iliac fossa, rather hard on pressure, movable, flat on percussion, and showing decided fluctuation on palpation; no desire to urinate existed. Fecal impaction seemed the most reasonable diagnosis, as the patient had had no stool for some days. Slight dribbling of urine suggested catheterization, and 1600 cc. of urine was withdrawn; this was only part of the contents of the bladder. The tumor disappeared immediately, and disseminated hard masses of fecal matter could be discovered in its place, proving beyond doubt, that the tumor had consisted in the greater part of the overdistended bladder. Treatment directed towards overcoming the constipation and the acute cystitis that supervened upon the overdistension completed the cure. The most striking feature of the case was the abnormal position of the bladder. Whether it was due to a congenital displacement or to the pathologic condition of this organ, is an open question. Displacement by mechanical causes would be difficult. Such anomalous conditions might occur that would mislead even the most careful diagnostician. It emphasizes the importance of absolutely excluding every other possible complication before operating by laparotomy. [C.L.L.]

Medical Record.

June 3, 1899, [Vol. lv, No. 22]

1. Some of the Problems of the Alienist. Frederick Peterson.
2. Obscure Causes of Disease. W. Stanton Gleason.
3. Rubeoliform and other Eruption; with Special Reference to Koplik's Phenomenon. Jacob Sobel.
4. Remarks on the Midwifery Question; the Availability and Simplicity of the Midwife; the Secret of Her Hold on the Masses. Thomas J. Hillis.

1.—Peterson insists upon the necessity for providing in cities of 50,000 or more inhabitants, **special hospitals** or special wards connected with general hospitals **for the reception and treatment of cases of acute psychosis,** which do much better under hospital care than under home treatment and demand proper care much more actively than do most cases received in general hospitals. In establishing colonies for the more chronic cases there should always be the attempt to do away, as far as possible, with the appearance of an institution and try to make the colony have the appearance of a collection of homes. The architecture of the buildings and the landscape gardening should always be tasteful, and so far as possible there should be opportunities provided for suitable occupation for the inmates. With these practical provisions it is of utmost importance that the necessary apparatus and workshops for the scientific study of these cases should be given. The progress in the treatment of mental changes has not been marked by striking advances, with one exception,—the use of thyroid extract in myxedematous idiocy—but nevertheless there have been sufficient advances to give courage to continue. [D.L.E.]

2.—Attention is first directed to the **importance of the liver in preventing autointoxication,** and also in causing autointoxication through disturbance of its own metabolism. Gleason then briefly discusses the excretory products of nitrogenous food, and their possible importance in causing autointoxications such as uremia, and directs especial attention to the importance of the uric-acid diathesis in causing certain examples of disease which commonly seemed to be very obscure. [D.L.E.]

3.—Sobel speaks with unqualified approval of **Koplik's sign in the diagnosis of measles.** In 65 cases of measles in which he has looked for this sign in the early stages he has always found it; and he gives a series of diseases other than measles, in which he has looked for the sign and found it absent. Among these may be mentioned coryza, tonsillitis, bronchitis, rötheln, antitoxin rashes, erythema multiforme, urticaria, scarlet fever, pityriasis, and a number of common skin-diseases such as eczema, scabies, and impetigo. [D.L.E.]

4.—Hillis is an advocate of the **continuance of the midwife in obstetric practice.** He believes she is capable of managing ordinary cases, and is not so careless of antiseptic methods as she is reputed to be. He remarks against the cleanliness of the hands of his professional brethren, and speaks in similar terms against the availability of the woman physician. [D.L.E.]

Medical News.

June 3, 1899. [Vol. lxxiv, No. 22.]

1. The New Diagnostic Spots of Measles on the Buccal and Labial Mucous Membrane. Henry Koplik.
2. Oroscopy; Items of Interest from a Dermatological and General Standpoint. Jacob Sobel.
3. Gastroenterostomy with Enteroanastomosis by Braun's and Gallet's Methods. Report of 5 Successful Cases. Robert F. Weir.
4. A Contribution to the Study of Cerebrospinal Meningitis. Lewis A. Conner.
5. Brain-Injuries, Their Diagnosis and Treatment. Charles Phelps.
6. Acute Yellow Atrophy of the Liver. Charles H. Browning.

1.—Koplik complains that the peculiar spots on the buccal and labial mucous membranes, described by him as **pathognomonic of measles,** have received but little attention in this country, although they have been accepted and utilized in many of the foreign clinics. These spots appear from 24 hours to 5 days before the commencement of the disease, and consist, at first, of a few indefinite spots of red with bluish-white centers. Later, they become confluent, and are studded all over with these little bluish-white masses. It is necessary to make the examination in strong daylight. Microscopic examination of these spots shows that they consist of diplococci and epithelial scales. The spots begin to fade when the skin-eruption is at its efflorescence. These spots are of value in making a differential diagnosis from scarlet fever, simple aphthæ, German measles, and influenza. They are most likely to be confounded with pearls of the buccal and labial mucous membranes, but are not surrounded by a red zone, and are covered by a shining normal epithelium. He reports, in conclusion, a case of scarlet fever, followed by measles, in which, had it not been for the appearance of these spots, a relapse would have been suspected. [J.S.]

2.—Sobel calls attention to the various **diseases exhibited by the different parts of the mouth.** On the lips, the most important are herpes, mucous patches, aphthous stomatitis, purpuric spots, warts, pigmentation of Addison's disease, nevi, mucous cysts, epithelioma, macrocheilia, furuncle, carbuncle, multiform exudative erythema. On the gums, ulcers are most common, particularly in babies. Then changes characteristic of mercurial salivation, lead-poisoning, and scurvy. Falling out of the teeth may occur in a variety of diseases. Epulis is rare, it may be benign or malignant. On the mucous membrane of the mouth may be noticed Koplik's spots, the various lesions described on the lips, and noma. On the hard palate are seen the eruptions of varicella, variola, epithelial pearls, and Bednar's aphthæ. Purpuric spots occur in purpura hemorrhagica. In the soft palate are seen edema of the uvula and elongation of the uvula. Ranulas and salivary calculi may be noted on the floor of the mouth, and a peculiar ulcer occurring in whooping-cough on the under surface of the tongue. Among the interesting characteristics of the tongue are leukoplakia, geographic tongue, and various tumors and ulcers. [J.S]

3.—Weir reports five successful cases tending to show the utility of a supplementary **enteroanastomosis in cases of gastroenterostomy.** The methods he adopted were essentially those of Braun and Gallet. The connection of the intestines is made a short distance from the seat of the gastroenterostomy between the afferent and efferent gut so as to allow the bile and pancreatic secretion a chance to escape before they accumulate in sufficient quantity to press on and obstruct the efferent gut. This method certainly gave much more satisfactory results than did the older anterior and posterior plain gastroenterostomies. [G.B.W]

4.—Connor reports 60 cases of **epidemic cerebrospinal meningitis**; 21 occurring in '93, 5 in '94, 8 in '95, 6 in '96, 10 in '97, and 10 in '98, the majority in the spring, and 70% in the male sex. Three-fourths of the patients were under 30; the youngest patient being a child of two months, the oldest a woman of 65 years; 18 autopsies were performed. In the acute cases the meninges were injected. In the more chronic cases there was an abundant purulent or fibropurulent exudate over the base. In the cord, the greatest involvement was usually in the lower part or the posterior surface. The cranial nerves were invariably involved. In 10 of the cases, bacteriologic examination was made, 4 of them gave typical growths of the pneumococcus; in 2 diplococci intracellularis were found by microscopic examination. In one there was a pure growth of streptococci, and in another, a mixed growth of pneumococci and streptococci. All the usual types of the disease were observed. The most rapid course was 21 hours. There were two abortive attacks, and 26 cases terminated within two weeks. The onset was usually sudden, and not infrequently accompanied by vomiting. When gradual, the symptoms consisted of restlessness, irritability, fever, etc. Three types of temperature-curve could be distinguished, one in which the temperature was normal or subnormal throughout the disease until death; one in which it was high from the onset and continued so until death or lysis; and finally, one in which the temperature rose gradually to a moderate height and then diminished. Vomiting occurred in more than one-half the cases. Headache was common, usually occipital, but sometimes general. There was tenderness over the cervical vertebras and photophobia was very pronounced in 3 cases. The reflexes showed no constant feature. The motor symptoms were variable. Usually there was rigidity of the neck and back, and sometimes rigidity, sometimes paralysis of the extremities. In 16 cases skin-lesions were present. Usually this consisted of hepatic vessels on the lips and nose; sometimes the eruption resembled urticaria, and was accompanied by a marked dermographia. In 3 cases a hemorrhagic eruption was present. Tâche cérébrale was common. Distinct leukocytosis was found in all cases in which the blood was examined. The spleen was enlarged in 14 cases. Lumbar puncture was performed in 2 cases. The cultures were sterile, but diplococci were found in cover-glass preparations in one case. The mortality was 68%. In conclusion, Conner calls attention to the comparative frequency of cerebrospinal meningitis in New York City. [J.S.]

5.—Phelps reports two case of **brain-injury.** The first was a case of simple, general contusion of the brain with severe, general shock, the second, fracture of the base of the skull extending through petrous portion. This later lesion was diagnosed by the presence of hemorrhage from the ear and paralysis of the facial nerve. [G.B.W.]

6.—Browning reports the case of a negro, 9 years of age, who had had an attack of dysentery, and some months later developed headache, loss of appetite, followed by mild jaundice, and still later, pain in the region of the liver, nausea, and vomiting. The liver was much enlarged, was sensitive, and hard. The temperature was slightly elevated, but there was no chill, nor sweating. There was no leukocytosis, but the patient was restless, and soon developed wild delirium with the head thrown backward. The abdomen became tympanitic, the liver-dulness disappeared, and the patient died in coma. An autopsy was made. The abdominal cavity contained some blood-serum. The liver was diminished, hard, and bile-stained. The spleen and kidneys were enlarged. The gallbladder was distended. Browning believes that this was a case of **acute yellow atrophy of the liver** following an attack of simple catarrhal jaundice. [J S.]

Boston Medical and Surgical Journal.

June 1, 1899. [Vol. cxl, No. 22.]

1. X ray Examinations an Aid in the Early Diagnosis of Pulmonary Tuberculosis. Francis H. Williams.
2. Foreign Bodies in the Larynx in Children. J. Payson Clark.
3. Massage and Galvanism in Gout. Douglas Graham.
4. Three Cases of Leukemia. J. N. Hall.

1.—Williams reports the results of the **x-ray examination of 6 patients suffering from tuberculosis,** in which the diagnosis was rendered more certain, and in all of these it was subsequently confirmed either by the discovery of bacilli in the sputum, or the development of a reaction after the use of tuberculin. In the first 3 cases there were more or less distinct physical signs in the lungs. In all of them the affected portion of the lung was not as transparent to the x-ray as the normal portion, and it was possible to recognize diminished excursion of the diaphragm on the side most seriously affected. In the second group there were no marked signs in the lungs, but the x-ray examination showed a more or less abnormal condition. In all, the diagnosis was confirmed by the use of tuberculin. The most interesting case was that of a boy, 9 years of age, who had had diphtheria 3 years previously, and in whom a diagnosis of typhoid fever had been made. The Widal reaction was negative, and the symptoms otherwise were not characteristic. The x-ray examination showed impairment of the transparency at the right apex, and diminution of the excursion of the diaphragm; 3 mg. of tuberculin produced a distinct reaction. Another patient suffering from acute articular rheumatism was suspected to have dilatation of the heart. An x-ray examination was made in order to determine this, when it was accidentally discovered that the apex of the right lung was slightly opaque, and an injection of 5 mg. of tuberculin produced a well-marked reaction. Williams does not believe that is is possible to make a diagnosis of tuberculosis by the x-ray alone, but a deviation from the normal may be observed that leads to a suspicion of the true condition, and the diagnosis can then be confirmed by other means. All the other aids should be employed, as it is exceedingly important to recognize the condition as early as possible. [J.S [

2.—Clark summarizes his article on **foreign bodies in the larynx in children:** Foreign bodies in the air-passages are more frequent in children than in adults, but the mortality is lower in the former. Leaving out cases in which death is immediate or almost so from shock or mechanic obstruction, cases of foreign bodies in the larynx are less fatal than tracheal or bronchial cases. In all cases of supposed foreign bodies in the larynx in children, a laryngoscopic examination should be made, unless the child is unusually tractable, under ether-anesthesia. If dyspnea is urgent tracheotomy may be done first. If a foreign body is visible in the larynx, an attempt should be made to remove it through the mouth before resorting to any cutting operation for its removal. [G.B.W.]

3.—Graham reports the case of a man, 57 years of age, suffering from **gout with uratic deposits.** General massage was given every day with local massage of the affected joints. Later in the course of the disease, the negative pole of a galvanic current was applied, and the two methods together appeared to have a remarkably rapid effect. [J.S]

4.—Hall reports 3 cases of **leukemia.** The first, a man of 47 years, had noticed enlargement of the abdomen 3 years before examination. He was anemic; the spleen was enormously enlarged; the lymphatic glands not palpable, and the differential count showed 55% myelocytes. At the autopsy, the spleen was found to weigh 6¼ lbs., and the right kidney had become a single large abscess. The second patient, a woman, 44 years of age, also showed progressive exhaustion, dyspnea, and increase in the size of the abdomen. There was some enlargement of the lymphatic glands. In this case the myelocytes equaled 50%. The third patient, a boy of 8, had enlargement of the glands in the neck and loin, with slight cough. There was moderate temperature, and rapid pulse. The liver was enlarged, and the edge of the spleen was palpable. The boy suffered from obstinate diarrhea. The leukocytes only amounted to about 16,000 per cmm. Later, he presented the symptoms of periostitis, but recovered from this. A differential count was made and showed 18% of large, and 33% of small lymphocytes. The first 2 cases are regarded, according to the old method of classification, as splenomyelogenous in character. The last is described as mixed lymphatic leukemia. The enormous number of myelocytes in the first 2 cases is very exceptional. [J S.]

Journal American Medical Association.

June 3, 1899. [Vol. xxxii, No. 22.]

1. Our Therapeutics. John V. Shoemaker.
2. Hen's Eggs in Infant Feeding. A. C. Cotton.
3. A Modified Siegle's Pneumatic Aural Speculum. Charles H. Burnett.
4. Urethral Disease and Marriage. Frederick W. Robbins.

2.—Chiefly a plea for the substitution of **egg-albumen** for the indigestible **proteid of cow's milk** in the cases in which no attainable modification of cow's milk would meet the requirements. The objection on the score of its coagulability at a rather low temperature is met by the assertion that high temperature is not essential as the egg is practically aseptic. [G.C.C.H.]

4.—Proper precautions should be taken to assure the patient of absolute cure before marriage may be advised, and with this end in view he should be encouraged to indulge in alcoholics, the two-glass test should be made, the centrifuge should be resorted to in doubtful cases, and the urethra should be irritated by chemic means. If these tests are resultless the patient may be advised to marry at his own discretion. [G.C.C.H.]

Revue de Chirurgie.

April 10, 1899.

1. Polyadenomas of the Large Intestine. Quénu and Landel.
2. Metatarsalgia and its Surgical Treatment. Péraire and Mally.
3. Circulatory Disturbances of the Brain Following Ligation of an Internal Jugular Vein. E. Kummer.

1.—Adenomas of the rectum have been described under the title of polyps: these may be either solitary or very numerous, and in the early stages they are absolutely benign. Sometimes they extend over the entire surface of the large intestine even to the ileocecal valve; for this form of the affection the name of polyadenoma is reserved. The reported cases of this malady are rare. Two cases are detailed, one occurring in a man of 62, who had had severe rebellious diarrhea, dyspepsia, poor appetite and digestion, and colic. Extirpation of the rectum was performed by the abdomino-perineal operation; the patient was much relieved after the operation, but died upon the fourteenth day of bronchopneumonia without any abdominal symptoms. The section of the intestine removed measured 38 cm., it was filled with tumors of various sizes and forms, some of them sessile, others pedunculated. The second case occurred in a man, 60 years old, who had had diarrhea with blood-stained mucous discharges for 18 months. There were many mammillated tumors and there was also carcinoma of the rectum. In a study of the literature of the subject 40 cases have been found, in 13 of which the polyps were localized in the rectum. They usually develop on the summit of a fold of the mucosa and are separated from each other; they vary in size from tumors barely visible, to tumors the size of a pigeon's egg, and are usually of a reddish color. Histologically they consist of hypertrophied mucous glands and connective tissue; most frequently the cells are all of goblet-form. Muciparous cells are never found. Persistent inflammation of the intestinal mucosa has a predisposing influence. Out of the 42 cases, including the 2 reported in this paper, carcinoma was also present in 20 cases; almost always the carcinoma develops after the polyps have existed for a number of years. The adenomatous structure is often seen with the epitheliomatous structure in the same polyps, hence the adenomatous origin of some cases of cancer cannot be doubted. There are usually 3 principal symptoms; diarrhea, hemorrhage and pain, and sooner or later there is a change in the general condition. The stools contain liquid fecal matter mixed with blood and mucus; sometimes they are composed entirely of bloody mucus. There is usually considerable suffering from tenesmus and pains in the abdomen. Owing to the frequent complication with carcinoma, the prognosis is always grave. In their diagnosis the rectal speculum and rectal touch are of greatest value. Medical treatment is directed to the relief of the diarrhea and hemorrhage, but cannot effect a cure. The results of radical operation have been excellent when it is possible to remove the portion of large intestine affected with the growth. When the polyps are located for the most part in the rectum they may be removed by the aid of the rectoscope and galvanocautery. In case the colon alone is affected, a section may be removed and intestinal anastomosis performed.

2.—Metatarsalgia or Morton's neuralgia is defined as an affection characterized by deviation of the metatarsal bones, and very often by deformity due to subluxation of the heads of the metatarsal bones. The disease gives rise to no acute inflammation nor change of color in the skin. Seven cases of this affection are reported in detail, and x-ray pictures are given. The patients usually give a history of having had arthritis; neurasthenia, epilepsy, and hysteria also have a role in the etiology of this affection. Women are more frequently affected, and sometimes the disease is due to traumatism. The course of the disease is slow, with intermissions and exacerbations, but it does not appear to be susceptible to spontaneous cure. In the diagnosis, pain in the sole of the foot, seated exactly at the level of the anterior extremity of the metatarsal bones, is the most important symptom; paroxysms of pain sometimes follow walking or extreme fatigue. The seat of the pain in acute or gonorrheal rheumatism is different. Fracture and contusion must be eliminated. In syphilis or tuberculosis there is more or less acute inflammation, and in syphilis there is nearly always nocturnal pain; in flatfoot the pain is situated at the middle of the foot. In the treatment of the affection, incision and resection of the head of the metatarsal bone is recommended. The operation may be performed under local anesthesia with cocain, and the wound is constantly irrigated with a solution of antipyrin during the entire operation, which need not exceed 5 minutes in length. The results, both temporary and permanent, have been very satisfactory; the patients are able to dance or walk long distances without suffering any pain. [M.B T.]

3.—A case of **cystic adenoma of the lower jaw** is reported occurring in a woman aged 52. Disarticulation and resection of the right half of the jaw was performed. During the operation it was found necessary to ligate the external carotid artery and the internal jugular vein. The patient died in coma 5 hours after the operation. At the necropsy there was venous congestion of the pia mater and the choroid plexus together with areas of hyperemia in both frontal lobes and a bloody effusion into the fourth ventricle. Kummer has performed the **ligation of the internal jugular** a large number of times without ever having observed any accident. He believes that such accidents are very exceptional. In considering the cause of death the effects of chloroform and of the antiseptics used can be left out of account, for the quantity of chloroform employed was not sufficient to produce such a result and death occurred too early to have resulted from iodoform-poisoning or poisoning by other antiseptics. The result is attributed to the direct effect of the operation producing venous stasis and cerebral paralysis. [M.B.T.]

Original Articles.

A CENTURY OF MEDICINE IN AMERICA.[1]

By J. C. WILSON, M.D.,
of Philadelphia.

Mr. President, Members and Delegates, Honored Guests:—

The duty of the hour is always the logical outcome of other duties previously done. This distinguished assembly, in whose presence, by your courtesy, I have the honor to stand, is but one of a long series of meetings of those who hold the idea higher than the act, the profession nobler than the art. The fables of the birth of Aphrodite and of Pallas Athene are deeper allegories that the school-boy suspects. To the poet the combing of a wave and lo, upon the foam, the embodiment of all that is beautiful in nature; a flashing bolt, and at Jove's brow the incarnation of all that is pure and wise in spirit. But to the student there is no such instantaneous achievement. Beauty and wisdom do not take the world by storm. The forces of nature are at work through all time till Venus comes and eons pass away in dubious thought before Minerva stands forth. Progress is from point to point, by slow degrees and often with painful retracing of disappointed steps. Life is a relay race; those who are weary dropping out to give place to newcomers. When some goal is won, the last runners are too apt to think the victory theirs. No man's success is all his own. We are what those who have gone before have made us and the splendor of our time is the long result of theirs.

The most wonderful century of the world's history draws to a close. Not in all time has there been such a period. The diffusion of knowledge, man's power over nature, and organized human energy have yielded results that mark the latest as the most brilliant epoch of our civilization. But the advance has been by no means an even one. In those things that lend themselves most readily to the inductive method of investigation, to observation and experiment, the progress has been greatest. Hence an era of brilliant material success. In things more elusive, the doubts, uncertainties and perplexities of the past remain to harass us. Yet the great growth in knowledge of material things begets in the human heart a longing for a deeper knowledge in loftier matters. The inductive method is of ever wider application. May we not hope that as this century has been magnificent in physical advancement, the century that is to come may be glorious in intellectual and moral development.

Has medicine, that branch of human endeavor in which we are especially interested, kept progress with the times? Has the century done for it what it has done for other things? The question is not hard to answer. For medicine the changes of this year-hundred have been the awakening from the sleep of ages. The work of the early anatomists, the great discovery of Harvey, Auenbrugger's laborious revelation, Jenner's patient investigation, were stirrings in the slumber.

The dawn of the century was auspicious. Vaccination was widely practised and its value everywhere recognized. Corvisart rescued the Inventum Novum from oblivion. Laennec invented the stethoscope and discovered auscultation. The methods were practically complete, but it took 40 years and the influence of Skoda to make physical diagnosis a familiar art. The era of speculative medicine was fast drawing to a close. Fads and isms arose, as they will arise from time to time among the half-educated and the degenerate, but their influence has been with few exceptions shortlived and its reaction upon scientific medicine favorable. The microscope ceased to be a scientific toy and became an instrument of precision. New sciences ranged themselves as the handmaids of medicine. In 1858 Virchow issued the "Cellular Pathology as based upon Physiological and Pathological Histology." It was but a step onward to experimental physiology, physiologic chemistry and experimental therapeutics. In truth the "close and severe" methods had come and had come to stay. It was evident that these methods and these only could be successfully used in the search for truth. The fairy-tales of science had become the everyday handbook of the doctor. We had fully entered upon the era of experimental medicine. Ether and chloroform anesthesia for operative purposes robbed surgery of half its terrors and rendered possible operations previously impracticable. The germ-theory of disease came into prominence as a working-hypothesis. Lister made the astounding discovery of surgical cleanliness, and early in the last quarter of the century the New Surgery replaced the old. Marvelous change! Anesthesia had robbed surgery of half its terrors; an almost perfect antiseptic technic has taken away the rest. In fact there are those, chiefly among the gentler sex, for whom surgery appears to have no terrors whatever.

The obvious impossibility of the individual mastery of the medical sciences and of the art of medicine gave rise to the specialties. In truth the laboratories were the beginning of specialism, which became an imperative need, partly on account of the necessity of more limited fields of investigation; partly because of the requirements of a precise and extended technical skill. If the specialties have been multiplied somewhat beyond the needs of the profession or the people, and if isolation of thought and shortcomings of practice have come of their too narrow cultivation, these are errors which tend to correct themselves, and, despite its faults, specialism is a power in the medicine of our times both in promoting knowledge and in direct healing, the importance of which cannot be overestimated.

Clinical medicine, great as had been its advancement, began to lag in the progress. It fell behind surgery and for a time scarcely kept abreast of the minor specialties. The explanation was not far to seek. It was to be found in the complexity of the problems and in the greater number of unknown values, especially in causation. For a time this great branch of medicine waited for that new science which was to place it foremost among the specialties, to render possible the study of origins, to reveal the nature of infection, to set preventive medicine upon a sure foundation, to point the way to rational systems of therapeutics. The germ-theory of disease ceased to be a working-hypothesis and became a demonstration. The science of bacteriology came into existence. Youngest of the biologic sciences, it has accomplished more for medicine in three decades than all the rest had been able to accomplish in three centuries. Bacteriology has done away with speculation in medicine forever, and has for all time established experimental research as the final court of appeal.

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[1] The Oration on Medicine at the Fiftieth Meeting of the American Medical Association, Columbus, Ohio, June 7, 1899.

In counting up the gains in medicine during the century I must not overlook the progress in therapeutics. It is a common criticism of modern medicine that with all the advance in pathology and diagnosis, and above all in knowledge of the causation of disease, we have made but insignificant gains in the art of healing. It is asserted that we are doubly losers since we have also cultivated a distrust for many of the remedies which our forefathers learned to rely upon as the result of their empiric employment; that we have discarded many things that were good and found few to take their place. The criticism is of the most superficial kind. It is true that we have thrown away a host of useless drugs. The pharmacopeia of the future, so far as concerns mere drugs, will be but a slender volume. But we have kept those that are useful and acquired the art of employing them with precision and effect. We have learned to turn over to the surgeon, in the confident hope of speedy cure, many cases of disease until recently left to perish slowly under the unreasoning administration of drugs. The list of such diseases is growing from day to day. Who will say that the brilliant successes of modern surgery do not mark an advance in therapeutics? But wholly within the field of internal medicine the progress is far from insignificant. I for one do not hesitate to say that the abandonment of useless drugs is a most important step in that progress. But there are other gains of a most positive kind. The list is a long one and I only remind you of the analgesic group, the greater number of them synthetic products of the most advanced chemistry, of the nitrites, the bromids of arsenic in pernicious anemia, the salicylates, and of the serum-therapy in diphtheria, and of organotherapy in myxedema. Nor do we forget the systematic use of baths, gymnastics and massage, nor of climate, long-forgotten measures of treatment that modern scientific medicine gladly accepts from antiquity. But by far the most important gains lie in the direction of preventive medicine and prophylaxis. In the beginnings of disease—no, before the beginnings—the medicine of our day plays its most important therapeutic part. Disinfection means something; preventive inoculations, whether against cholera in swine or against diphtheria in man, are scientific measures; quarantine means no longer a senseless 40 days' detention, but very often the salvation of a people.

But it is not what modern medicine has done in therapeutics that so much exalts it in our eyes as what it is in the sure way of doing in the future. The lines are laid straight for it. The problems are set before it. They are difficult and abound in unknown values. But, one after another, many of those disturbing quantities will receive an approximate valuation, and in the solution of problems now being worked out lie therapeutic possibilities of the highest import. The aim of modern medicine and the object of modern therapeutics is not so much to cure disease as to prevent it. The human mind is now chiefly concerned in the study of origins. In every department of research, whether the natural sciences criticism, history, even theology, the same method of inquiry is pursued. In the words of Allbutt, the analytical method " is leading to a revolution in our conception of therapeutics as of all these other studies; a revolution which as yet we have not fully understood. This revolutionary conception is that death is not to be driven away by the apothecary, not by any cunning compilation of drugs, but is to be prevented by the subtle strategy which consists in knowing all the moves of the game." And he predicts that " the medicine of the future will consist in setting our wits to nature; in recognizing that when evils have befallen us there is no counsel, and that in the simple beginnings of things are the time and place to detect where stealthy nature, atom by atom, builds and unbuilds, feeds us or poisons us." Modern medicine is no longer content with trying to make some salvage out of the wreckage of disease, but is earnestly seeking for measures by which the storm can be avoided, the channels deepened and the rocks upon which high hopes are wrecked beaconed.

The century is the most wonderful in history. To my thinking nothing in it is more wonderful than the advance in medicine; an advance which not only has covered the widest achievement, but has also brought us to the borders of the most abundant promise; an advance which is greater than its achievement, and its promise, because it consists in a revolution in our conceptions of the purposes of our art and was only rendered possible by the final exchange of the empiric method for the scientific. All that is best in the older medicine is to be found in the new, but the new is something essentially different. The old was an art based upon empiricism, relying largely upon so-called specifics, and not altogether scornful of charms and magic. The new is an art based upon a group of correlated sciences and deriving its power from the forces of nature. But the new is the outcome of the old; for the empiric method is the gateway to science and the accumulation of facts necessarily precedes generalizations in regard to them.

It is of interest to note the position of the United States in regard to modern medicine. It is no long time since our people were pushing westward over the wilderness, and a famous poet and story-writer has accused us of being some centuries behind Europe in learning and manners. Railroads and the telegraph are great civilizers, and the Postal Union a wonderful teacher. There is no wilderness now except that beyond the seas and "a few centuries" is a figure of speech. In medicine the world's knowledge is ours. The latest work of investigators in every field of research and in every country is quickly before us and we give something in return. Laveran discovered for us the malarial parasite, and Marchiafava, Golgi, and others of the Italian school elaborated his observations; but an American, the late Professor J. K. Mitchell, had anticipated the discovery, being "the first to approach in a scientific spirit the nature of infective disease and particularly in malarial fever"; and Laveran's observations were early confirmed on this side the Atlantic by Councilman, Osler, Thayer, and others. Roux and Behring gave to the world the treatment of diphtheria by antitoxin-serum, but the uncertainties concerning its efficacy were settled by Welch's analysis of the statistics and the two collective investigations of the American Pediatric Society. Ernest Brand devised the method of treating enteric fever by systematic cold bathing and showed that by it the mortality is cut in half, but it remained for American practitioners to demonstrate that the plan is not only feasible in hospitals, but also in private practice. Macewen and Horsley showed that cerebral tumors could not only be definitely localized, but also that they could be successfully removed, but cranial surgery was carried to its full development and a perfect technic laid down by Keen. Here and there we have given more than we have received. We recall the contributions to neurology and especially the successful treatment of neurasthenia and hysteria by Mitchell, the second in the line of an illustrious medical family, and speak of intubation in grateful memory of the gentle O'Dwyer, and in surgery we are reminded that the New World has given something to the Old by the work of Senn, Murphy, Richardson, McBurney, my colleague Deaver, and by that in earlier times of the clear-minded Grosses, father and son, the brothers Atlee and the heroic McDowell. The instances of accord, response, coendeavor between the workers in medicine on the opposite shores of the Atlantic could be indefinitely multiplied.

In the field of literature the conditions are the same. On the one hand the great weeklies of Berlin and Munich, the *Lancet* and the *British Medical;* on the other the journals of Boston and New York, the Philadelphia Medical Journal, and *The Journal of the American Medical Association.* It is impossible to speak here of individual monographs and treatises. But against such storehouses of medical lore as Ziemssen's Encyclopedia and Nothnagel in Germany, and Allbutt's System in England, may we not set Pepper's System, and that of Loomis and the Twentieth Century Practice? It is an exchange of courtesies, of products. It is a well-balanced reciprocity.

If America is a little behind in original research, she is very alert in the application of that which is serviceable. If her investigators are less laborious and less numerous, her practitioners excel in adaptability, tact and skill. Meetings of national societies such as this, and the national and international congresses are a strong force in the process of unification. One of the finest things in the medicine of our day is its solidarity. In the institutions where medicine is taught, and in the organization of the instruction we are making hopeful advancement. Much remains to be done, but the defects are chiefly in the direction of want of uniformity of requirement and of full cooperation among the several States, and are in a fair way of correction. An openhanded philanthropy has scattered among the great centers of population from the Atlantic seaboard to the Pacific slope commodious, well-appointed, fully-equipped hospitals, not at all inferior to the great hospitals of the Old World. Their foundations are less ancient, as must be in a young country, but their spirit is more plastic. Traditions are fine, but they sometimes fetter thought. To the noble-hearted non-medical managers of these institutions it is clearer than ever before that while the care of the sick poor is the primary object, it is by no means the whole object of a modern hospital. The instruction of the student, the training of the doctor, clinical and pathologic research, the accumulation of facts for immediate or future use in scientific medicine are secondary functions of essential importance. So it has come to pass that, to the nonmedical mind as it has long been to the medical, the necessity of the set of laboratories, pathologic, bacteriologic, clinical, is paramount.

The correlative fact that the number of the staff must be much greater in proportion to the number of the patients than formerly has also become apparent. So that by a process of evolution hospitals are taking a much larger part in the education of the doctor than ever before, even those in which a very conservative management is hostile to clinical instruction.

It is clear then not only that medicine has kept pace with the progress of the times, nay more, that it has made advances even more wonderful than many other departments of thought, but also that in America the position of the profession compares favorably with that of any other country. Medicine with us is to-day one with the medicine of the world. Yet it is little more than 100 years since the country was without a medical profession in the sense in which the term is now used and was then used in the Old World.

This is not the time nor place to rehearse the history of medicine in the colonies. The subject is set forth in great detail in the writings of Beck, Clark, Bigelow, Ruschenberger, N. S. Davis, and Billings. In 1760 the General Assembly of New York ordained that "no person should practise as a physician or surgeon in the City of New York before he had been examined in Physick and Surgery" under certain specified conditions, and prescribed a penalty of £5 for violations of this law. A similar exactment was passed in the colony of New Jersey in 1772. These were the only attempts to regulate the qualifications and practice of physicians by any of the colonial governments previous to the time of the Revolutionary War. The first institution for the teaching of medicine, the Medical School of the College of Philadelphia, begun in 1765, continued its usual courses of instruction until June 1, 1777, when all the departments of the college were closed in consequence of the occupation of the city by the British Army. In 1768 an effort was made to establish a medical school in connection with King's College in New York, which had been in operation for several years. The success which attended this effort was moderate, and it is stated that in 1774 "about 25 persons attended the anatomic lectures, some of whom were students from the West Indies." During the War of the Revolution there was little time or opportunity for the cultivation of any art or profession save that of arms. Many of those who had been most active in the medical life of the colonies shared the toils and privations of the army as surgeons; others, as Warren and Mercer, assumed the responsibilities of active military careers. The military occupation of New York and Philadelphia necessitated the suspension of the medical schools for a period of many months. The feeble beginnings of professional organization in the colonies were arrested. When at the close of hostilities they were resumed it was with an earnestness that argued well for the future, but upon a scale commensurate with the limited resources of the exhausted colonists and the sparse population of a new country.

The Medical School in Philadelphia was reopened in 1778, and became, after some vicissitudes, the Medical Department of the University of Pennsylvania. Among those comprising the Faculty we find the names of Shippen, Wistar, Kuhn, Rush and Barton. An attempt to revive the Medical Department of King's College in New York came to an unhappy issue by reason of a popular outbreak caused by the suspicion that some bodies had been stolen from the graveyard for dissection. It was not until 1792 that this medical school was reorganized with a Faculty consisting, among others, of Post, Rogers and Bard. In 1782 some courses of lectures on the different branches of medicine were given in connection with Cambridge University, and in 1788 a medical faculty was established, at the head of which was Dr. John Warren, with Waterhouse and Dexter as associates. At the time of which I speak the classes were small, and the number of those who received the degree of Doctor in Medicine few. The requirements for admission were low, and those for the degree not difficult. But in the absence of legislative requirements, in order to practise, save in the City of New York, and because the degree of Doctor in Medicine carried with it neither honor nor special privileges, comparatively few availed themselves of the opportunity to obtain it. Many of the more prominent men in the profession had received degrees in foreign universities, but among the ordinary physicians were many who had entered upon practice as apprentices or as bachelors of physic, or had picked up some knowledge of medicine and surgery in military hospitals or in service upon the field. There was a limited medical literature, of which Davis has given a list of titles, together with the statement that many of the productions "are characterized by a variety of learning, an accuracy of observation, and an originality of thought that would do credit to any age or country." But these were mostly of the nature of essays and dissertations, and the books in general use were European. The latter consisted of the writings of Sydenham, Boerhaave, van Sweiten, Mead and Huxham; Haller's Physiology; in anatomy, Chiselden, Cowper and Monro; Sharp's Surgery; Smallie on Midwifery, and Lewis' Materia Medica. The instruments and many of the drugs were imported. The best men of the time were trained abroad. Upon their return they brought with them learning and books, for which there was nothing to give in exchange save here and there a tract upon yellow fever or the indigenous flora. The buildings of the New York Hospital had been destroyed by fire before the war; the Pennsylvania Hospital was practically the only institution of the kind. Men practised medicine and did their best, but an organized profession cannot be said to have existed. Compared with the older countries, medicine was in a condition of chaos, from which it was struggling to emerge. Certainly it was far enough behind them.

It must be admitted that the rapid strides with which the medicine of the younger country has overtaken and is now keeping pace with the medicine of the world, were largely due to the facilities of intercommunication that constitute one of the peculiarities of modern life. Knowledge travels far and fast. It has the wings of the light. It must be also conceded that such progress has been aided and accentuated in a remarkable manner by the master-spirits who, from time to time appearing upon the scene, seem to be charged with an especial mission, and whose presence marks eras in the course of human events. Easily and by far the greatest of these, *primus inter pares*, is Rush. Others among his contemporaries I have already referred to. Nor do

I intend to enumerate a complete list. Permit me to name one here and there, sometimes a group, as fine examples of medical men who, to say the least, are not commonplace. It is easy for one who has read our medical history to recall John Morgan, Redman, Hosack, Drake who wrote the "Diseases of the Mississippi Valley," or that coterie of Louis' pupils, including Shattuck, Oliver Wendell Holmes and Gerhard, who brought back from France physical diagnosis, the distinctions among the fevers, and reasonable methods of clinical work; Jackson and Morton, and the controversies concerning ether; the group of men who, representing others, it is true, really effected the organization of the American Medical Association, whose officers were Knight, Bell, Delafield, Arnold, Stillé, Jones, of New Orleans, is to be mentioned among those whose writings have powerfully influenced the trend of medical thought in the United States, and Flint, and Otis and Woodward, to whose industry and ability we owe the "Medical and Surgical History of the War of the Rebellion"; and Billings and Fletcher, who have given to the medical world the "Index Catalogue of the Library of the Surgeon-General's Office of the United States Army," and that unique and most useful of current medical publications, the *Index Medicus*. I mention with that emotion with which we speak of a companion newly passed away, John B. Hamilton, of whose skill as an organizer this Association has had abundant proof; and Pepper, a life of matchless energy and devotion to the widest human interests, whose rare gifts as a physician, abilities as a teacher, civic pride and high patriotism will place him, when the dispassionate history of our times comes to be written, among the great Americans and in the foremost rank of the citizens of that Commonwealth which reverently claims Franklin and Rush as her own.

It is not wholly to the ease with which knowledge is spread nor to the great men of the profession that we owe the advanced position of medicine in America today. Important as each of those factors is, it may well be questioned whether their combined influence could have impressed upon the art of medicine that peculiarity in which the profession of our country stands preeminent, and which is at once of the greatest practical value and of the richest promise for the future. That peculiarity is the prevalence of high ideals. All kinds of men engage in the pursuit of medicine from all kinds of motives. But to the necessity of a livelihood and to personal ambition the American doctor adds, and very often in the absence of those he cherishes, a sort of chivalric devotion to some principle allied to his calling but only indirectly bearing upon his everyday affairs. It may be a collateral science, or preventive medicine, or schemes for the welfare of the poor, or *belles-lettres*, or medical libraries, or for himself a broader knowledge and a keener art, or toward his fellowman a greater gift of usefulness. Such thoughts are solace in his toil and recreation in his hours of leisure; with widening opportunities and high examples he must have something more than his everyday work. Without some cherished ideal he cannot be content. This wholesome mental restlessness is peculiarly American. It comes of our physical restlessness. We lack repose because we abound in energy. Contentment means conservatism and conservatism points in the direction of stagnation. When we speak of stagnation, we think of loneliness, of isolation.

The tendency which distinguishes American medicine is essentially opposed to isolation, to individualism. It exerts itself in the direction of a higher, more complete and more specialized organization of the profession. It is this tendency that has made the general fund of knowledge accessible to all members of the profession who care to share in it; that has given to the independent worker in whatever department an uplifting sense of companionship, of community of interest, of sympathy in a common cause. It is this that has brought into the life of the toiling practitioner in the monotony of his everyday duties and cares a saving consciousness of personal dignity and power.

To the physicians of Northern New Jersey must be ascribed the credit of having made the earliest attempt to promote the interests of the profession by means of organization. In the year 1766 a meeting was held at New Brunswick, attended by delegates from all parts of the State, and a permanent organization effected. The objects of the association as set forth in the preamble to the constitution were "mutual improvement, the advancement of the profession, the promotion of the public good, and the cultivation of harmony and friendship among the members." This society held regular meetings twice a year until the breaking out of the war. In 1781 the Massachusetts Medical Society was incorporated. Towards the close of 1786 the College of Physicians of Philadelphia was instituted. Other similar organizations followed from time to time until that memorable meeting of May 7, 1847, at which, by the election of Nathaniel Chapman as president; Jonathan Knight, Alexander H. Stevens, James Moultrie, and A. H. Buchanan, vice-presidents; Alfred Stillé and J. H. W. Dunbar, secretaries; and Isaac Hays, treasurer, was finally carried into effect the organization of the American Medical Association.

All honor to those who conceived the far-sighted plan. Every State, local and district society may be included within its scope. Every reputable physician in this great country may become eligible for membership. What a power for good is it not capable of wielding? How great this power is may be seen in the growing membership, in the earnest and advanced work of the sections, in the keen discussions, in the splendid journal which serves as the permanent record of its transactions, in the illustrious line of its presiding officers. But there are other manifestations of the power of the Association for good that are less obvious but scarcely less important. They are constantly and steadily increasing over the whole land. They consist in most vigorous growth and activity in the local societies, a higher standard of professional attainment among the members of the profession, a deeper sense of responsibility, a loftier conception of the duties and privileges of our calling. No man who comes within the influence of this far-reaching organization stands alone. He becomes aware that he is a member of a profession to which he owes duties and from which he derives honor and help. This unseen widespread influence tells quite as powerfully in advancing the general interests of the profession as its splendid annual meetings. But we are less apt to think of it. We need have no concern about the power of the Association. As it has been in the past so will it be in the future, steadily augmenting. It has the intrinsic elements of strength found in all great and comprehensive organizations. What most interests us, is how we may best use that power for the good of the profession and the people. We have been half a century gathering strength. Let us put it to some purpose. It is no part of my present duty to go into details, but it may be permitted to me to indicate certain matters in which the influence of the American Medical Association may be of importance. There are several organizations with specific purposes which hold their annual meetings at the same time and whose work is in harmony with ours. It is important that we should give these bodies our full support. This is especially the case with the Association of American Medical Colleges to the recent action of which we are already committed.

In general, as regards the requirements for the degree, the American Medical Association should, in my opinion, exert an influence to secure uniformity in the requirements for admission, a systematic graded course, with uniform tests at the end of each year, and uniform requirements for graduation. With reference to written examinations, the question of the honor system should be persistently agitated. If that system can be carried out at many of the colleges, at West Point and Annapolis, and at the University of Virginia, why not in all our medical schools? Its general adoption would go far in determining a high standard of personal and professional honor.

It should exert its influence also to secure general uniformity in the examinations for the license to practise among the States, and a general reciprocity among those boards by which the licenses may be transferred.

It should strongly exert its influence in the direction of the regulation of the specialties and the requirement of evidence of clinical experience in general medicine as prerequisite to the practice of them.

It should exert its influence in the matter of expert testimony in courts of justice. This subject is a growing scandal. A change of practice is urgently necessary both in the interest of justice and that of the medical profession.

It should exert its influence to secure such legal enactments in the several States as will protect the people from the various forms of unorganized and organized quackery, and to the end that no license to practise medicine in any of the branches shall be granted to any applicant until such applicant has successfully passed an examination in anatomy, physiology, pathology, surgery, midwifery, and the diagnosis of diseases; and that a stringent penalty shall be enforced against all unqualified persons who seek to practise upon the sick, injured, or deformed, by any means or upon any pretext whatever, except in the case of accident or emergency, and then only for the purpose of immediate relief and assistance.

It should exert its influence to build up in the secular and religious press of the country a proper sense of responsibility in regard to lewd, indecent and criminal advertisements thinly disguised as medical, and against the appearance in such publications and in certain so-called medical journals of advertisements of nostrums and cure-alls.

It should exert its influence to secure such legislation as will obtain uniform divorce laws for the whole country, and do away with the legal enormity of a man and woman being legally married in any State and living in adultery so soon as they have crossed its borders. The question is primarily one of morals, but it is also one of health.

It should exert its influence strongely in favor of proper rearrangement of the status of military and naval medical officers to the end that the efficiency of those branches of the public service may be increased and the recompense and the rank of the medical officers properly adjusted.

It should exert its influence to secure the dual appointment of surgeons and physicians to regiments and posts, since the work of the two is complementary and cannot in the present state of the art of medicine be properly performed in all its details by any one man, especially in active service; also to secure the establishment of clinical laboratories in connection with the military hospitals in the tropical stations with the detail of medical officers especially fitted by training and experience for the investigation of tropical diseases and conditions.

It should exert its influence to secure a national quarantine service with full jurisdiction over the seaboards and the lake borders, and over internal regions affected with general epidemics or endemic conditions not amenable to the control of the local authorities.

It should exert its influence to secure the appointment of a Secretaryship of Public Medicine, the portfolio of which should be assigned to a medical man, to the end that the President may be promptly and authoritatively advised concerning technical questions of vital importance to the welfare of the nation.

To many of you these suggestions seem utopian, impracticable. Not so. If we earnertly desire them they will come to pass. Their fulfilment rests with you and in your hands is the power of an Organized Profession.

TWO UNUSUAL CASES OF SURGERY OF THE TRACHEA.[1]

I.—Attempted Suicide by Cut-Throat followed by Complete Closure of the Trachea by a Diaphragm above the Cannula and Persisting for 13 Months; Breathing Through the Larynx and Speech entirely Impossible. Operation: Dissection of the Diaphragm; Suture of the Trachea; Restoration of Normal Breathing and Voice.

II.—Stricture of the Trachea; Successful Operation by Dividing the Trachea Longitudinally, Reflecting the Mucous Membrane, Excision of the Stricture, and Immediate Suture of the Entire Wound; Union by First Intention.

By W. S. JONES, M.D.,
Clinical Professor of Laryngology,
AND
W. W. KEEN, M.D.,
Professor of the Principles of Surgery, and of Clinical Surgery, Jefferson Medical College, Philadelphia.

CASE I.—DIAPHRAGM IN THE TRACHEA AFTER CUT-THROAT.

HISTORY BY DR. JONES.[2]

J. W. C., 30 years old, a laborer, on November 12, 1896, in a fit of despondency, attempted suicide by making a large cut in his throat with a penknife. He penetrated the trachea about the second or third ring, twisted the blade about and cut up and down for an inch or more. He was taken to a hospital, where the wound was dressed, but not closed, nor was a tube inserted. One week later it was noticed that he could not breathe through the mouth when the wound was closed by pressure. It was deemed necessary to introduce a tracheotomy-tube; an anesthetic was given him, the tube inserted, and the wound stitched around it. Two weeks later, the surgeon attempted to pass a tube through the trachea and larynx from the tracheal wound, but did not succeed, the part being shut off. He was then sent home to allow the wound to heal before further operative interference was instituted. Nothing further, however, was done, and he was sent to me. The condition of the larynx was as follows: The right side was drawn slightly downward, the right vocal band was in the median line and immovable, being fixed by scar-tissue beneath it; the left side was normal in situation, the chord was freely movable and could be brought to the middle line perfectly. The entire left side was free for ¾ in. below the vocal band, while the right side had a band of cicatricial tissue just below the chord, which extended downward for ¾ in. and then spread out to the other side, completely occluding the trachea. The surface of the membrane was smooth and the lowest point was near the center. From below, the trachea was entirely closed above the tube, and the cicatrix was about ½ in. in thickness.

OPERATION BY DR. KEEN.

When I first saw the man I was able easily to verify the facts observed by Dr. Jones. The patient had never breathed through his larynx nor had he spoken a word since the accident. He was still wearing a tracheotomy-tube. On removing this tube, one could look into the trachea very readily and see that the diaphragm observed by the laryngoscope below the glottis was not a horizontal one, but curved (Fig. 1), precisely fitting the curve of the tracheotomy tube. In breathing, all the air passed through the tube. Naturally Dr. Jones and I first discussed the question whether this membrane could be punctured by an instrument passed through the glottis. If so, the opening could then be dilated and after the caliber of the trachea was restored, the tracheotomy opening could be closed. After considering this method of operation, we decided that it would be working too much in the dark and in too narrow a space, and that it would be better to attack the diaphragm from in front. The result proved that this was a wise precaution.

The operation was performed on December 15, 1897. I made an incision in the middle line from the tracheotomy opening up to the cricoid cartilage. This incision was very cautiously carried downward in the middle line of the obliquely curved diaphragm, and a little above the middle of the incision in the diaphragm a small opening was quickly made. (Fig. 1, *a*). My impression was that this opening would lead me into the trachea above the diaphragm. Just at that moment, however, he vomited, and through the opening there escaped frothy mucus tinged with bile. This showed me, of course, that instead of opening through the diaphragm into the upper air-passage my opening communicated with the esophagus. It was clear to me, therefore, that the esophagus, by contraction of the adhesions, had been drawn forward, and that my incision was at *a* in Fig. 2. It was important, therefore, to close this very small opening at once. I dissected back the mucous membrane from its borders and then closed it under the mucous membrane, as if it had been an opening in the intestine, with two series of Lembert sutures and then sutured the mucous membrane over them. I next made another small opening about 7 or 8 mm. above it, anterior to the opening which I had just made into the esophagus (Fig. 2, *b*), and found to my satisfaction that I had opened into the upper air-passage. A pair of curved hemostatic forceps passed into the mouth readily protruded through the

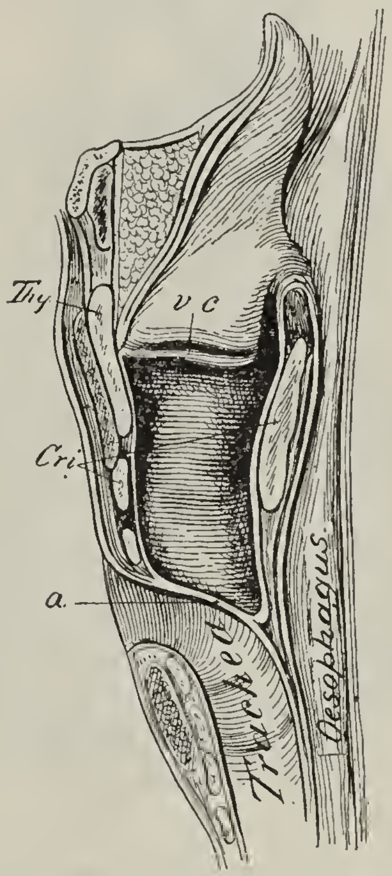

FIG. 1.—The apparent relation of the diaphragm. (*Thy.*) Thyroid cartilage; (*Cri.*) cricoid; (*v.c.*) vocal chords; (*a*) the site at which I supposed an incision would open into the larynx and enable me to dissect away the diaphragm.

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[1] Read before the Surgical Section of the American Medical Association, June 7, 1899, at Columbus, Ohio.

[2] From a former report in the *Journal of the American Medical Association*, March 12, 1898, p. 607.

opening in the diaphragm. I now dissected out the diaphragm completely. As soon as this was done the anterior wall of the esophagus, which had been drawn forward by the contraction, fell backward into its normal position and left in front of it a trachea completely divided into an upper and a lower portion. (Fig. 3) The two ends of the trachea were now sutured together by four sutures upon each side and two posteriorly. I found that the lower trachea was easily approximated to the upper, having fallen downward partly by its weight and partly by retraction, as if it were a spiral spring. The small anterior opening left was closed by three sutures. All the sutures were of silk. The sutures uniting the two ends of the trachea were passed completely through the thickness of the trachea, except posteriorly, where I was careful not to penetrate the esophagus. As I was fearful that there might be swelling, which would interfere with respiration and destroy the good results thus far obtained, or that some unforeseen complication might arise in so unusual a case, I continued my incision in the trachea below the site of the old tracheotomy opening, and inserted the tube into the trachea 3 cm. lower down. This made sure of easy breathing while the cicatrization of the recent tracheal wound above it was going on. If, then, the upper part of the operation-wound healed, the simple removal of the tracheotomy tube at a suitable time would be followed by complete spontaneous closure of the opening.

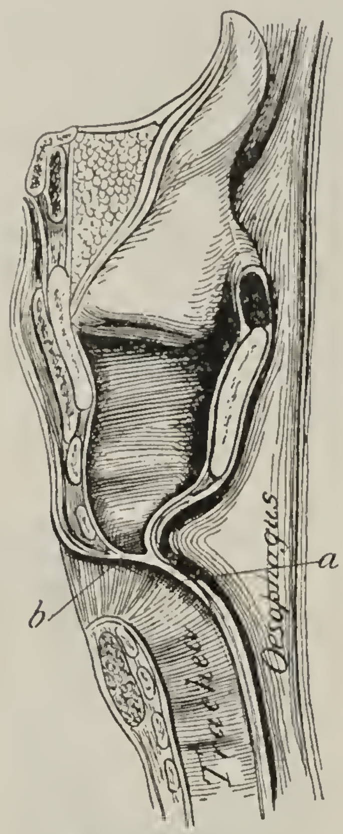

Fig. 2.—Showing the actual relations of the diaphragm and the forward displacement of the anterior wall of the esophagus. (*a*) The opening first made by error into the esophagus and at once closed; (*b*) the second opening entering the larynx, from which I dissected away the diaphragm.

The entire operation was done with the patient in the Trendelenburg posture to prevent aspiration of wound fluids into the lungs, and, after he was placed in bed, the foot of the bed was raised about 18 inches. He lay without a pillow for the same reason. At the end of three days this inclined posture was abandoned. The nose and also the throat were sprayed every two hours with a boric-acid solution, as they and the tracheotomy opening had been for two days before the operation. For three days he was fed entirely by the rectum in order to prevent motion of the larynx in deglutition. His temperature only once exceeded 100°. After three days there was so little soreness that not only was his bed made level, but he was fed by the mouth, and on the fourth day he was allowed to be out of bed. On the sixth day I removed the tracheotomy tube and found that he could both breathe freely and speak audibly. I did not, therefore, replace the tube. The only dressing applied to the wound was gauze moistened with a bichlorid solution 1-2000, sterile gauze being packed gently around the tracheotomy-tube and covering the opening of the tube. After the sixth day a simple dry-gauze dressing with an apron of gauze hanging down over the second tracheotomy opening (from which the tube had been removed already), so as to protect it from dust, was used. The operation wound healed by first intention throughout. The tracheotomy wound, as soon as the tube was removed, gradually contracted and was entirely closed at the end of six weeks.

The sutures in the wound never gave him the slightest trouble. Only one of them was ever observed by the laryngoscope. His voice was slightly hoarse, but not to such a degree but that one would think it was his normal speech.

The present case, so far as we have been able to learn, is almost if not quite unique. We have seen a number of cut-throats, but in those that recovered we have never seen any such membrane form. It must have been a result of the contraction following the extensive laceration, which drew the anterior wall of the esophagus over the curved upper surface of the tracheotomy tube, for it exactly fitted its contour. Had an attempt been made to open it from above by any sharp cutting instrument, there would have been great danger of entering the esophagus, and one would not have had the facility, or even the opportunity, of closing it with ease. It has occurred to us that possibly if a blunt instrument like a uterine sound had been passed by the mouth between the vocal bands and made to bulge the membrane from above, one might have cut with a little more security and certainty through the diaphragm. On the whole, we are inclined to think that the mode of operation, by attacking it from the outside rather than by an intra-laryngeal operation, was a fortunate one.

In the suicidal attempt the right recurrent laryngeal nerve was probably divided or at least wounded. This accounts for the paralysis of the right vocal chord, which persists and has resulted in a moderate hoarseness. At the present time, 17 months after operation, his voice is almost normal and almost free from hoarse-

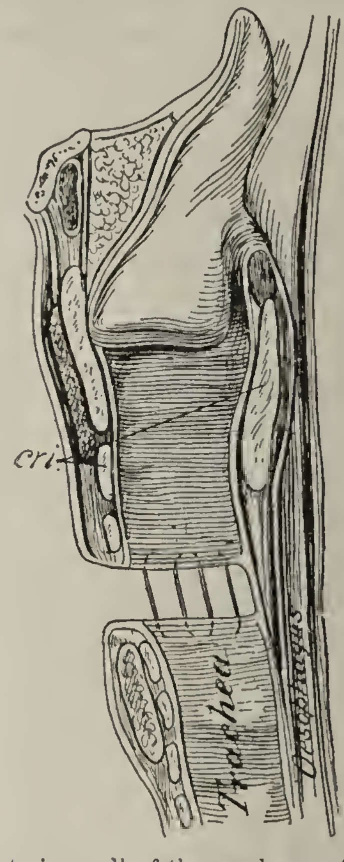

Fig. 3.—Showing the anterior wall of the esophagus, fallen back into its normal position and the complete severance of the trachea when the diaphragm had been dissected away. The lateral sutures uniting the trachea are indicated.

ness. The right chord is still paralyzed, the left freely movable; a slight narrowing of the lumen of the trachea at the site of operation is observed, but not sufficient appreciably to obstruct the breathing.

Föderl (*Wien. klin. Woch.*, 1896, p. 1258) has a very excellent paper on resection and suture of the trachea in which a number of cases are reported, but none of them at all resemble this. The bayonet-resection of Colley (*Deut. Zeitschr. f. Chir.*, 18—, Bd. 40, p. 150) was not adopted, since it was found that the parts could be so readily approximated and the adjustment seemed to be perfect. Silk sutures were used, and yet reluctantly. But we thought that in order to get the narrow edges of the upper and the lower portions of the trachea to unite satisfactorily they must be held in place for a considerable time, which catgut would not do. Probably silk would not only hold them in position for a sufficient length of time to secure firm union, but if any of the sutures cut or ulcerated their way through into the trachea they would be readily expectorated. The result more than justified our hopes, for the silk was scarcely any source of irritation.[3]

II.—Stricture of the Trachea.

History by Dr. Jones.

Miss E. K., aged 21, of Smithville, N. J. Her parents, one brother and one sister are living and in good health. At the age of 7 she had measles and chickenpox, malaria at 8 and whooping-cough at 9. Since having the latter she has had more or less catarrhal inflammation of the nose and throat. Her menstruation began when she was 14 years and is regular. In July, 1895, she sung during the evening in the open air. The following morning there was a little soreness on both sides of the throat, at the base of the tongue. In the course of a few days the pain centered at a point immediately above the sternum. There was a tickling sensation which caused paroxysms of coughing. Her condition remained about the same for a month, when, after a visit of two weeks to the seashore she returned feeling perfectly well. In the autumn of 1896, she noticed a whistling sound in the throat after slight exercise. From November, 1896, to January, 1897, she was kept on a strict milk diet to remedy an indigestion from which she suffered, her general health being, meantime, rather poor. In the spring of 1897, while attending a ball, she experienced great difficulty in breathing, after dancing. Ever since that time, slight exercise has caused considerable dyspnea. In December, 1897, she had an attack resembling spasmodic croup. After this the pain in her throat became more severe, and she had considerable expectoration, the sputa being white and frothy, but containing dark specks. In February, 1899, during the blizzard, she again had an attack of what was supposed to be spasmodic croup. From that time till now she has been suffering constantly from more or less dyspnea, especially marked on exercising. Even quiet respiration produces a slight sound, but after exercising her breathing is distinctly audible and suggests a stenosis of the air passages at some point.

At this time, she consulted Dr. Jones, who immediately discovered the cause of her trouble. The laryngoscopic examination showed at a short distance below the vocal bands a small, nearly round opening (Fig. 4), the diameter of which was about half the distance of the vocal bands from each other. Dr. Jones made several attempts at dilatation, but found that the throat was so irritable that the patient could not endure the procedure. In view of this and the very long treatment which it would require, which was very inconvenient for her, as she did not live in the city, he asked Dr. Keen to see her in consultation with a view to operation. After a careful examination, we reached the conclusion that the stenosis was but a little distance below the cricoid and extended over somewhat more than one ring.

Operation by Dr. Keen.

On March 31, 1899, I made a vertical incision from the middle of the thyroid nearly to the sternum, and was extremely careful to see that every bleeding vessel was tied before opening the trachea. The patient first took chloroform in the horizontal position. As soon as I was ready to open the trachea, I placed her in the Trendelenburg position and then split the trachea longitudinally for about 6 or 7 rings, but found that to get free access to the stricture, it was necessary to split the cricoid. I then placed in the lower part of the incision in the trachea a tracheotomy tube and connected it with the chloroform inhaler by means of the inner tube of a Hahn tampon-cannula 12 mm. in diameter, fastening the tube in place by disinfected tapes. The outer sponge-covered portion of the Hahn cannula was not used. I then found that the upper border of the stricture was at the third tracheal cartilage and extended over the third and fourth and to the upper border of the fifth. The somewhat puckered appearance of the mucous membrane suggested that it might be the result of a local ulcer, though her history scarcely furnished a sufficient basis for such a belief.

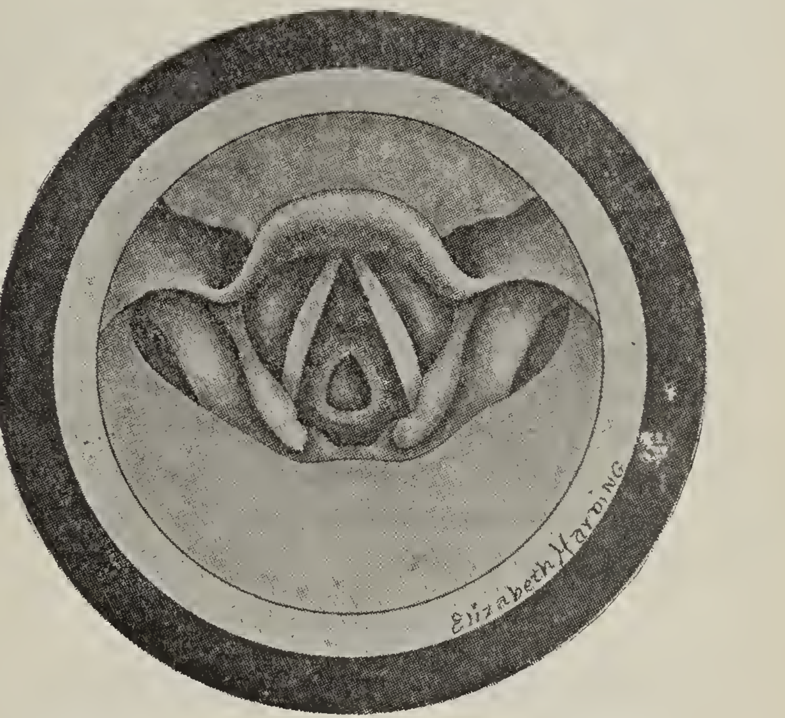

Fig. 4.—Appearance of the stricture in the laryngeal mirror.

I at first thought that I might do a Heineke-Mikulicz operation, but on making the incision and endeavoring to draw the sides apart, I found that the resistance of the submucous tissue was too great. Accordingly I dissected back the mucous membrane as two flaps upward and downward over all the area covered by the stricture. I next dissected out the fibrous tissue. By an unfortunate accident this was lost and so no microscopic examination could be made. During this procedure the sides of the trachea were held apart partly by narrow retractors and partly by two silk sutures, which were held by assistants. These silk retractors served especially well. The hemorrhage was not severe, but was troublesome by obscuring the field of operation. It was sponged away with small pads of gauze. One vessel on the wall between the trachea and the esophagus spurted to such an extent that I tied it with a catgut. This I afterwards removed and twisted the vessel so as not to have the projection of the knot, which by bulging forward the mucous membrane might interfere with respiration. The wall of the esophagus was exposed at one point. I next sutured the mucous membrane with silk, but in the middle line I could not bring it quite together. A little gap was left there to granulate. The chloroform tube was now removed, and the trachea, which had been already partially sutured, was completely closed by catgut stitches passing through the perichondrium and pre-tracheal tissues. The skin was then closed with silkworm-gut.

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[3] The following papers are of interest in connection with this case:
Föderl: *Wien. klin. Woch*, 1896, p. 1258.
Fischer: *Deutsche Chir.*, Bd. xxxiv.
Noll: *Deutsche Zeitschr. f. Chir.*, Bd. xxvii.
Schüller: *Ibid.*, Bd. xii.
Colley: *Ibid.*, Bd. xl, 150.
Gussenbauer: Sitz. k. k. Gesellschaft der Aerzte in Wien, Januar 22, 1875.
v. Eiselsberg: *Deutsche med. Woch.*, 1896, No. 22.

The whole operation required about an hour and 20 minutes

Her temperature on the afternoon of the operation rose to 100.4°. After that it was never above 100°, and by the second day had reached 99°. The external sutures were removed a week after the operation, primary union having taken place without any untoward result.

The foot of the bed was kept elevated for 48 hours. On the third day after the operation she was on the lounge; on the fourth day she sat up in a rocking-chair, and after that quickly got about. She was perfectly able to travel at the end of a week, but in consequence of the fear of possible complications, she remained in the hospital four days longer, leaving on the eleventh day. At this time Dr. Jones and I both examined her throat and found its lumen entirely normal. One silk suture could be seen partially loose when she went home. This annoyed her very little indeed, there being almost no cough. In fact, excepting for the soreness in swallowing, she suffered almost no pain whatever. For two days she was nourished by the rectum and then small quantities of liquid food were given her. On the fifth day she was able to take solid food. Her voice was never in the least affected.

Laryngoscopic examination on May 23, 1899, two months after operation, shows slight redness of the vocal chords. The tracheal stricture shows no tendency to return. Her voice and breathing are normal.

The method adopted in attacking this possibly unique case (for we have not found any similar one recorded) was most satisfactory. The easy access to the stricture; the dissection of the mucous membrane from the surface of the stricture, and its replacement and suture; the avoidance of any tracheotomy; the advantages of the Trendelenburg posture, and the primary union obtained, are the points upon which we would lay the most stress.

SANITARY LESSONS OF THE WAR.[1]

By GEORGE M. STERNBERG, M.D., LL.D.,

Surgeon-General, United States Army.

As COMPARED with the Civil War and with other great wars during the present century the mortality from wounds and disease among our troops during the war with Spain has been low. Our wounded have, to a large extent, had the advantage of prompt treatment with antiseptic dressings and a very considerable proportion of those who were not killed outright have recovered without any mutilating operation or septic complication. The mortality from disease has also been comparatively low, but unfortunately during the first months of the war that scourge of new levies of troops, typhoid fever, prevailed in many of our camps and claimed numerous victims. It is well known to sanitarians and military surgeons that as a general rule more soldiers succumb to disease than are killed by the bullets of the enemy, and our recent war has not been an exception in this regard. The total number of deaths reported in our enlarged army, including regulars and volunteers, from May 1, 1898, to April 30, 1899, is 6,406. Of these 5,438 died of disease and 968 were killed in battle or died of wounds, injuries, or accident. During the Civil War the number of deaths from disease was 186,216.[2] The number who were killed in battle or died of wounds was 93,969, or about one-half of the deaths from disease. The total deaths from disease in the Union armies from the commencement of the war to the 31st of December, 1862, was 34,326, and in the Confederate armies during the same period, 31,238.

The following table gives the monthly death-rates from disease in our armies from May 1, 1898, to April 30, 1899, and, for comparison, the rates for the same period during the first 12 months of the Civil War.

COMPARISON OF MONTHLY DEATH-RATES (PER 1,000) FROM DISEASE.

	1861–1862.			1898–1899.		
Months.	Mean Strength.	Number of Deaths.	Ratio per 1,000 of M. S.	Ratio per 1,000 of M. S.	Number of Deaths.	Mean Strength.
May	16,161	18	1.11	.26	42	163,726
June	66,950	55	.82	.44	90	202,526
July	71,125	106	1.49	1.72	451	262,613
August	112 359	242	2 15	5.21	1,400	268,507
September	165,126	365	2.21	5.89	1,541	261,824
October	256,884	725	2.82	3.17	809	255,000
November	301,848	1,145	3.79	1.51	365	242,000
December	343,184	1,471	4 29	.84	201	240,0 0
January	352,760	1,593	4.52	.85	180	211,000
February	327,734	1,346	4.11	.87	156	180.000
March	328,878	1,575	4.79	.90	123	136,000
April	410,416	1,881	4.58	.71	80	113,000
Annual	229,452	10,522	45.86	25.73	5,438	211,350

In comparing the death-rates from disease during the year of the Spanish-American War, May 1, 1898, to April 30, 1899, and the first year of the Civil War, May 1, 1861, to April 30, 1862, note should be taken in the first place that the mean strength in May, 1861, was only 16,161 as compared with 163,726 men in service in May, 1898. The mustering-in of Volunteer troops progressed more slowly in 1861 than during the recent war, so that it was not until September and October, 1861, that the mean strength assumed proportions equal to that of the months of the Spanish War. Although the number present in the camps of 1861–62 after October, 1861, was largely in excess of those aggregated during the past year, the average annual strength during both wars did not differ greatly. Nevertheless the deaths from disease in 1861–62 numbered 10,522, while in 1898–99 they amounted only to 5,438. The death-rate per thousand of strength mounted gradually month by month in 1861–62, and indeed it did not reach its acme until February, 1863, when the rate of 6.39 was reached. In 1898, on the other hand, the acme, 5.89, was reached suddenly in September, but owing to the sanitary measures adopted the fall during October and November was as rapid as had been the rise.

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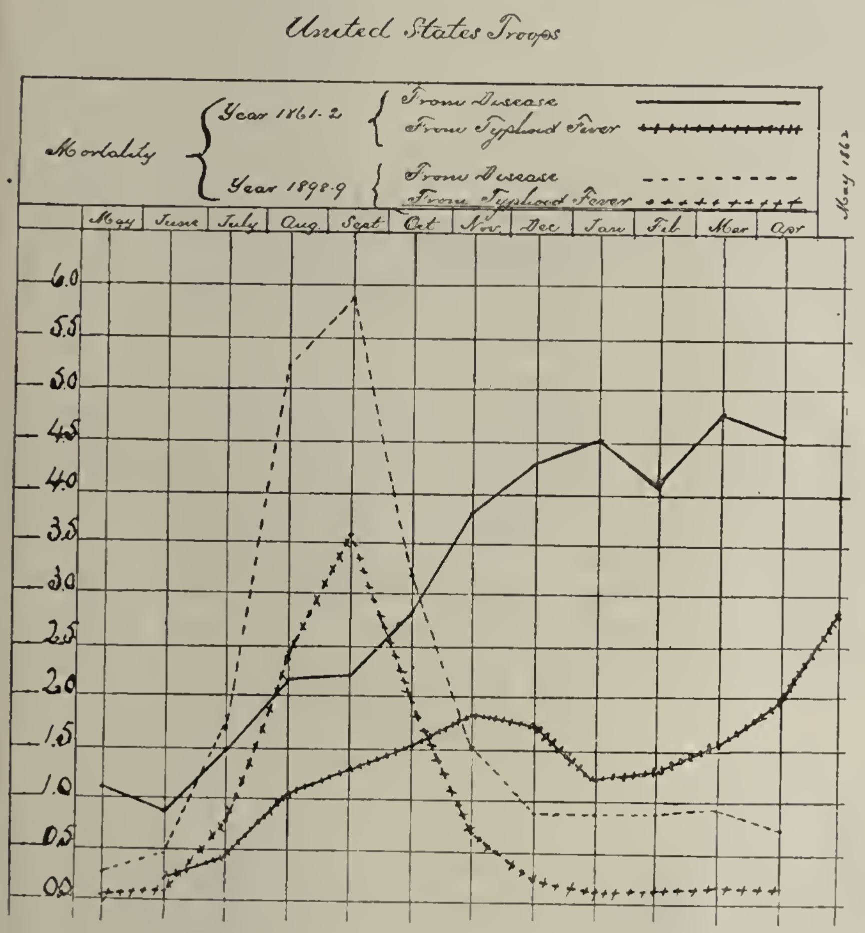
[1] Read at the meeting of the American Medical Association, at Columbus, Ohio, June 6–9, 1899.

[2] In addition to this, 24,184 deaths are recorded as from unknown causes, and probably most of these deaths were from disease.

The same gradual rise is seen in the mortality-statistics of typhoid fever during the Civil War. The highest death-rate, 2.81, was not reached until May, 1862, the thirteenth month of the aggregation of the troops, when 1,092 men died of this disease, and the fall of the rates was as gradual as the rise. On the other hand, the rise in 1898 was sudden, the maximum rate, 3.57, being reached in September, when 933 died of this disease; but the fall during the months of October and November was as noteworthy as the rise. This sudden suppression of the disease cannot be attributed to an exhaustion of the susceptibility of the troops to attack from this fever, as they only suffered at the rate of 12.37 per thousand of strength during the 12 months, whereas the troops of the Civil War suffered at the rate of 19.71 per thousand. It can be attributed only to the active preventive measures that were instituted, and especially to moving the troops to fresh camp sites and to the greater care exercised in the disposal of excreta.



The accompanying chart shows by the graphic method the same comparison as is given in the above table. The noteworthy rise in the general death-rate from disease and in that from typhoid fever alone which occurred in August and September, was undoubtedly due to unsanitary conditions resulting from the hasty assembling of large bodies of undisciplined troops in our camps of instruction.

The average mortality from typhoid fever in our regular army since the Civil War has been, for the first decade (1868–1877) 95 per 100,000 of mean strength (.95 per 1,000); for the second decade (1878–1887) 108 per 100,000; for the third decade (1888–1897) 55 per 100,000. This latter rate compares favorably with that of many of our principal cities; for example, it is exceeded by the typhoid death-rate in the city of Washington, which is 78.1 per 100,000 (average of 10 years to 1888–1897); by that of the city of Chicago, which is 64.4 per 100,000; by that of Pittsburg, which is 88 per 100,000. These figures, however, do not show the entire mortality in the cities mentioned as a result of typhoid fever, for without doubt many of the deaths ascribed to "malarial fevers" were in fact due to typhoid infection. Thus in the city of Washington the deaths reported from typhoid and typho-malarial fever (average of 10 years) numbered 78.1 per 100,000 of the population, while 23.4 per 100,000 are recorded as due to malarial fever. In Baltimore the mortality, as recorded, from typhoid fever is 41.5, and from "typho-malarial and other malarial fevers" 18.3 per 100,000. In St. Louis the figures are typhoid fever 35.7, typho-malarial and other malarial fevers 49 per 100,000; in New Orleans typhoid fever 26.1, typho-malarial and other malarial fevers 107.2 per 100,000.

It will be seen that sanitary conditions at our military posts in time of peace, as judged by the typhoid death-rate, compare favorably with those in our large cities in various parts of the country. As a matter of fact great attention has been given to post sanitation for many years past, and through the persistent efforts of officers of the Medical Department great improvements have been made, especially during the past 10 years. The result is shown in a reduction of the typhoid mortality from 108 per 100,000 in the 10 years ending in 1887 to 55 per 100,000 in the decade ending in 1897. Hygiene is made one of the principal subjects of examination for candidates desiring appointment in the Medical Corps of the Army, and at subsequent examinations for promotion to the grade of captain and major is given a most prominent place. It is also the most prominent subject in the course of instruction at the Army Medical School, where the student-officers spend 5 hours daily for a period of 5 months in practical laboratory work relating for the most part to the cause and prevention of infectious diseases. It should be remembered, however, that the Army Medical School was not established until the year 1893, and consequently but a small proportion of the medical officers of the army have had the advantage of this course of instruction.

But the comparatively small number of medical officers of the regular army available for duty in the large camps occupied by our volunteer troops at the outset of the war proved to be entirely inadequate to control the sanitary situation in these camps, and as a result of the conditions existing the mortality from typhoid fever in our armies during the year ended April 30, 1899, has been more than 22 times as great as it was in our regular army during the decade immediately preceding the war period. As compared with the first year of the Civil War, however, there is a decided improvement, the typhoid mortality for the first year of the Civil War having been 1971 per 100,000 of mean strength, and for the Spanish-American War 1237 per 100,000. Moreover, as shown by the chart, the vigorous sanitary measures enforced enabled our troops to quickly free themselves from the ravages of this infectious disease, and while the line of typhoid mortality continued to ascend during the first year of the Civil War and subsequently, it rapidly fell after the middle of September last, and for the last 6 months of the period under consideration has been remarkably low. Indeed, in the history of large armies, the record has never heretofore been equaled.

In view of the great progress which has been made since the Civil War, in our knowledge of the etiology and prevention of those infectious diseases which have in the past been most fatal to armies, I had hoped that the mortality from preventable diseases might be greatly reduced from the outset, notwithstanding the difficulties insuperably connected with the hasty assembling of large bodies of undisciplined troops in our camps of instruction.

As we now know the cause of typhoid fever, the biologic characters of the typhoid bacillus, and the physical and chemical agents by which this bacillus may be destroyed, sanitarians have no difficulty in formulating rules relating to its prevention, which, if strictly followed, would, to a great extent at least, protect our armies from its ravages.

In my prize essay on "Disinfection and Personal Prophylaxis in Infectious Diseases," published by the American Public Health Association in 1885, the following directions will be found:

"In the sick-room we have disease-germs at an advantage, for we know where to find them, as well as how to kill them. Having this knowledge, not to apply it would be criminal negligence, for our efforts to restrict the extension of infectious diseases must depend largely upon the proper use of disinfectants in the sick-room."

"Disinfection of Excreta, etc.—The dejections of patients suffering from an infectious disease should be disinfected before they are thrown into a water-closet or privy-vault. This is especially important in cholera, typhoid fever, yellow fever, and other diseases in which there is evidence that the infectious agent is capable of self-multiplication, in suitable pabulum, external to the human body. Vomited matters, and the sputa of patients, in these and other infectious diseases, should also be promptly disinfected. This is especially important in cholera, diphtheria, scarlet fever, whooping-cough, and tuberculosis. It seems advisable also, to treat the urine of patients sick with an infectious disease with a disinfectant solution.

"For the disinfection of excreta, etc, in the sick-room, a solution of chlorid of lime is to be recommended. This is an excellent and prompt deodorant, as well as a disinfectant. A quart of the standard solution (No. 1), recommended by the committee on disinfectants, of the American Public Health Association, will suffice for an ordinary liquid discharge in cholera or typhoid fever; but for a copious discharge it will be prudent to use twice this quantity, and for solid fecal matter a stronger solution will be required. As chlorid of lime is quite cheap, it will be best to keep on the safe side, and to make the solution for the disinfection of excreta by dissolving 8 ounces of chlorid of lime in a gallon of water. This solution should be placed in the vessel before it receives the discharge. The material to be disinfected should be well mixed with the disinfecting solution by agitating the vessel, and from 30 minutes to an hour should be allowed for the action of the disinfectant before the contents are thrown into a water-closet or privy-vault."

In the Manual for the Medical Department, which at the outset of the war was distributed for the information of all medical officers, the following directions will be found:

"91. (*a*) Disinfectants are issued, as are medicines, to be used by medical officers when actually required for some specific purpose. Chlorid of lime, carbolic acid, and mercuric chlorid are issued by the Medical Department for use as disinfectants, properly so called. A solution containing 4% of good chlorid of lime, or 5% of carbolic acid, is suitable for disinfecting the excreta of patients with cholera or typhoid fever, or the sputa of patients suffering from diphtheria, scarlet fever, or tuberculosis. The floors, furniture, etc., in rooms occupied by patients suffering from an infectious disease may be washed with a 2% solution of carbolic acid, or with a solution of mercuric chlorid of 1–1000. Soiled bed-linen, underclothing, etc., used by such patients should be immersed in one of the above-mentioned solutions before it is sent to the laundry.

"92. When accumulations of organic material undergoing decomposition cannot be removed or buried they may be treated with an antiseptic solution, or with freshly-burned quicklime. Quicklime is also a valuable disinfectant, and may be substituted for the more expensive chlorid of lime for disinfection of typhoid and cholera excreta, etc. For this purpose freshly prepared milk of lime should be used, containing about 1 part, by weight, of hydrate of lime to 8 of water.

"93. During the prevalence of an epidemic, or when there is reason to believe that infectious material has been introduced from any source, latrines and cesspools may be treated with milk of lime, in the proportion of 5 parts to 100 parts of the contents of the vault, and the daily addition of 10 parts for 100 parts of daily increment of feces."

At the outset of the war with Spain the following sanitary circular was issued:

WAR DEPARTMENT,
Surgeon-General's Office,
Washington, April 25, 1898.

Circular
No. 1.

In time of war a great responsibility rests upon medical officers of the army, for the result of a campaign may depend upon the sanitary measures adopted or neglected by commanding generals of armies in the field. The medical officer is responsible for proper recommendations relating to the protection of the health of troops in camp or in garrison, and it is believed that, as a rule, medical officers of the United States Army are well informed as to the necessary measures of prophylaxis and the serious results which infallibly follow a neglect of these measures, especially when unacclimated troops are called upon for service in a tropical or semitropical country during the sickly season. In Cuba our armies will have to contend not only with malarial fevers and the usual camp diseases—typhoid fever, diarrhea, and dysentery—but they will be more or less exposed in localities where yellow fever is endemic and under conditions extremely favorable for the development of an epidemic among unacclimated troops. In view of this danger, the attention of the medical officers, and of all others responsible for the health of our troops in the field, is invited to the following recommendations:

When practicable, camps should be established on high and well-drained ground not previously occupied.

Sinks should be dug before a camp is occupied, or as soon after as practicable. The surface of fecal matter should be covered with fresh earth or quicklime or ashes three times a day.

New sinks should be dug and old ones filled when contents of old ones are two feet from surface of ground.

Every man should be punished who fails to make use of the sinks.

All kitchen refuse should be promptly buried and perfect sanitary police maintained.

Troops should drink only boiled or filtered water and coffee or tea (hot or cold), except when spring water can be obtained which is pronounced to be wholesome by a medical officer.

Every case of fever should receive prompt attention. If albumin is found in the urine of a patient with fever it should be considered suspicious (of yellow fever), and he should be placed in an isolated tent. The discharges of patients with fever should always be disinfected at once with a solution of carbolic acid (5%) or of chlorid of lime (6 oz. to gallon of water), or with milk of lime, made from fresh quicklime.

Whenever a case of yellow fever occurs in camp the troops should be promptly moved to a fresh camping ground located a mile or more from the infected camp.

No doubt typhoid fever, camp diarrhea, and probably yellow fever are frequently communicated to soldiers in camp through the agency of flies, which swarm about fecal matter and filth of all kinds deposited upon the ground or in shallow pits, and directly convey infectious material, attached to their feet or contained in their excreta, to the food which is exposed while being prepared at the company kitchens or while being served in the mess-tent. It is for this reason that a strict sanitary police is so important. Also because the water-supply may be contaminated in the same way, or by surface drainage.

If it can be avoided, marches should not be made in the hottest part of the day—from 10 A.M. to 5 P.M.

When called upon for duty at night or early in the morning, a cup of hot coffee should be taken.

It is unsafe to eat heartily or drink freely when greatly fatigued or overheated.

Ripe fruit may be eaten in moderation, but green or overripe fruit will give rise to bowel-complaints. Food should be thoroughly cooked and free from fermentation or putrefactive changes.

In decidedly malarious localities from 3 to 5 grains of quinin may be taken in the early morning as a prophylactic, but the taking of quinin as a routine-practice should only be recommended under exceptional circumstances.

Light woolen underclothing should be worn, and when a soldier's clothing or bedding becomes damp from exposure to rain or heavy dews the first opportunity should be taken to dry it in the sun or by fires.

Geo. M. Sternberg,
Surgeon-General, U. S. Army.

Early in August the attention of medical officers was again directed to the importance of camp sanitation and disinfection of the excreta of "patients with fever," by Circular No. 5.

WAR DEPARTMENT,
Surgeon-General's Office,
Washington, August 3, 1898.

Circular
No. 5.

The attention of medical officers is invited to Circular No. 1 from this office dated Washington, April 25, 1898.

The extensive prevalence of typhoid fever in camps of instruction indicates that the sanitary recommendations made in this circular have not been carried out. If medical officers have failed to make the proper recommendations as indicated, the responsibility rests with them. If the recommendations have been made and not acted upon by those having authority in the various camps, the responsibility is not with the Medical Department, but these recommendations should be repeated and commanding officers urged to move their camps at frequent intervals and to maintain a strict sanitary police.

Geo. M. Sternberg,
Surgeon-General, U. S. Army.

On September 5 the following circular was issued:

WAR DEPARTMENT,
Surgeon-General's Office,
Washington, September 5, 1898.

Circular
No. 7.

The attention of chief surgeons and all medical officers on duty with troops in the field is called to the following paragraphs from the Manual for the Medical Department:

92. When accumulations of organic material undergoing decomposition can not be removed or buried, they may be treated with an antiseptic solution, or with freshly burned quicklime. Quicklime is also a valuable disinfectant, and may be substituted for the more expensive chlorid of lime for disinfection of typhoid and cholera excreta, etc. For this purpose, freshly prepared *milk of lime* should be used, containing about 1 part, by weight, of hydrate of lime, to 8 of water.

93. During the prevalence of an epidemic, or when there is reason to believe that infectious material has been introduced from any source, latrines and cesspools may be treated with milk of lime, in the proportion of 5 parts to 100 parts of the contents of the vault, and the daily addition of 10 parts for 100 of daily increment of feces.

Quicklime should be purchased in such quantities as may be necessary for the purpose of carrying out these instructions, and vouchers sent to the Surgeon-General of the Army for payment from the medical and hospital appropriation.

Geo. M. Sternberg,
Surgeon-General, U. S. Army.

The following letter was addressed to the Adjutant-General of the Army on October 31:

October 31, 1898.

Adjutant-General of the Army.

Sir:—I have the honor to make the following recommendations with reference to the protection of our troops in permanent camps in this country and in the islands at present occupied by our forces, from the infectious diseases which are liable to prevail where unsanitary conditions exist.

First. No camp should be established unless there is an abundant supply of pure water for drinking, bathing and culinary purposes. Experience shows that reliance upon filtration, or upon sterilization by boiling, is very uncertain, owing to the difficulty of enforcing the use of the appliances provided for this purpose. Nevertheless, I recommend that portable filters of an approved model be supplied to troops in camp, for use when on the march or under any circumstances where it becomes necessary to use water which may possibly be contaminated by the germs of any one of the infectious diseases which experience has shown to be most dangerous to troops in the field—typhoid fever, cholera, dysentery, camp diarrhea, yellow fever. Company commanders should be made responsible for the proper use of these filters, and as they require frequent cleaning and careful using in order to preserve their efficiency, they should be placed in the immediate care of a reliable and properly instructed noncommissioned officer, who should have a suitable detail to assist him in operating them for the filtration of all water used for drinking purposes.

Second. Disposal of excreta. It has been demonstrated that the germs of typhoid fever, cholera, dysentery and camp diarrhea are present in the discharges of those suffering from these diseases and the propagation of these infectious camp-diseases results, to a large extent, from failure to properly dispose of excreta. These diseases are frequently not recognized in the earlier stages or when the cases are mild in character, and the discharges of such persons thrown upon the ground or in sinks which are not properly disinfected almost inevitably lead to a propagation of the disease and often to a general camp infection. This can only be guarded against by a complete system of sewers and water-closets connected with them, by some efficient method of removing excreta from the camp, or by its prompt and complete disinfection in situ if sinks are used. Experience shows that the latter method is difficult to carry out, and

> requires the most constant and intelligent supervision. The first cost of a complete system of sewers for a camp which is to be occupied for several months would be small compared with the expense resulting from an epidemic of typhoid fever, yellow fever, or cholera. It may be safely said that the expense resulting from the large number of cases of typhoid fever in our camps during the past summer has been greatly in excess of the cost of a system of sewers, when this would have been practicable, or of some other efficient method of disposing of excreta. As the best alternative, where a camp is not to be occupied long enough to justify the establishment of a complete system of sewers, or where for any reason this is impracticable, I would suggest the following method of disposing of excreta: I would provide a sufficient number of cylindrical, galvanized-iron receptacles, 18 inches in diameter and 18 inches deep, provided with a galvanized-iron cover, and having a trough around the outside of the vessel, 3 inches deep, for the purpose of containing a disinfecting-fluid, in order that when the cover is in position this may serve as a valve preventing the entrance of flies or the escape of foul odors. A second cover of metal, having a proper aperture to serve as a privy-seat, should be provided. When about to be used, the closed cover would be removed from the iron receptacle, leaving the seat exposed. After use the cover should at once be replaced. These cylindrical vessels could be partly filled with a solution of carbolic acid, or the contents could be treated with quicklime, dry earth or ashes. They should be removed at regular intervals and the contents emptied into a pit far removed from the camp, or disposed of by cremation. There should be a sufficient number of these vessels to put a clean one in position when those requiring removal are taken away to be emptied and cleaned. These vessels should be cleaned by the use of boiling water (or by incineration if practicable).
>
> GEO. M. STERNBERG,
> *Surgeon-General, U. S. Army.*

We have now to inquire why, with our precise knowledge as to the etiology and means of prevention of typhoid fever, this infectious disease prevailed to such an extent in many of our camps during the first four or five months of the late war.

The reasons are apparent, and even in the light of our recent experience I am not sure that under similar conditions we could avoid similar results. Sanitarians generally are familiar with the difficulties attending their efforts to restrict the ravages of infectious diseases in towns and cities. They have to contend with the ignorance and reckless indifference of a large proportion of the population, with the ignorance and mistaken parsimony of legislative bodies, and to some extent with the negligence or perfunctory performance of duties assigned to them by agents of the health department, often appointed as a reward for political services rather than on account of their special fitness for the work. Perhaps it was too much to expect that typhoid fever should be excluded from our camps, unprovided with sewers and occupied by new levies of troops, having for the most part inexperienced officers both of the line and in the staff departments. The medical officers of regiments were appointed by the Governors of States and as a rule were competent professionally, but they were called upon to assume new responsibilities for which they had no special training. Unfortunately, hygiene and practical sanitation are subjects which receive little attention in our medical schools or from physicians and surgeons engaged in the practice of medicine. But even in those cases in which the regimental surgeon was fully aware of the importance of camp sanitation and urgent in his sanitary recommendations, he was unable to control the sanitary situation unless the regimental and company officers enforced the necessary measures for protecting the health of the command. And just here is the fundamental difficulty when we are dealing with new levies of troops. The officers and enlisted men of our volunteer regiments were, as a rule, intelligent, patriotic and brave, but they were not disciplined. Each man was in the habit of judging for himself and of acting in accordance with his individual judgment. Discipline consists essentially in an unquestioning obedience of orders from those having proper authority to give them. Trained officers cannot at once establish discipline among untrained troops, and when both officers and enlisted men are without military experience it is evident that, with the best material, time will be required for the establishment of discipline. And in the absence of discipline it is impracticable to enforce proper sanitary regulations in camp. The Surgeon-General may formulate sanitary regulations, and the general commanding an army corps or a division may issue the necessary orders, but in the absence of discipline these orders will not be enforced. A reckless recruit will drink the water which has been condemned as unsafe, and at night will defile the ground in the vicinity of his tent rather than visit the company sink, which, possibly, is in a disgusting and unsanitary condition because of a failure to carry out the orders to cover the surface of excreta "with fresh earth, or quicklime, or ashes, three times a day."

The difficulty in controling the sanitary situation even when under the supervision of an experienced medical officer of the regular army, is illustrated by the following extract from a personal letter to the Surgeon-General referring to one of the camps occupied by volunteers who had returned from Cuba to be mustered out of service. Colonel Greenleaf says:

> "I have never had a more trying time than during the past two weeks in efforts to keep the camps reasonably clean. The approach of the muster-out period made officers and men equally indifferent to ordinary cleanliness, and without the cooperation of the quartermaster their camps would have been quickly untenable. We have had to hire civilians to clean the latrines, remove their contents, the garbage, clean the camp streets, and finally to stay on duty at the latrines and cover excrement as it was deposited! Orders, written and verbal, requiring the soldiers to do anything in the way of police were repeatedly issued, but were totally disregarded, and the sinks and kitchens were soon infected with such swarms of flies that I felt sure there must be an outbreak of disease."

New levies of troops are especially subject to typhoid fever and other infectious camp diseases, not only because of a lack of discipline and consequent difficulty in the enforcement of necessary sanitary regulations, but also because the individual soldiers are very susceptible to infection, owing to their age, the abrupt change in their mode of life, the exposure and fatigue incident to camp life, and last but not least, their own imprudence as regards eating, drinking, exercise, etc. The trained soldier has not only learned the lesson of obedience to orders, but has learned how to take care of himself in the field. He will carry a canteen of boiled water or tea rather than trust to luck and drink any water at hand when he is thirsty. He has learned to control his appetite within moderate limits, and when issued rations for five days does not suffer from hunger on the fourth and fifth as a result of extravagant consumption or waste on the first and second days of the period for which he has been rationed. He takes advantage of opportunities for bathing, and washing his underclothing; and when his blankets or outer clothing are unavoidably wet he hastens to dry them in the sun or by a fire at the earliest opportunity.

[To be continued.]

THE PROPAGATION OF DISEASES BY MEANS OF INSECTS, WITH SPECIAL CONSIDERATION OF THE COMMON DOMESTIC TYPES.[1]

Address in Hygiene.

Delivered before the Pennsylvania State Medical Society, at its Annual Meeting, Johnstown, Pa., Wednesday, May 17, 1899.

By W. M. L. COPLIN, M.D.,

Professor of Pathology and Bacteriology, Jefferson Medical College.

Mr. President and Gentlemen :—

An address on such an occasion as this, it seems to me, should imply a duty to review briefly that particular field to which one has the honor to be assigned. However desirable such a course might be, it is manifestly impossible for me to presume to touch, even superficially, the many advances which have taken place in the realm of hygiene, within a comparatively short period of time. Thanks to the energy of our profession, and to the gradual education of the layman in this special line of work, the knowledge of hygiene has been greatly advanced, and our powers of preventing diseases so enlarged that the science and art have become, more than any other department of medicine, the general property of both layman and medical practitioner.

It has seemed to me that it would be well, therefore, by reason of the limitations of time, to select a restricted field dealing with the etiology and spread of disease and therefore with preventive medicine, and, although this field is gradually enlarging and becoming more and more important, we may briefly review some of the more salient points brought out within the last year or two, and with this object in view I have taken for consideration, The Propagation of Diseases by Means of Insects, with Special Consideration of the more Common Domestic Types.

While selecting this apparently narrow field we are to remember that within a comparatively brief period of time we have acquired an enormous mass of information, much of which is possibly speculative, much valuable, and not a little well-established, so that even so restricted a field can only be touched upon in the space at my command.

It would appear that one of the best established facts in this investigation is the propagation of malaria by the mosquito, the chain of evidence having been slowly and laboriously forged by the energy of many workers, among whom may be cited Manson, Ross, MacCallum, Bignami, Bignami and Bastianelli, Smith and Kilbourne, Laveran, Koch, Grassi, and others. Reviews of the work done by these and other investigators have appeared in many current medical journals, and have become the possession of the whole profession. I think it may be taken as fully admitted that the mosquito-inoculation theory in malaria has been fairly well, if not fully, demonstrated. That malaria is the only disease which we may reasonably suppose could be disseminated by animal parasites, is not to be presumed, and when we remember the wide distribution of the Culcidiæ family we may assume that future researches may point out intimate connection between many members of this group and diseases of the areas in which they are indigenous. The possibility of transmission of malaria through mosquitos, which the Italian observers claim to have first advanced, is now a theory admitted to be very much older. Thus, it is claimed that an American, named Crawford,[2] suggested the possibility, in 1807, and Dr. A. F. A. King, in 1883, independently renewed this hypothesis. Dr. King maintains that the immunity of the negro is due to his dark skin and the character of his sudoriporous secretions. King[3] has recently renewed an older suggestion of the possibility of yellow fever being disseminated in a similar manner. Other observers have called attention to the possible spread of spotted fever, typhus fever, and, among many other diseases, leprosy by the same means.

Simond[4] studied the spread of the plague in rats, and the method of infection from rat to man. He is led to consider with favor the theory that the flea may be the carrier of the infection, a view supported by his own experiments and the work of Yersin. The flea is abundantly present on rats dying of the disease, and the dead as well as the living rat does not seem to spread the malady provided the flea is not present. Nuttall[5] studied the bacillus of plague when fed to flies, and Kobler[6] believes that in addition to the danger of flies and fleas, the ant may also be an agent in the propagation of the malady. Manson's studies bearing on the inoculation of man by filaria-infected mosquitos need only be mentioned.

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[1] From the Laboratories of the Jefferson Medical College Hospital.

[2] Philadelphia Medical Journal editorial, March 11, 1899.

[3] *National Medical Journal*, February, 1899.

[4] *Annales de l'Institut Pasteur*, xii, 625.

[5] *Centralblatt f. Backt.*, xxii, 87.

[6] *Wiener med. Woch.*, xlviii, 894, 960.

Joly[7] quotes Kaposi as having cited a case of leprosy which followed a mosquito-bite.

The possible dissemination of leprosy by mosquitos is supported by experiments of Alvarez quoted by Carmichael.[8] Alvarez permitted the mosquitos to feast on the leprous sores, and by suitable staining demonstrated within the mosquito, organisms which were not differentiated from the bacillus lepræ. Carmichael believes that the disease may also be disseminated by the fly and the bedbug. Bœck has shown the coincidence of leprosy and itch, and strongly favors the view that the acarus may be one of the active agencies in the dissemination of the disease.[9]

The work of Smith and Kilbourne (1892) on the activity of the tick in the propagation of Texas fever need only be mentioned, as it, probably more than any other research, established a clear chain of evidence upon which much of the more recent work has been done. The hope that their discovery was a step toward elucidating the origin of yellow fever has not been realized. Resembling Texas fever in many ways is the bite of the Glossina Morsitans (Tsetse), which Dr. Livingston noted as inducing disastrous consequences in some of the lower animals, but not in man. Joly reviews suggestions previously made and maintains the possibility of various forms of conjunctivitis, purulent ophthalmia, glanders, and possibly tuberculosis, and a number of similar diseases being spread through the agency of insects. In support of the belief that bedbugs may disseminate disease Alleger[10] is quoted by Craig[11] as giving the report of a case by Denevre who observed that the brother of a patient dead of tuberculosis acquired the disease from sleeping in the bed previously occupied by the deceased. Examination of the bedbugs, which were present in large numbers, showed that 60% possessed the power of infecting guinea-pigs. Craig also reports the experience of Tiktin who demonstrated the presence of the relapsing-fever spirillum in the body of bedbugs which had taken blood from an infected individual. Bedbugs were allowed to suck the blood of an infected monkey, after which eight of the bugs were crushed and the blood obtained injected into a healthy monkey; the animal, 64 hours later, developed the disease, the spirilli being found in the blood. Craig also cites Moran as authority for the statement that bedbugs may disseminate cancer, a conclusion arrived at by the observer as a result of experiments on mice.

Quite properly I think Joly has considered the method of propagation under two heads: (1) By experiment he demonstrated that the bodies of flies may be laden with virulent pathogenic germs, such as the cocci of suppuration, exactly as the undisinfected hand of the operator or an unsterilized sponge or dressing. The parasite under such circumstances is but the carrier; is, in other words, passive. A fly traveling over an infected surface becomes laden with bacteria and can infect a wound, or as we may see later, possibly food and drink. Whether the bacteria be on the insect or within its alimentary canal does not influence the fact that it is but passive. (2) Admitting the mosquito-borne origin of malaria, and accepting the work done by Ross on certain parasites infecting birds and similar to the malaria hematozoon in man, we see that the mosquito is more than the mere carrier of the Proteosoma Labbe. The experiments of Ross[12] indicate that the mosquito is truly an intermediate host, the Proteosoma undergoing important alterations in the stomach of the mosquito and eventually reaching the venimo-salivary gland, from which the anointed lancet of the mosquito transmits the parasite to the previously uninfected host. It will at once be seen that in the example just given the parasite is more than the mere carrier, having, in addition to the infection, the power of introducing the poison, which power is vulnific, active, and in nowise dependent upon, although it may be favored by, the coincidence of wounds and abrasions. It will become apparent that insects belonging to or acting under the controling conditions of this clause, must be endowed with the power of producing a wound. The mosquito, flea, gnat, bedbug, chigger, acarus, scabei, etc., are conveying causative agents within the meaning of this clause. I have not proposed to consider in detail this division, but merely to point it out and cite sufficient evidence, experimental and otherwise, to demonstrate the propriety of accepting the subdivision as indicated.

To return to the first group, the passive agents, much evidence has accumulated to establish the possibility of many insects acting as carriers of disease. That animals of larger growth may transport the contagium vivium has never seemed in the least astonishing, but we have not looked to the no less active although much smaller members of the kingdom. It would hardly seem necessary to demonstrate experimentally that insects may carry bacteria, although this has been repeatedly done. Flies and fleas have been noted to contain anthrax-bacilli, a fact no more remarkable than the finding of anthrax-bacilli within the earthworm. In the less cleanly vaccine establishments, Joly[13] has observed that flies, bearing the same extraneous organisms as those demonstrated by culture to be in the cowpox-vesicles, can be caught, a fact which of course suggests that the fly has either infected the sore or has become laden with its infectious matter. If this be permissible, then other dangers at once suggest themselves. Many writers have noted the constant presence of flies around patients suffering with pulmonary tuberculosis, and when special precautions are not taken to prevent their presence, they afford a constant source of annoyance to the sufferer. Apparently the fly has a striking fondness for the sputum, and, as pointed out by Joly, may infect the food, milk, etc., of others, and the bedding, or even exposed, improperly cared for, or neglected wounds or sores. In the same way flies might infect, with tubercle-bacilli, cowpox-vesicles, although such a danger must be admittedly remote. The presence of an organism tinctorially and morphologically identical with the tubercle-bacillus has been demonstrated in the alimentary canal of the fly. The same is true of the plague-bacillus (Yersin), the anthrax-bacillus, and a few other pathogenic organisms. With regard to the plague-bacillus, Yersin[14] believes that it pullulates in the intestine of the fly.

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[7] Importance du Role des Insects dans la Transmission des Maladies Infecticuses et Parasitaires. *Gaz. d. Hôp.*, 1898, p. 1202.

[8] Leprosy in the Hawaiian Islands. *Medical News*, January 21, 1899.

[9] Cited by Joly.

[10] *American Monthly Microscopical Journal*, Oct. 1894, p. 295.

[11] *New York Medical Journal*, Oct. 22, 1894, p. 598.

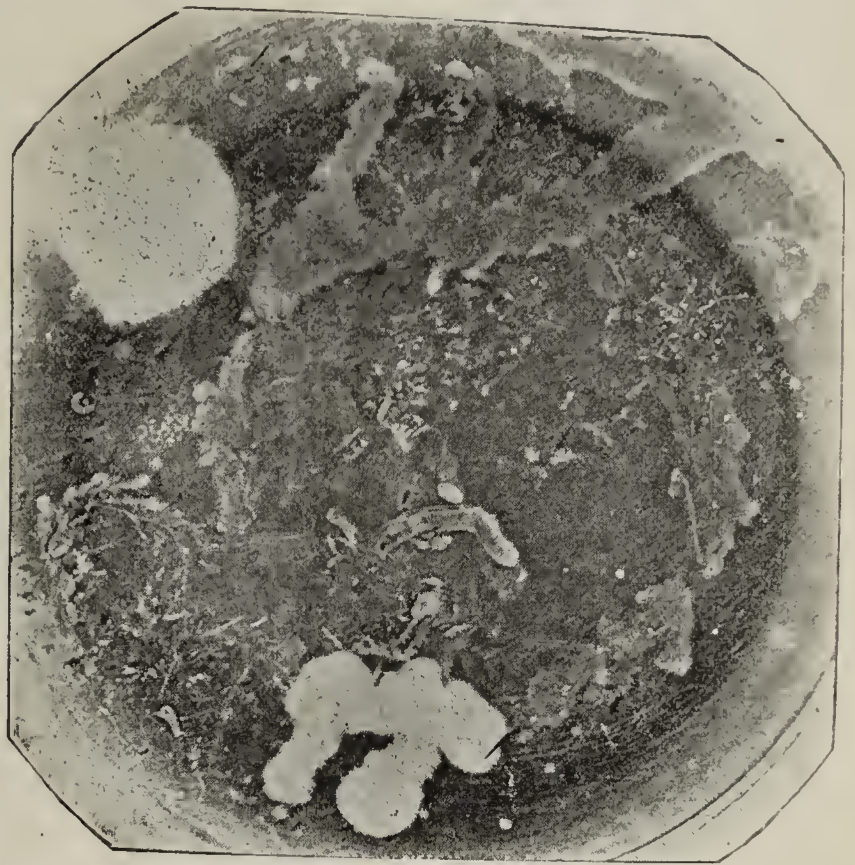
[12] *Annales de l'Institut Pasteur*, Fev., 1899.

[13] Loc. cit.

The experimental evidence of the direct transportation of bacilli by flies has been further supported by the work of Sangree.[15] This observer caused flies to walk over anthrax-infected plates and then transferred the fly to freshly set sterile agar Petri plates. The illustrations are quite typic and can be easily reproduced in any laboratory. He also experimented with stools sterilized and then inoculated with the anthrax-bacillus. So far as I can determine, there was no difference in the result, whether working with a pure culture or an artificially infected stool. The abundant presence, viability, and virulence of the bacillus typhosus in the stools of patients during typhoid fever of course merits no comment. Sangree's results are constant, but apparently no effort was made to show how long the organisms remained upon the flies infected. So far as I have been able to determine, this has not been satisfactorily worked out.

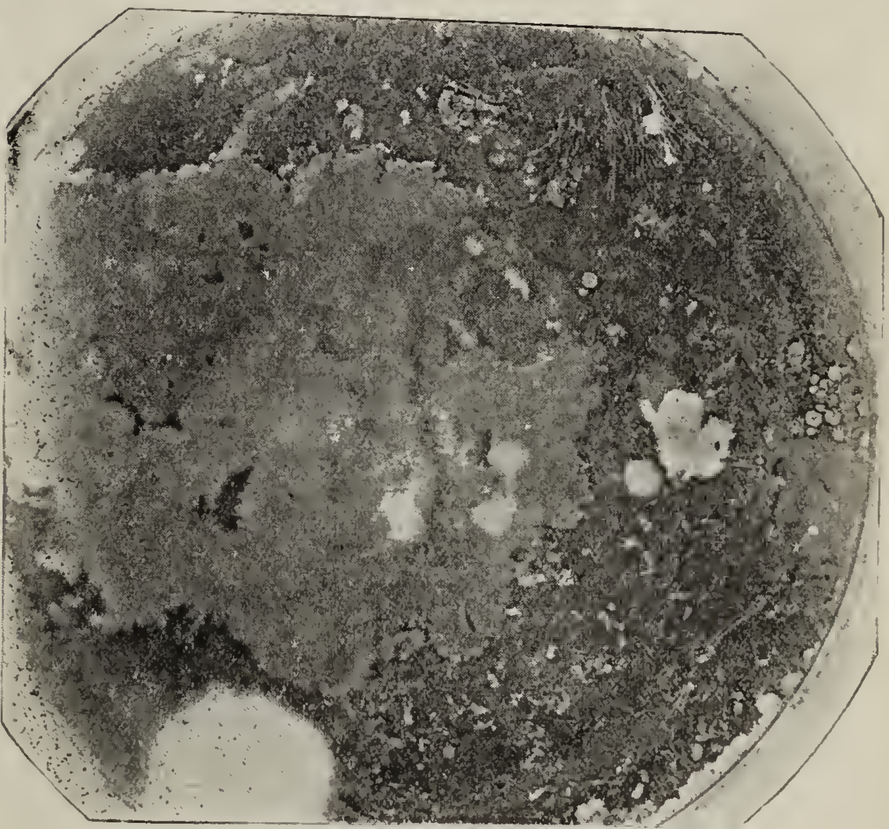
At present, in the laboratories of the Jefferson Medical College Hospital, we are working upon the subject and studying the duration of infectivity in a number of the smaller household-pests, working with various bacteria. By reason of the scarcity of flies and the difficulty in keeping them active during the winter months our results are only forthcoming as regards the bacillus typhosus, and even these are not as yet complete.[19]

The method has been to secure the insect to be experimented upon, and as soon as possible bring it in contact with the organism in question, either by causing it to walk over the growing culture in an agar-agar tube, or placing it within a Petri dish smeared with a bouillon-culture. Then, after intervals of varying lengths, the insect, which in the meantime has been kept as nearly as possible under natural conditions in large mouse-jars, was caused to walk over set agar Petri plates. Experiments were made with bedbugs, roaches and flies, and a sample plate and illustration belonging to each group is submitted.[17] No little difficulty has been found in excluding other organisms growing more luxuriantly than the typhoid germ. Neither a bedbug, roach or fly has been found which did not carry its load of extraneous organisms, the pyogenic bacteria predominating. The roach makes the most active effort to maintain a certain degree of bacterial cleanli-



B I.

Tracing made by a bedbug one half hour after infection.



B II.

Tracing made by the same bug as B I twenty-four hours later.

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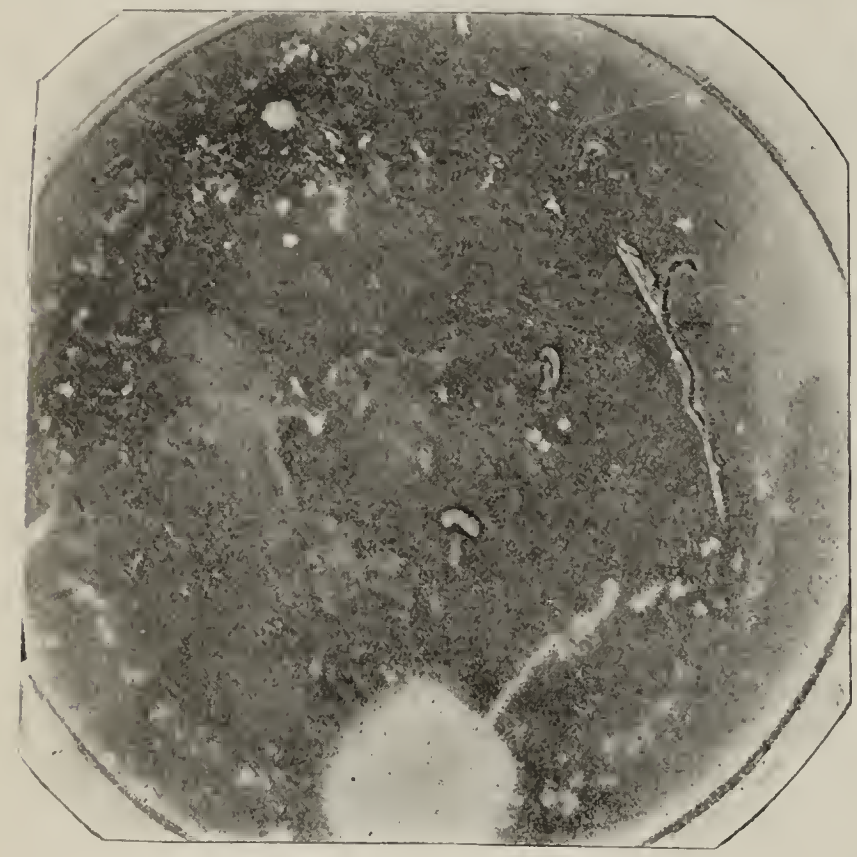
[14] Quoted from the *Lancet*, Philadelphia Medical Journal, March 11, 1899.

[15] *Medical Record*, January 21, 1899.

[19] The work has been done by Dr. Randle C. Rosenberger, Demonstrator of acteriology, and Dr. Eugene B. Glenn, of Asheville, N. C., at present doing ome special research work in the hospital laboratories. I am indebted to these entlemen and to Mr. L. H. Prince, an undergraduate student in the Jefferson Medical College, for the albumin prints which accompany the paper. That the lbumin prints are not more sharp is due largely to the character of the colonies roduced by the bacillus typhosus.

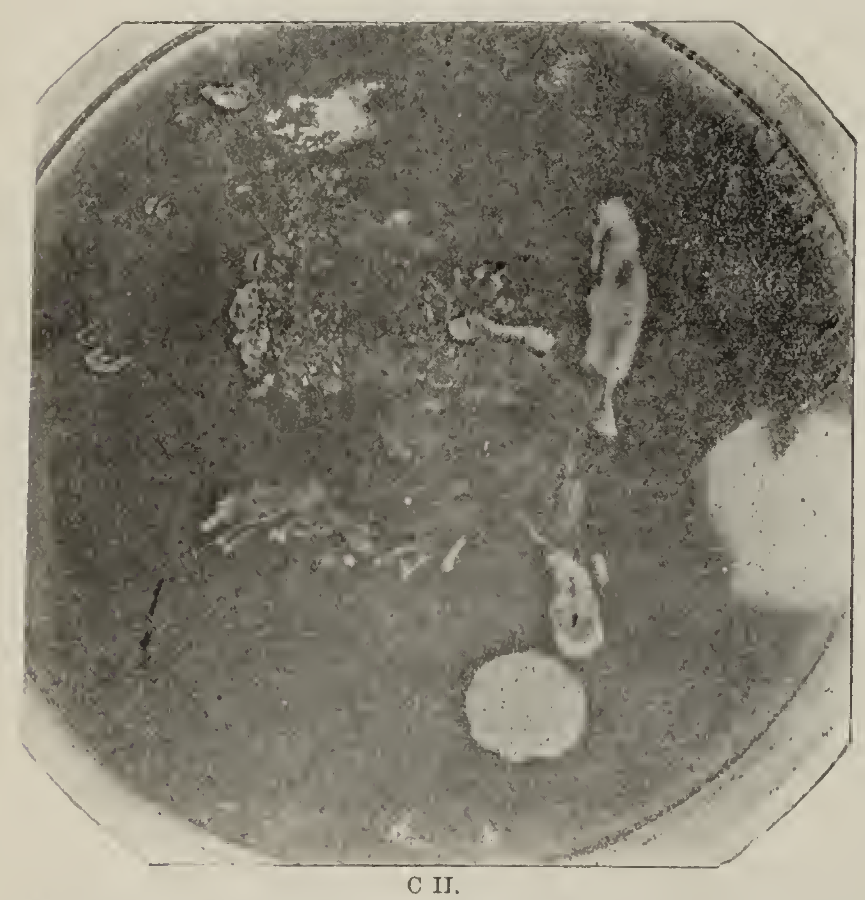
[17] The Petri plates were fixed at the proper time in formalin vapor.

ness. The plates of the roach and bedbug do not as a rule show clear tracks, as the ventral aspect of the insect practically drags over the surface of the culture-medium, leaving a broad, more or less irregular, smear. Great difficulty has been experienced in keeping the insects alive longer than 24 to 48 hours. Whether this is due to injury in handling, the vicissitude of laboratory-life, or the action of the bacteria, has not been definitely determined. No effort was made to prevent extraneous infection of the insect, as it was felt this would militate against the success of the experiment, it having been demonstrated that extraneous, nonpathogenic bacteria, such as occur under many natural conditions, tend to shorten the life of disease-producing organisms with which they may be associated.



C I.

Tracing made by a roach one-half hour after infection.



C II.

Tracing made by the same roach as C I forty-eight hours later. The intermediate plates showed continuous infectivity.

The plates presented are a few of many which have been prepared, and the illustrations are made from these same plates by direct printing, using the Petri plate as a negative. Not only do the feet carry the infection, but the entire ventral surface of the bedbug and roach, and also the wing of the fly. Plate D 2 shows this in the dashes on one side, which cover the footprints, while the dots beside it show the corresponding inoculations made by the foot on the opposite side.

Similar experiments are in progress with regard to the bacillus diphtheriæ and other organisms, and we hope to have them prepared for publication in the near future. The bacillus typhosus was demonstrated by culture as present for 96 hours after infection. Later demonstrations have not been satisfactory, as the overgrowth of extraneous organisms has so greatly obscured the result as to militate against conclusive proof of the presence of the typhoid organism in later tracings. Every track in the previous plates has not, of course, been proved; only typic impressions taken from each plate were carried through detailed test-cultures to satisfy us that we were dealing with the organism with which we infect the fly or bug.

During the late war, in field and in camp it has been the expressed belief of the medical officers that, while often the food was not all that could be desired and the water evidently not potable, still the abundance of flies around the latrines must greatly endanger those consuming the uncooked food to which these flies had access. The fact that much of our food is taken uncooked, and that not a little of it is cooked and afterward exposed to dangers of infection, leads one to think that the implantation of infective material by flies constitutes a danger not to be ignored. The fly is ubiquitous, moves from place to place with alacrity, and affords abundant opportunity for the transportation of any viable bacteria with which it may come in contact. What is true of the fly is probably equally true of the bedbug and the roach and possibly of the flea and other similar pests. The danger from the bedbug and roach would probably be great in diphtheria, and all would share in the possible dissemination of tuberculosis, anthrax, and similar bacterial diseases.

Of the many who have recognized the dangers incident to this method of disease-dissemination, the one remedy seems to have suggested itself, namely thorough disinfection of bacteria-laden material. The germicides and insecticides which may be used are innumerable, but, of them all, formaldehyd seems to have the preference. One difficulty is pointed out by Sabrazes,[18] namely, that infected bugs may seek safety and while they are merely the carriers of infection they transport it with them to points of safety and increase the danger by protecting the bacteria upon them in their effort to protect themselves.

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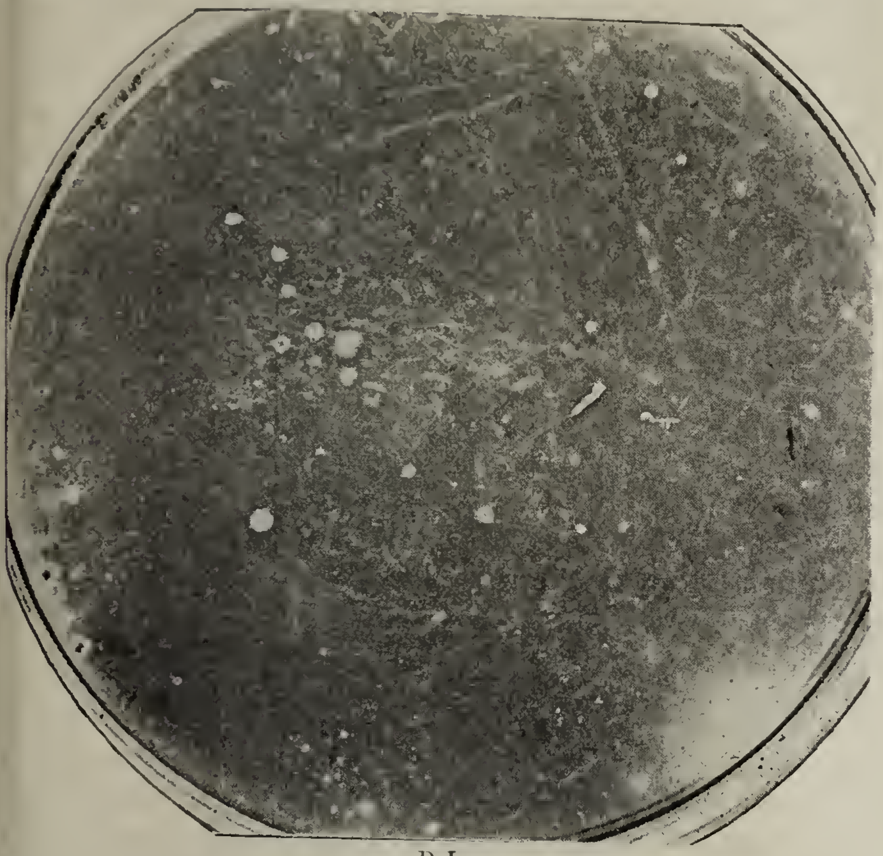
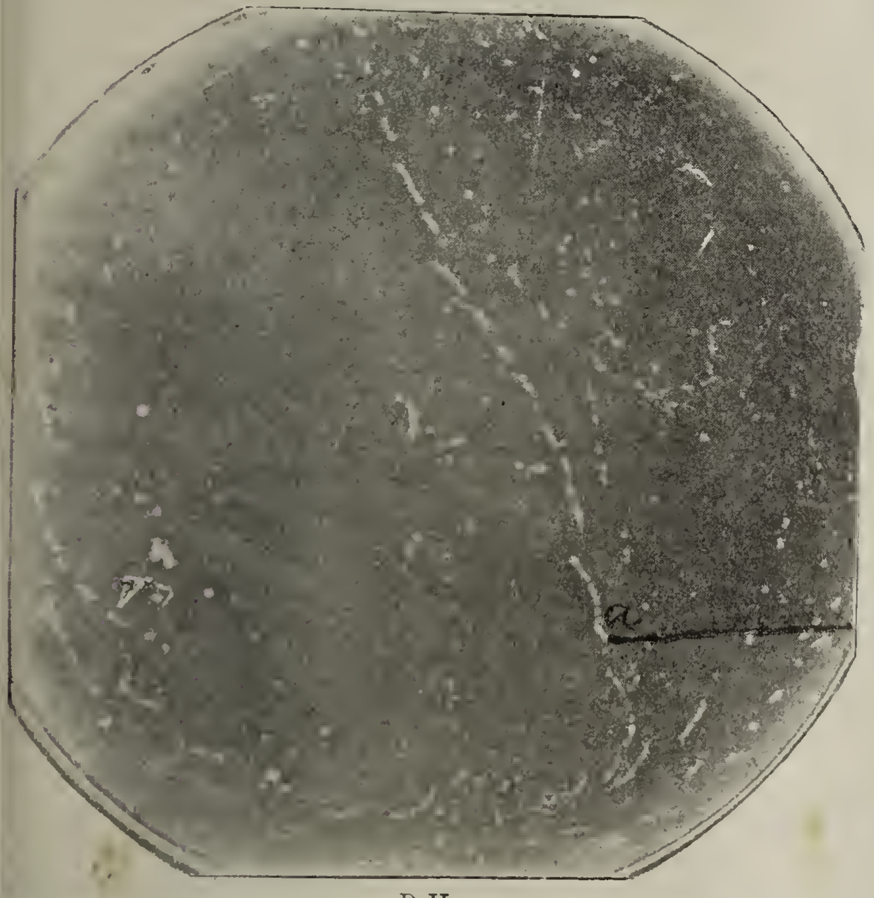
[18] Quoted by Joly, *loc. cit.*

Resume: 1. It is universally admitted that in malaria, Texas fever, the plague, and possibly other infections both of animal and vegatable origin, certain insects may be most active in the dissemination of disease by their active introduction of the germ into the sound host.



D I.

Tracing made by fly one-half hour after infection.



D II.

Tracing made by same fly as D I twenty-four hours later. This plate is introduced to show the remarkable purity of the late infection and to bring out at "a" the wing infection which covers one row of tracks.

2. In another class of cases, as well as in those typi-ied by the foregoing, certain insects perpetuate or ictually spread disease by acting as carriers, being the passive factors in the storage or transportation of certain infections of which typhoid and probably diphtheria may be taken as disease-types, and flies, bedbugs, fleas, and roaches as the insects commonly at fault.

The foregoing series of experiments go to show that for at least from 24 to 48 hours, and it may be much longer, after infection, bedbugs, roaches, and flies may be potent agents in the transportation of bacteria.

3. Any system of disinfection which does not destroy the material transported and render the carrier harmless is inefficient and unsatisfactory and therefore undesirable.

ON SOME CONDITIONS OF HEALING BY FIRST INTENTION, WITH SPECIAL REFERENCE TO DISINFECTION OF HANDS.[1]

By THEODORE KOCHER, M.D., etc.,

of Berne, Switzerland.

If we are to decide whether we are on the right way with our aseptic preparations to warrant a healing by first intention or not, we cannot answer that question simply by bacteriological demonstration of presence or absence of bacteria alone, but must be guided by clinical results. We know that even in cases of healing *per primam intentionem sans phrase*, when we withdraw a drainage-tube after 24 hours and get our wound absolutely closed within two days, we may find bacteria by dropping some of the bloody liquid of the first day in sterilized bouillon and keeping it at 37° for 24 hours.

It seems perfectly sure that we can get a primary union, that is to say, either a healing of our wounds without any secretion whatever, when it was possible to close a wound throughout, or with a serous bloody discharge, diminishing from the very moment of the operation, when a drainage-tube had to be put in a cavity, even in cases where some bacteria have been introduced. Accordingly it seems necessary to give first the clinical results of a method of asepsis which we think worth to recommend for general use.

My assistant and son, Dr. Albert Kocher, has gathered the whole material of our operative cases during the winter session from October 1, 1898, to last of February, 1899, and put all cases in which we operated on, not already infected cases, down in a chronologic order, with the indication of date, disease, operation, and of the material we used for ligatures and sutures, of the use of gloves, of drainage-tubes, the final result, and date of dismission of the patient. This last date does not mean the moment of healing of the wound, which had always taken place days before, but it gives a still better idea of the form of a primary reunion.

As seen by these statistics, we have had during five months 339 aseptie operations, of which 5 resulted fatally—1.4%. No one of these patients has died from infection going out from the wound. The first was a case of acute fatty degeneration of the liver, to be attributed to the chloroform, after excision of goiter[2] in Graves' disease 3 days after operation; the wound entirely healed by first intention. The second case was a death by pneumonia 4 days after the operation of too-long-standing incarcerated hernia, as they often occur without any local complication. The third case of death was an excision of malignant goiter, having gone much too far, as we had to perform resection of the trachea; the patient died of pneumonia. The fourth and fifth cases of death were two patients in a state of great exhaustion with carcinoma pylori. The one on whom resection was performed died after 2 days from pneumonia, the other after exploratory incision 3 weeks afterwards from exhaustion.

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[1] Read before the American Surgical Association, Chicago, June 2, 1899, and published in abstract by courtesy of the Editor of the *Boston Medical and Surgical Journal.*

[2] I have to explain this case, which was quite exceptional, as I never in the last years used any anesthetic in these cases except cocain, but the patient, who had agreed with that manner of performing the operation, behaved in such an extraordinary, unruly way that we were obliged to give chloroform, though perfectly aware of the great danger.

As to the 334 cases left for judging the value of our aseptic preparations, we have had small abscesses in 8 cases, with healing by *secundam intentionem*, very quickly as a rule. So we see that except in 2.3% of cases there has been always absolute primary healing of our wounds.

Of the 8 cases where this was not the case 3 had to be excluded from the question of failure of the aseptic measures, because there was another source of infection. Five cases are left in which the infection was introduced in the wound from outside, 1.4% of our cases. Two of these cases were patients with secondary infection during after-treatment when the wounds were dressed. In excluding these two cases as having nothing to do with the introduction of germs *during the operation*, 3 cases are left in which abscesses formed in wounds which were expected to heal by first intention, that is to say, in 0.8% *of our cases an infection took place during the operation*. It is very interesting to see what was the cause of these 3 infections. In two of them *catgut* was exceptionally used instead of silk, and in both cases secondary abscess formed going out from the deeper layer of sutures, while the skin-wound had healed perfectly well with silk sutures. In one of these cases (208) the abscess formed after 3 weeks only; such late formation is the rule in cases of infected ligatures. Certainly this is not mere accident, as we used catgut only in 10 of all our cases, so that with catgut we have got secondary abscess in 20%, with silk or other material only in 0.3%, that is to say, in one case out of 229. In one of the cases in which catgut-infection took place no gloves were used during the operation.

The only case in which we can recognize an infection during the operation executed with our ordinary means and aseptic preparations was such a slight case that it is the question if it be worth while to speak of an infection. It is a case in which we operated for Graves's disease with ligature of superior thyroid artery on both sides. The one side healed by first intention throughout, on the other very little secretion kept on for 10 days, when the wound was perfectly healed; there was no formation of abscess, but staphylococcus aureus was formed in the bloody secretion. As one side was healed with regular aseptic course, quite an accidental infection must have taken place on the other side.

So I think I may be justified in saying that *practically, with my usual method of asepsis during 225 operations, I have not had one case of formation of abscess or suppuration of a wound during the whole winter.* Is this result to be attributed to the introduction of *gloves* during this period? I am sure this is not the case, by the simple reason that we have had the same good results before when we did not use the gloves. This is in strict contradiction with the bacteriologic researches made lately on permeable gloves.

A good many surgeons must have had the idea of using gloves during certain operations long before Mikulicz proprosed the regular use thereof in 1897. We are told by Lockett that Halsted used rubber gloves already in the spring of 1889. But Robb proposed the same in 1894, and Fœge-Manteuffel in 1897; but the honor of proposing gloves as an indispensable part of a good asepsis during every operation belongs to Perthes (Trendelenburg) and Mikulicz. Though we used gloves sometimes before Mikulicz, we have introduced their general use for all assistants to aseptic operations ever since. Since Döderlein began his researches on the infection of cotton gloves, concluding that if we express the bloody liquid of a glove in a sterilized research-tube with bouillon or agar we get the development of quantities of germs at once, nobody has been able to prove that his gloves remain sterile during an operation. On the contrary, every one who has controled the researches of Döderlein knows that without exception germs in noteworthy quantity are to be found in gloves which are soaked with blood and liquid during an operation. If it were true that these germs are falling down from the air of the room, and are not coming from the surface of the hands, as Döderlein admits, it could make little and only quantitative difference to wear impermeable gloves. In this case the conclusion which has been drawn by a good many surgeons, especially gynecologists, would be simply this, that it is by far better not to wear any gloves whatever, but to wash his hands from time to time in sterilized water, to take off blood and other adhering liquids which might paste on the skin the germs falling down from the surrounding air, as we used to wash the wound during a long operation from time to time with sterilized water, to get rid of air-infection.

But the view of Döderlein does not really prove right, according to the researches made by my assistants (especially Dr. Pfähler) during this winter; it was without one exception staphylococcus albus which was found in our gloves during and after operation, and not, as Döderlein says, germs of the most different kinds. Staphylococcus albus is the usual inhabitant of the human skin and evidently remains intact in the deeper layers of it even after we have washed away every germ from the surface. We have to conclude that the infection of the glove comes from the surface of the hand rather than from the air outside. Lockett[3] (working in Keen's and Coplin's laboratory at Jefferson Medical College, Philadelphia) has proved that cotton gloves, even when paraffined according to Menge's method, are readily infiltrated with any germ from inside as well; that is to say, from the surface of the nondisinfected hand, or purposely infected hand, as well as from outside, when infectious liquids come in contact with the glove the germs go through it to the skin underneath.

Lockett, therefore, is quite justified in coming to the conclusion that impermeable or rubber gloves are by far preferable to cotton or silk gloves. But we might think it rather strange that all advocates of gloves, and even rubber gloves, give very categorically the prescription of thorough disinfection of the hands "as if the gloves were not going to be worn." Surely it is difficult to *sterilize* our hands as well as the patient's skin, but we are able to *disinfect* them easily to that point, that we get sure aseptic healing. What we must ever look out to realize is absolute destruction of every germ, that is, *sterilization*; what we have already arrived at is avoiding to introduce into the wound germs under such conditions and in such quantities that, according to their virulence, they may develop and exercise poisonous action before the damaged parts have regained the normal protective influence by restoration of good circulation. Friedrich and others have shown that living tissues destroy easily a certain quantity of these germs, especially when they are not yet adapted to the life in these tissues by anterior development, that is to say, when they have not yet arrived to a certain degree of virulence to human body.

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[3] PHILADELPHIA MEDICAL JOURNAL, February 11, 1899.

Though the investigations of Magrassi, Marcy and others seem exact, that in the follicles, and sometimes in the "lymphrooms," the skin includes germs to a greater depth, we have sufficient proof that the normal inhabitant of the human skin, as the staphylococcus albus, in the quantities and conditions it is left after thorough cleaning with hot water and alcohol in the deeper layers of the skin, does not interfere with quick and perfect healing of even large wounds. Therefore we do not need sterilization of our hands, but we want to hinder development of germs, that is, disinfection. Now virulent germs, which develop quickly, fortunately don't push on to the deeper layers of our skin, except they be directly introduced in the same way as in Garre's well-known experiments with staphylococcus aureus; and if they do, they often give rise to irritation, as eczema, acne, etc.; therefore we need disinfection also of the deeper layers of our skin only in the case when we are suffering from skin-disease or when our hands have been *soaked* with highly virulent bacteria. Those which are deposited on our skin from the surrounding air can be easily got rid of by thorough cleansing of our hands and alcohol treatment; deep disinfection is necessary only when we have been obliged to infect our hands with the discharges of infected wounds or organs.

If we brush our hands according to Fürbringer's method, with soap, hot water and alcohol for fifteen minutes or more, and bathe and brush them again for ten minutes in hot 1% sublimate-solution, no germ will develop for the following operation. But to sterilize in that way our hands repeatedly in short times is highly dangerous for the health.

Therefore we would better avoid touching any infective fluids or septic matter with our hands—and here the question of gloves arises in a much more commanding form. Let us *wear gloves before and between the time of our operations*, wear cotton or leather gloves when we have to touch and examine dirty people in the out-patient's room, wear impermeable gloves whenever we touch an infected wound or open an abscess or make a vaginal or rectal examination.

The best gloves certainly are rubber gloves, as recommended by Halsted, Fœge-Manteuffel, Friedrich — only Opitz is of a contrary opinion—but as yet they are so expensive and much too easily to be torn off, that it is impossible to use them otherwise than for the cases in which infective liquids risk soaking our hands. Against contamination by dry dirt, cotton, or silk or leather gloves will do, as bacteria won't go through from the hands at once so long as the skin is dry. Double gloves, as proposed by Perthes, of silk inside and rubber outside, diminish the finer touch of the fingers too much. I need not add that for operations gloves must be sterilized, and this is best done by steam or boiling (soda) water, as for other material.

Surgeons are to wear gloves during professional activity and should be allowed a time without wearing gloves only during their holidays. In doing so we are able to arrive to perfectly sufficient preparation of our hands for operations by the most simple means. As to my own hands, during the whole winter *I never used any chemical antiseptic* before the operation. The preparation consisted exclusively in *cleansing* with soap and brush for 15 minutes at least under a *stream* of hot water and then brushing with alcohol at 85% for 5 to 10 minutes, till every particle of skin is thoroughly cleansed. I think it to be very important that we always should use brushes lying in sublimate solution, that cleansing with soap and hot water should be done under a stream of water and not in a basin, and that we should not bring our hands in water again after the alcohol washing. Except in different little details my experience confirms entirely the method of Ahlfeld, quite independent of his view that *alcohol* is a real and strong disinfectant. I agree with Ahlfeld, that alcohol is far superior to any other liquid for the preparation of our hands, and will be of the utmost importance in war practice, when water may be wanting.

All that has been said for the skin of the surgeon's hands has to be carried on to the hands of every assistant and nurse engaged in the operation, and in the same degree *to the patient's skin.* I am quite convinced that for a long time much more infections of wounds were the consequence of insufficient cleansing of the patient's skin than of want of disinfection of the operator's hand, in the practice of many surgeons.

The patient's skin in our clinic is cleansed not only with soap, hot water and alcohol, but still with ether, as ether takes away the fatty dirt more quickly. Besides, that it is an absolute rule that shaving (of the hair) and cleansing with hot water and soap by the brush is to take place *a day before,* and only the final cleansing with ether and alcohol immediately before the operation. When there is the slightest sign of irritation (eczema, acne, etc.), thorough disinfection takes place with an antiseptic solution of sublimate, and the day before operation a glycerin-solution of carbolic acid (formol does well also) is rubbed in. My assistants use to wash their hands—after the hot water—alcohol, cleansing still with sublimate or with hydrargyrum oxycyanatum in a 1% solution.

There is one more point of capital importance in the cleansing of hands, that is, the manner of dealing with the nails. The only good way is to *cut away the nails entirely* as far as it can be done. The question of the nails is of such importance that I am satisfied in putting rubber fingers on my hands for infectious examinations, till we shall get rubber gloves less expensive and lasting longer, and even for operations rubber fingers alone will prove of great importance when the nails cannot be cleansed sufficiently.

There is a further point of utmost importance to warrant the healing by first intention after our operation, that is the choice of reliable ligatures.

We have long before insisted [4] on the necessity that *the ligature should always be antiseptic and not only aseptic,* so as to work against the possibility of development of germs in the tissue of the thread which we always bring in our wounds during an operation. That catgut is still more apt to be infiltrated with germs than silk Döderlein and Hägler have found, agreeing together, and clinical observation has undoubtedly proved.[5]

Hägler has found that the thorough impregnation of silk with sublimate keeps very steady during a certain period; therefore antiseptic silk is by far the best material.

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[4] *Vide* Chir., Operationslehre I, 2d Bd. edition.

[5] We have shown that in two of our three above cases, where abscess formed in the wound as a consequence of infection during the operation, catgut was used for ligatures. By studying the latest communications of Hahn and Heidenhain, one may see that even the newest experience agrees fully with what I said years ago on catgut and silk. I do not deny that there are methods of preparing catgut—for instance, with chromic acid—where catgut is no longer apt to be infiltrated, and to act, as Kiefer says, as *todter Nährboden*, but then, also, it has lost quality of quickly absorbable material and has no more any superiority over silk ligatures, which we can get absolutely sterile and antiseptic in the degree we wish by very simple preparation. We therefore recommend fine *antiseptic silk* as a perfectly reliable material for aseptic healing of wounds and reserve catgut for infected wounds, inasmuch as it is impossible to avoid ligatures entirely by simple torsion of the vessels.

But the fact of the easy contamination of our ligatures by the fingers seems to me to constitute a good indication for the use of gloves. If the drawing of a thread through the fingers and hand is sufficient to infect sterile threads in nearly all cases, do we not increase the chance of avoiding this by using gloves? — certainly not gloves already soaked with blood or serum, but gloves which are put on just before the ligaturing of the vessels and after stopping hemorrhage by artery forceps. We always leave large quantities of artery forceps in the wound and avoid putting any ligature in before the end, when the wound and fingers have once more been washed with great care. Then the moment has come to use fresh gloves to touch the threads, and *this is the really useful method of employing gloves*, and when cotton and silk gloves will do as well as rubber gloves.

The last point of importance for the question of aseptic healing is, the most exact stopping of bleeding. The only two cases in which, during the whole winter session, secondary infection with formation of an abscess took place were operation with secondary bleeding and formation of hematoma. If one has to open and put a drainage-tube in a wound filled with blood the danger of introducing germs in that *Nährboden* is much greater than in the beginning; therefore we are to avoid secondary bleeding if possible, by closing a wound entirely by sutures, without drainage. But when it is impossible to avoid formation of a cavity which must necessarily fill with serous or bloody oozing from the divided vessels we ought to be extremely careful not to get much after-bleeding and put drainage-tubes in every cavity till the moment of further accumulation of liquid in the wound is over. As Friedrich says in his experiments on infection of wounds, so it is with our clinical means, that the *physical* part of the treatment of wounds is by far more important than the chemical one, and therefore gloves must be acknowledged as a step forward under certain conditions.

My conclusions as to the possibility of securing primary union of our operation-wounds with or without gloves are the following:

1. *Either:* Use sterilized rubber gloves for every operation when you wish to be quite independent as to the form of your nails, the touching of everything you like, and the liberty to wash or not to wash your hands, and when you can spend plenty of money. Put your covered hand from time to time in a strong antiseptic solution (best, 2% sublimate) during a long operation, if you wish to be very careful.

2. *Or:* Never wear gloves for operations, do what you like between your operations, but poison yourself every time before you operate by brushing and bathing your hands for 10 minutes in a strong, hot sublimate solution after thorough washing and cleansing with hot water, soap and alcohol for 15 minutes. Repeat a short antiseptic ablution frequently during a long operation, when you wish to be very careful.

3. *Or:* Go the golden middle-way; avoid touching with uncovered hands any infective or septic material *between* the operations or wash it carefully away at once, cut your nails as short as possible, brush your hands thoroughly with hot water, soap and alcohol (85 to 95%), avoiding any poisonous disinfectant before you operate, and, if you wish to be very careful, put cotton, silk or best rubber gloves on when you touch the threads for ligatures and sutures and when you have to tear the tissues much and to rub your fingers in the depth of a wound.

4. But don't forget that the healing of the wounds *per primam intentionem* does not depend exclusively upon your hands, but also upon the same preparation of the patient's skin, upon sterilization of everything else coming in contact with the wound and its surroundings, upon complete arrest of bleeding, exact closing of the wound by sutures, or avoiding accumulation of fluids in cavities, necessarily left, by drainage, and, last but not least, upon the use of *anti*-septic threads for ligatures and sutures, as long as impermeable threads are not yet invented.

OUR NATIONAL BODY: ITS PURPOSES AND DESTINY.

The President's Address at the Fiftieth Meeting of the American Medical Association.[1]

By JOSEPH M. MATHEWS, M.D.,

of Louisville, Ky.

I imagine that when the father of this Association, the Nestor of American medicine, called around him a few devoted friends, accomplished physicians and surgeons, and effected an organization to be known as the American Medical Association, the first thought which filled their minds was the unification of the profession which they loved so dearly. It was their desire, no doubt, to bring together each year the men who were laboring earnestly and honestly for the elevation of the profession; that they in conclave could impart to each other the advances that each succeeding year had brought forth in their chosen calling, and this done in order that the sick and afflicted could be profited thereby. What could be more beautiful than the fruition of this hope? How grand the thought that here in the mother society men of all grades, so far as education and accomplishments are concerned, be they great or small, poor or rich, the rank and file of the profession can meet on common ground and exchange views for the benefit of suffering humanity. Some must be teachers or instructors, others listeners; they each in their way contribute their mite. Let me impress upon you, then, that no class-legislation should be indulged in by this body. Let it not be said of us that we rule without reason, or that we are a set of politicians trying to secure benefits for the few against the many, or for the many against the few, for in nowise are we a legislative body. In lieu of all this, let us receive with open arms all who represent honesty, fair dealing, and entertain an earnest desire to elevate the standard of the medical profession, and of this Association.

It is to be seriously questioned whether this Association, so numerically great as it is destined to be, or in truth is now, profits in any manner by its migration each year to distant parts of the Union. It certainly adds no dignity to this distinguished body to be thus traveling about, not to speak of the inconvenience occasioned by the so doing. Nor is it right or proper to impose upon a local profession the expense and trouble that it takes to entertain it. If the members will give the subject careful thought and consideration, I believe that they will come to the conclusion that the Association should have a local habitation. The natural question would then be, where could such habitation be found? Of all, the city of Washington is the best suited. The Capital of the nation, it has advantages that no other place can offer. With its great free libraries, it is the seat of learning; the home of the Medical Departments of the Government

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[1] Delivered before the General Sessions of the American Medical Association, June 6, and published in abstract.

Army, Navy, and Marine-Hospital Corps. Then, too, the idea is not farfetched that the Government, liberal always, would at some time lend the Association a helping hand in the way of securing a suitable building in which to hold its meetings and to become the owner thereof. Again, it would be in touch with the legislative department of the Government, and it can readily be seen of what value this would be in securing much-needed reforms in a medical way. The *Journal* would here find the most suitable of all abodes, and much profit would come to it from such surroundings and associations. I beg of you to give this matter your most serious consideration.

It is my painful duty to announce to you the death of Dr. John B. Hamilton, editor of the *Journal* of the Association. This Association never had a truer friend than he. Possessed of a clear-cut individuality, he was always outspoken, and what he did he at least believed to be for the best. We will miss his wise counsel in our deliberations. He made a most excellent editor of the *Journal*, and by his efforts it was brought up to the high standard which it occupies to-day. The Board of Trustees of the *Journal*, after careful consideration and deliberation, has selected Dr. George H. Simmons to succeed Dr. Hamilton as editor. You are to be congratulated upon this wise selection. Dr. Simmons is not an experiment, for he has won his laurels in medical journalism, and already stands among his editorial friends as the peer of any. Having come up from the ranks in journalism, he is acquainted with every detail, and that he will make a good editor goes without the saying.

It has been frequently urged that much appears in the *Journal* that should be expurgated; in other words, that a censorship should be established and many articles withheld from publication. I desire to disagree from this sentiment entirely and unequivocally. The *Journal* is simply the mouthpiece of the Association, and if one single paper read before this body is to be refused publication, then you have violated your pledge and obligation. Any member has the inalienable right to disagree with the sentiment of any paper, and the editor is in nowise responsible for said sentiment. If a paper is good enough to be read before any Section in this Association, it is good enough to be published in the *Journal*. If any action is taken, it should be by the Chairman of the Section before which the paper is to be read, saying to the reader that his paper does not come up to the standard. But who will assume this responsibility? And who is to judge the judges? May it not be that a paper, although couched in bad English, might contain matter of real merit? Many articles, too, with high-sounding titles and verbiage beyond the comprehension of man, may contain but little that is of worth, although written in perfect English, with deductions that would puzzle a philosopher, and which contain illustrations that would do credit to *Puck*. By all means let the editor improve the *Journal* in any way that he deems proper, but let every paper read before this Association or its Sections be published in the *Journal*. Let the reader select the wheat from the chaff, the good from the bad.

For several years there has been a heated debate, if not wrangle, at each annual meeting, in general session, over the secretaryship. This is both unseemly and undignified, and is to be much deplored. It seems to me that there is an easy solution to this matter. Let the editor of your *Journal* be the secretary of the Association. The Board of Trustees has wisely insisted that he devote his whole time to the *Journal*. It does, therefore, appear that the secretaryship should be one of his duties. By so acting he is brought into closer relation with the business management of the Association and with the active membership of the same. He would himself be responsible for a correct report of all proceedings, and be enabled to keep them without fault. The question whether or not any addition should be made to his salary for this additional work can be determined by the Board of Trustees. Our present secretary has served us long and well, and for his services in the past the Association should, and no doubt does, feel deeply obligated to him. I am sure that he would be the first one to acquiesce in any move that would enhance the business interests or the prosperity of the Association.

It behooves this national body of American physicians to take some action in regard to, or at least to approve, the movement to stamp out, as far as scientific effort can do so, that dread disease that kills one-seventh of the world's population —tuberculosis. A few days ago, May 24–27, there was held a tuberculosis congress in Berlin, international in character. At the recent meeting of the French Association for the Advancement of Science, the Section of Hygiene passed a resolution pointing out that the convection of tuberculosis by inhalation is only one of the modes of infection, and that a larger part of the diffusion of the disease is played by contagion through the alimentary canal, as proved experimentally and clinically, urging the necessity of taking adequate measures to ensure the sterilization and harmlessness of articles of food. All Europe is wide awake to the importance of this subject.

From carefully prepared statistics it is found that of the deaths from all causes between the ages of 15 and 60 years, one-third of the number are victims of tuberculosis, and that it kills 4½ times as many people as do smallpox, scarlet fever, typhoid fever, and diphtheria combined. It is estimated that at any given time in Germany alone 1,300,000 persons are affected with tuberculosis, and Osler says that 1,200,000 in America have the disease at all times. One in every 50 persons has the disease. Over 13,000 die of tuberculosis in the State of New York every year. In every other American city the proportion of deaths is equally as great. The medical profession all over the world is deeply interested in the subject, the aid of governments solicited, and every effort is being made to suppress this formidable disease. Since the germ which causes it is known, and its habitat, the condition under which it thrives, and that the disease is contagious, it does appear but rational to assume that it not only can be prevented by precautionary measures, but that it can be cured by proper environment and treatment. It is equally true that, even in the best of homes, the treatment usually accorded the patient is *nil* in effect and accomplishes nothing. Something more than this must be done if we expect to materially decrease the death-rate. What is that something? Detweiler believes that over 24% of cases of tuberculosis are curable; Meisen, 27%; Braymer, 21.5%; and this under ordinary climatic and hygienic treatment. A much higher percentage of recoveries could be recorded if a real systematic and scientific treatment could be afforded these patients. Such a course can be instituted only in well-ordered and equipped hospitals designed especially for such inmates. In the words of a resolution adopted at the International Congress of Brussels, in 1897: "The hospitalization of tuberculosis is urgent and will not long be withheld." In several large cities in the United States an earnest effort has already been made to carry this thought into practical utilization, especially so in Chicago and New York. It can readily be seen, however, that but a comparative few out of this great number of afflicted can be accommodated in this manner. A country or State that is ever on the alert to prevent the landing of a foreign foe, or a hostile army, surely should ever be ready to aid in the suppression of a foe to the human race, ten times more destructive to human life than the invasion of the country by an army of great size armed with the most improved rifles. Let us, then, in the name of humanity, invoke aid from the Government of this very humane people, in order to help put down and thoroughly conquer this foe. Is it too much to suggest that this Association, representing the most advanced thought of the medical profession of America, take action in this important matter? I would urge you to appoint a committee to prepare a careful report on this subject and present it to the next Congress asking that this Government erect, prepare, or donate hospitals or reservations in and at which the poor or others shall receive treatment for the cure of consumption. Also that the advisability of the respective States erecting similar institutions be impressed upon State Boards of Health in the various States. The blind, the deaf, the insane, the feeble-minded and other classes are so provided for, why not these? They are not able to care for themselves, and they are a menace to the public health.

We may rest in peace and disregard the efforts of the antivaccinationists, encouraged as they are by an antivaccination society, but we must not close our eyes to the fact that, by their loud cry, aided by political influence given often for self-aggrandizement, they are endangering lives in every community. So far has this thing gone, that the vaccination law in England has but recently been amended so that only those who may desire shall be vaccinated. This is a menace to the public health and smacks of the dark ages. I again ask that you give to the medical profession in America an endorsement of their views in a resolution sustaining *compulsory* vaccination. The safety of the people from this most direful malady demands it.

An international conference for the prevention of syphilis will be held at Brussels, Belgium, in September. The Secretary of State of the United States was requested to appoint a delegation to attend this important conference, and he in turn requested me, as your presiding officer, to name the delegation. This I have already done, as the call was for immediate action. The preamble accompanying the notice of the meeting says: "The increasing propagation of syphilis and venereal diseases has become a serious danger to society, and it is important while there is still time to take efficient measures to stop the progress of this scourge. The spread of the evil is an incontestable fact; on this point all physicians who are in a position to know or observe its progress are agreed. While some attempts have been made to check the evil, they have been without concerted action, without preconceived plans, and without an international understanding to success."

It is estimated that there are in this country between 6 and 7 million people who are afflicted in one way or another with syphilis. When we consider that by this the very foundation of society is shaken, our families imperiled, it is high time that we turn our attention to the subject. The warning should be in words that the most illiterate man or woman could understand, and it should emanate from sources and places that would reach the greatest number. Our false modesty in the past has been too pronounced, and has prevented us from giving to the common people valuable information; so we are in a measure, as a profession, much to blame for the great spread of this curse.

The time has arrived when we as physicians, singly or when in convention assembled, should throw aside all restraint when dealing with this vital question. Fathers, mothers, sisters, brothers, and all others should be informed, and this information should be in the plainest language. The minister and the priest should aid the doctor in this praiseworthy undertaking. The doctrine should be inculcated into the young of both sexes, that freedom from this awful condition should exist before the marriage relation is thought of. Upon this declaration rests the hope of the State, as well as of families, for with tainted blood neither good soldiers, good citizens, nor good husbands can be had. A committee should be appointed from this body, to report at the next annual meeting, on the subject: "What is the Best Means of Preventing the Spread of Syphilis?"

A CASE OF DERMOID CYST.

By J. S. JAMIESON, M.D.,
of Trenton, N. J.
Surgeon to Mercer Hospital.

THE patient, a boy, 15 years of age, 6 feet tall, weighing 215 pounds, somewhat dull mentally, gave a history of nothing abnormal, save that for 3 weeks past his mother had noticed on his bed-linen slight blood-stains, coming apparently from the anal region. On examination, there were found 3 small orifices, the lowest 1½ inches obliquely above and to the right of the tip of the coccyx; the other two in the same perpendicular plane, and about three-quarters of an inch distant. Probing revealed the existence of three small sinuses meeting in a common point about 3 inches upward and outward in the substance of the gluteus maximus muscle. On withdrawing the probe, small portions of hair were adherent to it. With the assistance of Dr. Bruyere, and Dr. Larison, of Lambertville, the latter of whom had brought the patient to me, the sinuses were slit up on a grooved director, and the sac laid open. It contained a tightly matted mass of short, dark hair, about the size of a marble, mingled with sebaceous matter and fragments of tissue. The cyst-wall and sinuses were thoroughly cureted, and the wound sutured with silkwormgut without drainage. Union took place throughout by first intention. No microscopic examination was made.

Epidemic Cerebrospinal Fever in India. — W. J. Buchanan (*Indian Medical Record*, April 26, 1899), reports 3 cases of cerebrospinal meningitis in which the diagnosis was confirmed by finding the diplococcus intracellularis of Weichselbaum. The disease has occurred in India chiefly in the large central jails of Bengal; next to the jails the disease is most commonly met with in emigrant ships trading with the West Indies and in emigrant coolie depots in Calcutta. Of the symptoms most frequently noticed in the Indian cases, delirium and coma are common, severe pain occurs in the head, neck, back, and joints, and retraction or stiffness of the neck is common. Skin-eruptions are rare, no specially marked abnormalities affect the organs of sense, the joints, blood or the bowels. Pericarditis is more common in India than in America. The disease never becomes epidemic in the sense that cholera or the plague are epidemic. [M.B.T.]

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The Remedy for Program-Abuses.—So far as the American Medical Association itself is concerned, the most important measure of reform at Columbus was that brought about by the recommendation of the Executive Committee in reference to abuses and overcrowding of the section-programs. This year, under the ideal presidency of Dr. Billings, of Chicago, the medical section published, as a part of its program, authors' abstract of the papers to be read. Henceforth this is to become the rule of all sections; the number of papers to be admitted to the program is also to be limited. In this way we trust that those sinners, young or old, who get their names on programs with little intention of writing the proposed papers, and less of reading them, may have their agraphia and aphonia preceded by a desirable *intentional* tremor and paralysis.

A Possible Continuance of the Index Medicus.—At the recent meeting of the American Medical Association a resolution was introduced in the general session that the association take upon itself the editing and publishing of the *Index Medicus*. This was referred to the trustees, who, in conjunction with the efficient and able editor of the Association *Journal*, have taken it under serious consideration. The expense would not be great; it is distinctly a work for the profession, and should be carried on by the profession. Nothing dignifies a man or a body of men more than unselfish work for the good of his fellows. The association would at once reach a position of honor and would receive the gratitude of physicians all over the world if it should take up the offered task. We heartily hope it may find it possible to carry on the work so necessary to professional progress.

Trained Women Nurses in the Army Hospitals.—The Associated Alumnae of Trained Nurses have set themselves the task of securing the passage of a law by Congress whereby a systematic and organized department of trained women nurses shall be instituted for service in the army hospitals. This measure was unanimously endorsed by the Association at its Columbus meeting. What physician, either for himself (if sick) or for his patient, would choose a man instead of a trained woman for a nurse? Why should the very paupers of the community be better served in this respect than the soldiers of the country? The essential features of the bill (No. 5353) introduced by Mr. Burrows in the Senate, with whatever amendments may be suggested by the good judgment of the Associated Alumnae of Trained Nurses in consultation with the Surgeon-General and other officers, was endorsed by the Pennsylvania delegation, the executive committee, and in the general session, without a dissenting voice. We sincerely hope it may soon become law.

Working in Harmony for Professional Progress.—We have never known a meeting of the American Medical Association so completely free as the last one from controversy and wrangling in the general sessions. The business was conducted with remarkable smoothness and speed. This was largely due to the efficient work of the most praiseworthy executive committee, in which measures were first threshed out and the winnowed wheat only brought for disposal to the general body. One movement endorsed is worthy of especial mention, the recommendations of the Philadelphia delegation in reference to a reorganization of the Army Medical Department and the establishment of a National Bureau of Health with a cabinet officer at its head. The labors of the Philadelphia committee for several weeks had resulted in most carefully considered and prudent conclusions, and it is certain that if Congress can be prevailed upon to listen to the advice of the American medical profession as represented by the unanimous vote at Columbus, we shall see the medical branches of the service dignified, rendered effective, and the scandals, morbidity, and mortality recently too manifest, prevented from ever again occurring.

A school of instruction for health-officers and members of local boards of health in the State of Vermont has been organized by the State Board of Health, and arrangements have been effected for a meeting to be held at Burlington from July 10 to 15. An address of welcome will be made by the Mayor of the city, the objects of the school will be explained, demonstrations of bacteria and of hygienic apparatus and methods will be given, and a series of interesting and appropriate papers will be read and fully discussed. The object of this school of instruction is to encourage conference and discussion between the State officers of health with regard to the latest and most efficient means for preserving the health of citizens, of communities, and of the Commonwealth, and it is one that should be promoted and furthered in every way possible. It has been well said that the health of a community is an index of its intelligence, its culture, its civilization, and the close of the nineteenth century promises to witness an activity in the realm of preventive medicine that bodes well for the future of the human race. We cannot praise too warmly the part that the Vermont State Board of Health is taking in this movement, and we wish to commend heartily the method it has adopted of disseminating a better knowledge of hygienic methods and principles, with the purpose of securing harmony and concentration in the application thereof.

The Diagnosis and Prevention of Smallpox.—The United States Marine-Hospital Service has rendered a distinct service by devoting a Supplement of Public Health Reports, for June 6, 1899, to the consideration of the subject of smallpox. The subject is considered in all of its various aspects, under the heads, consecutively, of etiology, symptoms, diagnosis, vaccination, inspection, isolation, and disinfection. Special emphasis is placed on the fact that the disease is easily prevented by vaccination, with revaccination, and for this purpose glycerinated lymph only is recommended. In illustration of the utility of vaccination in the prevention of smallpox, the experience of Germany is cited. Having lost, in 1871, 143,000 lives by smallpox, in a population of 50,000,000, Germany enacted, in 1874, a law making vaccination obligatory during the first year of life, and revaccination obligatory at the tenth year. The mortality diminished rapidly, until to-day its victims number only 116 a year, and these cases appear almost exclusively in towns on the frontier. In contrast the experience of the French army in 1870–71 is cited. At this time the civil population of Germany was vaccinated optionally, while the army was vaccinated rigidly; and the French, both civil and military, were vaccinated perfunctorily. Both being attacked by smallpox, the French army lost 23,000 by death from this cause, while the German army, under exactly the same conditions, lost only 278. While the prevention of the spread of smallpox is properly the care of State and local health-authorities, the United States Marine-Hospital Service expresses its willingness to send, upon the request of the health-authorities, or Governor of a State or Territory, experienced officers to determine the diagnosis when this is in doubt, and to offer such advice as may be necessary with regard to the preventive measures that should be adopted.

The A. M. A. Meeting of 1899 is now an affair of history—and good history! We doubt if there has heretofore been one in which the essential elements of progress have been more distinctly marked. The association has clearly become the gravitational center controling the conserving or unitizing forces of American medicine, and is fast becoming conscious both of its duty and power. The many American physicians who have heretofore been indifferent, are, one by one, and in increasing numbers, dropping their aloofness and suspicion, and, recognizing its destiny to dominate, are joining the association and attending its meetings. The number registered at Columbus last week was about 1,700, not, as a New York contemporary gives it —"nearly 3,000." But it is character rather than numbers that inspires us with hopefulness. Even in such a matter as personal ethics and dignity there was a most noteworthy absence of what has previously been an altogther too conspicuous presence of the guzzlers and "all-nighters." There were even strange stories of "*Nothing stronger than lemonade, please, this year!*" and the banquets, even that of the so-called American Medical Editors, were free from stories in which the delight in witless filth has often been an astonishing element of attractiveness. There is plainly to be an end of the "dry-smoker" and the roysterer. And, let us hope, also of the schemer and self-advertiser! If a man wishes office hereafter, he and his friends must go about it with a subtlety that will tax the best powers of that expert, the medical politician. Better wisdom would it be if he and his friends should not "go about it" in any way whatsoever. The way not to get office is to scheme for it.

There has never been such solid and earnest section-work as at this meeting. No exophthalmic discovery was launched at the heads of the profession—and none at the open-mouthed laity—but there was a remarkable amount of downright scientific working the matter out, a hearty cooperation and comparison of results of many different men—all arguing a better professional spirit and a steadier progress than all the new-discovery folks combined will ever be able to achieve.

Lumbar Puncture in Tabes Dorsalis.—This little operation of lumbar puncture seems to have a peculiar fascination for many clinicians, and is being practised in all manner of cases. Dr. W. L. Babcock, of the St. Lawrence Hospital, N. Y., reports (*American Journal of Insanity*, April, 1899) that he has tried it in three insane patients whose symptoms suggested to him a diagnosis of posterior sclerosis. As all these patients, however, were insane, and as their symptoms are reported rather meagerly by Dr. Babcock, we cannot exactly regard his observations as conclusive with reference to pure and simple tabes. His patients seem to us from their combined mental and cord symptoms to have been instances of either general paresis or cerebrospinal syphilis. In one case in which there was evidence of intradural pressure, the gait improved from almost complete paralysis to a moderate ataxia; in another the operation was well nigh disastrous, as the patient passed from an ataxic into a paralytic condition, and developed lightning pains and cutaneous anesthesia, with gastric crises and bladder symptoms; while in still another case, in which the operation was avowedly experimental, the effects were negative.

Dr. Babcock seems to have been led to make these trials of lumbar puncture from several theoretic considerations. He argued, for instance, that, just as happens in cases of paresis, the mechanical relief from pressure exerted by the compensatory fluid on the coordinating centers, would probably benefit the ataxia. This hope, however, was not realized, as in two of his cases ataxia was increased, not diminished, by the operation. The operator seems to have been actuated somewhat by therapeutic (if not experimental) zeal, for he says that he has done lumbar puncture no less than 80 times in such a variety of cases as meningitis, cerebral tumor, paresis, status epilepticus, subdural hemorrhage, acute delirium, tabes, uremia, and catalepsy. Here, certainly, is a wide range for one small operation. As for tabes, however, we cannot think that Dr. Babcock has established a useful precedent, because, first, his cases were evidently not cases of pure tabes; and second, his patients were not benefited, but one of them was distinctly injured by the operation.

Persistence of Diphtheric Infection.—The practical question in regard to persistence of Klebs-Löffler bacilli in the throat after an attack of diphtheria is "how long do they remain in the average case, and are they still virulent?" The occurrence of many cases of diphtheria in children previously well who have been accidentally exposed to diphtheria-convalescents many weeks after their discharge from surveillance is the clinic evidence of long-existing virulence of the infection.

Mitchell and Crouch, formerly bacteriologists to the Denver Bureau of Health, made careful and exhaustive observations upon 1,004 cases of true diphtheria occurring during four years. Of these children 134 died, leaving 870 convalescents from whom cultures were regularly taken and examined at intervals of several days in order to determine the time of disappearance of the infective bacillus. The shortest time in which the organism disappeared was 3 days, and the longest 145 days. Cultures from the last case were virulent, and fatal to guineapigs so late as the eighty-first day. The average time of persistence of the Klebs-Löffler bacillus in the throat was about 22 days. The actual dates of disappearance of the organism are definitely stated for all the cases in the exhaustive tables that accompany the report, but for practical purposes the conclusions are summarized as follows:

Only 14.5% became negative in ten days; 28.4% became negative between the tenth and twentieth days; 29.2% between the twentieth and thirtieth days; 18.2% during the fourth period of ten days; 7% during the fifth ten-days period; 2% during the sixth ten-days period, and in 0.5% of the cases infection persisted more than 70 days.

In other words, the old four-weeks' limit of quarantine for diphtheria was sufficient in about 72% of all cases, but the remaining 28% continued to be dangerous to others for from three to six weeks longer.

These careful and prolonged observations of such a large number of cases dispose pretty effectually of the belief, based upon premature publications of examinations of a few cases, that the bacillus of diphtheria, as a rule, disappears from an infected throat in about a week.

Enteric Fever Abroad.—The widespread attention attracted by the prevalence of typhoid fever among our soldiers gives interest to a recent discussion before the Epidemiological Society of London. Professor R. H. Saltet, who fills the chair of Hygiene and Preventive Medicine in the University of Amsterdam, read a paper in which he gave very interesting details concerning the prevalence of enteric fever in the Netherlands. He showed that the general death-rate in the low-lying rural communities, which was formerly higher than in the communities residing upon more elevated soil, had undergone an immense improvement. He showed also that the improvement in the death-rate for typhoid fever was shared generally both by the residents in high and low districts, *i.e.*, that the improved death-rate in the low districts was not attributable to a decreasing mortality from typhoid fever. A fall of 72% in the typhoid-fever mortality among the urban population and of 60% among the rural population seemed to suggest that while sanitary improvements had operated equally throughout the country, the progress of medical science, the benefits of which were enjoyed to a greater extent by the inhabitants of the towns, had been a powerful factor in subduing a dangerous disease. An interesting little debate followed upon Professor Saltet's paper. Mr. Shirley Murphy, the principal medical officer to the London County Council, and an ex-president of the Epidemiological Society, said that the reduction of mortality from typhoid fever in England and Germany, which had recently taken place, had been generally ascribed to the improved supplies of drinking-water and methods of sewage-disposal that had been introduced; but after hearing Professor Saltet's paper he had come to the conclusion that an explanation of the remarkable reduction in the death-rate from typhoid fever in the Netherlands must be sought in a generally diminished infectivity of the people. Professor Lane Notter, Professor of Hygiene in the Army Medical School at Netley, took somewhat the same line. He considered that the stationary character of the population of the Netherlands would favor the acquisition by the population of a degree of immunity, and in support of this view he quoted the position of the European in India with which his official position made him familiar. The European on arriving in India was remarkably susceptible to typhoid fever, but his powers of resisting the poison were rapidly developed with each year of sojourn.

It is quite possible that local authorities may be awaiting the gradual establishment of such immunity in preference to adopting the active measures that would lead to immediate bettering of the condition here. After a hundred years, who knows, a generation may arise inured even to Schuylkill filth?

The Graded Medical Course.—A serious defect in the medical course as at present constituted resides in its heterogeneousness. Even in schools in which the instruction is designated "graded," this is so largely in name only. A serious attempt to correct this defect appears to have been made by the authorities of Harvard College in the institution of an admirable modification in the medical curriculum to be put into operation beginning with the academic year 1899–1900. It is proposed, so far as possible, to give the courses in the future in logical order and sequence instead of in the somewhat haphazard fashion of the present and past. Thus, instead of devoting the first half of the first year to anatomy, physiology, physiologic chemistry and histology, the mornings of October, November and December and the mornings and afternoons of January will be devoted to anatomy, and the afternoons of the first three months to the allied branches, histology and embryology. During the second half-year, instead of anatomy, physiology, physiologic chemistry, bacteriology and embryology, the student will take up physiology in the mornings of February, March and April and the mornings and afternoons of May, together with physiologic chemistry in the afternoons of the first three months. In the second year pathology in the mornings of October and November and in the mornings and afternoons of December, bacteriology in the afternoons of October and November, optional courses in pathology, and auscultation, clinical chemistry, theory and practice, therapeutics, surgical pathology, bandaging and clinical medicine for 26½ hours a week in the second half of the year will replace the present arrangement, which includes full courses in pathology, clinical chemistry, second-year anatomy and therapeutics, together with half-courses (without examinations) in auscultation and percussion, theory and practice, clinical medicine, bandaging and surgical pathology. It is expected that examinations will be held once a year, and that corresponding modifications will later be made in the clinical courses of the last two years. The strength of the proposed plan resides in its naturalness or logicalness. Instead of asking the student to undertake several independent studies, he is now given the opportunity to make the transition gradually from one to the other. His work is rendered more connected and more consecutive and less distracting and less heterogeneous. The changes here indicated are in a line with those to which we recently referred as about to be instituted by the College of Physicians and Surgeons of Chicago, and which have also been adopted by Rush Medical College and the Northwestern University Woman's Medical College. It is evident that medical instruction, in this country at least, is at present in a state of active evolution, and with the experience of the past and an appreciation of the needs of the future, it may be confidently hoped that the curriculum will take such form as will redound to the advantage of the student and to the welfare of the community.

Angelo Knorr.—A few years ago the medical profession was shocked by the sad death, from cholera, of Dr. Oergel, a promising young physician of Hamburg, who had accidentally inoculated himself with the cholera-germs in the laboratory. Only a few months ago, the death of Dr. Müller of the plague startled the civilized world and filled it with pity, if not, at least in certain sections, with alarm. And now science has claimed a third victim! Angelo Knorr, an able experimenter, has died of glanders.

A pupil of Koch and of Behring, he early struck out an independent path in the bewildering field of immunity. He devoted himself, especially in the beginning of his laboratory-studies, to solving the problem of the relation of toxin to antitoxin; and his researches in this direction, principally carried out on tetanus, were of the greatest importance. Last summer he undertook the task of improving mallein, which, on account of its value as a diagnostic agent in glanders, has become a very important substance, holding, in veterinary medicine at least, the same relation to glanders that tuberculin holds to tuberculosis.

In order to secure a very strong toxin, it was first necessary to produce a highly virulent glanders-bacillus by passage through animals. While engaged in this work he accidentally inoculated himself, probably near the wrist. The circumstances of the infection are unknown; but it is believed carelessness played no part, for Knorr realized the dangerous character of his work and was always very cautious. The disease assumed a very acute character and speedily led to his death. He was only thirty-five years old.

His scientific zeal and experimental instinct were of the highest order. He not only had the mastery over methods of experimentation, but also possessed that rarest of gifts, the power of generalization, which enabled him to draw conclusions of fundamental importance. His observations on tetanus led him to enunciate a new theory of the action of antitoxin on toxin, which departed both from the early theory of Behring and Ehrlich, of a direct neutralization of the one substance by the other, and from that of Buchner, of an indirect physiologic antagonism. Knorr held that the two entered into a loose combination, whereby the action of the toxin on the body-cells was suspended. He demonstrated this by heating neutral mixtures of tetanus-poison and antitoxin, and comparing the result with the effect of heat on mixtures of simple serum and tetanus-poison. In the first mixture, heat had no power to destroy the toxin; while in the case of the control-mixture, in which the serum contained no antitoxin, heat destroyed a part of the tetanus-toxin. The union of the two substances is peculiar, and cannot be compared with the ordinary chemical combinations. Buchner acknowledges, in a necrology from which we have borrowed heavily, that he has been won over to Knorr's theory.

Another interesting fact, discovered by Knorr, is the following: When toxin and antitoxin are mixed so that an excess of the former is present, the physiologic action of the surplus does not correspond to its amount; that is to say, 100,000 toxin-units present in excess in a mixture of toxin and antitoxin do not produce proportionate effects. Their effects are only equal to those produced by 20 units acting alone, *i. e.*, not in a neutral mixture. Yet, in order to prevent the action of this excess, not 20, but 100,000 antitoxin-units are necessary. Knorr had also found that the less the concentration of the two bodies, the more antitoxin was necessary to neutralize promptly and completely a given quantity of toxin. In one of his last papers he brought forward apparently strong proof against Ehrlich's "lateral chain" theory of immunity. Ehrlich attributed the formation of antitoxin to the action of the cells attacked by the poison; Knorr, on the other hand, made the unattacked cells the antitoxin-producers. Had he lived, there is no telling how near he would have brought us to an understanding of the problems of immunity. As Buchner exclaims, "We cannot understand the necessity for such a death." In Munich, where he lived, his tragic demise awakened general and profound grief. The soldier's death on the battlefield is not nobler than that which ended the career of Angelo Knorr.

Exegit monumentum aere perennius.

The Coexistence of Typhoid and Malarial Fever.—The practical results of the exceptional advantages for study of the fevers of the South offered by our recent war with Spain have been on the whole rather disappointing. In view of the difficulty in carrying out scientific study on account of the confusion of arrangements, insufficient assistance, lack of proper supplies, difficulty in securing authority to perform necropsies, it is but natural that many unusual opportunities for research should have been lost. Nevertheless, thanks to a certain number of energetic and well-trained men, some interesting and valuable communications have already appeared, while others may yet be confidently hoped for.

The question of the relative frequency and association of typhoid and malarial fevers was of course one of primary importance, and it is rather discouraging to find, as pointed out by Vaughan and Dock in a recent discussion before the Association of American Physicians, that many of the medical men in charge of our troops were quite incapable of recognizing typhoid fever.

A striking fact brought out in this same discussion was the relative infrequency of malaria in our Southern camps. Hundreds of cases of more or less characteristic typhoid fever appear, however, to have been classified under this heading. A comparison of these statistics with those of competent observers would appear to throw considerable light upon the continued malaria, the "typho-malaria" and the "simple continued fever" of certain districts. The evidence tends ever more to show that the majority of cases referred to under these headings are nothing more or less than typhoid fever.

While the malarial fevers were relatively infrequent in most of our Southern camps, the same cannot be said of the troops in Cuba, where the majority of the soldiers suffered from one or another form of the disease. Here also, most patients with typhoid fever had probably suffered previously from malaria, while many, doubtless, at the time of the onset of the typhoid were the subjects of latent or uncured malarial infection. The evidence, however, appears to show that there was nothing especially characteristic in the course of these cases of typhoid fever beyond, perhaps, their increased severity, a severity depending probably upon the reduced state of the individual.

The relative infrequency, taking all things into consideration, of cases in which the symptoms of typhoid and malarial fever coexisted—in which parasites other than inactive crescentic bodies were found in the circulating blood during the height of the typhoid manifestations—is remarkable and interesting. It is in line with the results of the observations of competent students which have appeared up to this time, observations which have been recently so well brought together by Lyon. On the other hand, it is clear that recrudescence of a latent malarial infection after convalescence was by no means infrequent. Most of these instances occurred after the temperature had definitely reached the normal point; some, however, appeared during the period of defervescence. In these instances the diagnostic importance of examination of the blood is most strikingly illustrated, for it is well known that chills are by no means infrequent during this period in uncomplicated cases of typhoid fever.

Considering the exceptional opportunity for the coexistence of typhoid and malaria during the Cuban campaign, the relative rarity of cases in which the symptoms of both diseases were present at the same time is, as has been said, remarkable, and renders more valuable observations such as that by Craig which appears in the present number of the Journal. This is not only one of the most completely reported instances of combined typhoid and malarial infections, but it is the first case in which the coexistence of typhoid and quartan malaria has been reported. Those surgeons who attempted to do thorough clinical work during the recent campaign will not fail to appreciate the energy and perseverance required to make observations such as that of Dr. Craig.

And yet, after all, is it not what we should expect from our army medical corps? Why should we not always look to our army and navy medical service for important scientific communications? The opportunities for work in many of the army posts, if proper encouragement be given, are great. And in the newly acquired districts in the Antilles and in the Philippines these opportunities will be considerably extended.

It has become almost a tradition in America that the surgeon entering the army or navy should give up scientific ambition. There have been occasional brilliant exceptions, but, as a rule, this has been painfully true. We trust, however, that this day has passed, and that in the near future we may look for something more. Already in some of our new army hospitals excellent and well equipped laboratories have been established, presided over by energetic and competent men. And the moment it becomes evident that such opportunities will be offered in the army or navy, it may be safely predicted that the men will not be wanting.

It is interesting to recall the fact that the malarial parasite was discovered by Laveran, a French army-surgeon, while the most important step since its discovery, the recognition that the mosquito may be an intermediate host of the parasite and may play an important part in the actual inoculation of the disease, has been the work of Ross, a British army-surgeon who, having shown his ability and energy, was wisely detached by his government and offered exceptional opportunities to pursue his investigations. Let us hope that here in America we may not lag behind.

Correspondence.

DIAGNOSIS OF TRICHINOSIS BY EXAMINATION OF THE BLOOD.

By WILLIAM STUMP, A.M., M.D.,

of Utica, N. Y.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

DR. THAYER'S article on trichinosis, which appeared in the JOURNAL, April 9, 1898 [Vol. I, No. 15], prompts me to report a case in which the diagnosis was made from the blood-examination. There were 3 other cases at the same time that I did not see and that were not diagnosed. The fact that the persons were friends, that they had been eating the same food and that their symptoms were the same, lead me to deem myself justified in making the same diagnosis.

Several friends, Germans, were in the habit of bowling two or three evenings each week and refreshing themselves with beer and bologna sausage. The latter was a domestic produce called "knochwurst," and was eaten both raw and cooked. At about the same time in the latter part of November, '98, all four of the friends were taken ill. One case was diagnosed typhoid, another rheumatism, and the two others something else, probably la grippe.

Case I was in a physician. The diagnosis was typhoid fever. He had diarrhea, fever as high as 103°, and muscular pains; the tongue was heavily coated, red at tip and edges, not tremulous; pulse 120; a very peculiar fetid breath; some edema about cheeks and eyes. The prodromal symptoms were very like typhoid, and once there was a slight nose-bleed.

Blood-examination, December 1, 1898, showed a leukocytosis, the majority of the cells being eosinophiles. No count for relation of whites to reds was made. A differential count in the stained specimen showed eosinophiles 52%, polynuclear neutrophiles 33.4%, small lymphocytes 1.4%, large lymphocytes and transitional forms 13.2%. There were one or two myelocytes. No muscle could be obtained at this time.

The history of the other cases was related to me by No. 1, and I also had the opportunity of seeing two of them several months later. The symptoms were very similar, though one was more severe and two much more mild than No. 1. April 15 the blood of No. 1 was examined again and the differential count gave eosinophiles 15%, polynuclear neutrophiles 48%, small lymphocytes 15%, large lymphocytes and transitional forms 22%. There still were vague muscular pains, though otherwise the patient was well. Diarrhea existed two months after convalescence. A piece of muscle (deltoid) showed areas of marked myositis, but no definite trichinæ were found.

The blood of two other cases was examined at this time and showed in one 11% of eosinophiles, while in the other very few eosinophiles could be found. They refused to give any muscle. The eosinophile granules, I notice, have a tendency to escape from the cell-walls and are often scattered around in the field near a nucleus. They also do not take the stain as well as those found in other blood-smears, normal or pathologic. In view of the great increase of eosinophiles in 2 of the cases, and of the myositis in the excised muscle of one, I think I am justified in making the diagnosis of trichinosis.

THE NECESSITY OF FORCE IN THE TREATMENT OF COLLES' FRACTURE OF THE RADIUS.

By JAMES PORTER FISKE, M.D.,

of New York.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

IN regard to the very interesting paper on Colles' fracture, by Dr. John B. Roberts, of Philadelphia, appearing in the JOURNAL of May 13, I should judge his experience in correcting the work done at your principal hospitals is quite unique.

One case was that of a woman treated at one of your leading hospitals, and 6 weeks later treated by Dr. Roberts. The other case was a woman with injury of 4 weeks' standing treated at a college hospital. The doctor states, "In neither case had the fracture been reduced." By bending the bone across his knee he effected reduction and obtained a satisfactory convalescence in each case. The ease or difficulty of reduction of deformity in this region varies very much. The presence of impaction, slight or complete, the shape of the fragments, as well as their exact relative position, the existence of muscular spasm, and the presence or absence of edema, as well as injury to the soft parts, are all factors. The difficulties of reduction always increase with the age of the injury, so that under the circumstances we must congratulate the doctor upon the success of his operations in this particular.

A clear history of these cases before they reached the hands of Dr. Roberts would be interesting. I have at present a man under my care at the Roosevelt Hospital Dispensary, suffering from fracture of lower end of radius in which for 6 weeks there was no tendency for union, and characterized by a tendency for displacement. I tremble to think what Dr. Roberts' verdict would have been in this case if the patient had turned up at his office for treatment say 6 weeks from time of injury.

Fracture of the lower end of the radius is always a complex affair. The complications of Colles' fracture are many, and the man who thinks he is called upon only to rectify bony displacement deceives himself, and when he gives utterance to such an idea he may deceive others. In the ordinary fracture of the lower end of the radius with displacement we usually have in connection therewith a more or less severe acute traumatic synovitis of the wrist-joint, frequently effusion into the tendon-sheaths (tenosynovitis), sometimes ruptures of their sheaths, often stretching or tearing of the lateral ligaments, and not infrequently fracture of styloid process of the ulnar. And yet we see Dr. Roberts advocating in this somewhat serious condition as rough a method of reduction as it is possible to devise, and, what is more, a method based on absolutely incorrect principles.

We need not consider the use of his "heavy wooden mallet," as this, it seems, is not his favorite method of reduction, but he also advocates "sudden flexion of the wrist, with great pressure upon the back of the lower fragment." One word as to the proper method of reduction in Colles' fracture. First, make hyperextension; secondly, sufficient pressure over lower fragment to replace it; thirdly, place hand in extreme ulnar flexion. This is the method used by most surgeons of my acquaintance, and the one, of which I always make use. In short, Mr. Editor, let us employ scientific manipulation rather than the indiscriminate use of brute force. Surgeons may differ as regards the kind of splint used, but to my mind, after the execution of above maneuvers, the kind of splint is of little importance at first, provided that absolute fixation is maintained.

Let us glance for one moment at one or two of Dr. Roberts' conclusions. He says in short, first, that this is one of the most satisfactory fractures to treat. Allow me to state that this fracture in the young may interfere with bone-growth, and that in adults over 50 the results are frequently unsatisfactory as regards function. We frequently see this injury followed by a rheumatoid condition, especially in elderly women, just as so many injuries to the shoulder in elderly people are followed by a rheumatoid arthritis. Even where perfect reduction is accomplished early, the injury to soft parts and to the joint may be sufficient to prolong convalescence, or even cause permanent loss of function. The doctor may regard this injury as "satisfactory to treat," but I must confess I am somewhat anxious in every case of fracture occurring in close proximity to a joint.

Again, we are told, stiffness of fingers and wristjoint seldom persist after a week. I wish I could say the same in regard to my cases. I will say that in many of my cases stiffness persists for a long time, and is due largely to injuries to soft parts, or to the joint, excess of callous formation, or subperiosteal thickening (traumatic periostitis).

Much more could be said, as Colles' fracture is a pretty big subject, but I feel that I am not justified in taking up more of your valuable space.

CORRECTION.

To the Editor of The Philadelphia Medical Journal:—

May I ask you for a correction? In your issue of June 3, Dr. Boulter quotes me as considering 0.72 grain a large dose of carbolic acid. I never made any such statement. In the paper referred to I said amounts as large as 0.72 *gram* (a little more than 10 grains) or even 3.0 grams had been given in the course of 25 hours. These doses are *hypodermically*; I do not think 10 grains per diem of carbolic acid given by the mouth an excessive dose. I must confess, however, that considering that 15 grains is said to have caused death, I would hesitate about giving, as suggested by Dr. Boulter's letter, 12 grains at a single dose.

Horatio C. Wood, Jr.

THE MORTALITY IN SWITZERLAND FROM ALCOHOLISM.

By F. C. BUSCH, M.D.,

of Berne, Switzerland.

To the Editor of The Philadelphia Medical Journal:—

Sir:—Statistics recently collected from the 15 largest cities of Switzerland, the population of which varies from 12,000 to 163,000, give the yearly average of deaths from all causes for the period of January 1, 1891, to January 1, 1898, as 7,257. Of these, including both sexes, over 20 years of age, there were 465 deaths which were ascribed by the physician in attendance, as certified in the death-certificate, either directly or indirectly to alcoholism. Taking both sexes into consideration, alcoholism, therefore, was the cause of 6.4% of all deaths occurring during this period. The deaths of males alones, between the ages of 20 and 39 inclusive, formed 10.6% of the total death-rate.

The highest percentage of deaths from this cause occurred among males, between the ages of 40 and 59 inclusive, a time when the father is most needed by his dependent family. The percentage rose to 15.57.

For males over 60 years of age, the percentage of the total number of deaths was 5.9.

Alcoholism, as a cause of death, was five times more prevalent among men than among women; 2.3% of all deaths among men over 20 years of age were due to delirium tremens. Statistics just completed for the first three months of 1898 show a percentage from this cause of 15.1% of all deaths. These figures speak for themselves.

They are probably too low, rather than too high, since many diseases which may have been indirectly due to alcoholism could not have this ascribed as a cause of death. Only those cases were recorded in which there was absolutely no doubt, such as delirium tremens, hepatic cirrhosis, etc. Many cases must of necessity have been missed. Even as the figures stand their significance is appalling, and this cause of death is on the increase. The ratio between the consumption of alcohol in the different cities, and alcoholism as a cause of death, is quite constant.

Other Swiss misfortunes are the alarming increase of idiotic and weakminded children, as well as the increase in insanity. According to the last census the inmates of the 20 State asylums numbered 6,164. The population of Switzerland is a little over 3,000,000.

Queen Victoria's Eyesight.—The report that Queen Victoria's eyesight has failed so much of late that operative measures are imminent, though widely circulated and with circumstantial details, is, we are informed, a pure invention.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending June 24, 1899:

Wednesday, June 21—County Medical Society. Business meeting.

Thursday, June 22—Pathological Society.

The Northampton County (Pa.) Medical Society celebrated its fiftieth anniversary in Easton, June 13. Dr. Amos Seip, of Easton, the only survivor of the 22 original members of the organization, read an interesting paper on "Historical Recollections of the Society." Dr. Charles McIntire, of Easton, president of the society, read a sketch, "Physic and Its Practitioners in Old Northampton." At a banquet at the United States Hotel the following toasts were responded to: "Fifty Years of Medical Organization," Dr. Charles McIntire; "Our Parent Society," Dr. W. Murray Weidman, of the Berks County Society, Reading; "Our Daughter Society," Dr. L. H. Taylor, of the Luzerne County Society, Wilkesbarre; "Affiliated Societies," Dr. John B. Roberts, of the Philadelphia County Society; "The Benefit of Clergy," Dr. E. D. Warfield, President of Lafayette College; "Medicine and Law," Russell C. Stewart, Easton; "Education and Medicine," Rev. Gilbert H. Sterling, D.D., of South Bethlehem; "Vade Mecum," C. D. Shaeffer, of the Lehigh County Society, Allentown.

Vital Statistics of Philadelphia for the week ending June 10, 1899:—

Total mortality		478
Children under 5 years of age		141
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis		50
Heart-disease 38, inflammation of the heart 3, fatty degeneration of the heart 2		43
Nephritis 23, uremia 8		31
Pneumonia 24, congestion of the lungs 5		29
Marasmus 10, inanition 14, debility 4		28
Apoplexy 16, paralysis 7, softening of the brain 4		27
Senility		25
Gastroenteritis 13, cholera infantum 11		24
Carcinoma 22, tumor 1		23
Typhoid fever	95	21
Inflammation of the brain 17, congestion of the brain 4		21
Casualties 15, burns and scalds 3		18
Convulsions		18
Diphtheria 12, membranous croup 2	91	14
Sunstroke		10
Cerebrospinal meningitis	6	4
Scarlet fever	45	2
Smallpox	21	
Suicide 7, peritonitis 6, drowned 5, dropsy 5, pertussis 5, cyanosis 4, diarrhea 4, bronchitis 4, abscess 3, diabetes 3, gangrene 3, appendicitis 3, poisoning 3, alcoholism 2, anemia 2, malaria fever 2, tonsillitis 2, teething 2, congestion of the liver 1, puerperal fever 1.		

Philadelphia Obstetrical Society.—At a meeting held June 1, Dr. W. Reynolds Wilson read a paper, **Some remarks on the diagnosis of puerperal septicemia.** The difficulties sometimes experienced in differentiating puerperal septicemia from puerperal mania, pneumonia, typhoid, or malarial fever occurring during the puerperium, were thoroughly discussed. In case of suspected typhoid, the history, character of the tongue, facial expression, the rose-colored spots, with the Widal test, aid in the differentiation. Dependence is largely placed upon physical examination of the chest in pneumonia, although it may be secondary to the puerperal infection. Malarial infection is least confusing. Modern bacteriology has furnished an unerring means of diagnosis. The characteristic rigor and fever, the history of the case, the periodicity of the attack, the enlargement of the spleen, and the malarial cachexia, together with the discovery of the plasmodium in the blood, make the diagnosis certain. Dr. Wilson described Whitridge Williams' method of obtaining cultures from the interior of the uterus uncontaminated by the vaginal or cervical discharges, and spoke upon the value of bacteriologic examination of the lochia in cases of puerperal septicemia.

Dr. Chas. P. Noble reported a case of **malignant disease of the kidney,** possibly an adenocarcinoma, in which nephrectomy had been successfully performed, and commented upon the value of cystoscopy and ureteral catheterization in the diagnosis of renal lesions.

Dr. Noble also read a minute on the death of Dr. Robert P. Harris, an honorary member of the society.

College of Physicians of Philadelphia—Section on Otology and Laryngology.—At a meeting held May 17 there was held a discussion on the **Treatment of chronic empyema of the accessory nasal sinuses.**

Dr. George H. Stout said that this condition was caused chiefly by hypertrophic conditions of the mucous membrane of the nose, which block up the outlets from the sinuses. Polypi are also regarded as frequently causing sinus-disease. Caries of the teeth appears to be a result rather than a cause of antral disease. Traumatism, coryza, and the exanthems are also followed by sinus-disease. Those following la grippe are probably due to rhinitis, rather than to any specific germ. Obstinate cases may be due to the existence of frontal sinusitis draining into the antrum. Inflammation in any of the accessory sinuses may give rise to optic neuritis, diplopia, or optic atrophy. The object of treatment is to secure free drainage and correct the condition of the cavity, by the use of cleansing solutions and the curet if necessary. The operative treatment may be either intranasal or external. The character of the case must decide which is more appropriate. Dr. Joseph S. Gibb said that much confusion has arisen from failure to distinguish between acute and chronic sinus disease; the former yielding to treatment much more readily than the latter. He noted the greater relative frequency of these affections in Europe than here. Cases may arise from either nasal or dental causes. Among the former he ascribed greater influence to atrophic conditions than to hypertrophic. He deprecated the use of the probe in diagnosis; under normal conditions he did not think it possible to introduce a probe into the sphenoid sinus and very rarely into the frontal. In operating upon the antrum, he prefers the combined method in severe cases, making an opening through the inferior meatus of the nose and also from the mouth, through the canine fossa. In frontal sinus disease, he prefers operating by the external method, provided that free drainage cannot be secured through the nose. Dr. Arthur W. Watson believed that most cases have a nasal origin, the hypertrophic conditions more frequently attend sinusitis than atrophic. He condemned the probe in frontal sinus diseases on account of liability to injure the brain. In treatment, he pays particular attention to removal of polypi and thickened tissue from the nose, which prevents drainage. In maxillary sinus-disease, he uses a small crown trephine for making a free opening in the canine fossa. In frontal cases he makes an external incision and uses the curet; if he can obtain free drainage into the nose, he immediately closes the external wound so as to produce less scar. Dr. E. B. Gleason advocated Politzerization with warm medicated vapors after cleansing the nasal chambers. In chronic cases of antrum disease, he makes the opening in the canine fossa large enough for the patient to irrigate the cavity himself daily, with two quarts of boric-acid solution. He thought that atrophic rhinitis is oftener the result than the cause of sinus disease. Dr. George M. Marshall referred to six cases of suppuration in the antrum of Highmore due to disease of the teeth. He considered, however, that most cases had a nasal origin. He advocated free opening, cureting, and packing the cavity with iodoform gauze.

The report of a case of **Syphilitic perichondritis of the auricle** was read by Dr. Francis R. Packard. The paper will appear in a future number of the Journal. Dr. Gleason spoke of a case in which the attack came on after an operation upon the middle ear.

Dr. E. L Vansant read a second paper on the **Hot-air treatment for headache and deafness,** containing the histories of cases reported in his first paper, published in the Journal, Vol. I, p. 842, and adding others. The discussion was participated in by Drs. Watson, Gleason, and Woodbury.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held May 22, Dr. E. W. Day reported two cases of **malignant growth involving the nares.** The first was in a boy of 17 years who was quite anemic from violent epistaxis. The right superior maxilla was excised and a tumor the size of a large egg projecting into the pharynx was removed. Recovery was prompt and uneventful. The growth was probably a sarcoma, but microscopic examination had not been completed. The scond case was in a male adult with severe uncontrolable epistaxis. The antrum was opened, evacuating a quantity of pus and a tumor (carcinoma) the size of a small egg removed. Death from purulent meningitis resulted in 10 days. Tracheotomy was not resorted to in either case, but the anesthetic was given and operation carried out with the head in the hanging posture.

Dr. E. N. Small reported a case with a **luxuriant growth of hair following the use of an ichthyol-petrolatum ointment** ʒj to ℥j for frost-bite of hand. Dr. Miller suggested that this was due to increased blood-supply rather than to the ointment used. Dr. F. F. Simpson reported a case of Dr. X. O. Werder's as follows: A woman of 37 years suffered from gastric disturbance for 4 years. During the last few months symptoms of pyloric obstruction appeared. Examination showed diminished HCl and distention of stomach. At operation a **diverticulum about 2x4 cm. was found at pylorus,** which contained several small concretions and was apparently lined by a continuation of the gastric mucosa. This was removed, the wound in the stomach closed, and a number of adjacent adhesions broken up. The stomach-wall at the point of excision was at least 1 cm. in thickness. The capacity of the stomach was estimated at operation to be about 3 liters. To remedy this gastroplication of the anterior wall was done. The diverticulum removed was shown.

Dr. E. B. Heckel read a paper on the **Mechanical treatment of ptosis.** It is not a common affection, but he had seen 5 cases, and operated on 2. Many plastic operations are advised, but the results are universally bad if sufficient time has elapsed after operation before reporting the case as cured. He had used Pana's operation in the cases operated on, and the ultimate results were unsatisfactory. The only mechanical device he has been able to find mentioned in the literature of the subject is that of a horn spectacle that pushes a horn-blade under the orbital ridge. This is both unsightly and unsatisfactory. The author devised an apparatus,consisting of a flexible piece of gold wire bent to suit the individual case, soldered to the upper margin of an ordinary gold spectacle-frame. It is quickly adjusted, is worn with comfort and satisfaction, and is not irritating. Photographs of patients having worn the device for 2 and 5 years respectively, were shown. In discussion, Dr. J. C. Thompson agreed that Pana's operation does not give satisfactory results. He had seen one person, who had worn the apparatus with great benefit. Another, however, complained that it caused pain and would not wear it. Dr. E. H. Small asked if it was suitable for all cases, where it could be obtained, and what it costs. Dr. Kirk thought that the apparatus would do what is claimed for it. Closing the discussion, Dr. Heckel stated that if the device caused pain, it was not properly adjusted. It is applicable to any case of ptosis. A gold frame is best. The cost is but 30 or 40 cents, and any jeweler can make it in a few minutes, but it must be properly adjusted to suit the case.

Dr. T. J. Elterich read a paper on **Suppurative hepatis,** in which he reported the case of a woman of 37 years, who developed chills and pain in the right side two weeks after an attack of influenza. There was no jaundice and liver was but slightly enlarged. A week later a soft fluctuating tumor appeared in epigastrium which yielded pus on aspiration. The abscess was evacuated and drained. Four weeks after operation the patient developed paralysis of motion of right arm and partial paralysis of leg on same side. Convulsions supervened, affecting chiefly these extremities. Death followed, but an autopsy was refused. In discussion, Dr. Haworth mentioned 3 cases of hepatic abscess, 2 of which were treated as malaria for a time. Dr. F. F. Simpson stated that as a rule these cases are far advanced before they are recognized, and mentioned a case consecutive to an appendicitis as well as a large cyst of the liver in which the microscopical examination of the fluid gave negative results. Dr. Singley stated that although hepatic abscess is considered a rare disease, he had seen 5 cases in three years, one of which had come under observation with a diagnosis of malaria. He thought there was but little excuse for mistaking these cases for malaria when the detection of the plasmodium in the blood is such a simple matter; and that the presence of leukocytosis was of material benefit in arriving at a correct diagnosis and in differentiating hepatic abscess in its early stages from typhoid fever. Closing the discussion, Dr. Elterich stated that he could not account for the abscess in his case unless it was due to Pfeiffer's bacillus. The hemiplegia was probably a metastatic abscess due to an infectious embolus, although cerebral hemorrhage was possible.

NEW YORK.

Dr. John McG. Woodbury, of New York, lately Chief Division Surgeon of Volunteers, United States Army, and Acting-Surgeon of the Army in the Field, at this time clinical professor of orthopedic surgery in the Cornell University Medical Department, has been designated a commissioner on behalf of the United States of America for the purpose of observing and reporting upon the medico-military organization of the German army in active operation during the Autumn maneuvers.

The New York Board of Health and Its New Quarters.—The new quarters of the department are much further up-town, in a neighborhood more ready of access to physicians, at the corner of 55th Street and 6th Avenue, a large building in the neighborhood of many large hospitals, and in the district consecrated to medicine by the Academy of Medicine, and within easy touch of many eminent practitioners. These are considerations which actuated Colonel Murphy, the President of the Department, in the selection of the new quarters. It is generally expected that, by reason of the more advantageous situation, the department will be brought into more intimate relations with the general profession.

Christian Science and Other Medical Charlatans.—Recent events have stimulated the activity of the Department of Health in the line of correcting irregularities of medical practice. There were reported at practically the same time cases of death under the so-called Christian-science treatment, and other cases of death in which the treatment consisted of charms and incantations. As soon as these facts were made patent from the reports of the coroners, the officers of the department took immediate action, with very valuable results. The Christian Scientists continue to oppose a solid front to the officials, and it will probably be necessary to bring at least a test-case into court; but the charm-doctors, and those who heal by what the Germans call "folk-medicine," have become very much alarmed, and it is now difficult to find any who will confess to the practice of such methods. This in itself is a very important victory, and a very difficult one to win in a community such as New York, which contains a large element of the more ignorant Europeans.

NEW ENGLAND.

General Vaccination in Massachusetts.—Owing to the appearance of smallpox in a number of Massachusetts cities during the last few months, a general vaccination has been recommended by the State Board of Health.

Boston's Baths. — June 15, 37 free bathing-places were opened in Boston. In 30 of these places, there are accommodations for both men and women: 5 are for men only; 2 for women only. The Board of Health fixed a late date for the opening of the bathing-season, because of the unseasonable coldness of the water.

Boston City Hospital.—The Boston City Hospital during the past year treated 10,913 patients, of which 3,926 were medical, 3,494 surgical, 558 gynecologic; ophthalmic, 107; aural, 146; contagious, 1,775; convalescents, 419. The weekly cost per patient in the general hospital was $11, an increase of $1.16 over the previous year. The cost in the contagious wards was $9.48. Paying patients contributed $87,742. The entire amount expended for all purposes was $387,527.

Censors' Examination of the Massachusetts Medical Society—Correction.—Dr. Francis W. Goss, recording secretary of the Massachusetts Medical Society, writes:

"On page 1082 of the Journal of May 20, 1899, in a note regarding the Censors' examination for admission to the Massachusetts Medical Society, the statement is made: In the oral work the standard varies greatly in different districts, in Boston being quite severe, and in many other places perfunctory. This is inaccurate and grossly unfair. So far from being 'perfunctory,' the oral examination in most of the districts is fully as severe as in Boston (the Suffolk district)."

Harvard College of Comparative Medicine.—This will be an institution under which the different medical departments of the university—the Harvard Medical School, the Harvard Veterinary School, and the Harvard Dental College—are to be coordinated. The corporation of Harvard has set aside $300,000, including a portion of the munificent gift of the late Henry L. Pierce, to erect and carry on a laboratory for research on these lines. The chair of comparative pathology has been endowed already from the fund given by George Fabyan, and that of comparative physiology from the Pierce fund, and the necessary endowments for laboratories of comparative physiology and pathology have also been made from the Pierce fund, so that the only immediate needs unprovided for are an endowment of the chair of comparative anatomy and for the erection of a hospital for animals. It is estimated that $100,000 will be required for this purpose, and circulars have been sent out asking for public subscriptions for this amount.

Boston's Pure-Milk Law.—Boston's new milk law went into effect June 1. The design of the regulation is to protect the places where milk is produced and where it is sold. The producers are reached either directly, when they market their own milk, or indirectly through the milk contractors. When either party applies for a license they must tell where their milk comes from, and certify that the cows have been examined within a year, and that the milk is not stored or handled in a place where either horses or cows are kept. The storekeepers must have a covered icebox for their milk; they cannot let the can set out on a block or counter, or keep it in a room that is used for general living or sleeping purposes. If inspection shows any signs of uncleanliness, the milk is refused. Milk-peddlers cannot keep their milk in the same place where they do their horses, and must put it in a refrigerator which is properly drained and trapped. The regulations regarding infectious diseases is especially stringent. If there is any case of scarlet fever, diphtheria, or typhoid fever, for example, in the family of any farmer, milk-peddler, or storekeeper, the milk they have cannot be sold in Boston. Already 391 licenses have been granted to milk-wagons, 1,473 to stores, and applications have been received from 2,768 producers, or farmers, which will be examined as soon as it can be done.

CHICAGO AND WESTERN STATES.

Correction.—Dr. Richard Dewey, of Wauwatosa, Wis., writes: "In the notice in your current number of the meeting in New York of the American Medico-Psychological Association, the account of the papers read does an injustice to me in stating that I had recommended in my paper on 'Contagion and Infection,' in insanity and degeneracy, that judicial measures should be taken for ending the lives of the incurably insane. (I have not your Journal with me or the MS. of my paper so as to quote *verbatim.*)

"It would be scarcely necessary to inform any one familiar with these matters that I have never advocated such measures as are mentioned above. The substance of my paper in this regard was this: I proposed to inquire or examine the question *whether* it were practicable to inaugurate legislation whereby electrocution, or 'euthanasia' in any form, castration and other remedies so often discussed and proposed by theorists of various sorts, could be introduced. The distinct conclusion of my paper, however, was that all such measures were at present impracticable. Please make this correction."

Cleveland Medical Society.—At the meeting held May 26 Dr. W. E. Wirt showed cases of **white swelling of the knee** treated by first straightening the joint by means of a device of his own design. In tuberculous inflammation of the knee the joint is held in its flexed position by the spasm of the muscles, and when the limb is pulled straight the tibia is found to be posterior to the line of the femur. The reporter's brace was designed to meet this difficulty and keep the bones in line. By its use he has restored joints to usefulness without resection. He also showed a case of **syphilitic synovitis of the knee** which was being treated by placing the joint in a hot-air apparatus for 40 minutes every day, following which mercurial ointment was being well rubbed in. A caliper hip-brace with long plaster splint was applied to secure fixation and permit the patient to attend to his business during the continuance of the treatment.

Dr. W. F. Brokaw exhibited a specimen of **anencephalic monster** which he had delivered a woman of that morning. Out of 8 births the woman had one other with a deformed head, strabismus, and partial idiocy. This monster is well developed except for deficiency of the calvarium. It lived for an hour.

Dr. C. J. Aldrich presented a case of **locomotor ataxia** with ataxic gait, loss of knee-jerk, loss of control of sphincters, Argyll-Robertson pupil, and some rarer symptoms. There was almost complete double recurrent laryngeal paralysis causing "hour-glass" contraction of the glottis and very husky voice. There was also very marked hyperesthesia of the trunk so that the touch of a camel's-hair brush gave pain. Preceding the establishment of his lightning pains this man has a fixed pain for some time upon the anterior surface of his wrist. Lastly the man has a very marked intention-tremor of the arms.

Dr. C. A. Hamann read a scholarly paper upon Ludwig's angina, reporting a number of cases seen by himself. In the discussion Dr. Aldrich recalled a case of multiple neuritis following Ludwig's angina, which was probably due to diphtheric infection of the cellular tissue of the neck. Dr. W. T. Howard had made cultures from the pus obtained from two of these cases and in each the **staphylococcus aureus** was found. He had seen at necropsy a case with false membrane on the pharynx and tonsils, and the whole of the neck filled with pus in which the same organism was the only one found. General septicemia had caused death.

Dr. J. M. Ingersoll read a paper upon **Benign neoplasms of the larynx.** Dr. A. F. House showed specimens—two **pus-tubes** and a **cystic ovary**—and gave a report of the case. Dr. L. B. Tuckerman exhibited a modification of the ordinary **male cystoscope,** designed to avoid the frequent accident of the instrument catching by its point at the junction of the pendulous and membranous urethra. The instrument is longer than that ordinarily in use and the obturator has its point on a level with the upper surface of the tube.

Chicago Medical Society.—At a meeting held May 31, Dr. A. H. Burr exhibited a patient and a skiagram showing the effects of a **monarthritis of hip-joint complicating typhoid fever.** He referred to the rarity of the complication. W. W Keen, in his recent work on "The Surgical Treatment of the Complications and Sequels of Typhoid Fever," based on an analysis of 1,700 cases, found only 84 cases of monarthritis, over half of which, or 43, resulted in spontaneous dislocations, 40 being of the hip joint. As a rule this complication in typhoid is attended by little pain and may be overlooked even though dislocation has already taken place. In this case, however, pain was sudden in onset, during the height of the typhoid attack very severe and persistent, requiring opiates for some time. The condition may readily be mistaken for tuberculous hip-joint, but the sudden onset without trauma and absence of trophic changes in the muscles later, with little or no tenderness or pain in the joint itself, is differentiative. It may be mistaken for spontaneous dislocation, which does occur in over half of these cases in typhoid, and is met with in other acute infectious fevers. In this case the shortening of the right limb is more apparent than real. There is prominence of the trochanter major, slight flexion, and internal rotation, adduction, and before manipulations, very limited motion. The skiagram shows the head of the femur in its socket, but there are nodular bony thickenings of the upper rim of the acetabulum and also about the head at the line of the capsule junction. The angle of the neck with the shaft is lessened a little and the neck is thickened and shortened to some extent. The patient was 2 or 3 years of age at time of typhoid attack. Was treated by extension weights and pulley after convalescence. Was able to go about on crutches after a few months, which she discarded after 5 or 6 months more, but motion remained so limited that she could only flex the thigh sufficiently to place the foot on the lowest round of a chair. The right foot could not be advanced in going up-stairs. Reflected pains down the thigh to the knee and foot were persistent and always aggravated by unusual exercise in walking or standing. Treatment 2 years later by forcible manipulations of the thigh in abduction, flexion, and rotation under suggestive anesthesia, has relieved the pain entirely and increased motion so that she can walk up stairs naturally and flex the thigh sufficiently to place the foot on the edge of a table while standing. Ability to endure exercise has been greatly increased. Roller-skating, which before treatment was impossible, became a favorite pastime.

Drs. Owens and Eisendrath and Mr. Ready exhibited specimens and read a short report of a case of **blastomycetic dermatitis.** This case was represented by an ulceration seven by nine inches, the center of which was reddish and soft, and in the periphery many papillomatous nodules. Sections of the latter showed microscopically the structure of an epithelioma, or rather prolongations of the epithelial tissue into the deeper layers of the skin, which joined each other and formed cell-nests similar to an epithelioma. The corium was densely infiltrated with leukocytes and contained also a large number of giant-cells. In the epidermis there were a number of miliary abscesses. The organisms were found in all stages of development within the latter, and also within the many giant-cells of the corium. The exact structure of these has been described by other authors. They all had a dark-staining central body and a clearer, more transparent outer zone. Pure cultures of the organism were obtained and shown at the meeting. The clinical history was that of an ulceration of 4½ years' duration on the left thigh, which gradually healed at the center and spread out at the periphery. There was no enlargement of the inguinal glands, and the growth only extended down to the subcutaneous adipose tissue, thus speaking against its malignant character. This case can be regarded as another proof of the existence in a human being of diseases of the skin caused by yeast-cells.

Dr. J. Holinger read a paper on **Speaking deaf and dumb.** He said that a certain number of deaf-mutes are born deaf-mutes. They very often suffer from other defects of the highest functions of the brain, imbecility, or idiocy, etc. Acquired deaf-mutism may be due to some affection of the nervous parts of the ear, the labyrinth or the acoustic nerve or some more central lesion. The history in these cases is typical. The patients suffer in early childhood from some infectious disease, scarlet fever, meningitis, with a period of total unconsciousness. After waking up they are discovered to have completely lost their hearing. The number of these cases as well as of the congenital deaf-mutes will hardly ever be diminished, but it is in our power to diminish the number of those whose deafness is due to some disease of the middle-ear, suppurations or simple inflammations, which only secondarily and much later involve the labyrinth. By carefully looking after each case of suppuration and instructing the general public in these matters we can save many who are now crippled by ignorance of the parents and neglect of the physician.

SOUTHERN STATES.

Complimentary Dinner to Dr. Kinyoun.—On May 20, a dinner was given to Dr. J. J. Kinyoun on the occasion of his departure for San Francisco, Cal., by members of the medical profession of Washington, D. C., as a mark of esteem and in recognition of his professional attainments and public services. Dr. J. Tabor Johnson acted as toastmaster, and the following toasts were responded to: "Bacteriologist and Pathologist," by Dr. W. W. Johnston; "Sanitarian," by Dr. W. C. Woodward; "Relation to the General Practitioner," by Dr. I. S. Stone; and "Director of the Hygienic Laboratory," by Dr. G. M. Kober. Surgeon-General Sternberg made the closing speech.

MISCELLANY.

Obituary.—Dr. Alfonso Ramos, director of the Government Bacteriologic Laboratory of Brazil.—Dr. Richard B. Westnedge, assistant surgeon, U. S. Army, from Iowa, in Manila, Philippine Islands, June 10, of typhoid fever.—Dr. Lawrence Swan Woodhull, Brooklyn, N. Y., June 8.—Dr. Maria C. Douglass, for years a missionary in India for the American Baptist Mission Society, Philadelphia, June 8, aged 63 years.—Dr. John B. McCloskey, Mill Hall, Clinton Co., Pa., June 12, aged 54 years.

Changes in the Medical Corps of the U. S. Army.

Sweeney, John S., hospital steward, now at Old Fort Spokane, will proceed to Boise Barracks for duty.

Dutcher, First Lieutenant Basil H., assistant surgeon, will proceed to Fort Riley as a medical member of a board to conduct the physical examination of the veterinary surgeon of the Sixth Cavalry.

The following transfers are made:

Sill, Harry A., hospital steward, Watertown Arsenal, Mass., will be sent to San Juan, P. R., for assignment to duty.

Siebert, Max, hospital steward, Fort Niagara to Watertown Arsenal, Mass., for duty.

Kneedler, Major William L., brigade-surgeon, the order which directs him to be relieved from duty at Pinar del Rio, Cuba, and return to his proper station, West Point, is suspended until July 1.

Egan, Captain Peter R., assistant surgeon, will report to Colonel Dallas Bache, assistant surgeon, president of the examining board at the Army Medical Museum Building, Washington, D. C., for examination for promotion.

Howard, Captain Deane C., assistant surgeon, is detailed as a member of the examining board at Governor's Island, vice Major James P. Kimball, surgeon, relieved.

Waterhouse, First Lieutenant Samuel M., assistant surgeon, is relieved from further duty at the U. S. Army General Hospital, Savannah, Ga., and will proceed to Governor's Island for assignment to duty at Fort Wood, N. Y.

Rafferty, Captain Ogden, assistant surgeon, will report to the commanding officer, Nineteenth Infantry, Camp Meade, Pa., for duty, to accompany that regiment to Manila, P. I.

Stone, First Lieutenant John H., assistant surgeon, will proceed from Leavenworth, Kan., to New York City, and report by telegraph to the Adjutant-General of the Army for further orders.

A board of medical officers is appointed to meet at the Presidio, June 3, for the purpose of examining all recruits for service in the Philippine Islands, now at that post or who may hereafter arrive there, with a view of eliminating such as may be found physically disqualified. Detail: Major Edward B. Moseley, surgeon; Charles N. Barney, acting assistant surgeon; Edwin P. Hayward, acting assistant surgeon.

De Loffre, Major Augustus A., surgeon, having been found by an army retiring board incapacitated for active service on account of disability incident thereto, his retirement from active service June 8, under section 1251, R. S., is announced.

Lippincott, Lieutenant-Colonel Henry, district surgeon-general, chief surgeon of the department of the Colorado, is granted leave for 15 days.

Munn, Major Curtis E., surgeon, will continue as acting chief surgeon of the department, during the absence on leave of Lieutenant-Colonel Henry Lippincott, district surgeon-general, upon completion of which Surgeon Munn will join his proper station.

Changes in the U. S. Marine-Hospital Service, for the seven days ended June 8, 1899:

Wasdin, Eugene, surgeon, to proceed to Washington, D. C., to render report as member of a commission detailed by the President for the scientific investigation of the cause of yellow fever. June 3.

Geddings, H. D., passed assistant surgeon, to proceed to Washington, D. C., to render report as member of a commission detailed by the President for the scientific investigation of the cause of yellow fever. June 3.

Corput, G. M., assistant surgeon, to proceed to Macon, Ga., for special temporary duty. June 3.

Gahn, Henry, hospital steward and chemist, to proceed to New York, N. Y., for special temporary duty. June 8.

Newbern, Walter, hospital steward, to proceed to the Tortugas Quarantine Station and report to medical officer in temporary charge, for duty and assignment to quarters. June 8.

APPOINTMENTS.

Slaughter, A. W., of Wisconsin, to be acting assistant surgeon U. S. Marine Hospital Service, for duty at Green Bay, Wis. May 29.

Changes in the Medical Corps of the U. S. Navy, for the week ending June 9, 1899:

Crawford, C. A., assistant surgeon, detached from the "Peoria," when put out of commission, and ordered to the "Wabash."

Fitts, H. B., surgeon, detached from the Naval Hospital, Portsmouth, N. H., and ordered to the Marine Barracks, Sitka, Alaska.

DeValin, C. M., passed assistant surgeon, ordered to the Naval Hospital, Portsmouth, N. H.

Decker, C. J., surgeon, promoted to surgeon from December 12, 1898.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service during the week ended June 10, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
Alabama:	Mobile	May 31–June 3 . .	2	1
California:	Los Angeles . .	May 27	1	
District of Columbia:	Washington . .	June 3–4	3	
Florida:	Jacksonville . .	May 27	1	
Georgia:	Savannah . . .	May 29–June 6 . .	10	
Indiana:	Evansville . . .	June 3	5	
Kentucky:	Louisville . . .	June 1	9	
Louisiana:	Jalnerette . . .	June 3	1	
"	Shreveport . .	June 3	2	
Maryland:	Baltimore . . .	June 3	2	
Massachus'ts:	Boston	June 7	2	
"	Fall River . . .	From outbreak to June 3	18	
"	Swampscott . .	May 31–June 3 . .	2	2
Minnesota:	Minneapolis . .	June 3	2	
Missouri:	St. Louis	May 29–June 5 . .	8	
Nebraska:	Omaha	May 29	1	
New York:	New York . . .	May 29–June 3 . .		15
North Carolina:	Charlotte . . .	May 31		1
Ohio:	Columbus . . .	June 3	13	
"	Massillon . . .	June 3	1	
Oklahoma:	Oklahoma City	June 1	1	
Porto Rico:	Ponce	May 17	1	
Rhode Island:	Providence . .	June 3	1	
Virginia:	Newport News .	May 31–June 8 . .	2	
"	Norfolk	May 31–June 8 . .	6	1
"	Portsmouth . .	May 31–June 8 . .	3	

SMALLPOX—FOREIGN.

			Cases.	Deaths.
Belgium:	Antwerp . . .	May 8–28	11	6
Brazil:	Rio de Janeiro .	April 1–7		5
England:	Liverpool . . .	May 6–13	1	
"	London	May 6–13		1
"	"	May 13–20	1	1
Greece:	Athens	May 13–20	23	9
India:	Bombay	April 25–May 2 . .		3
"	Calcutta	April 22–29		1
"	Madras	April 29–May 5 . .		1
Mexico:	Chihuahua . .	May 13–27		3
"	Mexico	May 21–28	14	8
Nicaragua:	Bluefields . . .	May 8–15	1	
"	" . . .	May 20–27	1	
Russia:	Odessa	May 13–20	11	2
Turkey:	Beirut	April 29–May 6 . .	1	
"	Constantinople	May 1–15		4

CHOLERA.

			Cases.	Deaths.
India:	Bombay	April 25–May 2 . .		3
"	Calcutta	April 22–29	23	23
"	Madras	April 29–May 5 . .		2

YELLOW FEVER.

			Cases.	Deaths.
Brazil:	Rio de Janeiro .	April 1–7	35	22
Cuba:	Puerto Principe	June 5	1 among U. S. Troops.	
Mexico:	Cordaha	May 29	Repor.	present.
"	Vera Cruz . . .	May 13–20	68	26

PLAGUE.

			Cases.	Deaths.
Arabia:	Muscat	April 12	2	
Egypt:	Alexandria . .	May 22	2	
India:	Bombay	April 25–May 2 . .		323
"	Calcutta	April 22–29		107
Japan:	Formosa, Taichu	From outbreak to date	1484	1076
"	Tainan			
"	Taipeh			
"	Tamsui	April 12–26		289

Foreign News and Notes.

GREAT BRITAIN.

The late Dr. Norman Kerr, whose death occurred at Hastings on the evening of May 30, was a tower of strength to the temperance cause. A fluent speaker, an indefatigable worker, and a very real believer in the vast category of evils attributed to inebriety, he spent his life in imploring others to share his views. Dr. Norman Kerr had a masterly and convincing way of dealing with statistics. He published some thirty volumes upon the subject of inebriety in different aspects, and also contributed numerous articles to medical and lay journals. He was president of the Society for the Study of Inebriety, chairman of the Inebriate Legislative Committee of the British Medical Association, and corresponding secretary of the American Association for the Cure of Inebriety.

Dr. W. G. Grace is probably the most popular physician in England at the present day, for is he not, at the age of 51, the captain of the England cricket eleven against Australia? Only those who have played first-class cricket will realize exactly what this means, but all can understand that the position is a singular one for a man approaching the less enviable limit of middle age. The quickness of eye, the suppleness of joint, the precision of action that go to make up the first-class cricketer, are but rarely met with in men over 35 years of age; but if Dr. Grace has not all his quondam suppleness he has every other necessary quality to make him the most dangerous man on his side. He has himself attributed the extraordinary prolongation of his youth to his resolve to live always in accordance with the simple rules of health that his profession has taught him.

The Society of Members of the Royal College of Surgeons of England is a small but active association, having for its one main object the maintenance of the rights of the members of the college which are in their opinion (and in the opinion of others) too often set aside by the council, which is the governing body of the corporation. A meeting of the committee of this society was held on May 30 to consider the proposal of the college council to apply for a supplementary charter in celebration of the centenary of the granting of the original charter in 1800. We have already noticed this proposal in the Philadelphia Medical Journal, and our correspondent's views and comments seem to be identical with the aims of the Society of Members of the Royal College of Surgeons of England, for the opinion was generally expressed at the meeting that the centenary celebration would afford the council a good opportunity for doing justice to their members by granting them a voice in the management of their own affairs.

The Abolition of Old Burial Crypts.—Another great disturbance has taken place owing to the resolve on the part of the enlightened of the London community to empty the vaults of their old churches and bury the contents where the bodies will be no source of inconvenience or danger to the living. Dr. W. A. Bond, the Medical Officer of Health of St. Olave's, a Southwark parish south of the Thames, acting under the direction or with the sanction of the Bishop of Southwark, cleared the human remains from St. Thomas' Church, Southwark. The St. Olave's Board of Works, the sanitary authority, whose employee the Medical Officer of Health technically is, were so annoyed at his taking this step that they suspended him from his duties, the scope of which it is not at all clear that he has exceeded. The complaint of the Board was not so much that the Medical Officer of Health's action was wrong, as that it was impertinent of him to take any steps without warning them. To this Dr. Bond replied that he acted by the Bishop's order, and that secrecy had been observed because of the sentimentality of the public, who were apt to lose sight of the health of the living in their anxiety about the bones of the dead. Most medical men will approve the course taken by the Medical Officer of Health, who is a most competent sanitarian as well as a distinguished mathematician.

The General Medical Council began its sixty-seventh session May 30, under the presidency of Sir William Turner, who, by the way, is earning golden opinions by his firm and shrewd conduct of business. There is a very full program of subjects for discussion, but early in the session one which most obviously invited lengthy speeches was shelved. This subject was introduced to the Council as a motion "to add to the number of direct representatives for England and Wales." The Council, it may be remembered, is constituted very elaborately. Each of the recognized universities and corporations granting medical degrees and diplomas qualifying their possessors to a place on the Medical Register of the Kingdom, send one representative, and the Crown sends five. In addition the medical practitioners of the United Kingdom send five, one for Ireland, one for Scotland, and three for England and Wales. These gentlemen are elected by the members of the medical profession whose names are on the Medical Register, that is they are chosen by a plébiscite of the medical profession; their term of service is for five years, and they are known as the Direct Representatives. They are supposed, being the popular choice of the rank and file of the profession, to be peculiarly in touch with general professional wants, and to be on the alert to resist any acts of aggrandizement on the part of the universities and corporations. Of late years many matters of great interest to the general practitioners of the country—for example, the action of medical aid societies towards their medical officers and the proposed registration of midwives—have played prominent parts in medical politics, and as a consequence the office of a Direct Representative has been by no means a sinecure. The act under which the General Medical Council is constituted provides for increased direct representation when it is required, and the motion brought forward in the Council on the second day's sitting asked the Council to admit that the time had now arrived when such increased direct representation should be secured for England and Wales. The motion was proposed by Mr. George Brown, seconded by Mr. Victor Horsley, and supported by Dr. Glover—these three gentlemen being the three present Direct Representatives for England and Wales—but in the opinion of the Council no increase was required in their number. The motion was rejected by 21 votes to 7, after a debate of great affability all round. There are those on the Council who like the principle of direct representation, and those who do not; and it is clear that the result of the voting may please both sides. For it can be taken to mean either that the work of the present five Direct Representatives is such that no more persons like them are desirable on the Council, or that their efficiency is such that no more are needful.

Honors for Physiology.—Every year, on, or approximately on, her birthday, Queen Victoria selects certain of her subjects for titular distinction. It was expected that the occasion of her eightieth birthday would be signalized by a profuse distribution of knighthoods and baronetcies, but exactly the opposite has taken place. The list of honors is a short one, and to this extent perfunctory, that it is largely made up of official advancements in the various orders. Only one medical man is included in the list, Mr. William Mitchell Banks, of Liverpool, who now becomes Sir William Mitchell Banks. This knighthood is not only a very proper reward for a long career ably spent in surgery, but it is a recognition of the rise in fame of the Liverpool School of Medicine. This school is now much before the public, it has plenty of money, learned professors, great prestige, and a promising future. In the bringing of all this about, Sir William Mitchell Banks had a great hand, and there is no doubt that his title comes to a certain extent as an acknowledgment of his past ungrudging services to his city and her medical students. Physiology is more distinctly honored in the Queen's list than surgery or medicine, for of the other three men of scientific position who have been remembered two are physiologists, viz., Professor Burdon-Sanderson and Professor Michael Foster; the third being Mr. Preece, the electrician to the Post Office. Professor Burdon-Sanderson, though now a professor of medicine, is a physiologist rather than a physician, and as Waynflete professor of physiology in the University of Oxford, did work which reflected glory upon his *alma mater* and which is now rewarded by a baronetcy. Professor Michael Foster is of course the well-known professor of physiology at the sister University of Cambridge, the secretary of the Royal Society, and the author of the most widely read textbook on his subject. Alike as a learned teacher, a successful literary man and an immensely energetic official, he has thoroughly deserved his star as a K.C.B. Sir Michael Foster is the president-elect for the year of the British Association for the Advancement of Science.

CONTINENTAL EUROPE.

Of the 486 foreign matriculates in the medical schools of Paris, only one is from the United States.

Obituary.—DR. EZEQUIEL CORREIA DOS SANTOS, formerly professor of pharmacology in the Faculty of Medicine of Rio Janeiro.—DR. ALPHONSE CHARPENTIER, professor agrégé in the Faculty of Medicine of Paris, aged 63 years.—DR. I. MOYER, formerly professor of anatomy and physiology in the Academy of Medicine of Geneva.—DR. A. ZIEGLER, surgeon-general of the Swiss Army.—DR. JOAO BAPTISTA DE SALE OLIVEIRA, demonstrator of forensic medicine in the University of Bahia, and author of important works on anthropology and other scientific subjects.—DR. CAPDEVILLA Y JERREZ, formerly professor of medicine in the University of Madrid.—DR. M. W. AF SCHULTEN, professor of surgery in the University of Helsingfors.

An Encapsulated Streptococcus in Acute Septicemia.—From advance sheets of the *Archives de Médecine experimentale et d'Anatomie pathologique*, we are enabled to give the following abstract of an article by Dr. A. le Roy des Barres, surgeon to the St. Denis Hospital, and Dr. M. Weinberg, formerly interne in the St. Denis Hospital, Paris:

The presence of an encapsulated streptococcus, in either the human or animal economy, and the lesions produced by this microbe, have been but rarely observed. A monograph by Babes, appearing in 1895, contained a study of encapsulated microbes; but brief notice was given to encapsulated streptococcus, or rather diplo-streptococcus. Drs. Tavel and Krumbein published (1894-95, *Annales Suisses des Sciences Medicales*) a note upon encapsuled streptococcus. These authors had isolated the microbe in question from the contents of a vesicle that had formed upon the finger of a child of 2 years; at this same time the child was suffering with an attack of pneumonia. The capsule of this microbe remains uncolored when the ordinary stains are employed, but is soon put in evidence by the process of "mondancage." This streptococcus presents some very peculiar biological properties; it is almost purely erobic; at first it coagulates milk, but cultures aged 6 months lose this property completely. The virulence is very slight, for it is neither pathogenic for the guineapig or the rabbit (so sensible to the streptococcus). After injections of cultures no local abscess is found. Dr. R. Binagli described (1897) an encapsulated streptococcus, isolated from pus, found in the trachea of a guineapig that had died during the purulent period of bronchopneumonia; in this case the observer found the diplococcus and streptococcus in short chains (4 to 6 elements) contained in one capsule; the capsule in this case was stained with carbolized fuchsin. Two guineapigs inoculated, one under the skin and the other in the peritoneal cavity, with this pus, both succumbed with bronchopneumonia 4 days after inoculation; diffuse edema was observed in the region of inoculation. The investigations of this author come to a period after these first experiments; for after sowing in the different culture mediums the blood of these animals, and scrapings from the subcutaneous tissue in the neighborhood of the point of inoculation, no colony of microbes was observed. Mr. Bordet has seen the formation of areola around chainlets of streptococci, in the peritoneal cavity of rabbits inoculated with a streptococcus, which in cultures presented no areola. We have observed, personally, in the surgical service of l'Hôpital de Saint Denis, a case of acute septicemia caused by an encapsulated streptococcus of equine origin and extreme virulence. We have believed this matter interesting enough to give in detail the results of our researches, experimental and bacteriological.

Clinical Observations.—Ch. G., aged 40, occupation, knacker (horse-killer), presented himself at the outdoor department of l'Hôpital de Saint Denis, Tuesday, September 27, 1898, at 9 A.M. The patient exhibited upon the external surface of the right elbow a small ulcer, about the size of a 10-cent piece. The edges were gray and irregular; around this slight lesion the skin was red, edematous, and hard; the forearm and hand were slightly edematous. The patient stated that on Saturday, that is to say, 3 days before, he had received a slight scratch while cutting up a horse. The horse had died suddenly in the public street. Inquiry relative to the horse revealed the fact that it had belonged to a merchant of the Faubourg de Saint Denis, and without any previous warnings had been taken suddenly ill with colic, and after suffering 10 minutes, died. The antecedents of the horse were perfectly healthy, and 3 other horses lodged in the same stable were free from disease. The patient was warned of the serious nature of his wound, but in spite of all advice departed after a simple dressing; however, in the afternoon of the same day, seeing the edema increasing, the patient returned to the hospital and was immediately admitted. Evening temperature, 39° C. Was quite restless during the night. September 28.—The hand, forearm, and arm very edematous, in the region of the wound vesicles began to appear; the edema had reached the shoulder and thorax. Temperature, 38° C. The general condition of the patient was not alarming; he complained of no pain. Observing the rapid progress of the edema, the patient was anesthetized and deep incisions, with the thermocautery, were made in the arm and forearm; these incisions gave issue to a quantity of thin, dark-colored serum. Several incisions were made in the shoulder and thorax, with the same result. During the operation, scrapings from the subcutaneous tissue were taken, also a quantity of the discharge, and the contents of several vesicles, for bacteriologic examination. In the afternoon the patient became very much agitated; the edema extended over the greater part of the trunk. In spite of all possible care the patient died at 1 A.M. the morning following the operation. It is remarkable that the temperature at 4 P.M. was only 39.8° C., at 9 P.M. 39° C., and at midnight 36.6° C. The urine was examined several times and showed neither albumin nor sugar. A postmortem, performed 24 hours after the patient's death, revealed practically nothing. The brain was slightly congested. There was no hemorrhagic liquid either in the pericardium or peritoneal cavity. Samples of blood from the heart, scrapings from the liver and spleen, were taken for examination.

Bacteriologic Examination.—The liquid from the vesicle, and that collected during the operation, contained no microbes; but the scrapings from the subcutaneous tissue, the blood, and the scrapings from the liver and spleen (taken at the postmortem) showed the streptococcus encapsuled.

Bouillon Ascitic.—($\frac{1}{3}$ ascitic serum, $\frac{2}{3}$ bouillon peptonized.) Our streptococcus grows very well in this medium; in 4 to 5 hours it produces a slight cloudiness, which in 24 hours settles in a thick flake in the bottom of the tube.

Bouillon.—Does not grow so well in this medium as in the ascitic bouillon.

Gelatin.—The growth is very slow. It does not liquefy the gelatin.

Agar Agar.—In this medium the growth is good; the colonies appear like drops of dew.

Milk.—Complete coagulation after 48 hours.

Potatoes.—Development slow.

Our streptococcus is faculative, aerobic, and possesses great vitality. It colors by all the stains. It takes the Gram. The capsule, however, always remains uncolored. Reviewing the above, it will be observed that our microbe comports itself like a streptococcus. Notwithstanding these striking analogies, we were not yet satisfied to pronounce this a true streptococcus, for Drs. Vaillard and Netter, in an oral communication, stated that they had encountered some very rare specimens of pneumococcus that grew in long chainlets, upon the various culture-mediums; therefore, to prove absolutely that we were dealing with a streptococcus, we resorted to "serum-therapy," that is to say, we undertook a series of experiments to see if the serum of Marmorek would preserve rabbits against the infection caused by our microbe.

First Experiment.—Three rabbits that had received for 3 consecutive days, an injection of 6 cc. of antistreptococcic-serum, were inoculated under the skin with $\frac{1}{40}$ cc. of our streptococcus (in bouillon ascitic, aged 24 hours), at the same time two other rabbits, *not* protected, were inoculated with $\frac{1}{40}$ cc. The two witnesses died, one in 19 hours and the other in 22 hours after inoculation. Cultures from the blood of these rabbits showed the streptococcus. Of the three immunized rabbits, one died 7 days after inoculation; its blood gave a culture of spontaneous septicemia (a disease peculiar to the rabbit). The other rabbits are still living.

Second Experiment.—Two rabbits, immunized as described above, were inoculated with $\frac{1}{40}$ cc. of a culture in "bouillon-ascitic" of our streptococcus. Two other rabbits, nonimmunized, received at the same time $\frac{1}{40}$ cc. The witnesses died in 36 hours; their blood gave cultures of the "streptococcus encapsuled." Of the two immunized animals, one died in 8 days after inoculation; its blood gave cultures of spontaneous septicemia. The other is still living. These experiments have appeared to us as conclusive evidence that our microbe is a true streptococcus. Dr. Marmorek has recently shown that the streptococcus will not grow in the same medium from which it has been filtered; but many other microbes will grow in a culture of streptococcus after it has been passed through a Chamberland tube. We have proved that our streptococcus will act in a similar manner. In passing, we desire to call attention to Dr. Equet's observation, wherein he states that "after transplanting a streptococcus 13 successive times in cultures of glycerin-agar, the streptococcus lost its chain-like form and appeared like a staphylococcus." A repetition of this experiment with our streptococcus caused no change in its biological character. The final conclusion of our work leads to a therapeutic indication: In a case of acute septicemia, similar to that of our patient, and when in the liquid of the edema or in the scrapings from the subcutaneous tissue an encapsuled streptococcus is observed, it then follows that the most rational mode of treatment would be the immediate use of the antistreptococcic serum.

Society Reports.

THE AMERICAN MEDICAL ASSOCIATION.

Fiftieth Annual Meeting, held at Columbus, Ohio, June 6, 7, 8, 9, 1899.

(Special report for the Philadelphia Medical Journal.)

(Continued from page 1278.)

General Session.

Third Day.

Report of the Trustees.—The trustees reported that the resolution made by Dr. Bailey, of Louisville, Ky., to the effect that a Grand Secretary be elected for the association, had been referred to their board inasmuch as it involved the expenditure of money. This resolution had received the most serious and careful consideration, and while the trustees felt convinced that a radical change in the manner of conducting the secretary's office was demanded, they preferred as a substitute, and so recommended, that the editor of the journal of the association should serve as the secretary without additional compensation. It was explained that in this way, without additional expense, the business of the association could be carried on more promptly and satisfactorily. This report of the trustees was adopted by the association.

Revision of By-laws.—A committee of three was appointed by the president of the association to arrange and codify the different articles and sections of the constitution and by-laws, and to see that the same were published before the next annual meeting.

National Department of Health.—The committee reported that it had worked industriously for the furtherance of the Spooner bill, which had been indorsed by the association, and that as this same bill had received, in addition, such hearty support in various other quarters, there was good reason for believing that success was near at hand.

In regard to the resignation of **Dr. Albert L. Gihon** the following resolutions were adopted :

Whereas, Dr. Albert L. Gihon has resigned the position which he has so long and acceptably filled on the Rush Monument Committee,

Resolved, That the Association accepts this resignation with extreme reluctance and regret, and tenders its sincere thanks for the manner in which he has discharged the duties of this onerous office;

Resolved, That this action be spread on the minutes, and that a copy of the same be sent to Dr. Gihon.

Recommendations in the President's Address.—The Executive Committee reported on the suggestions contained in the address. It advised against having a permanent place of meeting for the association, and against having, for the present at least, a traveling secretary. The association indorsed the recommendation of this committee, that in the future the custom should no longer be countenanced of holding clinics for the benefit of the association, thus interfering with the regular sessions.

Control of Tuberculosis.—In the matter of the control of tuberculosis, the committee recommended, and the association adopted, the following preamble and resolutions :

Whereas, From carefully prepared statistics it is found that of the deaths from all causes between the ages of 50 and 60 years, one-third result from tuberculosis, and that 1 in 50 persons has this disease; and

Whereas, Competent authorities claim that under proper treatment one-fifth to one-fourth of those affected with tuberculosis may be cured; and

Whereas, European governments are actively engaged in stamping out the disease while the United States have done nothing;

Therefore Resolved, That the President appoint a committee of five, with power to add to their number, who shall prepare a report on the nature of tuberculosis; its communicability and prevention; the more effectual means of controling its dissemination; the advisability of establishing National and State sanatoria, etc.;

Resolved, That the report shall be presented to the Congress of the United States and the Legislatures of the various States of the Union, urging upon them that proper measures be taken.

Vaccination.—In connection with this matter the association adopted unanimously, at the suggestion of the Executive Committee, the following :

Whereas, Smallpox was one of the most dreaded scourges of the earth prior to the general adoption of vaccination,

Resolved, That the American Medical Association strongly urges the adoption by local boards of health of laws requiring compulsory vaccination, and deprecates in the strongest way the efforts of those who are endeavoring to secure the abolition of compulsory vaccination; and

Resolved, That a copy of these resolutions be sent to every health-board in the country.

The Spread of Syphilis.—The executive committee was of the opinion that the president's suggestion on this topic would be best carried out by referring the matter to the International Congress to be held in Brussels next September. It was so referred.

Oration on Medicine.—Dr. J. C. Wilson, of Philadelphia, delivered this address. (See page 1289, Philadelphia Medical Journal, June 10.)

Hospitals and Hospital-Ships.—Surgeon-General Sternberg described with the aid of numerous lantern-slides the United States hospitals and hospital-ships now in service. Incidentally he made clear his position regarding the employment of women as military nurses. It was simply that he was thoroughly in favor of their employment in division and field-hospitals, but objected to their presence in the camps and with moving bodies of troops.

Fourth Day.

Dr. I. N. Love, of St. Louis, moved that part of the report of the Executive Committee providing for the printing of a list of the members of the Association in conjunction with the revised constitution and by-laws be eliminated, explaining that the Board of Trustees was of the opinion that this would be detrimental to the interests of the Association. After considerable discussion, the motion was laid on the table, and the announcement was made that the list of members would be published triennially, as heretofore in the *Journal*, but not in pamphlet form.

The Association adopted the suggestion of the Executive Committee, that action should be taken looking to securing an appropriation from the United States Government to meet the necessary expenses of the delegation to the Congress for the Prevention of Syphilis and the Venereal Diseases, to be held in Brussels, Belgium, September next.

The following resolution was adopted at the suggestion of the Executive Committee :

Resolved, That no paper shall be placed on record for the consideration of any Section unless an abstract of not less than 50 or more than 300 words accompanies the title, and is placed in the hands of the Chairman or Secretary of the Section at least 30 days before the time of meeting of the Section.

Another resolution was passed, prohibiting in future the printing of the name of any author on the program unless the title of his paper was also announced. It was stated that in the present program there were about 30 names without the titles of papers.

On motion of Dr. C. E. Ruth, of Iowa, a vote of thanks was extended to Dr. Atkinson for his long, faithful, and efficient services as secretary.

Dr. George M. Gould, of Philadelphia, reported on behalf of the Committee on Prize Competition for Meritorious Scientific Work that no essay had been received which, in the opinion of the committee, was worthy of the prize. The report was accepted and the committee continued.

The following proposed amendment to the Code of Ethics, by Dr. Q. C. Smith, of Austin, Tex., was read :

To amend paragraph 9, Article 4,

Resolved, That attending physicians are entitled to charge a consultation fee for each consultation in addition to visit fee, equal in amount to that ordinarily charged in similar cases by consulting physicians residing in the same city, locality or community where the service may be rendered.

Action was deferred for one year.

After some further routine business, the Association adjourned.

Section on the Practice of Medicine.

Third Day.

In a paper by Dr. George Boody, of Independence, Ia., on **Two epidemics of typhoid fever in the Iowa Hospital for the Insane** the author concludes that cases of inverted typhoid fever are comparatively rare. In two epidemics recently reported it occurred but once in 43 cases. Of the patients recovering from the aforesaid epidemics, 25% showed marked improvement in nutrition and muscular strength, while the remainder only reached their former condition, which it seems is a peculiarity in insane patients. Those who improved mentally showed a corresponding improvement in nutrition, which when the mentality returned to normal was remarkable. The author presents these cases as examples of the influence of the mind over nutrition and assimilation. Of the cases reported nearly 17%, all (afflicted with dementia) improved mentally but seemed to relapse, except in one case in which the improvement was somewhat prolonged; nearly 3% (afflicted with melancholia) made partial recovery, 5½% regained their former mental status.

A quarter of a century's experience with typhoid fever, with special reference to some unsettled problems, was the title of a paper by Dr. Jas. L. Taylor, of Wheelersburg, Ohio. The author presents a contrast between accredited scientific opinions concerning typhoid fever as advocated formerly, and those generally received today; how typhoid has displaced marsh fevers; different epidemics characterized by different types of the disease; the varying forms of typhoid; can the radically different types assumed in different epidemics depend on identic causes? Points of similarity between epidemics of typhoid and those of cerebrospinal meningitis; greater severity of former typhoid epidemics; propagation of certain typhoid epidemics sometimes toward the source of streams instead of toward their mouth; in farming districts typhoid spreads without any possible dependence on water-supply; role of Eberth's bacillus—some confusing effects of bacteriologic research; practical value of Widal's and other tests; an anomalous form of typhoid occurring since the influenza visitation of 1889; what points are of most value in determining prognosis.

In his paper on **A new bath facilitating hydrotherapy in private practice,** Dr. Alfred C. Haven, of Lake Forest, Ill., gave a brief history of hydrotherapy with the reasons for its use and prejudices against it. He has devised a new bath for use in private practice which consists of a canvas strap encircling the headboard of the bed, the ends of the canvas belt fastened by a simple catch so that the belt can be drawn taut. Another canvas belt of similar design is applied to the footboard, there are two rings in each canvas strip 26 inches apart, the water is contained in a rubber sheet, hemmed at both sides, in which slip ropes containing 4 snaps on their ends. The patient is rolled on the sheet, the snaps are caught in the rings and the tub is ready for the water. It is emptied by lowering one corner and completing by a rubber hose syphon. In his judgment such a portable apparatus leaves the practitioner no excuse for neglecting such a potent therapeutic means as hydrotherapy.

Dr. L. B. Roush, of New Haven, W. Va, read a paper on **Therapeutic principles in the treatment of typhoid fever,** in which he stated that he considers that certain agents have a somewhat specific influence in lessening the serious effects of typhoid fever. He prefers to institute a moderately free catharsis, especially with calomel, although other cathartics may be used. The course is continued for the first 6 or 8 days and changes the character of the stool; by it the toxemia is in a measure prevented and the symptoms greatly mitigated. In the further progress of the disease ammonium or sodium salicylate is given in solution of 5-grain doses every two hours, day and night, throughout the course of the fever, unless the evening temperature falls below 102°, when the medicine is discontinued during the night. Sponging with water is necessary, the temperature of which he regulates according to the patient's feelings. Water and fruit-juices should be freely administered; by far the best means of nourishment is milk, although it does not always agree with the patient. He believes that in most cases properly treated patients should get up rather than use the bedpan. Tympanites is considered evidence of continued multiplication of the typhoid bacilli and every effort should be made to avoid it. Catharsis strychnin internally and turpentine stupes externally are to be preferred. The author claims that with his methods of treatment he has only had a mortality of 3½% in 143 cases.

Dr. E. C. Brush, of Zanesville, O., read a paper on **The use of acetanilid in typhoid fever.** The cases reported are those of soldiers sent home last August and September from Camp Geo. H. Thomas, Chickamauga, Ga. They were treated in the Zanesville hospital. The only antipyretic used was acetanilid. The rule in using acetanilid was to give 3 grains every 2 hours when the temperature reached 101°. As soon as the temperature fell below 101°, the acetanilid was discontinued. Usually the patient would perspire and the temperature drop from 1 to 2 degrees after the second dose. A third consecutive dose was not needed often. The shortest course of the fever was 24 days, the longest 35, with an average of 30 days. Only one case was fatal, death occurring in the fourth week from intestinal hemorrhage. In discussion, Dr. Witherspoon, of Nashville, said that he believed that in Tennessee the fever is of different type, the temperature coming on suddenly without any period of incubation, accompanied with great prostration, the skin being moist rather than dry. There is general abdominal tenderness, the scaphoid belly and constipation rather than a mushy diarrhea, the fever runs a rather low and favorable course, there is no enlargement of the spleen or liver and the nervous symptoms are those of mild mania. He did not agree in the belief of the efficacy of purging and considered repeated administration of large doses of calomel very bad treatment on account of the risk of increased inflammation and ulceration of the intestine, the purge encouraging a rapid slough. The danger in the disease is from the toxic effect on the nervous system. The Brand treatment not only lowers the temperature but acts as a nerve-tonic; acetanilid and other coal-tar derivatives are not safe on account of their effect on the vital resisting power of the patient. Dr. Mills, of Illinois, said that he has been in the habit for many years of treating typhoid with turpentine emulsion and the other methods laid down by the late George B. Wood, of Philadelphia. He believes that very often there was a combination of typhoid and malaria, both of which must be treated to insure success. Dr. Crook, of Tennessee, remarked that his treatment of typhoid fever was directed along the principles of caring for septic wound, namely: drainage and antiseptics. Dr. Bishop, of New York, believes that the employment of cold baths eliminated the toxins; he expressed his belief that an efficacious antitoxin was not far distant.

Dr. Charles G. Stockton, of Buffalo, N. Y., read a paper entitled, **Accidental or spurious albuminuria.** He grouped under this heading those cases in which the albumin finds its way into the urine from the pelvis of the kidneys, ureters, bladder and genitalia. He dwelt upon the importance of considering the possibility of accidental albuminuria, and further said that the urine in such cases should be frequently and carefully studied to make sure that the infection was not invading the true kidney-structure.

The next number on the program was a paper by Dr. C. W. Purdy, of Chicago, entitled, **The quantitative and qualitative estimation of albuminuria.** This essay was read by Dr. A. R. Elliott, of Chicago. The author considered the gravimetric method, Tanret's titration method, with a double iodid of mercury and potassium, with mercuric chlorid as an indicator; the time-reaction of Brandberg; the differential density method of Lang, Hoebler and Bernhardt; Esbach's volumetric method and his own centrifugal method, giving both volumetric and gravimetric percentages, with error not exceeding .02%. His method consists in the following steps: precipitation of the albumin in carefully graduated percentage-tubes of 10 cc. of urine by means of 2 cc. of 50% acetic acid and 3 cc. of 1 to 10 aqueous solution of potassium cyanid; after mingling the urine and reagents, the tube should stand for 10 minutes to insure precipitation of the albumin; at the end of 10 minutes the percentage-tubes are placed in a centrifugal machine, the radius of which, with the tubes in position, must be exactly 6¾ inches. The tubes should be revolved for exactly 3 minutes at a uniform speed of 1,500 revolutions per minute; the tubes are next removed, and the amount of albumin is read off in bulk-percentage, which, by the aid of an accompanying chart, may be quickly converted into percentage by weight and fluidounce. In discussion, Dr. Elliott, of Chicago, remarked that cases of nephritis, unaccompanied by albumin in the urine, occurred more frequently than is generally supposed. He referred to albuminuria accompanying gastrointestinal disturbances, probably of toxemic origin, which caused an irritation of the renal cells and other secreting structures of that organ. In such cases, the urine is of high specific gravity, and throws down acid elements. He spoke favorably of Dr. Purdy's method. Dr. H. B. Favill, of Chicago, spoke of the importance of this subject in life-insurance examination. Albumin may be absent in positively nephritic persons, and certain other signs should be remembered in determining the diagnosis. When albumin appears in the urine, a microscopical examination should be made to determine whether the origin is renal. Again, albuminuria may be transitory, and not an evidence of disease; he had seen large amounts of albumin and casts in cases of apparent nephritis disappear. In such cases there was a coincidence of a large amount of indican, probably the results of blood-changes.

The following papers were read by title: **Some of the ways in which x-rays assist in medical diagnosis,** by Dr. F. H. Williams, of Boston, Mass.; **The treatment of the abdominal viscera through the colon,** by Dr. Fenton B. Turck, of Chicago; **The application of the centrifuge to the examination of feces,** by Dr. C. D. Spivak, of Denver, Col.; **The changes and diseases peculiar to old age,** by Dr. J. W. Bell, of Minneapolis, Minn., and **Rheumatism: its etiology, pathology, and treatment,** by Dr. A. A. Young, of Newark, N. Y.

Dr. Charles G. Stockton, of Buffalo, read a paper on **Cholecystitis.** In this interesting paper the author called attention (1) in a large number of postmortem examinations, gallstones are found without the history of jaundice, hepatic colic or other liver disturbances; (2) in persons who have died from biliary obstruction there have been found occasionally no calculi in the biliary ducts, but one or two of great size in the gallbladder, quite too large to engage in the cystic ducts; (3) obstruction of the biliary passages is not infrequently complete without the presence of gallstones; (4) a calculus is sometimes found in the common duct without jaundice, colic or other symptoms of obstruction; (5) when gallstones are found, either postmortem or during other operations, and there have been recent symptoms of hepatic colic and jaundice, whenever they have been searched for, evidences have been found of cholecystitis, angiocholitis, or both. These observations seem to show that gallstones may be an innocent tenant of the gallbladder; that attacks of colic may occur when gallstones are absent, or if present too large to engage; that an inflammatory process of the biliary passages is in some way related to attacks of biliary colic. Operative procedure has for its object the cure of the cholecystosis. Undoubtedly in a certain proportion of these cases the inflammation includes the dangerous complications of angiocholitis, hepatic abscess, and peritonitis, which by the intervention of surgical procedures might have been prevented. However, even in cases in which operation is demanded, a carefully considered plan of treatment should be applied, not only to assist in recovery, but to prevent recurrences. In discussion, Dr. Favill, of Chicago, reported a case in which diagnosis of a calculus in the common duct was made and the patient operated upon, no stone was found, but a small nodule in the head of the pancreas had caused the obstruction. The speaker did not believe that the distressing symptoms were always the result of obstruction, and in substantiation related a case which presented all the symptoms of stone in the common duct but jaundice. After many months the patient died and postmortem there was not found any stone, the symptoms probably being due to infection. He quoted a somewhat similar case under his observation in St. Luke's Hospital, and dwelt upon the fact that physicians should dissociate the colic and icterus, the latter of which he maintained was mechanical.

The value of the tuberculin-test in the diagnosis of tuberculosis, was the title of a paper by Dr. Edward O. Otis, of Boston, Mass. In this paper the following conclusions are summarized: (1) The tuberculin test indicates early tuberculosis by a general reaction before it can be detected by other methods, with the exception, possibly, of the Röntgen rays. In the majority of cases, doses of from 5 to 10 mgs. of Koch's original tuberculin are sufficient. (2) In these doses no injurious effects occur. (3) Established tuberculosis may fail to give a general reaction from doses of from 10 to 12 mgs. (4) A similar reaction is given by syphilis in an undetermined proportion of cases. (5) There is a dose not definitely settled with which a nontuberculous person may react or simulate a reaction. (6) The reaction may be deferred from 6 to 24 hours. The author formulates the following rules to be observed in making the test: (1) always use the same tuberculin of a standard strength; (2) employ strict asepsis in the injection; (3) make the injections deep into the muscles of the back, arm, or leg; (4) beginning 24 hours before the injection, a record of the temperature should be kept every 2, 3, or 4 hours; (5) the test should not be repeated until several days have elapsed; (6) the general reaction may be depended upon in early cases, but in late established cases, if the general reaction fails, we should look for the local.

In a paper, **A further report on the use of antiphthisic serum (TR.) in tuberculosis (Fisch),** by Dr. A. Mansfield Holmes, of Denver, the author remarks that in well-advanced cases the serum invariably causes a rise in temperature within from 3 to 6 hours. A more or less extensive infiltration of the injection-areas occurs after prolonged use of the serum. A depressing effect is produced which is relieved by a short period of rest, usually within two or three days the lymphatic glands become tender and enlarged. He considered the advantages of the tuberculin-test twofold: (1) It serves as a reliable means of estimating the degree of convalescence; (2) it serves as a safe and positive means of diagnosis when the bacilli are not found. He believes that the study of the blood-count is of as great if not greater importance in diagnosis than examination of the sputum. During the good effects of the serum there is an increase of the lymphocytes of the blood. On the contrary, in rapidly declining cases of tuberculosis there is a progressive diminution in the percentage.

Our consumptives: where to send them, was the title of the paper read by Dr. J. F. Connell, of Las Cruces, N. M. The author considered it a great error to send patients to high altitudes when there was fibrosis or fibroid phthisis; such cases should live in moderate altitudes, or even on the sea-level. He called attention to Southern New Mexico, where there is an altitude of 3,800 feet, a valley surrounded and sheltered by mountains, with a rainfall averaging less than 8 inches; sunshine 348 days in the year, and a winter that possesses all the necessary qualifications of the climate.

Some statistics upon serotherapy in tuberculosis, with report of 106 cases so treated in 1898, combined with a favorable climate, and with strict supervision of the patient, was the title of a paper read by Dr. C. P. Ambler, of Asheville, N. C., in which the author claims that the use of the antistreptococcic serum, in conjunction with the antitubercle serum, has proved but of little use in his hands. The antitubercle serum is indicated in the incipient cases; it is contraindicated in cases of miliary tuberculosis and in cases of extensive softening, high pulse, marked emaciation, or decidedly hereditary history. The injections should not be used when the temperature passes a higher point than 101 degrees daily. A summary of 106 unclassified cases is as follows: Cough and expectoration disappeared in 36% and diminished in 78%; the bacilli disappeared in 46% and decreased in 64%; the physical signs improved in 84%; the weight improved in 87%; the vital capacity in 92%; the temperature and pulse became normal in 72%; the average time treated was 4.9 months; the average amount of serum used, 77 cc.; apparently cured, with no relapse, 39%; great improvement in 29%; stationary, 6.6%; worse, 10%; died, 1.8%. He concluded that, while serum-therapy is still in its experimental state, the results obtained, in incipient cases, justifies its continued employment.

Dr. A. F. Lempke, of Chicago, reported **cases of tuberculosis treated with nitrogen gas.** In discussion, Dr. Edson, of Denver, called attention to the importance of early diagnosis. He laid stress upon the general depression of health without obvious causes, the patient progressively losing weight and feeling below par. In such cases, an afternoon rise in temperature should be specially watched. He believed that the early stages of tuberculosis were often treated for malaria, and he cautioned against sending patients with pronounced pneumonic infiltration to high altitudes. Dr. Minor, of Asheville, agreed with Dr. Edson, and also emphasized the importance of prophylaxis, which few patients seemed to thoroughly understand; exercises of the respiratory powers of the chest he considered useful. He dwelt upon individualism as a factor, and had confidence in the serum-treatment when used as an adjuvant. Dr. Allen, of Missouri, and Dr. Paquin, of Asheville, N. C., also discussed papers. In closing, Dr. McConnell remarked that, in the early diagnosis of tuberculosis, potassium iodid in small doses is of service, as, after the administration of this drug, evidences of inflammation could be found by auscultation which are not present without its use.

In a paper entitled **The diagnosis and treatment of thoracic effusions,** by Dr. Louis Faugères Bishop, of New York, the author briefly outlined the results of an elaborate study of thoracic effusions, undertaken with a view to establish the importance of careful search for fluid in pulmonary conditions and in the necessity of early mechanical intervention. Serous effusion may be due to increase of exudation or deficiency of drainage. The importance of the fluid depends upon its amount, its mechanical aspect, its quality, and how the patient tolerates it. Pus should be treated surgically. The diagnosis of thoracic effusion was considered at length, and the importance of exploratory puncture emphasized, as the classical signs are not to be relied upon. Physicians should carry a sterilized needle in a small bottle of absolute alcohol and reserve it for the particular use of exploratory puncture. He recommended a large Dieulafoy aspirator. He illustrated the importance of free paracentesis, and illustrated by fatal cases the danger of allowing even a small amount of fluid to remain in the chest. Sudden death from pleurisy with effusion may result occasionally from reflex nervous inhibition of the heart, similar to the temporary hemiplegia that sometimes occurs when the pleural cavity has been irrigated after empyema. Dr. Webster, of Chicago, briefly discussed this paper.

The last paper read was by Dr. J. E. Gilcreest, of Gainesville, Tenn., on **La grippe.** The author claimed there was no specific treatment for influenza. To allay the pain and soreness he used rest and free elimination from the emunctories; he at first gave calomel with sodium bicarbonate in doses large enough to cause free evacuations; he found that acetanilid or phenacetin, alone or in combination with Dover's powder, useful; for muscular pains he employed sodium salicylate. Complications and relapses must be especially guarded against.

Adjourned.

Section on Surgery and Anatomy.

Third Day.

Dr. A. F. House, of Cleveland, O., read a paper on **Surgical treatment of acute peritonitis.** He believed that death from peritonitis was due rather to rapid intoxication than to inflammation. He recommended making exploratory incision in peritonitis. Early diagnosis is most important and operation should be performed just as soon as the diagnosis is made. The bacillus coli communis, derived from the intestinal tract, is the usual infection. Symptoms demanding immediate operation are, general abdominal pain referred to the umbilicus, tenderness on pressure, early rigidity of the abdominal muscles, vomiting of a green substance, distention of the abdomen, pulse thready, weak and rapid, and diminished peristalsis. The operation should consist of three incisions, thorough irrigation of the peritoneum with normal salt-solution and drainage by strips of gauze. If the intestines are greatly distended, they should be punctured or incised and their contents evacuated. Dr. A. J. Ochsner, of Chicago, opened the discussion. He said, This paper of Dr. House's is certainly one of the most important subjects we have discussed during this meeting, and it should be discussed thoroughly. The danger from general septic peritonitis, from which patients die, I think is very analogous to the condition from which patients used to die, when surgeons were in the habit of emptying a greatly distended septic bladder; the patient would die within 48 hours from what was supposed to be acute nephritis, but what in fact was a very acute sepsis. I am willing to say this—if the septic material in the intestine is stopped, if that patient is not treated medically, if he receives absolutely no medicine, and absolutely nothing that will be found to make more microbes in the intestinal canal, that patient in almost every case will get well. I see dozens of these cases in this condition. I stop the feeding absolutely; I do not give them enough milk or gruel or broth to kill them, because that will increase the amount of septic material in the abdominal canal. If the patient has stercoraceous vomiting, I wash out the stomach. He endorses rectal feeding. Dr. J. B. Murphy, of Chicago, followed in discussion. He said, in part: "The important factors I believe in peritonitis are, first, the diagnosis. When does a patient get a peritonitis? When does he get a general peritonitis? And can you recognize that he has a general peritonitis or a local peritonitis that is extending along and is going to become a general peritonitis? The important matter in connection with general peritonitis, as I look on it, is the type of infection. What is the character of the infection? What is the course of that type of infection after the peritoneal surface has been inoculated? We know from experience and opening the peritoneal cavity that contains a large quantity of pus that patients get well. We know from experience that cases with small quantity of pus opened and drained will be fatal; we know from experience that when we see a peritoneal cavity, when the peritoneum is not blistered, when the peritoneum retains its gloss, regardless of the quantity of pus, that the patient in a large majority of cases recovers; we know from experience when we open the peritoneal cavity, regardless of the quantity of pus, that patients with a blistered peritoneum—that is, when the intestine has lost its gloss—the patients will die. We must go back to the type of infection. I believe from cultures we have made from these cases that the blistered cases are of the streptococcus type; I believe again that a large quantity of pus-cases are of some other kind—I speak of the pathologic condition when you open the peritoneal cavity. If the peritoneum is blistered, I do not recall a single case that has not been fatal. Where the peritoneum has not been blistered, many, many of them have recovered. I believe all cases of general peritonitis should be treated in the early stage. I believe the diagnosis should be made on pain, tenderness, nausea, vomiting, temperature, distention—and this is not an early symptom, it is the last of the symptoms; it may not be present; you should not wait for collapse or shock; collapse is practically a fatal condition. Dr. Branham, of Baltimore, also joined in the discussion. Dr. McRae, of Atlanta, Ga., stated that he had collected, recently, statistics of 601 cases of septic peritonitis, subjected to surgical intervention with a mortality of 79+%. They were all treated surgically, and these results are better than can be obtained by other measures. Dr. Porter, of Fort Wayne, then took part in the discussion. Dr. Brown, of Illinois, arose at this juncture and said: "As a representative of the country doctor, who is a listener probably more than anything else, I want to say that this discussion, like every other surgical method in treating disease, leads one to believe that our surgical friends, Drs. Ochsner and Murphy, are getting on two sides of the question, when in reality they are not. The story I am reminded of is that of the student who was questioned by the professor concerning the treatment of a certain difficulty, as to what he would do—he would do this and that and the other thing. 'If you didn't succeed then,' asked the professor, 'what would you do?' He replied, 'I would send for you!' The country doctor cannot send for Dr. Ochsner and Dr. Murphy. I should be compelled to sent for both of them, because they have two kinds of treatment. This treatment of cases of peritonitis is simply a matter of the individual case. When Dr. Ochsner goes to the bedside of a patient he will treat that individual cases as he finds it, not as you discuss it here before these gentlemen. Dr. Murphy will do exactly the same thing. I know the treatment of Dr. Ochsner of depriving the patient of all nourishment is a good thing, but whether it will do all he says, I am willing to wait to see." Dr. Moore, of Indianapolis, closed the discussion.

A paper on **Temporary ligation of the common carotid artery during removal of large tumors about the face, with report of a case,** was read by Dr. Joseph J. Branham, of Baltimore. He reported a case of large sarcoma of the face and temporal region; excision; hemorrhage controled by temporary closures of the common carotid artery by means of a compress and ligature. After operation the patient was up on the fifth day and out of the hospital on the eighth. The most important thing in connection with the case was the manner of controling the hemorrhage during the operation; the size and position of the growth made excessive hemorrhage inevitable on attempting its removal.

Dr. F. C. Schaefer, of Chicago, read a paper on **Goiter, anatomy, pathology, and treatment.** He reported 7 cases, 6 of them representing the past year's operative work for goiter, and the other of a large goiter and exophthalmos. He said that there were 2 remedial agents that loom up so prominently before the profession that it might be of interest to name them: first, the product of the thyroid gland, and second the chemically pure iodin—the former of recent introduction; the latter having been used empirically, locally, and internally for many years. In discussion, Dr. Wahrer, of Ft. Madison, Ia., said that he had a patient, a young lady, 24 years of age, feeble, with a large unilateral right-sided goiter, as large as a hen's egg. He gave her 25 grains of the desiccated thyroid daily, divided into 5 doses, with the catophoric application of potassium iodid. The case was treated with marked success. With the continuous use of these remedies, the growth disappeared within 5 weeks. In reply to the discusser's question as to the cause of its rapid disappearance, Dr. Schaefer said he thought it was due to stimulation by absorption. The paper was further discussed by Dr. Levings, of Milwaukee.

Dr. R. C. Dugan, of Eyota, Minn., read a paper on **Emergency surgery with especial reference to work in the homes of the poor.** Discussed by Dr. Brown, Ill., Dr. Lawless, Toledo, Dr. Rosenthal, Mo.

Dr. J. B. Murphy, of Chicago, read a paper on **Intestinal fistulæ.** It was very important to the surgeon, it was annoying, it taxed his ingenuity; as a rule it is the result of the surgeon's work. Bone is the most common cause of fistulas; next is mural strangulation. He divided fistulas as follows: *Intentional*—artificial anus (permanent); artificial anus (temporary); laceration of intestine; impairment of wall; division with scalpel or scissors; forceps, ligature, drainage-tube and packing; injuries in parturition; curetment through perforation of uterus. *Accidental*—Criminal abortion, vaginal intestinal perforations, failure of union after enterectomy or enterorrhaphy. In discussion, Dr. L. Crile, of Cleveland, asked what disposition, if any, he undertakes to make of fistula due to tuberculosis of the bowel. Dr. Murphy replied, resection of the bowel, and recited a case reported by Dr. Körte, in which he operated something like 8 times, removing a large portion of the ileum, all of the ascending and a portion of the transverse colon, and finally made an end-to-end anastomosis so as to sidetrack the intestine involved, removing it, and was successful in curing his patient.

In a paper on **Surgical treatment of abscess of the lung,** Dr. D. L. Fairchild, of Clinton, Ia., said, pneumonia is now generally recognized to be an infectious inflammation of the lungs, due, in the majority of cases, to the influence of the diplococcus pneumonia of Fränkel. The disease pursues generally a well-defined course, marked by certain pathologic changes, once in about 50 cases; it is said that the pathologic changes result in the formation of abscess. Among the complications may be found consolidation of the lung, hydrothorax, empyema, or abscess. An abscess of the lung is a much more dangerous condition than an empyema, on account of the difficulty of surgical drainage. He reported 2 cases: One in a man weighing 250 pounds, who was attacked with croupous pneumonia two months previously. After operation patient made a rapid and uninterrupted recovery. The other was a case of a young man who had passed through a rather severe attack of pneumonia. Result, uninterrupted and rapid recovery. He recommended puncture of the suspected area by means of an aspirating needle; if pus is found it should be evacuated by free incision, resecting a rib, if necessary, to obtain sufficient drainage. He did not approve of irrigation, owing to the resulting distressing irritation of the lung. Discussed by Dr. Levings, of Milwaukee, who advised the use of a short exploratory needle. Dr. Murphy, of Chicago, spoke of the ease of operating for abscess of the lung with pleural adhesions.

Some of the rare forms of hernia and their radical treatment was the title of a paper by Dr. R. Harvey Reed, of Rock Springs, Wyo., who spoke of gastric, umbilical, ventral, and labial hernia. He desired to show (1) that all cicatricial tissue must be completely removed; (2) that the most perfect apposition of the separated parts must be secured; (3) that strong, flexible, thoroughly sterilized and absorbable animal tissue should be used for subcutaneous sutures, and that nonabsorbable, thoroughly sterilized suture should be used for approximating the integument; (4) that great care should be taken to avoid the possibility of necrosis by shutting off the normal bloodsupply, and thus not only preventing the absorption of the animal structures, but eventually causing the breaking-down of the adjacent structures, thus deprived of their normal bloodsupply, which is bound to complicate the case. After having tried different kinds of animal tissues, prepared by different methods for subcutaneous suture, I have obtained the best results from pyoktanin catgut, which I have prepared by my chief nurse under my personal direction. For over two years I have purchased my catgut in the raw form from a firm in New York, which experience has taught me furnished most excellent and reliable form of catgut. Prepared first by immersion in ether for not less than 4 days, then wound on glass spools and immersed in solution of 1 : 1000 of pyoktanin in absolute alcohol, after which the jar containing the alcohol-solution of pyoktanin with the catgut is sterilized for one hour under pressure. Objection to other methods of sterilization is the overhardening of the animal tissues.

Dr. McRae, of Atlanta, reported a case of **diaphragmatic hernia** which he operated, the result of a stab, penetrating the chest and diaphragm; the other was that of a negro woman who gave the history of having severe attacks of constipation for several years, resulting in obstruction.

Dr. Marcy, of Boston, spoke of the **infundibular process in the normal development of the male subject in hernia;** he reviewed diagrammatically the anatomy of hernia, with especial reference to the cord. He laid claim to the originality of the Bassini operation. Bassini does not claim to have made a single operation until 1884, while Dr. Marcy claims to have made contributions to this technic as far back as 1870. Speaking of the operation he said: "It makes no matter whose name it has, but I claim that the name be given to the nation whence the operation had its origin!" The material is nonessential, only it must be aseptic and absorbable, and when you have gained these two points you ought to have perfect union. Dr. Freeman, of Denver, mentioned a case of hernia of the diaphragm, produced by a gunshot wound, seeming only to penetrate the skin, but examination revealed a large opening in the chest-wall, large enough to admit a fist. Patient died of internal hemorrhage. Dr. Kelly, of Baltimore, urged the propriety of considering American claims in the matter of priority of originality in technic. He said that he used the nonabsorbable sutures. When it comes to transplantation of the cord in hernia, getting rid of the weak point in the wall, I want all these gentlemen here to speak, not of the Bassini operation, but of the Halsted operation. If you will take a little bit of trouble and consult the records, you will see that Dr. Halsted's publication antedated that of Bassini.

Dr. Lord, of Omaha, reported a case of **umbilical hernia** in a patient weighing 300 pounds, who had had repeated pregnancies, the last of which resulted in twins. There were two large hernia, one the size of a Bartlett pear and the other the size of an ordinary hen's egg, between the umbilicus and the ensiform cartilage. I do not recall ever seeing in my researches reference to an umbilical hernia of this kind. Dr. Ballard, of Louisville, thought that the curved incision offered some points of advantage. Dr. Warner, of Columbus, urged the early operation of hernia. Dr. Manley, of New York, thought the keynote to the situation was that the operation for the so-called cure of reducible hernia ought to be the simplest. Dr. Milliken, of Texas, thought that the silver-wire suture solved the problem. Dr. Moore, of Minneapolis, wished to bear testimony to the fact that multiple ventral hernias occurred above the umbilicus. Dr. Ochsner discounted the idea of priority of claims to operations, and thought that the important point was a radical operation, and "not to fool away any time about this man and that man." Dr. Ruth, of Keokuk, said that despite all care he had taken with absorbable and nonabsorbable material, he had a great deal of trouble occasionally with infection. Dr. Murphy, of Chicago, reported a **method of closing an opening in diaphragmatic hernia in the case of a bullet-wound.** Dr. Harris, of Chicago, said that all methods which transplanted the cord were bad; he also pointed out the value of the silver-wire longitudinal suture and said that it was removable, that it secured the most perfect coaptation and afforded the best union.

Dr. Ramon Guiteras, of New York, presented a paper entitled, **Some observations on the Bottini operation for prostatic hypertrophy.** He reviewed the etiology, normal and pathologic anatomy, macroscopic and microscopic conditions, symptomatology, prognosis and treatment.

He believed in trying palliative measures first; that resection, castration, etc., had all had their day and their advocates. He then gave a description of the Bottini instrument and operative technic. Bottini operated on 200 cases, only 23 of which received any value; no deaths. Meyer, he said, had 12 cases, 4 of which were fatal; Friedenberg had 32; Stein, 12, all improved; Simon, 8, 2 fatal; Hank, 5, fair result; Morton the same; Clark, 4 cases, fair result; Guiteras, 20 cases, 2 deaths. In discussion, Dr. Freeman, of Chicago, reported 7 cases with no deaths; 6 had large, rather firm prostates, about the size of a lemon. In the seventh case, he said, the prostate could not be felt through the rectum, the middle lobe being large and valvular. All had been very much benefited by the operation. Dr. Robbins, of Michigan reported 4 cases, and said that while he thought it was one of the valuable operations of the future, at the same time he believed that it was a dangerous operation, unless the operator was extremely careful. Dr. Bouffleur, of Chicago, said that he saw a man's entire urethra split by the Bottini operation, and this in the hands of a celebrated surgeon, the blade having turned to the side. He further said: "If the cauterization of the prostate is so valuable, why do it in the dark? Why not make a suprapubic incision, take the cautery and burn the prostate through the bladder?" In closing the discussion, Dr. Guiteras said that the bending of the blade was a very important point, and that it usually occurs when the amount of electric force is off during an operation. "Before every Bottini operation, your battery should be recharged. As a general thing, there is enough force in the battery for three operations; sometimes only one."

Dr. W. M. Beach, of Pittsburg, read a paper on **Some complications resulting from rectal operations.** He named as some of the complications following operations or injuries upon the fixed rectum, first, incontinence; second, stricture; third, elongation of the anal rectum; fourth, ulceration and hemorrhage; fifth, loss of rectal sense-organs; sixth, suppuration and phlebitis. The direct antithesis of incontinence is stricture. In discussion, Dr. Pennington, of Chicago, thought that, "while a good many bad results follow operations on the rectum because of the operation itself; that is, operation for hemorrhoids, etc., I think a great many of these evil results, such as stricture, ulceration, hemorrhage, etc., are due to inefficient after-treatment as much as to the operation itself." Dr. Martin, of Cleveland, thought that the title of the paper ought to have been, "Bad results of bad surgery."

Dr. A. H. Ferguson, of Chicago, read a paper on **A typical operation for the radical cure of oblique inguinal hernia and atypical ones.** He said, in part: A typical operation for the radical cure of oblique inguinal hernia is one that places all the structures involved in the same relationship to one another as they are present in a normal person. The operations that have been hitherto produced to cure inguinal hernia fall far short of being typical. A careful analysis of failures, a painstaking research for hidden truths, and a discernment for contestable premises are ever before the surgeon who hopes for more success, new discoveries and lasting operative procedures. Of all the operations that I have performed, it is the simplest and easiest to execute. There is good scientific reason furnished for every step in the operation. The results are excellent so far. The last 18 months I have performed my typical operation 64 times, counting each case of double hernia as two operations. There have been no relapses so far. Atypical operations for the radical cure of inguinal hernia are all those which do not in the completed operation leave all the structures as they are present in a normal inguinal region.

The following papers were read by title: **Excision of rectum for malignant disease, without sacral resection,** by Dr. Nicholas Senn, of Chicago; **Colostomy,** by Dr. J. A. Wyeth, of New York; **Contribution to the subject of operative interference in perforating typhoid ulcer,** by Dr. C. A. Powers, of Denver; **Influence of age, sex, and race in surgical diseases,** by Dr. W. L. Rodman, of Philadelphia; **Hernia of the diaphragm and report of cases,** by Dr. Floyd M. McRae, of Atlanta, Ga.

Fourth Day.

Dr. S. L. McCurdy, of Pittsburg, read a paper entitled, **Detail in cleft-palate operations.** He said that in all operations upon the mouth or face the patient should be placed in the Murphy position, the operator sitting above the head, and that Fillebrown's method of producing anesthesia is of advantage in all operations on the face and mouth. He held that in every operation upon congenital deformities, the preservation of material should be the first consideration, and that in Fillebrown's operation this conservation of tissue was observed. He then described an instrument called a "steel hoe," with a cutting edge on the tip and on both sides, which was devised for the purpose of cutting through the soft tissues well up around the margin of the cleft, and far enough too so that when the flaps are hoed from the bone they reach across the chasm. With the cutting sides it is drawn forward to the anterior angle and backward along the margin of the soft palate, as well as the hard, the uvula being readily split to its tip. A self-retaining mouth-gag was likewise described, which can be accurately adjusted to the side of the head without tilting the mouth-gag from the teeth; it is held in position by a head-hand. A self-retaining tongue-depressor is attached to the gag; the tongue can be thrown up to any desired position by adjusting a lever which is attached to the gag-apparatus. He then showed an improved staphylorrhaphy needle. Dr. Vance, of Louisville, said that he endorsed the use of this needle, and that he first knew of it as having been used by Dr. Koons, of Kentucky, since 1882. He believed that it was the best staphylorrhaphy needle in use. He said it was a question whether the dentist could not perform these operations better when the cleft ran back to the hard palate. Dr. Ochsner said that he had performed the Wolf operation on over 30 patients with success, and that the secret of success in these hard-palate operations consisted in making the flaps so loose that it required no tension to hold them in place. Dr. Bullitt, of Louisville, Dr. Ricketts, of Cincinnati, and Dr. McCurdy, closed the discussion.

The paper of Dr. M. F. Lee, of Columbus, on **The treatment of burns,** was read by title.

Dr. Liston H. Montgomery, of Chicago, followed with a consideration of **Traumatic shock.** He said that "the causes and results of traumatic or surgical shock depend upon the amount of constitutional disturbance that has been produced by the solution of continuity. Among the immediate and remote causes that produce shock would be, for instance, the falling of a heavy weight. A blow upon the head or over the spine, be this ever so slight, and whether the injury inflicted is a contusion, or when a wound has been produced, has been immediately followed by concussion or shock, as the surgeon is disposed to diagnose it. One of the very first symptoms of shock is the subnormal condition of the bodily temperature of the patient. In a word, anticipate shock by the administration of morphin, chloral hydrate, or, if the indications require it, give brandy, whisky, aromatic spirits of ammonia, coffee, or tincture of digitalis, or the hypodermic use of strychnia, if need be; inhalation of amyl nitrite, and if there is hemorrhage and it is under control, have at hand a saline solution of tepid sterilized water. Keep the head lowered and the body in a recumbent position." Dr. Warner thought that the loss of blood in this matter of shock was an important point. Especially was this true in children. Dr. Fairchild, of Iowa, thought that the question of shock was a very misleading one. He had seen cases of profound injury in which the element of shock was not very great at the time, and again he had seen patients that were not injured severely suffering from most profound shock. Dr. Jelks, of Memphis, found that the extreme pallor might be relieved and shock ameliorated by a lowering of the head. Dr. Nelson, of Chicago, was of the opinion that anything that affected the sympathetic system would produce shock. Dr. Bishop, of Pennsylvania, held the idea that one of the things to do was to "cure the doctor of shock," that the best way to get reaction was to "quiet the doctor." He thought that there should be differentiation between shock and hysteria. Dr. Jonas, of Omaha, said it was necessary to clearly define shock from injury; that shock was due to overstimulation; that there was the same amount of blood in the system after the shock, and that the introduction of the saline solutions overfilled the vascular system, producing an amount of work that the heart was incapable of performing, and that many patients were thus killed, instead of shocked to death. Dr. Earle, of Maryland, Dr. Means, of Columbus, and Dr. Warner closed the discussion.

A paper by Dr. E. C. Brush, of Zanesville, O., **Would surgery suffer if iodoform were abolished?** was read by title.

Dr. William Jepson, of Sioux City, Ia., read a paper on **Automatic drainage,** which was discussed by Dr. Bullitt, of Louisville; Dr. Warren, of Columbus; Dr. Fairchild, of Iowa; Dr. Dugan; Dr Eggleston.

Dr. Thomas C. Martin, of Cleveland, read a paper entitled, **Phantom, semilunar and annular strictures of the rectum; their diagnosis and radical treatment under direct inspection.** He said, in part, "that the rectal valve constitutes the most hypsometric of the topographic features of the movable abdominal rectum is conclusively proven by the photographic pictures. The specimens from which the photographs were taken were prepared by a method consisting in fixing the cadaver in the knee-chest posture, and pouring melted paraffin into the atmospherically inflated rectum; when the wax had sufficiently hardened, the gut was carefully removed. There are three forms of valvular obstruction: (1) Anatomic coaptation of the valves may establish an abnormal physiologic resistance to the descent of the feces; (2) congenital hyperplasia of the rectal valve is a condition classically described as diaphragmatic stricture or membranous septum in the abdominal rectum; (3) hypertrophy of the rectal valve constitutes the classic annular stricture of the abdominal rectum." Obstipation was an important symptom. He differentiated between constipation and obstipation. Dr. Earle, of Maryland, said that if any person doubted the existence of the valves, the same could be verified by placing the patient in knee-chest position and using a Sims speculum. Dr. Burnham, of Baltimore, thought that while these valves did exist, their presence was not quite as distinct as the essayist would want to have them. The paper was further discussed by Drs. Beech, Pennington, Jelks, and Martin.

Dr. Thomas Youmans, of Columbus, read a paper on **Acute gonorrhea, its prevention and cure.** Dr. Thomas' (Pittsburg) method of treating gonorrhea was twice a day at first, then once a day, etc. A temperature of 140° will not kill the gonococcus. It has been said a case in which typhoid existed and at the same time gonorrhea existed, the typhoid fever would kill the gonococcus. I have a patient under my care at the present time who had typhoid fever, but it did not kill the gonococcus. Dr. Campbell, of Chicago, pointedly remarked in discussion: "With regard to the prevention of gonorrhea, I would say that the parents should consider it more their duty in the case of marriage to investigate the condition of the prospective groom, and in that way lessen very materially the work of the gynecologist." Dr. Patterson, of Philadelphia, said that the one known method of prevention of gonorrhea is "virtue;" that 85% of the prostitutes of Philadelphia suffered with some form of venereal disease, the greater proportion having gonorrhea. He also stated that in the University of Pennsylvania, department of genitourinary diseases, they were able to state absolutely when a case was cured and when it was safe for a man and woman to marry. Dr. Ferd C. Valentine, of New York, was the next discusser. He said, in part: "The doctor began by saying that the majority of males become gonorrheic. He does not go so far as Spencer Wells, who says that every man had a 'clap' sometime or other in his life. I believe that only 90% of men have it and I protest on behalf of man against the slander!" (Applause). He says from 10 to 30% of females become gonorrheic after marriage. "I believe that to be an underestimate, because in the statistics of 1894 (Berlin), it was shown that of women dead of disease of the reproductive apparatus, 80% died of gonorrheal infection. How many of these succumbed because of gonorrhea conveyed by husbands who considered themselves cured, it is impossible to say, because the majority of men, I think, would not marry until they felt that the woman of their choice would not become diseased through them." He stated that 80% of the children that went blind in Germany lost their sight from gonorrheal ophthalmia. He pointed out many diseases resultant from gonorrheal infection. He used the 25% of the stock solution of potassium iodid and kept fresh bottles on hand. Dr. Ochsner and Dr. Jelks closed the discussion.

Papers by Dr. B. B. Davis, of Omaha, **A case of brain cyst,** and Dr. J. H. Letcher, Henderson, Ky., **Mammary cancer,** were read by title.

Dr. F. C. Valentine, of New York, read a paper entitled, **Outlines of urethroscopic diagnosis, with special reference to chronic gonorrhea.** The doctor held that the chief essential in the treatment of chronic gonorrhea is manifestly, as in other diseases, to ascertain its cause. An instrument, he said, was necessary to show the practitioner where the disease lies, and its character; that such an instrument must be simple in construction, easy of use, not prone to get out of order, and always reliable. He believed that the study of urethroscopy on the cadaver was absolutely useless, circulation having ceased, the natural color and consistency of the mucosa gone, offering no means for comparison. He said that the most frequent tumors of the urethra were papillomas and fibrous polypuses; that carcinoma of the urethra was very rare; that Oberlaender was first to make an early diagnosis of carcinoma by means of the urethroscope in 1893. His closing thoughts were, that "no chronic disease of the urethra can be diagnosed nor intelligently treated without the urethroscope; the technic of urethroscopy is not difficult; that a urethroscope must be easily manageable, of a prime cost, and of a price of maintenance within the means of the average general practitioner. All these requirements, I think, are attained in the little instrument I am demonstrating." Dr. Tuckerman, of Cleveland, said that he would like to show an extension of urethroscopy, presenting a photograph and his device. "I have for the purpose of vesical examination made a slight modification in the shape of the obturator, making the point at the side instead of in the middle, and by that means, with a little care, the point enters with ease through the triangular ligament into the membranous urethra, and slides easily over the prostate."

The following papers were read by title: **Use of distilled water and boiling for the sterilization of surgical instruments,** by Dr. W. K. Rogers, of Columbus; **Use of dental engine in surgery,** by Dr. W. G. A. Bonwill, of Philadelphia; **The division field-hospital,** by Dr S. K. Crawford, of Chicago; **Intestinal anastomosis without foreign body by means of a natural bobbin,** by Dr. F. B. Turck, of Chicago.

Dr. J. B. Eagleson, of Seattle, read a paper on a **Case of pancreatic cyst-operation; recovery.** The patient in question was a native of Norway, aged 34. In May, 1897, she had a sudden attack of severe pain in the left side in the region of the kidney, accompanied by extreme nausea and vomiting. The attack lasted 5 weeks. A second attack occurred in July. During the following winter she suffered recurrent attacks. At the operation the usual lumbar incision was made for exploring the kidney, which was found healthy; the tumor could be located as extending from a fixed point just above the kidney downwards and forwards into the abdominal cavity. The tumor when extricated was found to be oval in shape and about 12 cm. in diameter; it was smooth, dense and hard, resembling a solid tumor on palpation. An opening was torn through the gastro-colic omentum and the tumor-wall exposed, which had a dark bluish color resembling a cyst. It was now diagnosed as a pancreatic cyst and I decided upon immediate incision and drainage. An incision one inch long was now made into the cyst and its contents drained out by turning the patient on her left side. The contents were fluid, dark greenish-yellow, quite turbid, with a sourish odor. . . . At the end of six months her health is good and she is able to do her own housework.

Dr. R. M. Stone, of Omaha, Nebraska, read a paper entitled **Report on the Schleich solution.** He said, in part: Schleich suggested various formulas containing chloroform, ether, and benzin in different proportions. His No. 3 formula was composed of: Chloroform, 30 cc.; ether, 80 cc.; benzin, 15 cc. This was adapted to major operations and had a boiling point of 107.4°. Through the courtesy of Dr. C. C. Allison, surgeon in chief of the Presbyterian Hospital in Omaha, I have had the opportunity to give the Schleich solution about 200 times. I have now used it in 250 cases all told. The longer I use it the better I am satisfied with its superiority. In discussion, Dr. Murphy said that he had had Dr. Stone use the Schleich solution in Chicago for him with very excellent results, and that he was well pleased with it. Dr. Jepson thought that from statistics of deaths from ether and chloroform, and the number of cases that have been given the Schleich solution in this country, he did not think there were yet sufficient data to prove which was the safest anesthetic.

The above being the concluding paper in the Section of Surgery and Anatomy, DR. MURPHY, of Chicago, proposed resolutions of thanks to the chairman, Dr. Mayo, for the scientific and business-like manner in which he handled the sessions. The proposition of Dr. Murphy was concurred in by the members of the Section rising simultaneously. DR. MAYO said: "I thank you for this appreciation of my efforts," and then modestly referred to the secretary, Dr. Harris, who, he said, assisted him greatly in rendering the results obtained. A motion to adjourn was then made and ordered.

Section on Obstetrics and Diseases of Women.

THIRD DAY.

The paper, **Surgical significance of certain physiologic, anatomic and pathologic peculiarities of the peritoneum,** was by DR. H. D. NILES, of Salt Lake City. Niles believes that free movement of the pelvic and abdominal viscera is absolutely essential to the healthful performance of their normal functions; that the very existence of pelvic and abdominal surgery, with all its possibilities for the saving of life and suffering, depends not upon ordinary surgical knowledge and skill, but upon the extraordinary inherent power of the peritoneum to repair injuries, oppose disease, and overcome infection. The methods by which the peritoneum exercises its protective functions are (*a*) exudative or reparative, (*b*) absorptive or eliminative, and (*c*) phagocytic. The local and general conditions that influence the protective and eliminative powers of the peritoneum warrant the following conclusions: (1) Lessened bloodpressure encourages absorption and consequently favors phagocytosis; (2) a normal heart and healthy execretory organs capable of excessive functional activity are favorable factors in the elimination of the pathogenic germs; (3) the smaller the quantity the less the virulence, and the more general the distribution of the pathogenic bacteria the more likely the peritoneum is to dispose of them; (4) any locus minoris resistentiæ may retard or prevent absorption and encourage exudation and the formation of adhesions; (5) foreign bodies always act as irritants and produce adhesions; (6) all peritoneal adhesions retard absorption, first, by providing a convenient place for concealment of pyogenic bacteria, and secondly, by interfering with the normal mobility and functional activity of the peritoneum. Any interference with normal peristalsis is detrimental; (6) phagocytosis is vastly more effective when a large area of peritoneal surface is brought into contact with a diluted infection than when a limited area is compelled to oppose a more concentrated infection. Finally, the foregoing conclusions support the belief that pathogenic germs, regardless of their number or virulence, may always be safely disposed of, provided that the surgeon does his work promptly and completely and is able to secure conditions that are favorable for these natural agencies to exercise their full protective powers. Niles believes that peritonitis is always a surgical disease; that early operation should at all times be the one of choice; that complete surgery always promises more than incomplete surgery; that preparatory and after-treatment should include active and effective measures for the reduction of bloodpressure and increase of the activity of the phagocytic, absorptive and eliminative functions, and that a small incision, with the least possible exposure in handling, complete removal of debris, avoidance of animal ligaments and sutures, perfect repair of the peritoneum, throrough flushing and no drainage, are all important factors in securing the cooperation of these natural agencies. In discussion, DR. DORSETT said he thinks flushing of the abdomen often distributes sources of infection throughout the peritoneal cavity, and is to be avoided. DR. HUMISTON thinks the chances of recovery are very much better after the completed operation. Gauze-packing may be so placed that infection of general peritoneum may be prevented. He uses drainage very rarely. DR. B. MERRILL RICKETTS finds that adhesions occur even after complete and ideal operations. They are frequently present without symptoms being produced. He advocates as short an incision as possible in celiotomy. DR. HENRY irrigates the abdominal cavity very thoroughly after operations for purulent collections in the pelvis. Several gallons of sterile saline solution must be used. To be effective, large quantities of fluid must be employed. As a rule, drainage is not necessary, and many cases that were formerly drained we find do perfectly well without it. DR. FREDERICK HOLME WIGGIN uses hydrogen peroxid and later saline solution for cleansing localized pus-cavities. All raw surfaces should be covered and every effort taken to prevent adhesions. If a large quantity of the saline solution is left in the cavity, it mechanically prevents the agglutination of the intestines and lessens the danger of subsequent adhesions or intestinal obstructions.

In a paper, entitled **Management of pregnancy complicated with abdominal tumors,** DR. RUFUS B. HALL, of Cincinnati, discussed ovarian and uterine tumors during pregnancy. These cases occur frequently enough to excite the interest of the profession in this subject. In properly selected cases, operation for these conditions is indicated during pregnancy. The danger of abortion following operation has been very much exaggerated. No definite rule can be formulated to determine which cases will or will not abort. Pregnancy favors the rapid growth of all uterine and most ovarian tumors. The pregnant is not in an ideal condition for operation. The responsibility of advising the patient is very great. A case of pregnancy at 4½ months, complicated with an ovarian cyst and general peritonitis, was described. Operation was done, but patient died in a few days. Other illustrative cases were cited. When abortion occurs, the danger to the patient is greatly increased. Women with fibroids rarely become pregnant, and the decision in regard to operation will depend entirely on the individual case. If possible, the patient should be tided over until the termination of pregnancy. The position of the tumor in the uterine-wall will determine the management of the case, as operation will almost always require sacrifice of the uterus and fetus. In discussion, DR. ROSENWASSER advocated operation for ovarian tumors during pregnancy, but in fibroids the question is more difficult to decide. Sepsis and hemorrhage are apt to occur after labor in these instances. Many die of septicemia. DR. HUMISTON, in small tumors without symptoms, waits for delivery. In myomas, particularly those involving the lower uterine segment, the only safe procedure is immediate operation as soon as recognized. DR. RICKETTS related an instance of severe postpartum hemorrhage in a case of labor complicated with fibroid. DR. MASSEY thinks that if a powerful faradic battery were at hand at the time of delivery, the danger of postpartum hemorrhage would be effectually and certainly obviated. He asserts that one second would be sufficient to stop the hemorrhage. DR. CARSTENS thinks that pregnant women bear operation well. A patient who is conscious of the presence of a tumor, complicating pregnancy, is very much depressed by its presence, and this is an additional argument for operation. DR. DORSETT described a case in which the patient was successfully delivered in the knee-chest position. He thinks that the danger of rupture of the uterus would be very much increased by the use of the faradic current to control hemorrhage. DR. C. P. NOBLE, of Philadelphia, thinks the good results are due to the fact that these patients are not septic. He advises operation in all cases of ovarian tumors complicating pregnancy, and related a case in which one patient had had two ovarian tumors removed in two pregnancies. Dermoid or adherent cysts, particularly, should be removed, as gangrenous cysts are very serious complications. In regard to fibroid growths, his attitude is more conservative, and the conditions must be exceptional and extreme if surgical interference is employed. DR. HAGGARD related an interesting case of large adherent ovarian cyst successfully removed during pregnancy.

The following papers were read by title: **Indications for treatment in tubal rupture and tubal abortion consequent upon ectopic gestation in the tubes,** by DR. GEORGE TUCKER HARRISON, of New York; **Treatment of ectopic pregnancy at or near full term, the child living,** by DR. L. H. DUNNING, of Indianapolis; **Data concerning deformities in fetuses of extrauterine gestation,** by DR. ANDREW F. CURRIER, of New York.

DR. M. ROSENWASSER, of Cleveland, Ohio, read a paper on **Early ovariotomy, its practical necessity.** The motive of the author was to bring more prominently before the profession the many accidents and complications that happen with small as well as with recent growths of this kind. Neither the size nor the age of the tumor is a criterion of the possible immediate or remote dangers from its presence. In order to emphasize the special points to which attention is called, he gave a brief synopsis of a few typical cases selected to exemplify the various complications that may arise in the early stage of ovarian cystoma, or that may result from delay. His conclusions were as follows: (1) uncomplicated ovariotomy, in proper hands, is a simple operation with scarcely any risks; (2) malignancy, trauma, torsion of pedicle, infection, suppuration, adhesion to viscera, and pregnancy materially increase the difficulties and risk of the operation; (3) to avoid complications liable to occur at any time, the removal of ovarian growths should follow the diagnosis without unnecessary delay. Let the terse axiom, formulated by Dr. Howard Kelly, henceforth be the recognized rule of procedure: "From a practical standpoint all ovarian tumors must be considered as malignant until removed and proved otherwise."

In discussion, Dr. C. P. Noble, of Philadelphia, thinks that all tumors should be removed. He had operated on four cases of tumors with twisted pedicles during the past winter. The danger of suppuration occurring makes immediate operation important and often imperative. The consensus of opinion in the discussion was entirely in favor of early operation in all instances of advanced neoplasms.

In a paper, **Study and teaching of obstetrics in our medical schools,** Dr. Eliza H. Root discussed the dangers of childbirth, and advocated more thorough teaching of obstetrics. The teacher must be enthusiastic, earnest, and studious. Every case must be studied, and all points of interest elucidated for the benefit of the student. The diameters of the pelvis, the use of the pelvimeter, and abdominal palpation, as a means of diagnosis, should be thoroughly taught. Embryology, as a preparatory study, and later, the mechanism of labor and the care of the puerperal woman should be taken up. Manikin drill is indispensable. Abnormal positions, and management of these, should be gone over slowly. Finally, obstetric surgery and safe knowledge of the forceps should be instilled. All traction with forceps should be used in direction of the pelvic axis. Practical work should be done and recorded before graduation. In discussion, the importance of thorough obstetric teaching was reiterated.

Discussing **The prophylaxis of uterine cancer,** Dr. W. W. Grant, of Denver, Colo., said he considers that the field of preventive surgical disease is as interesting a study and imperative a duty as preventive medicine is to the general practitioner and sanitarian. This is particularly true in the study of malignant conditions. He quoted the methods of Dührssen and Kelly in treating these suspected cases. Grant says the only safe course is to repair every appreciable lesion of the cervix, without waiting and looking for evidence of either benign or malignant disease. Trachelorrhaphy is not a dangerous operation. With all of the cicatricial and diseased tissue removed, the lips well adjusted and united, the most common condition and cause of cancer of the cervix is eliminated. The desirability of medical supervision during the climacteric, and even before, must be admitted by all in order to meet certain diseased conditions promptly.

The prevention and treatment of cancer of the uterus was the title of a paper by Dr. A. Lapthorn Smith, of Montreal, Canada. He believes that uterine cancer is not a hereditary disease, but that it is a contagious disease, probably due to a microbe which does not flourish in healthy tissue, but which luxuriates on tissues of low vitality, such as cicatrices, or in women whose whole vitality is below par. He knows of three cases of cancer occurring in nurses attending patients who died of cancer, and there was no trace of cancer in the family-history of any of them. When the contagiousness of cancer is more fully recognized it may yet be possible to stamp it out by isolation of the patients. All lacerations of the cervix should be repaired. If cancer is detected early, while still limited to the angle of the tear or to the mucous membrane of the uterus, total extirpation will usually be followed by cure. If further advanced and the organ is firmly fixed and the disease has extended to the broad ligaments the author prefers to make a thorough cureting and to apply pure carbolic acid to the mucous membranes and then to perform Schroeder's amputation of cervix, which will prolong life.

In a paper, **Does removal of the ovaries exert a beneficial influence on the subsequent progress of malignant disease?** Dr. E. E. Montgomery, of Philadelphia, discussed the value of oophorectomy in the treatment of malignant disease of the mammary gland, and the theory that the presence of the ovaries exerts an inhibitory influence on the development of such disease. If the patient is liable to the genesis of cancer when inhibition is partially removed, will she not be much more subject to its ravages when inhibition is entirely destroyed? This theory logically would contraindicate rather than render advisable the removal of the ovaries for malignant disease. The ovaries may exert an influence upon the circulation in the vicinity of the reproductive organs through the vasomotor system, and a careful consideration of the subject forces him to the conclusion that the apparent relief is afforded through the vasomotor system. Further experience is required to demonstrate not curability, but sufficient palliation and delay in the processes of disease to compensate the patient for the discomfort of the additional operation. Such an operation will only be of service if done during reproductive activity. In discussion, Dr. Frederick Holme Wiggin said he believes that trauma plays an important part in the etiology of cancer, and that soon it will be proved to be an infectious disease. A common error is the belief that cancer will not develop until after menopause. Patients should know that the period of danger is between the ages of 40 and 50 years. All menstrual irregularities should be considered as an indication for local examination. He condemns microscopic examination long before the time of operation, as the rapidity of the growth is increased. Goldspohn thinks that Emmett's operation of trachelorrhaphy is not sufficient, as only the superficial tissue is removed and that amputation of the cervix by Schroeder's method is the best. Ries thinks that it is a mistake to consider that laceration of the cervix is the causing factor in carcinoma. He agrees with Montgomery that removal of the ovaries is useless in cancer of the breast. It is folly to think of doing oophorectomy on everything from corns to headache. Bonifield thinks laceration of the cervix predisposes to cancer by prolonged congestion and irritation. Mitchell thinks cancer rarely occurs in women who have not borne children, or been the victims of abortion. He noted the rapid increase in the frequency of cancer. Gilliam does not think the family physician is competent to determine the presence of cancer, and that each should be submitted to the expert for diagnosis. He thinks it is not laceration, but the traumatism that is the etiologic factor. Dr. H. A. Kelly thinks we know nothing about the etiology of cancer. He does not think that microorganisms are responsible for the disease. What we want is a modus vivendi—something to do pending the settlement of the question of causation. Careful study of injuries of the cervix produced by childbirth should be made. Every case of atypical hemorrhage should be investigated. Microscopic examination of scrapings or a fragment of tissue can be done in 15 minutes, or while the patient is under anesthesia. He has abandoned the radical operation with extirpation of the glands as being impracticable, too difficult and dangerous, and without good results. Uterine bougies should be inserted to aid in doing more thorough work. He considers the analogy between cancer of breast and the uterus is an erroneous one. Montgomery believes that at present we do not know the cause of cancer. He thinks cancer of the body occurs in 10% rather than only in 2%, as usually stated in textbooks of cases of cancer of uterus. By examining patients more frequently, as a rule, the general practitioner would soon gain the knowledge necessary to make early diagnosis. Intrauterine examination also should be practised in doubtful instances, the uterus dilated, the finger introduced and cavity explored. Infection of the wound is often due to a secondary infection, and every precaution should be taken to avoid such infection.

Dr. Henry P. Newman, of Chicago, read a paper on **extirpation of the uterus, its appendages, tumors, etc., without ligatures or retention clamps; demonstration of a new instrument for hemostasis with a report of clinical cases.** The prime object of the angiotribe which he described is to produce absolute hemostasis and do away with ligatures or foreign bodies in the operative field. The medical profession has been struggling with this problem for a long time. It is apparent to all that the ligature is not ideal or even desirable, constituting, as it does, a foreign body always in the nature of a complition in surgical wounds. The ecraseur was one of the early manifestations of an effort to do away with the time-honored ligature. Its revival, in a modified form, is not without some merit. The clamp and cautery has held its place in surgery for a considerable period, and in spite of some advantages always claimed for the ligature in hemorrhoidal operations, it is probable that the cautery operation is still done an equal number of times by the ligature method. The retention-clamp, likewise, has been a life-saving substitute for the ligature, and has been a means of revolutionizing pelvic surgery, notwithstanding it is now giving way to better devices. The many methods of perfecting the absorbable sutures both in material used and manner of preparing only go to show that the profession is fully alive to the importance of doing away with the conventional ligature and suture. The Keith Skene electric heat, the Doyen crusher are among the latter methods that bid fair to solve a long-sought problem. It must not be understood that the leaving of foreign bodies in the wound is the only objection to the ligature, while it must be conceded that it is an all-important argument against its use. Other vital objections still remain: (1) Uncertainty as to slipping; (2) uncertainty as to asepsis; (3) shrinkage in the stump, thereby loosening the constricted vessels; (4) bunching together tissue, and thereby dragging upon and displacing neighboring structures. He recognizes that in the individual ligation of vessels some of the above objections would not apply; but this very desirable method of using the ligature is not always possible, or at times advisable. Again, the over-towering advantages of its substitutes (here particular reference is made to the Keith-Skene and Doyen methods) apparently leave little room for argument: (1) immediate and absolute hemostasis; (2) perfect antisepsis; (3) an undisturbed stump, for example, no bunching of pedicle or dragging from neighboring structures; (4) the operative field free from foreign body, and (5) with the improved instruments recently constructed by Dr. Newman, promptness of execution and adaptability to nearly all tissues and surgical work. Dr. Newman then gave the general outlines of the instrument and exhibited many cuts. His modification differs from the Thumin instrument in having longer blades, enabling the operator to include the entire broad ligament or large pedicle at a single application. The blades are narrower, so that less space is required in their adaptation to the part, and they can grasp shorter pedicles, or even sessile growths with greater facility. At the end of one of the blades is a slightly projecting bite preventing the grasped tissue from extending beyond the blades, as it is apt to do in closing the Thumin instrument. A new or modified Thumin lever has been added to the instrument as a separate attachment. A combination mortise lock allows of an interchange at will of the lever, in applying the compression force, to that of the cross-bar and screw. While the cross bar and screw will be found most desirable for general use, the lever has great power of compression and can be applied with a single motion or movement of the hand. This new or modified lever, not only has the interchangeable lock in common with that of the cross-bar and screw referred to, but is simple in construction and adaptation and allows of much wider separation of the blades during their application. The Thumin lever requires a partial closure of the blades and necessarily previous engagement of the pedicle or tissue to be clamped before adjusting the lock. This obstacle is overcome by the Newman instrument. Dr. Newman reports 16 cases successfully treated with the aid of his new instrument.

In a paper on **Necessary abortion,** Dr. W. C. Bowers, of Decatur, Ala., detailed the varied indications for the performance of necessary abortion. The reasons for premature emptying of the uterus are many, but fortunately very few of them act with any degree of frequenly, and the indications are rarely absolute. Nephritis, advanced tuberculosis, aneurysm, valvular lesions of the heart, chorea gravidarum and peripheral neuritis of pregnancy were among the indications mentioned. Probably the most common reason for interrupting pregnancy is hyperemesis gravidarum, which should not be allowed to proceed to extreme exhaustion. Pain beneath the sternum, and coffeeground vomiting are other causes. To be pathologic the nausea must persist after the patient has arisen or be experienced when the patient is in the recumbent position. Several cases were reported illustrative of the subject discussed.

Treatment of patients after abdominal section was the title of a paper by Dr. C. L. Bonifield, of Cincinnati, who considers spartein sulfate of decided value as an immediate stimulant to the heart, while digitalin may be used for a more lasting effect. The physiologic action of alcohol is so nearly identical with that of ether and chloroform that its utility is to be doubted when the system is saturated with one of these agents. Calomel is the most generally satisfactory purgative. He thinks the rectal tube is of little value for the relief of gaseous distention. Morphin constipates the bowels, checks elimination and almost always produces more or less nausea. In its place he uses codein phosphate and chloral hydrate by the rectum for the relief of pain. To relieve the intolerable pain he employs the rectal injection of normal salt-solution, a half pint being given every 2 to 6 hours. A half-ounce of very hot water by the mouth may be allowed every hour after the first four. Bonifield considers that any surgeon who does a capital operation owes it to his patient, his profession and himself to see that everything possible is done to secure recovery. For this reason, only when it is absolutely unavoidable, should an abdominal section be done in the country and the after-treatment left to a practitioner inexperienced in this work.

Dr. D. T. Nelson, of Chicago, described **The nature, causation and treatment of shock.**

Dr. Frederick Holme Wiggin, of New York, read a paper on **Accidental wounds of the female bladder.** While accidental wounds of the bladder occurring in the course of operations are to be deplored, and guarded against by every possible means, when they do occur, the knowledge of their existence is of the utmost importance, for, as soon as discovered, they may be treated much in the some manner as simple incisions in any other part of the body. The fear of septic peritonitis has prevented a general application of this fact, but the labor of American gynecologists in proving the safety of closure of abdominal openings without drainage, even when infection is known to exist, has done much to establish on a firm basis immediate suture of wounds of the bladder. There is no more reason why a recent intraabdominal wound of the bladder should not be sutured and the abdomen closed without drainage than in the case of a wound occurring in the bowel.

Fourth Day.

Dr. W. Tod Gilliam, of Columbus, read a paper on **What shall we do with the uterine fibroid?** He detailed the history of the attitude of the porfession towards these growths and painted a graphic word-picture of instances in which tragic consequences on one hand, and beneficial results on the other, had followed surgical intervention for these neoplasms. He believes that the unoffending fibroid should be let alone, unless it is a menace to life, health and happiness, when it should be removed. He argues for greater circumspection and more conservatism on the part of the surgeon. Let the smaller and less mischievous growths alone; they may or may not give trouble in the future, ten to one they will not; but if they should, it will be time enough to consider them when the exigency arises. It is the patient's prerogative to decide. It is a right vested in the human race to incur risk for the betterment of its condition, and women should have the same priceless privilege, after a thorough understanding of the condition and the danger of an operation.

Section on Neurology and Medical Jurisprudence.

First Day.

The chairman, Dr. Frederick Peterson, of New York City, presented his **annual address.** He spoke of the impossibility of touching upon all the recent advances in neurology and psychiatry. In one subject alone, the cytology of the nerve-cell, it would be necessary to examine 400 different contributions, books, and journal-articles by 280 authors, in order to write an exhaustive critique. He presented a bibliography of neurology and psychiatry and allied subjects for the year 1898 and the early part of the year 1899, limited to books of over 50 pages, including 201 works in all. He referred especially to S. Karger's "Die Psychiatrische Clinik zu Giessen," published in Berlin in this year, describing a psychopathic hospital in a German city on the community plan, containing laboratories for pathologic, microscopic, chemical, photographic, and psychophysical work, besides a mechanical workshop, clinical auditorium, library, and polyclinic or dispensary for out-of-door patients.

On motion of Dr. W. J. Herdman, of Ann Arbor, Mich., a vote of thanks was extended to the chairman for his admirable address.

Dr. John Punton, of Kansas City, Mo., presented a paper on **the relative curability of nervous diseases and their therapeutic indications.** The relative curability of any given nervous affection is based upon the accuracy of its early diagnosis. To this end there should be an accurate scientific classification of diseases of the nervous system. Dividing these into two great classes, organic and functional, in the cases covered by the first class, the nerve-elements are not, as a rule, primarily affected, but are so secondarily. As to the second class, the chief lesions affecting the nervous apparatus can be arranged under 6 groups, namely, vascular, inflammatory, degenerative, toxic states, congenital malformations, and functional or unclassified lesions. In the last group are included hysteria, chorea, neurasthenia, paralysis, catalepsy, epilepsy, etc., and by reason of the purely subjective character of their clinical phenomena, their diagnosis is often very obscure and misleading. The statistics and authorities as to epilepsy, for example, are utterly at variance. It is highly desirable that a textbook, authorized by this or some competent association, be furnished the medical profession, in which is set forth reliable data based on actual facts, as demonstrated by practical clinical observation and experience, in order to prevent the fraud and deception now practised on the helpless neurotic incurable by those claiming to have a "sure cure for fits." Dr. Charles H. Hughes thought that the prognosis in epilepsy was much more favorable than as stated by Dr. Punton. He related instances in his own experience where there had been no return of the symptoms after 35 years. He urged the inadvisability of calling idiopathic epilepsy an incurable disease. His plan was to suppress the symptoms and treat the patient's entire system. Dr. A. E. Stern, of Indianapolis, thought it was often more difficult to obtain good results in functional cases than in the organic condition. Dr. W. J. Herdman said he was pleased with Dr. Punton's classification as presenting a simpler pathology than usually appears in the textbooks. He said neurologists should be in a position to point out to the general practitioners the evil tendencies which, if not checked, will result in locomotor ataxia or general sclerosis. A simpler pathology and earlier treatment would be of immense advantage. The Chairman thought that we must remember that neurology as a specialty is very young, being only 30 or 40 years old, there are as yet scarcely more than a hundred men engaged in it; hence we have not been able to study locomotor ataxia and epilepsy long enough to make a better prognosis. To take the stand that any disease is incurable is therapeutic nihilism. Dr. Punton closed the discussion.

Dr. T. D. Crothers, of Hartford, Conn., read a paper on **The medical side of criminal morphomania,** which was followed by a **Rational treatment of chronic morphinism,** by Dr. A. J. Pressy, of Cleveland, Ohio.

Dr. Crothers spoke of the physiologic action of opium and its alkaloids in causing "palsy of the higher psychical centers," temporarily destroying the former personality of the patient and causing him to act from a different point of view. He related a number of instances in which the morphin-taker had been guily of various fraudulent and secretive crimes, displaying a cunning, judgment and apparent honesty in avoiding discovery, so long as not deprived of the drug, but breaking down completely, and showing marked mental aberration when the morphin was taken away. These cases include arson, dishonest speculation, forgery, false impersonation and all sorts of swindling. Morphia criminals are regarded as most dangerous by the police, having full control of their nerves and acting a double part so clearly as to disarm suspicion. Cases of will-mania, delusion of sudden death, are among the mental results of the use of morphia. A new personality appears, some pyschic trance state, in which great mental clearness, self-possession and cunning, with unusual frankness and candor, are the prominent symptoms. There should be an exact study of the criminal side of morphin cases. Dr. Pressey's treatment of morphinism is by the gradual withdrawal of morphin until it is only given in infinitesimal doses, the patient being unaware that the amount is being reduced. The patient is usually taking more than is necessary to produce the desired results, and the dose can usually be marked reduced at the start. The patient is kept on as small a quantity as will make him comparatively comfortable, without making his dose so small as to keep him in misery until the next hour for morphin. The doses are given four times a day, just previous to meals and bedtime. Dr. Charles H. Hughes, of St. Louis, did not think that Dr. Crothers' clinical observations were correctly characterized as cases of double personality in the sense in which that mental phenomenon is usually regarded, they are merely alterations of personality, alternate personal states, and not such cases as are seen in asylums, where the individual is absolutely one person to-day and another tomorrow, having completely changed his identity. As to treatment he thought the safe rule was to endeavor to gauge the dose according to the capacity of the patient for reduction. Dr. Daniel R. Brower, of Chicago, said that morphia, very much more than alcohol, disturbs, deranges, or alters the personality. He thought that morphia patients could be treated very successfully in a hospital. Dr. E. S. Pettyjohn said that under the influence of morphia doctors of divinity are just as prone to tell what is not true as any one else. He advocated continuing the small doses for a somewhat longer time, cutting them down to a sixteenth or a twentieth of a grain. Dr. Hamlin, of Tennessee, agreed with Dr. Pettyjohn, and said that the dose should be even cut down, at the last, to a thirty-second or a sixty-fourth of a grain. He related the case of an intelligent, well-bred southern lady, who secretly contracted the morphin-habit, and being accidentally deprived of the drug, one night went entirely mad, and was found wandering on the streets of the city, attempting to sell her virtue to a druggist for a dose of morphin. Dr. Tuckerman, of Cleveland, suggested that there are many cases of morphinism which must be treated by the general practitioner, as it is impossible for them to even go to a hospital. He related a case of an opium-fiend in a private family who was treated by a mixture of opium and thoroughwort, the proportion of the former being gradually reduced. Dr. A. E. Sterne advocated the immediate withdrawal of the drug, in the absence of any contraindications, the unpleasant symptoms being obviated by the use of soda bicarbonate to relieve the acidulous condition of the system. Dr. Crothers and Dr. Pressey closed the discussion.

Dr. William N. Bullard, of Boston, Mass., presented a paper on **The relief of intracranial pressure in nontraumatic cases without localizing symptoms.** Trephining is often advisable in cases of increased intracranial pressure when the cause of such increase is uncertain. A married woman, aged 38, the daughter of a nervous invalid, applied for operation to relieve the intolerable condition of her head. For years she had been subject to a sensation as if the brain were being compressed. There was no evidence of any affection of the optic nerve. The cranium was trephined on the right just in front of the coronal and about an inch below the sagittal suture, and the button removed. The dura was very tense, bulged, did not pulsate; the cranial opening was enlarged, and the dura cut. The brain, which was very blue, protruded an inch or more beyond the cranial opening, suggesting very marked intracranial pressure. The protruding portion of the brain, which was 2x3 inches in length and breadth and an inch or more in thickness, was cut clean off and the wound closed without stitching the dura. The patient made an uninterrupted recovery, and since the operation has had no recurrence of the symptoms. A year after the operation she became the mother of a healthy child, her first, though she had been married over 10 years. Dr. Bullard's conclusions were as follows: (1) there exist certain nontraumatic cases of increased intracranial pressure of unknown or doubtful origin; (2) whenever an excess of intracranial pressure exists such as to cause serious symptoms, the question of its relief by opening the cranium and cutting the dura should always be considered; (3) in certain nontraumatic cases of excessive intracranial pressure, more or less permanent relief, or even cure, may be obtained by proper surgical interference; (4) in cases of acute severe optic neuritis of unknown origin, the question of opening the cranium and relieving the excessive intracranial pressure should be considered. Dr. W. A. Jones, of Minneapolis, Minn., spoke of a case of injury followed by mild optic neuritis, mild hemiparesis, and hemianesthesia, which, with a great deal of headache, seemed to demonstrate the probability of an acute pressure either from abscess, tumor, or something of that sort. On trephining nothing but a very small quantity of fluid was found, but there was a perfect recovery, and all the subjective and objective symptoms disappeared. Dr. Tuckerman, of Cleveland, related an instance of a young woman with symptoms similar to those of Dr. Bullard's patient, who was relieved by exploratory trephining. The brain did not bulge; the dura was not opened, but was adherent to the skull very firmly under the site of the old injury, and the skull was somewhat thickened. An opening of about an inch and a half was made, and a gauze drain inserted. There was a free seepage of cerebral fluid for three or four days. The headache, the sleepy symptoms, and the convulsions from which the child suffered disappeared very promptly. Dr. Fisher said he understood from Dr. Bullard that the skull was not replaced, and thought that was the reasonable course to pursue. Cutting away portions of the brain could not, of course, be indiscriminately done. Dr. Tomlinson thought that if there is a general pressure, giving rise to generalized symptoms, there is just as obvious a reason for the operation as in tumor, abscess, or local accumulation of fluid, the object in each case being to relieve the pressure. Dr. Bullard, in closing the discussion, said that, curiously enough, in his case, there was no excess of fluid found underneath the dura, nor did the specimen of the brain show anything peculiar under microscopic examination. There were none of the symptoms of grand hysteria in the case, nor was there any shock following the operation.

The Chair appointed Dr. T. D. Crothers, Dr. F. W. Langdon, and Dr. W. A. Jones as a Nominating Committee.

Second Day.

The entire day was given up to a **symposium on headache.** The following papers were read: **The diagnostic importance of headaches,** by Dr. Fisher; **The headache of gastrointestinal disorders,** by Dr. Frank Billings, of Chicago; **Headache due to affections of the eye,** by Dr. Samuel D. Risley, of Philadelphia; **Migraine,** by Dr. Samuel J. Walker, of Chicago; **The relation of uric acid to migraine,** by Dr. John A. Lichty, of Clifton Springs, N. Y.; **The mental element in the treatment of headache,** by Dr. Philip Zenner, of Cincinnati. Dr. Fisher's paper dealt with the distinction between so-called continuous or constant headache and the paroxysmal headache, the former being present in Bright's, nephritis, and arterial disease. Of course, even in the cases of continuous headache there are occasional exacerbations. Dr. Billings maintained that gastrointestinal disturbance is a very common cause of headache. The treatment is by the application of the laws of hygiene, modified to suit the individual case; a selected diet for each individual; the free use of water as a diluent; and recreation in the form of physical exercise or physical rest, commensurate with the mental activity or physical tire of the individual. These he advocated in connection with the correcting of irregular habits of sleep, of time of taking food and of exercise, the withdrawal of tobacco, tea, coffee and alcoholic drinks, lavaging the stomach when necessary, and overcoming constipation by hygienic measures, if possible without drugs. In conditions of malnutrition and anemia, restorative tonics and an abundant simple diet are indicated. Dr. Risley's conclusions were as follows: (1) That abnormities of the ocular apparatus are in a large group of patients the sole and sufficient cause of headache; (2) that these abnormities of vision may be the unsuspected cause, and, therefore, that the absence of symptoms obviously referable to the eyes does not exclude them as an etiologic factor in headache, insomnia, vertigo, petit chorea in children, and certain stomach-derangements; (3) that the recent or sudden development of symptoms, *e. g.*, after attacks of severe illness, as typhoid fever, the exanthemata, etc., or in association with more or less acute exacerbations of some general dyscrasia, is not sufficient evidence against ocular participation in causing the symptoms; (4) that the participation of the eyes as an etiologic factor in headache can be positively excluded only in the absence of ocular disease, or after the most painstaking correction of any existing error of refraction or abnormity of binocular balance; (5) that for the relief of reflex symptoms accurate corrections are essential, and these can be secured only by the more or less prolonged use of a strong cycloplegic; (6) that immediate relief by these corrections in a large group of patients is not to be expected, since the pain is frequently due to associated pathologic conditions of the fundus oculi and these require time for cure. Dr. Walker, of Chicago, in his discussion of migraine, detailed a number of cases coming under his own observation and seen in the practice of Dr. Hugh T. Patrick, and noted an apparent relation, which he did not attempt to define, between migraine and epilepsy. Dr. Lichty, of Clifton Springs, in speaking of migraine from the uric-acid standpoint, presented studies of the uric-acid conditions in 3 cases of migraine. Both uric acid and urea were diminished during the height of the headache, but their relation was not disturbed. After the headache, the urea increased to about what it was between the attacks, while the uric acid increased much more, thus changing the former ratio. Dr. Lichty concluded that the increase of uric acid which is associated with migraine, is the result, and not the cause of the headache. He referred to Gowers' statement that "When all has been said that can be, mystery still envelops the mechanism of migraine."

Dr. Philip Zenner, in his article on **The mental element in the treatment of headache,** referred to cases in which patients suffering from brain-tumors were compelled to undergo gynecologic operations, which were followed by complete relief from headache. This was attributable to the mental impressions produced by the operations. The discussion of these papers was opened by Dr. Norman Bridge, of Los Angeles, Cal., who said he did not believe that there was any relation between migraine and the uric-acid diathesis. He suggested that in order to explain Dr. Zenner's cases it was not entirely necessary to assume that the surgical operations relieved the headaches by mental impression, as we know that surgical operation does interrupt various nervous phenomena, owing to the chloroform, the wound, the shock, etc. Dr. Tuckerman, of Cleveland, told of a very severe paroxysmal headache, from which he has always been a sufferer. Dr. Church, of Chicago, was of opinion that there is a certain relation between migraine and epilepsy. Dr. Hughes, of St. Louis, did not believe that migraine and epilepsy are at all associated diseases. Dr. Jos. V. Kafron, of Cleveland, Ohio, related cases in which the migraine had been cured in children by relieving a diseased condition of their tonsils. Dr. A. E. Sterne believed that in almost every case the cause could be discovered and removed, but even after its removal there is a secondary state following upon the chronic. If the difficulty was dilatation of the bloodvessels, the stretching may have gone to such an extent that the vital rubber has lost its contractility. Dr. F. Savary Pearce, of Philadelphia, thought there was no doubt about the hereditary element, to which is superadded the exciting cause, whatever that may be.

Dr. Evans thought that the medical profession to-day is in a state of extreme uncertainty as to the causal factors in the production of migraine. In his opinion there was no relation between migraine and epilepsy. There being so many cases of each under observation, it was only to be expected that patients should occasionally be found who have suffered from both.

Dr. Hugh T. Patrick, of Chicago, agreed with Dr. Walker as to the likelihood of some relation between migraine and epilepsy. He pronounced a warning against accepting the statements made by Haig in his book, as thus far they were not borne out by his facts.

Dr. Fisher, Dr. Walker, Dr. Lichty, and Dr. Zenner closed the discussion.

Dr. Sterne exhibited specimens of brain-tumors.

The report of the nominating committee was unanimously adopted, and the following officers elected for the ensuing year: Chairman, Dr. Hugh T. Patrick, of Chicago; secretary, Dr. F. Savary Pearce, of Philadelphia.

A vote of thanks was extended to those members who came frome other sections to participate in the symposium.

At a recent clinic at the Hospital Saint Louis Prof. Fournier exhibited three rather remarkable cases: The first was impetigo upon lichen ruber; the second, simultaneous coexistence of a syphilitic gumma (tertiary) of the tibia and secondary eruption; third, an iritis appearing with the primary lesion.

[From our Special Correspondents.]

AMERICAN ACADEMY OF MEDICINE.

Twenty-fourth Annual Meeting, held at Columbus, Ohio, June 3 and 5, 1899.

The meeting was called to order at 10.20 A.M. by the President, Dr. Edward Jackson, in Assembly Hall of the Chittenden Hotel.

Thirty-one physicians were elected to Fellowship; among whom were F. F. Whittier, of Brookline, Mass., J. E. Brower, of Columbus, F. D. Bullard, of Los Angeles, W. W. Keen, of Philadelphia, Gertrude A. Walker, of Philadelphia, N. P. Dandridge, of Cincinnati, J. S. Marshall, of Chicago, and F. W. Spalding, of Clifton Springs.

The treasurer's report shows a balance in the treasury of $75.10.

Dr. H. O. Marcy, of Boston, Dr. C. G. Plummer, of Salt Lake City and T. S. Davis, of Pittsburg, were appointed auditing committee.

The resignation of Dr. E. L. Holmes, of Chicago, was read by the secretary. Dr. Marcy moved that Dr. Holmes be requested to withdraw his resignation and allow his name to remain on the roll. The motion was carried.

Dr. Ruth Webster Lathrop, of Philadelphia, read a paper on **The evolution of specialism,** and said in part: Von Baer's law, "the more special forms of structure arise out of the more general, and that by a gradual change"—which refers to the successive changes of form in the animal kingdom, and applies as well to the consequent change of function,—may by modification apply to the progressive manifestations from the simplest idea of "medicine" to the modern concept of its multiple specialties. Medicine and religion are of apparently divine origin, and both have the common factors, education, and superstition. Contrast of development in the orient and occident shows that in the occident superstition is gradually minimized and education predominates, thus bringing medicine towards its broadest possibilities. Therefore education is the chief factor in the differentiation of religion and medicine, medicine and surgery, and the specialties of both medicine and surgery. The trend of the country is to increased knowledge. The present high state of civilization depends upon the complex environment and its consequent complex organisms with complex reactions. The most rapid advances in specialism are in the field of neurology. The dangers of specialism should be considered and avoided; the progress of specialism in following the laws of evolution will ever depend on a broad general and a broad medical education as the only basis.

Dr. L. D. Bulkley, of New York City, in a paper on **How far has specialism benefited the ordinary practice of medicine?** said that by elevating medicine as a science specialism has advanced its honor as a calling. Special study has classified diseases more clearly and simplified nomenclature. Obscure conditions of disease have been discovered and elucidated. Treatment has been simplified and crystallized, and new methods and measures introduced. All the discoveries and advances made by specialists have been freely given to the profession in current literature and textbooks and by means of lectures and clinics every effort is made to enlighten the general practitioner in regard to each branch. The specialist has frequently succeeded in the case of disease which the general practitioner has been unable to accomplish unaided, and has often relieved him of great embarrassment. Incidentally, specialism has tended to improve the financial relations of patients to physicians, and educated the public as to the value of professional services.

Some obstructions to the progress of specialism in medicine was read by Dr. G. Hudson Makuen, of Philadelphia. He said the obstructions to the development of specialism are almost wholly within the profession itself, in the attitude of its members toward their patients and toward one another. An innate selfishness, and a natural desire for gain, engender a foolish spirit of competition which should have no place in professional transactions where duty to patients demands first consideration. Some illustrations are given of the lack of professional courtesy in the interchange of patients, and an attempt is made to show that this lack of courtesy is the greatest obstruction of specialism in medicine. The attitude of the general practitioner towards the specialist is discussed, and also that of the specialist towards the general practitioner, and their obligation to each other and to their patients.

The papers on specialism, so far as read, were discussed jointly. Dr. L. E. Connor, of Detroit: Any one familiar with the history of medicine will recall two facts, one of which is the great epoch-making discoveries in all the past are from men called general practitioners, as evidenced in the work of John Hunter, Lister, and Pasteur, the discoverer of chloroform, and those who have opened up the specialties of disease pertaining to women. In all the ages no two men are able in the working out of what is in them to do the same thing; each one is essentially different from the other, and if he permits himself to operate through his natural channels he will work differently from another, and if it is possible for him to work in such environment as will foster his natural intent the best will come. The world becomes poorer when one man for some reason enters a line to which he is not adapted. It is true that the contributions that have come from these special workers to the general practitioner have broadened his capacity for work, have enabled him to see disease sooner and combat it better. I am glad the specialist has come, but still more glad that the general practitioner remains.

Dr. H. O. Marcy, of Boston: I was reminded by Dr. Bulkley's paper of a little anecdote of the First Massachusetts. When on its march they encountered an overturned engine by the roadway. The commander asked if there was anyone in the ranks who could help repair it. Out stepped one of the privates and said, "I helped to build her and I think I know something of the repairs," and in a short time it was on the track. This is an illustration of the specialist in the ranks. He was quite ready to carry his rifle or serve his country as best he might, and there came his opportunity to do it in a special way. The idea is that the physician is the exponent of God's great law; he is the engineer, who, like the private, understands the repair of the engine. Dr. Augustus P. Clarke, of Cambridge, Mass., said: I think everyone must feel that the subject of medicine is too broad for any one person to comprehend and that therefore there must be subdivisions in the practice. I think that one of the drawbacks to specialism is that the young men want to enter too soon without adequate knowledge. Those who have succeded best have been those who have walked along the lines of general medicine, have had rough experiences and have discovered something that has impressed them in connection with some one subject to which they are adapted.

Dr. A. Goldspohn, of Chicago, Ill., said that specialism in medicine is an absolute necessity; division of labor is absolutely essential. While it is true that some few discoveries have been made before specialists were distinctly classified as such, they have been made after long and arduous digging, and much concentration of thought. Advancement of medicine is undoubtedly due to division of labor, and concentration in certain lines. The evils that have arisen from the improper qualifications of those who think they are specialists, to my mind, would be avoided if it were generally taught, and perhaps if there were some medical requirement or law that a mere student of medicine can never be a specialist until he has been a general practitioner. If there is any particular candidate who hopes to be a specialist it will develop in the course of his general practice what that specialty shall be. It comes to my mind that a remedy is possible, and in this connection I am reminded of the regulations in Germany in regard to mechanics,—there a man must serve a number of years as an apprenticed journeyman and then must travel and have testimonials of having been engaged outside of his own country, and if he wants to be an employer, a master, he must show these testimonials; and, in addition, he must make a masterpiece which will be judged by other masters in his own trade. Why cannot there be adopted in the branches of medicine a board of examiners for men who purpose being specialists to whom shall be shown evidence that these men are not only graduates of medicine, not only general practitioners for a number of years, but also evidence of their reason for adopting and their qualification for a special practice? Dr. T. B. Davis: If I could believe and be as positive as some of those who have spoken, that specialism is an absolute necessity, and that all advances have been made by specialists, I don't think there would be much need of the papers down upon the program to-day. When I started in medicine there were three specialties: Surgery, dentistry, and medicine; and in my short lifetime all of the others have sprung up. If specialism is an absolute necessity where is it going to stop? I find that specialists are so successful that I have about decided to enter their ranks, and as almost every organ has been exhausted I have about settled down that I will take the umbilicus. It seems to me it is about the only thing left. The important question, it seems to me, is the commercialism that it is bringing into the profession. It occurs to me that specialism will eventually be operated along the same lines as the work of a foundryman; if his work is all done on one set of castings, it can be done cheaper. If specialists give their time and thought to one single condition, should they not be able to do it a little cheaper than a general practitioner? Dr. Didama: I was much pleased with Dr. Bulkley's claim that there were advantages in specialism and that there are dangers: The danger of the general practitioner treating a case that he does not know much about, and the danger of the specialist in thinking that he knows it all. There are so many specialists that there is not much left for the practitioner. Going back to the fathers of medicine, we know that they did discover something while being general practitioners. Up to a few years ago discoveries were made by general practitioners, and I think they are doing very well now. The great danger is that the student when he receives his diploma decides that he will be a specialist. He does not like to say that it is because of the more money in it, but sometimes this is the greatest reason.

The ethics of specialism was read by Dr. A. L. Benedict, of Buffalo, who said the existence of specialism is a departure from the principle that the assumption of superior skill is unethical. The specialist implicitly claims such superior skill, if he is honest. Specialism should not consist merely in experience accidentally acquired in general practice. Specialists should always be prepared for emergency practice. Limitation of practice should be rigid, but should follow commonsense lines. The specialist may properly use customary and ethical means to place himself before the general profession and should be required to display a notice of his specialty on his sign. The general practitioner and specialist are under mutual obligations. The competition of specialists is no greater than if they were compelled to reenter general practice. The majority of the work of the specialist must be referred to him by the general practitioner. So far as the laity is concerned, the specialist is bound by the same ethical rules of the general practitioner. Only under very exceptional circumstances should a recent graduate pass immediately into specialism. The man who is both a general practitioner and a specialist is neither hay nor grass. Such combined practice, however, may be necessary in small towns and during the transition-period from general practice to a specialty. In discussion, Dr. G. Hudson Makuen, of Philadelphia, said: It seems to me that the subject is broad enough to occupy our whole attention without bringing into it that which does not rightly belong in it. Ignorance and falsehood are the same thing, whether they are in the daily life, or the so-called specialist, or the general practitioner. Very much that has been said against specialism I think is not against specialism at all; certain classes of men find in the new order of things a place to hang their complaints upon; and I fear in our profession specialism is such a hook to a good many men. There are two ideas of specialism that, while they are neither worked out in the practice of the past, present, or future, ought to be considered separately in order to get a clear understanding of our present status. One is the idea that every member of the profession remain a general practitioner to a very large extent; that some particular experience, some particular bent of mind or talent lead him to become more expert than most of his brethren in a particular direction, and through that he is called a specialist. The other class is represented by a sharp division-line of practice. They are the opposing ideas, and specialization by our profession must be considered from both points of view. Dr. George M. Gould, of Philadelphia: I should say simply that in my opinion the subject resolves itself into this: Whatever will be said, the thing is going on. It is in the line of science. Our science of medicine to-day is such an infinite thing that no one person can amass the knowledge required in any one branch; we will have to divide it in order to conquer. Of course there will be many ignorant men press into specialism. This is an evil which must be met as an evil. One way of meeting such evils is by the improvement in medical education; we are educating our men better. The increased length of the medical course, the higher standards of the initial examination, prepare our men better in general medicine and make them understand the general principles upon which all specialties rest. Dr. Lathrop, in closing, said: I would say just a word on the topic: The Evolution of Specialism. It would be contrary to the laws of evolution should not the more special come from the more general. Therefore, a broad education, such as is demanded by the American Academy of Medicine, supplemented by general practice, in the foundation of specialism. Such cannot fail of success. Dr. L. D. Bulkley, in closing, said: I feel very happy and proud that this discussion should have arisen from my suggestion last year in my address. Specialism has come from the evolution of the medical profession, and has got to be followed out. The only question is, can the Academy of Medicine help to carry it out rightly? I think if there could be a paper written, embodying all that has been said and circulated widecast so that it can influence the profession against these errors, which the specialists themselves feel just as much as the general practitioners, it would be of great advantage. Dr. Benedict, in closing, said: I think we should not overestimate the compensation of the specialist. While the specialist makes a higher fee, he makes that which the general practitioner would not get; in other words, that patient will see him oftener than he would the general practitioner. I have a right, as a medical man, to earn my living, and, if not in the ranks of specialism, I should fight it out among the general practitioners. Dr. G. Hudson Makuen, in closing, said: I have very little to say; my paper was not discussed to any great extent, some one suggested, because there was not much in it, and while that may be true, it occurred to me during the discussion this morning, that might be said of many of the speeches that were made here. It seemed to me that many of them were not applicable to the nearing of the end of the nineteenth century. Specialism, as I said in my paper, is an established fact, and I suggested some means by which we as medical practitioners might get in line and make the most of this advanced practice of medicine. The specialist, it seems to me, is not driving out the general practitioner, which seems to be the attitude that some take. If he does his duty properly he much increases the work of the general practitioner. We should know one another better and should work together.

Dr. George M. Gould, of Philadelphia, read a paper on **The passing of materialism,** which will appear in a future number of the Journal. In discussion Dr. Goldspohn said: I think the paper is most admirable, not simply as showing the rational basis for the bastard children of science and thereby suggesting a way of getting rid of them, but also in the name of moral life in doing away with a great deal of error and the evils which come from a smattering of knowledge, pseudo-scientific education. Dr. Connor said: I also rise to express my gratitude to Dr. Gould for the presentation of this paper at this time. I don't know whether the presence of Christian science or of a pure psychic medicine abroad in the land is the result of the sins of the medical profession in failing to recognize that there was a science other than the science of matter. And yet I am sure that every practitioner, general or special, when he recounts his work, will have a conviction that the best of the work he ever did never had any relation to matter. Most of us believe that that which retains life and activity, acts and operates on as definite lines as do the laws of nature. And these laws we have not studied to master as much as we might. Dr. Gould, in closing, said: The origin of things is beyond the range of our finite intelligence. You cannot think of the origin of matter or of life; these questions are beyond investigation. That life is explainable at all on mechanical principles is an unscientific fact, disproved by the science of the best men of the world. When men think they have to be materialistic to be scientific, they are wrong.

Papers by Dr. J. Cheston Morris, of Philadelphia, on **Specialists and their relation to and effect upon the practice of medicine**; by Dr. G. W. McCaskey, of Fort Wayne, Ind., on **Specialism in its relation to other branches of medicine,** and by Dr. Elmer Lee, of

New York, on **Specialties and therapy,** were read by title.

Second Day.

The meeting was called to order at 10.30. Several additional names were added to the Fellowship.

The Auditing Committee reported the treasurer's report correct.

The Nominating Committee announced the Fellowship appointments:

President, Dr. G. Hudson Makuen, of Philadelphia.
Second vice-president, Dr. A. Goldspohn, of Chicago, Ill.
Third vice-president, Dr. Edward F. Wilson, of Columbus.
Fourth vice-president, Dr. A. L. Benedict, of Buffalo.
Secretary and treasurer, Dr. Charles McIntire, of Easton.
Assistant secretary, Dr. Walter L. Pyle, of Philadelphia.

The place of meeting was left with the Council.

The President, Dr. Edward Jackson, of Denver, then read his address, entitled, **The doctor's duty as a teacher.** He said: Before turning to the subject of my address let me thank you for the kindness which has made pleasant in every way the honor of presiding at this meeting. Let us also pause a moment to think of those whose work with us has ended. Vermyne, with broad strong face and kindly heart; Carpenter, keen, incisive, highly strung; Rohé, looking on medicine and life from many sides; Pepper, carrying great burdens, always ready to listen and to give earnest effort for the good of profession or public. Sibbet, patiently working with assured confidence for the future. These have taken permanent places in the storehouse of memory. There can be no doubt but that the founding of the Academy was due to Sibbet. If, as Emerson says, an institution is but the lengthened shadow of a great man, he was the man.

The title of doctor (teacher) has been most widely used and most willingly accepted in this country to indicate membership in our profession. I believe that has come about through some perception, however imperfect, of the fact that the doctor's highest, most prominent, and most important relationship to the community is that of teacher. His function as a dresser of wounds, a remover of diseased tissue, a repository for certain knowledge regarding the action of drugs and the skill to recognize disease, are important ones, and more likely to meet an immediate financial recognition. But all we do in this direction is surpassed by that advice and teaching which enables our patients in the community to best develop, and sustain, and conserve their vital powers. In addition to this it is well worth while to recall the urgent need of the body social for guidance and instruction from its doctors. At the present time hygiene is practically a special branch of medicine in its wider sense. The teaching of this department has been deficient and one-sided. From the standpoint of racial health and vigor, of what avail is it to save from cholera infantum and diphtheria merely to swell the number of cripples, consumptives, and the insane? How insufficient to improve the street-paving and the sewage system for men and women who work with the needle 16 or 18 hours a day and live on bread and tea at one end of the social scale; or, who do not work at all, and live on the stimulants of diet and amusement at the other end?

Insanity and Crime.—The analogs of the phenomena of crime with those of physical disease are so numerous and so essential that it is hard to conceive how any one can get a broad, comprehensive view of the scientific aspects of crime without looking at it from the standpoint of the pathologist and physician. Although one may say that crime is disease, it is still crime, to be treated, not as typhoid fever, or as cancer, or appendicitis, but as crime, by the methods which experience and scientific investigation show most efficient in the treatment of crime. That treatment may not only be preventive or palliative, it may need to be heroically surgical. The radical removal of the diseased member of society may be as clearly indicated as the removal of the cancerous breast or the gangrenous appendix.

The Attitude of the Public Toward Quackery.—Until men become wise and virtuous the war against quackery must continue. To destroy the foundations of quackery we must teach the truth, that the influence of the drug for benefit is at best but partial, temporary, and not unmixed with evil; that cures are wrought by great natural forces which medicines cannot create. The well-being of society demands the full performance of the doctor's service in teaching, the guidance of his thought, in its attitude and reaction toward the myriad influences of our civilization that may serve as the normal stimulants of life, or become the starting-points of morbid action, making for racial degeneracy and special death.

(To be continued.)

[Specially reported for the Journal.]

AMERICAN DERMATOLOGICAL ASSOCIATION.

Twenty-third Annual Meeting, held May 30, 31, and June 1, at Philadelphia, Pa.

The president of the association, Dr. John A. Fordyce, opened the meeting with an address, in which he gave an admirable resume of the advances that have been made in dermatology within the past year.

Dr. M. B. Hartzell, of Philadelphia, read a paper on **Epithelioma as a sequel of psoriasis and the probability of its arsenical origin.** The patient, a woman of 35 years, had been affected with psoriasis since the age of 14. Upon the outer side of the left heel there was an ulcer, 2 inches in diameter, with shallow edges and deep center. The palms and soles showed marked keratosis with corn-like elevations. Upon the elbows and trunk were a few patches of psoriasis which presented nothing unusual. In the left groin was a bosselated tumor the size of a small orange, firm and elastic except at the summit where it was soft. The patient had been given arsenic in considerable doses over long periods of time, and developed the horny condition of the palms and soles about 2 years after the psoriasis had made its appearance. Later small superficial ulcers occurred beneath the horny masses and obstinately refused to heal. At this time the tumor in the groin speedily ulcerated, forming a deep, fungating, foul ulcer which discharged abundantly. This was soon followed by a more or less continuous fever, loss of appetite, rapid emaciation and death in about 2 months. Histologic examination of an excised section of the border of the ulcer demonstrated beyond doubt its epitheliomatous nature.

Ten cases of associated epithelioma and psoriasis have been reported. In all of them psoriasis was of long standing; in all but 3 there was some form of keratosis; and in all epitheliomatous change took place beneath one or more of the horny excrescences. In all in which any mention is made of the treatment, 8 out of 11, arsenic had been given in considerable quantity over a long period. It is noteworthy that in 50% of the cases the lesions were multiple and that one-half of the patients were under the age of 40. In conclusion Dr. Hartzell remarked that the evidence thus far in our possession, was of such a character as to permit us to accept as very probable at least, the arsenical origin of the epithelioma in these cases. In the discussion that followed, some of the members held that the epitheliomatous change was due to the continued irritation produced by the excessive keratosis and could not be directly traced to the arsenic. Dr. Hartzell, in closing, maintained that the arsenic, being the cause of the keratosis, was responsible for the epithelioma that it superinduced.

Dr. L. D. Bulkley, of New York, read a paper entitled **Imperfect or deficient urinary secretion as observed in connection with certain diseases of the skin,** a record of the results of the examination of the urine in several hundred cases of skin-disease. Careful quantitative analyses had been made of the various urinary constituents. No uniform characteristics were found peculiar to any particular dermatosis. The urine often varied greatly in the same disease. In psoriatic patients the urine was usually of high specific gravity and contained urea in excess.

Dr. J. T. Bowen, of Boston, reported **Two epidemics of alopecia areata in an asylum for girls.** Several months after a young girl had become attacked with areate baldness of the scalp the disease broke out among the other inmates of the institution in which she lived, and spread so rapidly that in a short time 63 of the 69 girls were attacked. After several years' absence the original patient returned to the asylum and again gave rise to an epidemic of the disease, this time 26 out of 45 inmates becoming affected, although only 4 of these were among those previously attacked. The disease differed only from the ordinary type of alopecia areata in the smallness of the patches and their angularity. Numerous examinations of the hairs failed to show the presence of any parasite. Similar epidemics have been recorded by French observers, but heretofore none has been noted in America.

Dr. James C. White, of Boston, who saw the patients referred to, was inclined to believe that the disease was not a true alopecia areata as he comprehended the term. The discussion that followed revealed the fact that while many American dermatologists still hold to the trophoneurotic theory as an explanation of the majority of cases of alopecia areata, there is an increasing disposition to accredit the theory of contagion.

During the evening session, Dr. S. Sherwell, of Brooklyn, read a paper entitled **Report of a case of congenital dermatitis herpetiformis and almost complete absence of finger-nails and toe-nails.**

Dr. D. W. Montgomery, of San Francisco, reported **A maculoanesthetic lepride of the palm.**

Dr. J. C. Johnston, of New York, read a paper on **Necrotic granuloma and indurated erythema in the same subject.**

(To be continued.)

[From our Special Correspondent.]

THE AMERICAN SURGICAL ASSOCIATION.

Twentieth Annual Meeting, held in Chicago, May 31, June 1 and 2, 1899.

(Continued from page 1282.)

In the further discussion of Dr. Deaver's paper, Dr. Christian Fenger, of Chicago, endorsed in the main nearly everything Dr. Richardson said. He, however, disagreed almost entirely with the views expressed by Dr. Deaver. Dr. Francis B. Harrington, of Boston, thinks there is very little difference of opinion between Dr. Richardson and Dr. Deaver. He said Dr. Deaver does not operate on every case; he considers the condition of the patient. If the patient is in collapse, he waits, and so did all surgeons. It is better to wait not only in the cases of collapse, but in other instances. He likes to remove the appendix in every case where it is possible to do so. On the other hand, there are certain conditions in which he is inclined to wait perhaps 12 or 24 hours, or even longer, before operating. Dr. S. H. Weeks, of Portland, Me., considers the teaching of Dr. Richardson safe relative to the treatment of this disease. It must be remembered that most of the members are teachers of surgery, and it is unsafe to instruct students to operate and remove the appendix in every case. Dr. Joseph Ransohoff, of Cincinnati, thought the doctrine advocated by Dr. Deaver would do a great deal of harm, if followed by most men who operate upon cases of appendicitis. An important point to remember was this, that five-sixths of the operations for appendicitis are performed by general practitioners, men who have had very little experience in handling the intestines, in dealing with abscesses within the cavity of the abdomen, etc. Dr. Nicholas Senn, of Chicago, said uniformity of practice in the treatment of appendicitis would never probably prevail. Each man formulates his own indications, and follows his own rule of practice. Personally, he feels weakest in making an early diagnosis in the first attack. Dr. Senn narrated two instructive cases, in which it was extremely difficult to make a differential diagnosis between perforative appendicitis and perforative typhoid ulcer,one of the cases being in his honored colleague, the late Dr. John B. Hamilton. Dr. P. S. Conner, of Cincinnati, believes it is not wise to be governed in surgical judgment by the citation of one or two cases. It is not wise, on the other hand, to neglect the warning of a few cases. He does not operate on all cases, but he does believe in subjecting to operation suitable cases, and at the proper time, if it can be had. Dr. Dudley P. Allen, of Cleveland, removes the appendix in an increasing number of cases, but of those cases of abscess with sloughing of the wall, in which he has not removed the appendix, there were but three that did not heal of themselves. He had seen fecal fistulæ follow a considerable number of cases, some of which had persisted, but others which had healed of themselves. Dr. Richard H. Harte, of Philadelphia, favors the removal of the appendix in cases of early operation. He thinks conservatism in the treatment of this disease is a great mistake, and maintains that in 9 cases out of 10 the appendix can be successfully removed. The discussion was further participated in by Drs. H. H. Mudd, Joseph W. Hearn, B. F. Curtis, and N. B. Carson, all of whom substantiated, in the main, the views taken by the essayist.

Dr. Theodor Kocher, of Berne, Switzerland, contributed a paper entitled, **On some conditions of healing by first intention, with special reference to disinfection of the hands,** which was read by the Secretary in the absence of its author. This paper appears on another page of this Journal.

Nephrectomy versus Nephrotomy.—Dr. Joseph Ransohoff, of Cincinnati, Ohio, read a paper on this subject. He said that renal surgery is essentially the product of the past 20 years. The occasional operations on the kidney performed before that time, paved the way for a clearer appreciation of the conditions demanding operative relief. Betterments in the mode of examination, and the consequently greater accuracy in diagnosis, the recognition of the early gross changes wrought by disease, as seen by operation rather than by autopsy, and the comparative safety of incisions through healthy kidney-tissue, have brought to the fore the element of safe conservatism in the domain of renal surgery. Several interesting and instructive cases of pyonephrosis were reported. Nephrotomy, *per se*, is doubtless an operation nearly devoid of danger. When performed on a healthy kidney, as for stone, the mortality is less than 5%. When performed for suppurative diseases, the mortality rises. He has tabulated records of 78 nephrotomies for pyonephrosis, exclusive of tuberculosis, published within the last three years from various clinics. Of these 78 nephrotomies, 17 were followed by death, a mortality of 21.8%. In the hands of some surgeons the mortality has been very large. Four out of 5 cases were fatal in the Vienna clinic. Out of 6 cases of nephrotomies at the Roosevelt Hospital 3 died. On the other hand, Israel lost only 1 out of 8, and Thornton 1 out of 12. From the same sources he has tabulated 37 primary nephrectomies with 9 deaths, giving a mortality of 24.3%, and 17 secondary nephrectomies, with 7 recoveries and 10 deaths, a mortality of 58.8%. The advantages of nephrotomy for pyonephrosis are obvious: First, it is an operation readily tolerated even in patients greatly reduced by fever. Second, it permits the surgeon to determine the condition of the opposite kidney. Third, by it the saving of even a small amount of functionating kidney-tissue may throw the balance in favor of recovery. In dealing surgically with a pyonephrotic kidney, statistics can guide the operator only in a general way in the choice between nephrectomy and nephrotomy. Nephrotomy is indicated in pyonephrosis, first, when the condition of the opposite kidney cannot be ascertained. Second, when the reduced condition of the patient will not permit the major operation if this is indicated. The nephrotomy is then but the preliminary step to be followed by nephrectomy as speedily as possible. Third, when the operation reveals the pressure of considerable kidney-tissue, and an approach to the normal on the part of the pelvis and proximal portion of the ureter. Here a later ureteroplasty may avert the need of nephrectomy. Fourth, when there is evidence of suspicion of disease in the other kidney. Primary nephrectomy is indicated, first, when there is a sound second kidney. Second, when inspection of the exposed kidney shows many or large pouches that cannot be successfully drained. Third, when there is little kidney-tissue left. Fourth, when an examination of the pelvis and proximal portion of the ureter makes it reasonably certain that a return to the normal cannot take place. Fifth, in paranephric and perinephric suppurations when the kidney acts as a valve impeding successful drainage.

Hernia Following Operations for Appendicitis.—This paper was read by Dr. Francis B. Harrington, of Boston, who made a personal examination of the condition of the abdominal wall in 236 cases of appendicitis, which had been operated upon at the Massachusetts General Hospital, by various surgeons. They represented all varieties of the disease. The period which had elapsed since operation varied from 9 months to 9 years. No case was included which was operated upon since July, 1897. Total number examined, 236; males, 190; females, 46; 27 true hernias in all—11½%; 21 true hernias in males, 11%; 6 true hernias in females, 13⅓%. Eighty-five wounds closed at the time of operation, 3 hernias, 3½%; 35 wounds partly closed at the time of operation, 11 hernias, 12½%; 63 wounds left entirely open at the time of operation, 13 hernias, 20%. If with these cases of true hernia is included 10 cases of punctiform hernia, and 53 cases of more or less bulging in the scar which did not constitute true hernia, the following percentage of weak scars is noted: In 85 closed wounds, 6%; in 88 partly closed wounds, 51%, and in 63 open wounds, 62%. Intermuscular spaces: An opening between muscles or tendons or both could be detected in the scars. In 85 closed at the time of the operation, 26%; in 88 partly closed at the time of operation, 83%, and 63 open wounds, 87%. General abdominal bulging: In 85 closed incisions, 7%; in 88 partly closed incisions, 45%, and in 63 open incisions, 46%. During the period in which these cases were operated upon, that is, from 1888 to 1897, some of the muscles or tendons were cut at right angles to their fibers in the acute cases, and often in the cases which were tightly closed at the time of operation. The writer advocates the use of an enlarged McBurney incision in all acute cases which will obviate the cutting transversely of any muscle or aponeurosis. *Resume.* Hernia and bulging occur frequently after operations for appendicitis, and result from the separation of muscles and other tissues in the scar. They are more common when drainage has been used. The muscular and tendinous tissues should not be transversely cut in any appendix operation unless it is unavoidable. As little drainage-material as safety will permit should be used, and when necessary at all, the wound should be closed as far as possible with sutures and the drainage removed early. If the wound can be closed immediately the tissues should be restored to their normal position by suturing each layer. Stout belts and trusses are of little value in preventing hernia and may even do harm. The abdominal muscles from the earliest period possible after operation should be developed by appropriate muscular exercises. If hernia or marked bulging appears, operation for cure is safe and satisfactory.

Dr. Albert Vander Veer, of Albany, N. Y., followed with a paper on **Some unusual cases of appendicitis with complications.** Operative surgery, in its relation to the appendix, will ever present rare and unusual cases. This was brought out strongly last year when the president of the association and others gave the histories of some very unusual lesions of the abdomen. Surgeons may examine their cases with ever so much skill, employing diagnostic intelligence to the best advantage, yet when they enter the peritoneal cavity they must be prepared for surprises. From the knowledge acquired from these isolated and rather rare cases, it is more possible to increase the percentage of recoveries. A hernial sac with the appendix therein is not particularly rare, but to find it with a foreign substance like a pin, immediately in the appendix, and not having caused trouble, is somewhat unusual. To operate for the relief of femoral hernia and find not only the appendix, but a prolapsed bladder in the female, is certainly decidely rare. Dr. Vander Veer then detailed 8 somewhat unusual and complicated cases.

Dr. Solon Marks, of Milwaukee, Wis., reported an interesting case of **Forward dislocation of the fifth cervical vertebra.**

Dr. Dudley P. Allen, of Cleveland, Ohio, presented a paper entitled **Cases of fracture of the skull, followed by recovery.** He reported 10 cases of fracture of the skull, all but one of them involving the base. The first 5 reported were fractures at the base of the skull without any injury to the vault. Of these, three patients became totally unconscious at the time of the accident, one was in a semiconscious condition, and the third, so far as could be ascertained, retained consciousness. Bleeding from both ears occurred in two of these cases, whereas in three of the cases there was bleeding at only one ear. Deafness in one case occurred in both ears at the time of injury. Whether in the other cases deafness occurred at the time of injury could not be definitely determined. In two of these cases, however, deafness was complete and permanent in one ear, and in one case the hearing was much impaired in one ear. Loss of smell was complete in one case and greatly impaired in one case. Paralysis of one side of the face occurred in two cases, in one of which it remained permanent. These five cases of fracture confined to the base of the skull are alive and well at the present time, except for the disabilities just described. There were two cases of children who fell from heights upon the vault of the skull, causing most extensive fracture and great deformity of the cranium. In one of these cases there was a great deal of hemorrhage from the ears. In both the scalp was lifted, the cranium was laid bare, and by means of a hook the fragments making up the depressed vault were raised to their normal positions. Both have recovered. One, however, has impaired hearing in one ear. Two cases reported were of injuries in the frontal region extending into the base. In one of these there was extensive injury to the frontal bone, and a large amount of bone and considerable lacerated brain-tissue were removed. There was a fracture in this case extending across above the frontal eminence to the temporal fossa, upon the opposite side of the skull to that which received the greatest injury, and there was a fissure from the base of the skull extending from the frontal bone backward to the sella turcica. This case had a large cerebral hernia. In the other case the injury to the frontal region and the involvement of the bone was small. The point of interest in the latter case was the temperature, which rose gradually at two different periods to 105°, the case presenting many of the symptoms of typhoid fever with a relapse of the same. The other characteristic symptoms of typhoid fever were, however, entirely lacking, and the presence of optic neuritis, indicating probably a basal meningitis, placed the diagnosis of the cause of fever in considerable doubt. Both cases made a complete recovery. The tenth case was one of severe injury in the region of the right parietal bone, followed in some weeks by impairment of mental activity, and also of motion of the right arm and leg. This was found to be due to a large subdural collection of blood upon the left side, notwithstanding there was no evidence of injury upon this side. The accumulated blood amounted to several ounces. It was removed and the patient is now well. These cases which have recovered are reported because of the interest attached to the symptoms attending fracture, namely, hemorrhage from the ears, facial paralysis, loss of hearing and loss of smell.

Dr. W. Joseph Hearn, of Philadelphia, reported an interesting case of **Removal of an esophageal diverticulum,** and in the discussion, Dr. M. H. Richardson, of Boston, narrated two interesting cases.

The following officers were elected for the ensuing year: President, Dr. Robert F. Weir, New York City; first vice-president, Dr. Charles B. Nancrede, Ann Arbor, Michigan; second vice-president, Dr. Edmond Souchon, New Orleans, La.; secretary, Dr. Herbert L. Burrell, Boston; treasurer, Dr. George R. Fowler, Brooklyn, N. Y.; recorder, Dr. De Forest Willard, Philadelphia; member of the Council, Dr. W. W. Keen, Philadelphia. Place of meeting, Washington, D. C., in conjunction with the Congress of Physicians and Surgeons, May 1, 2, and 3d, 1900.

[From our Special Correspondent.]

AMERICAN ORTHOPEDIC ASSOCIATION.

The Thirteenth Annual Meeting, held in New York, May 31, June 1 and 2.

First Day.

The President's Address, by Dr. W. R. Townsend, described the development of orthopedic surgery, as indicated by hospitals and dispensaries for such work, in and about New York City. He said that the pioneer institution had been established in 1866, largely through the efforts of the late Dr. C. Fayette Taylor. This subsequently moved to the present site of the New York Orthopedic Dispensary and Hospital. In 1870 the Hospital for Ruptured and Crippled had been ready for occupancy. Its founder, the well-known and indefatigable worker in this field, Dr. James Knight, died in 1887, after many years of unremitting labor for his chosen specialty. The present institution had been recently supplied with the most modern operating equipment, together with pathologic and bacteriologic laboratories. Altogether there were more than 500 beds for orthopedic patients in New York City, and during last year about 15,000 out-patients were treated.

Dr. Charles Fayette Taylor.—Dr. E. H. Bradford, of Boston, presented a memorial address on the life and labors of this eminent orthopedic surgeon.

The title of a paper prepared by Drs. E. H. Bradford and E. G. Brackett, of Boston, was **The forcible correction of lateral curvature.** They asserted that it was particularly desirable in these cases to make the pressure (1) over the point of maximum curvature; (2) over the pelvis, and (3) on the neck or above the scapulæ, using, of course, counterpressure at three corresponding positions anteriorly. The treatment was carried out with the aid of the hammock, or preferably the Brackett frame—a mechanical device for making the requisite pressure in the regions mentioned. Not only did this treatment reduce the deformity, but it often increased the flexibility. It was applicable to cases in which other methods could not be used, and to cases in the growing stage in which there was more or less bony change.

Dr. Walter Truslow, of New York, presented by invitation a paper entitled, **Some remarks of the class-method of gymnastic treatment in lateral curvature,** and subsequently gave an interesting exhibition of the method at the Hospital for Ruptured and Crippled. The paper was based on his work in this field during the past 17 months on 199 cases varying in age from 11 to 16 years, with a few exceptions. A little less than 50% of the cases had presented postural deformities, while the other half had had more or less fixed deformities beyond the control of the motor-apparatus. The treatment had aimed to so train the muscles as to allow of their assuming an approximately normal position. Experience had demonstrated the advisability of dividing the cases into three classes: (1) children just past puberty, beginning the treatment; (2) children who still required treatment but were sufficiently advanced to work with older ones just beginning, and (3) those who had acquired sufficient musular development to engage in heavier work. The method was an adaptation of the Swedish educational gymnastic movements. These exercises had been found well adapted to the isolation and stimulation into activity of groups of muscles, thus securing correction of faulty positions and at the same time developing purposeful and intelligent cooperation. Nearly all those who had faithfully followed the treatment had exhibited decided improvement.

Some post-paralytic deformities and their treatment, were considered by Dr. Jacob Teschner, of New York. He said that he looked upon the reaction of degeneration in the muscle as evidence only that the greater part of the muscle had been changed; it did not necessarily mean that there were no fasciculi that retained their normal properties. In a comparatively short time he had secured in each case treated far better results than had been secured by others from a much longer use of massage and electricity.

Dr. J. E. Goldthwait, of Boston, in opening the discussion on the foregoing papers, said that it was well to remember that forcible correction did not cure rotary lateral curvature, though it was a valuable adjunct to other measures. According to his experience, the maximum improvement had been attained by the forcible method in a short time. It was important to study the record of the pulse taken before exercising and ten minutes afterward, as this constituted an important factor in prescribing the kind and amount of exercise best suited to the individual patient. The exercise should be so regulated that the pulse-rate would be lower after than before exercise. Dr. John Ridlon, of Chicago, said that in dispensary work he had obtained some excellent results by applying plaster-jackets to patients while lying on a modification of Goldthwait's frame. Dr. H. Augustus Wilson, of Philadelphia, spoke in favor of manipulations carried out with the surgeon's knee as a fulcrum, and claimed that not only were the results good, but the patient was spared the terrifying effect of seeing the large and complicated mechanical devices. The patient being seated on a chair with the pelvis fixed, the back to the manipulator, and the hands raised, the surgeon bent the patient laterally over his knee, and, after the full amount of flexion had been obtained by rotation of the shoulders in one or the other direction, it was possible to obtain an untwisting that was exceedingly valuable in promoting flexibility of the spine, and in aiding the development of the muscles. Dr. Louis A. Weigel, of Rochester, pointed out the fact that Dr. Brackett recommended a method of correction that was maintained for a considerable time—a point of no little importance. Dr. B. E. McKenzie, of Toronto, said that he had already published a method of correction, in which the patient, while suspended by the neck, had lateral traction made at the point of greatest lateral curvature, while the surgeon used his hands to untwist the rotation. He favored a combination of individual and class instruction. The latter had the very distinct advantage of stimulating rivalry among the pupils. Dr. T. E. Satterthwaite, of New York, spoke in favor of class-work and of manual force, as opposed to force exerted by machines. Dr. Reginald H. Sayre, of New York, said that the patient could not voluntarily correct the deformity until adhesions had been broken up, and in a certain number of cases in which it had seemed impossible to do much by the ordinary means, he had given an anesthetic and by violent manipulation had broken up the adhesions. While still recumbent, strong traction had been made and a plaster-jacket applied. This treatment had been followed by little or no reaction, and in some of the cases the result had been quite good. It was essential that the patient should understand the object of the treatment so that he would cooperate with the surgeon and carry out the principles during the greater part of each 24 hours. Dr. W. E. Wirt, of Cleveland, thought if more than 4 or 5 were in a class the details would be neglected. His own plan was to correct the deformity so far as possible by suspension and posture; prepare a plaster-of-paris mold from the patient, and so alter it that the corset modeled on this mold would be somewhat overcorrected. At night the corset was replaced by a sleeping-apparatus. Dr. R. Tunstall Taylor, of Baltimore said that where the patient was too weak or too listless to hold the body straight he used a brace, modeled after the human hand, and having the pelvis for its base of support. Exercising before the looking-glass and reference to photographs were aids to both patient and surgeon.

Dr. Augustus Thorndike, of Boston, read a paper on **Congenital deformities of the spine,** illustrating it freely with anatomic and pathologic plates. Speaking of spina bifida, he said that in a very large proportion of these cases death occurred in the first year of life. At present the tendency was to favor excision. Excision should be done whenever rupture had occurred or was imminent. Excision purely for the purpose of relieving paralysis was rarely successful.

Dr. L. A. Weigel, of Rochester, made some remarks on **the diagnostic value of radiography in orthopedic and general surgery,** illustrating them with a large number of lantern-slides. He did not believe that the x-rays led to such fallacious results as many claimed, but the skiagram, to be of value, must be sufficiently good to show the structure of bone, and must be free from distortion. He had been using the x-rays for two years and a half, employing for one year a coil machine, and for the remainder of that time the static machine, which he greatly preferred. In not a single instance had he produced anything even approximating an x-ray burn. This he was sure was solely due to the avoidance of excessively long exposures, and to operating with the vacuum-tube always at least 8 inches from the subject, and usually at a distance of 18 inches. At this distance an adult foot would require an exposure of about 3 minutes, and that of a child about 40 seconds. For the hand 1 minute would suffice, while for the elbow and knee the exposure should be 5 or 6 minutes.

Subcutaneous Tenotomy—Biographical Notes.—Dr. A. B. Judson, of New York, in this brief sketch, told of the early work of Stromeyer, W. J. Little, and William Detmold.

Report of the Committee on Recording Lateral Curvature.—This report had been previously circulated among the members. The conclusion arrived at by the Committee after much experimentation and study was, that although photography presented many defects it was the best method at present known for recording cases of lateral curvature. Dr. McKenzie, in opening the discussion on the report, remarked that he had gradually discarded every other method in favor of "honest photography." Dr. H. A. Wilson thought nothing else could compare with honest photography, not only because of the accuracy of the record, but because the personal equation was reduced to the minimum and the results admitted of ready interpretation. Dr. N. M. Shaffer and Dr. Lovett both advocated photography, the latter adding that in recording muscular conditions the record should state under what conditions the standing record had been made. Dr. Henry Ling Taylor, of New York, recommended that the standing height and sitting height of the patient should be recorded under the same conditions at intervals of about 3 months. As to the trustworthiness of the results obtained by photography, every practical photographer knew well that without any intention to deceive many inaccuracies might be introduced. Drs. Truslow, Dane, and C. E. Young described simple and ready methods of making clinical records of these cases. After a full discussion of the report, the association decided that it was inexpedient at present to indorse any one method of making records of cases of lateral curvature.

Pigeon-toe was the subject of Dr. W. Burton Hopkins, of Philadelphia. He described an ingenious swivel-and-spring device for correcting pigeon-toe. The arrangement could be readily imbedded in the heel of the shoe, and as now made did not easily get out of order. Its action was to throw the foot out as the person walked. Dr. L. W. Hubbard, of New York, said that most of his cases of pigeon-toe had been in young children who did not wear high heels on their shoes, and that, therefore, there was no place for the attachment of this device. Dr. Whitman thought these cases were almost always symptomatic of weak feet, and this gave clue to the rational treatment. Dr. Ridlon remarked that most of his cases had been associated with equinovarus. Dr. C. C. Foster, of Cambridge, had found that a cure could be effected by military drill, and appealing to personal vanity. Dr. H. A. Wilson said that it had been demonstrated that the action of this device was the production of ankle-joint rotation.

Second Day.

A Study of Pott's Paraplegia as Affected by Correction of the Spinal Deformity.—Dr. Joel E. Goldthwait, of Boston, presented a communication on this subject, based on the observation of 11 cases, 3 of them being between 4 and 6 years old. In one of the adults, a girl of 20, the paraplegia had been almost magically relieved in a few hours by the application of the jacket, but the paraplegia had returned when the jacket had become soft. Dr. V. P. Gibney, of New York, referred to the case of a man upon whom Dr. Abbé had performed laminectomy, and had removed from the spinal canal a mass of granulomatous material, with the result that the cord had immediately begun to pulsate again, and its color had been improved. The man had steadily improved since the operation, and was able to sit up, although he had not yet essayed to walk. Dr. Sherman was inclined to suspect that in the case in which there had been such sudden and wonderful improvement in the paralysis there was an hysteric element. Dr. R. Lovett, of Boston, said that it was now quite generally admitted that the pressure-symptoms were due to a lymphatic edema, and if this view were correct it might explain the sudden change observed by Dr. Goldthwait. Dr. Weigel cited a case illustrating the fact that although the external deformity and the paralysis were both slight, there might be such extensive destruction of the vertebras as to render forcible correction an exceedingly hazardous procedure. Dr. Goldthwait, in closing, said that in none of his cases had there been a permanent recession of the deformity, although all had been relieved. He did not believe the case exhibiting the sudden changes in the paralysis was hysteric; he had seen the same thing in several young men.

Osteoarthritis of the spine in spondylitis deformans was a paper also presented by Dr. Goldthwait, which contained the histories of 35 cases. He stated that the disease belonged to adult life, but the etiology was obscure. The disease consisted in the formation of nodules on the edge of the articular cartilages, with a subsequent ossification of these nodes, and an extension of the process into the adjacent ligaments. It usually began anteriorly and to one side. As ankylosis proceeded, pain was complained of, and the thorax became rigid. The paralysis was always partially, but never completely, recovered from. The treatment, both medicinal and hygienic, should be stimulating. Hot baths, if of short duration, were useful, but if prolonged, they caused prostration and made the patient worse. Dr. Ridlon described a case, occurring in a woman of 25, in which, although the disease was quite advanced, he had succeeded in relieving her far beyond his expectations, by placing her under an anesthetic and subjecting the parts to violent manipulation. She now had in the lower portion of the spine about half the normal range of motion, and her chest-expansion had returned almost to the normal for a woman. Dr. C. L. Starr, of Toronto, reported an interesting case in which a man of 40 years, although suffering from the disease in such an advanced stage that the ribs had become ankylosed, was able to pursue his occupation as a clarionet player in a band.

In a paper on **Operative treatment of congenital luxation of the hip,** Dr. G. G. Davis, of Philadelphia, described his method of making a new acetabulum in these cases by the use of a wood-carvers' gouge and an instrument known as "a rose burr."

Report of a case of dorsal dislocation of the hip occurring spontaneously during the course of an acute osteomyelitis of the neck and shaft of the femur was made by Dr. W. J. Taylor, of Philadelphia. The patient, a boy of 13, had been injured, apparently only slightly, while playing football, but after a short time he had begun to get worse instead of better. A few weeks later, examination under an anesthetic showed that as a result of an extensive osteomyelitis a true spontaneous dislocation had occurred. The exact time of the occurrence of the dislocation was not known. It was not impossible that if the distention of the capsule prior to this accident had been recognized and relieved, the dislocation might have been prevented.

Reduction of congenital hip-dislocation by the Lorenz method, was the subject of a paper by Dr. W. E. Wirt, of Cleveland, who reported two cases treated by the bloodless method. The first one had done well, but during his absence as naval surgeon during the late war, the child had fallen into the hands of a surgeon in Cincinnati, who had insisted that the joint was perfect and that there was no further need for protective apparatus. In about 6 days the dislocation had returned. On his return home, Dr. Wirt had operated again, with good result.

Dr. Harry M. Sherman, of San Francisco, read a paper on **Congenital dislocation of the hip.** He had done the bloody operation on 9 hips. In 3 of these the luxation had relapsed after it had been supposed that there was permanent ankylosis; in 2 or 3 good motion had been secured; in the others the reductions had been stable, but ankylosis had occurred. He was inclined to attribute this ankylosis to granulation-tissue springing up from the exposed cancellous tissue and encircling the head of the bone. He had subjected 13 joints to treatment by the bloodless method of Lorenz, with varying results. In 7 the luxation had returned. He preferred now to satisfy himself by incision and digital exploration that the head of the bone had been certainly placed in the acetabulum. He proposed to try to *punch* out an acetabulum in an upward and inward direction, thus securing sufficient depth without exposing so much cancellous tissue.

The Kyphotone—A Machine for the Forcible Correction of the Deformity of Pott's Disease.—Dr. R. Tunstall Taylor, of Baltimore, exhibited this instrument, which was intended to make traction backward on the trunk and spine during the application of the plaster-jacket. The advantages claimed for it were: (1) The spine was fixed in the most advantageous position; (2) the rapidity and ease with which the jacket could be applied; (3) its applicability to cases of mid-dorsal, lower dorsal and lumbar caries; (4) the removal of the superincumbent weight from the diseased articular processes, and (5) the inexpensiveness of the apparatus. Dr. Taylor also exhibited and described a **new traction apparatus,** characterized by simplicity of construction and provision for sterilization and securing the highest degree of cleanliness. His folding steel apparatus for making extension with weight and pulley and inclined plane was especially worthy of commendation.

(To be continued.)

THE INTERNATIONAL TUBERCULOSIS CONGRESS IN BERLIN.[1]

WEDNESDAY.

PROF. SIR THOMAS GRAINGER STEWART said: I feel it a great honor that I should be called upon to speak on behalf of the representatives of my country on this occasion, although I am well aware that there are some who might much more adequately have discharged the duty. When one thinks among others of my friend Sir Hermann Weber, who, although a German by birth, has won such distinction among us that he has received the honor of knighthood at the hands of the Queen, of whom our whole empire thinks with such affection, respect, and gratitude to-day. When one thinks of him one feels that he might well have been asked to speak our congratulations, but I am assured that he has declined to undertake the duty, and so I obey the call of the Committee. I do so the more willingly because of the close links which have long connected the University which I represent and the great University of Berlin. It has for very many years been customary for graduates of Edinburgh to come to this city in order to sit at the feet of the great leaders of medicine here; and so forty years ago it was my privilege, after studying at home under Goodsir, and Syme, and Simpson and Christian, and Hughes Bennett, to come here and enjoy the instructions of the great masters of Berlin. Even then we all listened with delight to the teaching of Virchow, of von Graefe, of Schönlein, of Traube, of von Langenbeck, and of others whose fame was in all lands. These were great men in Berlin in those days; but I return to it with like pleasure now, for there is no need to dwell merely on the praises of the past. I am not one who is prepared to take up the attitude of those who

> Klagten wie alles besser
> Gewesen zu unserer Zeit.

No; with men like our president, von Leyden, and Koch, and so many more, and with my old master, Virchow, to whom I owe so much, still in the midst, I can turn here with new hope of instruction and suggestion in regard to the mighty war to which the world is awaking—against tuberculosis, the most deadly enemy of our race. In our country as here we are profoundly in earnest, and as here, the highest in the land are lending their influence and giving their help; so with us, not merely the members of our profession, but H.R.H. the Prince of Wales, and leading statesmen and philanthropists are cordially cooperating in this great crusade. One fact I should desire to mention is that in many parts of our island the open-air treatment of consumption is being carried out. Even in Edinburgh, where we are not unfamiliar with rain and mist and east wind, the open-air treatment is carried out in the Victoria Hospital as it is on the beautiful slopes of the Taunus, and with results which appear as satisfactory as those of Dr. Dettweiler and the other workers in German sanatoria.

His speech was most cordially received, and PROF. HIRSCHBERG afterwards remarked that Prof. Grainger Stewart had taught the Germans by his speech to realize how well they understood English; in fact the Congress was cosmopolitan if not, as some sticklers for accuracy have argued, strictly international. One result has been that, though there was but one official language—German—there was much friendly mutilation of various languages. Science has had a checkered career. In ancient days it was a garden pastime of Greek philosophers, in the Middle Ages it endured persecution and martyrdom, to-day it is recognized in high places, and has at its shrine wealth and rank, Princes and Emperors.

THURSDAY.

Perhaps the two most important papers of the day were those by PROF. C. FRÄNKEL, of Halle, on **The mode of infection in tuberculosis,** and that by PROF. VIRCHOW, on the **Prevention of tuberculosis** as regards articles of food.

FLÜGGE, of Breslau, introduced the subject of etiology by an address on the relation of the tubercle-bacillus to tuberculosis. After a historic survey of the research connected with the subject, he affirmed that there was no longer any room for doubting the view that the tubercle-bacillus is the only direct cause of all the different kinds of human tuberculosis, as well as of animal (especially bovine) tuberculosis. Two chief objections had been made to Koch's theory: (1) That the expectoration of consumptives does not always contain tubercle-bacilli; and (2) that bacilli found to be acid-proof in the staining process are sometimes found in nontuberculous organs. But the first objection was answered by the experience that the bacilli perished very speedily outside the organism, and the acid-proof bacilli of the second objection were by no means identical with tubercle-bacilli, from which they differed in biological and staining properties. Tubercle-bacilli were parasites which did not flourish outside the animal organism, and which required an artificial nutritive medium for their development. In such cultivations they underwent morphological changes, and lost virulence more or less speedily. Thus there might be non-virulent tubercle-bacilli, which had no infective power; but it would be unjustifiable to make this fact responsible for doubts as to the connection of cause and effect between the bacilli and the disease.

PROF. C. FRÄNKEL, of Halle, spoke fluently and well with scarcely a reference to his notes. He said that since Koch's great discovery of 20 years ago—many, though not all—the problems connected with the subject had been solved. It was known now that the tubercle-bacillus did not flourish outside the animal organism. From it, therefore, all sources of infection arose. The meat and milk of tuberculous cattle, the secretions of tuberculous lesions or mucous membranes, and above all the sputum of consumptives, spread the bacilli. Each animal and each human being, in the secretions of which living tubercle-bacilli could be found, gives occasion for the spread of the disease. But this fact should not cause groundless fears, for it was only where the tuberculous germ was in open communication with the outer world that there was any danger to healthy persons. There was none, for instance, in cases of either peritoneal or of meningeal tuberculosis, nor even in the cases of phthisis in the first stages, that is, without penetration into the ramifications of the bronchia. Even where this was the case, air quietly expired was free from bacilli. It was only when the contents of the cavities were emptied by coughing, that tubercle-bacilli were ejected in tiny masses or drops of expectorant material. But these bacilli had no great power of resistance outside the organism; sunlight soon destroyed them; putrefaction in six or seven weeks; desiccation in six to ten months. They were only found in the immediate surroundings of phthisical patients; when their producer was removed they disappear. The supposed ubiquity, therefore, as had been conclusively proved by Cornet, does not exist.

Mixed Infection of Phthisis.—PROF. PFEIFFER, of Berlin, said that tuberculosis, especially of the lungs, rarely remained without complication for any length of time. Generally other bacteria—chiefly streptococci—joined their action to that of the tubercle-bacilli. Their mode of entrance into the lungs was generally from the nose or the upper air-passages. Such mixed infections gave the clinical configuration known as "consumption," and they caused the so-called "hectic fever." Probably the poisonous metabolic products of the streptococci produced the fever. As such patients were to a certain extent sources of danger to cases of uncomplicated lung-tuberculosis, it was advisable in sanatoria to separate patients with fever from those without fever.

Heredity, Immunity, and Disposition. — PROF. LOEFFLER, of Greifswald, observed that tuberculosis might heal spontaneously. Congenital tuberculosis was extremely rare; in all such cases tuberculous disease of the mother's generative organs had been found. Tuberculosis of the father had no part in the heredity transmission of the disease. There was no proof as yet of immunity to the disease, nor of congenital or hereditary disposition to it; but it was very probable that other diseases of the respiratory or digestive organs, as well as disturbances of nutrition, favored tuberculous infection. The discussion was opened by PROF. BIRCH-HIRSCHFELD, of Leipzig, with remarks on the first stage of phthisis. His postmortem examination of 32 cases of latent primary lung-tuberculosis showed that, in 28 of the cases, the disease had its primary origin in the mucous membrane of one of the medium-sized bronchi. M. LAUNELONGUE, of Paris, gave an account of his animal experiments in connection with traumatism and tuberculosis. They supported the view that in scientific experiment, as in clinical experience, it was rare for the tuberculous process to be localized at the spot of a traumatic lesion. Prof. Brieger, of Breslau, discussed "hypertrophy" of the tonsils, which, he said, was wrongly considered as a symptom of scrofula, but which was capable of producing the chief and most typical symptoms of scrofulosis. Under the appearance of hypertrophy of the tonsils, however, tuberculosis might—though rarely—conceal itself. Latent tuberculosis of the tonsils was not of much importance in relation to the development of lung-tuberculosis, but was etiologically important for tuberculosis of neighboring organs, such as the middle ear. M. Courmont, of Lyon, gave an account of his researches with the "agglutination" method, using homogeneous cultures of the Koch bacillus. Of 186 tuberculous cases, he obtained the agglutination reaction in all but 10, these being advanced cases (cavities and fever). He concluded that the agglutination method gives excellent results in the diagnosis of latent and masked cases. Dr. Hesse, of Dresden, described a new modification of nutrient agar-agar. Dr. Max Wolff, of Berlin, described animal experiments for the purpose of determining the heredity of tuberculosis. Only one descendant of the infected animals, 60 in number, was found to be tuberculous. M. Courmont, of Lyon, gave an account of two typical tuberculous cases (human) in which the bacillus of Koch was not present, but a bacillus very similar, though by no means identical. He described the growth, staining qualities, etc., of the bacillus. In reply, Prof. Flügge, of Breslau, acknowledged that it was sometimes extremely difficult to find the bacilli of Koch, but declared his conviction that they were present in every case of tuberculosis.

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[1] From advance sheets by the courtesy of the Editor of the *British Medical Journal.*

General Measures for the Prevention of Phthisis.—Dr. Roth, of Potsdam, expressed the opinion that, since tuberculosis was an infectious disease, the sanitary police should carry out preventive measures. The chief danger to be guarded against was inhalation of the expectoration of patients. The knowledge of this danger should be spread and popularized as largely as possible, and the masses should be instructed by every available means to recognize the first symptoms of consumption and to take proper precautions. In sanatoria he recommended the use of spittoon bottles made of strong paper material, which should be burnt and replaced by new ones every day.

Prevention of Infantile Tuberculosis.—Prof. Huebner, of Berlin, observed that tuberculosis was not congenital. Among the 800 infants of his clinic, none of those under a year old were tuberculous, but 26 of those from 3 to 4 years of age were infected. Infantile tuberculosis was in the great majority of cases acquired by inhalation; therefore children should be carefully guarded against contact with tuberculous patients. Children of tuberculous parents acquired the disease more readily than others, and the greatest care should be taken to strengthen them to resistance by open-air treatment, careful feeding, cold baths, etc.

Marriage.—Prof. Kirchner, of Berlin, discussed the dangers which attend the marriage of tuberculous persons. Such marriages were dangerous for the patient, for the healthy husband or wife, and for the children. The danger was greater among the poor (crowded dwellings, etc.,) than among the well-to-do. Public opinion should be influenced to prevent (1) the marriage of youthful persons who from appearance and family history seemed inclined to tuberculosis; (2) the marriage of tuberculous patients, unless two years had elapsed since symptoms of phthisis had been observed. Married patients should be carefully taught that they were a danger to the other members of the family, and instructed in all the means at their disposal for minimizing such danger.

Houses, Workshops, and Public Vehicles.—Prof. Huebner, of Berlin, dealt with the prophylaxis of tuberculosis in dwellings, workrooms, and public traffic. The hygienic defects of poor people's dwellings were, he said, well-known, and they could only be mended by building-regulations, improved legislation as to house-building, and by the appointment of house inspectors, in workrooms, factories, etc.; greater precautions against the breathing of dust, etc., should be exacted by law. Medical inspectors should be careful to have all tuberculous persons excluded from mills, workrooms, etc., thus protecting the other workpeople from infection. As regards public traffic the public should be requested by placards, etc., not to spit on the floors of omnibuses, railway carriages, etc., and all public conveyances, especially sleeping cars, should be most carefully cleaned after use.

Hospitals.—Von Leube, of Würzburg, in discussing prophylaxis in hospitals, said that the most delicate cleanliness was necessary. The patients should expectorate into special spittoons, and when coughing should always hold a pad of cotton-wool (afterwards burnt) before the mouth. Servants should wear muslin veils or masks while making the beds, cleaning the floors, etc. Though it was an open question whether the sweat contained tubercle-bacilli, doctors and nurses should take the precaution of disinfecting their hands after touching tuberculous patients. Where proper attention was given to prophylactic measures, it was not strictly necessary to isolate tuberculous patients in general hospitals. But, of course, where they could conveniently be separated from the other patients, it was advisable to do so. The airiest, lightest wards should be chosen as "phthisis wards," and there should be verandas to enable the patients to lie in the air.

The Prevention of Tuberculosis from Articles of Food.—Prof. Virchow said the chief spreaders of the disease were cattle, by their meat and by their milk, then pigs, and lastly, poultry. The existing German regulations for the examination of meat in slaughterhouses would suffice if made general. As regards the introduction of live cattle from other countries, the animals should be subjected to the tuberculin-test. The greatest danger lay in milk. Cow's milk might contain bacilli, or they might find their way into the milk from the udder, which was sometimes studded with foci. The only rational remedy for their enormous danger would be the destruction of tuberculous cattle. But as this was not feasible at present, the danger must be minimized by boiling or sterilizing milk. Pigs were more subject to tuberculin than had been supposed. Its chief seat was the lymph-glands in the wall of the neck (scrofula), but these parts could be excised if proper care be taken. The danger from poultry was not great, as their tuberculosis is not identical with human tuberculosis. Nevertheless, he considered that tuberculous poultry should be destroyed. In conclusion, Virchow disputed the dogma of congenital or inherited tuberculosis on the strength of his own pathological examinations. The existence of tuberculosis in unborn or newborn infants has never yet been conclusively proved. Infection took place after birth—it may be in the first days of life.

Time being short, a motion to close this section without a discussion was carried. Thus a number of papers had to be passed over unread, of each of which, however, a short synopsis has been published in the *Journal* of the Congress. Among these was one by Dr. Donahue, of Syracuse, United States of America, on Prophylaxis, in which he states that tuberculosis cuts off 12,000 inhabitants of the State of New York yearly, and that infected milk had a great share in disseminating the disease.

Curability of Pulmonary Tuberculosis.—In introducing this subject Prof. Curschmann, of Leipzig, said that complete cures, in the strict histologic sense, were very rare. Cessation of the process, with formation of scars and obliteration of the attacked part of the bronchial tree was more frequent. Such cases might be called cures in a clinical sense. A still larger proportion of cases attained what might be called a "relative cure," that is, a lingering continuation of the process with fairly good general health. There had been undoubtedly great improvement in the results achieved of late years. This was due to the physical and dietetic system of treatment now widely used. The lung-sanatoria gave excellent results—on the average about 20% of the patients showed permanent improvement. Of course, the earlier the stage of the disease and the smaller the area attacked, the greater the chance of cure. Therefore, early diagnosis, especially of "latent" forms, was of the greatest importance. Climate had not the influence on recovery formerly attributed to it. The chance was favorable everywhere where the air was pure and the temperature not too changeable. The old theory of "immune zones" was no longer tenable. As regards mixed infection, experience was far too small to make it possible to speak with certainty of chances of success.

The Medicinal Treatment of Tuberculosis.—Prof. Kobert, of Rostock, said that experience had fully proved that there was no real specific against pulmonary tuberculosis; and, further, that in miliary tuberculosis and galloping consumption there was no known therapeutic method which could save the patient. Early cases of phthisis could be dealt with so successfully by the Brehmer (open-air) method; that drugs were not required. In surgical cases (with the exception of those in which the lung was involved iodin gave the best results. As to the use of drugs generally, it could only be said that cases must be treated according to their individual character. The narcotics—above all codein—were of great use in laryngeal cases. In emaciation and cachexia, artificial food, stomachics, and creasoted codliver oil were valuable. Febrifuges, such as pyramidon, should be employed in cases in which rest in bed and hydropathy did not succeed in lowering the temperature, and inhalations of essential oils (for instance, turpentine) in cases of putrid expectoration. In intestinal tuberculosis opiates and astringents do good service; lead should be avoided, extract ligni campechiani and zinc tried. The much-praised remedies—oil of camphor, cinnamonic acid, etc.—were not specifics, but acted favorably by exciting leukocytosis.

Treatment of Pulmonary Tuberculosis with Tuberculin and Similar Remedies.—Prof. Brieger, of Berlin, affirmed that Koch's tuberculin preparations (the old and the new) must be considered specifics. They acted only on tuberculous processes and not on secondary infections, and experience had proved that early stages of the disease were frequently influenced favorably by tuberculin. Where this was not the case it was probable that the failure was due to the dose used being insufficient. Even cases complicated by secondary infection, as, for example, phthisis, were improved, and sometimes brought to a standstill, by tuberculin. Hence tuberculin should be used in lung sanatoria. As a diagnostic both in man and animals the old tuberculin was of the greatest value.

Climatic Therapeutics, Including Sea Voyages.—Sir Hermann Weber, of London, read a paper, a translation of which is published on page 1256.

The Hygienic and Dietetic Treatment of Pulmonary Tuberculosis and Sanatorium Treatment.—Dr. Dettweiler, of Falkenstein, said that the treatment consisted essentially in a permanent air and rest cure, day and night, carried out with scrupulous care, and adapted to the state of each patient and the stage of the disease; in hardening the skin by proper application of air, water, and massage; in gymnastics, etc.; in a system of feeding adapted to each individual case; in overfeeding to a certain extent, and the careful use of alcohol; in attention to the hygiene of the clothing and dwelling; in disinfection; in treatment of expectoration and cough. Great care should be exercised in the selection of the directing physician of a sanatorium. Where all these desiderata were fulfilled patients need not leave their own country, but could be successfully treated in all climates not subject to extremes of cold and heat.

Monument to Brehmer.—Prof. Liebreich, of Berlin, rose to state that the Balneological Society, over which he presides, had decided to erect a monument to Brehmer, the originator of the sanatarium movement and founder of the modern open-air treatment. He proposed that delegates of the Congress should join the committee of the movement. The proposal being unanimously accepted, the Duke of Ratibor, President of the Organizing Committee of the Congress, made a short speech welcoming Professor Liebreich's proposal.

The Congress and the Working Classes.—Herr Gaebel, of Berlin, President of the Imperial Insurance Department, said that the sanatoria movement was intended chiefly for the benefit of the masses—the working population. But it was not enough to build sanatoria; it was even more important to interest the nation in these endeavors, and to enlighten the masses on the subject of the disease. It was satisfactory, therefore, to know that numerous workingmen delegates were taking part in the meeting.

The Development of the Sanatoria Movement.—Prof. von Leyden, of Berlin, gave an address, in which he traced the history of the cause from 1880, when Hogt, of Berne, made the first proposals for the united effort. At the present moment there were 33 people's sanatoria in Germany, either in full action, or approaching completion. Branch societies watched over the families of the patients and negotiated with a view to finding work for discharged patients. But the greatest enterprise of the Central Committee had been the calling of the present Congress. Landesrath Meyer, of Berlin, observed that modern science having proved that lung-sanatoria were of the greatest value in the cure of pulmonary tuberculosis, the need for their establishment had become so great that it could not be satisfied by the isolated action of philanthropic societies. In the long run the mainspring of such undertakings must ever be a legitimate vested interest. To secure health and working power for their sick was strongly in the interest of (*a*) employers who wished to secure and preserve valuable workers; (*b*) sick clubs who had a financial stake in the quick restoration to health of their subscribers; and (*c*) the incapacitation and old-age insurance department, and the insurance societies, trades-unions, etc., which had to pay out annuities to all those who were incapacitated from work by the disease. The State itself had the deepest interest in the movement, which was an aid towards raising the health-standard, and thus the prosperity of the nation. By united action on the scale indicated, it will become possible to maintain at least one sufficiently large sanatorium in every province of Prussia.

Dr. Friedeberg, of Berlin, Medical Adviser to the Berlin Sick Clubs' Central Committee, spoke of the **Work to be done by sick clubs in the sanatoria movement.** The classes to which the sick club members belonged were ravaged by consumption. Almost 50% of the deaths, and as many incapacitations from work were caused by the disease. A sufficient number of sanatoria ought to be built to obviate the long period of waiting for a free bed. It is of the utmost importance that the masses should be enlightened as to the danger of tuberculosis, and taught the rudiments of hygiene. He proposed that popular lectures on such subjects should be held at sick clubs' meetings, hygienic tracts distributed, and similar measures taken to disseminate information. He urged further that a yearly examination of every sick-club-member should be made obligatory, and that sputum examinations should be free of charge in all the Provincial State laboratories.

Herr Schmeiden, of Berlin, State Architect, who discussed the **plans of sanatoria,** said that a people's sanatorium should be for one sex, and for one class only. The situation should be sheltered and sunny, with wooded neighborhood, without dust, smoke, or soot. That was to say, there should be no factories, etc., in the neighborhood. There should be a good and plentiful water-supply, and a good system of drainage. The building height should not exceed two stories above the ground floor. The kitchen should be placed in a separate part of the building, and the washhouse in a building of its own. Bedrooms should not be used as living-rooms. The minimum of air-space should be 30 c.m. per bed. Single rooms should be provided for 10% of the inmates. The baths should not be in the cellar, but in warm, dry rooms. The walls, floors, and ceilings should be faced with impervious material easy to clean. Central heating, electric lighting, taps with pure drinking-water should be provided, as well as arrangements for getting rid of sputum, and for sterilizing the clothes before being sent to the laundry.

Staff-Surgeon Schulzen, of Berlin, who discussed the arrangement of sanatoria, advocated the pavilion system. Directors of sanatoria should remain in communication with patients after their discharge, should receive yearly reports from them, etc., and should send in the results to the central office, were statistical lists would be made out.

Lawson Tait died in London, June 13, aged 54 years. He was born in Edinburgh, May 1, 1845, educated at Heriot's Hospital, and at the University of Edinburgh, and received honorary degrees from a number of American medical institutions. He was house-surgeon to Wakefield Hospital, 1867–70, and in 1871 became associated with the Birmingham Hospital for Women, since which time he resided in Birmingham. He was recognized throughout the world as a leader in abdominal surgery, which was his specialty, and his practice extended to foreign countries. He was a member of the Birmingham Town Council, 1875–85, and was actively engaged in great sanitary improvements inaugurated by Joseph Chamberlain. He contested one of the Birmingham Parliamentary Divisions. Professor Tait was the author of many books and papers on medical subjects.

The Latest Literature.

British Medical Journal.

May 27, 1899. [No. 2004.]

1. Remarks on Proper and Improper Burial, with an Examination of the Claims Made for Cremation. Francis Seymour Haden.
2. A Clinical Lecture on Some Cases Illustrating the Surgery of the Stomach. Arthur E. Barker.
3. On Operations for Gastric Hemorrhage and Perforation; with an Account of a Successful Operation for Perforating Gastric Ulcer. A. H. Tubby.
4. On the Surgical Treatment of Uterine Cancer and its Recurrences. Dr. Theodore Landau.
5. An Experimental Inquiry into the Quantity of Volatile Acids in the Stomach. L. Leney and Vaughan Harley.
6. Case of Malignant Edema; Amputation at the Thigh; Recovery. J. Malcolm Mason.
7. The Dangers of Chloroform-Narcosis. Victor G. L. Fielden.
8. Lumbar Colotomy followed by the Protrusion of a Polypus. Herbert Snow.
9. Subcutaneous Rupture of Hydrocele. Duncan J. Mackenzie.
10. Treatment of Scarlet Fever with Sodium Salicylate. T. Dobson Poole.
11. A Color-blind Myopic Railway Servant. W. M. Beaumont.
12. Poisoning by the Application of Belladonna Plaster. H. Aldersmith.
13. Treatment of Nocturnal Incontinence of Urine. Leslie Phillips.
14. Strangulation by a Solitary Band; Operation; Recovery. Y. H. Mills.
15. A Case of Stone in the Bladder which had Formed Around an Ordinary Pin as its Nucleus. B. H. Nicholson.

2.—Barker reports the results of 5 cases of **gastro-colic gastroenterostomy** with one death, also one pylorectomy and one perforated gastric ulcer; both these later cases recovering. The gastroenterostomies were all done for carcinoma of the pylorus, as was also the pylorectomy. The pylorectomy followed a previous gastroenterostomy and consisted simply in removing the growth and sewing up the wound in the stomach. [G.B.W.]

3.—In the 4 cases of **gastric ulcer** reported and operated on by Tubby only one recovered, the other three dying from hemorrhage from the ulcer. In the successful case, the perforation, for which the operation was undertaken, was closed by stitching a portion of the omentum to the stomach-wall over whole extent of the ulcer. If cases of perforating gastric ulcer are operated on within 24 hours statistics show that over 40% recover, but if left till the third day the case becomes all but hopeless. [G.B.W.]

4.—Landau says that in all cases of **uterine carcinoma,** except when the uterus is too large to be brought out through the pelvic opening, the vaginal method should be resorted to as the best means of removing the growth. Also clamps should be used in preference to ligatures. His results show out of 123 cases, 8 persons died from the operation. In 48, all of which were done over five years ago, 27% have remained well. Landau also strongly advises the systematic removal of recurrences. [G.B.W.]

5.—Leney and Harley, in an experimental inquiry into the quantity of **volatile acids in the stomach-contents,** used the following method for their estimation: About 15 cc. of the unfiltered gastric contents, obtained 1 hour after an Ewald's test-breakfast, was poured off into a distillation flask. One hundred or more cubic centimeters of water was added and a current of superheated steam driven through the flask and a small flame placed underneath it. The steam raising the contents to boiling point drove off the volatile acids, which distilled over into an Erlenmayer containing about 10 cc. of a decinormal solution of sodium hydrate. After about 30 minutes the Erlenmayer was removed and after the addition of a few drops of neutral litmus-solution the sodium-hydrate solution was triturated with a decinormal solution of sulphuric acid. The quantity of sodium-hydrate decinormal solution neutralized by the volatile acid was thus obtained. Multiplying the number by 4, if 25 cc. of gastric contents was taken, gave the percentage of volatile acids in the gastric contents. The Prout-Winter method was employed for the estimation of hydrochloric acid. As the result of their experiments they conclude that the normal stomach contains a certain amount of volatile acid, but so long as the quantity of free hydrochloric acid secreted is sufficient and the gastric motility is not interfered with this quantity averages not more that 3.2. If, however, the free hydrochloric acid is decreased from any cause, even in spite of the motility being normal, the volatile acidity averages 7.6. In cases in which the gastric secretion is apparently normal, although the motility is diminished, with a small excretion of hydrochloric acid, the average is 3.7 of volatile acids, while when the free hydrochloric acid is low, the volatile acids average 7.47. These experiments show that the quantity of free hydrochloric acid influences the quantity of volatile acids in the stomach. The practical value of this knowledge is evident. [S.M.H.]

7.—Fielden includes in his lectures at Queen's College the following **dangers of anesthetics:** (1) Sudden death at the beginning of inhalation ascribed to "irritation of the peripheral nervous system, accumulation of CO_2 in the blood, and stoppage of the heart;" (2) epileptiform syncope, due to tetanic rigidity of the respiratory muscles, prior to muscular relaxation, consequently interfering with the pulmonary circulation, with venous engorgement and stoppage of the heart. In this case respiration ceases before the heart-beat; (3) paralysis of the respiratory muscles, which occurs during complete relaxation of the muscles, and is due to want of action of the respiratory center. Again respiration ceases first; (4) paralysis of the heart from too concentrated a chloroform-vapor. The motor ganglia are paralyzed and the heart ceases suddenly to act, the indications being sudden stoppage of the heart, paleness of the face, and dilatation of the pupil while respiration continues; (5) death from depression of the functions by chloroform and the shock of the operation or accident requiring operation. This may occur during full anesthesia, but may be the result of imperfect anesthesia; (6) death from suffocation due to vomited matter, or blood getting into the trachea. [S.M.H.]

8.—In this case **lumbar colotomy** had been performed because of carcinoma of the rectum. On the fifth day the bowel ruptured spontaneously through the lumbar wound and a polyp protruded 2 days later, which on examination was shown to be malignant. [G.B.W.]

9.—The patient in bending so forced his truss against the top of his hydrocele as to rupture the latter. After healing, fluid returned to some extent into the hydrocele sac, but not so readily as it does after tapping. [G.B.W.]

10.—Poole uses **sodium salicylate in treating scarlet fever** and he has found that it is especially advantageous when there is a rheumatic family-history. [S.M.H.]

12.—Aldersmith reports a case in which there occurred symptoms of **belladonna-poisoning** after the application, to the back, of an ordinary perforated belladonna-plaster. Prior to its application the skin had been freely rubbed with a towel. [S.M.H.]

13.—Phillips has found antipyrin the most satisfactory drug for use in functional nocturnal incontinence of urine in children. [S M.H.]

15.—Two **vesical calculi** were removed by suprapubic cystotomy from a boy aged 17 years. In the larger of the two stones was found an ordinary pin. The calculi were phosphatic. The patient had 5 years before an abdominal abscess, and it was thought, that as all other routes were eliminated, the pin might have been swallowed and found its way through the intestines, caused the abscess, and finally lodged in the bladder. [G.B.W.]

Lancet.

May 27, 1899. [No. 3952.]

1. Proper and Improper Burial, with an Examination of the Claims made for Cremation. Sir Francis Seymour Haden.
2. Radiography, with Special Reference to the Detection of Renal Calculi. C. Mansell Moullin.

3. Wound of the Right Ureter during Ovariotomy; Suture; Fistula; Recovery. R. Lawford Knaggs.
4. Intestinal Obstruction. R. C. Ellsworth.
5. Cure of Ascites due to Liver-Cirrhosis by Operation: Notes of a Second Successful Case, and of a Postmortem Examination. Rutherford Morison.
6. On the Structure of Brain-cells and their Degeneration in General Diseases. H. Campbell Thomson.
7. Eclampsia; Induction of Premature Labor; Recovery. W. Creswell Howle.
8. A Criticism on the Decision of Hunter *vs.* Clare. James Wilson.
9. A Case of Complete Occlusion of the Os Uteri. T. W. Parkinson.
10. A Case of Unequal Growth of Fingers. G. A. Hawkins-Ambler.
11. Dislocation of the Carpus with the Hand Backwards. John Elliot.
12. Two Cases in which Fracture of the Skull was Complicated by Laceration of the Middle Meningeal Artery and in which this Vessel was Ligatured. Howard Marsh.

2.—Like all other observers who operate with the static machine, Moullin has had difficulty in securing differentiation in the thicker parts of the body, between the lesser densities, and has greatest faith in his perceptions of the fluoroscopic image, which may be confirmed by skiagraphs. This is readily accounted for by the facts that the static machine gives an intense fluorescence and penetration with a brilliant illumination of the fluorescent screen, which, however, is always lacking in the detail of the lesser densities. The most accurate observations are made, not with the most penetrating light, but with the light that has the quality of differentiating between the less opaque structures. The static machine is, as yet, incapable of producing a volume of Röntgen discharge from a low-vacuum tube, and hence cannot produce a sufficient volume of this **low-vacuum differentiating light** to penetrate the thicker portions of the body. His experience leads him to believe that the detection of calculi in the kidney is to be secured by employing exposures that are so short that they fail to penetrate the calculus, and yet penetrate the surrounding tissue. The employment of the screen to determine the presence of abnormal motion and to determine the position of the tube best suited to the particular case in hand is admittedly good practice, and can be recommended especially to beginners. The determination of the location of foreign bodies by means of the fluoroscope has led to many disappointments and thrown discredit on the procedure. If accurate methods are employed, however, the results obtained are absolutely dependable. [c.l.l.]

3.—The **accidental injury of the ureters** in performing pelvic abdominal operations has led to the development and study of procedures for their repair that have produced brilliant results. In the case reported a large cyst of the right broad ligament was removed with a mass of solid tumor that was bound down by adhesions. In carefully dividing one of these between two ligatures the right ureter was incised. The ligatures were left *in situ* and the distal extremity of the ligature was carefully separated from the tumor. After the tumor had been removed the gap in the ureter, which was not dilated, was found to include half the circumference. Its edges were drawn together by 40 interrupted fine silk sutures transfixing all coats, the ureteral walls being so thin that to exclude the mucous coat and yet get a firm hold seemed practically impossible. Then 4 Lembert sutures, also of fine silk, were applied; and lastly, the soft connective tissues which were attached to the ureter above and below were brought together by one or two more sutures. Drainage was employed and the patient recovered without a fistula after some delay. Knaggs reviews the work that has been done, both experimentally and clinically, on the repair of injuries to the ureters and their implantation in the bladder. He tabulates all the cases so far reported and details the technic of the various operations so far employed. [c.l.l.]

4.—The types of **obstruction** considered are: (1) Those in which there is pain, great distention, fecal vomiting little and late, and globular bulging, in which the bowels do not act, and there is no flatus; (2) those in which there is pain, medium distention, fecal vomiting early, and median distention, in which the bowels may act and there is little flatus; and (3) those in which there is pain, no distention, no fecal vomiting, and no alteration in shape, in which the bowels do not act and there is no flatus. **Volvulus and intussusception** are two other forms of obstruction. Volvulus occurs in the sigmoid flexure; the onset is always acute, it presents the characteristics of the first type with rapid and great distention of the abdomen, soon followed by great tenderness beginning in the left iliac region and spreading thence over the abdomen, due to early peritonitis. Intussusception is never a form of complete obstruction and consequently the symptoms it presents do not assume the characters of any type—nay, further, the position of the obstruction varies at different times. Four points are well to remember; the tumor may not be palpable except during the paroxysms of pain; and can never be felt in the hypochondriac regions; that there is usually well-marked tenesmus; and that there is bloody mucus in the motions. There are cases of spurious strangulation, false strangulation, and pseudo-strangulation. There may be all the signs and symptoms of strangulation, and yet no real strangulation be present. There are various causes, amongst which may be mentioned orchitis in an undescended testicle, inflamed hydrocele, phlegmon of the upper abdominal wall, perforating gastric ulcer, perforating appendicitis, peritonitis, paralysis of the bowel, and strangulated ovarian cyst or fibroid. The following method of **colotomy** is preferred by Elsworth. A glass rod is passed through the mesentery beneath the bowel and fixed in place. A purse-string suture is then run through the serous and muscular coats of the bowel on its convex surface, so as to include an area about the size of a fifty-cent piece. A glass tube, about two inches in length and three-quarters of an inch in diameter, and having two shoulders at one end, is placed with the shouldered end within the purse-string suture, and the suture is drawn tight and tied off. The tube is then pressed against the bowel, and the wall of the gut is drawn up round the tube and tied above the second shoulder. The tube is then raised so as to put slight tension on the gut, a scalpel is then passed down the tube, and the bowel is incised with a crucial incision. The finger then presses the gut against the opening just made so as to prevent the contents escaping, while a rubber tube is placed on the free end of the glass tube. This drains away the contents of the bowel. In a few days the ligatures cut their way through and the tube separates. He emphasizes the following points: (1) that a patient may suffer from fatal obstruction and not present the classical symptoms; (2) that the symptoms of obstruction vary with the site of the obstruction; (3) that early and definite diagnosis is essential; (4) that the use of aperients is likely to do harm; (5) that the exhibition of opium is likely to mask the symptoms and to produce signs of improvement which are entirely delusive; (6) that the time during which operative treatment is likely to be successful is very short; (7) that the bowel must be evacuated at the time of the operation, otherwise the patient may be poisoned by his own excrement, and (8) that it is probably safer to be content with colotomy or enterotomy where the bowel is seriously damaged. [c.l.l.]

5.—The author, who published with Dr. Drummond the first paper on this subject in 1896, reports a successful case and also a postmortem examination that establishes the value of the operation and shows that a collateral circulation is secured wherever it is required. He has had four cases altogether. Two were uncomplicated and were regarded as suitable cases for operation, and both of them were cured. In one the diagnosis was doubtful, and in another the complications were such as to preclude recovery. From these cases he concludes (1) **Ascites due to liver-cirrhosis** can be cured by the establishment of an efficient anastomotic circulation; (2) adhesive peritonitis produces adhesions between the abdominal contents and its parietes in which new bloodvessels form. If there is any demand for the new bloodvessels they remain permanently; (3) the operation described by Drummond and the author is the safest and most certain of producing adhesions; (4) it is no longer advisable to treat the ascites due to cirrhosis by repeated tappings if the patient is otherwise sound and in fair general health. After one or two tappings have failed operation offers the best chance of prolonged and useful life. [c.l.l.]

6.—Thomson, in a paper on **the structure of brain-cells and their degenerations in general diseases,**

describes the brain-cells as consisting of the cell-body, the axon, and dendrons. The axon is the chief prolongation of the cell-body. It usually arises by a conical stem, becomes medullated, generally runs a long course, and does not branch until it has nearly reached its termination. The dendrons are fine protoplasmic processes which rapidly branch after leaving the cell-body, and their branches are covered by minute processes which terminate in little varicosities. Their function is doubtless one of conduction, and in some cases it has been stated that fibrils have been actually traced from the dendron through the cell-body to become continuous with those of the axon. If this proves to be generally true it will go far to show that the nerve-impulse has its origin in the extremes of the dendrons and not in the cell-body itself. The structure of the cell-body, which varies much in shape, can be studied by staining with methylene-blue, according to Nissl's method. When thus stained the cell-body is found to consist of a substance which stains and another which does not stain. The staining substance is usually arranged more or less regularly in rods or cubes, but the appearances may vary a little according to the methods by which the specimens are prepared. The achromatic substance forms a framework and is probably concerned with the conduction of impulses across the cell-body. There is much difference of opinion as to the importance of the chromatic substance. There is usually a very distinct nucleolus in the cell-body which stains deeply, and this is surrounded by a lighter zone which represents the nucleus. The probable chief function of the cell-body as a whole is one of nutrition. Pathologic changes have been observed in the cell-body and in its processes both in mental and in general diseases. Thomson gives some illustrations; one from a case of posteriobasic meningitis with some hydrocephalus and moderate pyrexia; another from marked meningitis accompanied by marked hydrocephalus. The changes in the cells of this latter case were not so advanced as in the former, and in this respect it was interesting to note that while in the former case there was moderate pyrexia, in the latter the temperature was subnormal, or at the highest, normal throughout the disease. The stain in these cells is distributed in patches of varying intensity. The chromatophilic granules have lost their differentiation. The nucleus is not indicated and in some cells the nucleolus is displaced. He gives also representations of the cerebral cells of a child who died from acute septicemia. In this case there was continuous high temperature for some days before death, occasionally reaching 106° F. Here many of the cells were swollen and misshapen; they stained deeply and diffusely, presenting a plain, dark-blue appearance with no differentation. In some the axis-cylinders were swollen and deeply stained, and the nuclei, and in some cases the nucleoli, were often invisible. The cells from a fatal case of tetanus show as a chief change an extensive loss of coloring matter and the cells presented a spongy appearance with a white background. This condition was present in the motor-area of the brain and the anterior cornua of the cord, and to a less extent in the cerebellum. In these observations he made use of the method of Turner of examining the cells without the intervention of hardening reagents, by which beautiful specimens were obtained and many possibilities of alteration avoided. Control-specimens were made by keeping a piece of brain under various conditions for different lengths of time. In no case was he able by the fresh method to produce any of the characteristic and definite changes which have been described. It is probable that in many cases the earliest changes take place in the delicate protoplasmic terminations of the dendrons rather than in the cell-body. [S.M.H.]

8.—Howle reports a case of **eclampsia** in a primipara, 8 months pregnant. Manual dilatation was decided upon; the os dilated and version rapidly effected; the child, a male with one testicle undeveloped, was stillborn and weighed 5½ pounds. The patient made a good recovery. [W.K.]

9.—Parkinson reports a case of **complete occlusion of the os uteri,** occurring in a primapara, aged 43 years. After the labor had been in progress several hours, an examination under anesthesia showed complete occlusion of the os with just the smallest of dimples to indicate its position. As the cervix became tense he forced his finger with a sharp nail through the cervix and membranes, the os dilated rapidly, forceps were applied and the patient delivered. She made a good recovery. [W.K.]

10.—The case presented is shown by skiagraphs to be one of unequal growth of the fingers. The thumb and ring-finger are apparently the only properly developed digits on both hands. The second phalanges of the first, second and fourth fingers are abortive. It would appear that the epiphyses in the first phalanges of the first and second fingers are larger than usual. The condition was symmetrical. The hands seemed normal in other respects, as did the girl except for some deflection of the nasal septum to the left. [C.L.L.]

11.—The case reported is interesting from the age of the patient, 64 years, and from the fact that it was a dislocation and not a Colles' fracture. There was no skiagraph taken in the case; a photographic illustration has the appearance of a typical Colles. [C.L.L.]

12.—These cases illustrate the widely differing conditions under which the operation of **ligation of the middle meningeal artery** may have to be performed. In Case I the brain was uninjured at the time of the fall and the patient desired to return home, it, however, later became severely compressed by the blood-clot which subsequently formed. This case was favorable for operative aseptic treatment and recovered, showing with what impunity the brain may be treated if it is uninjured. In the second case the original accident had produced injuries to the brain which proved fatal necessarily. This was supposed to be the case and the operation was performed as a duty to give the patient every chance. In both, the middle meningeal was injured and was readily picked up and tied. [C.L.L.]

New York Medical Journal.

June 10, 1899. [Vol. lxix, No. 23.]

1. The President's Annual Address to the American Medical Association. JOSEPH M. MATHEWS.
2. Sanitary Lessons of the War. GEORGE M. STERNBERG.
3. The Voice in Diagnosis. ALEXANDER J. C. SKENE.
4. Vaginal Douches, Antepartum and Postpartum. L. NAPOLEON BOSTON.
5. Pneumonectomy, the Future Treatment of Incipient Pulmonary Tuberculosis. JOHN S. PYLE.
6. Medical Gynecology; or, The Relation of Vital Debility and Passive Congestion to Diseases of Women. EUGENE COLEMAN SAVIDGE.

1.—See PHILADELPHIA MEDICAL JOURNAL of June 10.

2.—See PHILADELPHIA MEDICAL JOURNAL of June 10.

3.—In this study Skene points out the effect of various pathologic conditions upon the **voice-sounds.** [S.M.H.]

4.—Boston summarizes the result of observations on **antepartum and postpartum vaginal douches**; (1) A profuse leukorrhea during the latter months of pregnancy is no indication for vaginal douching; (2) the chemical reaction of a discharge has but slight effect upon its antiseptic powers; (3) the vaginal secretions of pregnant women rarely, if ever, contain pathogenic germs except gonococci; (4) vaginal douches favor the development of cervical gonorrhea and puerperal sepsis; (5) the vaginal secretions may contain streptococci, staphylococci, diplococci, and bacilli, all of which may be nonpathogenic; (6) a discharge from the cervix may show the presence of pathogenic bacteria after all other symptoms of sepsis have disappeared. [W.K.]

5.—Researches carried out by experimentation on animals lead the author to believe that **operation by amputation of the diseased portion** of the lung is practical and will become a recognized method of dealing with incipient tubercular foci of the lung. To remove the apex he excises the third or fourth rib, without opening the pleura until it is removed. The lung is then grasped and drawn into the pleural opening, which it plugs, and relieves the distress occasioned by allowing the air to enter. The portion of lung to be removed is ligated *en masse* and then cut away, the stump being seared by a cautery. The wound in the pleura is closed and sealed by collodion. His operations, to the number of 40, demonstrate that the air is resorbed from the pleural cavity and that the lung expands so that it completely fills the cavity replacing the portion of lung removed. If the ligature is firmly applied and the asepsis is rigid, no serious complications are to be feared. [C.L.L.]

6.—Savidge discusses the **rapid evolution of gynecic surgery** and files a protest that gynecology is more than surgery and that prophylaxis in gynecology—a new field within this specialty—may render some surgery unnecessary. The importance of seeking the cause for prevalent conditions is insisted upon, and the benefits of the rest-cure regime detailed. One wonders what women did before the specialty began its evolution; one may consider that the requirements of modern life have entailed upon women tendencies which have made this specialty necessary. Former generations, living more in the open air, had greater muscular power and probably required less abdominal surgery. [W.K.]

Medical Record.

June 10, 1899. [Vol. lv, No. 23.]

1. Remarks on the Incision at the Outer Border of the Rectus for Appendicitis. Frederick Kammerer.
2. Local Anesthesia. Alexander B. Johnson.
3. Diphtheric Conjunctivitis Cured with Antitoxin. George Huston Bell.
4. The Abortive Treatment of Gonorrheal Ophthalmia by a Cantholysis and the Thorough Application of Nitrate of Silver, 40 Grains to the Ounce. H. D. Jamison.

1.—The method which Kammerer has employed since 1895 and which he described in December, '97, has been employed by various other writers with success. It consists in separate **incisions in different vertical planes** through the sheath of the rectus muscle and the displacement of the muscle toward the median line during the operation upon the abdomen. The objections raised to it have been that a section of one of the nerves within the sheath sometimes takes place; this, however, can be readily avoided in the majority of cases. When it is unavoidable because of the extent of the incision required, Kammerer has found it does no harm and believes that if the nerve is caught up and sutured with one stitch, primary union and regeneration will take place. His operations show no loss of power in the rectus muscle that is permanent even when he knows the nerves have been severed. In the cases collected he has been unable to find a single one in which hernia has followed this operation. [C.L.L.]

2.—The field of **local anesthesia** should be strictly limited to operations upon special regions in which local anesthesia is particularly applicable; to operations small in extent and simple in technic, of short duration; and to those cases, rather rare, in which the strongest contraindications exist to the administration of a general anesthetic. Ethyl chlorid seems the best for momentary incisions through the thickness of the skin merely. If, however, it is inflamed, the freezing is painful. Eucain is to be preferred to cocain, on account of its less toxic action, and because it can be sterilized. The applications to mucous surfaces by spray or sponges is the most efficient, or instilled into mucous cavities, or used in ophthalmology. It is very efficient when in a normal salt-solution. To suit the individual case the surgeon may select a sterile 1:1000 eucain-solution for infiltration-anesthesia, or 2% strength sterilized salt-solution for local direct action. [C.L.L.]

3.—A case of severe diphtheric conjunctivitis is reported which resisted the ordinary antiseptic measures of treatment, but yielded to them when combined with the injection of antitoxin. [C.L.L.]

4.—There is great difficulty in making the differential diagnosis in the early stages; a positive diagnosis is made with difficulty except by staining, and microscopic examination for gonococci. In the later stages there is intense swelling of the lids and chemosis of the ocular conjunctiva, with a copious purulent discharge. In **acute trachoma** the profuse mucopurulent discharge is not so abrupt in its onset, and there is a distinct velvety condition of the palpebral without any involvement of the ocular conjunctiva. Early diagnosis is valuable because abortive treatment may be employed, but such treatment is very severe for ordinary acute catarrhal conjunctivitis. The reaction that follows the use of silver nitrate produces intense swelling of the lids and chemosis of the conjunctiva, not unlike the gonorrheal. Jamison believes the abortive treatment should be employed in all cases in which there is a suspicion of gonorrheal infection, as the reaction lasts but a short time, and the early employment aborts the severer conditions that follow the graver condition. In order to expose the palpebral conjunctiva the eyelid at the outer canthus is incised, the lid turned upward, and the tarsal ligament cut. The application is then made of a silver solution (grs. 11 to the ounce) to the conjunctiva, care being taken to avoid the cornea. It is immediately neutralized with sodium-chlorid solution, and the application of iced cloths. Antisepsis is secured by boric-acid solutions. [C.L.L.]

Medical News.

June 10, 1899. [Vol. lxxiv, No. 23.]

1. The President's Address. Joseph M. Mathews.
2. A Century of Medicine in America. J. C. Wilson.
3. Medical Aspects of Crime. Daniel R. Brower.
4. Sanitary Lessons of the War. George M. Sternberg.
5. Respiratory Failure Occurring before Circulatory Failure in Brain Injury and Disease, and Its Clinical Bearings. W. H. Hudson.

1.—See Philadelphia Medical Journal, June 10.
2.—See Philadelphia Medical Journal, June 10.
3.—See Philadelphia Medical Journal, June 10.
4.—See Philadelphia Medical Journal, June 10.

5.—Hudson reports the case of a negress, 7 years of age, well nourished and healthy looking. Her head was 22 inches in circumference; there was exophthalmos with lateral nystagmus; the pupils were dilated, and did not react to light, and upon ophthalmoscopic examination showed the presence of **double optic neuritis.** Later, she became totally blind, paresis of the right facial nerve developed, but hearing was not involved. Subsequently, the muscles of the neck became stiff, and the head retracted. There was pain upon an attempt to turn the head, but none upon percussion. There was some paresis of the left side, the kneejerks disappeared, and the gait was staggering and uncertain. Finally, there was vertigo and vomiting, rapid failure of the mind, and loss of control of sphincters. As from these symptoms, a diagnosis of disease of the cerebellum had been made, located probably in the right lobe, an operation was performed. The skull was very thin, and when the dura was incised, the brain was forced through it. A portion of this brain-substance was incised, but in the belief that it was tuberculous, the operation was discontinued. A month later a second operation was performed, and a large cyst opened and evacuated, resulting in recovery. The interesting feature of the case, however, was that during the first operation, just as the bandage had been adjusted, respiration ceased. Artificial respiration was continued for 30 minutes, when spontaneous movements commenced, and gradually became normal. Hudson believes that it is important to recollect that death in intracranial operations is usually due to respiratory failure. [J.S.]

Boston Medical and Surgical Journal.

June 8, 1899. [Vol. cxl, No. 23.]

1. Address of the President. Joseph M. Mathews.
2. On Some Conditions of Healing by First Intention, with Special Reference to Disinfection of Hands. Theodore Kocher.
3. Sanitary Lessons of the War. George M. Sternberg.
4. Climate and Sea Voyages in the Treatment of Tuberculosis. Sir Hermann Weber.

1.—See Philadelphia Medical Journal, June 10.
2.—See Philadelphia Medical Journal, June 10.
3.—See Philadelphia Medical Journal, June 10.
4.—See Philadelphia Medical Journal, June 10.

Journal of American Medical Association.

June 10, 1899. [Vol. xxxii, No. 23.]

1. Address of the President. Joseph M. Mathews.
2. A Century of Medicine in America. J. C. Wilson.
3. Medical Aspects of Crime. Daniel R. Brower.
4. Sanitary Lessons of the War. George M. Sternberg.
5. Surgery of the Trachea. W. S. Jones and W. W. Keen.
6. Chronic Middle-Ear Suppuration. E. B. Gleason.
7. Nasal Bacteria. D. Braden Kyle.
8. Arm-to-Arm Vaccination. P. S. Donnellan.
9. Report of Two Interesting Cases. W. D. Travis.
10. Toxins of the Body. Walter F. McCabe.

1.—See Philadelphia Medical Journal, June 10.
2.—See Philadelphia Medical Journal, June 10.
3.—See Philadelphia Medical Journal, June, 10.
4.—See Philadelphia Medical Journal, June 10.
5.—See Philadelphia Medical Journal, June 10.

6.—Gleason presents two cases that illustrate the value of radical operation in **chronic middle-ear disease.** By the observation of certain patients in whom the seat of operation persisted as an open sinus, he found them less liable to recurrence, and that if the disease did recur it rapidly yielded to treatment. He therefore produces a postauricular sinus by turning in flaps of skin from the tissues back of the ear. The results obtained are very satisfactory. [C.L.L.]

7.—Kyle believes, as the result of his investigations, that, in a great many cases of **lesions of the mucous membrane** of the upper respiratory tract, the part played by the bacteria is purely secondary. If the anatomic structure of the nasal cavity is such as to permit of accumulations of secretions and dust, or the physiologic resistance of the membrane is lowered by constitutional diathesis or organic lesions, the altered and accumulated secretions form a nidus for bacterial proliferation. [C.L.L.]

Annals of Surgery.

May, 1899. [Vol. xxix, No. 5.]

1. Partial Enterocele. Russell S. Fowler.
2. Observations on the Use of the Galvanic Current in the Treatment of False Ankylosis. Fred Walker Gwyer.
3. Tubercular Cervical Lymph-nodes. A Stuby based on 36 Cases Submitted to Operation. Charles N. Dowd.
4. Decortication of the Tongue in the Treatment of Lingual Psoriasis. Joseph Ransohoff.
5. Congenital Deformity due to Malposition of the Scapula. Albert H. Frieberg.
6. A Case of Transposed Viscera, with Cholelithiasis, Relieved by a Left-sided Cholecystostomy. Carl Beck.
7. Complete Single Sacroiliac Dislocation. William B. Hopkins.

1.—This article first takes up an interesting histologic discussion of **Littré's hernia.** Examination of the cases thus far reported shows that as a rule less than half of the circumference of the bowel is occluded or strangulated in this affection, hence the passage of gas or fecal matter is not altogether interfered with and there is often persistent diarrhea. The condition is more common in females and on the right side; it is confined almost exclusively to the femoral and inguinal regions; the ileum is most commonly affected; adhesions of the bowel are not frequent; there is vomiting in the majority of cases, but distention is never marked, and hiccough is a rare symptom. The prognosis is bad, but the high mortality seems to depend rather upon failure to make a diagnosis than upon the necessarily mortal nature of the trouble; in nearly 50% of the cases the difficulty was in their not being recognized, and all these patients died. Brief abstracts are given of several cases which have been reported. Fowler has operated personally upon 2 patients. In the first case, a man, aged 72, had had severe pain in his groin and had noticed a lump after heavy lifting. His bowels moved on the day of the injury and on the succeeding day; vomiting began on the second day and was fecal; on the seventh day a diagnosis of strangulated hernia was made and operation was advised but was refused. The man was in a desperate condition; his pulse was 112, respiration 24, temperature normal, his abdomen was slightly distended and there was a tense, tender swelling in the left femoral region. Consent for operation was finally obtained, and upon opening the sac liquid feces at once escaped. No bowel was found in the sac, but omentum was pulled out and ligated, the sac cut away and the incision carried into the peritoneal cavity and a ruptured knuckle of the ileum was found near the median line, from which feces had escaped into the general cavity. Openings were made on both sides of the abdomen and the peritoneal cavity was flushed with hot saline solution until the fluid escaping was clear. The intestines were then sponged dry and numerous drains were inserted. The ruptured loop of intestine was sutured into the femoral incision. In spite of free stimulation the man did not rally and death followed 5 hours later. In the second case, a woman of 40 had had inguinal hernia for 5 years, but it had not given her any trouble. Three days before admission she was seized with sharp pain over the hernia; soon after there was vomiting, and constipation was persistent. There were the usual symptoms of 6 months' pregnancy. There was moderate tenderness and a sense of fulness which could not be accounted for by enlargement of the round ligament in the left inguinal canal. Two enemas were given, the second of which brought away neither gas nor fecal matter. An incision was made over the inguinal canal, the sac was identified and opened. Projecting into it was seen a small portion of bowel the size of the tip of the little finger. It was dark red in color and was tightly constricted, though pressure could not displace it. The sac was excised from above with great care not to injure the intestine. The imprisoned gut, when brought into the wound, was found to be ileum. On its convex surface, beside the mesentery, was a well-marked ring of constriction, of purple color, which gradually disappeared. The gut was replaced and the sac excised and the opening in the peritoneum closed. Pregnancy was in no way disturbed and a good recovery from the operation followed. [M.B.T.]

2.—In concluding his article, Gwyer expresses his belief that all cases of false **ankylosis** of traumatic origin are benefited by the galvanic current; the earlier treatment is commenced the more rapid and decided the effect. Improvement is produced more quickly than by any other method except by hot air, and the gain is permanent. In cases of disease, increase of motion is not certain, but pain is alleviated and the swelling is reduced. Ankylosis due to gout is least affected. All cases, if the treatment is to be effectual, will show improvement early. [M.B.T.]

3.—The cervical lymphatic glands are grouped in two main chains—an anterior chain which accompanies the internal jugular vein and which communicates with a group near the pharynx above, and with the submental and submaxillary cords from the front; there are also a few superficial nodes over the parotid which are rarely involved. The posterior chain includes both superficial and deep nodes which extend downward and slightly backward from the region of the mastoid. Both chains are usually more or less involved and, if left alone, the tendency is to break down and discharge contents through the skin. The advantages of operative as compared with expectant treatment, or incision of separate nodes that become softened, is that we substitute rapid removal for a slow process, diminish the likelihood of general infection and leave far less deforming scars. Tonic and hygienic measures should also be employed to improve the general health. Dowd recommends an incision extending transversely under the border of the lower jaw and backward to the mastoid, then downward under the hair border, the hair having previously been shaved. The skin-flap is then dissected and drawn forward and downward, exposing the entire posterior chain and the anterior chain for about ⅔ of its distance toward the clavicle, also the submaxillary and submental group if necessary. After healing, the scar scarcely shows and is less noticeable on account of the slight shade which naturally exists under the jaw. In cases in which a few glands are affected a smaller incision will suffice. Practically no fatalities have been reported from the radical operation, and the patients are all usually decidedly benefited. Operation should be recommended in all cases, except when the general condition is such as to unfit the patient for such procedure. Patients should be kept under observation and other diseased nodes removed if they appear. [M.B.T.]

4.—Three cases are reported in which more or less extensive removal of the mucosa of the tongue was practised for ichthyosis of the tongue or **lingual psoriasis.** When the patch is small local anesthesia is sufficient. It is questionable whether operation is warranted in cases of very extensive disease or of long standing. [M.B.T.]

5.—The second case of **congenital** deformity due to **malposition of the scapula**, which has been reported in English, is recorded in this article. A girl, 4½ years old, with nothing of interest as regards family history or injury at birth, had been observed to have an abnormal appearance of the spine and region of the left shoulder since birth. The right scapula was normally prominent, but the left scapula was not prominent. On inspection between the root of the neck and shoulder is seen a marked prominence, which is shown by palpation to be the left scapula, much smaller in size than the right. [M.B.T.]

6.—A woman, 39 years old, had suffered from attacks of vomiting and colicky pain for 4 years; jaundice was not present nor was there bile-pigments in the urine. Dextrocardia had been diagnosed by her physician. The patient also complained of lumbar pain, and below the left anterior superior spine a tumor the size and shape of a normal kidney was felt. Nephropexy was performed, but 9 days afterwards the gastric symptoms recurred and there was slight elevation of temperature. Upon exploratory incision along the outer margin of the rectus, cholelithiasis was found to exist and **cholecystotomy** was performed. Recovery from the operation was uninterrupted. The liver was found to be situated in the left hypochondrium, the stomach was situated in the right hypochondrium with the fundus directed toward the right and the pylorus on the left. Nothing else abnormal was found in the abdominal cavity. By means of skiagraphs the relations of the thoracic organs were demonstrated. The light shade of the lung extends an inch farther down on the left than on the right, and there is well marked shade of the heart on the right side. [M.B.T.]

7.—A youth, 18 years old, was caught in an elevator, sustaining a severe crushing injury, and on examination the left ilium was found to entirely overlap the sacrum, so much so that the tips of the fingers could be insinuated beneath it as they can be beneath a scapula. The break in the pelvic ring was found at the symphysis pubis. The left limb was shortened because the ilium had risen above its normal position, and the limb was everted because the ilium, in riding over the dorsum of the sacrum, had altered the direction of the acetabular cavity. After the shock of the injury had passed, the patient was etherized and the dislocation reduced by extension of the ilium and counter-extension backward of the sacrum. The patient was placed on his back on a hard mattress with sandbags at his hip and a compress beneath the left ilium. He was allowed to sit up after 6 weeks, and at the end of 7 weeks walked with crutches. There was good recovery, with no tendency to recurrence of the dislocation. [M.B.T.]

Münchener medicinische Wochenschrift.

March 28, 1899. [46. Jahrg., No. 13.]

1. Globulicidal Action of Serum on Animal Organisms. v. Dungern.
2. Concerning a Pathogenic Streptothrix Isolated from Sputum. Rullman and Perutz.
3. Contribution on Etiologic Statistics of Cancer of the Womb. Blumenfeld.
4. A Case of Bulbar Paralysis Affecting the Extremities Independent of Anatomical Conditions. Schüle.
5. Hysterical Deaf-and-dumbness. Veis.
6. Apparent Intranasal Murmurs. Bergeat.
7. A Case of Multiple Neuritis with Athetosis and Raynaud's Disease. Wetzel.

1.—After briefly referring to the bactericidal properties of blood-serum, v. Dungern discusses the **globulicidal action** of serum on foreign corpuscles. This latter action in some instances is exhibited also outside of the animal body. The globulicidal property of normal serum is slight, but by the injection of blood v. Dungern was able to increase it for the blood-corpuscles of the animal from which the injected blood came. He injected chicken or pigeon blood diluted with 0.6% salt-solution into the abdominal cavity of guineapigs. For several hours afterwards many of the corpuscles of the chicken's blood could be found unaltered; only a few were dissolved after 4 hours, but after 24 hours all had suffered solution. If the same guineapigs received 10 or 14 days later another intraperitoneal injection of chicken-blood, the corpuscles were speedily dissolved. When pigeon-blood was employed for both injections instead of chicken-blood, the differences regarding solution were even more marked. It appears from these experiments that the globulicidal function of the body of the guineapig on the blood of the chicken or the pigeon is markedly increased by a preliminary treatment with the homologous blood. In the phenomenon the leukocytic reaction did not seem to play any notable part. If the afflux of leukocytes was prevented, the destruction of the red cells proceeded in about the same manner as before. Although no phagocytic englobing was observed—the relative size of the cells would exclude it—the phagocytes often surrounded red cells in smaller or larger groups. But even these erythrocytes were not altered. The nuceli of dissolved cells were, however, promptly taken up by the phagocytes. The author is not prepared to conclude from these observations on the globulicidal action of blood that in bactericidal processes phagocytosis plays no part. [The article is to be continued. [D.R.]

2.—The writers bring some further studies concerning the **pathogenic streptothrix** isolated by them last year. [D.R.]

3.—Blumenfeld's statistics comprise the cases of **uterine carcinoma** observed by v. Winckel in the Universitätsfrauenklinik at Munich during the last 15 years. The number treated was 678; the average age was 45.05 years. Regarding age the distribution by decennia was as follows: 20–30, 3.7%; 30–40, 27.5%; 40–50, 39.1%; 50–60, 24.4%; 60–70, 4.8%; 70–80, 0.1%. Of the total number of cases 661 were carcinomas of the cervix, and 17 (2.5%) carcinomas of the body. The average age at first menstruation was 14.8 years, which does not support the statement of certain French writers that in cases of uterine carcinoma there is a history of early onset of the menses. The menopause also seemed not to be a great factor. Taking the average age at the menopause at 47 years, 405 of the 678 became carcinomatous before and 273 after that epoch. The question of sexual indulgence did not seem to be an important one; of much greater importance was **child-bearing.** Of the 678 women 653 had borne children, 25 had been sterile. The average number of pregnancies was 5.7. It seems that the greater number of births, the greater was the liability to uterine cancer. More than-one fourth of all the patients had aborted at least once. **Endometritis** existed in many and must be considered a predisposing cause. Regarding lesions of the uterus, such as are produced by difficult labor, it was found that in one-third of the cases labor was difficult, and that in 138 it was terminated artificially. In 25% cervical tears were present. In 11% an hereditary history of carcinoma was obtained. **Tuberculosis** in the antecedents was very frequent, while among the patients themselves it was very rare. No satisfactory explanation for the frequency of phthisis in the family of carcinoma patients exists. The author believes in a cancer-parasite, and thinks that the tuberculous taint is merely a predisposing cause, like all the factors mentioned, the only exciting agent being the parasite. But no actual proof of this view is brought forward. [D.R.]

4.—A woman, 53 years old, with a good family history, developed paresis of the four limbs and bulbar symptoms the sequence being disturbance of speech and deglutition, then weakness of the legs, and afterwards of the bones. Muscular atrophy, sensory and sphincter disturbances, and cerebral symptoms were absent. The tendon-reflexes were present but diminished. Death occurred after 7 months, quite suddenly, in an attack of dyspnea. The **autopsy and the microscopic examination** of the organs yielded practically **negative results;** owing to fixation in Müller's fluid, the nervous system could not be examined by Nissl's method. The case does not belong to the group of asthenic bulbar palsy, as the muscle-fatigue characteristic of the latter was absent. It must be classed, for the present, as a **bulbar palsy without anatomic findings.** [D.R.]

5.—About 20 cases of **hysteric deafmutism** are on record. In Veis' patient, a man without hysteric stigmata, the deafmutism developed over night, and was practically absolute. All other functions, including writing, were normal. The attempt was first made to restore the hearing. To this end the words "you will hear directly," were written on paper and shown to the patient. He did not seem much improved. Thereupon the various instruments for catheterizing the eustachian tube were gotten ready with a good deal of circumstantiality. As soon as air entered the ear the patient called out, "I can hear again in this ear." Speech and hearing had both returned. It may be difficult to distinguish between hysteria and simulation. The success of suggestive therapy, as in the foregoing case, speaks in favor of hysteria; its failure indicates either simulative or real deafmutism. Prolonged observation, surprising the patient, waking him at night, etc., may aid in the diagnosis, as only malingerers are made to hear and speak by such devices. [D.R.]

6.—Intranasal noises may be produced by the fluttering of shreds of mucus in the nose; others, much rarer, are dependent on a swelling of the mucosa at the entrance of the antrum, whereby a sort of valve is formed which permits the air to enter, but allows its escape only through a slit, and with a hissing noise. A third variety of noise is an apparently intranasal sound, characterized by the bursting of small bubbles. The author himself was a sufferer in this respect, and reports his own case and that of a patient. The sounds were referred to the anterior part of the nasal cavities, were not only heard but felt, and were most marked at the end of expiration and inspiration. On careful observation on himself, Bergeat noted the sensation also on the floor of the nose, on the soft palate, and in the larynx. When the mouth was open and the soft palate lifted and the nose thus closed posteriorly, the sounds were not heard above the soft palate. At the time these sounds were discovered the author was suffering from an affection of the left lung, with a mucosanguineous secretion. He concluded that the sounds had their origin in the bronchi, in rales which were transmitted upwards. Anxious persons hearing these noises might easily become greatly alarmed. Treatment would probably be directed to the nose, although the latter is no more the real seat of the disease than is a coated tongue in gastric catarrh. [D.R.]

7.—An unmarried woman, 70 years of age, possessing good health, was suddenly seized with severe pains in the second toe of the left foot, which was soon followed by gangrene. At the end of a week the toe was amputated, Esmarch's bandage being used. The pains continued, but no cause for them could be found, the wound healing perfectly. About 5 months later the corresponding toe on the other side became gangrenous, and was amputated, but without the use of the Esmarch bandage. There was very little bleeding at the time of the operation. Soon afterwards dark-red cyanotic spots developed in various places on the right foot; they appeared to presage gangrene, but always disappeared on the following day. Gradually the patient's legs grew very weak, and tearing pains developed in them. At this time, two months after the second operation, **athetotic movements** appeared in the toes of both feet. The movements were rhythmic and persisted during sleep, though lessened in degree. The patient suffered much from vertigo, and complained of feeling as if walking on pillows. The kneejerks were exaggerated; apart from hypersthesia in the right big toe, no sensory disturbance was found. Later the left arm became paretic and atrophied; atrophy also affected the interossei of the left hand. A left-sided facial paralysis and bulbar symptoms developed; apoplectiform attacks also set in. Death finally ended the patient's suffering, 3 years after the beginning of her illness. The author believes that the primary disease was an **arteriosclerosis**, followed by a **multiple neuritis**, which was due either to infection or to mechanic pressure of the hardened arteries on the accompanying nerves. Both together led to the gangrene. The **athetosis** might readily be attributed to the lesions of the peripheral nerves, but most authors place the seat of the affection in the central nervous system. Possibly arteriosclerotic circulatory disturbances occurred in the basal ganglia. But it is more likely, the author thinks, that the athetosis was produced by a secondary spinal irritation, an ascending inflammation of the pyramidal tracts. [D.R.]

Berliner klinische Wochenschrift.

April 3, 1899. [36. Jahrg., No. 14.]

1. Results of Tuberculosis Treatment in the Charity Hospital. H. Schaper.
2. The Treatment of Diabetic Coma. L. Herzog.
3. A New Method for Treating Uric-Acid Diathesis. J. Weiss.
4. Remarks Upon the Treatment of Chlorosis. Th. Dunin.
5. The Use of Dionin in Curing Chronic Morphinism. A. Fromme.

1.—Schaper answers Lazarus, who had unfavorably criticised the conditions of the Charité Hospital at Berlin, so far as they bore upon the treatment of tuberculous patients. To show that the **possibility of cure exists in the large general hospitals,** he cites the case of a laboratory *Diener* who recovered from a tuberculous lung-affection, the existence of which had been proved by hemoptysis, physical signs, and the discovery of tubercle-bacilli in the sputum. The patient was not confined to bed. In addition to liberal diet and outdoor life, the treatment included the tuberculin-cure. The tuberculin was employed for 4 months; and for the permanent recovery, altogether 6 months were required, or about the same length of time as is needed in Davos. [D.R.]

2.—The **use of alkalies in diabetic coma,** recommended by Stadelmann, has not given very promising results. Herzog reports two cases in which subcutaneous injections of saline solution and sodium bicarbonate solution were given—the first case seemed hopeless from the start, and the patient was not benefited; the second patient, although likewise comatose, was improved markedly, but the improvement did not last long. The alkalies may be given by the mouth, by the rectum, subcutaneously, or intravenously. Even when the patient is still able to swallow the solution, the author thinks no time should be lost in giving a liter of saline or of sodium bicarbonate solution (3 to 5%) or of both combined under the skin. More than a liter should not be injected at one time. The use of sodium bicarbonate by enteroclysis is merely a help; in the author's patient, in whom it was resorted to, the fluid was not retained. **To prevent collapse** in diabetic coma **camphor** in ether or oil should be given hypodermically. Regarding intravenous injections of salt or sodium bicarbonate solution, Herzog thinks they can be dispensed with in favor of subcutaneous infusions. The use of the alkalies should not be carried to excess; sometimes disagreeable or toxic symptoms develop. The most important point in the treatment of diabetic coma is its anticipation and prevention. Ominous signs are: pronounced ferric chlorid reaction and increased excretion of ammonia and oxybutyric acid in the urine. When they appear the patient should at once receive 10 to 40 grams of sodium bicarbonate a day. [D.R.]

3.—Weiss recommends **quinin (chinic) acid** in the treatment of the **uric-acid diathesis,** as after its administration a large part of the uric acid is eliminated as the more soluble hippuric acid. It is best given as a lithium salt, since lithium, although it has no influence on the elimination of uric acid, is a good diuretic. The salt is on the market, in tablet form, under the name of **urosin,** each tablet containing 0.5 grams quinic acid, 0.15 grams lithium citrate, and 0.3 grams sugar. The dose is from 6 to 10 or more tablets a day. [D.R.]

4.—Iron is a specific in **chlorosis,** but it must be given for a long time. In the beginning Dunin gives it for from 4 to 6 weeks, and after recovery, to prevent relapses, for ten days every month, for six months or even longer. He also insists on **confinement to bed,** in mild cases for 3 weeks, in severe cases for 6 weeks. Some writers have advised mountain climate for chlorotics, but in Dunin's experience, such a climate has always proved harmful, either by retarding recovery or by inciting a relapse. He prefers to keep his patients in town until the symptoms of the disease have disappeared, and then to send them to the country. Cold bathing, indeed every hydrotherapeutic measure is harmful. No special dietary regimen is needed; milk is very useful, but not indispensable. Alcohol should be absolutely eschewed. The use of coffee and tea is restricted, and during the first days of treatment neither is allowed. [D.R.]

5.—Dionin is the **hydrochlorate of morphin-ethyl ether;** it is readily soluble, and a valuable agent in the **treatment of morphinomania.** The ordinary dose is 0 015-0.03 (gr. ¼-½) hypodermically, and 0.06 (gr. ½-j) by the mouth; in the treatment of morphinism it is, of course, larger. It prevents the abstinence-symptoms, but must always be given, to be most efficient, before the latter have reached a high degree. Dionin, like codein, does not produce the euphoria of morphin, but only lessens the nervous symptoms attending the withdrawal of the last-named drug. Fromme generally employs a 3% solution, giving, by injection, doses from 0.05 to 0.08 grains (gr. ⅚- ⅓), or about 1 gram (gr. 15) per day. The injections usually cause a pronounced itching of the skin, which, however, disappears after a short time. One of the most important effects produced by a large injection is a sense of fatigue, which helps to relieve the patient of his dread of the night, for he feels that he will sleep. [D.R.]

Wiener klinische Wochenschrift.

April 6, 1899. [12. Jahrg., No. 14]

1. The Use of Cacodylic Acid in the Treatment of Skin-diseases, *i.e.*, Psoriasis Vulgaris. H. Gijselman.
2. Concerning Cases of Gangrena Cutis. E. Riecke.
3. A Case of Tonsilla Pendula. P. Reinhard.
4. Local Overexertion as a Cause of Paralysis Agitans. R. T. Williamson.

1.—Gijselman has employed **cacodylic acid** (dimethylarsenic acid), or rather its sodium salt, **in psoriasis.** The strength of the injection (it was given hypodermically) varied from 1.5 parts in 10, to 4 parts in 10, or even 8 in 10. The injections were generally given intramuscularly in the nates. The first improvement, nevertheless, was always noticed in the face, the scalp, and the neck. Local effects were rare. General toxic symptoms were not observed, except in one case in which vertigo and headache followed a very large injection. The solution seemed to be less irritating locally than Fowler's solution. The results lead the author to conclude that cacodylic acid is useful in psoriasis, without, however, possessing any special advantages over the other arsenical preparations. In two cases of lichen ruber planus, the results were better than with Fowler's solution. A favorable influence was exerted by the injections on the subjective symptoms, especially the itching. The treatment varied in length from 3 weeks to 2 months and over. It is Gijselman's opinion that arsenic in general is only reliable in acute and recent cases of psoriasis. A detailed history of 10 cases of psoriasis and 3 cases of lichen ruber planus is given. [D.R.]

2.—Riecke reports 4 cases of **artificial gangrene of the skin.** Three of the patients were girls, two of them 12 and one 17 years old; one patient was a lad of 18. The following objective signs of such gangrene were observed: An irregular, serrated border of the gangrenous foci; the areas were frequently separated by normal islets of skin; the absence of any disposition to follow either the vessels or the nerves; the variable depth of the loss of substance, and the consequent variation in the stages of the different areas, as well as in the same areas. In the first case, there was also on the lower forearm a peculiar splinter-like excoriation of the epiderm, which was undoubtedly artificial. The first patient was hysteric. Although such persons are prone to self-mutilation, spontaneous gangrene can occur in them, which is, like the artificial, not connected with the course of the vessels or nerves. Against the gangrene being spontaneous was the fact that the disease was arrested as soon as the patient came under treatment and found that her manipulations had been discovered. The patient had asserted that she had produced the lesions with concentrated salt-solution, but declined to give any cause for her act. The author experimented on himself to see whether salt solution was capable of producing necrosis. Merely rubbed on the skin it caused only an erythema, but by making a few scratch-marks with a scalpel and then using the salt-solution, a condition similar to that which had been seen in the patient was produced. In the second case, it was necessary to distinguish the gangrene from gangrenous herpes zoster. In the latter the necrotic areas are produced by a coalescence of the individual patches; the efflorescences, moreover, all present a similar intensity and follow the course of a sensory nerve. This was not the case in this patient. It was not possible to learn what he had employed to produce the gangrene. The two girls of 12 stated that the disease had been produced by scratching in play and washing the skin with soft soap and dilute vinegar. What induced them to rub so vigorously as to produce gangrene could not be determined. The diagnosis of artificial gangrene is not always easy. It should be remembered that, as in the cases here reported, easily accessible and ordinarily harmless substances may be employed to produce it. [D.R.]

4.—Williamson's patient was a woman of 50, who in her work as a spinner had been compelled to hold a thread in her left hand for 10 hours daily. The hand eventually became stiff and weak and a tremor developed which had the characteristic "pill-rolling" movement of **paralysis agitans.** Later, the right side became also affected. The gait was propulsive and apoplectiform attacks developed, in the third of which she died. Williamson reports this case, as it bears out Krafft-Ebing's views on the effect of **overexertion** predisposing to paralysis agitans. [D.R.]

Neurologisches Centralblatt.

May 15, 1899. [18. Jahrg., No. 10.]

1. Acute Paronoia. N. Köppen.
2. Brief Communication to the Syphilis-Tabes Question. E. A. Homén.
3. Thrombosis of the Anterior Cerebral Artery. J. Bikeles.
4. Involuntary Micturition During Laughter. W. v. Bechterew.

1.—Köppen, after lamenting that there is no unity among alienists as to what constitutes paranoia, and that it seems impossible to define it either according to its etiology, which is of course variable or unknown; or according to its psychic manifestations, on account of this lack of unity; or according to the pathologic changes, which are at present unknown, discusses the possibility of a more or less symptomatic definition. Formerly the term designated a diseased state in which the formation of delusions occupied the most prominent place, and, in spite of prolonged duration, destruction of the personality did not occur. It is obvious that should an acute form of this disease exist, both these characteristics should be present, unless we assume that any form of insanity not accompanied by dementia belongs to this type. In the majority of textbooks the term acute paranoia is applied to conditions closely allied to confusional insanity, but Köppen believes that a typical acute paranoiac state, in the sense in which he uses the term, may exist. Such conditions occur chiefly in persons suffering from other intellectual disturbances, such as degenerates, hysterics, epileptics, etc.; but he has been able to find records of 10 cases in his notes in which complete recovery occurred and lasted for 2 or 3 years. The characteristics are as follows: the delusions are not strictly systematic; the sense of personality is not lost, and there may be general disturbances such as occur in all acute psychoses; the symptoms may be masked by a state of confusion or a well-developed delirium; the patients complain that they are not able to think clearly; sometimes after cure there is an amnesia for certain stages, the patients usually ascribe this intellectual disturbance to some external influence, and often complain of alteration in their surroundings. They may have obligatory perceptions. The etiology sometimes modifies the characteristics of the disease, thus—the alcoholic paranoiac has delirious representations or dreams. The commonest cause is simply exhaustion; the disease occurs most frequently in imbeciles, and is then characterized by a feeling of anxiety and irrational delusions of persecution that rapidly disappear. Finally Köppen calls attention to the fact that chronic paranoia may have acute exacerbations. [J S]

2.—Homén reports the case of a boy, 22 years of age, who, at the age of 17, injured his right knee, which remained somwhat stiff, thereafter. There was then loss of visual power in the left eye, some stiffness and numbness in the right arm, and attacks of imperfect speech with partial loss of consciousness. The right pupil reacted slowly to light, the left not at all, excepting consensually. Romberg's symptom was present, the gait was slightly ataxic, and, in the dark, uncertain. Tactile sensation was somewhat diminished in a zone surrounding the lower portion of the thorax, on the ulnar sides of both arms, and on the left side of the face. In the legs and feet, sensation was almost completely destroyed, and it was considerably impaired as far as the hips. Thermal sensation was defective, and there was a curious delay in the perception of painful impressions. Muscle-sense was distinctly impaired. Occasionally there were lance-like pains in the legs; there was no atrophy of the muscles; there was slight interference with micturition; the patellar reflexes were lost; and the other reflexes diminished. Homén regards this case as one of indubitable tabes. The father, 57 years of age, gave a clear history of luetic infection, and the etiology is therefore probably explained by assuming the hereditary transmission of the disease. [J S.]

3.—Bikeles reports the case of a woman, 46 years of age, who had fallen upon her head, and immediately afterward developed paralysis of the left upper and lower extremities. The following day speech was interfered with, the patient answering slowly. The nasolabial fold had disappeared on the left side. There was paralysis of the left facial nerve, conjugate deviation of the eyes to the right, and contraction of the left pupil, with some spasticity of both paralyzed extremities. Death occurred on the fifteenth day. At the autopsy there was found a large area of softening in the frontal gyri, caused by thrombosis of the anterior cerebral artery. A second focus was found in the strio-lenticular portion of the internal capsule, measuring 8 mm. x 3 mm. Preparations, stained by the Marchi method, showed absence of degeneration in the internal capsule, but marked degeneration in the fibers of the loop of the lenticular nucleus; these fibers passing to the subthalamic region, and ending just beyond this. In the putamen, the nerve-fibers stained poorly. The fact that the degeneration seemed to be so strictly isolated to the loop of the lenticular nucleus, is the most interesting feature of the case. [J S.]

4.—Bechterew reports the case of a woman, 20 years of age, who invariably had an evacuation of urine when laughing, otherwise the vesicular functions were perfectly normal, and he therefore assumes that the symptom is the result of some peculiar psychical disturbance. He believes that the reason is to be found in the juxtaposition of the centers for micturition and for the expression of the emotion, both of which are found in the optic thalami. [J S]

Centralblatt für Chirurgie.

May 20, 1899. [26. Jahrg., No. 20.]

1. A Removable Buried Suture. Rafael Minervini.
2. Gastroenterostomy by Poudrez Method. N. A. Sokoloff.

1.—Two threads are necessary for this form of **buried suture**—a very long flexible fine silk thread and a stiff metallic or silkwormgut thread somewhat longer than the wound to be closed. The silk thread is passed by Reverdin needle 5 or 6 mm. from the edge of the wound and drawn into a succession of loops; the silkwormgut thread is then passed through these loops, and the silk and silkwormgut threads are tied at one end; the loops are then drawn by means of forceps so as to close the wound, and the gut and silk suture are tied at the other end. After union has taken place, one of the tied ends is cut, when the straight silkwormgut thread can be easily drawn out, and the silk thread can then be easily removed by drawing on an end. [M.B.T.]

2.—In 1898, Poudrez published an account of a new and simple method of **gastroenterostomy,** which consisted in crossing two ligatures through the walls of the organs which it was desired to anastomose, and tying these ligatures. Four cases operated upon by this method are reported. In the first case a patient, 51 years old, was operated upon for a large scirrhous carcinoma of the pylorus. The patient recovered from the operation, but died of pneumonia 13 days later. At the necropsy, an opening 1 cm. in diameter was found to exist. In a second case a woman, 31 years old, was operated upon for the relief of pyloric obstruction from a lymphosarcoma. The symptoms were not relieved; vomiting continued, and the patient died 4½ days later. At the necropsy no opening was found between the stomach and intestine. In a third case a man, 47 years of age, was operated upon for the relief of pyloric obstruction from an adenosarcoma. The patient's condition improved, but death followed 43 days later. No connection had resulted. In a fourth case a patient, 43 years old, had a cicatricial contraction of the pylorus following the swallowing of sulfuric acid. The patient made a good recovery from the operation, has gained rapidly in weight, and has every appearance of a completely healthy individual. It is evident that an opening resulted in this case. [M.B.T.]

May 27, 1899. [26. Jahrg., No. 21]

1. A New Modification in Cheiloplasty. J. Silberberg.
2. Vesical Drainage. C. Kaczkowski.

1.—The author describes a modification of the methods of **cheiloplasty** now in vogue that adds considerably to the cosmetic effect of the operation. Whether the defect is V-shaped or rectangular the same principle is applied. At the angle of the mouth the incision in the cheek is stopped outside the margin of the lip and carried along the outer margin of its mucous or red surface to such a distance, that when the defect is closed by approximating the two flaps secured, the portion of the opposite lip freed serves to form the angle of the mouth, and is continued over onto the newly-formed lip, making them of equal length. [C.L L.]

2.—This paper refutes the criticisms made upon the author's method of perineal drainage which has proved eminently successful in a number of cases since its publication. He also shows that infection is liable to result from suprapubic drainage, quoting statistics from various authors to prove his point. [C.L L.]

Centralblatt für Gynäkologie.

February 25, 1899. [23. Jahrg., No. 8.]

1. Another Word on the Cranioclast Question. Th. Schrader.
2. On the Operation for Retroflexion of the Uterus. A. Mackenrodt.
3. Reconstruction of a Destroyed Female Urethra by the Use of Gersung's Method of Forming a Sphincter. G. Romm.

2.—Mackenrodt gives an extended history of the different methods of **operating for retroflexion of the uterus,** and finally decides that the Mackenrodt method as now used is the best, and closes by describing it in detail. [W.K.]

3.—Romm operated on a woman who had a **vesico-vaginal fistula,** acquired in confinement, which destroyed the urethra. He used Gersung's method of reconstructing the urethra, twisting it 180°, after which the contents of the bladder were retained. Two months after the operation the patient was dismissed with entire continence except when lying on the left side, in which position the urine dribbled. This was probably due to the direction of the spiral urethra. [W.K.]

March 4, 1899. [23. Jahrg., No. 9.]

1. The Catarrh of the Newborn Due to Nitrate of Silver. H. Cramer
2. Wandering Kidney and Appendicitis. B. E. Hadra.
3. A Case of Incarcerated Inguinal Hernia Complicating Pregnancy. E. Sintenis.

1.—Cramer gives the results of 300 cases treated by **Credé's method.** In 4 out of 100 there was no reaction, in 73 the secretion had disappeared entirely on the fifth day, in the others it lasted longer. He does not think the irritation was caused so much by increasing the number of drops as by using it on successive days. Small, ill-developed children are more sensitive to argentic nitrate than healthy ones. In children born with face or vertex presentation, or delivered with forceps, the conjunctiva is extremely sensitive. Catarrh for the first 24 hours is usually aseptic, and after that septic. Only 1 out of 300 cases had gonorrheal conjunctivitis. [W.K.]

2.—Hadra criticises Edebohl's combined operation for appendicitis and wandering kidney, and his theory of the common association of the two diseases. [W.K.]

3.—Sintenis reports a case of right **inguinal hernia** occurring in a woman, 33 years of age, in the fourth month of her third pregnancy. Being irreducible by taxis, he operated, removing 2 tablespoonfuls of pus from the hernial sac, and replacing the intestine sewed up the wound. The patient made a complete recovery and the pregnancy took its normal course. [W.K.]

March 11, 1899. [23. Jahrg., No. 10.]

1. On the Technic of Extirpation of Hematocele. E. Wertheim.
2. A Simplified Aseptic Method in the Ligation and Treatment of the Umbilical Cord. S. J. Kusmin.
3. On the Twisting of the Axis of the Uterus Caused by Tumors. A. Holowko.

1.—Wertheim uses a method of his own in removing hematoceles, first ligating and cutting the pedicle, and then dissecting out the hematocele. He thinks this prevents the bursting of the membrane which often occurs in the old method of removing the hematocele before ligating the pedicle. [W.K.]

2.—Kusmin describes a method of **treating the umbilicus** by means of a plaster-of-paris bandage. This is applied 2 to 4 times over a rubber ring which is placed immediately around the umbilicus. The compression on the remains of the cord by the rubber ring renders a peripheral ligature unnecessary. He thinks this bandage mummifies the cord rapidly and prevents infection besides being cheap and simple in its application. [W.K.]

3.—Holowko performed a hysterectomy upon a woman having a large cystomyoma of the fundus uteri which had caused the uterus to twist 360° from left to right. Recovery. [W.K.]

March 18, 1899. [23. Jahrg., No. 11.]

1. On the Meaning of the Term Puerperal Fever and the Practical Importance of the Definition of the Disease. I. P. Baumm.
2. On Vaporization of the Uterus. A. Dührssen.
3. On Trophic Disturbance of the Bladder after Gynecologic Operations. S. Mirabeau.

1.—Baumm discusses the medicolegal aspect of the subject in Germany. [W.K.]

2.—Dührssen prefers the apparatus of Sneguireff to that of Pincus; but has modified the former by inserting a thermometer, and by surrounding the metal tube with a fibrous jacket to prevent burning of the uterine mucous membrane with the hot metal. He uses two Simon's speculums and a tenaculum in place of the hollow wooden speculum recommended by Pincus. His results have been extremely good. He finds that in using the fibrous jacket there is no pain which seemed formerly to have been caused by contact with the hot metal, It is better not to irrigate the uterus after **vaporization.** He mentioned two cases in which pregnancy occurred shortly after vaporization of half a minute. [W.K.]

3.—Mirabeau thinks that the commonest cause of trophic disturbance of the bladder after operation, especially a considerable time after, is the overlooked presence of silk or silver ligatures in or around the bladder, since this disturbance has usually rapidly disappeared on their removal. This fact has caused many operators to be very sparing in the use of ligatures around the bladder. He reports 2 cases of trophic disturbance due to other causes. In both he found, on cystoscopic examination, hyperemia and edema with folded mucous membrane just above the trigonum, which he ascribed to the ligation of the vessels of the bladder during operation. In the treatment of such cases he advises the use of massage, iodin, glycerin, tampons, and sitz-baths.

March 25, 1899. [23. Jahrg., No. 12.]

1. Two Cases of Cesarean Section by the Transverse Method of Fritsch. A. Cryzewicz.
2. Operations for Fistulas and Lacerations of the Ureter. A. Mackenrodt.
3. A Case of Post-abortem Sepsis Treated by Saline Transfusion. N. Ostermayer.

1.—Cryzewicz, of Lemberg, reports two cases of **Cesarean section by the transverse method of Fritsch.** The advocates of this method, among them Kirchhof, Schroder, Johannowsky, Krumer, Hain, Braun, and Everke, claim that it removes the danger of serious hemorrhage and of adhesions to the abdominal viscera. Cryzewicz believes that this method is likely to produce extreme atony of the uterus. In one of his cases the atony became so great that he found it necessary to open the abdominal incision and, grasping the base of the uterus, pressed out great blood-clots. Having thus the opportunity to observe the transverse uterine cut made, he found there had been an entire absence of oozing of the uterine fluids, thus, he believes, lessening the danger of sepsis. He cites a case operated upon by him in 1891 by the classic method, in which the patient died from infection, though the postmortem examination showed that the uterine wound was healed. He attributed this death to the oozing of the lochia, and thinks the method of Fritsch less likely to produce this effect. He had performed the classic operation upon his second case several years previously, and upon opening the abdomen found a finger-deep vertical furrow of the old wound, therefore chose the transverse method in this case. He believes the method of Fritsch to be a valuable modification of the ordinary method for certain cases; but prefers the classic operation unless there is some distinct indication for the use of the transverse. [W.K.]

2.—Mackenrodt discusses the various operations for the **relief of ureteral injuries and fistulas,** criticising Witzel's method because of many cases of pyelitis and ureteritis occurring subsequently. He considers an ideal method to be purely a transperitoneal operation without injury to the peritoneal cavity and with exposure of the entire course of the ureter from the kidney to the bladder; thus avoiding the danger of infection attending the intraperitoneal method. He details a case of cancerous infiltration of the ureters and describes his method of operating. [W.K.]

3.—Ostermayer details the history of a case of **sepsis,** in which he obtained brilliant results by the use of saline transfusion. The results were so satisfactory that he advises its use in all cases, as it always does good and never will produce harm. [W.K.]

Revue de Médecine.

April 10, 1899. [19me Année, No. 4.]

1. Clinical Studies of Some Infectious Diseases. H. Roger.
2. Contribution to the Study of Relapses in Typhoid Fever. P. Remlinger.
3. Hemorrhagic Smallpox; its Causes, Nature, and Visceral Lesions. F. Arnaud.
4. Gastrocolic Symphysis. L. Bouveret.

1.—Roger has had the opportunity of observing 1,380 cases of **infectious diseases** in 1898, and in the preceding three years over 2,000 more. In all cases, nursing mothers were allowed to enter with their children if the latter were the patients, or permitted to bring their children if they were themselves infected. Thirteen mothers suffering from measles, 20 from scarlet fever, 2 from chickenpox, 5 from sore throat, in one case diphtheritic, and 3 from gastroenteritis, were admitted with their children, and only 2 of the latter contracted measles, both cases being exceedingly mild. Roger rather suspects that this is due to an immunity conferred by the milk, particularly as infants are so very liable to measles. It was not possible in all cases to discover the date of infection in the cases of measles, but in 358 this could be determined with considerable accuracy. According to the period of invasion, it could extend from none to 5 days, but usually lasted 3. Roger calls attention to the frequency of epistaxis during this period. Among complications, he mentions bronchitis which occurred in almost all cases, pneumonia in one case, albuminuria in 27 cases, that is, about 7%, and acute nephritis in 1 case. The most serious complications are otitis media, and inflammations of the joints in rare cases. In two cases relapses occurred, one 3 days after being discharged from the hospital, and the other after 9 days. There was 1 death in the 398 cases, a young man who developed an acute nephritis, septicemia, cachexia, and death from exhaustion, metastatic abscesses having in the interval appeared in the other parts of the body. The curious feature of this case was the presence of a large amount of pus in the meninges without symptoms of meningitis. There were admitted 100 cases in young children, 9 of whom died from some complication; 102 children in early infancy were admitted, 40 of whom died. (The latter figures applied to 2 years.) In 1896–97–98, 1,081 cases were treated with a mortality of 5.3%. There were 496 cases of scarlatina admitted in 1898, but the statistics applied to 997 cases of that and the previous 2 years. The period of invasion varies from none to 5 days, most frequently lasting 1 or 2 days only. The most frequent complications were swellings of the joints, sometimes giving metastasis to the heart. Various other cardiac complications, such as **bruit pegalop** and accidental murmurs, were also noted. In 36% of the cases, albuminuria was present. The lungs were rarely involved. Vomiting, constipation, and in the grave cases diarrhea, were frequently present. During the convalescence, inflammation of the pharynx that extended to the middle ear, formed a serious complication. Swelling of the lymph-glands was exceeding common, and in 2 cases in which they suppurated, streptococci were found in the pus. Of the nervous symptoms, neuralgia was frequent; in 3 cases there was flaccid paralysis or paresis of the lower extremities. One woman exhibited the syndrome of astasia-abasia, and in 1 case there was paralysis of the soft palate. In 2 cases, spasmodic paraplegia developed; one of the patients was markedly hysterical, and in both there was extraordinary exaggeration of the knee-jerks and ankle-clonus; both terminated in recovery. The mortality was 1.89%, but in 2 cases death resulted from free existing complications, so that the corrected mortality was 1 51%. In 104 cases in children admitted, 3 deaths occurred. Also, 24 young infants were admitted suffering from the disease with a mortality of 3 or 12.5%. Complications were extremely rare. [The paper is unfinished. J S.]

2.—Remlinger reports 4 cases of **typhoid fever** that were observed in a hospital in Belvédère in 1897, one of which was tested for the Widal reaction, which was positive. In 1898, all 4 patients reappeared in the hospital with the characteristic symptoms of typhoid fever, and in all cases the Widal reaction was promptly obtained. Remlinger collects 31 cases of recurrent typhoid fever from the literature; 20 in men and 11 in women. Altogether, therefore, he has 35 cases in which the recurrence occurred at varying intervals, from 5 months to 39 years; the most frequent period being from 1 to 7 years. In his own 4 cases, the first attacks are of moderate severity; the second very mild, almost abortive, and no relapses occurred. In the literature, the first attack is given as being severe 13 times, normal 13 times, and mild once. In 10 cases, the second attack was more severe than the first. In 9 cases it was mild, and in 6 cases both attacks were about equal in severity. It is difficult to understand the etiology of these conditions, that is they may be due to reinfection; to the persistence of typhoid-bacilli in the intestinal tract; or to the fact that typhoid-bacilli are normal in the intestinal tract of those particular patients. In some cases in the literature, secondary infection appears to have been established. [J.S.]

3.—Arnaud continues his article upon **hemorrhagic smallpox.** There is no reason, he thinks, to believe that the specific agent differs in nature from the specific agent of ordinary smallpox, but there is every reason to believe that its virulence has been enhanced in some manner, and it may even acquire certain peculiarities traceable from one generation to another, that can produce the hemorrhages. Investigations regarding the possibility of secondary infection seem to show that this does not occur more frequently than in the ordinary form, and the suppuration that occurs is not due to any microorganism except that which is specific for the disease. Experiments performed in Arnaud's service by Bonifay and Engelhardt upon the blood of patients of hemorrhagic smallpox gave almost negative results. The lesions consist in the alterations of the kidneys, liver, and spleen, characteristic of ordinary smallpox. It is possible that there is a greater tendency to fatty degeneration in the liver. Sclerosis of the spleen occurs infrequently, is apparently due to some preexisting condition, and cannot, therefore, be regarded as a characteristic or concomitant of the disease. Arnaud summarizes his results as follows: The etiology of hemorrhagic smallpox is due (1) to the nature of the virus, which is altered quantitatively only; (2) the receptivity of the subject which may be modified by (*a*) vaccination, (*b*) individual pathologic and physiologic conditions, and (*c*) natural predisposition; (3) no characteristic visceral lesion of the disease exists. The sclerosis of the spleen described by Golgi and Ponfick is due to a preexisting chronic interstitial splenitis and may have some predisposing influence. [J.S.]

4.—**Adhesive perigastritis** and more or less intimate union between the stomach and colon is not so rare as is generally supposed, and to it Bouveret gives the name gastrocolic symphysis. It may be complete or only partial. The latter is, of course, much more frequent. Its most serious complications are gastrocolic fistula and obstruction of the large intestine. In addition to 2 cases of the former lesion that he observed, his student, Bec, has collected 60 from the literature. The diagnosis is not particularly difficult, especially if the fistula is quite large. Two signs are present, intense and rapidly developing anemia and a very profuse lienteric diarrhea. Of course, these symptoms are present in cancer, but by no means to the same extraordinary degree. Vomiting either never occurs, or is very infrequent. In some cases there is subjective sensation of vomiting, of nausea, profuse salivation and perhaps retching, and in these instances probably the contents of the stomach are expelled into the colon. The treatment depends upon the cause, and if cancerous the prognosis is fatal. If an ulcer exists, the patient may recover, but operation would, of course, be advisable. Intestinal occlusion due to gastric symphysis is usually produced by bands of peritoneal adhesions crossing the transverse colon. The most important signs are increased peristalsis of the cecum and ascending colon, disturbances of the intestinal function, in addition to the symptoms of gastric cancer or ulcer. Sometimes, after the process has been progressing slowly for some time, there will be a sudden accession of all the symptoms. In one of Bouveret's cases, the patient was rendered very much worse by gastric insufflation. In this case it was impossible to discover the obstruction at the operation, but after the death there was found a cicatricial stenosis of the pylorus, and an obstruction of the transverse colon of the pyloric region as a result of symphysis. In conclusion, Bouveret describes the 4 chief forms of peristalsis observed in the abdomen: (1) General; (2) partial, of the small intestine; (3) limited to the large intestine in which it is particularly valuable because it enables the physician to localize the lesion, and (4) of the stomach. [J.S.]

Sundry French Journals.

1. Belladonna in Large Doses in Bronchopneumonia in Children. J. A. Coutts. (*Sem. Méd.*, Feb. 1, 1899. 19me Année, No. 5.)
2. Tuberculous Infection of a Carcinoma of the Stomach. H. Claude. (*Sem. Méd.*, Feb. 1, 1899. 19me Année, No. 5.)
3. Experimental Hemorrhagic Pancreatitis. Levaditi. (*Sem. Méd.*, Feb. 1, 1899. 19me Année, No. 5.)
4. Treatment of Tetanus by Intracerebral Injections of Antitoxin. P. Lereboullet. (*Gaz. Heb. de Méd. et de Chirur.*, Feb. 12, 1899. 46me Année, No. 13.)
5. Traumatic Hemorrhage of the Liver in the Newborn During Labor. Bénoni Bureau. (Paris Thesis, 1898–99, No. 147.) (*Gaz. Heb. de Méd. et de Chirur.*, Feb. 12, 1899. 46me Année, No. 13.)
6. Hemorrhage of the Liver Following Contusion of the Thorax By a Blow from a Horse's Hoof. Opin. (*Gaz. Heb. de Méd. et de Chirur.*, Feb. 16, 1899. 46me Année, No. 14.)
7. Local Anesthesia by Cocain Combined with the General Action of Morphin. A. Ceci. (*Sem. Méd.*, Feb. 8, 1899. 19me Année, No. 6.)
8. Painful Endometritis and its Treatment. V. Th. Snéguirev. (*Sem. Méd.*, Feb. 8, 1899. 19me Année, No. 6.)
9. The Relations Between Putrid Pleurisy and the Anaerobic Microorganisms. Rendy. (*Sem. Méd.*, Feb. 8, 1899. 19me Année, No. 6.)
10. The Relations Between Asystolic Tricuspid Insufficiency and Mitral Stenosis. Pierre Merklen. (*Gaz. Heb. de Méd. et de Chirur.*, Feb. 9, 1899. 46me Année, No. 12)

1.—Coutts has experimented with **belladonna in large doses** in cases of **bronchopneumonia in children.** The remedy has been used to moderate the bronchial secretion and to stimulate the respiration and the circulation. The origin of the idea is traceable to the good results obtained from the use of belladonna in cases of paralysis of the diaphragm following diphtheria. The experiments have been fully successful and show that the administration of 0.015 gm. of extract of belladonna, every 3 or 4 hours, produces an immediate relief, and, in many cases, hastens the cure of the disease. The dose mentioned has been used for children of 6 or 7 years of age, and when it produces delirium should be diminished. This complication is not common, and the toxic manifestations of the drug are confined to slight redness of the skin, with a moderate degree of irritability and agitation. Dilatation of the pupil is not so common as cutaneous hyperemia. [J.M.S.]

2.—During the autopsy on the body of a man who had died of pulmonary and intestinal tuberculosis, Claude found a tumor of the stomach that was partially surrounded by a very superficial area of ulceration. Histologic examination showed that the tumor was a **carcinoma developed** upon **a preexisting columnar-celled, alveolar epithelioma.** In the deeper parts of the new growth tuberculous nodules were found that contained both giant-cells and tubercle-bacilli. This case seems to show that carcinoma is not always an unsuitable tissue for the development of tuberculosis. It is probable that in this case the carcinoma was infected secondarily by the tubercule-bacilli that were introduced into the stomach with the expectoration. [J.M.S.]

3.—In the course of experiments made in conjunction with Charrin on the relations of toxins and the intestine, Levaditi found lesions of the pancreas that were sometimes hemorrhagic. He tied the ileum of a dog near the cecum, and followed this operation by the injection of 40 cc. of tetanus toxin. The ligature was removed 23 hours later and the animal lived 2 weeks without signs of tetanus. On the other hand, 18 cc. of this toxin administered subcutaneously in divided doses, to a second dog, produced well-marked symptoms of tetanus in 5 days. At the autopsy on the animal, hyperemia of the duodenum and **hemorrhagic pancreatitis** were found. The extravasated blood had dissected up the glandular elements of the pancreas and the swollen cells obstructed the acini. Several scattered masses of polynuclear leukocytes were found. [J.M.S.]

4.—(See this Journal, Vol. III, page 549.) Lereboullet has studied the **treatment of tetanus by the intracerebral injections of antitoxin.** After a full discussion of the experimental work, the therapeutic applications, and the therapeutic results of this method of treatment, he concludes that if the injections cure tetanus of external origin in the lower animals after the appearance of the first symptoms, the same success ought not necessarily to be expected from a similar procedure in man. Nevertheless, if cases of external tetanus are treated by intracerebral injection as soon as trismus appears, good results may be expected and the extension of the disease may be prevented. If the pulse is of moderate rapidity, if the temperature is not too high, if the respiration is not too frequent, and if there is contraction of the muscles of the jaw and of the neck only, with little or no difficulty in swallowing, cure is probable. If, on the other hand, the pulse and respiration are rapid, if there is marked dysphagia, and if the tetanus is of internal origin, the injection will probably be unavailing. In all cases it is necessary not to limit the treatment of the case to a single intracerebral injection, but subcutaneous injection of antitetanic serum should be employed at the same time. The subcutaneous injection is designed to neutralize the toxin, that may be formed later at the focus of infection, and has the same object and the same action as when it is used in cases of chronic tetanus. A large injection, 40 cc., should be made on the day of the operation, and the injection should be repeated during the following days in doses of from 10 to 20 cc. The administration of the serum has been followed by cutaneous eruptions, joint-pains, etc., in a few cases, but these complications have been slight, and are not sufficient to contraindicate the use of the remedy. Various authors have different opinions concerning the advisability of the simultaneous use of chloral and antitetanic serum, but it is probable that if delirium is present, and if the muscular contractions are very painful, the use of morphin, chloral, and the bromids in doses sufficient to relieve the painful phenomena, is indicated. The care of the focus of infection is just as important when the serum is used as when drugs alone are employed. In some cases it may even be necessary to amputate the wounded limb. [J.M.S.]

5.—Hemorrhages in the liver are frequently observed **in the newborn.** According to Bureau they are almost always due to traumatism in the course of labor, particularly in breech-presentations. The direct pressure made by the obstetrician, or by the flexed lower extremities of the fetus upon the abdominal wall, has frequently been noted. The application of forceps to the breech may also be a cause of hepatic hemorrhage. Sometimes when the labor has been normal, the condition may have been produced by congenital weakness of the bloodvessels, or by syphilitic dyscrasia of the blood. The hemorrhage is almost always subcapsular. The capsule is raised but is only rarely ruptured, and when ruptured, the condition is associated with peritoneal effusion. Hemorrhages of the liver are rarely uncomplicated. They are almost always accompanied by meningeal hemorrhage, and in such cases there are meningeal lesions that are usually accountable for the death of the child. [J.M.S.]

6.—Opin reports a case of a man, a groom by occupation, who was thrown backward from a horse, receiving in his fall a blow from the horse's hoof that caused him to roll several meters. A quarter of an hour after the accident the patient presented an anxious look, was pale, the nares were markedly movable, and respiration was very painful. On the right side of the thorax, three fingers' breadth below the nipple, and in the nipple line, a slight ecchymosis was noticed. Palpation of the thorax and of the entire abdomen was painful, particularly in the right hypochondriac region. The muscles of the right side were contracted and cord-like; the pulse was 78, full and regular; the temperature 35.8° C. (96.4° F.) The diagnosis of rupture of the liver accompanied by hemorrhage was made. In the evening the pulse was 74, the temperature 38.2° C. (100.7° F.); there was slight distention of the abdomen, and the patient had passed no urine. The next morning the pulse was 100 and weak, the temperature 37.6° C. (99.6° F.); the distention of the abdomen was increased; there was some hiccough, and 300 gms. of urine had been passed. An injection of 350 cc. of Lejar's solution (sodium chlorid 8 gm., water 1 liter) was made into the thigh. In about 36 hours and after a second injection of 480 cc. of artificial serum, the pains had diminished, the abdominal distention had disappeared, and there was no hiccough; 406 cc. of artificial serum were administered at this time. During the next 2 days 3 injections of artificial serum were given, and by this time the temperature and pulse had returned to normal; palpation of the abdomen and of the liver were painless. Six days after the accident the patient had a normal stool, and the diet was gradually increased for 3 days, when the patient had an attack of very sharp pain in the region of the liver. Palpation of the abdomen at this time revealed no distention but extreme tenderness in the hepatic region. The idea of intestinal perforation was discarded and a diagnosis of **secondary hemorrhage of the liver** was made. The injections of artificial serum were resumed and a subcutaneous injection of morphin was given. The symptoms gradually subsided; in two days the injections of artificial serum were stopped; and the patient was discharged a month later in an apparently normal condition. The author considers the case to be one of more or less extensive **rupture of the hepatic parenchyma** involving the inferior surface of the organ. The absence of pain radiating to the right shoulder made it less probable that the superior surface of the liver was involved. [J.M.S.]

7.—Ceci is convinced that general anesthesia is more dangerous than the most optimistic statistics show, and, therefore, limits its use to cases of absolute necessity. Without possessing a personal experience concerning ether, he thinks that in spite of the small number of fatal accidents caused by this anesthetic, it is not really superior to chloroform for general anesthesia, because of the inconvenience of its administration, and the numerous conditions that contraindicate its use. Furthermore, etherization is not free from late complications of greater or less gravity. Whenever it is possible, Ceci prefers to substitute **local anesthesia by cocain,** combined with the general action of morphin, for **general anesthesia** by chloroform or ether. [It seems strange that the continental surgeons persist in the use of chloroform as a general anesthetic in preference to ether, in spite of all the observations of reliable men in this country concerning the safety of the latter. J.M.S.]

8.—The existence in certain women of an extreme sensibility in the uterine region, with many painful radiations, is a fact well known to gynecologists, but to which the character and importance of a separate disease is not habitually attached. It is customary to group these **pelvic neuralgias due to benign lesions of the uterus,** under the general term of **hysteria.** In 1870, however, Routh expressed the opinion that these morbid phenomena were due to a catarrh of the fundus of the uterus. Recently Frommel has also observed this same phenomenon. Having had occasion to see 9 cases of this character, Snéguirev has been able to complete the study of the affection from the semiologic and therapeutic point of view, and he has called it **painful endometritus.** All the patients except one had had children, and their ages varied between 22 and 46 years. Emaciated and anemic, they complained particularly of nervous troubles, such as headaches, insomnia, excessive irritability, and pains in the neighborhood of the uterus and of the pelvis. These pains were constant; they persisted during the night, and were increased by motion, work, micturition, coitus, menstruation, emotion, and pressure applied to the uterus. The exacerbation of pain sometimes produced hysterical crises or attacks of hystero-epilepsy. There was little or no leukorrhea, the menstrual flow was normal and abundant and was accompanied by more or less dysmenorrhea. In examining the sensibility of the lower portion of the abdomen of patients of this class, 5 painful points were found. These points corresponded exactly to the emergence of the branches of the iliohypogastric nerve, of the external cutaneous nerve, of the genital branch of the genitocrural nerve and of the ilioinguinal nerve. These painful points may be found upon or both sides of the abdomen and correspond (1) to the spine of the pubes, (2) to a point situated about a finger's breadth above and outside of that point, (3) to the anterior superior spine of the ilium, (4) to the external outer part of the crest of the ilium, and (5) to the internal surface of the thigh a little below the inguinal fold. Furthermore, sometimes the pains are experienced in the neighborhood of the hypogastric, renal, and solar plexuses, in the intercostal spaces, in the precordial region, in the sacroiliac joint, along the sciatic nerve, in the loins, and in the back. Pressure with the fingers above the symphysis pubis directed toward the promontory of the sacrum, will produce sharp pain when the pressure affects the uterus. Bimanual palpation and rectal examination confirm the localization of the pain at the fundus of the uterus. Exploration of the uterine cavity by means of the sound is difficult, on account of spasms or stenosis of the internal os, that arrests the passage of the instrument. The contact of the instrument is excessively painful in this region, and also on the sides and the fundus of the uterus, and in the neighborhood of the orifices of the fallopian tubes. These pains may be followed by syncope or by convulsions. Examination by means of the speculum is sometimes impossible on account of vaginismus, but when the latter condition is absent the cervix will be found to be congested and livid, and little or not at all altered in consistency or form. Painful endometritus, according to the author, is only a lesion of the uterine mucous membrane, of inflammatory origin, localized in the region of the internal os, of the fundus of the organ, and of the orifices of the fallopian tubes, and giving rise to the phenomena of painful spasm on account of the nervous predisposition of the patient. The treatment consists in dilating the uterus and tamponing with iodoform-gauze. [J.M.S.]

9.—Rendu reports 3 cases of **putrid pleurisy** in which the bacteriologic examination showed a considerable predominance of anaerobic microorganisms over the aerobic microorganisms. The first patient was a coachman, aged 38 years, who, at the time of his admission into the hospital, presented all the signs of left-sided pneumothorax without fever. The next day the dyspnea was much greater, and an exploratory puncture found several drops of extremely fetid pus, and showed that the disease was not pneumothorax but a putrid, gaseous pleurisy. The operation for empyema was performed and was followed by drainage and flushing of the pleural cavity with a 1 to 4000 solution of potassium permanganate. The next day the thoracic wall was the seat of a large diffuse gaseous abscess, that necessitated several incisions followed by drainage. In spite of this severe complication the patient was cured at the end of 6 weeks. The second patient was a young girl, 18 years of age, who had suffered for several years with bronchiectasis following an old bronchopneumonia. The patient complained suddenly of a pain in the side, and a few days later presented all the signs of pleurisy. An exploratory puncture proved that the condition was one of putrid pleurisy, and the following day paracentesis was performed, and 250 cc. of very fetid pus was withdrawn. The pleural cavity was then washed with a solution of potassium permanganate, and the patient recovered promptly. The third case was in a patient of Barth's, a man, aged 45 years, who presented all the signs of pleural effusion. Exploratory puncture showed the presence of fetid seropus. Five days later, after the exploratory puncture, the operation for empyema was performed, and the pleural cavity was flushed daily with weak solutions of corrosive sublimate. The patient was finally cured, but the course of treatment was much longer than in the two preceding cases and resulted in a fistula. In these cases the anaerobic microorganisms were the cause of the putrefaction, and in order to destroy them Rendu considers that potassium permanganate is superior to solutions of mercuric chlorid. [J.M.S.]

10.—Merklen reports a case that demonstrates the **relation between asystolic tricuspid insufficiency and mitral stenosis.** Relative or asystolic tricuspid insufficiency is due to distention of the right ventricle that results in regurgitation into the right auricle and the venæ cavæ, accompanied by visceral congestions, cyanosis, and dropsy. This insufficiency is the inevitable consequence of mitral stenosis when it is complicated by a very marked stasis of the blood with increased tension in the pulmonary circulation. The condition may be considered as one of momentary safety, the tricuspid valve playing the part of a safety valve, which relieves the overfilled right ventricle and the vessels of the lung. The patient was a woman, aged 38 years, who had formerly been under treatment for asystole due to stenosis and insufficiency of the mitral orifice, accompanied by chronic caffein-intoxication. After several months of rest the patient tried to work, but at the end of three weeks she had to give up on account of the progressive increase of dyspnea on exertion, that soon became continuous, with nocturnal orthopnea, rapidly followed by cyanosis and edema of the lower extremities. When first seen the cyanosis was extreme, and involved the face and the extremities. The veins of the neck presented a characteristic pulsation; the legs were the seat of a recent edema, still white and soft; and the abdomen contained some ascitic fluid. The association of cyanosis and of dropsy left no doubt as to the existence of dilatation from cardiac insufficiency, and the demonstration of asystolic phenomena bore further witness to the supposed condition. The transverse area of cardiac dulness measured 20 cm. The vertical area of cardiac dulness in the parasternal line measured 12 cm. The vertical area of liver-dulness measured 18 cm., and that organ was painful on pressure, and was the seat of a systolic pulsation that was easily visible. The urine was scant, of low specific gravity, poor in urea, and contained no albumin. The arterial tension was lessened, the pulse was regular and not accelerated. The dyspnea was slight, and the examination of the lungs gave negative results. The slowness of the pulse was explained by the cyanosis, and the ease of respiration was due to the momentary benefit derived from the leaking tricuspid valve. The latter phenomenon was indicated by a systolic murmur, heard best at the xiphoid cartilage, by pulsation of the large veins, and by pulsation of the liver. The asystolic tricuspid insufficiency thus manifested was the consequence of the complex mitral lesion formerly discovered, but actually not apparent. In fact, the auscultation of the left heart was negative, except for a whining systolic murmur of extracardiac origin. As the phenomenon of tricuspid regurgitation subsided, physical signs of mitral disease appeared. This case seems to show that tricuspid regurgitation, accompanying mitral stenosis and complicated by pulmonary lesions, is a beneficial condition. It is a temporary precaution against the danger of mechanical asphyxia due to the increased tension in the pulmonary circulation; but, at the same time, it opens the door to all the consequences of general venous stasis. Remaining more or less stationary in the large veins and their tributaries, the mass of blood becomes arterialized but imperfectly, and rids itself only in a limited measure of the products of metabolism, on account of the insufficient urinary elimination due to renal stasis. The organs and the tissues remain, therefore, filled with blood that is not renewed, and that is not freed from its deleterious principles. The consequent stasis and edema, if they are prolonged, result in degenerations and scleroses that medicine is not able to affect. Such conditions are particularly pernicious for the myocardium, and consequently the tricuspid regurgitation should not be allowed to persist. The patient presented the mitral affection early in life; she had whooping-cough at the age of 8 years, and during the 9 years that followed she was not able to play as her companions were on account of dyspnea. It is probably, therefore, that the attack of whooping-cough was complicated by bronchopulmonary lesions, that were followed in their turn by chronic mitral valvulitis. Nevertheless, for the age of 17 years until 2 years ago, the health of this woman had been troubled only by a few attacks of angina of short duration and without gravity. She was a domestic, and worked without fatigue. The actual series of incidents is only of 2 years' duration and began by progressive dyspnea on exertion, and by vasomotor troubles that were attributable to a chronic caffein-intoxication; for 5 years the patient had drunk a quart of coffee a day. [J.M.S.]

Original Articles.

TRAUMATIC RUPTURE OF THE URETHRA.[1]

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This subject is one of vital importance in the realm of surgery, as it belongs to the department of emergency work. It, therefore, not only concerns the surgeon, but more particularly the general practitioner who is called upon for prompt judgment and decisive action in order to save life. It is strange but nevertheless true that most authors on operative surgery deal in great detail with subjects of minor consequence and pass this great and important subject with a few remarks.

Ruptures of the urethra have been classified according to Terrillon into (1) interstitial (first degree); (2) rupture of the mucosa and submucosa (second degree); (3) rupture of the urethra through its entire thickness, either complete or incomplete (third degree). This classification is irrational, as it is often difficult to make a diagnosis according to this plan at the time of injury; except in the interstitial variety. We could only rely as a general rule on this classification after a perineal section or better after an autopsy, The best classification from a clinical and practical standpoint is that of Max Oberst into (1) partial rupture of the urethra without destroying its continuity; (2) complete rupture of the urethra, entirely destroying its continuity.

According to Oberst the mechanism of urethral injuries is generally thus: With the limbs spread the patient falls against some object which strikes the perineum. The perineum and urethra are thrown against the symphysis pubis with great force. As the urethra is bound to the symphysis by the pubo-prostatic ligament, it is impossible to avoid impact against the lower border of the symphysis; or if the blow is more lateral, the urethra is crushed against the descending ramus of the pubis. The overlying skin, which is more elastic, usually remains intact. Oberst's ideas have been fully verified by the experiments of Terrillon. He suspended cadavers by the neck with a rope leading over a pulley. An object was placed underneath the subject in the axis of the perineum. The body was let fall suddenly, the perineum striking the object; the head and trunk inclining forward, producing in this manner rupture of the deep urethra.

Terrillon comes to the conclusion that if the trauma is produced by falling astride upon a narrow body, rupture is produced by crushing the urethra against the ischiopubic rami. If the body is large enough to fill the pubic arch, the urethra is crushed against the anterior surface of the pubis. These experiments, although ingenious and convincing, do not give positive evidence, as in the cadaver circumstances cannot be compared with the living. In the dead body the tissues are flabby and not defended by the muscles of the perineum, nor protected by the resilient living tissues. Again there is entire absence of instinctive resistance.

Moreover, as Gayet has remarked, the body tends to swing to either side, and the object is apt to strike the internal aspect of the thigh, instead of the perineum over the middle line. The membranous portion is usually spared in experimental contusions, while it is more vulnerable to accidental injuries, especially kicks from behind when the body is inclined forward. Poncet and Ollier claim that not all ruptures are due to impact against the pubis. They insist that the force is directed against the triangular ligament, which cuts the upper wall of the urethra. They performed experiments by placing bougies of soft wax in the urethra and then striking the perineum with force. There remained an impression in the wax, corresponding well with the ligament. They state that this only applied to the membranous portion and that rupture of the bulbous segment is produced by pressure against the pubis. Terrillon and Emile Forgue have repeated the experiments, but never found the bougie notched. Forgue has no faith in Ollier and Poncet's theory, nor the practical point which such a theory would warrant, that is, passing the sound along the posterior wall in these injuries. Kauffman gives the statistics of the cause of rupture of the urethra in 239 cases as follows: 198, or 82%, were due to injuries à califourchon, that is, falling astride of some object; 28, or 12%, due to a blow upon the perineum; 9, or 4%, caused by being thrown upon the pommel of a saddle. There is no doubt that injuries à califourchon are the most frequent cause of rupture. In fractures of the pelvis, especially of the pubic portion, the deep urethra is almost invariably torn, or voiding of urine is interfered with by pressure upon the urethral canal. Rose, in 10 cases, found that interference with urination remained free only in one case.

In fractures of the pelvic ring, the deep urethra, with the exception of the prostatic portion, is especially prone to be injured on account of its fixed position by means of the triangular ligament. Gosselin believes that fractures of the pelvis usually cause partial rupture. In all of Oberst's observations of such injuries the urethra was completely ruptured. Sometimes, as observed by Durand, there is rupture before the fracture actually occurs. This is most likely when the force is applied upon the perineum. In dislocation of the pubis, there is overlapping of the bones, and rupture of the urethra results, on account of traction on the triangular ligament. In severe contusions of the pelvis there may be rupture by reason of momentary dislocation of the symphysis. A few cases have heen reported due to muscular action, caused by exaggerated adduction of the thigh. There may be partial rupture due to violent instrumentation. This is very likely to occur in dilatation of strictures of the nonresilient variety, and is most liable to happen in the bulbomembranous region. Even in careful manipulation how readily hemorrhage follows, and it can be easily understood how an interstitial rupture could be a sequence of any forced effort at dilatation.

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[1] Read at the meeting of the Illinois State Medical Society at Cairo, Ill., May 17, 1899.

Injuries of the pars pendula are rare, being due to direct force or violent coition. They may come as complications of rupture of the corpora cavernosa, the so-called fracture of the penis (Hyrtle) or pseudo-fracture (Demarquay). The flaccidity and mobility of the penis are protections against injury. When injured, it is usually in a state of erection, although Voillemier and James Madden each report a case in which the penile portion was injured by a kick when in a flaccid state.

It is difficult to locate the exact seat of the injury with precision on account of the varying length of the urethra, the destruction and alteration of the position of the tissue by reason of blood-clots and infiltration of urine. Most authors do not report the exact location. Paoli, Socin, and Fontan report cases due to injuries à califourchon in which the trauma was in the membranous portion. This subject has been given very thorough study by both Cras and Terrillon. The harvest of their research has been due to autopsies, experimental research and observations after perineal section for this injury. Cras claims the bulbous portion to be invariably the seat of injury. This is disputed by Guyon, who, while admitting that the bulbous portion is the most frequently injured, believes that the other portions are frequently involved. Terrillon described 9 cases, 6 of the bulb and 3 of the membranous portion. Kauffmann mentions a case of König in which there was a tear of both the bulb and membranous portion; also a case of Bourgeois in which the membranous urethra was alone involved. Oberst reported 5 autopsies, 4 of the membranous portion and only 1 of the bulb. Oberst makes a general broad differentiation (1) ruptures of the pars membranacea; (2) ruptures in the neighborhood of the neck of the bladder. To locate the seat of rupture with exact anatomic precision is often impossible as well as unimportant. The rule of Oberst in determining the seat of injury is approximate enough for the requisite surgical treatment.

The diagnosis of injury of the urethra is not difficult, but to arrive at definite conclusions as regards the extent of damage is another matter. Rupture is heralded by hemorrhage from the meatus. This may be a few drops to a continuous flow of bright-red blood. The quantity of hemorrhage is no criterion whatever as to the severity of the injury. The artery of the bulb might be lacerated by a slight rupture and the hemorrhage would be very profuse; while on the other hand there might be a complete rupture, including the paraurethral tissues, followed by little hemorrhage. The urethral walls possess great elasticity and retract after being severed. The interim between the cut ends becomes occluded with a coagulum, in which instance the flow from the meatus would be scanty.

In complete rupture there is immediate interference with urination, but in partial rupture micturition may not be at first interfered with, but later there is complete occlusion, due to paraurethral infiltration. In the interstitial variety, there is difficulty of micturition, due to infiltration of the urethral wall and in that manner causing a temporary stoppage of the urethra. In three-fourths of all cases there is retention of urine due to coagula. Swelling of the perineum and scrotum results from a blood-clot in the paraurethral tissues, or extravasation of urine. A swelling immediately following an injury is from blood. A gradual progressive swelling coming on some time after receipt of the injury is due to extravasation of urine.

The membranous urethra is badly protected. It is invested by a very thin plane of muscle-tissue, the compressor urethræ muscle. It is not supported by the tissues of the perineum, being simply suspended by the two layers of the triangular ligament. The origin of these is from the symphysis, after which they diverge gradually until the level at which they are pierced by the urethra, where they are about one inch apart. From this point downward, they converge and are inserted in the median raphe of the perineum. When the membranous portion alone is injured, there is extravasation into the cavity of the triangular ligament. Extravasation of urine cannot extend beyond the rami of the pubis and ischium without rupture of the anterior or posterior layer. In such cases a swelling is detected in the middle line of the perineum. When the rupture occurs in front of the triangular ligament there is enormous infiltration of the scrotum, and in neglected cases the edema proceeds up the abdomen towards the umbilicus and down the inner aspect of the thighs. There is usually pain at the seat of injury, which is increased in attempts at urination. Escape of urine in the tissues, if not dealt with by proper surgical interference, is followed by infection, abscess-formation, and septicemia.

Normal urine in a healthy bladder is aseptic. According to Lehmann and Richter, it is even antiseptic; but after it has left the genitourinary tract, it decomposes and causes toxic symptoms.

In severe cases we may say with Guyon that the cardinal symptoms are (1) complete retention; (2) copious and continual urethrorrhagia; (3) large perineal swelling. All injuries of the urethra, irrespective of accompanying complications, such as fractures of the pelvis, etc., must be considered with great apprehension, on account of the great liability of infection in this region. The prognosis in partial rupture is favorable as compared with complete rupture; especially is this the case in the so-called interstitial variety of Terrillon. Kauffmann, in unselected cases, places the mortality at 14%. As soon as a diagnosis has been made, catheterization affords an efficient and conservative measure to combat the most important indication, that is, retention.

In partial rupture, catheterization is often successful; in the complete variety it is seldom, if ever, attended with success, but serves as a means of diagnosis. A soft Nelaton catheter, well lubricated, or, better, preceded by an injection of olive-oil or glycerin, is carefully inserted and manipulated in an attempt to pass the obstruction. If this be unsuccessful, an effort may be made with a metallic catheter, as clots are more easily displaced, and entrance into the bladder thus facilitated. The metallic catheter is a dangerous instrument in the healthy urethra if handled by unskilled hands, and in the torn urethra is treacherous even in skilled hands. It should be allowed to find its way principally through its own weight. In catheterization it should be remembered that in the great majority of cases the wound is in the posterior wall, in the region of the bulb; therefore, follow the anterior wall when there is the greatest likelihood of a portion of the urethra remaining intact to serve as a guide. The anterior wall has been well named by Guyon the "surgical wall." If there is doubt as to whether the bulbous or membranous urethra is torn, it is advisable to follow the anterior wall in the bulbous portion, and the posterior wall in the membranous urethra, as here the anterior wall is most frequently injured. If successful, allow the catheter to remain several days, as advised by Duplay. Kauffmann rejects this treatment. He claims a mortality of 13% when the catheter was retained, due to infiltration and abscesses at the seat of injury around the catheter. This great mortality can, in all probability, be greatly diminished in the future by frequent irrigation of the bladder.

Suprapubic puncture has had its day. It can only be recommended in extreme distention of the bladder. In itself it is a harmless operation and has been done repeatedly on the same patient. It fulfilled its mission in the preantiseptic age when both catheterization and perineal section were so often fatal. This measure was highly lauded by Orlowski and recommended by the French surgeons Civiale, Phillips and Gosselin in cases in which urine-infiltration had not as yet taken place. Böckel, Güterbock, Hüter, König, Neuber Nota, and Reybard allow puncture as a palliative means for draining the bladder, but insist that a restoration of the urethra by an external urethrotomy is still necessary. This form of treatment is only permissible for temporary relief of a distended bladder. The mortality of systematic suprapubic puncture is 19%.

In severe cases prompt perineal section is the logical treatment. In all cases in which catheterization is impossible, there is no other worthy procedure. When catheterization is possible, but there is a partial rupture of all the coats of the urethra, perineal section is safer than assuming the risks of infection at the seat of rupture resulting in abscess-formation.

Perineal section was done by Chopart, Desault, and Lallemand, in the beginning of the century, and is confirmed at the present time by Cras, Guyon, and Terrillon. As compared with the other methods of treatment it presents the lowest mortality, this being only 8.75%. It fulfils all the indications. Not only can the seat of injury itself receive the requisite surgical treatment, but, what is far more important, drainage is insured. Blood-clots can be removed, and if the case has proceeded to the point of suppuration, neighboring abscesses can be summarily dealt with. In complete rupture it is often a tedious and difficult task to find the proximal end, as there is retraction of the severed ends to the extent of an inch or two. Again, it is difficult to identify the urethra from the surrounding tissues on account of the bruised condition of the parts. Moreover, there is apt to be displacement by reason of blood-clots and extravasated urine. It has been advised to make pressure in the vesical region with the hope of causing exudation of a few drops of urine from the proximal end. This is very often unsuccessful because of a coagulum in the lumen of the urethra or a retraction of the cut end. In complete rupture it is generally the membranous portion which is concerned, and here the compressor urethræ is an important factor in thwarting such attempts. Fenger suggests that if a reasonable search for the proximal end is not crowned with success, to pack the perineal wound with an antiseptic dressing, aspirate the bladder and await developments. However, such a course appears fallacious. Procrastination is dangerous; although the patient is better off than relying on aspiration alone, as drainage is provided for and extravasation into the surrounding tissues is prevented; but it does not preclude the danger of toxic absorption.

When the proximal end of the urethra cannot be located, suprapubic cystotomy should be performed without hesitation, followed by retrograde catheterization. The operation is performed with little risk to life, the enormous distention of the bladder making an extraperitoneal incision much less difficult than under other circumstances.

The first case reported in literature was operated upon by Dr. Daniel Brainard, of Chicago, in 1848. However, the operation was done for impassable stricture. He punctured the bladder with a curved trocar, which was left in situ. Eight weeks later a bougie was passed from the bladder through the stricture. Volkmann claimed to be the originator of this technic in a case operated upon by him years afterward. Ranke performed retrograde catheterization through a trocar opening in the bladder, like Brainard.

Retrograde catheterization has its field of usefulness in desperate cases, as is verified by not a few successful cases in which it was resorted to, both for traumatic rupture and impermeable stricture.

Recently I had an interesting case of injury of the urethra under my care, in which I was forced to do posterior catheterization, and of which I will give a brief history:

Mr. C. A., aged 30, September 17, 1898, fell astride a box. After the injury, he experienced pain in the perineal region, hemorrhage occurred from the meatus, and micturition was impossible. He consulted his family-physician, who, after considerable manipulation, was able to pass a metallic catheter. After emptying the bladder the catheter was withdrawn. In the course of a few hours the bladder became greatly distended. Catheterization was again attempted, but proved fruitless. I then saw the patient in consultation.

I found the bladder distended almost to the umbilicus and the patient in great pain. There was no extravasation of urine, but perineal bulging due to a blood-clot. The inner aspect of the thighs presented several areas of ecchymosis, denoting that the object struck was large. The temperature was 99.6° and the pulse 100. I tried to pass a Nelaton catheter, but without success, meeting an obstruction in the neighborhood of the bulb. A perineal section was advised and the patient entered St. Joseph's Hospital.

I passed a staff into the urethra up to the obstruction and then made an incision into the bulbous urethra where I found the distal end and a large blood-clot. The tissues were greatly bruised.

Then began a wearisome search for the proximal end with a small probe. I could find no vestige of mucous membrane in a proximal direction. Manual pressure over the bladder failed to expel any urine. Retrograde catheterization presented the only prospect. The suprapubic region was disinfected and cystotomy performed. The index finger was introduced into the bladder and the vesical orifice of the urethra found. A flexible bougie was passed through the proximal urethra into the perineal wound. A large Nelaton catheter was attached and drawn into the bladder. A silk cord was tied to the proximal end of the catheter, brought out of the suprapubic wound and secured externally with an adhesive strip in order to master the catheter in the future. The distal end of the catheter was next placed in the penile portion of the urethra. The suprapubic wound was drained by a rubber tube, so that there was uninterrupted drainage from the suprapubic opening to the meatus. The perineal wound was packed with gauze. The patient was given salol and put on a light diet. After several days the tube in the suprapubic wound was removed and gauze drainage substituted. The catheter was allowed to remain. The bladder was irrigated daily with a solution of boric acid.

The patient was fast progressing to recovery when, about two weeks after the operation, he was suddenly seized with a chill followed by a temperature of 105.4°, and a pulse of 110. The bladder was at once irrigated and this was continued every 3 hours. A tube was reinserted in the bladder-wound. Large doses of quinin were administered. Bacteriologic examination of the urine showed streptococci and the bacillus coli communis to be the cause of the cystitis. All the sypmtoms of a violent cystitis continued for 10 days, when they abated and the patient rapidly recovered.

The unfortunate secondary infection detracted somewhat from the success of this case, but had no bearing on the technic of the operation. After leaving the hospital, the family-physician passed a steel sound several times, but since that time there was no further dilatation. I have kept track of the patient since, but the stream of urine voided has never become diminished in size. I attribute the remote good result to the fact that the catheter à permanence was allowed to remain in situ such a continued length of time (20 days). The many cases of stricture following traumatic rupture are due to the too early removal of the catheter. Most works on surgery only advise 5 or 6 days.

In recent years urethral wounds have often been repaired by primary suture. Kauffmann and, after him, Hägler have demonstrated experimentally that primary suture is not followed by cicatricial contraction. Hägler, in one of his experiments, cut the urethra through its whole circumference. He then united the two ends with catgut sutures which incorporated the entire thickness of the urethral wall. The external wound was closed except at the lower angle. No catheter was left in place. In 9 days the wound was cicatrized and micturition normal. Two months later the animal was killed. The urethra was found in a normal condition, no cicatrix being visible. He strongly urges suture of the urethra itself, or juxtaurethral suturing with catgut, together with closure of the external wound, as the best means to prevent subsequent stricture.

Nogues collected 19 cases of rupture, in which the urethra was sutured with satisfactory results. Manley, Pearce Gould, Boisson, Rudolph Frank, and Delorme have reported successful cases. Delorme's case was done two months after injury. There was a space of 2 centimeters between the ruptured ends, filled with fungous granulations. These were removed with a curet, the ends vivified and sutured. The condition of the patient is reported as satisfactory four months later.

On the other hand, G. Baring, of Birmingham, reports 3 cases in which immediate suturing did not result satisfactorily. Primary suture appeals to the thinking surgeon.

However, taking into consideration the most frequent cause of rupture of the urethra, it is evident that the great majority of such wounds are contused and not incised wounds. Contused wounds are unfavorable for primary healing on account of the disorganization of the tissues. Kauffmann's and Hägler's experiments give very little convincing evidence in favor of this operation, as they produced incised wounds which are favorable to definitive healing. The success of the other cases recorded would probably have been as good if treated by perineal section alone; provided a catheter were left in the urethra a requisite length of time. Cicatricial contraction in this locality is very prone to occur if the urethral walls are allowed to collapse.

Le Fort found the urethra occluded 24 days after accident. Quenn found the same condition in 3 weeks. His case was a mild injury à califourchon. The patient at the time of injury passed only a few drops of blood, had slight dysuria and no perineal swelling.

In incised wounds primary suture should be the rule, but in contused wounds a few paraurethral sutures should be inserted, merely to prevent retraction of the severed ends. The perineal opening should never be entirely sutured, as free drainage cannot be dispensed with without direful results.

SANITARY LESSONS OF THE WAR.[1]

By GEORGE M. STERNBERG, M.D., LL.D.,

Surgeon-General, United States Army.

[Continued from page 1303.]

The value of experience and special training is recognized in all departments of human activity, and the military calling furnishes no exception to the general rule. This applies to the staff as well as to the line, and the medical staff is no exception. When, therefore, I say that the evils resulting from neglect of camp sanitation during the earlier months of the war were to some extent due to the inexperience of the regimental surgeons, I am not reflecting upon the professional qualifications of these gentlemen, but am simply stating a fact. I desire to say at this point that many of these regimental surgeons showed a decided aptitude for the service and made themselves familiar with their various duties as medical officers within a comparatively short time. As a rule they have been assiduous in the care of the sick, and professionally they have been fully the equals of the average doctor in the sections of the country in which their regiments were raised. Indeed, in many instances they have been men who had attained distinction in their own State or even a national reputation.

There has been no failure upon the part of the medical department of the volunteer army to acomplish all that could have been reasonably expected of it, but without doubt an adequate number of thoroughly trained medical officers could have done much at the outset of the war in the way of preventing the introduction and extension of typhoid fever in our camps and in organizing and administering field-hospitals, ambulance companies, etc.

Want of discipline and experience on the part of officers and enlisted men, together with the apparent emergency which caused them to be brought together in large camps in great haste and before proper preparation could be made for their reception and the supply of their many wants, were the fundamental and to a large extent unavoidable causes of the extension of typhoid fever in our camps. But the first step in the development of an epidemic of an infectious disease is the introduction of the specific germ to which it is due. Unfortunately typhoid fever is endemic in nearly all parts of the United States, and when a thousand men are brought together from any section there is a fair chance that one or more of them are already infected with this disease. Unless these cases are recognized at the very outset the camp site is liable to be contaminated by typhoid excreta and the bacilli, through the agency of flies or in a desiccated condition carried by the wind, effect a lodgment upon food being prepared in the company kitchens and thus find their way to the alimentary tract of susceptible individuals.

The attention of the profession has been largely attracted to the propagation of this disease through contamination of the water-supply and to the distribution of typhoid bacilli by the milkman, and there has perhaps been a tendency to overlook other modes of infection, which, in the absence of sewers and under conditions such as existed in our camps during the first months of the war with Spain, were even more important. It is evident that one or two unrecognized cases might be sufficient to inaugurate an epidemic in a regimental camp which has been occupied for a period of a month or more. In many cases it was brought to our large camps from the State camps where the regiments were mustered into service.

And now, in order that the "sanitary lessons of the war" may not be lost sight of and may be made available hereafter if we should again have occasion to assemble a large army on short notice, I consider it my duty to speak plainly with reference to one of the principal causes of the epidemic prevalence of typhoid fever in our camps. As a rule this disease was called by some other name by the regimental surgeons. Usually it was assumed to be malarial fever, and was treated as such until the patient became so sick that it was found necessary to send him to the division field-hospital or to a general hospital. This general statement is based upon the carefully made investigations of a board of medical officers appointed upon my recommendation, made in the following letter:

Surgeon-General's Office,
Washington, August 17, 1898.

To the Adjutant-General of the Army.

Sir:—I have the honor to request that a board of sanitary experts may be constituted for the purpose of visiting the various camps within the limits of the United States and making a searching investigation with reference to the cause of the extensive prevalence of typhoid fever in many of these camps. The board to receive detailed instructions from the Surgeon-General of the Army, and to make a full report as soon as practicable after the completion of their investigations.

I would also recommend that this board be direc'ed, while pursuing their investigations, to call the attention of the proper authorities to any insanitary conditions existing at the camps visited by them and to make recommendations with a view to their prompt correction. I recommend the detail of the following medical officers for this duty:

Major Walter Reed, Surgeon, U. S. Army.
Major Victor C. Vaughan, Div. Surg., U. S. Vols.
Major Edward O. Shakespeare, Brigade-Surgeon, U. S. Vols.

Geo. M. Sternberg, U. S. Army.

In a paper read by Major Victor C. Vaughan at the meeting of the Association of American Physicians, held in Washington City early in May, which paper may be regarded as a preliminary report of the board, the following statements are made:

> "We had not finished our first day's work at Camp Alger before we saw that one factor in the problem must be thoroughly dealt with before we could hope to reach a satisfactory solution. Fortunately we promptly took steps to acquaint ourselves with this factor. It cannot be denied that scientific medicine would have gained much had this factor been provided for at an earlier date. I refer to the question of the scientific diagnosis of typhoid fever. In the

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[1] Read at the meeting of the American Medical Association, at Columbus, Ohio, June 6–9, 1899.

> division hospital at Camp Alger we found most of the febrile cases diagnosed as malarial. We believed that they were typhoid fever, but the surgeon in charge had diagnosed them malaria. We requested that competent men, properly equipped for making blood-examinations for the malarial plasmodium and the Widal test, should be sent to each of the larger camps. The Surgeon General acted promptly on this suggestion. Drs. Gray and Carroll, of the Army Medical Museum, went to Camp Alger for this purpose. Subsequently Dr. Carroll continued this work at Jacksonville. Dr. Dock, of the University of Michigan, made investigations at Chickamauga, Knoxville and Meade. Acting Assistant Surgeon Craig also spent several weeks in making blood-examinations at Sternberg Hospital, Chickamauga Park. Dr. Curry, Acting Assistant Surgeon, at Fort Myer, has made many hundreds of blood-examinations upon sick soldiers sent to Camp Alger, Jacksonville, and other camps. As a result of the work done by these men we are able to state that malaria was a very rare disease among those troops who remained in the United States.
>
> "To summarize concerning the so-called protracted malarias reported by the regimental surgeons, I will say that, in my opinion, practically all of these were typhoid fever, and the following are my reasons for this opinion:
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> "1. The uneven distribution of the so-called malaria among regiments encamped side by side gives cause to suspect that these cases were not malaria.
>
> "2. Some of the surgeons who failed to record their cases as typhoidal state in their comments that typhoid fever prevailed in the regiments.
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> "3. The results of several blood-examinations showed that malaria was a very rare disease among the troops that remained in the United States.
>
> "4. Malaria as it exists in this country is easily controlled by mild doses of quinin. All the so-called protracted malarias in our camps were treated with large doses of quinin, and were not improved thereby. Consequently, we must conclude that the diagnosis given these cases was erroneous.
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> "5. The mortality of the so-called protracted malarias corresponds with the mortality of typhoid fever and furnishes most positive proof that these cases were not malarial.
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> "When we began to study the regimental sick-reports we found that, in order to obtain satisfactory information, we must endeavor to ascertain how many cases of typhoid fever there were in each regiment, and it soon became evident that the regimental sick-reports did not give this information. Of two regiments in the same brigade, one had more than 200 cases of typhoid fever, as shown by the regimental reports; while the other regiment on like evidence had only 2 cases, but the reports of the second regiment show more than 200 cases of protracted malaria, and these furnished a mortality as high as that of the typhoid fever in the first regiment. For the reasons already given, we have included all the protracted malarias among our list of the typhoids. It may be asked how long we have considered it necessary for a so-called malaria to run in order to make it a probable typhoid. In answer to this I will state that we have regarded all the so-called malarias of 10 days or more in duration as possible cases of typhoid fever. We think that the great rarity of true malaria and the readiness with which these rare cases have yielded to quinin, and the fact that quinin was so generally administered, justifies us in this conclusion. Practically, however, the number of doubtful cases is exceedingly small.
>
> "Typhoid fever was not only diagnosed malaria, but it was covered up by many other names. In one regiment the death-rate from indigestion amounted to 15% of the completed cases. In another regiment at Chickamauga, dengue is a frequent diagnosis of many cases which undoubtedly were typhoid fever."

The mode of origin and spread of typhoid fever in our camps is illustrated by a recent epidemic in the camp of the 8th Cavalry at Puerto Principe, Cuba. Major Walter Reed, Surgeon U. S. A., was sent at my request to make a special investigation with reference to the origin of this epidemic. The following quotation from his report shows that, as usual, this epidemic had its origin in a failure to promptly recognize the disease, and a consequent failure to disinfect excreta and to move the troops from the infected camp site.

> "The total number of cases of typhoid fever that had occurred to date was reported by the regimental medical officers as 103, with 24 deaths. Taking the average mortality of this disease in military camps, I am of the opinion that not less than 250 cases of typhoid fever occurred in the 8th Cavalry during the epidemic.
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> "To sum up briefly, the occurrence of typhoid fever in the 8th Cavalry, I find that the disease was imported by this regiment into its Cuban camp, but was mistaken by the various medical officers on duty with the regiment for malarial remittent fever, until the epidemic had reached serious proportions; that it was clearly not due to water-infection, but was transferred from the infected stools of patients to the food by means of flies, the conditions being especially favorable for this manner of dissemination by reason of the close proximity of the picket lines to mess-tents and latrines. I also find that the lax methods of disinfection of stools and clothing of patients in hospital were additional sources of infection.
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> "I find here a repetition of the same story of mistaken diagnosis with regard to the character of camp-fevers that occurred in every military camp in the United States last summer; and the same absence of any evidence pointing to the contamination of the drinking water."

This failure to recognize typhoid fever during its earlier stages should not be considered a reflection upon the professional skill of the regimental surgeons as a class. In my opinion it is an error of diagnosis which was made on a very extensive scale during the Civil War, has been made on an equally extensive scale by surgeons of the British army on duty with troops in India, and is still being made by a majority of practitioners of medicine in certain parts of our own country.

The fact that enteric fever often has an intermittent or remittent character has been pointed out by many authors, and was referred to in my work on "Malaria and Malarial Diseases," published in 1884, as follows:

> "Probably one of the most common mistakes in diagnosis, made in all parts of the world where malarial and enteric fevers are endemic, is that of calling an attack of fever, belonging to the last mentioned category, remittent. This arises from the difficulties attending a differential diagnosis at the outset, and from the fact that having once made a diagnosis of remittent, the physician, even if convinced later that a mistake has been made, does not always feel willing to confess it. The case therefore appears in the mortality-returns if it prove fatal, or in the statistical reports of disease, if made by an army or navy surgeon, as at first diagnosed. Quite as frequently, perhaps, the physician remains convinced that his first diagnosis was correct, inasmuch as the fever was decidedly remittent in type during the first week, and is puzzled to know why he did not succeed in arresting the progress of the disease by the free administration of quinin. By referring to the literature of the subject he will find ample support for the view that remittent fevers are likely to assume a continued form, and that patients suffering from malarial fevers of a remittent or continued type frequently fall into a typhoid condition. It is therefore not surprising that mistakes are frequently made, especially when we remember that during the first week typhoid fever has a decidedly remittent character, quite independently of any malarial complication, and that the periodic fluctuations of the pyretic movement are still more pronounced when they occur in a malarial subject, *i. e.*, one who has suffered frequent attacks of periodic fever. Moreover, there are undoubtedly cases of enteric fever of so mild a form that all of the characters commonly relied upon for making a diagnosis are wanting, and these cases of typhoid poisoning

may be complicated by the most decided evidences of malarial poisoning when the case occurs in a malarious region, or in an individual who has been recently exposed in such a region. . . .

"Dr. Geo. B. Wood, in his 'Practice of Medicine' (ninth edition), commences his article on enteric fever as follows:

> "'This is a common febrile affection, presenting a considerable diversity of symptoms, yet having, in general, a certain recognizable character, and probably constituting, in all its forms, one and the same disease. It is the ordinary endemic fever of continental Europe, and of those portions of the United States where miasmatic or bilious fevers do not prevail, and is more or less mingled with the latter within their own special limits.'

"On another page Dr. Wood says:

> "'In some instances the disease presents no other symptoms than those of a moderate fever, with the characteristic phenomena of a slight diarrhea or tendency toward it, some meteorism of the abdomen, and perhaps a few rose-colored spots. The tongue remains soft, moist, and whitish throughout; there is no vomiting, no considerable nervous disorder, no great prostration; in fine, none of those peculiar symptoms usually denominated typhous. The disease runs its course in two or three weeks, sometimes even in less time, and then subsides spontaneously, leaving no unpleasant effects. Such cases are often mistaken for miasmatic remittent, especially as they not infrequently have a daily remission and exacerbation of the febrile symptoms.'

"There can be no doubt that this mistake in diagnosis, which, according to Dr. Wood, was often made at the time he wrote—more than 25 years ago—is a very common one at the present day, notwithstanding the very definite statement of our highest medical authority that a fever presenting the characters above given is enteric, and not malarial. Within the scope of the writer's personal observation cases corresponding exactly with the description above given by Dr. Wood have been pronounced malarial by well-informed physicians, in and out of the Army, in various parts of the country.

"It is true that the diagnosis is commonly made, not from a complete clinical history of a case, but during the first week of its progress, when an exact diagnosis is, no doubt, in many instances impossible."

Speaking of the so-called typhomalarial fever in the work above referred to, I say:

"This term, coined by Dr. Woodward in 1862, served a good purpose during our Civil War, as under this heading a large number of cases of typhoid fever were included, which, in its absence from our nosological tables, would inevitably have fallen under the denomination 'remittent fever.' The term cannot, however, be sustained upon scientific grounds, for typhomalarial fever is confessedly typhoid fever. . . .

"Wilson, in his admirable 'Treatise on the Continued Fevers,'[3] says in his article 'Enteric or Typhoid-Fevers:'

> "'The atypical or imperfect forms constitute in most epidemics a large proportion of the cases, and when the attention of physicians is more closely turned to the study of enteric fever from an etiological as well as from a clinical standpoint, they will be found, I believe, to be much more common where the disease is endemic than has usually been thought. The cases are partly due to mild infection, or, to use an expression already employed in this work, in speaking of other fevers, the smallness of the dose of the fever-producing principle; partly to an imperfect susceptibility on the part of the patient.'

"In a paper 'On the Mild Forms of Continued Fever which Prevail in Washington,'[4] Dr. W. W. Johnston says:

> "'The facts properly classified and studied in their mutual relations lead inevitably to the conclusion that there is no justice, but positive error, in affixing the term 'malarial' to all negative and doubtful cases of continued fever, as is the habit in diagnosis whenever the malarial and typhoid disease appear side by side.'"

This failure to recognize typhoid fever, especially in its earlier stages and in its milder manifestations, is not peculiar to American physicians, but has occurred in all parts of the world where the two diseases prevail in the same area. In India for many years the British medical officers denied that typhoid fever existed as an endemic disease. In my work, from which I have already quoted, I say:

"The following quotations from the recent work of Sir Joseph Fayrer show the enormous mortality in India from 'fever,' attributed in a general way to malaria, and the marked influence upon the death-rate of that most potent factor, scarcity of food, to which the adynamic character of malarial fevers is frequently due in that populous country:

> "'Let us now speak of the extent to which fever prevails, and some of the reasons why it does so. Official records afford proof that it causes an amount of sickness and mortality that is hardly credible, and in some years almost challenges comparison with the black death which ravaged Europe in the fourteenth century and destroyed a fourth part of the whole population. The registered deaths from all causes in India in the year 1879 were 4,975,042; cholera, accounting for 270,552; smallpox, accounting for 194,708; bowel complaints, accounting for 250,173; fevers, accounting for (out of a population of 187,105,833) 3,564,035.'

"Let us look at the statistics of fever-prevalence as illustrated by the sanitary reports and returns of hospitals in Calcutta.

"The records of six of the principal Calcutta hospitals show that the number of cases diagnosed as 'remittent fever' greatly exceeded the number recorded under the heading 'typhoid or enteric fever,' being, in 1889, 926 of the former to 8 of the latter. Professor McConnell, who obtained the statistics for Fayrer, remarks:

> "'A comparison of these tables is very interesting, as showing the relative frequency of typhoid and remittent fever in various years, these being the two kinds of fever often so difficult during life to differentiate.'"

As an example of the same confusion in diagnosis on the continent of Europe, I again quote from my work on "Malaria and Malarial Diseases":

"*Naples Fever.*—Dr. Borelli,[5] Professor of Medicine in the University of Naples, has given a very interesting account of the so-called Naples fever, which by many is ascribed to malaria. According to this author cases of true malarial infection, of well-pronounced type, are rare in the interior of Naples, whereas the so-called 'Naples fever' prevails most extensively in the central portion of the city. The opinion is expressed that typhoid infection is at the root of this form of fever, which exhibits every grade of violence, from the mild and abbreviated forms, to which the name febricula is given, to complete and relatively severe typhoid. In all of the varieties intermittence is a symptom repeatedly observed. Dr. Borelli says that if the febrile intermittence depended upon a malarious element, the salts of quinin ought to cure it rapidly, yet they invariably fail, and remarks further, that:

> "'In paludal infection, when the fever assumes a quotidian type, each fresh access almost invariably begins during the forenoon; whereas in intermittent typhoid, the type, although quotidian, has an evening rhythm—that is to say, the exacerbation occurs in the afternoon or evening, so that in that respect it resembles all those spurious intermittent fevers which accompany the other diseases which I have mentioned—tuberculosis, caseous inflammation of the lungs, chronic inflammation of serous membranes, pyemia, etc.'

"We may remark that, in general, all forms of septic poisoning give rise to fevers having an intermittent or remittent type."

The differential diagnosis of typhoid and malarial fevers can be made at an earlier date, and with much greater certainty, by a microscopic examination of the blood and the application of the Widal test than was practicable before the discovery of the malarial parasite and of the specific agglutinating action of blood-serum from a typhoid case upon a culture of the bacillus. But these scientific discoveries are so recent that the profession generally still depends upon specially trained experts for their application to the diagnosis of doubtful cases. It is to be hoped, however, that the time is not far distant when every qualified practitioner of medicine will be prepared to apply these invaluable means of diagnosis.

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[3] James C. Wilson: A Treatise on the Continued Fevers. New York, 1881.

[4] *American Journal of the Medical Sciences*, Philadelphia, October, 1882.

[5] *Medical Times and Gazette*, London, July 8, 1876.

Finally, the principal lessons to be derived from our recent experience may be stated as follows:

A trained medical corps, hardly adequate for an army of 25,000 men, cannot control the sanitary situation when this army is quickly expanded to 250,000. Physicians and surgeons from civil life, however well qualified professionally, as a rule are not prepared to assume the responsibilities of medical officers charged with administrative duties and the sanitary supervision of camps. The proper performance of such duties cannot be expected from a physician without military training or experience, no matter how distinguished a position he may have held in civil life.

Courage and patriotism on the part of line officers and enlisted men cannot take the place of knowledge and experience; new levies of troops are, as a rule, ignorant of the first principles of camp sanitation, and reckless as to the consequences of their neglect of prescribed sanitary regulations. Therefore, training and discipline are essential factors in the preservation of the health of soldiers in garrison or in the field.

The value of the aphorism "In time of peace prepare for war" has received additional support. This preparation should include a corps of trained medical officers larger than is absolutely necessary for the Army on a peace basis, and systematic instruction in military medicine and hygiene for the medical officers of the National Guard as well as for those of the Regular Army; also instruction of line officers in the elements of hygiene and especially in camp sanitation. It should also include the establishment of camping-grounds in various parts of the country, having an ample supply of pure water, a proper system of sewers, etc. If our volunteers could have been assembled in such camps during the late war a saving in lives and money would have resulted, which would, without doubt, have demonstrated the economy of such preparation for war in time of peace.

REPORT OF A CASE OF COMBINED TYPHOID AND QUARTAN MALARIAL FEVERS.[1]

By CHARLES F. CRAIG, M.D.

Acting Assistant-Surgeon, U. S. A.; Director of the Bacteriological Laboratory, Josiah Simpson U. S. General Hospital, Fortress Monroe, Va.; Member of the American Medical Association and of the American Microscopical Society.

The simultaneous occurrence of typhoid and malarial fevers is a subject of much interest to investigators, one which has given rise to much controversy, and has evoked many varying opinions from eminent authorities.

The only cases in which we can say that such a combination exists are those in which the plasmodium of malaria can be demonstrated in the blood and at the same time some substantial proof of the existence of typhoid, as the separation of the bacilli from the excreta or a positive reaction to the Widal test, can be shown to exist. Such recorded cases are surprisingly few in number, if we consider the large number of cases in which the diagnosis of typhomalarial fever has been made, which, though less numerous than 15 or 20 years ago, are still common. In a recent publication,[2] Dr. Irving Phillips Lyon has collected all the cases of combined typhoid and malarial fevers on record, which have been proved to be such by the tests mentioned. These number only 29 in all, most of them being cases of combined typhoid and tertian malarial fevers and a few combined typhoid and estivo-autumnal fevers. For the reason that in this list no instance is recorded of combined typhoid and quartan malarial fevers it has seemed important to place on record the following case.

The case here recorded was observed by me while Director of the Bacteriological Laboratory of the Sternberg U. S. A. General Hospital, at Chickamauga Park, Ga. Although the medical returns show a large number of cases of malarial fever to have existed at this great camp, there was in reality very little of the disease there, almost all of the cases so diagnosed being typhoid fever. Dr. Dock, of Ann Arbor, Mich., one of our best authorities on malaria in this country, who was associated with the writer for some weeks at Chickamauga Park, and who was especially interested in this question, was unable to find but one case of malaria in the Sternberg Hospital during the period he was there. In this case the patient was a Southern physician who gave a history of repeated attacks of malarial fever. The clinical history which follows is compiled partly from my own observation, but largely from information furnished me by Acting Assistant Surgeon Barnhardt, who was in attendance upon the patient during the latter portion of his sickness, and until his removal to another post.

Clinical History.—Dr. P., had suffered from September 29 to October 5, from general malaise, constipation, and headache, with an evening temperature of from 101° F. to 102° F. Although feeling ill he did not take to his bed until October 5, 1898, when he was admitted to the hospital, complaining of severe headache and great nervousness. The previous evening he had had a slight chill. On admission he presented the following clinical symptoms: Gurgling and much tenderness in the right iliac fossa, a dry, hot skin, brilliant eyes, with injected conjunctivæ, and a typical typhoid tongue. The typhoid symptoms gradually increased, and he had tympanites, epistaxis, rose-spots, extreme restlessness and a slight bronchitis.

October 12, or about the twelfth day of the fever, his blood was tested by Widal's test and gave a very pronounced reaction, while the urine showed the diazo-reaction very markedly. The patient had never suffered from typhoid fever previously.

Until October 15 the patient continued to present the characteristic picture of typhoid fever, his temperature ranging between 101° F. and 104° F. Baths were given, but they reduced the temperature only a little, and the patient's condition was grave. On October 15, the temperature, in the morning, had fallen to 100° F., the patient's general condition being very much improved, when he had a slight chill, with a rise of temperature to 103.4° F. The attending physician thought little of the chill, as, by evening, the temperature had fallen to 101° F., and for the succeeding two days ranged between 100° F. and 102° F. October 18, however, just 72 hours after the first chill, a second and more severe chill occurred, the temperature rising to 104° F. At this time I was called upon to examine the blood, and found the quartan malarial organism in abundance. The details of this examination will be given later. The patient's general condition was markedly altered for the worse, he being very weak and tremulous, having great general pain and a poor irregular pulse.

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[1] Published with the consent of the Surgeon-General of the United States Army.

[2] *American Journal of the Medical Sciences*, January, 1899.

From October 18 to October 21 his temperature ranged between 93.8° to 100.6° F. The administration of quinin in small doses (5 grains night and morning) was begun October 18. October 21 a third paroxysm occurred, but was delayed somewhat (probably by the quinin), so that it extended into the 22d, the acme of the fever being reached at 4 A.M. of that day. This paroxysm was very severe, the chill lasting 30 minutes, and the temperature rising from 99.2° F. to 104.6° F. A fourth paroxysm occurred October 25. For some reason the quinin had been stopped upon the 23d. A fifth paroxysm occurred October 28, after which time quinin in large doses (10 grains every 4 hours) was given. October 31 a very slight chill occurred, with a rise of temperature to only 102° F.

From this time the patient had no further paroxysms, and his temperature reached normal. The convalescence was very slow. During the malarial complication the patient's condition was that of a desperately sick man, and none of the surgeons who saw him entertained any hope of his recovery. He became extremely emaciated and anemic, and was delirious much of the time. During the whole time his blood showed numbers of quartan plasmodia, corresponding in their development with the time of the paroxysms. The blood also gave a pronounced Widal reaction whenever tested.

MICROSCOPICAL EXAMINATION OF THE BLOOD.—The blood was first examined at the time of the second chill, when numerous full-grown and segmenting quartan organisms were found. Examinations were made every day, and plasmodia were always easily found. The last plasmodium seen in the blood was on November 31, a full-grown quartan organism.

A record of 4 days, which follows, shows the average findings for that period throughout the course of the fever.

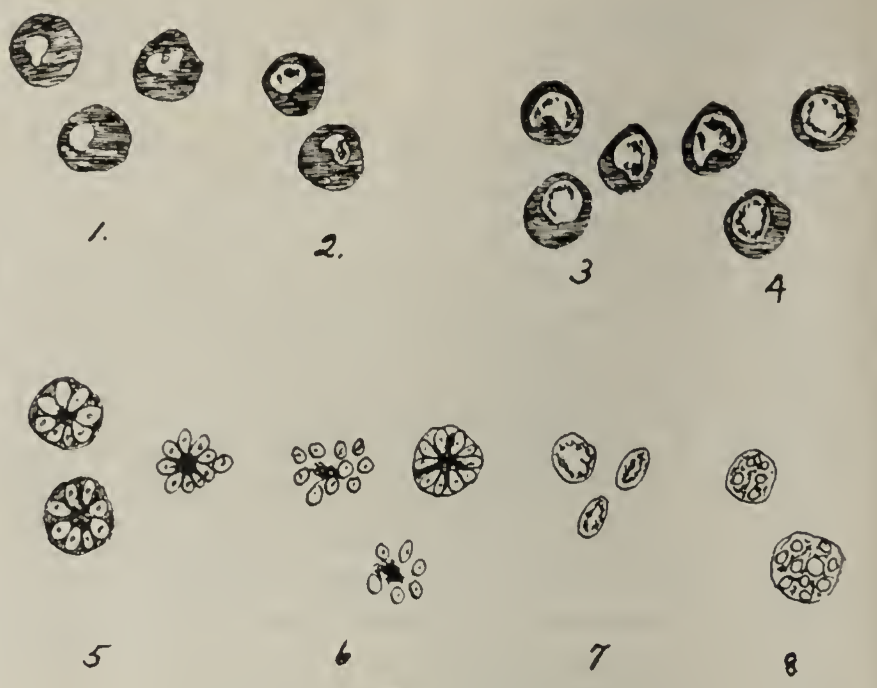
October 18, chill. Large numbers of full-grown organisms, a few segmenting bodies, fragmenting bodies, and extracellular bodies, and a few hyalin bodies.

October 19. Numerous hyalin, unpigmented bodies, small pigmented bodies, and one fragmentation form.

October 20 Many half-grown and nearly three-quarter-grown pigmented quartan organisms, a few vacuolated.

October 21, chill. Many full-grown organisms, several segmenting bodies, and fragmentation and extra-cellular forms.

STUDY OF THE TYPE OF ORGANISM.—The smallest forms resembled the tertian hyalin form exactly, being ameboid, though rather less so than in the tertian variety, and occupying generally one or the other side of the corpuscle. As they grew, however, the outline became much more clearly cut than that of the tertian, the movements were slower and their protoplasm presented a very refractive appearance and looked as though it might be finely granular. At this time the pigment began to appear as very dark, rather coarse dots and grains, which were very sluggishly, or not at all, motile. The shape of the organism at this stage altered very little and very slowly. The red corpuscles containing the organisms were noticeably smaller than the uninfected ones, and were generally of a dark-greenish color. When full-grown (about 68 to 72 hours old) the organisms had clearly-cut outlines, were oval or round in shape and occupied about two-thirds of the infected corpuscle. The pigment was collected at the edge of the organisms, was almost immobile and dark and coarse. The segmenting bodies, which were always present at the time of the paroxysm, were very characteristic. The segments numbered from 6 to 12, the pigment was collected in the center in one solid, dark block, or in a radiate manner, and nearly all were beautifully regular in their arrangement. Degenerate forms were often observed, in which fragmentation and vacuolization had taken place. No flagellate forms were observed. Peculiar oval extracellular forms were noticed, in which the pigment was motionless. There can be no doubt that the organisms belonged to the quartan type, as the above description and the illustrations show, and there never was a time during the active course of the fever that these organisms could not be demonstrated in the blood, although they disappeared rapidly after quinin in sufficient dose had been administered.

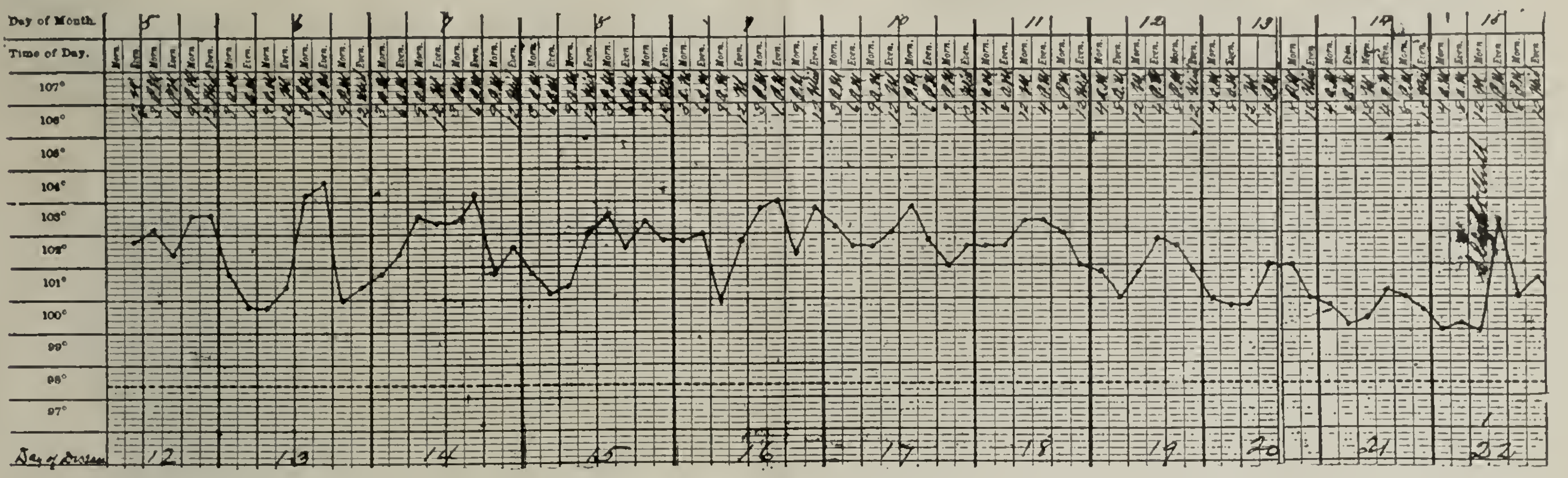


TYPES OF PLASMODIA FOUND IN BLOOD.

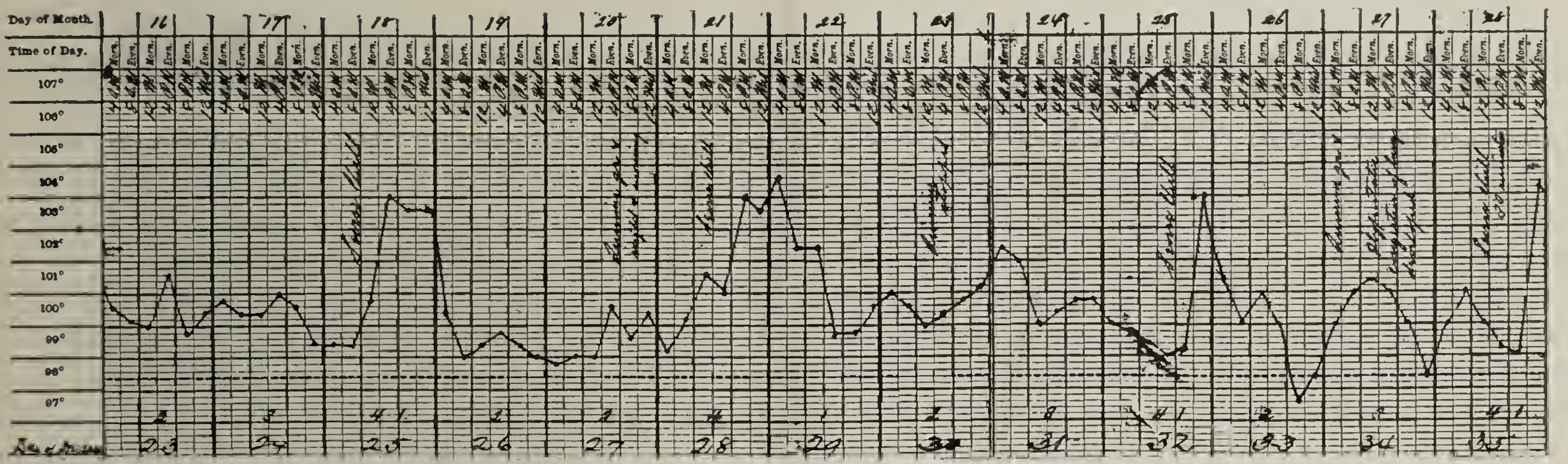
1. Young hyalin form of quartan plasmodium.
2. Early pigmented form of quartan plasmodium.
3. Half-grown quartan plasmodium.
4. Full-grown quartan plasmodium.
5. Segmenting forms of quartan plasmodia.
6. Free segmenting forms.
7. Extracellular round and oval form, with active pigment.
8. Vacuolated quartan organisms.

A careful study of the clinical chart is of great interest. Up to October 15, the twenty-second day of the disease, the course of the fever had been typically typhoid and the temperature-curve had begun to decline gradually, as is characteristic of that disease. On the 22d, following the chill, the temperature rose, but instead of falling to normal or below, fell only to the point held previously by the original disease. From that time a gradual decline took place until the second chill, on the 18th, when the temperature rose from 99.4° F. to 104° F., but fell in the course of 4 hours to 99° F. If, now, we leave out the rise in temperature due to malaria, we will observe that the course of the temperature is that of a typical declining typhoid, which holds true up to the 24th, when the temperature between the malarial paroxysms became very irregular. Prior to the 24th the temperature-curve illustrated most instructively how these two diseases, which existed together, influenced the temperature-chart. The malarial paroxysms occurred but did not materially influence the course of the typhoid temperature, which gradually declined just as it does in uncomplicated cases. This conclusively proves that a malarial fever may occur during active typhoid fever, and that, on the whole, the typhoid-chart may remain characteristic.

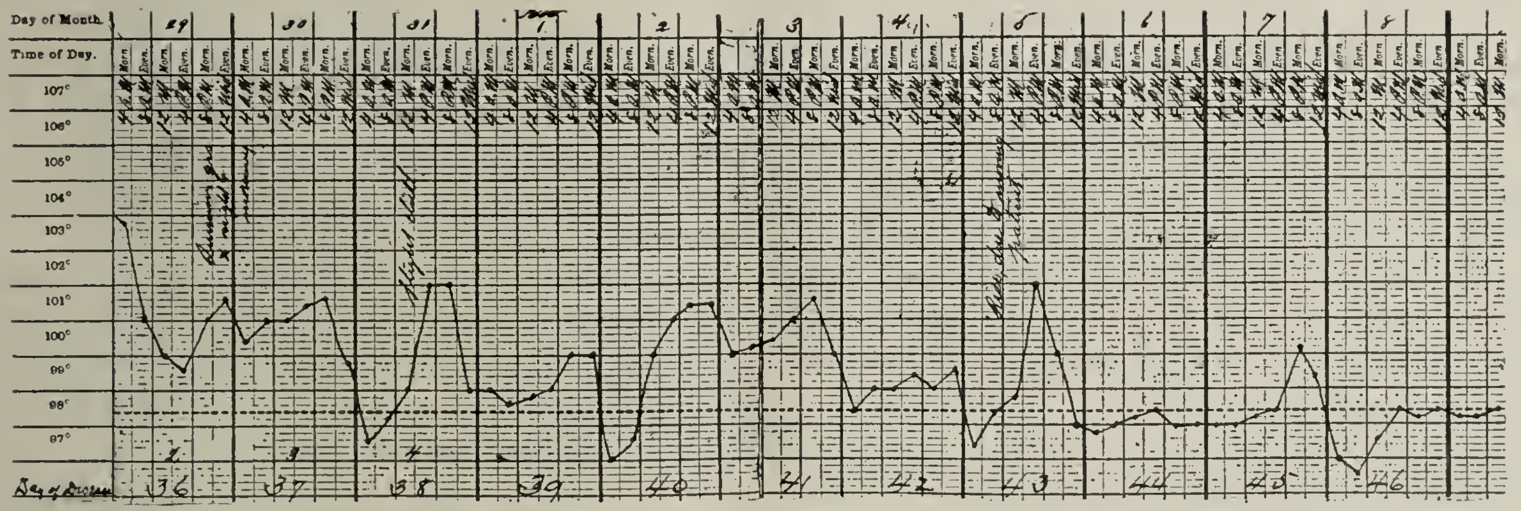
The irregularity of the temperature after October 24 may be explained by the development of hypostatic congestion, with its resultant inconvenience in breathing, and the extreme state of nervous excitability from which the patient suffered. Naturally of a very nerv-



First Section of Temperature-chart.



Second Section of Temperature-chart.



Third Section of Temperature-chart.

ous disposition, he was passing through a very severe typhoid, only to be set back and exhausted by the severe chills and high fever which accompanied the malaria; he became extremely nervous and discouraged, and so changed in appearance that one would recognize at a glance the terrific strain under which he was struggling. He came to look forward with the utmost dread to the chills, and this nervous condition, taken with the hypostatic congestion, undoubtedly explains the irregularity of the temperature toward the latter part of his disease. It may be possible that there was a multiple infection, but the character of the plasmodia, corresponding to the day of fever, would seem to preclude this.

It will be noticed that the fever was very resistant to small doses of quinin, but large doses reduced it very promptly. At the time that the patient was convalescing I was ordered to my present station and accordingly lost sight of the case. In the latter part of November, when the Sternberg Hospital was closed, the patient was transferred to another hospital, where, I have since learned, he died. It has been, as yet, impossible for me to ascertain the history of the case after leaving the Sternberg Hospital, but doubtless the great weakness and debility induced by the combined disease-processes made recovery impossible, although the last time I saw the patient he was apparently entering upon a satisfactory convalescence.

HYPOTONIA. FRÄNKEL'S SYMPTOM.

By H. C. WOOD, M.D.,
of Philadelphia.

Under the name of hypotonia, Dr. Fränkel some time ago called attention to a peculiar symptom as characteristic of locomotor ataxia. If a normal man lie down upon the floor or other flat surface, upon his back, with the head on a small pillow, and raise the legs until they are fully flexed upon the trunk, the knee, unless it be in exceptional cases, will always be very decidedly bent. On the other hand, the tabetic person can in the position just spoken of completely straighten his legs when at right angles to the body—so at least it has been stated.

In studying this symptom in a number of cases both in normal and diseased individuals, I have found that in the great majority of cases of locomotor ataxia the patient is able, as stated by Fränkel, to fully straighten the legs at right angles to the body; and, on the other hand, I have seen very few normal individuals who could do so. I have been told by certain athletes that they had known other athletes who had acquired such power by long training, but the person entirely free from suspicion of nervous disease, in whom I have seen it, was a woman with general lack of muscular tone, and in whom the kneejerk was wanting.

I have had opportunity of studying 2 cases of tabes in which the lesion was chiefly if not exclusively confined to the upper portion of the spinal cord; the symptoms being ocular, including complete blindness, with disturbance of coordination almost confined to the upper extremities and fulgurant pains most marked in the head and neck, and not occurring below the arms. In one of these cases the patient could not straighten the legs, and the testing demonstrated that the kneejerks were well preserved. In the other case the patient could almost straighten the legs, and the kneejerks were almost lost.

I believe myself that the power to fully straighten the legs depends simply upon a great loss of muscular tone, and that this condition is also at the basis of the loss of the kneejerks; so that one symptom is always parallel with, if not equivalent to, the other. Complete hypotonia, however, probably depends upon a more complete loss of tone than does loss of kneejerks. Thus, in a case seen very recently, in which the only symptoms were slight squint, a sense of intense coldness between the shoulders and in the back, spreading at times through the body, and amounting at times to a distress which almost drove the patient mad, and entirely absent kneejerks, the hypotonia was distinct but not complete, the patient being able to nearly but not absolutely straighten the legs at right angles to the body.

Again, in a case of diphtheric paralysis, in which the patient could walk fairly well, but was distinctly weak in the legs, and even paralytic in the anterior tibial group, and in which the kneejerks were completely lost and did not appear on reinforcement, the hypotonia was pronounced, but, at least in one leg, not complete.

The close connection between hypotonia and the kneejerk seems to me to make the new symptom of comparatively little value in the diagnosis of primary tabes; if, as I believe, the two symptoms be different expressions of the same condition, it is plain they must usually coexist, and that the presence of one does not strongly increase the diagnostic value of the other. This is well illustrated in the case last spoken of. Paresthesia, acquired squint, absent kneejerks, are certainly strongly suggestive of the presence of an incipient tabes, but are hardly sufficient for the diagnosis, as it is possible that the most important of these symptoms, namely, the kneejerks, might have long existed. If the kneejerks had been known to have been present a year ago, and to have disappeared with the development of the paresthesia and the squint, the diagnosis of incipient tabes would have been justified; but in the face of the assertion of the patient that in the winter of 1897–98 the peculiar distress and nervousness were as marked as at present, and that during the summer of 1898, when he was company officer U. S. V., daily employed for many hours in hard drilling with his men, the disagreeable sensations disappeared along with 20 pounds of fat, it is certainly a possible explanation of his case that the paresthesia is of lithemic origin, or at least due to the presence in the blood of the results of over-eating and under-elimination. The diagnosis seems to me, therefore, to remain doubtful; now, if a new distinct symptom of locomotor ataxia, as Argyll-Robertson pupil, could have been found, the whole matter would have been cleared and the diagnosis of tabes justified; hypotonia, however, is so closely associated with kneejerk that it can hardly be called another symptom, and its presence in the case had, at least to my mind, little diagnostic importance.

Hypotonia, of course, is not to be confounded with paralytic loss of power in the thigh. In it the patient himself straightens the leg: in various diseases, as sometimes in poliomyelitis, the knee can be straightened, not by the patient himself, but by the medical or other attendant, making passive movement. This is not hypotonia, but paralysis.

Lymphatics in the Nervous System.—Dr. M. G. Guillain, in a paper read before the Société de Biologie upon the existence of lymphatics in the central nervous system, sets forth his experiments that go to prove the presence of a complete system of lymphatics in the region named. India ink injected into the posterior columns of the cord was found five days later in the anterior columns. Injections of a culture of streptococcus in the sciatic nerve was later on found in the cord.

A RECENT CASE OF SMALLPOX IN AN EIGHT-YEARS-OLD BOY, SHOWING DEVELOPMENT AND DIAGNOSIS IN THE FIRST STAGES OF THE DISEASE.

By WILLIAM JACOBSOHN, B.S., M.D.,

of New York City.

Formerly Attending Physician, Children's Clinic, Demilt Dispensary, and Ex-interne, Randall's Island and Infants' Hospital, New York City.

Although smallpox was known upward of 2,000 years ago, and the attempts to eradicate it date back to the end of the seventeenth century, to-day, upon the threshold of the twentieth century, we still meet with it.

Thanks to the studies of the modest country doctor, Edward Jenner, and to the modern advances in preventive medicine, this dreadful disease is seldom seen by the practitioner. However, just as a Roman army returning from Asia in the second century introduced smallpox into Europe, and as in Mexico smallpox was introduced by the Spaniards in 1520, we must beware lest our own soldier and sailor boys, who have so effectually routed our enemies, and are now triumphantly returning home, bring the disease to us. It is well, therefore, for every practising physician to be on his guard, and as smallpox is probably communicable even in its first stage, the importance of an early diagnosis is manifest.

The case I am going to describe to you occurred in the course of my private practice, in a family whose personal habits were good, and whose surroundings were clean. Moreover, the neighborhood is one in the upper part of the city, not densely populated, and one least to give rise to any suspicion of the disease. There was no epidemic in New York City at the time, the last case having occurred a month ago in another section of the city, according to the municipal statistics.

On the night of April 28, 1899, I was hastily summoned to my patient, Milton W., a schoolboy, aged 8 years, whom I found suffering with pains in back, fever, and vomiting. I made a careful examination, found the temperature 106° F., pulse 175, but no further symptoms. After having informed the parents that I believed some disease was developing and giving them directions to combat the high temperature, I left, promising to call the next morning.

The next morning, at my visit, I learned from the mother that the child had been delirious, and now was in a state of stupor. The temperature was now 105° F., and pulse 166. I carefully observed the skin and fauces for signs to make a diagnosis, but found nothing of value. I had excluded thoracic, abdominal and pelvic disorders, for there were neither symptoms nor signs of disease of any of the organs. The delirium and stupor pointed strongly to the cerebrospinal diseases, but, in the absence of the characteristics of these diseases, the diagnosis became indeterminable.

It was not until late the next day that there appeared upon the face a diffuse rash, very much resembling that of measles, but here and there dotted were small points about the size of a pinhead. A few of these points were also seen upon the abdomen, and resembled very strikingly the rash of typhoid fever, but differed from that eruption by disappearing on firm pressure only. The child, moreover, had not the respiratory symptoms of measles, cough, coryza, and conjunctivitis being absent. The temperature was 104° F., and pulse 160. The child was still delirious.

The following day I noticed that the macular eruption had been succeeded by a papular one, which now extended over back and extremities; here and there, I could observe a few vesicles, and particularly about the knees, where the garters had been worn, the eruption was more prominent. On this day the fact that there were so few vesicles, the latter resembling very closely those of varicella, and that the child was developing a severe conjunctivitis, would have given the casual observer the idea that measles, possibly complicated with varicella, was developing. The temperature was 102.5° F., and delirium, though present at times, was subsiding. I examined the throat, found it congested; otherwise, nothing of any clinical significance.

On May 2 I found the eruption becoming more prominent and revealing itself in the forms of raised papules, new crops coming out where the skin on the previous day seemed healthy. The papules had a firm hard feeling to the touch and were raised; in certain portions vesicles which were situated on a bright red base were forming. The papules and vesicles varied in size from a pinhead to a split pea; they were resistant on pressure. The vesicles that had formed on the previous day became more developed, and, instead of the tendency to disappear as in varicella, had become larger and more opaque. There were places where the vesicles coalesced to form large bullae. The temperature was still 102°, but delirium had been only present at a few intervals during the course of the past 24 hours. Itching was intense. I had now been convinced that I was dealing with probable variola. I questioned the mother regarding the boy's vaccination, and elicited the information that the child had been vaccinated when an infant, one year old, and again when seeking admission to school. She told me she was not certain whether it took. After making an examination to determine if there were any scars, and not finding any trace of them, I concluded that the boy had never had the benefit of a successful vaccination.

On May 3, on my visit, I found the child having but a temperature of 101° F.; the eruption was now marked, no portion of the face being exempt; even the ears were densely covered with large pea-sized vesicles, and the rash had extended to every part of the body. Some of the vesicles were commencing to show traces of umbilication. The child seemed easier, had no delirium, and though apparently overwhelmed with the toxemia, spoke rationally. The mucous membrane of the nose, palate, tongue, and fauces was covered with the eruption.

The clinical picture was now complete to make a positive diagnosis of variola. It is difficult to describe any eruption, for one must see it to appreciate it, and even the most beautiful photographs and atlases fail to replace a naked-eye view.

Immediately, I informed the health-authorities, who corroborated my diagnosis, and as no case of smallpox is, by law, permitted within the city limits, the child was removed to Riverside Hospital, where its subsequent history can be found.

The above case demonstrates that however important an early diagnosis is, difficulties beset the diagnostician from the beginning. On account of the high temperature at the start, the practitioner is certainly apt to be called earlier in a case like the above, but as in a child high fever may mean temporary derangement of the gastrointestinal tract, which upon the exhibition of a purge will fall, its significance may be overlooked.

Again, as, when such a high temperature takes place, there often results delirium and stupor, a mistake must not be made by diagnosing cerebrospinal diseases.

Later on the third day, when the eruption appeared, it did not present itself typically, for its resemblance on the one hand to measles, and on the other to typhoid fever, caused doubts. Still later, varicella may be mistakenly diagnosed.

However, the temperature forms an excellent guide. In the above case, the fall of temperature, with the appearance of the characteristic nodular papules, and umbilicated vesicles involving the entire body almost at one time, and the more permanent character of the skin-lesion, fixed the diagnosis.

As cited above, there was no epidemic, as well as no environment to excite any suspicion of the disease; it seems, therefore, that we must never be surprised to meet any case, however rare.

Should our diagnosis be delayed, as it must be when called so early, distressing or dangerous symptoms must nevertheless be met with appropriate treatment. Isolation of the patient as well as disinfection of surroundings and attendants should always be practised in doubtful cases. There is no harm in being cautious, and it certainly is the only means by which we can prevent the propagation of disease among nonimmunes.

Vaccination has been established as a protective against smallpox. It must have been done defectively twice in the above case, as there were no traces to show its effectiveness. The importance of procuring a good vaccine virus and of persevering until the vaccination is successful, should be obvious to every physician who vaccinates.

MODIFIED COW'S MILK FOR INFANT FEEDING.[1]

By EDMUND D. CHESEBRO, M.D.,
of Providence, R. I.
Attending Physician St. Joseph's Hospital.

In selecting a food for an infant deprived of breast-milk it is only natural to expect good results from one which contains the same elements as human milk, and in practice such is found to be the case. Comparative analyses show that cow's milk contains the same ingredients as woman's milk, namely fat, sugar albuminoids, salts, and water. The elements occur, however, in somewhat different proportions. Thus, while the percentage of fat does not differ greatly, there is a marked excess of albuminoids and salts, and too little sugar. It is the albuminoids, made up for the most part of casein, which make unmodified cow's milk so difficult of digestion. For there is not only an excess of casein in cow's milk, but it has been shown by Hammerstein, Wrobleski, Leeds, Koplik, and others that there is a distinct chemical difference between the casein of cow's and woman's milk. A certain proportion of cow's casein, namely the so-called nucleon, is insoluble and consequently indigestible, while the nucleon of woman's milk, which occurs in relatively large quantities, is readily broken up, absorbed, and assimilated. It is claimed, too, that the nucleon subserves an important part in the function of absorption and assimilation of the phosphorus of milk; but in cow's milk, because of its insolubility, this function is much retarded. Presumably this serves to explain why the bony growth of infants fed on cow's milk seldom equals that of those nourished at the breast. Yet in spite of its drawbacks it is generally conceded that cow's milk can be modified so as to give very satisfactory results in the majority of cases. Its successful modification depends on varying the proportion of the different elements to meet the requirements of each individual infant. For there is a marked difference in the digestion capabilities of infants, and those of the same age and weight frequently demand food of very different composition.

Rotch, of Boston, first established a laboratory where milk is practically separated into its constituent parts, and again combined according to any desired formula. In a paper read before the American Pediatric Society at Boston in May, 1892, he explained this method of modifying milk and called particular attention to the influence which slight changes in the percentages of fats, sugar, and albuminoids may have over the digestion and nutrition of infants. During the past 5 years several milk laboratories have been established in different parts of the country. We are fortunate in having one in this city, which is most admirably conducted. A personal inspection of the plant will well repay anyone not already familiar with its workings. Rotch, Holt, Cotton, Blackader, and many others of large clinical experience report most excellent results from the use of milk modified at the laboratories. Unfortunately, however, the laboratory products are expensive. The average wage-earner cannot afford the $3.50 or $4.00 demanded for a week's supply of modified milk.

But with the intelligent cooperation of the physician and mother or nurse, and careful attention to details, cow's milk can be modified at home to meet the requirements of the majority of infants. It is well known that the composition of breast-milk varies markedly from time to time without affecting the nutrition of the infant. In the same manner the unavoidable daily fluctuations in the composition of cow's milk modified at home are by no means always productive of deleterious results. Fortunately, Nature often allows a good deal of latitude in the composition of food for infants as well as for adults.

The ingredients necessary for home-modification are milk, cream, milk-sugar, lime-water, or sodium bicarbonate, sodium chlorid, and water. For convenience and accuracy a graduate, siphon, sugar-measure, bottles, and cotton-wool for stoppers are essential. Some apparatus for pasteurizing or sterilizing the milk may be required.

It is for the most part the albuminoid elements which necessitate modification. The average amount of albuminoids in cow's milk is about 4% as opposed to only about 1½% in woman's milk. The excess can be easily controlled by simply diluting the milk with water or, as recommended by Jacobi, with cereal decoctions. But such dilution also affects the percentage of fats and sugar, in which even in full strength cow's milk is not up to the average of human milk. The deficiency of fat is overcome by substituting a certain amount of cream in place of milk. In using cream it is important to remember that it is simply milk with an excess of fat. The albuminoids, sugar, salts and water occur in practically the same proportions as in milk. The deficiency in sugar is overcome by the direct addition of milk-sugar or cane-sugar to the mixture. The excess of inorganic salts is controlled by the dilution demanded for the albuminoids. There is, however, a deficiency in the amount of sodium chlorid. As is well known every animal has an instinctive desire for salt; it subserves an important function in stimulating glandular secretion and in preventing the too solid coagulation of milk. It thus aids digestion and nutrition and prevents constipation. It enhances the vital processes, mainly by accelerating tissue-changes through the elimination of urea and carbonic acid. Too little attention is given to this subject. Some of our leading textbooks fail to emphasize the importance of supplying the deficiency of this important element. I believe that cow's milk should not be prescribed for infants without the addition of 2 or 3 grains of table-salt to each feeding.

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[1] Read before the Medical Improvement Society of Providence, R. I.

Prof. Holt gives some simple rules for home modification which are well worth the attention of all interested in infant feeding. He first obtains a mixture of milk and cream of fairly definite strength, which he calls the primary formula. This is then diluted with a milk-sugar solution to obtain formulas suitable for infants of different ages and digestions. The most convenient primary formula is a mixture of equal parts of ordinary cream and milk. This contains about 12% of fat, 4% of albuminoids and 4% of sugar. When perfectly fresh milk can be obtained a better way of obtaining the primary formula is to place the milk in a tall glass jar and let it stand on ice or in a cool place for 4 or 5 hours. The upper fifth or fourth, the amount depending upon the length of time it has stood, may then be used in place of the mixture of equal parts of cream and milk.

The milk-sugar solution is made of such strength that each 8 oz. of the food contains an even tablespoonful or between 6% and 7% of sugar. In adding sugar to milk it is important to remember that it is added not simply to make the mixture palatable, but to supply one of the essential elements required for healthy growth and development.

In determining the strength of a milk-mixture to use, a good working rule for the early months is to dilute the primary formula 5 times for the first 2 weeks, 4 times for the next 3 or 4 weeks, 3 times for an infant from 6 to 12 weeks old, and twice for one 12 to 18 weeks of age. The application of these rules would seem to result in producing mixtures too weak. But as a matter of fact it is the albuminoid elements only which are brought much below the standard of human milk, and I believe too great emphasis cannot be laid on the necessity of such reduction for young infants. Indeed, I believe cow's milk alone, without the addition of cream, if sufficiently diluted and sweetened, will give very good results for the first few weeks, for infants often thrive for a short time on condensed milk and patent prepared foods. Yet analysis shows that when administered in the usual way they contain less fat and albuminoids than does ordinary fresh milk 5 times diluted. After a very few weeks, however, the infant's nutrition will suffer unless fats and albuminoids are added to the condensed milk or prepared food. So, too, in the use of fresh milk, as the infant grows older, fat must be added and the milk less diluted to increase the albuminoids. But while, as I stated, infants may do fairly well on fresh milk simply diluted and sweetened, yet experience proves that much better results are obtained by adding the cream to the mixture from the first.

To overcome the acidity of cow's milk, 5% or 6% of lime-water, or sodium bicarbonate, 1 grain to the ounce, should be added to the mixture. When lime-water is used, an equal bulk of water must be deducted from the total quantity employed in the milk-sugar solution.

In preparing the mixture, it is well to dissolve the sugar of milk in boiling water and filter if necessary. The other ingredients are then added. A sufficient quantity of food for 24 hours should be prepared at one time, and the quantity for each feeding put in a separate bottle, stoppered with nonabsorbent cotton, cooled and placed on ice.

Prolonged sterilization at the boiling-point, as a routine practice, is objectionable, for by it the taste and color of milk are changed, the casein is less easily digested, and the tendency to constipation is increased; and, more important, it is believed that the nutritive properties of the milk are impaired. These objectionable changes are due to the action of heat above 180° F., and as it is found that most pathogenic germs are destroyed by a temperature of from 160° to 170° F., and that milk heated to that extent will keep well for 2 or 3 days, the process known as pasteurization has very largely taken the place of sterilization. Sterilization, however, may be required in exceptional cases. On the other hand, when it is possible to obtain a perfectly fresh and reliable daily supply of milk, it is not always necessary to subject it to any degree of heat.

To obtain uniformly good results from the use of modified milk, intelligence, good judgment, and careful attention to details on the part of the physician and, if the milk is modified at home, the faithful cooperation of an intelligent mother or nurse are required. The physician must give the mother or nurse explicit directions in regard to preparation of the food. He should see his patient from time to time, and be able to make changes in the composition of the food suggested by special symptoms or conditions. For example, habitual colic, with curds in the stools, probably indicates too much albuminoids. Habitual vomiting soon after nursing may mean too much food. The repeated regurgitation of a mouthful or two of sour milk between feedings may be caused by too much fat. Constipation may be caused by too little fat. The failure to increase satisfactorily in weight may indicate the need of more food. These and many more variations from the normal should be promptly recognized and corrected by the physician. During periods of acute illness or of excessive heat it is often of the utmost importance to reduce the strength of the food. Under such circumstances, however, an additional supply of water is generally demanded.

I am so confident that cow's milk may be made to meet the requirements of young infants that I believe failure to obtain good results in its use is more frequently due to errors of omission on the part of the physician or nurse or both than to inability of the infant to digest it when properly modified.

THE TEN COMMANDMENTS OF APOLLO.

Directed to his Handmaidens, the Nurses of the Sick and Injured.

By G. W. WAGONER, M.D.,
of Johnstown, Pa.

I. Thou shalt keep thyself at all times clean, thy hands and the finger-nails thereon; thy face and neck and the hair of thy head; thy teeth and mouth, so that the breath of thy nostrils shall be sweet. The coverings of thy body shall be plain and withal most clean. Thy raiment shall be wrought of such stuffs that dirt and stains may be presently discovered and the raiment forthwith changed for that which is pure. Thou shalt remember at all times that filth, in the sight of Apollo, is an abomination.

II. Thou shalt hold thy tongue with patience and long-suffering. When it shall be proper for thee to speak, thy voice shall be soft and low, that it may soothe the fretful sick one to rest, and be as music in the ear of thy master.

III. Thou shalt not become rude for any cause, but thy ways shall ever be the ways of kindness and mercy. The cries of the afflicted thou shalt hearken unto at all times. Thou shalt faint not, neither grow weary so long as strength shall last, for thereby shalt thou gain great credit and thy fortitude be unto thee an honor.

IV. Thou shalt guard thy acts with prudence and thy tongue with caution. Whatsoever thou doest shall be done only on the authority of thy superiors and in such manner as may give courage to the helpless one in thy care. If thou shalt babble and wag thy tongue and fill thy mouth with idle tales, then art thou a breeder of discontent and an impostor, and thou shalt have the finger of scorn pointed at thee as thou art shunned by them whose servant thou shouldst be.

V. When thou art chosen by a physician to be a servant unto the sick who have committed themselves to his care, thou shalt be faithful to thy trust and loyal to him who has chosen thee. If thou shalt speak slightly of him, sneer at him, or if thou shalt cunningly praise another's skill so that the sick one may grow troubled and the fear of death take hold of his heart, seeing that thou hast with treachery and deceit taken away his trust in his physician, then art thou a seducer and a backbiter. Thou art no longer decent in the sight of the gods and men. The hands of all physicians shall be against thee and the bread of honorable servitude shall be taken from thy mouth. I, Apollo, am a just god and my servants shall not live by deceit.

VI. The things thou shalt see and hear in the sick-room shall be sacred unto thee. If thou art steadfast in thy trust no human power can drag thy secrets from thee. If thou art false and become a whisperer of tales the gods shall blast thee with shame and drive thee away from their holy temples.

VII. Thou shalt be ever ready to receive instructions from thy master and devote thy mind and body to obedience of his will. For without him to guide and direct, the sick shall have no confidence in thee, neither canst thou offer defence against the assaults of death.

VIII. When thou shalt become a true nurse of the sick and injured, then thou shalt not seek after thy own rights and interests with uneasy longings, but all thy powers shall be freely given to those who have trusted thee. And although thou shalt ever be a skilled servant, yet the love and respect of thy masters shall follow thee all the days of thy life.

IX. Thou shalt honor and respect those who employ thee, that thou mayest live in comfort in the land.

X. In thy character thou shalt be pure and gentle, in thy actions quick and true, and in thy business meek and helpful, so that thy whole life shall be an honor to Apollo, and to the work of his holy temples.

A CASE OF DIABETES MELLITUS.

By J. FRANKLIN DUNSEITH, M.D.,
of New York.

In a recent case of diabetes mellitus I tried large doses of morphin and, subsequently, of sodium salicylate without any success. The patient was a man of 57 years, who had always used sugar and starches freely, eating nearly a pound of candy daily for many years. The diabetic symptoms had existed for 8 months previous to his coming under my observation. When I saw him he passed about 5½ pints of urine in the 24 hours, with 8% of sugar. I began with ¼ grain of morphin every 2 hours, and ran it up to ½ grain every hour. This, together with a restricted diet, caused a temporary drop in the quantity of urine and sugar. The morphin soon failed of effect, and I administered sodium salicylate, 100 grains a day. No further increase occurred in the sugar, but any distinct improvement was not noted. A few weeks later carbuncles developed in the back, the proportion of sugar reached 10%, and death occurred from exhaustion 4 months after the beginning of treatment.

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The duty of holiday-taking is one that is doubly or trebly incumbent upon the physician. As a teacher of hygiene he should practise what he preaches, and he is or should be constantly inculcating the lesson of the unwisdom of going at the breakneck speed so often exemplified by patients in the zeal and hurry of our modern life. Then the physician has no patient who works so continuously and strenuously as himself. Moreover, it is to his professional advantage to take at least a month's rest during the year. To vary the thought and habit and the scene is peculiarly beneficial to the physician too closely bound up with the routine of practice and the sad and seamy sides of life. He should escape from it all, and in the silence of nature recuperate both body and mind.

A Musical Doctor.—We physicians are entirely too prone to bind our minds too narrowly to our professional work and interests. There are many good reasons why this is so, but it holds true, nevertheless, that an extreme absorption in one round of ideas and interests tends in many ways to narrow our sympathies, intellectual and emotional. It is, therefore, a good rule to start in life with, and to adhere to it as religiously as possible, that at least a small fraction of the attention and time shall be devoted to some aspect of thought and life wholly different from that of the great occupation. It is with peculiar pleasure that we find a physician who has some modest and secret hobby, the riding of which has never been entirely stopped by the engrossing duties of professional life and study. When one attains equality with serious workers in this favorite play of the mind—this professional "aside"—it is all the more gratifying. We learn that our Baltimore colleague, Dr. J. C. Hemmeter, is a musical composer whose work is of noteworthy excellence.

A School of Comparative Medicine.—Medicine is growing daily more scientific and more precise. While the results of an intelligent and discriminating empiricism can never be ignored, they are being made gradually, yet surely, subordinate to those of systematic research and investigation. An illustration of the tendency in this direction is afforded by the proposal to establish at Harvard University a post-graduate school of comparative medicine for the encouragement of original inquiry and investigation into the diseases of man and the lower animals, with especial consideration of etiology, pathology, prophylaxis, and treatment. A secondary outcome of this innovation would be the consolidation of the several medical departments under one faculty, each maintaining its identity, conferring its distinctive degree and governed by a separate administrative board. The advantages of such an arrangement seem obvious, and properly carried out it would do much to elevate medical standards and improve medical instruction. Both Harvard and the University of Buffalo have chairs of comparative pathology. The organization of a school of comparative medicine is a natural phenomenon in the process of evolution.

Comparative Mortality-rates from Diphtheria in Denver.—From the last report of the Denver Bureau of Health we extract the following table, concerning which no comment is needed :

BEFORE ANTITOXIN WAS DISCOVERED.

Year.	Cases.	Deaths.	Mortality per cent.
1889	233	109	46.5
1890	720	277	38.6
1891	468	175	37.4
1892	300	89	29.7
1893	318	106	33.3
1894	233	71	28.7
Total	2272	827	36.4

SINCE ANTITOXIN WAS INTRODUCED.

Year.	Total Cases.	Total Deaths.	Mortality per cent.	Treated with Antitoxin.			Treated without Antitoxin.		
				Cases.	Dths	Mortality.	Cases.	Deaths.	Mortality.
1895	248	40	16.1	123	9	7.3	125	31	25.1
1896	246	19	7.7	107	7	6.5	139	12	8.7
1897	297	43	14.5	147	6	4.1	150	37	24.6
1898	386	34	8.81	230	8	3.5	156	26	16.66
Total	1177	136	11.57	607	30	4.95	570	106	18.60

The Treatment of Eye-Strain a Professional Matter.—At the latest meeting of the American Medical Association the President appointed a committee of three to correct and formulate resolutions in reference to the practice of ophthalmology. This committee proposed the following, which were unanimously passed:

> *Resolved*, by the American Medical Association that the treatment of errors of refraction in the eyes requires a knowledge of pathology and therapeutics :

Resolved, that the application of lenses in such cases is a part of the practice of medicine, to be undertaken by no one not qualified to practise medicine and surgery.

The association thus places itself squarely on record in reference to what is becoming a national and professional disgrace. With this clearly enunciated professional principle set forth, prosecution of prescribing opticians should be instituted in all parts of the country whenever shall occur instances (which are happening every day) of malpractice by those who are not legally physicians. Eye-strain is itself a disease and leads to many other and serious diseases. The treatment of disease is limited by law to those holding the degree of M.D. Those not possessed of the degree who treat disease should be prosecuted. It is time that this principle were legally enforced. Copies of these resolutions should be sent to every State examining board and medical society, and these should govern themselves accordingly.

The Standardization of Drugs.—Our readers will have seen the call for the next convention for revising the Pharmacopeia a year hence. The subject of standardization which was such a burning issue a decade ago is not likely to again " excite the multitude," for the reason that the committee has thoroughly admitted the desirability of establishing standards for every preparation when possible, and the convention is practically committed to this view; it is, however, a question of devising accurate methods of assay, which shall be reasonably uniform in the hands of intelligent pharmacists, and this problem bars the way to standardizing all galenical preparations. Processes which may be satisfactory to the large manufacturer and which will enable him to keep his own particular preparations up to the arbitrary standard which he has adopted, may or may not be suited to general pharmaceutic usage, and it will be a fatal blunder for the pharmacopeia to proclaim standards and establish processes of assay which would not invariably determine the percentage of active constituents in the various drugs and preparations when used by different assayers. Manufacturing pharmacists have added greatly to the sum of knowledge of pharmaceutic assaying and they will doubtless continue to assist the committee to the extent of their power. The medical profession may rest assured that the United States Pharmacopeia of 1900 will go as far in the direction of standardization as safety will permit, and it is of course of prime importance that alkaloidal drugs and preparations and those which are most active and dangerous should receive first attention.

Business Methods and Help in the Conduct of Medical Societies.—Some time ago Bishop Potter advocated placing the financial affairs of church organizations in the hands of expert organizations such as trust companies, whereby the management and safekeeping of funds, securities, investments, etc., would be more prudently and successfully carried out. If correctly informed this has been done by many educational and scientific institutions, such as Brown University, the Academy of Natural Sciences of Philadelphia, the Historical Society of Pennsylvania, etc. The suggestion arises that medical societies, hospitals, etc., might with advantage to all concerned adopt the same plan. We are told that the Presbyterian Hospital of this city has done so, and that the College of Physicians has just determined to carry it out. For a small charge the trust company acts as guardian of securities, collects rents, advises as to investments, and the like, and renders its accounts at stated intervals. The office of a special treasurer of the organization continues as before, but he has less responsibility and labor, and as usually he receives no salary, his bond need not be so large, and a certain injustice is avoided. The added expense to the society is perhaps more than offset by security against losses, and gains from better investment of capital. In our complex modern life finance is as much an affair of expert knowledge and skill as the treatment of disease, and the reciprocity effected by the suggestion can only prove beneficial to the business success of medical societies. If, as has been often said, physicians are poor business men, the foregoing is at least a way to learn correct business methods.

Deaths in Childhood During the Summer.—There are many forms of philanthropy that come more especially under the notice of the medical man, but there is probably none more commendable, none more successful in result, than that which provides for helpless children during the heated term in large cities opportunities for escape from the destructive effects of high temperature amid crowded and unhygienic surroundings and for securing an abundant supply of pure, fresh air, with the privilege of a bath in clean water and of receiving a correct amount of the right kind of food. The fruits of this work are not limited merely to the direct effect in saving life, but they are to be found beside in the educational and moral influence exerted upon parents, nurses, and other care-takers of children. This work is now being done in almost all of our large cities, sometimes under the auspices of individuals, sometimes under those of charitable organizations or societies, and sometimes under the supervision of that great modern force, the newspaper. The *Chicago Daily News* has organized and had incorporated a fund for the prosecution of fresh-air work among the sick children of the poor, which it administers free of all expense, so that all money contributed is devoted solely to the purposes of the gift. Voluntary contributions are accepted, but begging and solicitation are not practised. During the year 1898, the twelfth of the fund, the sum of $8,343.43 was received from all sources, and between June 6 and September 10 the Sanitarium took care of 9,242 sick babies, 9,292 mothers, 34,916 children, and 55,914 visitors. Too cordial endorsement or too warm commendation cannot be given this and similar enterprises for their laudable and successful efforts in a life-saving undertaking.

A Possible Cause of Calamities at Sea.—During late years the occurrence of tragedies on the ocean apparently due to "obviable accident," has seemed to be on the increase. "The ship was out of its course and ran straight upon well-known rocks." A million-dollar machine is ruined, and hundreds of lives are lost, or saved only by heroism or "luck." In the accounts of these tragedies one always reads that "the captain was the oldest and the most experienced in the Company's service." There never seems to be any explanation, however, of the terrible misfortune, and one philosophical English journal devotes leading editorials in which we are plunged into psychologic mysteries too deep to fathom. As in the newspaper accounts there keep recurring the words "the oldest and most experienced of captains," to daze the reader and make the explanation more inexplainable.

But suppose, instead of being used to deepen mystery, they are turned to explain it? We suggest that the habit of retaining in charge of ships men who are "old and experienced" is the very root of the mischief. The accidents take place because of "age and experience," instead of in spite of these qualities. The qualities of mind that prevent getting out of one's course, that warn one of errors and dangers, are by their very nature youthful, and they are extremely likely to be dulled even at the age of fifty. There is a plasticity of mind as well as of body, and the two are interrelated. There is a senile amblyopia of mind as well as of eye, and the two are likely to be synchronous. "Experience" in a personality that is getting beyond middle-age is extremely prone to become habit, and habit upon the ocean is sure to mean death. We judge that age should be a bar rather than a benefit to a captain. We doubt the wisdom of putting in charge of vessels men who are over fifty years of age. Preventable wrecks do not happen to the ships of young captains.

The Paranoiac who Threatens to Shoot.—The recent shooting affair at York, Pa., in which an insane man fired a pistol first at a woman, and then at a priest as the latter was saying mass, conveys a moral which the public is slow to learn. The lunatic in this case was notoriously insane and had been so from his youth; and he was, moreover, the son of a lunatic who had died recently in the Harrisburg Asylum. He had made numerous threats on several visits to the parochial buildings during a few days before the shooting, and, in fact, was so moody and full of threats, even to the extent of brandishing a pistol, that his act was clearly foreshadowed. It seems that he had delusions that the priest was saying masses and prayers which were having an evil effect upon him; also that a young woman was seeking to marry him for his money. The day before he shot he visited the priest's housekeeper, waved his pistol, and told the woman that he would shoot her and the priest before night. In spite of this threat he was allowed to go at large. Finally, on the day following, he reappeared, shot at the woman, and then rushing into the church, shot at the priest, who was saying mass, but who happened not to be the one whom he suspected. Both the intended victims escaped fortunately without injury.

Such a case would seem to need but little comment. To the mind of an alienist the wonder is that such a lunatic should have been permitted to go free for an hour after he first pulled a pistol and threatened to do murder. With the public, however, a man must be at least a raving maniac to carry the conviction that he is insane. Even at its own peril the public will not understand that the really dangerous lunatic is the seemingly rational and coherent paranoiac who labors under systematized delusions, which lead him to acts of violence. The case at York is a type so characteristic and unmistakable, that we hope it will tend to educate public opinion. The hereditary paranoiac, with a pistol in his hand, threatening to take life, should not require a committee of experts to put him safely under lock and key.

Abolishing the Insane Asylums.—We have seldom seen a more flagrant piece of sensationalism than that contained in one of the New York Sunday newspapers of June 11, announcing that, as a result of recent investigations in a certain case of insanity, the asylums for the insane may be totally abandoned. The case was that of a young clergyman, who, as a result of an injury, developed a case of so-called double personality. His case is said to have been studied by several aspiring experts, who allowed themselves to be interviewed in quotation marks, and one of whom permitted his photograph to be printed. The case, so far as we can judge from the sensational presentment of it, was a rather commonplace one of hypnosis, and lent itself very readily to the reporter's time-worn references to Dr. Jekyll and Mr. Hyde. The astonishing part of the performance is not the part taken by the Sunday paper (for nothing is too rank for such journalism), but the fact that young physicians, who have still to win and to hold their reputations, would consent to cater to the depraved taste of the public for distorted medical literature. The case itself was not a particularly remarkable one, and in no way justified any professional man using it as a text for an onslaught on the asylums of this country, and for a homily on the cure of insanity by "psychopathic" methods, as well as a tirade against the microscope and the methods of scientific psychiatry. The whole affair savors of advertising and charlatanry, and we sincerely trust that the physicians involved were hoodwinked by reporters into making the exhibit, and did not do it by design. The statement of the newspaper that this one case warrants a belief that all cases of insanity are curable if taken in time and treated as this one was, is too preposterous to be refuted; while the claims ascribed to one of the physicians, that the microscope is to be displaced by the advanced methods of "psychopathic" hospitals, are too crude for serious consideration. The glaring headlines announcing a "reversal" of the treatment of the insane, and a possible abolition of the asylums, are an affront to public intelligence, and can only do mischief by tending to increase popular prejudice against some of our most important public charities. The physicians involved, it is to be hoped, will purge themselves of this contempt of professional opinion.

Collaboration-Books.—In our issue of June 10, we spoke of some of the dangers and disadvantages of composite books, having in mind those of the large systems of many bulky volumes, appearing one after another, and requiring a number of years before the completion of the set. There are, of course, correspondingly great advantages in the properly edited single volume composite-books, in which, as we said, "the work of individual authors is wrought over, supplemented, and rendered organically unitary with the rest by the dominating control of the responsible chief editor." One of these advantages lies in the perfection of specialist-work. Science has become such a vast aggregation of facts and experience even in a specialty of medicine that we are fast approaching the time when the masters can only be specialists of a specialty. Thus the best exposition of such a subspecialty can only be made by a person who has given long attention to it. Another advantage is that a composite-book by a number of authors may be issued in a shorter time, the results and opinions chronicled being more promptly brought down to date, than if one or a fewer number of authors worked a longer time upon it. The often exemplified danger of lack of a harmonious view and oversight of the whole by a weak and a careless chief editor remains. To this attention has been called. On the other hand we must not forget that the work of a single author treating many subjects may be narrow, inaccurate, prejudiced, and lack precisely the unity, the large outlook and clear overlook gained by the composite work of a number of authors, in proper subordination and with free control by a chief editor. American editors and publishers have excelled those of other nations in attaining the proper balance between the extreme of the huge heterogeneous undigested masses of dumped together multivolume knowledge by one or two hundred independent authors, and the myopia of books by a single author.

We hope that our writers and publishers will continue to hold this literary and bibliographic preeminence. But it cannot be done, we think, if we do not renounce both the helter-skelter of the interminable "system" and the individualistic narrowness of the monograph.

It can be done by choosing the good things of each—the fulness of knowledge and experience of the specialists unified and mutually completing each other, through the domination and completeness of control of the chief editor. Individual writers must be willing to subordinate their single work to the perfection of the whole, and the editor in charge must not shrink from demanding such subordination and unity. In this way our medical editors and publishers can retain their present superiority in the art of scientific book-making.

The Exhibit.—We alluded some weeks since to complaints of unjust treatment by some of the exhibitors at medical society gatherings. The note was written because of several letters sent us, some concerning far-away States and meetings, but none referred to the Pennsylvania State Medical Society, concerning which no criticism in this respect has reached us. We are sorry some members of the local society should have supposed the reference was to it. We are, indeed, assured that it is wholly blameless in such matters. Even so small a misunderstanding seems worthy of, "I beg your pardon!"

Extirpation of the Lacrimal Sac and Gland.—C. R. Holmes (*Arch. of Ophthal.*, No. 1, 1899), does not advocate this operation in every case and is conservative in his tendency. He, however, believes it should be resorted to when milder means have failed to accomplish their object in a reasonable time. The first duty is not to increase the inflammation by probing, lacerating, or bruising a delicate and inflamed membrane. Antiphlogistic and antiseptic treatment should first be tried, including the neighboring cavities. If, however, after careful and prolonged treatment, no permanent relief is obtained, then he believes we are justified in an operation which will safely, quickly, and permanently relieve the patient of any annoying epiphora, generally associated with painful, recurrent, inflammatory attacks of purulent dacryocystitis. Such processes are always a menace to the safety of the eye should an avenue for the infection be created either by accidental injury of the cornea, or by a necessity arising for surgical treatment of the eye. The author believes that, with strict attention to asepsis, the dangers from infection can be entirely eliminated, and the results both immediate and remote are so satisfactory that he believes the operation is indicated as follows: (1) In cases where operation on the globe is indicated, as for cataract or glaucoma; (2) in patients who cannot devote the time or who may be unable to endure treatment by probing; (3) in all cases where conservative treatment has failed to cure within a reasonable time. [C.L.L.]

Effect of Cold on Microorganismal Life.—Ravenel (*Medical News*, June 10, 1899) has taken various forms of microorganisms, such as anthrax spores dried on silk threads, recently grown cultures of diphtheria on blood-serum, and cultures of the typhoid-fever bacillus, and the bacillus prodigiosus (the three latter organisms were also placed on silk threads before exposure, some of the threads being allowed to remain moist), and exposed them to liquid air, which has a temperature of 312° F. below zero. The time of exposure varied from one minute to three hours for the anthrax spores, and for briefer maximum periods for the other microorganisms. In no case were the bacteria killed, and Ravenel believes that cold cannot be relied upon as a disinfectant. [J.S.]

Correspondence.

MALARIA OR DENGUE?

By WILLIAM T. B. HARLAND,

Late Major and Surgeon First Regiment, Pennsylvania Volunteers.

To the Editor of The Philadelphia Medical Journal :—

Sir :—In reply to an editorial in the Journal for June 17, 1899, will you allow me to suggest that the disease prevalent in the southern camps during the Spanish War, often diagnosed as malaria, was really dengue fever. Let me quote from a paper I have just written : "As soon as the rains began (July 5), the fever, new to us, began to spread rapidly, taking men in such order as to rule out the idea of contagion. It was an infectious disease, with an incubation-period of a day or so. It began suddenly with chills and intense occipital headache; pains in the bones and muscles; high fever (105° to 106°); mild delirium, insomnia, restlessness, and nightmares; occasionally there were petechiæ and blotchings of the skin. These for three or four days, then a rapid decline of the fever. After a few days more, *sometimes* symptoms of catarrhal jaundice would appear. The acute symptoms were over in a week, leaving the patients much prostrated and unnerved. The disease was never fatal. The rapid decline of the fever, the absence of the usual intestinal symptoms, of the usual characteristic stools, spots, and facies, the tendency of the disease to recur—all precluded the idea of typhoid in typical cases. There were undoubtedly cases of mixed infection, the typhoid appearing later. Quinin did no good. Acetanilid, camphor, and caffein, in combination, formed the best remedy for the pain and headache. Sponging for the hyperpyrexia. Stimulants were indicated from the beginning. The fever was undoubtedly the dengue." At Camp Thomas, Ga., Colonel Hoff told me that examinations of the blood had shown the plasmodium in comparatively few of the cases examined. I believe that the Widal test was negative as well. Men camped near the creek were the only ones liable to malaria. There *were* cases of malaria, cases of dengue, and, I doubt not, of typhus and cerebrospinal meningitis—of typhoid, too. When *typical* typhoid did appear, it was promptly recognized as such. We were on the lookout for it, because we knew that it would surely come.

THE ROLE OF INSECTS IN THE PROPAGATION OF DISEASE.

By CHARLES F. CRAIG,

Acting Asst. Surgeon, U. S. Army.

To the Editor of The Philadelphia Medical Journal :—

I have been much interested in reading in your issue of June 10, 1899, the researches by Prof. Coplin on the "Propagation of Diseases by Means of Insects," especially as it shows the large amount of work which has been done upon a subject which I believe I was one of the first to call general attention to, in an article in the *New York Medical Journal* for March 19, 1898, and April 2, 1898, and again in the same publication on October 22, 1898. In reference to the methods of propagation, Prof. Coplin refers to Joly's division under two heads, *i. e.*, (1) passive, the insect simply acting as a carrier of the infection, and (2) active, the insect inserting the poison through a wound made by it. In my paper of March 19, 1898, in writing upon the methods of propagation, I deduced from the experiments of others and my own the following: It may be said, then, that insects may transmit disease in the following ways: (1) by transporting the cause upon their bodies and infecting whatever they alight upon; (2) by inoculating the disease-producing organism in biting or stinging; (3) by means of their excreta; (4) by serving as an intermediate host for the development of the life-cycle of certain disease-producing organisms.

The above classification seems more complete than is Joly's, and each method has the benefit of experimental evidence. There can be no doubt that the subject of the transmission of disease by insects is a most important one and well deserving of the most thorough and patient investigation.

Bacteriological Laboratory, the Josiah Simpson
General Hospital, near Fort Monroe, Va.

DR. W. M. HAFFKINE ON PREVENTIVE INOCULATION AT THE ROYAL SOCIETY.

To the Editor of The Philadelphia Medical Journal :—

Monsieur Haffkine has done a remarkable work in India. For nearly 6 years he has been engaged in research duty by the government of India, and has instituted methods of preventive inoculation against the plague and against cholera. Whether these methods have a strict scientific basis has been questioned, but if figures can be trusted they have positive protective virtues. This, however, is not the truly remarkable part of his work; but to have, in a few years, overcome the deeply ingrained prejudices of the natives, to have so impressed them with faith that whole villages and districts voluntarily present themselves, is a triumph which has, as Lord Lister well remarked, a wider interest than is at first apparent.

As he appeared at the meeting Dr. Haffkine made a most favorable impression. Russian by birth (born in Odessa, 1860) and French in education, in the scientific part, at least, he made a good reputation as a bacteriologist while assistant in Pasteur's Laboratory. Without notes or manuscript, in admirable English (though with a decided accent), and in a modest, simple way he told a tale such as the founder of the society, Robert Boyle, would have loved to hear.

He first dealt briefly with the categories of epidemic diseases, dividing them into such as are caused by microbes capable of a parasitic life only, and those caused by microbes capable of both a parasitic and a saprophytic life. The above classification affects the epidemiologic features of a disease and the measures likely to influence its propagation. In the first category the epidemics can be dealt with by general measures, in the by plans of individual protection.

With reference to the anticholera inoculation, which is done with cholera microbes, the results of observations, so far collected, are as follows :

a. The inoculation produces an effect within 4 days.

b. During these 4 days a difference in susceptibility shows itself in favor of the inoculated.

c. After the expiration of the 4 days and during a period of at least 14 months a high degree of resistance to attack is observed in the inoculated.

d. The case-mortality (*i. e.*, the proportion of deaths to cases) is not influenced by the inoculation.

In the case of the anticholera inoculations the living virus is employed, and this makes it necessary to fix the pathogenic power of the microbe before it is introduced into the system.

Speaking of the results which Dr. Haffkine regarded as in all respects most encouraging, I was surprised to hear him say that after all in India the problem of typhoid fever was the most serious, particularly for the Europeans. Cholera was an ephemeral disease and very dependent on locality; typhoid fever was much more persistent and stuck to a region with great tenacity, recurring year by year. It had even been found necessary to abandon a barracks.

The chief interest of his lecture related to the antiplague inoculations. Here the microbe is killed before being injected and the amount of matter introduced is measured beforehand. Professor Wright, of the Army Medical School (a member of the plague commission), who has just returned from India, criticised in the discussion this aspect of Haffkine's work as not of sufficient scientific accuracy, while he bore willing testimony to its general efficacy.

An analysis was given of the results obtained in the first set of inoculations at the Byculla House of Correction; 154 of the inmates were inoculated and 183 were not and the virulence of the disease as well as the case-mortality was influenced in a marked degree in the former. Other equally satisfactory groups of cases in institutions and villages were narrated, the conditions of the two sets of individuals being absolutely the same. The striking results influenced the officials so that the government established a laboratory for the manufacture of the plague prophylactic. As I mentioned, the animosity of the natives has been completely disarmed and they are not only willing to submit, but they actually pay a small fee for the operation. Surgeon-General Harvey, who has also just returned from India, and who had himself submitted to the inoculation, spoke of the confidence which the profession had in the method. The difficulty arose from the countless thousands of persons to be given treatment. At present the government laboratory is able to provide material for only 10,000 inoculations daily, and there were 300,000,000 prospective victims. W. O.

London, June 9, 1899.

Syphilis of the Liver.—J. G. Adami (*Montreal Medical Journal*, April, 1899) speaks of the following features as characterizing syphilitic manifestations in the infant liver. There may be either granulomatous deposits or interstitial fibroid changes. The specific granulomata may be present either in the form of minute miliary gummas or of isolated larger gummas, such as in general are recorded as being of a tertiary nature. It is not possible to regard one form as secondary and the other as tertiary, for either may coexist with cutaneous disturbances of the secondary type. The interstitial fibroid changes so common in infantile syphilis appears to be secondary to degeneration and necrosis of the hepatic parenchyma induced by the action of the toxins of the syphilitic virus upon the liver-cells. All evidence points to the fact that in the adult as well as in the infant liver gummatous development may occur at any period after the disease has become generalized. There may be large well-formed gummas, miliary gummas, jaundice and acute parenchymatous hepatitis or syphilitic cirrhosis. In the adult syphilitic liver there may be development of tumor-like outgrowths so sharply defined and so large as not infrequently to lead to the false diagnosis of malignancy. Microscopically these present a layer of liver-tissue infiltrated by collections of small cells enclosing a dense mass of fibrous tissue with more or less evidence of gummatous degeneration. There is a predominance of generalized fibrosis in congenital syphilis, of focal granulomatous changes in the syphilis of adults. The explanation of this difference seems to be that the young liver-cells are less resistant to the injuries inflicted by toxic substances, they degenerate and the fibrosis is largely of the replacement type. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

By the will of the late Mary L. Baldwin, $5,000 each is willed to the Pennsylvania, Presbyterian, and Children's Hospitals, Philadelphia.

By the will of the late Charlotte Bostwick, $15,000 is devised to the Germantown Dispensary and Hospital, to be added to the endowment fund of the institution.

The Board of Health of Carlisle, Pa., has been organized as follows: Dr. Leroy Merriman, Dr. J. C. Groome, J. M. Goodyear, C. D. Marquette, and Reuben Seiler.

Medical Society of Delaware.—At the annual meeting held June 13, the following officers were elected: President, Dr. O. D. Robinson, of Georgetown; vice-presidents, Dr. W. H. Hancker, of Farnhurst, and Dr. J. W. Clifton, of Smyrna; secretary, Dr. John Palmer, Jr., of Wilmington; assistant secretary, Dr. William P. Orr, of Lewes; treasurer, Dr. William C. Pierce, of Wilmington.

College of Physicians of Philadelphia.—Among the gifts to the library during the past month was one consisting of 576 volumes presented by Mrs. Smith in the name of her husband the late Dr. Albert H. Smith.

During the meetings of the American Gynecological Society and the American Dermatological Association recently in Philadelphia, there were two very interesting bibliographic exhibits in the library rooms. The one illustrated the progress in gynecologic literature from the time of Albertus Magnus, 1473, to the present, and the other the progress in dermatologic literature from the time of Hafenreffer, 1630, to the present.

Vital Statistics of Philadelphia for the week ending June 17, 1899:—

Total mortality		423
Children under 5 years of age		124
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis		51
Heart-disease 34, inflammation of the heart 3, fatty degeneration of the heart 1, neuralgia of the heart 1		39
Pneumonia 27, congestion of the lungs 2		29
Gastroenteritis 15, cholera infantum 11, cholera morbus 1		27
Marasmus 16, inanition 9, debility 1		26
Nephritis 17, uremia 7		24
Apoplexy 15, paralysis 4, softening of the brain 3		22
Inflammation of the brain 17, congestion of the brain 3		20
Diphtheria 17, membranous croup 2	88	19
Senility		19
Convulsions 17, epilepsy 1		18
Carcinoma 32, tumor 3, sarcoma 1		16
Typhoid fever	62	12
Sunstroke		12
Scarlet fever	37	3
Cerebrospinal meningitis	4	3
Smallpox	17	
Casualties 7, pleuritis 6, teething 6, aneurysm of the aorta 4, bronchitis 4, septicemia 4, pertussis 4, atheroma 3, cyanosis 3, diabetes 3, suicide 3, burns and scalds 2, cirrhosis of the liver 2, drowned 2, dysentery 2, erysipelas 2, inflammation of the liver 2, appendicitis 2, intussusception 2, intestinal obstruction 2, rheumatism 2, unknown (coroner's cases) 2, abscess 1, alcoholism 1, dropsy 1, fatty degeneration of the liver 1, cystitis 1, laryngitis 1, locomotor ataxia 1, poisoning 1, syphilis 1, tetanus 1.		

The William F. Jenks Memorial Prize of the College of Physicians of Philadelphia.—The fifth triennial prize of $500, under the deed of trust of Mrs. William F. Jenks, will be awarded to the author of the best essay on **The various manifestations of lithemia in infancy and childhood, with the etiology and treatment.** The conditions annexed by the founder of this prize are, that the "prize or award must always be for some subject connected with obstetrics, or the diseases of women, or the diseases of children;" and that "the trustees under, this deed for the time being, can, in their discretion, publish the successful essay, or any paper written upon any subject for which they may offer a reward, provided the income in their hands may, in their judgment, be sufficient for that purpose, and the essay or paper be considered by them worthy of publication. If published, the distribution of said essay shall be entirely under the control of said trustees. In case they do not publish the said essay or paper, it shall be the property of the College of Physicians of Philadelphia." The prize is open for competition to the whole world, but the essay must be the production of a single person. The essay, which must be written in the English language, or, if in a foreign language, accompanied by an English translation, must be sent to the College of Physicians of Philadelphia, Pennsylvania, U. S. A., before January 1, 1901, addressed to Richard C. Norris, M.D., Chairman of the William F. Jenks Prize Committee. Each essay must be typewritten, distinguished by a motto, and accompanied by a sealed envelope bearing the same motto and containing the name and address of the writer. No envelope will be opened except that which accompanies the successful essay. The committee will return the unsuccessful essays if reclaimed by their respective writers, or their agents, within one year. The committee reserves the right not to make an award if no essay submitted is considered worthy of the prize.

University of Pennsylvania.—The week from June 9 to 15 was devoted to commencement exercises of the various departments. On June 9 the graduation exercises of the Zelosophic Society were held. On Sunday, June 11, a graduation sermon to the graduates of the various departments was delivered in Holy Trinity Church by Rev. Floyd W. Tompkins, D.D. Monday, June 12, was known as class day. The class-day exercises of the graduating class of the College were held in the Chestnut Street Opera House; the ivy-planting exercises were held on the College Campus, and the senior promenade in Houston Hall. Tuesday, June 13, was alumni day. The annual meeting of the General Alumni Society was held in Houston Hall, and luncheon for the alumni of all departments was served in the dining-hall. The decennial reunion and banquet of the class of 1889, College, was held in the evening at the University Club. On Wednesday, June 14, the unveiling of the statue of Benjamin Franklin, presented by Mr. Justus C. Strawbridge to the city of Philadelphia, under the auspices of the University, took place. The oration was delivered by James M. Beck, Esq. In the evening the annual banquet of the Society of the Alumni of the Department of Medicine and of the Department of Dentistry were held. Prior to the banquet the annual meeting of the Alumni of the Department of Medicine was held, and the following officers elected:

President, Dr. Meredith Clymer; vice-presidents, Drs. John H. Packard, James Tyson, S. D. Risley and Charles K. Mills; secretary and treasurer, Dr. S. W. Wadsworth; executive committee, Drs. Horace Y. Evans, John Ashhurst, Jr., R. A. Cleeman, Samuel S. Stryker, De Forrest Willard, Roland G. Curtin, W. Barton Hopkins, Charles W. Dulles, John H. Musser, Thomas R. Neilson, Judson Daland, Harry H. Whitcomb, William J. Taylor, David B. Birney, B. Franklin Stahl, J. Allison Scott, Joseph Sailer, Charles H. Frazier, Joseph T. Buxton, Breese M. Dickinson, William F. Keim.

About 100 members of the society attended the annual banquet, among those present being Dr. Thomas Dunn English, of the class of '39, and famous as the author of "Ben Bolt." Dr. English was among the speakers. Dr. Richard A. Cleeman presided, and the toasts were as follows: "The University," Provost Harrison; "The Trustees," Dr. J. M. DaCosta; "The Jefferson College," Dr. J. Chalmers DaCosta; "The Medico-Chirurgical College," Dr. W. L. Rodman; "The Medical Department," Dr. Horatio C. Wood; "The Dental Department," Dr. Edwin T. Darby; "The Clergy," the Rev. Floyd W. Tompkins.

A pleasant feature of the evening was Dr. Cleeman's reading of a poem by Dr. S. Weir Mitchell.

Thursday, June 15, was commencement day. The 143d annual commencement was held, degrees conferred in arts, science, music, laws, philosophy, medicine, dental surgery, and in veterinary medicine. After prayer by Rev. Joseph May, LL.D., the audience joined in singing the "University Hymn," written by Dr. Thomas Wistar, of the class of '63, medical. The oration was delivered by Hampton L. Carson, Esq. In all, there were 624 graduates, of whom 211 were from the medical department. In addition, 7 honorary degrees were conferred. The annual exercises of the Phi Beta Kappa Society were held in Houston Hall. In the evening the decennial reunion and banquet of the class of '89, medical, were held in the University Club.

The committee having the matter in charge consisted of Drs. Wm. Campbell Posey, chairman; S. Stryker Kneass, Alfred Stengel, J. Alison Scott, John T. Carpenter, Jr. Fifty members of the class were present. The toasts were responded to as follows: "The University," Dr. Wm. Campbell Posey; "Our Specialists," Dr. Chas. N. Davis; "The Medical Faculty," Dr. Jos. McFarland; "The Class in Literature," Dr. J. Howe Adams; "The Army and the Navy," Dr. Edward R. Stitt; "The Rough Riders," Dr. Harry LaMotte; toastmaster, Dr. Alfred Stengel. An elaborate history of the class containing photographs of the University buildings and some of the older members of the Faculty, was presented to each participant. There was also the annual meeting and collation of the Society of the Alumni of the College Department.

NEW YORK.

Mt. Sinai Hospital, New York.—Drs. G. E. Brewer, A. A. Berg, A. V. Moscovitz, and Joseph Wiener, Jr., have been appointed adjunct attending surgeons.

The New York Medical Gymnastic and Massage Society, according to the *New York Medical Journal*, has been incorporated for the purpose of raising the standard of the practice of medical gymnastics and massage. Dr. H. C. Thompson is the president, and Dr. H. V. Barclay the secretary. There is an advisory board consisting of Dr. Thomas E. Satterthwaite, Dr. Andrew H. Smith, Dr. Leonard Weber, Dr. William T. Bull, Dr. George H. Woolsey, Dr. Henry L. Cochran, Dr. A. J. C. Skene, Dr. Clement Cleveland, Dr. T. Halstead Myers, Dr. Henry Ling Taylor, Dr. William M. Leszynsky, and Dr. Charles L. Dana.

Buffalo Academy of Medicine—Section on Surgery.—At a meeting held June 6, Dr. J. Henry Dowd read a paper upon **Cystitis,** in which he said that inflammatory conditions of the bladder cause the most suffering, and if chronic are the hardest to eradicate of any of the urinary apparatus; that the mucous membrane of the bladder would withstand more insults and injuries than that of any other in the body. He claims cystitis to be produced by microbic invasion only, and decries the flagrant violation of all aseptic rules in the treatment and investigation of both the urethra and the bladder. He described the various classes, the symptomatology, especially frequent urination, pain, blood, and pus. He doubts the value of separating the urine into portions, as posterior urethritis will permit pus to pass into the bladder and be caught in the last glass. In women the catheter must be used, as pus is so frequently present in the urine without coming from urinary tract. In speaking of bladder-capacity, he said it was always diminished in interstitial involvement and in tuberculous conditions never absent. He described the capacity to be measured by the quantity of urine or unirritating solution which it will hold without producing a desire to urinate, and stated that the normal capacity averages but 8 ounces. He tabooes the use of the cystoscope as an aid to diagnosis. He says prognosis depends upon the cause, the age of the trouble, the care used in treatment, and the condition of the patient, while treatment must be along the lines of ascertaining and removing the cause if possible, rendering the urine unirritating, relieving the distressing symptoms and controling the inflammatory action by local and internal medication. Of local remedies he believes strongly in the efficacy of silver, and especially silver nitrate. In discussion, Dr. John Parmenter spoke of the immunity of the bladder, of the careless habits of the doctor in the use of sounds and catheters, and the infection often arising therefrom, of the necessity of disinfecting the penis, especially gland and corona, before the disinfection of the urethra is complete. In tuberculous infection he believes that the prognosis from operative interference would be good if the case could be diagnosed early enough. He believes silver nitrate leads in local treatment. Dr. C. P. Smith believes that the value of the cystoscope, urethroscope, and x-ray are much overestimated.

New York County Medical Association.—The last meeting for the season was held on Monday night at the Academy of Medicine, New York, the president, Dr. F. H. Wiggin, in the chair. There was a large attendance. Dr. L. W. Zwisohn presented a fetal specimen, which was passed round the meeting for inspection. Dr. Thos. F. Reilly read a paper entitled **Acute bronchitis—a symptom; its treatment from an etiological standard.** What is usually known as acute bronchitis, he showed was only the symptom of a disease of toxic origin; in dealing with it it was necessary to go to the root of the disease instead of relying on expectorants for the cure of the symptom. There was ground for hope in the possibility of an antitoxin or some analogous remedy being discovered some day. Meanwhile it was important to have repeated cleansing of the intestinal track, and pay attention to regulation of the digestive organs, all derangement of which had much to do with the disease.

Dr. Henry Mann Silver afterwards read a paper on **Nonmalignant strictures of the esophagus and their treatment.** He divided his subject into four heads: (1) Locating the stricture; (2) reaching the stricture; (3) dilating the stricture; (4) aftertreatment. The location of a stricture can be easily ascertained by x-rays or bougies, and the usual method of reaching it is by bougies and silken threads, by means of which an opening is gradually made to permit of the passing of nourishment. Dilation is effected by the passing of bougies of gradually increasing size. The aftertreatment consists in the passage of the largest size of bougie, and the patient should be encouraged to eat solid food to aid in keeping the passage open. Dr. Silver described in detail a case in which a child was kept alive for 6 months and ultimately cured by the process he recommended. The discussion on the paper was opened by Dr. Geo. Woolsey, who spoke principally of the instruments that are most suitable for retrograde dilatation. He was followed by Dr. Willy Meyer, who discussed the question of gastrostomy in connection with the dilatation of the lower third of the esophagus; Dr. Joseph D. Bryan devoted his attention to external esophagotomy in connection with the treatment of strictures low down; Dr. Robert Abbe described different methods of dividing strictures of the lower third of the esophagus.

Several other members made remarks, after which the reader of the paper made a bibliography.

A number of new members were added to the roll.

Buffalo Academy of Medicine.—At the annual meeting, June 13, 1899, the following officers were elected and installed: Matthew D. Mann, president; Dr. Thomas F. Dwyer, secretary; Dr. Eugene A. Smith, treasurer; Dr. S. Y. Howell, trustee.

Dr. Roswell Park, the retiring president, read a paper entitled **History of organotherapy,** wherein he referred to the studies of Hoff, and called attention to the possible relation of the present elegant pharmaceutic preparations to the crude use of various parts of animal bodies from prehistoric times, and to the influence of prevalent superstitions and popular notions as well as definite laboratory and experimental investigations. He referred to the use of the viscera, secretions, and excretions of animals as shown in ancient Egyptian papyri; to the writings of Hippocrates, which contain many medical fantasies; to those of Erasistratus and of Archigenes, but he especially referred to the great trust of both the Plinys in this sort of medicine, and quoted from Pliny the statement that the Romans deserved great credit for stopping the practice of even murdering men in order to secure from their bodies something which could be used as a remedy. He stated that blood was then supposed to have much the same virtue as now, being regarded by Pliny as the most valuable of remedies from the animal kingdom, that the taking of a boiled mouse was sufficient cure for nocturnal incontinence; while the bodies of swallows were good for sore throats. Arabian physicians and those of the middle ages followed the teachings of Aristotle and Pliny, as shown by Conrad's "Book of Nature," which exerted large influence during two or three centuries, and which was a compilation from Pliny. Even Paracelsus could not quite get away from this class of remedies. He showed how Brown-Sequard's testicular fluid had nothing of novelty in its introduction, as the sexual organs had occupied an important place in public esteem as a means of rejuvenation during the middle ages, and De Salmon, in 1684, in the "New London Dispensatory," stated that the external genitals of certain animals were good for sterility and various sexual weaknesses. In 1702 Florinus published a work in which various parts of nearly all the animals of Germany, as well as portions of the human body, were highly recommended. In 1714, and again in 1844, a work by Paullini was published in which scatology was given much importance. Dr. Park referred to the revolting features of isopathy, and to the existence today of a dealer in these remedies, as shown by a published price-list, which includes pus from a carbuncle, blood from a menstruating woman, etc. He then took up the recent scientific researches and experiments in the use of animal extracts, referring to de Cyon's paper on iodothyrin and the thyroid; to Hauszel's paper on its use in struma, and to the contradictory reports upon its use in ophthalmic goiter, skin diseases, cretinism, myxedema, obesity, myomata, and delayed bony union. He referred to Fraczewski's studies in ablation of the thyroid, and to Monk's writings on the subject of the function of the thyroid; to ovarian extracts in neurasthenia, amenorrhea, chlorosis, irritable bladder, and in the treatment of disturbances following both natural and the artificial menopause; to the preparations of the digestive ferments, the extracts of the pancreas, and to the researches of H. Mackenzie, McNamara, Watson, Williams, Gaube, Hugoneny, and Doyon; to preparations from the heart and the writings of Duimus thereon; to extracts of the spinal cord and brain; to bone marrow, the spleen, the adrenals. He called attention to the studies of Senator, Maukowski, Fuerth, and Bates upon the adrenals, and the remarkable properties of weak extracts in preventing death from lethal doses of chloroform, by injection into the veins. In his own experience he has found it to markedly increase blood pressure and to be notably astringent, the effect upon exposed mucous membranes to be almost instantaneous. He then referred to the many other preparations from the various organs and systems and apparatuses of the animal body now upon the market in liquid and dry form, all of which are vaunted by the maker and the physician user as remedies for all diseases; the advocates have gone wild in their enthusiasm and the pendulum has swung too far, but it will eventually seek a place of rest, when it will probably be found that certain animal extractives have inherent properties of no small value.

Medical Society of the County of Erie, New York, June 13, 1899, President Dr. J. B. Coakley, of Buffalo, in the chair. Under scientific contributions Dr. Thomas F. Dwyer read a paper entitled **Eclampsia infantum,** in which he reviewed the literature of the anatomic source of convulsions generally, and stated that we are still in the dark as to the immediate processes producing convulsions, but that of the predisposing causes we are not so ignorant. He then hastily presented many of the exciting causes of convulsion in childhood, laying much stress upon the inherited reflex excitability of the nervous system as shown in many families, and the large preponderance of gastrointestinal disturbances, reported as 80%. He then gave a concise and graphic description of the symptoms accompanying an attack; discussed the dearth of pathologic findings in many cases, and the gravity of the prognosis in the very young. In the treatment of the convulsion he uses heat, chloroform, and subsequently the bromids and possibly chloral. He, of course, attacks the cause, if ascertainable, by appropriate methods.

Dr. Mary Clayton read a paper on **A study of the pathogenesis of gout,** in which she stated that almost all observers agree that gout is due to a vice of metabolism associated with an excess of uric acid in the blood, but "the rest is theory, awaiting confirmation or refutation." The nervous theory was discussed and the following points urged as favorable to its acceptance: the sudden onset of the attack of acute gout preceded by a feeling of well-being in the patient; the explosive neurosis; the influence of depressing circumstances, physical or mental, upon the disease, and the relation of gout to diabetes. Haig's book was severely criticised for the prominence given to personal sensations, for conclusions based on insufficient premises, and for the inaccurate test used for uric acid.

The work of Luff was regarded as condensed and systematic, his theory well marked out from the standpoint of theoretic chemistry. The views of these two authors were contrasted as giving different aspects of the subject.

Dr. Marshall Clinton presented a paper upon **The importance of early diagnosis and surgical interference in fractures of the skull.**

Dr. George A. Himmelsbach read a paper entitled **Malaria complicating the puerperium,** in which he spoke of its frequency and of the importance of differentiating it from septic infection of the parturient canal; too often women are unnecessarily subjected to intrauterine cleansing disturbing an endometrium in the process of resolution and opening up avenues for infection. He believes that women having a previous history of malaria have increased susceptibility to the disease and a proneness to have a paroxysm occur following confinement. He reviewed the histories of four cases occurring in his practice, in which the malarial attack followed closely after labor and simulated septic infection, which were controled by the exhibition of quinin in large doses. He believes that a favorable prognosis depends upon a correct interpretation of the symptoms and an early recognition of the disease; therapeutics properly directed mitigating the symptoms at once.

Dr. J. J. Finnerty read a paper upon **eye injuries,** which consisted of clinical reports.

Dr. L. Schroeter presented a paper, entitled **Prophylaxis in obstetrics,** in which he said that, through the application of prophylaxis, the mortality of parturients in hospitals had decreased 200 to 300 times, the average in lying-in hospitals being 0.05%, while in private practice this progress did not keep up to the same standard, the average being 1%; in Buffalo, for the last 5 years, according to his investigations, it was 0.54%. The most important preventive measure—asepsis—is not applied so thoroughly in private practice, nor can it be, as it is in modern hospitals; especially is the asepsis of the parturient neglected; puerperal fever is responsible for about 75% of all deaths in labor (in Buffalo, during the last five years, it equaled 60%). Of the other prophylactic measures, some can be applied by individual efforts, others belong to the domain of the State or municipality. To the first class belong: examination of urine during pregnancy, care of the urinary bladder during labor, watching the uterus during and at least one hour after the 3d stage, supporting the perineum, care of the newborn's eyes, aseptic tying of the cord, etc.; besides, there are some more important prophylactic measures: early examination of the pregnant for the possibility of complications, as tumors, etc.; perimetry; induction of premature labor (or producing abortion) if indicated, Walcher's method. By practising the last-named preventive methods, many dangerous operations at term would be avoided, as operative labors give a mortality 10 to 30 times greater than nonoperative, not to speak of the appalling number of diseases arising in consequence of unnecessary and injudicious obstetric operations, and the high mortality of the children during the first few days, as a result of interference. He believes it the duty of the State to introduce obstetric prophylaxis on a broader basis, in view of the following facts: that the birth-rate in the United States has decreased since 1880, dropping from 30.95 to 23.69; the records of New York City show that the number of still-births (8%) is nearly 3 times greater than in Berlin (3%). In Buffalo, during the last five years, the number of still-births was 2,207 (5.25%); the number of premature births, 686 (4%).

Some of the reforms could be introduced by the State, even now, as they have been practised in other other countries for a long time, *i. e.*, strict supervision of midwives, since, in New York City, nearly 50% of labor-cases are attended by them; in Buffalo, according to his investigations, out of 7,853 labors in 1898, 3,578, or 40.46%, were treated by midwives; the provisioning for proper obstetrical education for students by directing all poor cases into the lying-in hospitals connected with colleges; then there should be settled the question as to the eligibility to marriage of tuberculous, syphilitic, epileptic individuals, etc., etc.

Last, but not least, every measure directed towards the improvement of the economic status of the laboring classes will, directly or indirectly, lead towards diminishing the deaths, and increasing the birth-rate. He quoted Barnes, showing that since the introduction of the Factory Laws in England, limiting the age at which girls can be employed in factories, the number of deformed pelves decreased materially.

NEW ENGLAND.

Tufts College Medical School, Boston.—Dr. John A. Tenney has resigned the chair of ophthalmology.

Maine Medical Association.—The 47th annual meeting was held in Bangor, June 7, 8, and 9. In addition to an interesting scientific program, Dr. Maurice H. Richardson, of Boston, gave the annual address on "Acute abdominal symptoms requiring immediate surgical intervention." Dr. C. O. Hunt, of Portland, presided, and the secretaries of the sections were Dr. Charles D. Smith, of Portland, and Dr. Hannibal Hamlin, of Orono.

Blood-examination in Diphtheria not Significant.—Dr. John Lovett Morse has examined the blood in many cases of diphtheria, and it will interest busy practitioners to know that the result is negative. His conclusion is: The examination of the blood in diphtheria is of no practical clinical importance in diagnosis, prognosis, or treatment. It affords no information which cannot be obtained more easily and more quickly in other ways.

Telephone Microbes Harmless.—Dr. Hibbert W. Hill, bacteriologist to the Boston Board of Health, has concluded his experiments regarding the microorganisms found in telephone transmitters. Cultures were taken from 10 telephones in the business section of the city, and subjected to the usual incubation and microscopic examination. The washings of the swabs were injected in guineapigs, and three months later they were killed and examined for tuberculosis. No lesions were found. Two telephones yielded nothing; six showed nothing but the hay-bacillus, and of the two remaining one produced a large harmless cocci, and the other a short beaded bacillus, also harmless. He concludes: "Practically, then, the telephone transmitter cannot be considered a usual or dangerous source of disease, but at the same time its possible action as an occasional medium for the carriage of disease must be admitted." He recommends the regular cleansing and disinfection of public telephones, as desirable at least from an esthetic point of view, and suggests the washing of the transmitter with a 1% solution of formalin or a 5% solution of carbolic acid after each service.

Thurber Medical Association, Milford, Mass.—At a meeting held June 1, Dr. John S. Flagg of the College of Physicians and Surgeons, Boston, addressed the members on **A branch of medicine—dentistry, or oral medicine and surgery—neglected by physicians.** He held that dentistry should be considered a special branch of medicine, all dentists should be first physicians, and all physicians should be thoroughly instructed in oral medicine and surgery. He narrated a number of cases from his own experience showing the close relation between the two. He favored one board of registration for all physicians, including dentists, and advocated the granting of degrees by the State Board instead of by the medical colleges.

By the will of the late Robert C. Billings, of Boston, the following bequests are made: $100,000 each to Harvard College, the Massachusetts Institute of Technology (with $50,000 added to found the Billings Student Fund), and the Museum of Fine Arts; $50,000 each to the Massachusetts General Hospital, New England Hospital for Women and Children, Children's Hospital, Massachusetts Eye and Ear Infirmary; $25,000 to Perkins Institute for the Blind, the American Unitarian Association, the Boston Young Men's Christian Union, Home for Aged Men, the Hampton Institute, Hampton, Va.; $10,000 to the Tuskegee (Ala.) Normal School; $5,000 to Atlanta University; $10,000 each to 16 public and charitable institutions in and around Boston, and numerous other sums of $2,500 or over to various bodies.

Weight of the Normal Heart.—Examinations of 216 cases that came to autopsy at the Boston City Hospital were made by Dr. Horace D. Arnold, to ascertain the weight of the normal heart. The results are given in the private hospital reports. His scheme was to consider all cases when the heart was apparently normal, and in which neither disease of the heart, kidneys, or bloodvessels existed; to see whether other diseases than these had any effect on the heart-weight; to see what other conditions may affect the heart-weight, and to learn the weight of the normal heart. His conclusions, in brief, are as follows: (1) The heart is affected in weight by comparatively slight influences provided they are persistent; (2) the heart in males is heavier than in females; (3) the heart-weight varies with age, showing a steady increase up to maturity. After that the female heart somewhat diminishes, while the male heart continues to increase; reason for this difference not explained. In all cases over 40 years, the condition of the arteries with reference to arteriosclerosis and the elasticity of the walls need special consideration; (4) the heart is modified in general diseases, and is not independent of them; (5) in large, well-developed, and well-nourished people the heart-weight is considerably above the average, while in poorly nourished and emaciated people it is decidedly below the average; (6) no definite relation is shown between body-length and heart-weight; (7) occupation influences the weight, varying with the amount of labor it involves; (8) the continued use of alcohol in large amounts seems to have some effect in increasing the heart-weight, but this effect is not always demonstrated; (9) the average weight of males is about 290 grams; females, 260. Normal variations, male, 250 to 325 grams; females, 225 to 300 grams.

Cantharides poisoning is unusual, and an interesting case is reported by Dr. Ralph E. Stevens, house-physician, Boston City Hospital, in the medical and surgical reports of the institution which came out last week. A salesman, 23 years old and married, took a half teaspoonful of powdered cantharides by mistake at 3.30 one afternoon, and was admitted to the hospital 3 hours later. His expression was then anxious; he was livid, frequently beating his chest and complaining of substernal pain. Lukewarm water was administered freely; vomiting was frequent, the vomitus containing mucus and streaks of blood. Swallowing caused intense pain along the esophagus and in the epigastrium. Half an hour after entering, he urinated for the first time, with burning pain in the urethra. Then began a picture that was terrible to behold. Dysuria was followed by strangury in its severest form. The next subjective symptom was cutting pains in the lumbar region. An hour after admission syncope occurred, lasting a few minutes. The patient became almost pulseless; extremities cold; cold, clammy perspiration, constant nausea, and frequent vomiting. He would jump out of bed, and attempt to urinate, perhaps passing in intense agony only a few drops of urine. The color of the urine was at first slightly smoky, but 12 hours after the poison was taken it was the color of bright arterial blood and remained so for 3 days, when it grew paler and in 12 days was normal. The amount showed 1700 cc. on the third day, a falling to 400 the sixth day, and a rise to 900 on the twelfth. The albumin was varied from 0.5% to 1% the first 24 hours, and after that not more than 0.25%, diminishing to slightest possible trace. The sediment showed few casts and they were from the tubules, pelvis, and bladder, showing acute congestion of the entire tract. The patient was treated by exciting emesis with copious draughts of warm water; put in hot tub bath, then to bed and surrounded with heaters. Mucilaginous drinks hourly; normal salt-solution per rectum; nutrient enemas for 3 days; then potassium acetate until cured. Observations differing from the literature on the subject were: (1) absence of suppression of urine; (2) there was no priapism, seminal emissions, or erotic excitement; (3) there were no signs of gangrene of the genitals; (4) absence of blood stools; (5) rapidity of onset and recovery from the poison; (6) thirst not a prominent symptom.

CHICAGO AND WESTERN STATES.

Chicago Pathological Society.—At the annual meeting held June 12, the following officers were elected: President, Dr. Ludwig Hekteon; vice-president, Dr. Emil Ries; secretary, Dr. George H. Weaver; treasurer, Dr. F. B. Earle.

College of Physicians and Surgeons, San Francisco, Cal.—The corner-stone of the new building was laid with appropriate ceremonies May 20, under the auspices of the Grand Lodge of Masons of California. Judge Angellotto, grand master, officiated and addresses were delivered by Hon. James G. Phelan, mayor of San Francisco, Judge R. B. Carpenter, and Hon. Julius Kahn.

Milwaukee (Wis.) Medical Society.—At a meeting held June 13, Prof. A. C. Klebs, of Chicago, read a paper entitled **Tuberculosis and its treatment.** The lecturer stated it as his opinion that by far the largest percentage of cases of tuberculous infection originated in the intestines, and that outbreaks in the lungs, bones and other tissues, were almost always secondary. He spoke of the satisfactory treatment of tuberculosis in sanitaria, and the necessity of dietetic, climatic, and hygienic management of the disease, but thinks that the correct solution of the problem lies in the specific treatment with antitoxins; moreover, the tuberculocidin of his own manufacture has given him by far greater success than any of the other tuberculins on the market. He summarized as follows: (1) Tuberculocidin is not so dangerous as tuberculin. (2) He has observed many cures in cases not too far advanced. (3) In their action on tuberculous tissues this product is destructive to the bacilli only, whereas the diseased tissue undergoes resolution. (4) In the administration of tuberculocidin it is of advantage (*a*) to begin treatment early; (*b*) to begin with small immunizing doses; (*c*) to repeat treatment annually for many years before recovery may be assured.

Dr. Carl Zimmermann read a paper on **Cholesteatoma of the ear.** He dwelt in part on theoretic questions and various operative procedures, and presented a patient upon whom he had performed the radical operation for the complete removal of a very extensive cholesteatomatous growth. The operation was eminently successful, and the patient's hearing is improved far beyond the acuity previously existing.

Cincinnati Academy of Medicine.—At a meeting held June 3, Dr. Leonard Freeman, of Denver, Colorado, reported a case of **cystinuria.**

The patient, a girl 19 years old, had suffered from pain in the right renal region from very early childhood. At the time of examination pain was present in the right loin; the kidney could not be definitely palpated. The urine decomposed quickly, yielding on decomposition a quantity of sulfureted hydrogen gas. Silver ornaments worn next to the skin quickly became discolored. The urine was loaded with cystin crystals which presented all the typical chemical and microscopic reactions. A few days after the examination the girl fell down a flight of stairs. Since that time (now 3 weeks ago) all the symptoms have disappeared. Pain is altogether absent. No cystin can be demonstrated in the urine, which still smells of sulfuretted hydrogen gas after decomposing.

The future history of the case will be watched with great interest.

Dr. Freiberg reported a case of **cystin stone** occurring in the practice of Dr. Rausohoff.

A young man of 18 years had all the typical symptoms of vesical calculus. The urine was loaded with cystin crystals. A typical lithotomy was made and a pure cystin stone, nearly an inch in length, was removed.

Dr. F. O. Marsh, in a paper entitled **Random observations,** detailed a series of observations and experiments leading to the conclusion that **heat is actually generated at the site of an acute inflammation.** He also reported a case of **perforation of a typhoid ulcer** treated with enormous doses of morphin. The patient one evening received 3 grains of morphin hypodermically at one dose. The daily average was 4 grains. The patient died on the 10th day, of exhaustion.

SOUTHERN STATES.

The Louisville Medical Monthly has been sold by Dr. Sam. Cochran to Dr. Henry E. Tuley, formerly associate editor of the *Quarterly Journal of Rectal and Gastrointestinal Diseases*, who will in future supervise its editorial management. We wish success to Dr. Tuley.

Johns Hopkins University.—Dr. J. Whitridge Williams, associate professor of obstetrics, has been appointed to the full professorship; Dr. L. F. Barker, associate professor of anatomy, has been appointed associate professor of pathology; Dr. R. G. Harrison has been appointed associate professor of anatomy.

Ordinance Prohibiting Expectoration in Public.—A commission composed of the heads of several of the departments of the government of the city of Norfolk, Va., was recently organized for the purpose of framing such sanitary ordinances as might be deemed essential for the public health. The commission a few days ago completed its work, and among the recommendations to city councils is an ordinance prohibiting expectoration on the sidewalks, in public halls, street cars, reception rooms, etc. Infraction of the ordinance is punishable by a fine of from $1 to $5. It is hoped that the ordinance will meet with favorable consideration from councils.

Woman's Medical College of Baltimore, Md.—The faculty has elected Dr. Claribel Cone, president; Dr. Joseph T. Smith, secretary, and Dr. Herbert Harlan, treasurer of the faculty. Miss Jennie Browne was elected adjunct professor of physiology; Dr. A. C. Harrison, professor of physical diagnosis and clinical medicine, and Dr. Flora Pollack, associate professor in obstetrics.

Memphis (Tenn.) Hospital Medical College.—According to the *Memphis Lancet*, Dr. T. J. Crofford was recently elected professor of gynecology, and Dr. E. P. Sale professor of materia medica and therapeutics, to succeed Drs. R. B. Maury and H. L. Williford, who declined a reelection. Dr. J. L. Minor was elected professor of physiology, to succeed Dr. Crofford.

CANADA.

McGill University, Montreal.—The annual convention of the medical faculty was held on June 16. Those who received the degree of M.D., C.M. were 64 in number. The Holmes gold medal for the highest standing in the four years was taken by A. H. Gordon, of St. John, New Brunswick.

The dean, Dr. Robert Craik, in his address referred happily to the success of the past session. The total number of students registered in the faculty was 447. As an evidence of the growth of the faculty Dr. Craik stated that extensive additions to the already large buildings had been determined upon. A generous donation from David Morrice, Esq., of $3,000 and $700 annually, was also announced for the maintenance of the department of pharmacology. In the department of pathology two research fellowships of the value of $500 annually had been founded by the corporation and faculty. The need of a new maternity clinic and a hospital for infectious diseases under control of the English population was also dwelt upon.

The address to the graduates was given by Dr. T. G. Roddick, M.P., who in the course of his address referred to the efforts which were now being put forth for the reciprocal registration of medical degrees throughout the British Empire.

A pleasing feature to the function was the conferring of the **degree of LL.D.,** honoris causa, upon Mr. Rudyard Kipling, the eminent litterateur. Owing to his recent illness, Mr. Kipling was unable to be present. It is noteworthy that this is the first distinction of this kind that Mr. Kipling has received from a university.

Dr. J. G. Adami, professor of pathology, received the ad eundem degrees of master of arts and doctor of medicine.

Dr. T. G. Roddick has returned from an extended tour in British Columbia, Manitoba, and the Northwest, where he has been in the interests of interprovincial reciprocity. As already explained in these columns, owing to provincial laws, a graduate in medicine of one province is unable to practise his profession throughout Canada without passing various licensing boards. A scheme is now propounded to create a Dominion Medical Council, whose license would be valid throughout the Dominion. Dr. Roddick reports the pleasing fact that all the provinces of Canada are now pledged to bring about this much-to-be-desired consummation. It is thought that the final steps will be settled at the next meeting of the Canadian Medical Association, prior to introducing legislation.

The regular meeting of the **Lister Laboratory Club** was held in the Molen Pathological Institute of McGill University, Montreal, on May 22, Dr. C. F. Martin in the chair. Dr. J. G. Adami read a short paper embodying his investigations upon the variability of the colon-bacillus. He referred to the ubiquitousness of this organism, and gave in detail his now well-known observations on its presence in the liver in cases of atrophic cirrhosis. He showed that the fully-developed bacilli were really made up of a number of individuals grouped in pairs, or at least aggregations of nuclear protoplasm.

Dr. F. G. Finley recorded a case of pneumothorax in which the gas was produced apparently by the B. coli and the B. proteus. In this case there was a subdiaphragmatic abscess.

Dr. W. S. Morrow gave an interesting account of his work upon the "Propagation of the Venous Pulse." The experiments were conducted upon anesthetized dogs. The results showed a deficient rate of propagation with a characteristic wave-curve as registered by the graphic method.

Dr. A. G. Nicholls showed photographs and specimens of a case of perithelial angiosarcoma of the pituitary body. In this case there was headache, bitemporal hemianopsia, optic atrophy, and death. There was hypoplasia of the genitalia, granular kidneys, but no akromegaly. Dr. Nicholls pointed out the fact that there was a curious relationship between defects in the development of the genitals and disease of the pituitary body. This relationship he had noted frequently in looking through the literature of the recorded cases. In the case in point the patient was a female, aged 35, who had only menstruated once at the age of 12, and never since. She was well developed except that the pubic hair was scanty, the uterus infantile, and the ovaries small and unscarred. Pechkranz had recently published a case in a young man in whom the external genitals were quite small.

MISCELLANY.

Obituary.—Dr. William J. Scott, Philadelphia, June 17, aged 32 years.—Dr. Albert L. Calder, Providence, R. I., May 24, aged 74 years.—Dr. James M. Showerman, Buffalo, N. Y., aged 60 years.

An important correction should be made concerning the resolutions reported by the Executive Committee at the last meeting of the American Medical Association in reference to the Army Medical Service. The appeal was to Congress, not to the President of the United States, and the committee to be appointed by the president of the association (from each State, Territory, etc., and from the Army, Navy, and Marine-hospital Service) was instructed to wait upon Congress and not upon the President of the United States.

American Electro-Therapeutic Association.—The ninth annual meeting will be held in Washington, D. C., on September 19, 20, and 21, 1899, under the presidency of Dr. F. B. Bishop, of Washington. Quite a number of papers of great scientific value have been promised, and the Committee of Arrangements insures the members a very entertaining and pleasurable meeting. Aside from the sessions of the association, the committee has completed arrangements for a trip to Mt. Vernon, one to Arlington, and several other social features. The headquarters of the association will be at Willard's Hotel, where special rates will be given to members and their families during the meeting.

The American Proctologic Society.—A new national medical association, to be known as The American Proctologic Society, was organized June 7, 1899, at the Chittenden Hotel, Columbus, O., during the meeting of the American Medical Association. The society is formed for the study of the diseases of the rectum, and its membership is composed of prominent rectal specialists of the leading cities in the United States. The following officers were elected: President, Dr. Joseph M. Mathews, Louisville, Ky., the retiring president of the American Medical Association; vice-president, Dr. James P. Tuttle, New York City; secretary-treasurer, Dr. William H. Beach, Pittsburg, Pa.; board of counsellors: Dr. Samuel T. Earle, Baltimore, Md.; Dr. A. Bennett Cooke, Nashville, Tenn.; Dr. J. Royal Pennington, Chicago, Ill. A demonstration was made by Dr. T. C. Martin, of Cleveland, at St. Anthony's Hospital, showing the newer methods of inspection of the rectum. Dr. Samuel T. Earle, of Baltimore, conducted a clinic demonstrating a new operation for removal of hemorrhoids. The association organized with these charter members: Dr. Joseph M. Mathews, Louisville; Dr. Joseph B. Bacon, Chicago; Dr. Leon Straus, St. Louis; Dr. B. Merrill Ricketts, Cincinnati; Dr. Thomas Charles Martin, Cleveland; Dr. S. G. Gant, Kansas City; Dr. J. Royal Pennington, Chicago; Dr. James P. Tuttle, New York City; Dr. Samuel T. Earle, Baltimore; Dr. Lewis H. Adler, Jr., Philadelphia; Dr. Charles C. Allison, Omaha; Dr. A. Bennett Cooke, Nashville; Dr. George J. Cook, Indianapolis; Dr. George B. Evans, Dayton, O.; Dr. William H. Beach, Pittsburg.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, plague, and leprosy have been reported to the Surgeon-General of the U. S. Marine-Hospital Service during the week ended June 17, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
California:	Los Angeles	May 27–June 3	1	1
District of Columbia:	Washington	May 27–June 10	2	
Florida:	Jacksonville	June 3–10	5	
Illinois:	Chicago	June 3–10	1	
Indiana:	Evansville	June 3–10	3	
Kansas:	Emporia	May 24–31	6	
"	Morton Co.	May 1–31	12	3
Kentucky:	Louisville	June 3–10	5	
Louisiana:	Baton Rouge	May 20–27	1	
"	New Orleans	May 27–June 10	5	
Massachus'ts:	Boston	June 3–10	2	1
"	Chelsea	June 11	3	
"	Fall River	From outbreak to June 13	32	
Minnesota:	Albany	June 3	4	
"	Inver Grove	June 3	1	
"	Minneapolis	June 3	2	
"	St. Paul	June 3	1	
Missouri:	St. Louis	June 5–12	5	
Nebraska:	Omaha	May 27–June 3	1	
New York:	New York	June 3–10		3
Ohio:	Massillon	May 27–June 3	1	
Oregon:	Portland	June 13	1	
Pennsylv'nia:	Pittsburg	June 3–10	1	
Virginia:	Danville	June 7–14	19	
"	Newport News	June 8–13	none	
"	Norfolk	June 8–14	1	
"	Portsmouth	June 8–14	none	
Washington:	Seattle	May 26–June 2	1	
Wisconsin:	Milwaukee	June 3–10	2	

SMALLPOX—FOREIGN.

Africa:	Sierra Leone	May 4	40	
Belgium:	Antwerp	May 20–27	2	4
Brazil:	Bahia	May 1–20	3	
"	Rio de Janeiro	April 21–May 5	26	19
China:	Hong Kong	April 22–May 6	5	4
Egypt:	Cairo	May 20		5
England:	London	May 13–27		2
Greece:	Athens	May 20–27	21	6
India:	Bombay	April 29–May 16		12
"	Calcutta	April 29–May 6		2
"	Madras	May 6–12		1
Japan:	Magasaki	May 9–16	1	
Mexico:	Chihuahua	May 27–June 3		1
"	Mexico	May 28–June 4	6	3
Netherlands:	Rotterdam	May 27–June 3	1	

			Cases.	Deaths.
Russia:	Moscow	May 6-20	41	10
"	Odessa	May 20-27	7	2
"	St. Petersburg .	May 13-20	11	1
Turkey:	Syria, Beirut .	May 6-13	2	
Uruguay:	Montevideo . .	April 22-29	1	
		Yellow Fever—United States.		
Louisiana:	New Orleans . .	May 27-June 3 . .	1	1
		Yellow Fever—Foreign.		
Brazil:	Bahia	April 30-May 20 .	218	65
"	Rio de Janeiro .	April 21-May 5 . .	93	59
Columbia:	Panama	April 26-June 3 .	4	1
Mexico:	Tampico	June 4	1	
"	Vera Cruz . . .	May 25-June 8 . .		132
		Cholera.		
India:	Bombay	May 2-16		6
"	Calcutta	April 29-May 6 . .		23
		Plague.		
China:	Hong Kong . .	April 29-May 6 . .	98	86
India:	Bombay	May 2-16		614
"	Calcutta	April 29-May 6 . .		85
Japan:	Formosa, Tamsui	March 29-April 12,	476	353

One case of leprosy at Matanzas, Cuba, June 6.

Changes in the U. S. Marine-Hospital Service,

for the seven days ended June 15, 1899:

Murray, R. D., surgeon, so much of Bureau letter of May 15, 1899, directing Surgeon Murray to transfer property in his charge to Passed Assistant Surgeon W. J. S. Stewart, revoked and directed to defer departure to Key West, Fla., until the arrival of Surgeon W. P. McIntosh. June 12.

Carter, H. R., surgeon, to report at Washington, D. C., for special temporary duty. June 13.

Banks, C. E., surgeon, to proceed to New York, N. Y., for special temporary duty. June 9.

Peckham, C. T., surgeon, to proceed to Sabine Pass, Tex., for special temporary duty. June 13.

Brooks, S. D., surgeon, granted leave of absence for 14 days. June 12.

Brooks, S. D., upon expiration of the leave of absence granted by Bureau telegram of June 12, 1899, to proceed to Portland, Me., and assume command of the Service. June 12.

McIntosh, W. P., surgeon, upon being relieved from duty at Louisville, Ky., to proceed to Mobile, Ala., and assume command of the Service. June 12.

Wertenbaker, C. P., passed assistant surgeon, granted leave of absence for six days. June 9.

Stewart, W. J. S., passed assistant surgeon, Bureau letter of May 15, 1899, directing Passed Assistant Surgeon Stewart to assume command of the Service at Mobile, Ala., revoked. June 14.

Greene, J. B., assistant surgeon, relieved from duty at San Francisco, Cal.. and directed to proceed to Boston, Mass., and report to medical officer in command for duty and assignment to quarters. June 12.

McMullen, John, assistant surgeon, upon being relieved of temporary command of the service at Portland, Me., to proceed to Louisville, Ky., and assume command of the Service. June 12.

Robinson, D. E., assistant surgeon, granted leave of absence for 3 days (paragraph 181, Regulations, M. H. S.). June 9.

Ulrich, C. E., acting assistant surgeon, granted leave of absence for 26 days from June 5, 1899. June 5.

Peck, F. H., hospital steward, Bureau letter of March 15, 1899, directing Hospital Steward Peck to proceed to the Tortugas Quarantine Station for duty, revoked. June 12.

Ryder, L. W., hospital steward, granted leave of absence for 14 days from June 16, 1899. June 14.

Carlton, C. G., hospital steward, relieved from duty at Egmont Key (Fla.) Detention Camp and directed to proceed to New Orleans, La., and report to the medical officer in command for duty and assignment to quarters. June 12.

Beck, J. E., hospital steward, relieved from duty at New Orleans, La., and directed to proceed to Mobile, Ala., and report to the medical officer in command at that port for duty and assignment to quarters. June 12.

APPOINTMENTS.

Finley, W. J., of Georgia, appointed acting assistant surgeon, U. S. Marine Hospital Service, for duty at the Savannah (Ga.) Quarantine Station. June 14.

Lippitt, W. H., of North Carolina, appointed acting assistant surgeon, U. S. Marine Hospital Service, for duty at Wilmington, N. C. June 14.

BOARDS CONVENED.

Board convened to meet at the U. S. Marine Hospital, Stapleton, Staten Island, N. Y., at 10 o'clock A.M., Tuesday, June 13, 1899, for the physical examination of an applicant for appointment as Third Lieutenant in the Revenue Cutter Service. Detail for the Board: Surgeon W. G. Stoner, Chairman; Assistant Surgeon W. C. Hobdy, Recorder. June 10.

Board convened to meet at New York, N. Y., at 10 o'clock A.M., on Tuesday, June 27, 1899, for the purpose of examining candidates for appointment as Assistant Surgeon in the Service. Detail for the Board: Surgeon G. W. Stoner, Chairman; Surgeon C. E. Banks, Surgeon L. L. Williams, Recorder. June 14.

Changes in the Medical Corps of the U. S. Navy,

for the week ending June 17, 1899:

Guest, M. S., passed assistant surgeon, detached from the "Detroit," June 20, and ordered home to wait orders.

Braisted, W. C., passed assistant surgeon, ordered to the "Detroit," June 20.

Magruder, A. F., surgeon, granted leave for 4 months, with permission to leave the United States.

Gatewood, J. D., surgeon, from the Bureau of Medicine and Surgery and ordered to the "Lancaster," June 22.

Levering, P. A., surgeon, detached from the "Lancaster" June 22, and ordered home to wait orders.

Changes in the Medical Corps of the U. S. Army.

Balch, Major Lewis, surgeon, will proceed from Matanzas to Cardenas, Cuba, for the purpose of inspecting and reporting upon the buildings contemplated to be used for a military hospital.

Howard, Captain D. C., assistant surgeon, is detailed, in addition to his other duties, to make re-examination of recruits at Fort Wood, Bedloe's Island, until the arrival of a medical officer for the purpose.

Porter, First Lieutenant Alexander S., having been examined by a board of officers and found physically disqualified for the duties of assistant surgeon with the rank of captain, by reason of disability incident to the service, his retirement from active service as a captain is announced to date from June 8.

De Witt, Lieutenant-Colonel Calvin, deputy surgeon-general, is granted leave for one month from about June 15.

Mason, Captain Charles F., assistant surgeon, leave on surgeon's certificate granted is extended one month on surgeon's certificate of disability.

Polhemus, Captain Adrian S., assistant surgeon, is granted leave for three months on surgeon's certificate.

Schreiner, First Lieutenant Edward R., assistant surgeon, is relieved from duty at the camp of recruits at the Presidio, and will proceed to the Philippine Islands on the transport "Sheridan," to sail about the 22d inst.

McGloin, Patrick, hospital steward, will proceed to New York City, reporting to the commanding officer, U. S. Hospital Ship "Missouri," for duty.

Purviance, Captain William E., assistant surgeon, will report for duty to Major P. Henry Ray, Eighth Infantry, and accompany that officer to his station in Alaska.

Borden, Captain William C., assistant surgeon, is granted leave for two months from about July 1.

Foreign News and Notes.

GREAT BRITAIN.

The General Medical Council.—The summer session of the General Medical Council has proved an exceedingly important one. The debates have been well conducted upon subjects of great interest to the profession at large, who will probably realize upon reading the very full reports in the medical press, that the Council has the welfare of the rank and file of British medical men at heart, more really than its attitude towards memorials and petitions from that rank and file would seem to suggest.

The Congress of the Royal Institute of Public Health will be held in Blackpool, England, from September 21 to September 26, under the presidency of the Marquis of Lorne. There will be four Sections: (*a*) Preventive Medicine and Vital Statistics; (*b*) Chemistry and Meteorology; (*c*) Engineering and Building Construction; (*d*) Municipal and Parliamentary. Conferences will also take place of medical officers of health, veterinary surgeons, sanitary inspectors, and port sanitary authorities, and a conference of ladies on domestic hygiene.

The Metropolitan Hospital Sunday Fund for 1899 has made an excellent start, owing to the generosity of Mr. George Herring, a well-known racing man, who has given the princely sum of £10,000, the largest individual donation which has yet been received by the Fund. Mr. Herring is following in the steps of his late friend, the arch-millionaire, Baron Hirsch, who, on several occasions, distributed among the London hospitals all his turf-winnings. The authorities in charge of the collection and dispensation of the Fund are particularly anxious that the subscriptions this year should amount to £50,000, as that addition to their coffers would enable them to announce that the total sum received since the institution of the charity in 1873 is one million sterling. But every effort will have to be made by those interested in the Fund, if this result is to be secured, for the average receipts of the Fund per annum are only £40,000. Perhaps, Mr. Herring's donation will just fill the great gap.

Inoculation for Enteric Fever in the British Army.—The British War Office has decided that soldiers proceeding to military stations abroad where enteric fever is rife shall be given the opportunity of the process of inoculation against the disease, which has been revived by Professor A. E. Wright, the professor of pathology at the Netley Military Hospital. Professor Wright, as the result of some experiments, considers that such inoculations exercise a protective influence against the disease; considering the terrible scourge which enteric fevers is known to be to the young soldiers of all armies serving in hot climates, he will, undoubtedly, have rendered humanity great service if his views prove to be correct. At the present time many people consider the experiments too small in number and inconclusive in result to warrant very sanguine expectations being based upon them. Still, they have received official endorsement to the extent we have indicated.

A debate upon a report made by|the Examinations Committee of the Council upon examinational tests of the **Apothecaries Hall of Ireland** elicited the fact that during the past fifteen months the Council had spent £307 10s. 8d. in investigating the examinations conducted by this body, while at one of these tests only one candidate presented himself! As a matter of fact this corporation is suspected of being a back-door into the British medical profession, so that while few men use it, it is none the less imperative upon the Council to keep a keen eye upon the tests of knowledge demanded before its diploma can be obtained. This unsatisfactory state of affairs, some people think, may end in the disqualification of the Apothecaries Hall of Ireland as a diploma-granting body. That there would be considerable opposition, both national and sentimental, to this reform is undoubted, but the fact that the candidates for the diploma have become very rare, furnishes the sound, practical argument for those who advocate the change that the students of the country do not appear to require the diploma, and that it is consequently absurd to maintain expensive machinery in connection with granting it.

A committee of the Council appointed to consider the present strained relations between **the medical profession and the friendly societies**—many of which bodies are believed to sweat their medical officers mercilessly—presented a recommendation that a board of conciliation should be formed consisting of representatives of the friendly societies and of the medical profession, to whom the various vexed questions should be submitted. The following motion was adopted by the Council:—

"That the Council approve of the recommendation of the committee in favor of the formation of a board of conciliation, to consist of representatives of the friendly societies and of the medical profession, provided it is understood that having regard to the statutory responsibilities of the Council it is inexpedient that it should take part officially in the formation of the board."

From this it will be seen that the Council register an academic desire to see every one happy, but do not consider it incumbent upon them to take any steps themselves towards healing the breach between the friendly societies and the medical profession. Their action will find favor with the general practitioner of the kingdom, who cannot see how the people who sweat him and combine to undersell him and degrade his calling can possibly be his friend, however much they may protest amity upon boards of conciliation. That the Council are aware of the existence of this feeling is shown by their adoption at a subsequent debate of the following resolution:—

"That this Council regards it as unprofessional to hold the appointment of medical officer to any associations which systematically practise canvassing and advertising for the purpose of procuring patients."

This resolution makes it unprofessional for a British medical man to be officer to many of the best-known medical aid associations, who will probably now proceed either to amend their ways or conceal their proceedings.

The Centenary of the Royal Institution was recently celebrated in London under circumstances that befitted an event of great national importance. The Royal Institution has fulfilled a most worthy and admirable function in serving as a connecting link between the people and the profound scientific thinker and investigator. It was when a professor at the Royal Institution that Sir Humphrey Davy made his memorable experiments which culminated in the isolation of the metals of the alkalies and alkaline earths by the galvanic current. It was at the Royal Institution that Michael Faraday, whose labors within its walls extended over fifty years, performed those wizard's feats which to-day find illustration in the dynamo upon which we depend for the production of electric light. The best work of that most learned and resourceful physicist, John Tyndall, was done at the Royal Institution; while Prof. Dewar's sensational results in the liquefaction of gases and the exploits in atmospheric analysis of Professors Ramsay and Lord Rayleigh have had their popular exposition in the same building. In 1896 the Royal Institution received a very large sum of money from Mr. Ludwig Mond, which was expended in the permanent endowment of the Davy-Faraday Research Laboratory, so that the present band of workers are able to pursue their studies in a more favorable environment than their distinguished predecessors. More, doubtless, is demanded of them by the people, who have come to regard the Institution as a place where the highest scientific knowledge in its practical bearings and applications is always placed at their services, but they will have to accomplish big things to bring the record of the future at the Institution up to that of the past. The Prince of Wales presided over the centenary banquet, which was held at the Merchant Tailors' Hall on June 5, and during the following days commemoration lectures were delivered by Lord Rayleigh and Prof. Dewar, while the Lord Mayor held a well-attended reception of scientific men from all parts of the world.

The election of Dr. W. S. Church as President of the Royal College of Physicians, of London, leads to a vacancy in the Council, for this popular physician is the representative of Oxford University upon the Council, but is resigning his seat because of other responsibilities. **Oxford Uni-**

versity has selected in his place Dr. J. F. Payne, a learned pathologist and dermatologist and one of the physicians to St. Thomas' Hospital.

CONTINENTAL EUROPE.

University of Bahia.—Dr. Joaquim Matheus dos Santos has been appointed professor of hygiene.

University of Padua.—Dr. Achille De Giovanni, the illustrious professor of clinical medicine, has been elected "rector magnificus."

Faculty of Medicine of Toulouse.—Dr. Audry has been appointed clinical professor of dermatology and syphilography; Dr. Guiraud, professor of hygiene, and Dr. Lamic, professor of natural history.

Epidemic of Lead-poisoning.—There occurred recently, in the Quartier de Monceau (Paris), 66 cases of acute lead-poisoning—the result of eating bread from a neighboring bakery. The baker had used for fuel wood that had been painted.

A monument to the memory of von Helmholtz was unveiled in the court-yard of the University of Berlin, June 6. A distinguished company graced the occasion, and the rector magnificus, Professor Waldeyer, delivered an address. The monument is by Herter.

Another Cure for Tuberculosis.—At a recent meeting of the faculty of the School of Medicine of Paris, Dr. Armand Gautier, professor of chemistry, announced the successful employment of injections of solutions of sodium cacodylate in the treatment of tuberculosis.

A New Hospital in Holland.—It is reported that Frank H. Cooper, a Chicago merchant, has announced his intention of building a great hospital in the little Holland town of Frise, in which he was born. It will be a retreat for the sick and helpless, and will cost in the neighborhood of $200,000. Mr. Cooper will leave for The Hague within a fortnight to complete arrangements for the erection of the hospital.

Proposed Removal of the Parisian Hospitals.—Great influence is being brought to bear upon the municipal authorities, to induce them to sell the grounds and buildings now occupied by the hospitals, and move these institutions outside the city walls, leaving nothing but emergency stations. The total value of the ground now occupied by the hospitals amounts to 166,000,000 f. The most valuable piece of land is that of the "Hôtel Dieu," 200f per square meter.

French Medical Congress.—The fifth French Congress of Medicine will be held this year at Lille under the presidency of Professor Grasset, of Montpellier. The formal opening of the congress will take place on Friday, July 28. The following are the questions proposed for discussion: (1) The Forms of Myocarditis (to be introduced by Professor Renant, of Lyons, and Professor Huchard, of Paris); (2) Adenitis and Leukemia (to be introduced by Professor Denys, of Louvain, and Professor Sabrazès, of Bordeaux); (3) The Establishment of Tolerance in regard to Drugs (to be introduced by Professor Simon, of Nancy, and Professor Heymans, of Ghent).

International Congress of Medical Examiners of Life Insurance Companies.—Reference has already been made in these columns to this congress, to be held in Brussels, September 25 to 28. The following are the questions proposed for discussion: (1) The admissibility of syphilitics, to be introduced by Dr. Bayet; (2) Traumatic Neuroses, by Dr. Crocq; (3) Alcoholism from a life-assurance point of view, by Dr. De Boeck; (4) Certain skin affections considered from a life-assurance point of view, by Dr. Dubois-Havenith; (5) Anthropometry in relation to life assurance, by Dr. Houzé; (6) The admissibility of glycosurics, by Dr. Le Bœuf; (7) Radiography in regard to life assurance, by Drs. Maffei and Hannecart; (8) Neurasthenics who may be accepted and those who may not, by Dr. Mahillon; (9) Tuberculous heredity from a life-assurance point of view, by Dr. Meyer, of Metz; (10) The examination of the heart for insurance purposes, by Dr. Moritz, of St. Petersburg; (11) The utility of a universal pharmacopeia, by Dr. Poëls; (12) Medical statistics, by Dr. Thompson, of London, Dr. Poëls, and others; (13) Medical secrecy and assurance companies, by Dr. Van Geuns, of Amsterdam; (14) The early diagnosis of general paralysis, by Dr. R. Verhoogen; (15) The continuity of morbid conditions throughout life, by Dr. Verriest; (16) Fraud in regard to life assurance, by Dr. Weill-Mantou, of Paris; (17) The admissibility of albuminurics, by Dr. Wybauw. All communications should be addressed to Dr. Poëls, 2 Rue Marie-Thérèse, Brussels.

MISCELLANY.

Obituary.—Dr. Eduardo M. Perez, professor of forensic medicine in the Faculty of Medicine of Buenos Ayres, aged 47 years.—Dr. Barbara Alexandrowna Kaschewarowa Rudnewam, the first woman who was admitted to the Medico-Chirurgical Academy of St. Petersburg, where she graduated in medicine with distinction in 1868.

The Vallauri Prizes.—According to the *British Medical Journal*, Professor Tommaso Vallauri, Senator of the Kingdom of Italy, who died in 1897, leaving no natural heirs, bequeathed his whole estate to the Royal Academy of Sciences of Turin for the foundation of two prizes to be awarded every four years for the encouragement of scientific research and the study of Latin literature. In fulfilment of the terms of the bequest, the society announces that it has decided that one prize of 30,000 lire (£1,200) will be awarded to the scientific investigator, Italian or foreign, who, within the period of four years from January 1, 1899, to December 31, 1902, shall be considered to have published the most noteworthy work on any of the physical sciences, taking that term in the widest sense. A prize of equal value will be awarded to the author, Italian or foreign, of the best critical work on Latin literature which shall have appeared between January 1, 1903, and December 31, 1906. The only persons excluded from competition are Italian Fellows of the Royal Academy of Sciences of Turin. The president of the Academy is Professor Guiseppe Carle; the secretary of the Section of Physical Science, Professor A. Naccari; and the secretary of the Section of Moral, Historical, and Philological Science, Professor C. Nani.

Salol Tribromid.—Villon (*Semaine médicale*, March 20, 1899) has employed this drug as a hypnotic in 25 insane patients. It proved of no value in the insomnia of hysteria, melancholia, and great nervous excitement, but in certain chronic affections, such as paretic dementia, with periodic excitement, 30 grains at bedtime often produced sleep, or at least a marked calmative effect. When used alternately in equal amount with potassium bromid, the writer found salol tribromid superior to the latter.

Society Reports.

[From our Special Correspondents.]

AMERICAN ACADEMY OF MEDICINE.

Twenty-fourth Annual Meeting, held at Columbus, Ohio, June 3 and 5, 1899.

(Continued from page 1341.)

A paper by Dr. R. H. Babcock, of Chicago, on **Medical advertising,** was read by Dr. A. Craig, of Columbia, Pa. All methods by which a physician advertises himself to the public are unethical. Various methods are enumerated which according to this principle are either ethical or quackish. The forces bringing about advertising are, broadly speaking, competition; competition due to the ever widening distance between capital and labor, in consequence of which young men seek to enter independent lines of work, such as the medical profession. Medical colleges are also responsible by offering too great inducements to the study of medicine. Specialism tends to bring about unethical advertising, the tendency of which is toward a degrading commercialism. The remedy lies in a restricted and higher medical education on the one hand and on the other in the enlightenment of the people. It is the plain duty of the Academy to form the vanguard of this movement.

Advertising in the medical profession was the title of a paper by Dr. C. T. McClintock, of Detroit, who dealt with advertising in the profession only. In no business, certainly in no profession, are the people so incapable of choosing the good from the poor as in the choice of a physician, as is evidenced by the success of the medical pretenders. Many physicians are giving more time and thought to the securing of patients, advertising, if you choose, than to the study of their profession. Many young fellows are rusting in medicine because their time is taken up in advertising, lecturing in medical colleges, attending medical societies, not to learn, but to become known. There are prominent men who mail 5,000 reprints of their papers. Others scatter broadcast illustrated papers showing the "before and after taking" of orthopedic surgery. These are reputable men, college men, prominent men in the profession. Probably the most skilful advertisers are the college professors, working on the students for patients in after years. The sanitariums are probably the worst offenders in such advertising. The people see nowhere a distinct line separating the reputable and the disreputable physicians. It is more than doubtful if the young practitioner, well qualified, who locates in our larger cities,would ever meet with reasonable success if he stuck literally to the spirit and letter of the code. Higher education will not solve this difficulty. With every increase in the requirements for the practice of medicine there goes an increase in the number of medical students. The best that can be hoped for is that the profession may assist the people in choosing their physician so that the most deserving shall receive their dues.

Dr. A. Ravogli, of Cincinnati, read a paper on **The ethics of advertising in reference to the medical profession,** urging the enforcement of the code of ethics against any advertisement, showing that the advertisement is not only useless, but is injurious to the name of the physician.

A paper on **What will be the future policy of the medical profession with regard to medical advertising?** by Dr. E. Stuver, of Fort Collins, Col.,was read by Dr. Makuen, of Philadelphia. All physicians, from the most eminent to the most obscure, should be accorded equal advertising privileges. Professional advertising should be limited to the insertion of plain cards in the local papers or a sign pointing out the location and office hours of the physician. All local notices in which the name of the physician is mentioned in connection with the treatment of cases or the performance of operations should be absolutely interdicted. The public should be educated to regard active participation in promoting the organization of the medical profession and assisting to build up and strengthen medical societies as a criterion of greater professional eminence and distinction than mere local notoriety.

Some effects of the present methods of advertising upon medical literature was read by Dr. J. A. Lichty, of Clifton Springs, N. Y., who said in part: Editors of medical journals, willing to give information, affirm that a constant censorship is required to keep their columns free from attempts at advertising. Evidence from the character of medical literature itself is that it is unstable and short-lived. It often gives clinical history which is distorted to agree with theories not founded upon facts. The present high degree of specialism causes many physicians to use medical journals for the purpose of making themselves known to the profession and the laity. Manufacturers of proprietary remedies give inducements to physicians to advertise their medicines through articles in medical journals. Publishers are issuing systems of medical books, compiled by physicians who have ulterior motives. The popularization of medical science by placing pseudo-scientific books before the public has been so successful in advertising the authors that medical books of very inferior grade are continually appearing.

What benefits do the laity derive from honorable and efficient physicians abstaining from ordinary advertising, and how can they be helped to appreciate them better? was the title of a paper read by Dr. A. Goldspohn, of Chicago. Advertising is legitimate and harmless when the parties to whom the advertisements are directed are able to judge of the real merits of the things or consideration advertised, as the public can determine the value of merchandise before investing in it. This is not the case with medical service nor medical remedies. When the laity choose medical advisers whom they or their acquaintances do not know by actual experience to be well qualified, but do so merely upon an advertisement, they are liable to be deceived in two different directions: (1) that their ailment is represented as worse than it really is, so that the so-called doctor will derive undeserved credit; (2) in regard to the choice of remedies they will frequently trifle with important matters pertaining to their health and life, and sometimes sin away the day of grace by experimenting with remedies that are inert or harmful. By abstaining from advertising the creditable physician makes it easy for the laity to recognize the charlatan who does advertise and to escape his frauds. The laity should be helped to understand why doctors do not advertise. All ethical physicians should permit their names to be entered only in medical directories that do not insert the names of any advertising medical outcasts.—Dr. L. R. Connor, of Detroit: From the papers that have been presented, it is evident that some advertising is essential. The question occurs, if there is good advertising, how shall we separate one from the other? I think there is one law by which every effort of the individual to make himself known to his fellows, whether to the laity or to the profession, may be fairly judged: (1) Does that effort benefit the one who makes it; (2) does it benefit the profession of which the individual is a part; and (3) does it benefit the laity toward which it is directed? An advertisement which fulfils these three requirements is a good advertisement and will promote the mutual good of all.—Dr. A. L. Benedict: It occurs to me that we have a right to whatever notoriety we can get spontaneously and without payment in the pursuit of any definite, honest, straightforward line of thought. In the matter of advertising which some men receive through journal articles, I think every one of us ought to take a stand that if an article is worth taking it is worth paying for. We will then shut off that large class of physicians who receive pay in the matter of seeing their names in print. —Dr. Craig: It seems to me from the papers we may gather that the interpretation is quite a factor in this matter of advertising. From my earliest recollection I recall lives of men whom I have been taught to revere who have always been controled in their personal conduct by a liberal, honest, manly rendition of the clauses contained in that code of ethics of which we should all be so proud. From these papers we may judge that this team has one leg over the traces, and we will be a poor driver if we allow it to get the other leg over; if we do not live up to what we have in this code of ethics. If it is ever my fortune to enter a special line of work by hard work and perseverance I feel that I need ask no man the privilege of stating that I can be a specialist. We young men ask your counsel, guidance, and help, and in that I believe lies the whole solution of the question.—Dr. T. B. Davis: Never send abroad your cards. I say it is quackery for a man to send cards abroad stating that he is devoting himself to that specialty. Why have I not as good reason for sending word about that I am devoting myself to general medicine. It seems to me that this is lowering the advertising ethics. If you write an article for a journal the public will soon see whether the article was written because you have found something advantageous to the profession; if so, you keep yourself back, and the article to the front. I believe that when a man becomes so proficient in one line that the profession forces him into that line there is no need of scattering his cards.—Dr. Rodgers, of Providence: There are two ways of looking at the subject: a practical and a moral side. We can lay all the stress we desire on the moral side and say there is no need of doing this or that; we can see no need of committing crime. The practical side says, How can this be combated? A number of months ago I undertook to investigate a few of the so-called newspaper-advertisements by writing personal letters to men whose names appeared. In one instance, in an Eastern paper, there was mention made of an operation upon a patient, saying that Dr. M——, a surgical expert in the city, undertook the case, which involved a tremendous risk and the necessity of extraordinary skill. He succeeded in removing seven inches of the spinal column. I asked the doctor if the advertisement had appeared with his consent. He replied that it decidedly had not, and wrote to the editor that if he had any further cases to report to come to him, as he had erroneously stated the facts of the case. The next issue of the paper said that Dr. M—— had the case in hand; that the operation did not mean a tremendous risk and did not require the exercise of extraordinary skill, and that the doctor was not equal to the emergency. Those who did not see the article the first time certainly did the second. The man was certainly honest.—Dr. L. Duncan Bulkley: I hope that there may be some formulation of our discussion on advertising which shall reach the general public and produce some interest which shall result in good. I would hope that since the Academy of Medicine has started the subject of medical advertising in criticism and discussion, and having shown many features of discredit to the medical profession, it would call the attention of the American Medical Association and request that it take steps toward the suppression of advertising as it exists to-day.

In the animated discussion that followed, among other pertinent remarks were: Dr. George M. Gould: In the Philadelphia Medical Journal of last week there was made this suggestion: That the association should appoint a committee, or at least an official and authoritative editor of the association, through whose hands shall go all of the matter that is officially recognized by the association as suited to appear in the daily or other lay papers. In this way we would not as an association reach the absolute interdiction of this disgrace and shame, but we would make it very clear that whatever does appear in the daily papers has either gone through this editorial official's hands and is therefore recognized as being fitted to go to the daily press, and stop the matter that they get direct from the author. It strikes me that this is one way of reaching the solution of this matter. Dr. A. Goldspohn: My object in writing my paper was to call the attention to the fact that the public undoubtedly thinks that the physician may advertise just as properly as the merchant, and if he does not that it is an evidence of lack of enterprise. It is well for us as physicians to bear this in mind and correct that impression when we have an opportunity.

What should be aimed at in a reorganization of the National Guard system as far as its medical department is concerned? was the subject of a paper by Dr. C. B. Nancrede, which was read by title. Dr. J. C. Wilson, of Philadelphia, made some **Remarks on hospital organization with special reference to continuous service,** in which he made the general proposition that continuous service possesses great advantages over the present method of rotation in service customary in this country.

Care of the Northern troops in the West Indian Islands. A paper by this title by Major George G. Gross, U. S. A., was read by Dr. Rogers. The lively interest manifested in the United States concerning these islands justifies this paper. While at one time in October, 1898, after active campaigning was all over, in Puerto Rico the sick-rate reached nearly 70%. At the present time not 7% of the troops in this island are invalided. The disease, which most prevailed during the campaign and for some time afterward were typhoid fever, diarrhea and various disturbances of the alimentary canal, dysentery and malaria. The fever for August and September was almost wholly typhoid, but about October 1 that of a malarial type began to prevail. There is no doubt but that the typhoid fever was imported by the troops, although the writer does not believe with the native physicians that this disease was unknown to the island before the advent of the Americans. The following are believed to have been the principal active causes in lowering the physical condition of the men: Exhaustion and enfeeblement from the conditions of camp-life in the States previous to coming to Puerto Rico. The extreme limit of endurance was reached in the practice marches; the overcrowding in tents making restful sleep impossible, sleeping on malarious ground, the repeated occupation (in at least one case three times) of the same camp sites, badly policed camps, extremely limited water-supply, so that there was little water for drinking and none for bathing purpose. The attempt to "toughen" the men in southern camps was a mistake. Life on the transports further lessened the resisting power of the men. Men and horses and mules were crowded together. The animals necessarily had the better ventilated portions of the vessel. Urine dropped upon the men day and night. The travel-ration could not be eaten by many. In Puerto Rico there was commonly enough food, but the ration was awfully unbalanced. The cooking was more than abominable. Still other causes of debility existed. The uniforms were too heavy. The direct causes of the sickness were the germs of typhoid fever imported from the States and the indigenous germs of malaria. It is believed by Dr. Gross that personal uncleanliness was a principal factor in spreading the disease, house-flies a second means. The lack of water in the northern camp was notorious. The strange mode of life, the heat, the dust, the perspiration, the crowding, soon made the recruits filthy beyond words to describe. How could it be otherwise with no water to cleanse? Further, in Puerto Rico there was scarcely any underclothing issued for three months, and when a patient came to a hospital commonly his clothing was only fit to be burned. At Coamo, P. R., on men comatose, or nearly so, lying uncovered, the flies were to be seen literally by the thousand. To one who saw them and all the conditions of the camp there could be no doubt that they were assisting in spreading the disease. In the selection and care of troops for the West Indies none but entirely sound men should be sent to these islands. No recruit under 21 years should be sent, and it would be better to make the minimum age 22 years. There should be no "toughening" the troops on Florida sandbanks or by forced marches under a Virginian or Georgian sun. The transport service must be improved. At once, on reaching the tropics, the men must be housed. The rations should be modified. Still further changes are needed in the uniform. Something lighter than the khaki uniform is needed for wear on marches and in the hottest weather. While it is true that the history of the Caucasian race in the West Indies is not encouraging, yet these islands produced a Hamilton and a Josephine. Bad laws and bad social conditions, rather than the climate, have probably defeated the ends of nature.

The newly elected president, Dr. G. Hudson Makuen, of Philadelphia, upon taking the chair, said: Mr. Hoar once said on the floor of the House of Representatives that he would rather be right than be President, and Mr. Reed retorted, "You will never be either." Now, I have always tried to be right, but I did not expect to be president, at least so early in my academic career. It has been said that the policy of the Council has been to surprise the men whom they nominated. I am sure that they succeeded in this instance, and I only fear that it has surprised the members of the Academy also. I would rather be right than be president, and I would rather be the kind of man that ought to hold this chair than to be president of any organization.

It was, on motion by Dr. Connor, resolved that since the Academy at this session has had under consideration two very important topics of medical sociology, that the discussion and papers should be crystallized into the fundamental principles that underlie them, and that Dr. G. Hudson Makuen, Dr. Edward Jackson, Dr. L. Duncan Bulkley, and Dr. J. C. Wilson, with the secretary, be a committee for the study and formulation of principles respecting specialism and advertising, to report early in the session next year.

The meeting closed with a vote of thanks to the management of the Chittenden Hotel and to Dr. and Mrs. Wilson, of Columbus, with the ladies who have assisted them in the courtesies, in season and out of season, with which they have endeavored to make the social features of the meeting a success.

[Specially reported for the Journal.]

AMERICAN DERMATOLOGICAL ASSOCIATION.

Twenty-third Annual Meeting, held May 30, 31, and June 1, at Philadelphia, Pa.

(Continued from page 1342.)

The second day's session opened with a general discussion on **the role of pus-organisms in diseases of the skin.** The referee, Dr. G. T. Elliott, of New York, reviewed the literature of the purulent dermatoses and their exciting organisms. The causes may be chemical, microbic, or unknown. Infection of the skin may take place from within through metastasis, or from without from bacterial entrance into the follicles of the skin. The staphyloccoci as saprophytes abound in the scales of the scalp, under the nails, around the genitals and perineum, etc. The literature of the subject presents the following observations: Abscesses of the skin and subcutaneous tissue are due to the staphylococcus pyogenes aureus or albus, or to the streptococcus pyogenes. Phlegmon has been shown in 10 out of 14 cases to be caused by the streptococcus pyogenes. Carbuncle is said by Unna to be due to a peculiar streptococcus. Experimental inoculation with the ordinary streptococcus has produced the disease. Furuncle has been proven to be due to the staphylococcus aureus. Impetigo vulgaris is claimed by Unna to be produced by an ochre-yellow coccus which he calls the impetigococcus. He distinguishes a number of different forms of impetigo. Folliculitis of lanugo hairs is ascribed by Wickham to the agency of the staphylococci.

Ecthyma is maintained to be due to the staphylococci. Acne vulgaris lesions are, according to the French writers, the result of the action of the staphylococci. Unna claims pathogenicity for his microbacillus. Periumbilical pemphigus is said to be caused by the staphylococcus aureus. Sabaroud ascribes pus-producing properties to a tinea found in horses. Evidences of metastasis are seen in furunculosis following certain forms of angina, influenza, etc. Furunculosis has been reported to have followed gonorrheal urethritis; gonococci were recovered from the pus of the furuncles. In concluding, Dr. Elliott remarked that the bacterial findings in purulent dermatoses are in many cases contradictory. Pyogenic cocci are not the only causes of suppuration. Many organisms not ordinarily pus-producers may become so under certain conditions. Beyond our knowledge of the bacteria causing the group of diseases which comprises abscess, furuncle, carbuncle, phlegmon, etc., the subject is unsettled.

The co-referee, Dr. T. C. Gilchrist, of Baltimore, presented the **results of bacteriologic examination of 300 vesicular and pustular affections of the skin, with some inoculation-experiments.**

Impetigo contagiosa; 17 cases examined. The streptococcus was found in every case; in 10 in pure culture; in others associated with staphylococcus pyogenes. The pseudodiphtheria bacillus was found in 2 cases. The results confirm those of Larue, who found streptococci in 220 out of 270 cases. The streptococci found are not so virulent as those in erysipelas: Inoculated mice die in a week or 10 days, and the organism can be recovered from the heart.

Tricophytosis; the ringworm-fungus is certainly capable of producing pus. After thorough antiseptic cleansing of the skin, Gilchrist scarified the arm of a subject and rubbed in a pure culture of the tricophyton megalosporon ectothrix. There developed in a few days an eczematous patch with small pustules at the sites of hair-follicles. Cultures made from these pustules gave a pure growth of the tricophyton fungus. This experiment was repeated, another subject being inoculated with a pure culture taken from the pustule. In 2 weeks there was formed a large eczematous-looking patch with surrounding pustules around the lanugo hairs. The hairs were found to contain the mycelia and spores of ringworm. A smear-slide from the pus failed to show micrococci. The evidence is conclusive that the tricophyton fungus may produce pus.

Furunculosis; 20 cases examined, staphylococcus aureus was present in every case. The organism appeared in the smear-preparation as a diplococcus.

Scabies; 9 cases examined; the pustules were in 4 cases due to the streptococcus, in 2 cases to mixed staphylococcus and streptococcus, in 2 cases to staphylococcus albus, and in 2 to staphylococcus aureus.

Superficial whitlow; from the vesicles there were found in 1 case streptococci, 1 case staphylococcus albus, and 1 case staphylococcus albus and aureus.

Sycosis; pustules showed staphylococcus aureus.

Syphilis; 9 cases examined; pustules showed streptococci and staphylococci.

Vesicles produced by carbolic acid and croton oil were sterile, as were also those in dermatitis venenata (11 cases), herpes zoster, pernio, and erythema multiforme.

Eczema; 28 lesions from 19 cases examined; in 4 cases out of 5, vesicles examined were sterile; 13 cases of eczema madidans gave staphylococci.

Acne vulgaris; 90 pustules from 53 cases examined; 49 cultures made on agar were sterile, 31 gave staphylococcus epidermidis albus; on 9 tubes from 9 cases a bacillus was grown. *This bacillus was found in all of the 90 cases in the smear-preparation.* Gilchrist looks upon this bacillus as the cause of the acne lesion. He claims that the growth on agar and glycerin-agar only takes place when the pus is deposited in a clump upon the medium and not spread on the surface. The staphylococcus epidermidis albus so frequently found was due to contamination, the result of faulty technic and was not found when the precautions were strict. The organism is a short, thick bacillus; does not grow on gelatin or milk; grows fairly luxuriantly on agar and glycerin-agar where it is seen to branch; invisible growth on potato; the bacillus is motile, has no capsule, and is not decolorized by Gram's stain. Inoculation-experiments are at present being made.

Dr. S. Pollitzer gave a **demonstration of ringworm and favus cultures.**

Dr. Prince A. Morrow, of New York, read a paper on **Modes of infection of leprosy.** He stated that very little importance should be attached to the possibility of infection through sexual intercourse. It is quite possible that the mode of salutation of rubbing the noses which prevails in Iceland and Hawaii may have been partly responsible for the spread of the disease in those countries. The plague of mosquitos and the plague of leprosy appeared in the Sandwich Islands about the same time, and a causal relationship has been claimed. Until recently numerous searches had failed to reveal the presence of lepra-bacilli in mosquitos. Morrow discredits the part alleged to be played by the mosquito in the production of leprosy. Leprosy usually occurs first upon the exposed surfaces, face, hands, etc. Many believe the skin to be the point of entrance of the germs. The probability is that there are many modes of infection, but the most frequent channel of infection is, according to the views of most leprologists, through the upper air-passages. Morrow believes inhalation to be a frequent cause. Blashko collected thousands of lepra-bacilli upon plates placed in the immediate proximity of lepers. Certain conditions predispose to leprosy. Some individuals are absolutely immune. An individual predisposition seems to be the most important favoring factor. Catarrhal conditions of the upper air-passages are also strong predisposing causes. Nearly all lepers give a history of a "cold" at the onset of the disease.

Dr. S. Sherwell, of Brooklyn read a paper on **Remarks on the treatment of scabies.** He condemns the treatment of scabies by irritant ointments of various kinds. He urges the adoption of a method which he declares is "better, cleaner and easier." The patient is instructed to take a thorough bath, after which sandsoap is to be used upon the tougher portions of the integument. A half teaspoonful of powdered washed sulphur is then rubbed over the entire skin-surface. The same quantity should be placed between the bed-sheets and shaken so as to evenly distribute the powder. This should be repeated for several nights, a cure being usually effected in a week. The writer has never seen a dermatitis follow this treatment. He also advises its use as a prophylactic measure whenever an individual is exposed to scabies.

Dr. J. N. Hyde, of Chicago, presented a paper entitled **A contribution to the study of blastomycetic dermatitis.** The patient was a man of 57, with a family-history of tuberculosis. Five years before he came under observation, he had upon his leg a "pimple" which spread anteriorly. This healed up under treatment with the formation of a cicatriform tissue. Several years later a condition similar to that on the leg developed on the dorsum of the hand. This soon involved the entire dorsal surface of the hand extending on to the fingers. This area was the seat of a verrucous growth, sharply defined and with a reddish halo. There was slight secretion; no subjective phenomena. The condition resembled closely verrucous tuberculosis. A section was excised and blastomyces were found in the tissues. In many places the section looked like a squamous-celled carcinoma. There were numerous miliary abscesses in the epidermis, in which alone the blastomyces were found. A bacillus of the diphtheria-group was also present. The blastomyces when injected into lower animals produced abscesses. The patient improved considerably under the use of potassium iodid. In all, 7 cases of blastomyces in man have been reported. In 6 the skin alone was involved. Five patients were men and two women. The disease begins as a maculo-papule, later breaking down, and suppurating. The dorsum of the hand and the anterior surface of the leg are the regions most frequently affected. The disease must be differentiated from verrucous tuberculosis and lupus vulgaris to which it may bear a close resemblance, and also from late syphiloderm.

[From our Special Correspondent.]

AMERICAN ORTHOPEDIC ASSOCIATION.

The Thirteenth Annual Meeting, held in New York, May 31, June 1 and 2.

(Continued from page 1345.)

A Summer Plaster-of-Paris Jacket.—Dr. Taylor and Dr. S. H. McKim also exhibited a method of making plaster jackets by means of figure-of-eight bandages, so as to leave a considerable area anteriorly exposed.

Celluloid Jackets.—Dr. Augustus Thorndike, of Boston, reported that although the celluloid bandages that he had described last year had worked well at first, he had subsequently been much disappointed with the process. Drs. Sherman and Townsend said that they had had a like experience with the working of celluloid. Dr. R. H. Sayre said that he had learned that it was better to work with sheets of celluloid, placing them on a wire tray in a shallow box, and exposing them for 8 hours to the vapor of acetone. A thorough and uniform action of the acetone was best secured by soaking sheets of blotting-paper in acetone and laying them under the tray supporting the celluloid sheets. After the sheets had been sufficiently softened, they were to be applied to the mold and fastened with either muslin or rubber bandages. In this way a beautiful corset could be made, but they were so intolerably hot that the patient would refuse to wear it, and this too, even after holes had been provided for ventilation. Dr. E. G. Brackett, of Boston, said that his experience had been that if celluloid were taken off the mold before the expiration of 2 or 3 weeks it would surely curl up.

A paper entitled **Further observations on the treatment of congenital dislocation of the hip,** was read by Dr. Royal Whitman, of New York, who exhibited quite a large number of patients that had been treated by him. He had operated 32 times on 21 patients by the bloodless method, and all had been treated more than two years. Of the 19 open operations that he had done, 15 had been in the present year. There had been no operative infection of the wound, and no deaths. Under proper conditions he considered the open operation to be free from danger and easy of performance. He had treated in all 41 cases, 27 of them by the functional method of Lorenz. On 7 patients both methods had been used. Of the 14 unilateral cases, 9 had been treated by forcible correction, and when this had proved unsuccessful had been supplemented by the open operation. He had had 3 perfect cures by the bloodless method, and had obtained an excellent result by this method in a girl of 7 years, although it was ordinarily not very successful in these older children.

Congenital Dislocation of the Hip.—Dr. T. Halsted Myers, of New York, exhibited a child of 3 years upon whom he had successfully operated in 1895 by the bloodless method. He had since that time treated 15 other cases in the same way. Five of these would probably yield a perfect ultimate result; in 3 the treatment had failed. Dr. Ridlon said he could not agree with Dr. Whitman concerning the great disability observed in cases of congenital dislocation of the hip, as the adult patients whom he had seen had been able to walk fairly well, though not gracefully. In the majority of instances they could walk fairly long distances with comparative comfort. Dr. B. E. McKenzie said that he had employed the bloodless method in two, and the open operation in one case. He had operated upon a child of 9 years, and there was every prospect of a good result ultimately. Dr. L. A. Weigel said that radiographs of these cases seemed to indicate that there was an arrest of development, not only of the femur, but of the whole side of the pelvis. Dr. H. A. Wilson said that it was not at all uncommon for orthopedic surgeons to meet with adults in whom the functional condition was good, and in view of the mortality and the ankylosis attendant upon the open operation, it was well to counsel conservatism in this class of cases. Dr. Sherman said that these children were usually brought to the surgeon not because of disability or pain, but because of the ungraceful gait. Dr. Whitman's results were infinitely better than anything that had been shown him in Vienna by Lorenz 4 years ago, and were encouraging to the highest degree. Dr. Whitman reiterated the statement that these patients did suffer pain and presented a relative disability. Intermittent force in young subjects would best bring down the head of the bone.

Dr. S. Ketch, of New York, presented a patient exhibiting **Symmetrical enlargement of both legs from possible lymphangitis,** which he attributed to the occlusion of the deep lymphatics. Dr. W. R. Townsend exhibited a photograph of a case in which there was a similar enlargement, although confined to one side.

Dr. Ketch exhibited a radiograph of a case of **osteoma of the femur.**

Obscure Injury to the Elbow.—Dr. Weigel presented a young woman who had injured her elbow in a bicycle accident. He had at first treated her by rest of the joint, and she had done well. She had then come under the care of a physician who had insisted that there was a fracture, and had proceeded to refracture it under an anesthetic, with the very natural result of making the condition worse. A radiograph taken after the accident showed plainly that there had been no fracture.

Unusual Deformity Following Operation for Knock-knee.—Dr. W. R. Townsend presented a girl of 13 years having dreadful distortion of her limbs following osteotomy which another surgeon had done on her in childhood. This surgeon admitted that after the osteotomy the wound had become septic. A radiograph showed that the lower end of the femur had been rotated out at a right angle.

A Case for Muscle-transplantation.—Dr. V. P. Gibney exhibited a boy of six years having an extreme recurvatum. He intended to try the effect of transplantation of muscle.

Dr Henry Ling Taylor, of New York, presented 2 cases of **enlargement of tibial tubercles,** one in a boy of 12 and the other in a boy of 16 years. In the first case there had been no assignable cause; in the second there had been a trauma. In both the periostitis had been relieved by the topical use of iodin.

Several of those present reported similar cases, occurring for the most part in athletes.

Dr. J. H. Waterman, of New York, presented a case of **partial luxation of the humerus following anterior poliomyelitis.** The patient was a youth who had probably had an anterior poliomyelitis of the fifth cervical segment in infancy. Irritation of the pectoralis major produced dislocation of the shoulder.

Dr. Charles E. Thomson, of Scranton, present by invitation, reported a case of **spasmodic torticollis,** and exhibited both this patient and another whom he had cured of the same affection. In both instances several sections of nerves had been demanded before relief had been afforded.

Dr. A. M. Phelps, of New York, made some remarks on his work in **cases of tubercular and purulent abscesses of joints treated with carbolic acid.** The essential feature of the treatment was the utilization of Dr. Seneca D. Powell's discovery that alcohol was a perfect antidote for carbolic acid. The carbolic acid was injected into the cavity, allowed to remain for two minutes, and then the cavity washed out first with alcohol, and lastly with sterile water. In every case so treated, except those in which drainage-tubes had been used, primary union had occurred. Moreover, the patients so treated had been discharged in from two to five weeks, instead of remaining several months, as they were compelled to do when treated by the more usual methods. Dr. Phelps said that the manner in which the alcohol acted was not yet known, but he suspected that it formed with the albuminates in the mucous layer of the skin a harmless compound, which was absorbed and acted as a powerful bactericide. Dr. R. H. Sayre said that he was reminded of Callender's work some years ago, with carbolic acid injected into joints. The method had been abandoned because of the numerous fatalities from carbolic-acid poisoning. If this danger could be eliminated, the method just described by Dr. Phelps should have a great future.

Multiple Deformities of the Extremities.—Dr. George R. Elliott, of New York, reported such a case occurring in a child of 11 years, and apparently the result of either intrauterine traumatism, or, more probably, primitive changes in the nervous system. Dr. Edward D. Fisher, of New York, said that this was apparently one of those rare instances of diffuse myelitis occurring during intrauterine life. Dr. S. B. Onuff, of New York, said that the fact that the changes in this case were spread over the whole anterior horns seemed to argue in favor of their being primary rather than secondary.

Pointers on the Leather Splint.—Under this caption Dr. A. J. Steele, of St. Louis, described his method of making leather corsets. He said that the ideal leather for this purpose was that which had been only half tanned, but, of course, it could not often be procured. After having softened the leather by soaking in water, he wraps it around the cast, and then by means of a mechanical device binds it on very tightly with stout cord. It is then baked in an oven at a temperature of 180 or 190° F. for two or three days. Dr. McKenzie remarked that he had found rawhide corsets very useful and exceedingly durable; the chief drawback was that they required two or three weeks to dry.

Third Day.

New Instruments—An Osteoclast; a Brace for Flat-foot and Paralysis; a Brace for Forcible Extension and Flexion of the Elbow.—Dr. G. G. Davis, of Philadelphia, presented these instruments. The osteoclast was designed for breaking the bone accurately after it had been partially divided by the osteotome. The elbow-brace was intended, like the Stromeyer apparatus, to produce forced extension and flexion, and was an improvement on that apparatus in that by a shifting fulcrum a greatly increased degree of flexion could be obtained.

Dr. S. L. McCurdy, of Pittsburg, exhibited an x-shaped frame, made of heavy steel wire, which he had devised as a **head-rest for cases of cervical caries.** Pads were placed at the four points of support, *i.e.*, the occiput, chin, sternum, and back below the vertebra prominens. Dr. McCurdy also exhibited a new additional chin-support.

Dr. W. E. Wirt showed a **goniometer,** having telescopic legs, which he had carried around in his pocket for a number of years, and had found very useful. Dr. Wirt also exhibited a **knee-brace for correcting deformity.** It was a simple and cheap instrument, which pushed the head of the bone forward while making extension.

Dr. H. A. Wilson exhibited a simple instrument that he had devised for **correcting flat-foot** by means of force applied by a screw in appropriate directions.

Dr. Weigel saw no advantage in Dr. Davis' elbow brace over the simpler one in which the same object was accomplished by levers placed at the side of the arm. Dr. Sherman thought Dr. McCurdy's head-support would allow of too great lateral play. Dr. Whitman advised that the correction of cases of long-standing flat-foot should be accomplished by holding the foot between the knees and subjecting it to extreme abduction.

Dr. C. L. Starr, of Toronto, reported a case of **fracture of femur without the usual signs,** occurring in a child of 3 years, in which, although there had been a fracture at a point just beyond the junction of the head and neck of the femur, as demonstrated at autopsy, there had been no pain or the usual signs, and a positive history of limping for only 2 weeks previously. After the postmortem examination, the parents recalled the fact that 6 weeks before the limp had developed, the child had fallen from a high chair.

In a paper on **Position-symptoms in joint-disease,** Dr. Harry M. Sherman, of San Francisco, presented an elaborate study of these symptoms and of the various theories propounded to explain the positions assumed. He stated that so far as the theories of Hilton and of Phelps were based on one group of muscles, they must be laid aside. In tuberculosis of a joint, some of the osseous trabeculæ are destroyed, and a spot of bony weakness produced, a fact which seemed to be appreciated by the person involuntarily shrinking from putting work on this spot.

Some salient points in the treatment of hip-disease was the title of a paper by Dr. B. E. McKenzie. In his opinion no other apparatus had been so successful as the brace of Mr. Thomas, and its modifications. Care should be taken to secure sufficient bending at the knee. The tendency in the later stages to adduction could be counteracted and the muscular spasm overcome by the expedient of making traction on the side opposite to the one affected. He had abandoned the idea that the splint should also act as a crutch. Constitutional treatment, as in other tuberculous affections, was indicated. After excision a perfect recovery could never occur; complete restoration of function was sometimes possible after proper mechanical and constitutional treatment.

The conservative surgical treatment of tuberculous diseases of the joints, was a paper by Dr. C. L. Starr, of Toronto, presented by invitation. He advised incising and cureting tuberculous cavities, swabbing with zinc chlorid, or with carbolic acid, injecting iodoform emulsion and finally packing with iodoform gauze.

Dr. A. B. Judson, of New York, presented a paper with the title **Additional views on the treatment of hip-disease.** His method of treatment consisted essentially in educating the patient to the habitual observance of the normal rhythm of locomotion. As a result of this training, the limb which had been adducted gave up some of its adduction in order to reach the ground more conveniently, with the result that there was a decrease in the apparent shortening. Dr. Weigel said that if the focus of disease could be definitely located—and it could be at present with the aid of the x-ray—the treatment advocated by Dr. Starr should be successful. Dr. Judson said that he could not agree with Dr. Sherman that muscular action could be entirely eliminated, for it was this, in his opinion, which caused fixation. Dr. Steele said that he, too, was not yet prepared to throw aside muscular spasm, and the valuable experience of the past with reference to the action of traction. Dr. Whitman thought Dr. Sherman should have paid more attention to the part played by habitual use in the final production of deformities, rather than limiting himself so closely to bone-disease as an explanation of all these symptoms. Dr. G. G. Davis said that he had tried the method of trephining the bone at the supposed site of the tuberculous focus, and had found that it had apparently stopped the disease. Dr. Judson was inclined to think that for a long time in hip-disease it was inaccurate to speak of the joint as fixed. Dr. Sherman said that when he said that there was no muscular spasm per se he had meant that it did not originate in the muscle, as in the case of cramp. The muscles were implicated, but only as the servants of the bones and of the spinal cord. As at the beginning the sole lesion was in the bone, one must look to that lesion for the motive.

Some clinical features of rheumatoid arthritis was a paper presented by Drs. R. T. Taylor and S. H. McKim, of Baltimore. They asserted that this disease was usually bilateral, and rarely presented any abnormality in the bones or cartilages. A characteristic feature was the involvement of the cervical portion of the spinal cord.

Dr. Griffith, of Kansas City, said that he had found in operating on two cases of old **subcoracoid dislocations of the humerus,** that even with a very long incision and prolonged and violent manipulation he had not been able to reduce the dislocation until the long head of the biceps had been severed. He had also discovered that when this had been done, the replacement of the head of the bone was made quite easy by the use, as a lever, of a long and powerful periosteotome having one end sharply curved. The division of the biceps in this manner caused no subsequent trouble. Dr. G. G. Davis said that in operating on a case of old subglenoid dislocation he had found it necessary to loosen nearly three fourths of the attachment of the pectoralis major and divide the attachments of the supra-spinatus and infraspinatus muscles, and finally the capsule around and below the head.

Dr. S. L. McCurdy, of Pittsburg, read a paper on **heat as a therapeutic measure,** in which he detailed some observations that he had made with a view to determining the temperature of the structures below the surface, and the effect of such heat on bacterial life. He found that the temperature of these deeper structures was practically unaffected. Dr. Wirt said that the hot air acted chiefly on the circulation in the bloodvessels and in the lymphatics, and upon the nerves of the part.

Surgical Intervention in Cases of Spastic Paralysis.—Dr. B. E. McKenzie, of Toronto, said that in the treatment of these cases he favored tenotomy of the adductors and abduction of the limb to an angle of 60° or 90°, and the retention of this position for several weeks. The results from this treatment, even in most forlorn cases, had been extremely gratifying. Dr. S. Ketch said that he had reached about the same conclusions as had Dr. McKenzie. Until the time had arrived when the contracture had become less prominent it was not proper, in his opinion to do tenotomy. Mechanical appliances for these defective children were usually harmful. Dr. Ridlon believed that all these children should be operated on when young because the irritation was thereby relieved and the mental condition often improved. He had not obtained good results from the use of braces in such children. Dr. Sherman said that he cut the tendons freely and separated the legs as widely as possible, and if they relapsed the operation was repeated. Dr. Judson relied a great deal upon education in the treatment of these unfortunate cases, but used mechanical treatment where locomotion was interfered with. Dr. N. M. Shaffer said that if these cases were carefully watched there would be found a time when the spasticity would diminish, and he had learned to defer treatment until this stage had been reached. Dr. E. H. Bradford of Boston, said that while much could be accomplished by patient mechanical treatment, he was free to confess that the cure was much more rapid and thorough when tenotomy was done.

The State Care of Indigent Crippled Children.—Dr. Arthur J. Gillette, of St. Paul, presented in this communication an interesting account of the efforts that had been made during two sessions of the Minnesota Legislature to secure the establishment of an institution for the State care of these helpless ones, and how, at last, they had such an hospital in actual operation.

Dr. Daniel La Ferté, of Detroit, present by invitation, read a paper on **The cause of failure after Phelps' operation for clubfoot.** He insisted that it was essential to open the mediotarsal joint, and, in severe cases, to divide the plantar ligament. After operation the usual methods for developing the muscles should be used, and they would be made easier if it were not necessary for the patient to wear any apparatus. Dr. M'Kenzie said that he had long been of the opinion that Phelps' operation proceeded on a wrong principle, and that the cutting of the tendo-Achillis should be the finishing-point instead of the point of beginning. When the equinus could not be corrected it was because the astragalus could not be pushed in between the malleoli. In such cases it seemed to him wise to remove the astragalus. Dr. W. O. Plimpton said that the object of cutting the tendo-Achillis first was to afford better leverage for the bringing down of the heel.

Prosthesis, a Branch of Orthopedic Practice.—Dr. A. B. Judson presented in a brief paper a description of several of the more important mechanical devices used by him in his work.

A preliminary report of a study of shortening of the tibia in connection with tuberculous disease of the hip was presented by Dr. Russell A. Hibbs, of New York by invitation. A study of 41 cases had shown that the greatest shortening had occurred in the nonsuppurative cases. He concluded, from his observations, that shortening of the tibia might be expected in a large percentage of cases of hip-disease, in which it had lasted for one year.

Officers Elected.—President, Dr. Harry M. Sherman, of San Francisco; vice-presidents, Drs. R. Tunstall Taylor, of Baltimore, and A. R. Shands, of Washington, D. C.; secretary, Dr. John Ridlon, of Chicago; treasurer, Dr. E. G. Brackett, of Boston.

THE AMERICAN MEDICAL ASSOCIATION.

Fiftieth Annual Meeting, held at Columbus, Ohio, June 6, 7, 8, 9, 1899.

(Special report for the Philadelphia Medical Journal.)

(Continued from page 1338.)

Section on Neurology and Medical Jurisprudence.

Third Day.

Dr. Herman H. Hoppe, of Cincinnati, read a paper on **Poliomyelitis anterior acuta adultorum.** He said that this disease, while described many years ago by M. Meyers, is of extreme rarity, and he placed on record two well-marked cases. The first was a young man, aged 28, whose mother had died of tuberculosis and whose sister had caries of the spinal column. He fell to the floor and had to be assisted to a chair. On the evening of that day he had to be carried on account of the involvement of the right leg. Forty-eight hours after the onset of the paralysis there was present a complete motor paralysis of all four extremities, together with the muscles of the neck, so that the patient was unable to raise his head from the pillow or move it from side to side. The treatment was by ergotin for the first 3 days, and after that for 2 weeks small doses of iodid and bichlorid of mercury for 3 weeks. After the third week massage and general faradization was given. Massage and the electric treatment were kept up for 2 years. Four years after the attack the patient was sufficiently restored to walk without an effort on the level, but has some difficulty in climbing steps. The muscles, especially those of the legs, have not returned to their normal size, but the patient thinks he has fully recovered. The second case was in a man, aged 48, who was perfectly well up to a month before his admission to the hospital, when he was attacked with diarrhea. One week before admission he noticed a weakness in the left leg. The right leg became involved on the following day, and the third day the patient was unable to walk, his arms became paralyzed, and he was perfectly helpless. There was no hyperesthesia or abnormal sensation of any kind. The mental condition was good. The electric examination in both cases showed an almost complete reaction of degeneration in all muscles of the body. The treatment was by $\frac{1}{3}$ grain of bichlorid of mercury and $\frac{1}{60}$-grain of strychnin sulfate every four hours, together with a hot bath every afternoon at 4. In three weeks he was able to walk about alone with ease, and was able to use all the muscles of the body, but the movements were characterized by great weakness. Dr. F. W. Langdon, of Cincinnati, said that he had seen the first case and recognized it as an unusually typical case of poliomyelitis. Dr. W. A. Jones told of a case of poliomyelitis in a young man 24 years of age, which, before he saw it, had reached the stage of contractures. Dr. A. E. Sterne placed on record two cases, the first in a physician who recovered so far that he now does his own operations, and the second in a young man who was very far gone when seen, and who died four months afterwards, the postmortem revealing a typical case of poliomyelitis. Dr. Augustus A. Eshner, of Philadelphia, thought that an alteration in any portion of the sensory neuron, of the motor neuron, might give rise to the symptoms present in these cases. Dr. F. Savary Pearce, of Philadelphia, also took part in the discussion, which was closed by Dr. Hoppe.

Dr. F. W. Langdon and Dr. Albert H. Freiberg, of Cincinnati, read a paper entitled **Pachymeningitis externa cervicalis, probably tuberculous; recovery.** The lesion was in the cervical region, and the symptoms were entirely relieved by stretching. Dr. F. Savary Pearce, of Philadelphia, thought that the prognosis is favorable in tuberculous paralysis. Dr. Lichty, of Clifton Springs, N. Y., spoke of an autopsy he had performed about 5 years ago in a case similar to this. When the brain was removed there was an amount of pus which came no doubt from the cervical canal and looked like tuberculous pus. Dr. Hugh T. Patrick suggested that the case reported in the article was really one of spinal caries. Dr. Herm. H. Hoppe, of Cincinnati, thought the recovery so perfect that the diagnosis of spinal caries could not hold. If the man had caries of the vertebra it was so limited as to give rise to a localized exudation, and when this exudation was removed, the bone did not break down but recovered. Dr. W. J. Herdman, of Ann Arbor, Mich., reported two cases of pachymeningitis which came to postmortem. Dr. Freiberg and Dr. Langdon closed the discussion.

Dr. Hugh T. Patrick, of Chicago, showed two colored pictures of the eyes of amaneurotic idiots.

Dr. Augustus A. Eshner, of Philadelphia, read a paper entitled **Hemorrhage into the pons varolii.** The patient was a colored man, 70 years old, who was admitted to the Philadelphia Hospital complaining of a pain in the back and hips, and headache. Some muscular twitching was noticed, but this grew less for a time. Later, however, the twitching increased and active delirium developed. The patient passed gradually from stupor into coma, while the nervous irritability increased, the head being retracted and the jerking in various parts of the body being marked. Death resulted 13 days after admission. On postmortem the brain was found to be small, weighing only 1,210 gm. The vessels at the base were somewhat stiff, while those in the fissures exhibited nodular atheroma. The pia on the anterior and lateral surfaces of the pons and medulla was deeply pigmented. The meninges of the convexity were somewhat opaque. In the left half of the pons, about midway between the median raphe and the superficial origin of the fifth nerve, was a small, dark-red, apparently recent extravasation of blood about 2 mm. in its several diameters. Transverse section of the pons disclosed a second extravasation of blood, also about 2 mm. in diameter, almost in the middle line, 4 mm. in front of a line joining the two fifth nerves, 7 mm. from the anterior surface of the pons and 25 mm. from the upper surface of the quadrigeminal bodies. The endymia of the lateral ventricles was rough and granular, especially on the fornices, in the anterior horns, and in the region of the foramen of Monro. The gray matter of the cerebral cortex was variable in thickness and generally paler than normal. The patient had been looked upon during life as suffering from uremia, and treatment was directed accordingly. In view, however, of the developments of the autopsy it is not impossible that at least some of the symptoms were related to the hemorrhage into the pons. The paper was discussed by Dr. F. W. Langdon, of Cincinnati, and Dr. Charles H. Hughes, of St. Louis.

Dr. W. A. Jones, of Minneapolis, read a paper entitled **Probable brain-tumor, with recovery.** The patient, a lad of 16 years, was taken ill with what appeared to be an ordinary attack of indigestion accompanied by severe headache, but his symptoms grew steadily worse, and pointed to the presence of a cerebral lesion. There was nausea, vomiting, and pain over the frontal region, particularly the right eye. He had pain on percussion over the right orbital region. He was put through the usual course of cathartics and intestinal antiseptics, without benefit, but was relieved of his pain by a small hypodermic of morphin. The following day he cried out in paroxysms of pain, demanding firm pressure over the right eye, complained of vertigo, and exhibited violent temper. On the tenth day of his illness he showed a paresis of the internal rectus of the right eye, while the pupil was slightly enlarged, and did not respond promptly to light. Ten days later there appeared a paralysis of the external rectus of the left eye, and a mild hemiparesis of the left side of the body, including face, leg and arm, with increased kneejerks and ankle-clonus on the same side. He gradually began to improve, and in three months after he was first seen he was practically well. The treatment was principally iodids by inunction. For three consecutive weeks he was rubbed every 24 hours with an ointment containing four grains of the red iodid of mercury and 21 drams of potassium iodid dissolved in hot water and lanolin. Dr. F. Savary Pearce, of Philadelphia, thought the case admirably illustrated the advantageous use of iodids. Dr. F. W. Langdon said that occasionally a tumor will last for 7 or 8 years. Dr. W. J. Herdman thought there is a possibility of a tuberculous tumor becoming latent for quite a time and subsequently developing, and in this Dr. Chas H. Hughes agreed.

Dr. W. J. Herdman, of Ann Arbor, read a paper entitled **The physician as a witness in court.** He detailed some of the prevalent abuses of medical expert testimony, and stated that the following suggestions might be made, as taken from three plans originating in New York, Pennsylvania and Illinois. (1) Experts should be appointed by the trial judge; (2) their compensation should be made a part of the expenses of the court; (3) they should have abundant opportunity to investigate all facts of the case on trial so far as they have a bearing upon the opinion they are expected to deliver; (4) that opinion should be given to the court in writing, signed and sworn to; (5) any dissenting expert opinion must be also in writing and contain a statement of the grounds on which the dissent is based; (6) the experts may be sworn as witnesses and cross-examined, but the range of the cross-examination is not to extend beyond the limits of the subjects embodied in the opinion which they have been asked to express. The paper called out an animated discussion by Dr. Charles H. Hughes, Dr. Bishop of New York; Dr. Bishop, of Pennsylvania; Dr. Lewis, of Illinois; Dr. Given, of Ohio; Dr. Harold N. Moyer, of Chicago; Dr. F. Savary Pearce, and Dr. E. A. Sterne.

Dr. Wharton Sinkler and Dr. F. Savary Pearce, of Philadelphia, read a paper entitled **Family diseases,** giving conclusions based upon 16,500 cases of nervous diseases. Out of this total there were only 50 cases in which a disease could clearly be traced as hereditary. Dr. F. W. Langdon expressed astonishment at the result of the investigation.

Some of the aspects of renal inadequacy from a neurologic standpoint, by Dr. H. A. Tomlinson, of St. Peter, Minn., was read by title.

Adjourned.

Section on Diseases of Children.

First Day.

President's Address.—Dr. Henry E. Tuley, of Louisville, the chairman, delivered the address, taking for his theme **Progress in Pediatrics.** He stated that the first regular lectures on pediatrics delivered in this country had been by Dr. William Shippen, in 1762. In commenting on the rapid strides that had been made in this department reference was made to the recent endowment in Roosevelt Hospital, New York, of the "Jacobi ward," where clinical pediatrics was to be taught by Prof. Abraham Jacobi. In discussing the ever-present question of **infant feeding,** the speaker said that it was pleasant to note the unanimity of opinion regarding cow's milk as the best substitute for breast-milk. The milk laboratory had come to stay, but in many localities home-modification of milk would be a necessity, and here the method of Dr. W. L. Bauer would be found simple and effective. The subject of **pertussis** next claimed attention, and Wagner was quoted as claiming that by means of a bacteriologic examination of the secretions from the nasal passages the diagnosis could now be made quite early. **Credé's method** of instilling a 2% solution of silver nitrate in the eyes of the newborn had received a serious setback by reports of cases in which this treatment had set up a severe conjunctivitis. Possibly this most useful preventive treatment could still be continued, and such serious consequences avoided by using protargol or argol.

The Death-dealing Long-tube Nursing-bottle.—Dr. Ernest Wende, of Buffalo, in a paper bearing this caption, described certain experiments that he had made, with a view to proving that these long tubes afforded numerous breeding-places for bacteria, and were well calculated to materially increase infant-mortality. He showed photomicrographs in proof of his assertions, and called attention to the startling diminution in the death-rate from cholera infantum since the city of Buffalo had prohibited the sale of these bottles for infant-feeding. Dr. Norberry, of Indiana, remarked that the same objections seemed to apply to the rubber-nipple. Dr. Wende admitted the truth of this remark, but said that the objections did not have equal force, because of the greater facility for keeping the nipples clean.

Constipation in Infants.—Dr. H. M. McClanahan, of Omaha, read a paper on this subject. He grouped the cases into (1) those dependent upon the quantity, quality of food, and the method of feeding, and (2) those due to the peculiar anatomic condition of the lower part of the colon. The diagnosis in the second class must be made by exclusion. In the first group the dietetic treatment was of prime importance; in the second, neither regulation of diet nor medicinal treatment was of avail. In all cases of infantile constipation the character of the stools should be carefully noted. A good general rule was to decrease the casein, and increase the fat in the food of constipated infants, and where the stools were coated with mucus, it was well to give the resin of podophyllin in doses of $\frac{1}{40}$ to $\frac{1}{25}$ of a grain. In the cases of anatomic constipation it was necessary often to make use of enemas for many months. These were best given through a lisle-thread catheter which had been passed through a large cork and then introduced into the rectum for a distance of about two inches. Dr. C. G. Slagle, of Minneapolis, remarked that one very common cause of constipation in infants he had found to be the pernicious custom of giving babies various carminative teas, or dosing them with paregoric, etc. Dr. Lawrence, of Washington, D. C., called attention to alternating diarrhea and constipation as usually indicative of there being an excess of proteids in the food. It was always important to solicit an action of the bowel at a certain time every day, and this could often be done most conveniently by instructing the mother to make use of oil-paper suppositories. All forms of tea should be strictly forbidden. Dr. J. A. Work, of Elkhart, Ind., said that the common custom of swathing infants in tight bandages and clothing was probably responsible for a good deal of constipation, as it must certainly interfere with normal peristalsis. Dr. E. D. Chesebro, of Providence, R. I., laid great stress on the relation existing between constipation and the proportion of fat in the food, quoting Holt as authority for the statement that it was essential that there should be a very decided excess of fat in the stools of the normal infant. It followed, therefore, that a goodly number of these constipated infants could be relieved by sufficiently increasing the quantity of fat in the diet. Dr. Edwin Rosenthal, of Philadelphia, said that Dr. A. Jacobi, when lecturing on constipation in infants, was accustomed to exhibit to the class the sigmoid flexure of a child, showing the elongation and reduplication found in infants suffering from that form of constipation which he had long ago described as "anatomic." In such cases it would often be necessary to regularly use clysters until the child was 4 or 5 years old. Dr. Harriet E. Garrison, of Dickson, Ill., said that it was often recommended that constipated children should be allowed to drink water very freely, but the fact was often overlooked that pure water when taken into the system was eliminated, for the most part, by the kidneys, and not by the bowel. This could be avoided, and the desired effect secured by adding a little carbonate of soda to the water. Dr. R. C. Moore, of Omaha, said that a good proof of the remedial value of increasing the fat in the food of constipated infants was to be found in the popularity of that old and well-known form of infant food devised by Dr. Meigs, of Philadelphia. A useful substitute for the natural stimulant to the secretions found in breast-milk was orange-juice, and when the stools were white and lumpy a resort to this simple expedient would usually be followed by the happiest result. Codliver-oil was often very useful in these cases. Dr. Leonard, of Massachusetts, insisted that the interval between the feedings should be at least 3 hours, and might, in many instances, be lengthened to advantage.

So-called Congenital Obliteration of the Bile-ducts.—Dr. Frank X. Walls, of Chicago, read this paper. He reviewed the pathology of the condition, so far as known, and pointed out that the supposed congenital malformation of the bile-ducts had been assumed rather than demonstrated. That the ducts were pervious at birth seemed evident from the absence of jaundice at this time. He was inclined to look upon these cases as a result of catarrhal gastroduodenitis. In adults the occlusion was often temporary; its persistence in the infant might possibly be explained on the theory that the obstructing plug was not dissolved because of the absence of a necessary ferment. After the condition had once been established, the treatment was necessarily surgical.

Some Thoughts on Physiologic Elimination in all Pathologic Conditions.—Dr. J. A. Work, of Elkhart, Ind., read a paper on this topic, in which he pointed out the general relation of physiologic elimination to acute zymotic diseases, and their treatment. Dr. B. E. Mayer, of Pittsburg, contended that the conclusions of the author were far-fetched, and if his line of thought were followed very far the result would be that scientific progress would be retarded, and work already done would be ignored.

Infantile Diseases from the Standpoint of Etiology.—Dr. Joseph Clements, of Kansas City, discussed in this communication the various vital processes, and the influence of the nutrition of the cell upon health and disease.

(To be continued.)

Section on Ophthalmology.

First Day.

The meeting was called to order at 2 p.m. by the president of the section, Dr. Casey A. Wood, of Chicago, who delivered the address of the chairman, entitled **How may the ophthalmic section do the most effective work?** Dr. Wood referred to the very large number of papers which are now annually presented to this section and showed that the superabundance of material, while all good, prevented the deliberate consideration of any portion of it. He suggested that the program hereafter be limited to 40 papers, 15 of which might be contributed on the invitation of the chairman and the remaining 25 be volunteer contributions selected by the executive committee and the executive from the titles and abstracts sent in before a certain date. This will allow for more time in the reading of each paper and a reasonable time for its discussion. He also suggested reports of each meeting from specially appointed committees on the efficacy of such new agents, or instruments, as might appear to be worthy of investigation.

His paper was referred to the executive committee with instructions to report at a later meeting.

The treatment of trachoma by cupric electrolysis, by Dr. George F. Keiper, of La Fayette, Indiana. The author refers to a number of experiments performed to prove that substances can be made to penetrate the tissues by means of the electric current, and proposes applying this to the treatment of trachoma. The method suggested is based upon the following experiment: Take a carbon electrode attached to the negative pole of the battery and a pure copper needle attached to the positive pole and introducing the needle into a piece of meat turn on the current. On cutting the meat open the region around the needle will be found of a green color, and chemical examination shows this to be due to the copper oxychlorid which has been formed. As this substance has a decided germicidal action it is relied upon to destroy the trachoma granules when the copper pole is applied to the conjunctiva. In discussion, Dr. Huitzinga considered that if we believe trachoma to be the result of a specific infection, then this treatment deserves more than a passing notice. He believed that such a current would penetrate the conjunctiva and destroy or neutralize the cause of trachoma, but it would not reach the disease if it were very deeply imbedded. He said that the distance between the anode and cathode should never be less than 5 inches, because the amount of chlorin ions between the two poles must be sufficient to meet any demands that may be made upon them. Dr. Howe thought that the treatment would probably be painful, and he doubted the ability to introduce medicines into the tissue in this way since his attempts to produce the characteristic starch-iodin reaction had always failed.

On seeing the capillary circulation in one's own retina. Dr. C. E. Norton, Lewiston, Me., states that by looking at a clear sky through a piece of dark-blue glass one is able to see small bright objects moving in all directions with a peculiar jerky motion, and these particles he believes to be the blood-corpuscles in the capillaries of the retina. That they are not muscæ volitantes is shown by the following characteristics: they are of definite size and shape; they cannot be made to move back and forth along any given path by movements of the globe, but move only in definite lines, and gravity has no effect upon them. They move in a jerky manner, and this motion is synchronous with the heart-beat and can be increased by anything that increases the pulse-rate. This phenomenon is more easily seen through blue than through other colored glasses, and it has a practical bearing in that when seen by persons who are not looking for them, and without the aid of glasses, they probably indicate ocular overwork. DR. GOULD stated that he had not tried this experiment, but that from a theoretic consideration of the subject, he doubted the ability of the eye to see such small objects as the red corpuscle. DR. HALE called attention to an article in the *Monatsblätter*, of April, 1897, in which the author offers detailed evidence in support of Dr. Norton's studies, and even thinks he can distinguish the white from the red corpuscles. DR. JACKSON said that he was able to see these corpuscles always against a blue sky, even without the aid of the glass, and he believed it was possible because the corpuscles were in such close relation to the retinal percipient elements that the image became as large as the object.

Nutrition of the crystalline lens and its relation to cataract formation. DR. LEWIS STRICKER, of Cincinnati, attributed the nutritive control of the lens to the epithelial cells of the anterior chamber and considered them not only as the greatest factor in the production of the lens but in its protection against the inroads of disease. If their protective power be once annulled the train of changes takes place in a perfectly passive manner, subject entirely to the intensity of action of the chemically altered nutritive fluid. What this chemic change consists in must eventually be solved by the student of physiological chemistry. DR. THOMPSON referred to a peculiar opacity in the lower inner margin of the lens rarely seen in persons under 50 and which rarely causes complete cataract. He asked if gravity had anything to do with this? DR. GIFFORD and DR. MURRELL both stated that they had watched such cases as Dr. Thompson referred to for a number of years without noting any change.

Quinin-blindness in a young child. DR. H. MOULTON, of Fort Smith, Ark., said that this case was as follows: F. V., aged 3 years, was first seen on August 24, 1898, totally blind. On August 4 and 5 he had been given each day 20 grains of quinin bisulfate for malaria. His physician thinking that the fever was tending toward the pernicious type now gave doses of 20 grains each day, on August 6, 7, 8. August 6, 10 grains was given again, and August 10 it was discovered that the boy was blind. In all, 90 grains had been given during the 5 days previous to the discovery that blindness was absolute. The pupils were dilated, the optic disks perfectly white and the bloodvessels almost obliterated, appearing as mere threads. Treatment was promptly instituted and when last heard from, on December 12, the vision had been to some extent recovered, so that the child could find pencils, etc., dropped on the floor. DR. DE SCHWEINITZ said that he had analyzed more than 100 cases of quinin-blindness, and this was with one exception the youngest on record. He stated that usually blindness from quinin is primarily complete, but that recovery takes place, although contraction of the field and deficiency of the color-sense generally remain. In regard to therapeutics he considered time the best agent. DR. THOMPSON inquired if it were not possible that some of these cases were due to effusion of serum into the ventricles of the brain rather than to the action of quinin? DR. SAVAGE reported a case of a young man who had been the subject of quinin-blindness in childhood, and who had grown to manhood before he had discovered that his visual field was more limited than that of other people.

The examination of the visual and color sense of railway employes. DR. C. H. WILLIAMS, of Boston, explained the method in use by the New York, New Haven, and Hartford R. R., for which he selected such employes as train-dispatchers and devoted considerable time to instructing them how to make color-tests. He exhibited a number of cards of test-letters so arranged as to prevent the possibility of memorizing, and some cards showing illustrations of the semaphore of the size to subtend an angle of 5 minutes at 20 feet, and corresponding to the ordinary semaphore signal as seen at a distance of half a mile. He also exhibited a new lantern for use in testing the color-sense. After some discussion of this paper the committee appointed to report upon the best visual and color-tests for railroad employes recommended that consideration of the subject be postponed until after the meeting of the International Committee, which is considering the same question, reports in 1900.

Report of seven cases of retinal sequelæ of diseases affecting United States troops in Cuba and Porto Rico, by DR. W. K. ROGERS, of Columbus. Among these patients there were 2 cases of yellow fever, 2 of typhoid fever, 4 of malaria and 2 of dysentery. In only 1 case, that of typhoid, in which a symmetric infiltration of the retinal tissues by almost uniform globular masses occurred, did the appearance of the lesion suggest that it might have been in some way directly associated with the disease with which it occurred. DR. WEEKS stated that the changes we find in the retina and optic nerve after such diseases are consequent, in all probability, on the changes that take place in the blood, interfering with the nutrition of the vessel-walls and permitting exudation, etc.

(To be continued.)

[From our Special Correspondent.]

MASSACHUSETTS MEDICAL SOCIETY.

Held at Boston, Mass., June 13 and 14, 1899.

THE parent organization of the profession in this country, the oldest State medical society in America, celebrated its 118th anniversary on June 13 and 14 in Boston. The first meetings were those of the medical and surgical sections held in Paul Revere and Talbot halls respectively, on Tuesday afternoon, June 13.

DR. CHAS. F. FOLSOM was president, and DR. ARTHUR K. STONE, secretary of the medical section.

The clinical importance of a knowledge of the size of the heart. The conditions in which it is of especial importance for the physician to know the size of the heart were briefly recalled by DR. FRANCIS H. WILLIAMS. They included first, small hearts whose size is frequently overlooked, and which it is important to recognize in order that the mode of life of the patient may be governed to some extent by the heart capacity. Next the chronic conditions in which the heart is larger than normal were considered, including valvular lesions, which are the chief cause of enlargement arising from within the heart, and the more frequent of the causes originating outside this organ, such as arteriosclerosis and chronic nephritis. An appreciation of the size of the heart is important in diagnosis, for if we find it of abnormal size we should certainly be directed to an inquiry into its cause, and might thus, for example, be led to recognize an arteriosclerosis, or a heart enlarged from overwork, or chronic renal disease, and to understand more fully questions relating to prognosis. Attention was then directed to our present methods of determining the size of the heart, and by comparing its size as found clinically, with the weight as obtained at the postmortem examination in over 500 cases. It was shown that we frequently fail to recognize the exact size of the heart. Further, and this is of especial importance, in cases when the heart is abnormal in size the errors of percussion are apt to be most marked; in other words, when we most need accurate determinations of the size of the heart our present methods are least trustworthy. Finally, a comparison was made in over 100 cases between the size of the heart as determined by percussion and by an x-ray examination. For this purpose the position of the left border was compared by the two methods, this border being chosen, as it is the one most easily determined by percussion and where percussion is at its best. Dr. Williams' method of making these x-ray examinations was illustrated and a number of tracings were shown, giving the left border of the heart as determined by percussion and an x-ray examination which demonstrated how seriously at fault percussion may often be when the heart is abnormal in size or displaced. It was shown that in x-ray examinations, when the lungs are clear, we have a method which is more complete and more exact than anything hitherto at our disposal, of determining not only the size but also the position of the heart and of discriminating, in some cases, between the ventricles and auricles; and that this method will lend more certainty to diagnosis and prognosis, and give surer data for future studies in this field of medicine.

DR. HENRY JACKSON read a paper on **The value of the pulse in diagnosis and prognosis.** In opening, he said he had no new theory to advance, but believed that the reading of the pulse was of the greatest importance, and a matter which was not considered as carefully as it deserved. The pulse, he said, is the final index of the vital capacity of the individual, whether the heart itself was diseased or weakened by toxemia. So long as the pulse is of fair quality, the system is supplied with blood, and, for the time at least, death is not imminent. In diagnosis, he said, it was not his wish to discuss the pulse in various forms of organic heart-disease, like the Corrigan pulse of aortic disease, and the thready pulse of mitral stenosis, but rather to consider its value in the diagnosis of the more important and often obscure general diseases, especially typhoid fever, miliary tuberculosis, cerebrospinal meningitis, and other diseases of the brain and its membranes. In typhoid fever, the pulse in uncomplicated cases is not very rapid, averaging from 90 to 100, rising with each access of fever. It may temporarily be 120, but never remains there for several days unless the patient is very sick. In acute tuberculosis the pulse is rapid, averaging 120 or more, long before the patient reaches a critical stage of the disease. In both typhoid fever and acute tuberculosis there is absence of leukocytosis, and this marked difference in pulse is a great assistance, especially when the Widal-test and the search for tubercle-bacilli do not give an absolute diagnosis. In cerebrospinal and tuberculous meningitis the pulse may be almost pathognomonic. In the early stages, when the vagus is stimulated by a moderate degree of irritation, the pulse is slow, often from 70 to 90, while the patient is evidently very sick, perhaps with vomiting and severe headache. If there is added to the slow pulse an occasional intermittency, there is still further evidence that the pulse is dependent on some direct pathologic lesion. In the later cases of the disease when the vagus is paralyzed by pressure or disease, the pulse is rapid because the inhibitory power of the nerve is lost. In cerebral hemorrhage the pulse is slow, in alcoholism it is rapid. A rapid pulse may be the earliest sign of phthisis, and, if extremely rapid, of exophthalmic goiter. The early diagnosis of acute follicular tonsillitis and diphtheria is assisted by the high pulse and fever of the former, and the slower pulse and usually slight fever of the latter. The pulse is almost an infallible guide in prognosis of typhoid fever. If it goes to 120 it is a danger-signal. "I am so sure of my ground in this matter that, in the individual case, I dare make a favorable prognosis if the pulse is slow, no matter how unfavorable the other symptoms may be. On the other hand a rapid pulse, independent of any complications like hemorrhage or pneumonia, causes me great anxiety." A sudden rise of pulse without apparent cause suggests hemorrhage, especially if accompanied by fall in the temperature. A rise in pulse also gives early warning of perforation. Dr. Jackson quoted from Dr. Steadman's essay on typhoid fever as follows: "Temperature for diagnosis is invaluable. For guidance during the disease I rely on the pulse. I have seen no patient die whose pulse has not reached 120°, 24 or more hours before death. In these 10 years the pulse has given the warning of approaching trouble even when the temperature signified nothing."

DR. CHARLES J. WHITE, assistant in dermatology at the Harvard Medical School, presented a paper upon **The role of the staphylococcus in skin-diseases.** He noted the frequency with which pus is encountered in the various diseases which are presented for diagnosis in a daily skin clinic, and divided these diseases into two categories. First, when the disease is primarily and essentially of pustular origin, and second, when pus is a secondary element due to accidental inoculation. In the first division he placed impetigo, sycosis (nontricophytica), ecthyma, furunculosis, abscess, and carbuncle; and in the second mentioned especially acne, impetiginous eczema, some forms of dermatitis, scabies, certain varieties of iodid and bromid eruptions, and afterward the primarily vesicular and bullous affections, and all cutaneous diseases which pruritus and subsequent scratching play a part. The first group (impetigo, sycosis, ecthyma, furunculosis, abscess, and carbuncle), according to the statistics of the American Dermatological Association, constitute 5.19% of all the diseases recorded, while the figures of the Massachusetts General Hospital skin clinic show 6%. In this clinic the secondary pus-infections were just twice as numerous as the primary ones. The reader traced the history of the recognition of impetigo as a distinct disease, then the discovery that it was caused by the staphylococcus pyogenes aureus or albus; and, finally, that all the above-named pus-diseases had the same etiologic factor, their different forms depending upon the depth of the skin-infection. The surgical and medical reports of the Boston City Hospital laboratory were examined by Dr. White, who selected 1 case of sycosis, 3 of furunculosis, 2 of carbuncle, and 95 of cutaneous abscess. The 6 cases of sycosis furunculosis and carbuncle were found to be due to pure infections of staphylococcus aureus, and in 79 of the 95 cases of abscess the same microorganism was found in either a pure state or in conjunction with one or more organisms. Dr. White's own experiments at the Massachusetts General Hospital found, between February 23 and April 13, 1899, 11 cases of impetigo, 10 cases of sycosis, 14 of furunculosis, and 2 of carbuncle. In the group of secondary pus-diseases, 39 cases of acne, 11 of dermatitis, 4 of syphilis, 3 of ringworm, 2 of lupus, 2 of herpes, 2 of scabies, 2 of impetiginous eczema, 3 of iodid of potash, and 1 of bromid dermatitis, 3 of dermatitis venenata, 1 of herpes zoster, and 1 of tuberculous gumma—that is 111 examinations. From this number the staphylococcus aureus or albus appeared 88 times, and in 24 cases the tubes were sterile. Excluding the sterile cases and the nonpyogenic organisms, it was found that in cases of true pus-disease there were 36 infections from staphylococci and one from streptococci, while in case of the secondary pus-diseases 45 were from staphylococci and 3 from streptococci. These Boston figures support in a very striking manner the theory of the staphylococcic origin of pustular affections of the skin. He also noted the striking increase of impetigo during very hot weather, and said that lice sometimes spread the infection.

DR. CABOT's paper on **Prognosis in nephritis** showed much care in the examination of 500 cases. He found the average duration of life in the cases examined was 19 months.

DR. E. H. BRADFORD presided at the meeting of the Surgical Section, and DR. F. C. BALCH was secretary. DR. W. S. COUNCILMAN, Shattuck professor of pathology in the Harvard Medical School, gave a lantern-slide demonstration of the **dissemination of carcinoma.** He considered in the course of his discussion of the slides, the question whether cancer was due to a parasite or not. Dr. Councilman ruled out as incompetent the evidence in favor of a parasitic origin of cancer, and held to the accepted position that it is an epithelial tumor.

DR. MAURICE H. RICHARDSON, of Boston, read a paper entitled, **The completed history of a case of gastrectomy; remarks on the surgery of gastric cancer,** and DR. JOHN C. MUNRO, of the Boston City Hospital, discussed **Intussusception.** Abstracts of these papers will appear in a future number of the JOURNAL.

In the evening of the first day's meeting, the Shattuck lecture was delivered by DR. JAMES JACKSON PUTNAM on "Mental Therapeutics." Dr. Putnam outlined a phase of medicine too often the field of the charlatan, but affording great possibilities to careful, conscientious, and skilful physicians. As an example of self-hypnotism, the speaker cited the concentration of mind used in trying to recall some forgotten fact. The eye is fixed, the hearing is inactive, and the whole person becomes impassive, while the mind is centered upon the effort to find the mislaid fact in the mental debris of the past. To induce a similar concentration of mind in a patient in a given direction is the new task of the physician, and it is proving effective in a much larger number of cases than was formerly believed possible. In the treatment of children in cases of hysteria, in accident neuroses, where fear of consequences aggravated otherwise trivial lessons, are among instances where the "suggestive" treatment of a physician is often of value. Possibly the greatest field of mental therapeutics is in correcting the effects of habit. To correct a bad, rooted, unhygienic habit was often to cure a chronic disease that would yield in no other way. The physician thus becomes an educator of the highest type.

[From our Special Correspondent.]

THE AMERICAN LARYNGOLOGICAL, RHINOLOGICAL, AND OTOLOGICAL SOCIETY.

Fifth Annual Meeting, held at Cincinnati, O., June 2 and 3, 1899.

DR. MAX THORNER, of Cincinnati, exhibited several interesting cases upon whom he had made **the mastoid operation.** The first case showed an excellent result, the large cavity in the mastoid being well covered with epidermis. There had been no discharge for almost a year. The case presented an extradural abscess of 18 years' standing. In the second case the symptoms had developed very rapidly. In the third case the patient had complained of pain over the mastoid, with intervals of almost complete freedom. Finally pain increased, swelling developed, and the temperature ran up to 101°. Upon operation pus was demonstrated throughout the whole mastoid, which was found full of granulation-tissue. Recovery was complete. The fourth case presented a somewhat similar condition of otitis media, with discharge, which would stop and then open up again. Upon operation there was found great destruction of tissue and pus was demonstrated throughout the mastoid. The whole cortex was removed and operation was deep into the mastoid.

The first paper was by DR. J. A. THOMPSON, of Cincinnati, on **Dilatation of the heart, coincident with obstructive lesions in the upper air-passages.** In some instances the doctor had recognized the presence of unsuspected diseases of the heart upon examination, just before giving an anesthetic for operation upon the upper air-passages.

DR. GEO. L. RICHARDS, of Fall River, Mass., read a paper on **The facial nerve as it affects the aurist,** presenting a number of specimens which he had opened with the chisel to find the location of the facial nerve with especial reference to the mastoid operation. There are many variations in the course of the nerve, showing that its exact location could not be predicted with certainty in any case. In the discussion a number of cases of facial paralysis following the mastoid operation were reported, some seemingly permanent.

The first paper of the afternoon session was by DR. CHAS. W. RICHARDSON, of Washington, D. C., on **Asthma as a reflex manifestation from abscess of the antrum.** The essayist spoke of the reflex disturbances in the respiratory tract and other organs caused by pathologic changes within the nasal chambers and neighboring accessory cavities, the disturbance being at times so remote as to make it impossible to decide whether the relief of the accessory disturbance is an effect or an incident in the treatment. He reported two cases in illustration.

DR. ROBERT C. MYLES, of New York City, read a paper on **Traumatic hemorrhage from the nose and pharynx with report of cases,** which considered five important points: (1) whether the surgeon has any means of finding out before operation the probabilities of hemorrhage; (2) if there is reason for suspecting excessive bleeding, whether there ought not be more limitation in the area and depth in making sections and excisions; (3) after each operation in which there is a reasonable possibility of delayed or secondary hemorrhage, the patient should be kept within easy reach of the surgeon; (4) careful instruction should be given the attendant to watch the patient during the night in order that any hemorrhage might be discovered and checked at once; (5) as soon as the surgeon has evidence that he is dealing with a bleeder, he should apply expressed tampons of tannogallic acid.

DR. G. HUDSON MAKUEN, of Philadelphia, read a **Report of a case where defective speech results in some interesting derangements of cerebral functions,** in which he reported the case of a boy, 15 years of age, whose speech was so defective as to be scarcely understood. He was by no means feebleminded, but there was some functional impairment in the action of the cortical visual word-center resulting in partial word-blindness. In such cases the author advised systematic speech-training to determine whether the defective cerebration was of functional or organic origin. The improvement of his patient under this treatment was marvelous, and illustrated the importance of special training as a remedial agent in certain forms of feeble mentality with defective speech and other motor disturbances.

DR. D. BRADEN KYLE, of Philadelphia, read a paper on the **Appropriate treatment of certain varieties of nasal deflection and redundancy,** in which he gave 7 varieties of deflection of the septum. Under deformities of the septum the paper dealt with the deviation or deflection from disease, traumatic deflection, and congenital deflection. Concerning treatment, each deflection required some modification from a given method. The conditions presenting necessitated a combination of methods rather than the following of any one method.

DR. PRICE-BROWN, of Toronto, Canada, read a paper **On the use of rubber splints in the treatment following intranasal operations.** The author considered rubber splints made from thin rubber sheeting superior to silver tubes and much to be preferred to the hard or the perforated rubber splints.

DR. H. H. CURTIS, of New York City, presented a paper on **Rhinedema,** in which he made a definite distinction between edema and congestion, and gave this as his reason for introducing the term.

DR. J. F. MCKERNON, of New York City, read a paper on **Pyemic sinus thrombosis complicating purulent mastoiditis with multiple epidural abscess, caused by an acute otitis media. Operation. Recovery.**

DR. EDWARD B. DENCH, of New York City, read a paper on **Synechiotomy of the stapes for impaired hearing in chronic suppurative otitis media residua.** In the discussion DR. FRIDENBERG called attention to an experiment he had made to determine whether or not cocain can be sterilized by boiling without losing its strength. He had a solution of cocain brought to the boiling point 100 times, for which purpose it was necessary to add two-thirds as much water as was used originally to keep the solution at its original volume, and the solution was then found to have lost none of its strength. Dr. Dench corroborated the statement by Dr. Fridenberg regarding the sterilization of cocain-solutions, but thought they might be more toxic after boiling.

DR. LEWIS CLINE, of Indianapolis, read a paper on **Pharyngomycosis.** This is a fungous growth consisting of leptothrix, which rapidly develops into a vigorous growth. The symptoms are generally local, causing various degrees of irritation. The disease must be differentiated from follicular tonsillitis, tonsillar concretions, and diphtheria. In the discussion DR. RICHARDSON referred to an article by a German writer in which it was claimed that the symptoms in cases such as those described by Dr. Cline were to be ascribed to the presence of a concretion rather than to a mycosis. DR. FRIDENBERG called attention to the fact that the leptothrix causes a precipitation of earthy salts from solution. Dr. Stucky had secured good results in treatment by the use of a 25% solution of pyoktkanin rubbed into the masses two or three times a week. In a few weeks they would entirely disappear. DR. PRICE-BROWN observed that the leptothrix was found not only on the surface but also invading the mass, and reported a case in a man who did his own grooming, a second in a man who worked two or three months polishing cows' horns, a third in a girl who worked in a brush factory, and lastly a case in a girl who was engaged for some time in making pillows out of the fluffy part of a sort of weed. The cases seemed to indicate that the disease may originate from the inhalation of particles of the material with which the individual worked. DR. LEVY called attention to the possibility that not all the cases so described may be true cases of pharyngomycosis. DR. PHILLIPS observed that germicides seem to have little effect on the disease. DR. MYLES secured the best results by excising the masses. DR. LOEB had seen the disease twice in the same family, and had never seen a case of pharyngomycosis in which the lingual tonsil was not also involved.

DR. ARTHUR B. DUEL, of New York City, read a paper on **The value of electrolytic dilatation of stricture of the eustachian tube in chronic catarrhal otitis media and tubal catarrh.** In the method described the stricture is melted by electrolytic action and is not forced through by pressure. The current is applied by means of a long bougie inserted through an insulated eustachian catheter. He had seen a number of cases that had remained open an least two years, without any dilatation having been practised for a year and a half. He believed his method much less likely to produce false passages than when the cotton bougie is used.

The Latest Literature.

British Medical Journal.

June 3, 1899. [No. 2005.]

1. Remarks on Climate and Sea-voyages in the Treatment of Tuberculosis. HERMANN WEBER.
2. The Parasite of Malaria in the Tissues in a Fatal Case of Blackwater Fever. GEORGE THIN.
3. Additional Observations on the Function of the Suprarenal Gland. A. G. AULD.
4. Four Unusual Cases of Hernia. R. LAWFORD KNAGGS.
5. The Cystoscope in Surgery. W. THELWALL THOMAS.
6. Two Cases of Extreme Dilatation of the Sigmoid Flexure; Colopexy; Recovery. SHIRLEY LAWRENCE WOOLMER.
7. Fibrous Stricture of the Rectum. W. H. HORROCKS.
8. Nasal Treatment in Asthma. WM. ARMSTRONG.
9. Pyrexia After Delivery. JOHN A. GRAHAM.
10. Four Cases of Beri-beri on Board Ship. W. S. MALCOLM.
11. Second Attacks of Syphilis. C. F. MARSHALL.
12. Obstinate Hiccough. H. E. BELCHER.
13. Dislocation of the Radio Carpal Joint. J. C. M. GIVEN.
14. Case of Tetanus Treated by Intracerebral Injection of Antitoxin; Recovery. JAMES LAWRENCE and JOHN HARTLEY.

1.—See PHILADELPHIA MEDICAL JOURNAL, June 10, 1899.

2.—Thin reports a case which was diagnosed **blackwater fever,** in which the parasites found were morphologically indistinguishable from those of malaria. There was considerable destruction and disintegration of the epithelium of the kidney-tubules, a condition analogous to that found in the kidney from cases of blackwater fever. This condition had been brought about by the destructive properties of the toxin generated. The virulence of the toxin seems, in cases of blackwater fever, to be increased by the presence of quinin in the blood. The spontaneous cures observed in blackwater fever are very possibly associated with the virulence of the toxin, which acts destructively on the parasite—in which case the parasite is destroyed by its own secretion. The brain was the only organ in which the parasite was found in this case. Thin believes that there is absolutely no evidence for the supposition that blackwater fever is due to a special form of parasite. It is more likely that the same species of parasite varies in its poisonous power according to place and time, in the same way as does the parasite of tertian fever. [S.M.H.]

3.—Auld, as the result of a study of the work recently done regarding **the function of the suprarenal gland,** and of some experiments of his own, concludes that the suprarenal glands act by destroying poisonous substances and by furnishing material to the blood. [S.M.H.]

4.—Knaggs operated on 4 **unusual cases of hernia.** They were as follows: acquired inguinal hernia, with hourglass constriction of the sac, operation, and death supposedly from ether-pneumonia; strangulation under a band in an inguinal hernia, operation, and recovery; interstitial femoral hernia, properitoneal operation, and death; inflamed and strangulated congenital umbilical hernia, operation and recovery. [G.B.W.]

5.—Thomas urges upon the profession the use of the **cystoscope,** whereby the early diagnosis of malignant diseases of either kidney or bladder may be possible, and much discomfort saved the patient. An anesthetic is not required, and the proceeding is no more irksome to the patient than the passage of a bougie. [G.B.W.]

6.—**Extreme dilatation of the sigmoid flexure** is a very rare condition. In the 2 cases reported by Woolmer the patients sought relief from obstinate constipation. In both cases laparotomy was performed and colopexy practised. They both recovered from the operation and at present are enjoying good health, having overcome their obstinate constipation. [G.B.W.]

7.—Pure **fibrous stricture of the rectum** is not a common affection and is difficult to treat satisfactorily. A simple and satisfactory operation is as follows: A vertical incision is made through that part of the stricture furtherst removed from the peritoneum. The verticle is converted into a transverse slit and the margins stitched together. [G.B.W.]

8.—Armstrong advises that in all cases of obstinate **asthma** a thorough study of the nasal passages should be made, and that the possibility of a gouty origin be carefully considered. [S.M.H.]

10.—Malcolm makes a brief report on 4 cases of **beriberi.** All were in males and from shipboard. Heart-murmurs and albuminuria were absent. [S.M.H.]

11.—Marshall reports several doubtful cases of **reinfection in syphilis.** [S.M.H.]

12.—Belcher reports a case of **obstinate hiccough** in which relief was promptly given by the administration of a dram of fluid extract of ergot. [S.M.H.]

14.—Lawson reports a case of **tetanus** which developed in a man aged 20 years 8 days after a gunshot wound of the foot. On the morning of the second day he was given an injection of 2½ cc. of antitetanic serum into each frontal lobe. Shortly after, 20 cc. were administered hypodermically. During the evening he was much better. On the two succeeding days he was given 15 cc. and 10 cc. respectively without any beneficial effect. The bromids and chloral seemed to diminish the spasm, but carbolic acid seemed more effective. [S.M.H.]

Lancet.

June 3, 1899. [No. 3953.]

1. Medical London of the Eighteenth Century. G. VIVIAN POORE.
2. On "Crossed" Aphasia and the Factors which go to Determine Whether the "Leading" or "Driving" Speech-centers Shall be Located on the Left or in the Right Hemisphere of the Brain, with Notes of a Case of "Crossed" Aphasia (Aphasia with Right-sided Hemiplegia) in a Left-handed Man. BYRON BRAMWELL.
3. The Rational Treatment of Consumption. J. G. SINCLAIR COGHILL.
4. Considerations as to the Etiology and Significance of Dilated Heart. H. A. CALEY.
5. Aneurysm of the Subclavian Artery; Ligature of the First Portion of the Subclavian, Followed in 38 Days by Removal of the Aneurysm. HERBERT W. ALLINGHAM.
6. A Case of Rapidly Increasing Arterio-venous Aneurysm of the Femoral Vessels Successfully Treated by Extirpation of the Sac. WILLIAM MURRAY and FREDK. PAGE.
7. A Fatal Case of Benzine Poisoning. FREDERICK SPURR.
8. A Modification of the Aronson and Phillips Staining Method and its Application in the Case of Malarial Blood. P. N. GERRARD.
9. Deaths from Lightning Stroke. HAROLD WHICHELLO.
10. Protrusion of the Intestines in a New-born Infant. JOHN BELL.
11. A Case of Diabetes with Recovery in a Fat Man with a Family History of Diabetes. SAMUEL WEST.
12. Four Cases of Bone Surgery. W. THELWALL THOMAS.

2.—Bramwell reports a case of **right-sided hemiplegia attended with marked and persistent aphasia** (crossed aphasia) in a patient who, for everything but writing, was lefthanded. In discussing the question of crossed aphasia, it must be remembered (1) that the vast majority of mankind use one hand more than the other; (2) that this is usually the right; (3) that the ancestors of most persons have for generations been righthanded; (4) consequently (*a*) heredity, (*b*) congenital organic aptitude, and (*c*) actual acquirement all tend to make the great mojority of persons righthanded; (5) it consequently follows that in righthanded persons the left hemisphere, and in lefthanded persons the right hemisphere is the "leading" or the "driving" side of the brain; (6) that with rare exceptions the "leading" or "driving" speech-centers are situated in the hemisphere of the brain which is, so far as the movements of the hand are concerned, the "leading" or "driving" side; consequently, in righthanded persons the "leading" or "driving" speech-centers are, with perhaps rare exceptions, situated in the left hemisphere, and in the great majority of lefthanded persons the "leading" or "driving" speech-centers are situated in the right hemisphere, and therefore (7) acute and complete destruction of Broca's convolution, when it occurs in a righthanded man will, and does, in most cases produce motor-vocal aphasia, while the same lesion when it occurs in a lefthanded man will not, and does not, in most cases produce motor-vocal aphasia. Vice versa, acute and complete destruction of the motor-vocal speech-center in the right hemisphere of the brain when it occurs in a lefthanded man will, and does, produce, in most cases, motor-vocal aphasia; while the same lesions, when it occurs in a righthanded man will not, and does not, in the vast majority of cases, produce motor-vocal aphasia. Exceptions to these statements occasionally occur, and these Bramwell calls cases of "crossed aphasia." In most of the cases of "crossed" asphasia the speech defect is temporary and evanescent. These temporary cases are easily explained if it be granted that the cortical centers in the "nonleading" or "nondriving" hemisphere of the brain, which correspond to the speech-centers in the "leading" or "driving" hemisphere are possessed of some sort or degree of speech-function, which is usually carried on in conjunction with and in subordination to, the functions of the speech-centers in the "leading" or "driving" hemisphere, and which probably varies in degree in different individuals and in accordance with the function of the individual speech-centers. Cases of "crossed" aphasia occasionally, though rarely, occur, in which the aphasia symptoms are of long duration. These almost always occur in lefthanded persons. The factors which go to determine whether the "leading" or "driving" speech-centers shall be located in the left or in the right hemisphere of the brain are chiefly: (1) heredity and (2) congenital aptitude or personal acquirements, hence the leading or driving speech-centers would, in the majority of lefthanded persons, be situated in the right hemisphere. It is possible that in some lefthanded persons whose ancestors were righthanded, the fact that they are taught to write with the right hand can upset this prior localization, viz, can retransfer the "leading" speech-centers to the right hemisphere. Hence, in cases of "crossed" aphasia in lefthanded persons, with the object of trying to throw more light upon this point, it should always be noted whether the patient has been taught to write with the right or the left hand, and whether he has been accustomed to write much or little, and whether or not he is ambidextrous. Bramwell is therefore inclined to think that the exceptional cases in which in lefthanded persons the "leading" or "driving" speech-centers are situated not, as one would expect, in the right, but in the left hemisphere of the brain may perhaps generally be best explained by supposing that in them the influence either of (*a*) heredity or (*b*) heredity plus the factor of learning to write, and the practice of the art of writing with the right hand was, so far as the localization of the "leading" or "driving" speech-centers is concerned, stronger than the influence of the acquired (nonhereditary) lefthandedness. If this supposition is correct, one would therefore expect that in most of the exceptional cases in which a lefthanded person becomes aphasic and hemiplegic on the right side, as the result of a lesion in the left hemisphere of the brain, the ancestors of the patient will have been righthanded, and probably also the patient will have been taught to write and accustomed to write with the right hand, or, at all events, be ambidextrous. In Bramwell's experience this is usually the case. [S.M.H.]

3.—The **treatment of consumption in the Sanatorium** (these institutions being the only place in which these cases can be successfully treated) at Ventnor, according to Coghill, consists in (1) the diet, into which milk enters largely, is ample, simple, and varied, and adapted to the general condition of the patient and the stage of the disease; (2) rest and exercise on the principles generally recognized; (3) the freest possible exposure to the open air of all the patients, pyrexial patients being carried to the verandas on their beds, and the supplementing of the natural ventilation of the occupied rooms by mechanical means; (4) the scientific treatment of symptoms by remedies directed as much as possible to the diseased processes within the body in which they originate; (5) the reinforcement of the purely medical supervision of the patients by a body of specially trained nurses; (6) the appreciation of the true value of the accessory conditions of climate, site, elevation, shelter or exposure, rainfall, sunshine, and nature, and the relations of soil to water. Coghill has used Koch's tuberculin, sufficiently diluted to avoid marked reaction, with great success. [S.M.H.]

4.—Caley summarizes an article on considerations as to **the etiology and significance of dilated heart** as follows: That in the etiology of cardiac dilatation the two essential factors, factors of varying relative importance, are: (1) The element of increased mechanical strain, and (2) myocardial weakness, primary or secondary; that the liability of the heart to suffer from the effects of increased work, is dependent upon the inter-relation that exists at the time being between the elements of mechanical and the condition of the myocardium which has in large measure to stand the strain—and that it is when increased mechanical strain and myocardial weakness are combined that there is the greatest liability to severe cardiac dilatation. A dilated ventricle is per se unfavorably placed for coping with increased work; given a slight degree of dilatation from mechanical causes, toxic and other agencies which depress the heart-muscle may greatly intensify the cardiac embarrassment and in a large proportion of cases in which alterations in the mechanical conditions of the circulation constitute the primary factors in the production of dilatation its later progressive development is attributable to the supervention of myocardial changes. With respect to the significance of the dilatation, just as physiologic dilatation is an evidence of heart fatigue, pathologic dilatation is an evidence of heart-overstrain—past or present—and in order to estimate its significance with any degree of accuracy one must note the degree of dilatation, the condition of the heart-muscle with which the dilatation is associated, its precise etiology, the extent to which the work of the heart in relation to the general circulation is affected by it, and the amount of recuperative power that the individual possesses, this recuperative power being evidenced by the course of the case and its reaction to treatment. [S.M.H.]

5.—The symptoms exhibited by this patient were no more than those of **aneurysm** in this locality in any other case. There was no personal history that pointed to its predisposing or exciting cause. The tumor had been growing gradually for 3 years. It was determined to ligate it proximally in the first portion of the subclavian. This was done, but there was continued pulsation in the tumor, though it was not as marked. The collateral circulation seemed to readily establish itself, and there were no symptoms of interference with the circulation in the arm. As the tumor gradually increased in size it was determined to remove it. Ligatures were placed on either side after resection of the clavicle and the whole tumor carefully dissected out. The result was entirely satisfactory. [C.L.L.]

6.—The patient exhibited a swelling as large as a fist just under the skin covering the site of Hunter's canal. In it could be heard and felt the thrill characteristic of **communication between an artery and a vein.** This thrill could be heard in all the vessels of the limb and in the iliac arteries. The bloodvessels were ligated above and below and the tumor carefully dissected out. The patient made a rapid and complete recovery with no marked interference with the circulation. Cases similar to this and those involving the jugular vein are considered unfavorable for operation. [C.L.L.]

7.—Spurr reviews his literature of **poisoning by benzine,** and reports a case. The patient was a woman, aged 26 years; an epileptic. The amount taken was about one ounce. A strong emetic of mustard and water, which induced free vomiting, was given very shortly after the dose was taken. The patient died in 50 hours. The symptoms manifested were simply those induced by the irritant action of the drug. The narcotic effects described in the majority of recorded cases were not present, probably owing to the fact that the stomach was emptied before any extensive absorption had taken place. Some of the poison probably entered the circulation, which together with the free inhalation of the vapor would account for the cerebral and meningeal congestion found at the autopsy. The other postmortem lesions were due solely to the irritant action of the drug. [S.M.H.]

9.—Whichello found 2 brothers by a roadside, who had been **killed by lightning.** They had been driving in a cart. The paint on the tailboard of the cart was slightly singed immediately behind the younger brother's seat, and the cloth on the upper part of his cushion was burnt. Otherwise, the cart was uninjured. The horse was uninjured. The elder brother had no external sign of injury. In the case of the younger brother, the epidermis was burnt in a number of circular holes, from 1/16 inch to ¼ inch in diameter from the neck to the pubes. The metallic collar-stud was fused, and the skin beneath deeply burnt. The back was burnt less severely. The vest and shirt were charred, but the waistcoat and coat were uninjured. Corresponding to a burn on the right buttock, there was a hole burnt in the drawers and trousers. There was a contused scalp-wound over the occiput due to the fall. The clothes were not torn in either case. The younger brother's watch was going, and was not magnetized, as it continued to keep good time. [S.M.H.]

10.—The case was one in which there was a **congenital defect in the abdominal wall.** When brought into the hospital the cord, with placenta attached and about two feet of intestine, were found lying on the abdomen. The cord was thinned out, and attached all around to an opening, 1½ inches in diameter, through which the intestines had escapd. The opening was closed by deep and superficial sutures, and healed readily, with the exception of the surface, which granulated slowly. [C.L.L.]

11.—West reports a case of **diabetes** occurring in a very fleshy man, aged 47 years, possessed of a diabetic family history. His urine had a specific gravity of 1030, contained a trace of albumin and about 8% of sugar. The patient was placed on the ordinary diabetic diet and given a mixture containing "cinchona and acid." Three weeks later the urine showed 2% of sugar, the symptom thirst had disappeared, and he felt much better. A week later the urine showed no sugar. On one occasion two months later a fair amount of sugar was present. There was no recurrence during the year following this, and the case was considered cured. [S.M H.]

12.—The first of the four cases was one in which bony **ankylosis** of the kneejoint in a faulty position had occurred and infected wound. As the patient was a youth the straightening of the limb was secured by removing a wedge-shaped piece from the femur that did not involve the epiphyseal line. The growth of the limb was not interfered with. In the second case there was ankylosis of both hip-joints, fibrous in one and bony in the other. This resulted in scissors-legs deformity and interference with locomotion. Osteotomy of the femur and tenotomy of the adductor longus permitted the separation of the limbs and increased the ability to walk. The third case was of impacted fracture in the lower end of the femur, irreducible under chloroform. A resection avoiding the epiphyseal line secured a good result without interfering with development. In the fourth case an infected compound fracture of the tibia was prevented from healing by the over-extended position in which a simple fracture of the fibula had healed resection, and shortening the fibula resulted in firm bony union. [C.L.L.]

New York Medical Journal.

June 17, 1899. [Vol. lxix, No. 24.]

1. Some Remarks upon Obstetrics in Private Practice. J. Clifton Edgar.
2. Quantitative Determination of Albumin in the Urine. Charles W. Purdy.
3. A Severe Case of Puerperal Sepsis treated by Antistreptococcus Serum and Unguentum Credé. Recovery. James D. Voohees.
4. The Use of Holocain as a Local Anesthetic in Eye, Ear, Nose, and Throat Operations. John Guttmann.
5. On a Compound Microscope for Viewing the Eye. Lucien Howe.
6. The State of the Gastric Secretions in Organic Disease of the Heart. Frank H. Murdoch.

1.—Edgar details the **obstetric outfit** best to be employed, and methods of sterilization and record-keeping in obstetric cases. Lists of articles to be secured by the patient, contents of obstetric bag and of obstetric operating cases are given; and everything that tends to prevent sepsis is urged. [W.K]

2.—The result of a 5 years' search for **a ready, trustworthy, and convenient method for the determination of albumin in the urine** is given. The method in brief is as follows: The albumin is precipitated in carefully graduated percentage-tubes (15 cc. capacity) by 2 cc. of 50% acetic acid, and 3 cc. of a 10% solution of potassium ferrocyanid added to 10 cc. of the urine. The mixture should stand for 10 minutes to insure entire precipitation of the albumin. The tubes are then placed in a centrifuge, the radius of which is exactly 6¾ inches, and operated for exactly 3 minutes at 1,500 revolutions per minute. The volumetric percentage of albumin may then be read from the scale on the percentage-tubes. A table is also given, showing the corresponding gravimetric measurements for various volumetric readings. The time of the test need not exceed 15 minutes, and the range of error does not exceed 0.01%, expressed gravimetrically. The success of the test depends upon (1) the preparation of the urine, which should be filtered and rendered frankly acid by acetic acid; if the quantity of albumin is excessive, as may be determined by a rough preliminary test, the urine should be diluted with one or more volumes of water; (2) after adding each of the reagents the tubes should be inverted several times to insure complete mixture; the standing aside for 10 minutes is essential in order that the potassium ferrocyanid may have time to act; (3) an efficient centrifuge with the tubes, measurements and speed exactly as given. Nearly all the observations upon which the method was established were made upon samples of urine from cases of actual renal disease, but for purposes of investigating the method, solutions of Merck's purified serum-albumin in normal urines will give closely corresponding results. [A G.E.]

3.—Voorhees reports a case of **puerperal sepsis** in which antistreptococcic serum and Credé's ointment were employed. There were 68 inunctions, of one dram each, of the ointment used. There was no depression, no albumin in the urine, no argyria, or other bad symptoms from its use. The preliminary curetment of the uterus, the frequent douching, so long as the discharge is profuse, forced feeding, and vigorous stimulation must be used with good judgment at the beginning of the infection and during this method of treatment. In this case there were no results from the injection of serum. [W.K]

4.—Experimentation and the clinical observation of the effects of holocain in about 150 operations lead the author to prefer it in many instances to cocain, and although it cannot entirely replace it, he would substitute it under the following conditions, since he finds that both have the common property of paralyzing the terminal filaments of the sensory nerves, and that there is little difference in the time of their onset or the duration of the anesthesia produced while the intensity is nearly the same: Either may be used on the eye. He prefers **holocain in the removal of a foreign body** from the cornea, as it does not produce subsequent mydriasis; also in strabismus, as there is no shrinkage of the muscle. In inflammatory conditions with blepharospasm it relieves the spasm and pain, and, as an antiseptic, is curative. On account of the tendency of holocain to produce hemorrhage, cocain is to be preferred when there are atheromatous arteries. The vasoconstrictor effect of cocain, and the diminished tension on the eyeball, together with the subsequent deepening of the anterior chamber are all factors in favor of using cocain for the performance of an iridectomy under these conditions. When the pupil is small the mydriatic action of cocain aids in cataract-operations. The antiseptic action of holocain and the possibility of sterilizing it are always in its favor. In operations on the throat and nose the taste of cocain is against it, and the hemorrhage following holocain is against it, while cocain produces a shrinkage not seen with holocain. [C.L.L.]

5.—Howe describes an **improved compound microscope for viewing the eye.** It is mounted on a tripod and is adjustable for height and angle. The most satisfactory results from its use are obtained when the patient's head is firmly fixed by head-rests, and a shaded electric light is brought within a foot or two, but ordinary daylight answers for most purposes. The advantages over other microscopes are (1) a large degree of amplification; (2) greater clearness of definition; (3) a larger field, the angle of aperture being 35°. The instrument is of value in observing physiologic variations in the size and form of the pupil. Fifteen to 20 or more contractions, with corresponding dilatations, can be counted in 30 seconds. Many of these are due to efforts at accommodation, but an interesting field of study would be in determining whether the others were caused by variations in the blood-current, or perhaps, indirectly by mental processes. The tendency to the oval form of the iris mentioned by Eversbusch has been observed when a mydriatic is beginning to exert its effect. This microscope is of special assistance in studying (1) small opacities on the cornea; (2) the extent of changes in ulcerative processes in the cornea; (3) edema of the iris. Lastly it is of value in photographing the anterior portion of the eye, in either a normal or an abnormal condition. A photograph of the iris more than 25 cm. in diameter has been taken with it. [A.G.E.]

6.—Murdoch has examined the **stomach-contents of 23 persons having organic heart-disease.** An aortic systolic murmur was present in 5 cases. Free HCl was present in 4 and absent in 1. In 8 cases of mitral systolic murmur, free HCl was absent in 1, subnormal in 1, and nearly normal in the others. A mitral presystolic murmur was found in 5 cases. Free HCl was absent in 1, normal in 1, and in excess in the other 3. An aortic and mitral systolic murmur was present in 4 cases. Free HCl was in excess in 1 and absent in the others. In 1 case of simple hypertrophy of the left ventricle, HCl was absent. He concludes that there is no constant relation between the state of the gastric secretions and any one form of organic heart-disease. The presence of heart-disease does not militate against the recovery of patients suffering from the various forms of stomach-trouble. In the cases which recovered, or were greatly improved, intragastric faradization was used in 7, lavage and faradization in 1, and lavage alone in 2. [A.G.E.]

Medical Record.

June 17, 1899. [Vol. lv, No. 24.]

1. Summer Complaints in Children. LOUIS FISCHER.
2. Reflections on the Nosology of the So-Called Functional Diseases. JOSEPH COLLINS and JOSEPH FRAENKEL.
3. Traumatic Ruptures of the Heart, with a Case. RICHARD COLE NEWTON.
4. Congenital Cataract in the Rabbit: An Histological Study. T. DE OBARRIO.

1.—Fischer's article is a brief discussion of the subject of **summer complaint** in general, with the recommendation of clearing out the bowels with either castor oil or calomel, and, whenever it is possible, using irrigations of the bowels, and if the stomach is disturbed, washing this organ also. The thirst of the child should be quenched by giving it sterilized water freely, and if the child is much depressed, cold tea is a useful stimulant; he recommends adding dilute HCl or phosphoric acid to the water. If there is much collapse hypodermoclysis should be used. Dieting should include in the first place stopping the form of food that was being given at the time of onset of the attack. Temporarily the baby should get nothing but barley-water or rice-water or one of the similar preparations. Change of air is of the utmost importance. [D.L.E.]

2.—The authors start with the assertion that **disorder of the sympathetic nervous system is a most satisfactory explanation for numerous diseases,** among which they include insanities which are not accompanied with gross lesions, all forms of epilepsy and hysteria, conditions allied to neurasthenia, migraine, angioneurotic edema, and allied conditions of the skin and subcutaneous tissues; asthma, nonpancreatic diabetes mellitus and insipidus, Graves' disease, rheumatism, rheumatoid disorders, arthritis deformans, arteriocapillary fibrosis, gout, and the so-called uric-acid diathesis, and pathologic obesity. [The arguments offered are, as the authors state, fragmentary, and they are necessarily speculative, and it is always questionable whether purely speculative theories lead forward or backward. D L.E.]

3.—The case was that of a man of 28, who fell from his bicycle and struck the post of the handle-bar, which had been broken in the accident. He became collapsed at once, and remained so for some time until stimulated. The pulse then improved, and he showed less stupor, but soon grew worse and died. The autopsy showed that the sixth costal cartilage had been fractured near the sternum, the pericardium was full of blood, and there was a triangular flap torn through the apex of the right ventricle; each side of the flap measured an inch. The heart-walls and valves were otherwise entirely normal. **Rupture of the heart from contusion with no penetration of the chest-wall** is rare; other cases are collected here. The peculiarities of this case are that it seems to be the only one in which the impact of a blunt instrument fractured a costal cartilage and drove its extremity through the heart-wall without lacerating the parietal pericardium. The blow was evidently delivered in exactly the right direction to cause rupture, and had the cartilage been driven in any other direction the heart would not have been thus injured. The organ was probably in systole when struck, as when in diastole the blow is more likely to produce tears in the valves or septum. Another case is mentioned in which the heart was entirely normal except for the recent injury. [D.L.E.]

4.—**Cataracts** existed in both eyes of the animal. The eye-balls were removed and cut by meridional sections, hardened in formol and afterward in alcohol, and stained by Van Gieson's method. The naked-eye examination showed a concentric lamellar opacity about the periphery; within this a clear zone, and then near the center an opaque portion. The sclerosed portion stained yellow, the remainder red. The nucleus was homogeneous and structureless. On the surface of the capsule there were numerous fine granular cells without nuclei, which stained red; they were arranged in rows, those nearest the capsule being the smallest. At the point of convergence of the lenticular fibers these cells looked necrotic and the capsule also appeared degenerated, while the lens at this point became infiltrated with these cells; the question is raised, however, as to whether they are cells, since a nucleus was wanting in them. The defect in the posterior capsule was thought to be due to a remnant of the hyaloid artery, though there were no remnants of embryonal structures evident as such. [D L.E.]

Medical News.

June 17, 1899. [Vol. lxxiv, No. 24.]

1. Prognosis in Chronic Valvular Affections of the Heart. N. S. DAVIS, JR.
2. The Management of Typhoid Fever in a Country Practice. W.J. J. PARIS.
3. The Diebetic Management of Some of the Diseases of Infancy. CHARLES GILMORE KERLEY.
4. Empyema of the Pleural Cavity. W. J. BREEDING.
5. Bullet Wound of the Liver and Lung; Operation; Recovery. P. R. BOLTON.

1.—Davis calls attention to the fact that **sudden death in heart-disease is the exception and not the rule,** as is commonly supposed. It does occur in about ¼ of the cases of aortic regurgitation. He believes that perfect recovery from a valvular lesion may take place; that is to say, if one valve is diseased, the healthy valve may enlarge until it suffices to compensate the defect. He has observed 30 fatal cases with the average age of death for mitral stenosis at 50, for mitral insufficiency at 40, and for aortic stenosis and insufficiency at 36. Compensation may persist for a number of years. In some 250 cases of which Davis has records, he found that its average duration in mitral insufficiency was 5.1 years, in mitral stenosis 11.5 years, in aortic stenosis 7 years, and in aortic insufficiency 2.3 years. The maximum duration was 17 years in mitral insufficiency, and in aortic stenosis 20 years. In aortic insufficiency it was only 4 years. The prognosis is also governed to a certain extent by the heart-sounds, a vigorous murmur, and first sound being favorable. Congenital lesions usually do better than those that have been acquired. Mitral lesions ordinarily begin earlier in life than aortic lesions, the majority occurring before the 40th year. Aortic insufficiency usually occurs after this age. If the heart is greatly hypertrophied, the prognosis is less favorable, and naturally, if there is anemia or emaciation, or if there is a sudden obesity, the case is graver. The duration of broken compensation is very variable. In mitral insufficiency, it averages 2.6 years, in stenosis 3.6 years, in aortic stenosis 3.8, in aortic insufficiency 2 75 years. Davis classifies cases of broken compensation into those in which it is imperfect, those in which it is lost and characterized by edema, those in which it is lost producing passing congestion of the liver or kidneys, and edema of the serous membranes. Usually the first sign is dyspnea, but in aortic stenosis, it may be tachycardia. Unfavorable symptoms in lost compensation are anemia, dropsy, and dilatation of the heart, but when it occurs, the patients are usually more amenable to hygienic measures. In 139 cases of the 250, no satisfactory cause could be determined. In the remaining cases, 54 were due to rheumatism, 15 to atheroma, 5 to chorea, and the rest apparently to infectious disease. The commonest complications are bronchitis and nephritis. [J S]

2.—Harris gives the following directions for **the management of typhoid fever under unfavorable conditions.** One person should be installed as nurse, and instructed in the use of the thermometer and other necessary manipulations. The patient should be kept absolutely in bed. All utensils used should be sterilized at once in hot water, and the bed should be changed at least every 36 hours. The temperature of the room should be kept as near 65° as possible. It is important to manage friends successfully. This should be done by advising them of the possibility of complications, sequels, and relapses, and urging the necessity of quiet. Milk is the best diet, but it may be varied by lemonade, egg-albumen, broths, etc. Sponging is a satisfactory method of depressing the temperature, and thymol may be used internally as an antiseptic. Stimulants should be used as required. [J.S]

3.—Kerley argues that babies suffering from **gastroenteritis** should not be given milk diet. Even modified milk is not always satisfactory, on account of the difficulty in digesting the casein. Constipation may be treated by increasing the amount of fats, or giving the child codliver oil. The proteids should always be kept low if there is any gastrointestinal disease. When the children are able to take more extensive diet, they may be given rare meat, green vegetables, stewed fruit, bran, etc. In the summer-diarrheas, milk should be discontinued at once. The children may then be given barley or rice-water, chicken-broth, beef-juice, etc. The diet should be varied as much as possible. When the milk-diet is resumed, it should not be given in full strength at once. [J.S.]

4.—Breeding reports 2 cases of pleural **empyema** of rather especial interest. In the first the abscess opened into the intestinal tract, and the patient died from septic gastroenteritis. The second case was remarkable because recovery occurred from such a grave condition. The chest was incised in 3 different places at 3 different times, and at each operation a new accumulation of pus was opened up. The empyema had also opened into a bronchus. [G.B.W.]

5.—The **bullet** in this case entered 2½ inches below the ensiform cartilage and traversing the liver entered the pleural cavity. The bleeding from the liver was controled by gauze-packing, and the pleura was emptied of blood by aspiration. There was no hemoptysis, though the lung was supposed to have been injured. [G B.W.]

Boston Medical and Surgical Journal.

June 15, 1899. [Vol. cxl, No. 24.]

1. A Century of Medicine in America. J. C. Wilson.
2. Medical Aspects of Crime. Daniel R. Brower.
3. The Care of the Hands for Those Who Practise Surgery. W. L. Burrage.
4. Two Cases of Infantile Bladder Treated by Gradual Distention. George Haven.

1.—See Philadelphia Medical Journal, June 10.

2.—See Philadelphia Medical Journal, June 10.

3.—Burrage advocates strongly the use of rubber-gloves as a protection to both patient and surgeon. The method preferred for **sterilizing the hands** is that of using the nascent chlorin, given off by mixing chlorinated lime and washing-soda. This method, he claims, and truthfully claims, while giving as satisfactory results as any other method in sterilizing the hands, leaves the skin soft, unirritated, and comfortable. Another point urged by Burrage is the importance of washing the hands *thoroughly* after the operation. [G.B.W.]

4.—The symptom of those two cases of **infantile bladder** was incontinence, the patients not being able to retain their urine more than 1 hour. Both were cured by the gradual dilatation treatment. [G B.W.]

Journal of the American Medical Association.

June 17, 1899. [Vol. xxxii, No. 24.]

1. Oration on Surgery Floyd W. McRae.
2. Chairman's Address. A. H. Cordier.
3. A Study in Perspiration. Julius H. Hoelscher.
4. Cerebrospinal Pneumococcus-Infection. Bayard Holmes.
5. Treatment of Syphilis. Dudley Tait.
6. "Christian Science" and Allied Fads. John Chadwick Oliver.
7. Cysticercus of Brain and Spinal Cord. I. B. Diamond.
8. Proprietary Preparations. Charles C. Yarborough.

1.—See Philadelphia Medical Journal, June 10.

2.—Ibid.

4.—The case reported is full of interest as showing the **occurrence of a pneumococcus infection within the brain** producing adhesions and thrombosis. The only localizing signs were seen over the mastoid; this was trephined and pus removed, the lateral sinus was not thrombosed. The postmortem showed a general infection with numerous adhesions in which the presence of the pneumococcus was established. [C.L.L.]

5.—**The intravenous method for treating syphilis** will never supplant the older methods which have stood the test of time, especially the ideally simple and eminently practical method of ingestion, which is admirably borne by the majority of patients, and proves adequate in 80% of cases, this figure representing the average proportion of benign to grave syphilis. It must also be remembered that certain lesions—roseola, macular syphilis and polyadenitis—are more easily controled by certain mercurial preparations which can only be given by ingestion, *i. e.*, protoiodid. For cases of average severity, requiring a long series of intermittent treatments, it is customary to prescribe the inunction-method, a useful and active form of treatment, it is admitted, but for which in many cases Tait would substitute the intravenous method. The author gives the following as the indications for the employment of the intravenous method: It should be regarded as an exceptional measure, of infinite value when other recognized methods have failed—inglossitis, phagedenism—and in cases demanding rapid action, or early intense mercurialization—malignancy. It should be reserved for lesions of exceptional severity where other methods of medication have failed. In the differential diagnosis of certain neoplasms in suspected tertiary syphilis, or in the presence of the numerous pseudophenomena or grave symptoms of obscure origin, intravenous injections of mercury constitute the only thorough test, of infinitely greater value than iodins. [C.L.L.]

7.—The case reported was one in which there had been a long-standing infection from the larva of the **tenia solium.** The clinical history, as well as the examination of the cysticerci, seemed that the case was at least of 12 years' duration. The author believes that the convulsions are the result of the constant pressure and irritation of the cysticerci on the brain, finally causing death. They act as foreign bodies, produce a chronic reactive inflammation of the brain and meninges, while the giant-cells formed around these bodies participate in the formation of the capsule. [C.L.L.]

8.—A physician cannot consistently prescribe or sanction the use of any proprietary whose active ingredients are not stated and their exact amounts given. **Secrecy of active ingredients is then the great dividing line.** But there are a number of preparations whose composition is openly published, but which are nevertheless ineligible and unfit for professional recognition. These comprise all of such nature except those that are not advertised to the laity. Do not prescribe or sanction the use of any preparation by the profession which does not give an entire formula of its active ingredients and their proportions, and which is advertised in other than proper professional channels. [C.L.L.]

Münchener medicinische Wochenschrift.

April 4, 1899. [46. Jahrg., No. 14.]

1. The Radical Operation for Free Inguinal Hernia by Suture of the Internal Inguinal Ring. Assaky.
2. Further Experiences in Appendicitis. Doerfler.
3. Intubation in Diphtheric Larynx-stenosis in Private Practice. Schlesinger.
4. Upon the Acoustic Motion of the Labyrinthic Perilymph. Hensen.
5. Communication on Carcinoma. Ziegler.
6. A Peculiar Sensibility-disturbance following the Use of

a Rubber Bandage according to Bier's Method. Langemark.
7. Favorable Course of a Case of Tetanus Traumaticus. Hönn.
8. Upon the Use of Clay (Bolus alba) in the Treatment of Cervical Catarrh. Georgii.
9. Clay as Bandage-material. Höpfel.
10. Globulicidal Effect of Serum Upon Animal Organisms. v. Dungern.
11. The Sanitary Conditions in the Armies of the Ancients. Marcuse.

1.—The **radical operation** for **inguinal hernia,** as described by Assaky, is as follows: A small incision, not over 6 or 7 cm. in length, is made, the under end of which reaches 1 cm. below the middle of the external inguinal ring. The inguinal ring and canal are then examined. A portion of the peritoneum for about 1 cm. around the internal ring is removed. If the sac is free it is pulled out through the opening and resected. If, however, adhesions have formed, which render this extracting of the sac impossible, a ligature is passed around its neck and tied. The neck of the sac is then cut through, and the sac itself retracts down below the ring. The fibrous sides of the funnel-shaped hole (inguinal ring) which was formed by the excision of peritoneum described, and which has now been freed from peritoneum by the retraction of the ends of the hernial sac, are sutured together by 2 or 3 stitches, thus blocking the hernial opening. The wound in the peritoneum is now closed by a fine continuous catgut suture, and the skin-incision united. [G.B.W.]

2.—Doerfler offers the following **classification of appendicitis:** (1) Appendicitis propria; (2) periappendicitis serosa; (3) periappendicitis suppurativa seu perforativa, this last appearing as (*a*) circumscribed suppurative periappendicitis; (*b*) general suppurative peritonitis; (*c*) fulminating general septic peritonitis. In **appendicitis propria** there is a chronic inflammation of the appendix itself and this condition may for a year or more run along without the involvement of neighboring structures. Symptoms of this variety are appendiceal colic, coming in attacks every 2 or 3 minutes, anxious countenance, seldom vomiting, hard abdomen, fever rare, and a pulse following closely the temperature-curve. After 1 to 6 hours the attack passes off, leaving tenderness most marked at McBurney's point. Sometimes the appendix may be palpated. These attacks occur quite often, sometimes as high as 15 or 20 a year. In these cases the treatment is operation in the interval. In **periappendicitis serosa** a slight inflammation spreads to the surrounding peritoneum, producing merely a serous peritonitis without suppuration. The symptoms are pain in the right lower abdominal region, moist tongue, strong slow pulse, temperature normal or only very slightly elevated, abdomen soft, never distended and in the region of the appendix is an immovable, tender resistance about the size of a pigeon's egg. These cases may be treated medicinally and operation only resorted to after numerous and severe attacks. [The article is to be continued. G.B.W.]

3.—Schlesinger states that in Germany the custom of **intubating** for laryngeal stenosis in diphtheria, **in private practice,** is not as widespread as in America. Most German authors, as well as the French, demand the constant presence of the physician, which is only practicable in hospitals. Schlesinger himself has intubated 4 times in private practice, and reports the cases in this paper. He attempts to answer the questions as to whether the physician need stay continuously with the intubated patient, how long he shall stay after removal of the tube, and whether he can absent himself for a longer or a shorter time. It may become necessary promptly to remove the obstructed tube, or to replace a tube that has been coughed up. Obstruction occurs most frequently from an accumulation of tough mucus, and as this takes place gradually, there is always sufficient time to summon the physician, who should leave his exact address. Obstruction by membrane without expulsion of the tube is rare; it is most apt to occur immediately after the introduction of the tube while the physician is still present. Some instances of sudden death are explained on such obstruction, but it is probable that nervous influences play a part in these cases. It is, however, well to guard against the dangers of obstruction by fastening the thread attached to the tube on the cheek with plaster so that in an emergency the tube can be withdrawn. Expulsion of the tube is rare when the short tubes of Bayeux are used. Sometimes, when the tube is expelled, it need not be reinserted. In other cases, dangerous symptoms set in, but at times subside before the advent of the physician, having been in part due to nervous excitement. Steam-spray or a few swallows of hot milk may alleviate the stenotic symptoms in as far as they are due to a nervous spasm of the glottis. The conditions are the same when the child has pulled out the tube by the guard-thread. In his four private cases the author found that the tube was needed a little longer than in hospital practice. The use of **antitoxin** is a *sine qua non* of intubation. Regarding the time for intubation it is not wise to wait until asphyxia threatens, but it is a good plan to await the first effects of the antitoxic serum. After the operation the physician remains a little while, up to a quarter of an hour. When the occasion for the removal of the tube has arrived, then the physician is compelled to lose a good deal of time extracting and reinserting the tube until the child can breathe easily without it. [D.R.]

4.—In some experiments made with the gauze used in plankton-fishing Hensen noticed that when the apparatus was not completely closed the current of water produced powerful tones. Acting on this observation he constructed a receptacle the outlet of which was closed with a rubber membrane. If water was allowed to flow into this under pressure the membrane was lifted, and when the pressure was lessened by the outflow of water the membrane swung back, and in doing so produced a sound. Hensen calls this apparatus a **membrane-pipe.** Some interesting properties are exhibited by the vibrating diaphragm; at its center it exerts a powerful attraction, similar to that of the magnet on iron. It will attract a brass plate weighing 115 grams at a distance of 5 cm., and will hold it as long as vibration continues. Pearls, 1 mm. in size, are attracted and then repelled with great force. If a mass capable of rotating is brought near to the membrane from the side it will be actively rotated. Hensen and Klein then applied the results obtained on the membrane-pipes to a study of the labyrinth of the ear. If finely ground glass beads were placed on the oval window of an ear, they approached the center of the plate of the stapes as soon as a sound was made, and then were thrown off. In another experiment a real pearl, 16 mm. in diameter, was hung in front of the stapes. At first, when a sound was made, the pearl exhibited a slight rotatory motion, but when it was brought to within 1 mm. of the plate, it was attracted and then repelled. These experiments seem to show that the vibration of the stapes produces movements similar to those seen in front of the membrane. The attraction probably brings the entire labyrinth-fluid into motion; the otoliths are, it is likely, also within the radius of attraction of the stapes. There is, probable, also a current of perilymph in the bony semicircular canals, owing to the proximity of their ampullæ to the oval window. Whether a current enters the membranous canals is doubtful, but mass-vibration of the contained fluid probably occurs. [D.R.]

5.—The case is one of **carcinoma of the gallbladder** which had spread to and involved the neighboring portion of the liver. The growth was removed with the red-hot cautery and the patient made a temporary recovery, without, however, complete closure of the biliary fistula. Also only a short time elapsed before return of the disease. [G.B.W.]

6.—This case was one of **complete anesthesia following** a rather long seance of Bier's method of treating tuberculous joints by **passive hyperemia.** The anesthesia did not disappear as the edema diminished, but persisted in spite of all treatment. One day an extensive formation of blisters followed a foot bath of 28° C., unaccompanied by pain. After this, feeling returned to all the portions of the leg except where the new skin, resulting from healing of the blisters, was; and this skin still remained anesthetic. [G.B.W.]

7.—Hönn reports a case of traumatic tetanus in a man of 25 years, which terminated favorably under the use of antitoxin. [D.R.]

8.—After the use of **clay as a surgical dressing** had been suggested by Stumpf, Georgii was led to try the results of its use in cervical catarrh. After thorough cleansing of vagina and cervix, the mucous cysts should be incised, bleeding arrested, and the clay pressed firmly into the cervical canal and about the vaginal portion of the cervix. It is held in place by a tampon of cotton. The results from this treatment have been very satisfactory. The vaginal portion has been reduced in size, the secretion has been diminished, and the general condition of the woman has been decidedly improved. The dressing should be changed every third day. [W.K.]

9.—Höpfel recommends highly the use of **pulverized clay** as an application in the treatment of leg-ulcers, but does not believe it of any value as an aseptic or antiseptic dressing. [G.B.W.]

10.—The serum of normal guineapigs does not dissolve the corpuscles of chicken or pigeon-blood. When such serum is added to dilute pigeon-blood outside of the body, it produces agglutination of the corpuscles, but only in a slight degree. If, however, the serum of a guineapig previously treated with the blood of either bird, is used, then the agglutination of the corresponding avian blood is much stronger, *i. e.*, occurs even with marked dilutions. If the serum is added in large quantity, agglutination either does not occur, or, if it occurs, soon disappears, because the serum, in addition to being agglutinative is globulicidal. The two properties are specific—the serum of a guineapig treated with pigeon-blood has no greater action, outside of the body, on chicken-blood, than normal guineapig-serum, and vice versa. The specificity is, however, not absolute. The globulicidal property is not destroyed by drying; if the serum is warmed for 1 hour at from 56°—60° C., it completely loses its power of dissolving the corpuscles of pigeon-blood, but, on the addition of fresh normal guineapig serum, the power returns in practically the original strength. In the body of the guineapig the tested serum is efficient when injected without the addition of normal serum. When pigeon-blood is mixed with serum from a guineapig treated with pigeon-blood, and the results are studied *in vitro* as well as after injection into the peritoneal cavity of a guineapig, but little difference is found in the globulicidal effect. The part played by the leukocytes in the phenomenon was investigated—it appeared that they are not to any extent concerned in its production. The specific immune-substance is not attached to the cells but circulated free in the plasma. Its production in the body of the guineapig, after the injection, *e. g.*, of pigeon-blood, is not connected either with the hemoglobin or with the stroma of the latter's corpuscles. A special substance is necessary for its development, which the author calls **Immunisirungskörper**—immunizing body. It is unstable and is contained in the blood-serum, but also in the red corpuscles. The "Immunenkörper"—*i. e.* the globulicidal body—can be produced by injecting the blood-serum alone or the entire pigeon-blood, the latter being more effective. This is analogous to the formation of the bactericidal substance—this can be produced by the injection of either the bacterial bodies or the culture-fluid, the former being more potent. In the solution of the red corpuscles Ehrlich and others have considered two substances necessary—one the alexin of Buchner, the addiment of Ehrlich, normally present in the serum, and another, a specific Immunenkörper produced under the influence of the injection of the foreign blood. Von Dungren doubts whether the addiment constitutes the real globulicidal (or bactericidal) agent, and believes that during solution it is the Immunisirungskörper, the immunizing body, attached to the red cells that suffers destruction. This body is of vital importance to the cells; as soon as it is destroyed, the albumins of the erythrocytes go into solution. All the phenomena indicate a perfect analogy between globulicidal and bactericidal processes. The specific **bactericidal immunity** is nothing more than a **variant of the antitoxic immunity**, the only difference being that the substance for the destruction of which the antibody (Antikörper) is produced is not specially toxic, but is of vital importance for the bacterial cell. [D.R.]

Wiener klinische Wochenschrift.

April 13, 1899. [12. Jahrg., No. 15.]

1. Pseudo-perityphlitis. H. Nothnagel.
2. (*a*) Pernicious Anemia. Neusser.
   (*b*) The Influence of Vascular Changes and Blood-pressure upon Leukocytosis. A. v. Decastelle.
   (*c*) Leukopathic Conditions of the Blood in Infectious Diseases. V. Blum.
3. (*a*) Concerning Periarteritis Nodosa. Schrötter.
   (*b*) Concerning a Case of Dwarf-growth Connected with Congenital Contraction of the Aortic System. K. Hödlmoser.
   (*c*) Bony Formations in the Trachea. H. v. Schrötter.
4. Concerning the Heart in Goiter (Cardiovascular Symptoms.) Fr. Kraus.
5. A Contribution Upon the Theory of Multiple Cysticercus. A. Passelt.

1.—A nervous youth of 20, coming of a highly neuropathic stock, presented the symptoms of appendicitis, but without fever. Two years before, he had a similar attack; laparotomy was at that time performed, the appendix, which was perfectly normal, being removed—*ut aliquid fiat.* The pain in the second attack was in the iliac fossa, the right leg was drawn up, and there was tenderness on pressure. Nearly the entire right side was hyperesthetic, and the visual fields were concentrically narrowed. Under faradism the patient recovered. Nothnagel considers the case one of **hysteric perityphlitis.** [Such cases were not rare a few years ago, when so many persons imagined that they had appendicitis. D.R.]

2.—Neusser reports several interesting cases of **pernicious anemia complicated with other diseases.** The first is one of **pernicious anemia and exophthalmic goiter.** The pernicious anemia had existed 8 years before the patient came under observation the last time, but there had been improvement on several occasions under treatment in hospital. The symptoms of the thyroid affection, which had come on after the anemia, varied also in intensity from time to time. Toward the end a profuse painless diarrhea and vomiting set in, which the author charges to the Graves' disease. So marked were these phenomena that the patient was suspected of having cholera. Shortly before death jaundice developed, and as at autopsy the liver presented to some extent the appearances of acute yellow atrophy, Neusser attributes the icterus to the hepatic disease. The latter he considers toxic in origin, and a complication of the exophthalmic goiter. [Pernicious anemia, it has been shown, can of itself produce jaundice.] The second case was also one of pernicious anemia. It occurred in a woman of 34, and was associated with **atrophy of the mucous membrane of the stomach.** The red corpuscles sank to 250,000. At the autopsy, the stomach was markedly contracted, and, microscopically, the gastric glands were found much shortened and reduced in number. The spleen was enlarged. It is interesting to note that during life the motility of the stomach had been normal, but free hydrochloric acid had been absent. Toward the end the leukocytes increased from 2,500 to 7,500, and coincident with this was the appearance of large numbers of gigantoblasts in the blood. A metabolic study showed the existence of nitrogen-equilibrium. The third case is one of **pernicious anemia, hemorrhagic diathesis, and hypoplasia of the arteries.** The patient was 26 years old and the pernicious anemia seemed to develop during pregnancy. There was marked edema, and hemorrhages occurred from the genitalia, the nose, the lips, the gums, and into the skin. There was well-marked jaundice and right-sided parotitis. At the autopsy the heart showed typical "tabby-cat" striation, the spleen was not enlarged. The brachial, axillary and femoral arteries on the right side were smaller than normal. The aorta was of the proper width. The bone-marrow in the femur was red. The author compares the pernicious anemia of pregnancy with that due to the bothriocephalus. The pregnant woman attempts to respond to the stimulus of the irritation of the blood-forming organs in the same way as the patient who has a fish tapeworm; the majority of individuals recover after the expulsion of the tapeworm, and after the termination of pregnancy, but in some conditions obtain which causes a persistence of the anemia and leads to death. In the patient of Neusser, the anemia continued after delivery, probably, the author thinks, because there was a hypoplasia of the vascular system, and the bone-marrow, microscopically, also showed imperfect regenerative processes. The **reaction of the bone-marrow in anemia** expresses itself in the appearance of nucleated red cells (normoblasts), while the appearance of megaloblasts is an expression of degeneration. In the case of the leukocytes, the rection of the bone-marrow manifests itself in the appearance of polynuclear cells, while in degenerative conditions of the bone-marrow, the relative number of the polynuclear neutrophile and eosinophile cells diminishes. Neusser also refers to the importance of that hypoplastic condition known as the "status thymicus." From the point of view of the function of the bone-marrow, three types of pernicious anemia may be made: (1) cases without any reaction on the part of the bone-marrow; (2) those in which the reaction is insufficient; (3) those in which there is a degeneration of the bone-marrow, on account of which it furnishes almost exclusively disintegrating megaloblasts. The condition of the blood is not always an evidence of the changes taking place in the bone-marrow. The percolation of the bone-marrow seems not to occur in a uniform manner, that is, does not seem to affect all the elements in the same way. The drilling of a rib for the purpose of obtaining bone-marrow—in other words, an exploratory puncture of the bone-marrow—is attended with difficulties, although it would give valuable clues as regards the diagnosis and prognosis at a time when the blood-examination is negative. [D.R.]

3.—The authors have made a number of experiments to determine the **effect of changes in the lumen of the bloodvessels and the blood-pressure on the number of leukocytes.** The conclusions are as follows: (1) strong stimulation of sensory nerves produces a diminution in the number of leukocytes in the general circulation; (2) this result is dependent upon the reflex contraction of the abdominal vessels and the retention of the leukocytes in them. After section of the splanchnices, it does not occur; (3) direct stimulation of the vasoconstrictor nerves of a circumscribed territory (kidney, ear) brings about a diminution in the number of leukocytes in the issuing-blood; (4) the administration of vasoconstricting substances has the same effect, even in a higher degree; (5) the effects of shock, which diminishes the number of leukocytes, depends on similar vasoconstrictor phenomena; (6) dilatation of the vessels after section of the controling nerves (splanchnices) has no influence on the number of leukocytes; (7) reduction of blood-pressure generally produces only a transient diminution of the number of leukocytes. (8) In the experiments described, the influence on the leukocytes reaches its maximum generally after 3 or 4 minutes. The variations in number are from 20 to 30%. After 10 or 16 minutes, the original number is usually again regained. Injections have an especially marked influence. (9) The high leukocyte-count frequently observed in the blood of the splenic vein is due to an expression of leukocytes from the organ through squeezing. After the injection of substances producing leukopenia, the leukocytes collect in the capillaries of the lung. The reason for this accumulation is not known. It may depend upon a positively chemotactic action on the leukocytes or perhaps on a change in the leukocytes or vessel-walls themselves, whereby the leukocytes are held in the lung. [D.R.]

4.—Blum has examined the blood in 5 cases of influenza and has found **leukopenia** [diminution in the number of leukocytes] in 4. In the fifth the existence of catarrhal pneumonia had produced a leukocytosis. In 6 out of 15 cases of tuberculosis, leukopenia was also present, and it was a fact worthy of note that, in all of these cases, intestinal symptoms had existed. Two of the leukopenic cases had tuberculous peritonitis with fever. He refers to the reduction in leukocytes usually seen in typhoid fever, and draws the conclusion that the leukopenia in influenza, in tuberculosis, and in typhoid fever, is connected with involvement of the lymphoid tissues of the abdomen. Digestion-leukocytosis is supposed to be due to a stimulation of the abdominal lymphoid tissues. When the latter are diseased, digestion-leukocytosis does not occur. This throws some light on the leukopenia of the infectious diseases mentioned. Leukocytosis does not occur in them because there is an involvement of the lymphoid tissues of the abdomen. [D.R.]

5.—Periarteritis nodosa was first described in 1886 by Kussmaul and Maier. Schrötter gives a critical resume of the literature of the disease. The lesions are characterized by a circumscribed inflammation of certain small arteries of the size of the hepatic or pulmonary; at times the thickening is diffuse, at others small nodules, from the size of a pin's point up to a pea-size, and of a grayish-white color, are seen. They are generally situated in the course of the vessels, and at the point of origin of small branches. They may be innumerable, and may be found on all the arteries of the caliber of the vessels mentioned, except in the cerebral arteries, in which they have been found in only one case. The favorite places are the pulmonary and mesenteric vessels, also those of the intestinal wall, the spleen, the kidneys, the liver and the muscles. In Kussmaul's case they could be demonstrated during life in the subcutaneous tissue of the chest and abdomen. Different views prevail regarding the nature of the nodules. The author sides with Eppinger, who considers the nodules **multiple aneurysms,** due to a congenital weakness of the elastic lamina. Regarding the symptoms, some are characteristic of the disease and others are merely due to pressure. The disease probably begins before clinical symptoms manifest themselves. In some cases, it sets in apparently with fever, rapid pulse (sometimes with rapid pulse without fever), sweats and thirst, and edema in different parts of the body, effusions into the joints, and pain. Very striking is an **acute chloranemic marasmus** which was present in nearly all of the cases. The muscles are generally very painful, both spontaneously and on pressure. At times the electric irritability is lessened, and paresis, or even paralysis, may exist. According as the vessels of one or another organs are affected, several types of the disease may be recognized: A nervous, muscular, intestinal, a renal, more rarely an hepatic or bronchial type. The fever is probably due to secondary changes, especially ulcerative processes in the intestines, bronchitis, etc. The disease is most frequent between the ages of 20 and 30, but occurs even in children. The male sex is more often affected than the female. Regarding the diagnosis, the affection must be differentiated from miliary tuberculosis, septicemic processes, endocarditis, trichinosis, polymyositis, and polyneuritis. The duration is usually two or three months. The treatment is symptomatic. Those who believe in a syphilitic origin (which the author does not share) give an antisyphilitic treatment, and in some cases this has produced a slight improvement. [D.R.]

6.—Hödlmoser describes a male **dwarf**, of 16 years, and gives an excellent resume of the nature and causes of **nanism.** Dwarf stature may be due (1) to disturbances in growth dependent on quantitative changes, or (2) to disturbances of a qualitative nature. Among causes of the first group are: insufficient activity, insufficient nourishment, hypoplasia, congenital diseases of the nervous system, as microcephaly, microencephaly, hydrocephalus, and porencephalus; and acquired diseases, such as heart-lesions and bone-affections. Causes of the second group are rickets, cretinism, congenital rickets, and nanism, *κατ εξοχήν*. In the present case there existed a hypoplasia of the aortic system, and the thyroid gland was abnormal. Intelligence was excellent. Hödlmoser by exclusion arrives at a diagnosis of simple dwarfism, possibly dependent on hypoplasia of the vascular system, and defective thyroid development. The article contains an excellent review of the affinities of simple nanism with other conditions causing dwarfing of structure. [D.R.]

8.—The patient, a man of 25, had Jacksonian epilepsy; the subcutaneous tissue and muscles were studded with multiple small tumors, feeling like tense-walled cysts, which, on examination, proved to be **cysticercus-vesicles**, containing a double row of hooklets. He had been accustomed to eat raw pork, and had passed tapeworm links. The epileptic attacks were attributed to **cysticercosis of the brain.** Both optic papillæ showed signs of neuritis, the left more so than the right. The convulsions were left-sided, and began in the little finger; the lesion, therefore, was in the right motor area. As to the origin of the general cysticercosis, the author believes it was due to **autoinfection** from the tapeworm carried by the patient. Such infection has been observed in young children and in coprophagous insane; it is brought about through the medium of fingers soiled with the eggs or the proglottides. In rare cases infection may take place in consequence of the entrance of eggs or links into the stomach from the duodenum during the act of vomiting. As the contents of the large intestine are acid, the possibility of a solution of the egg shell by them and a subsequent infection must also be admitted. Cysticerci are most frequent in the upper half of the body and are generally symmetric in distribution. Posselt gives careful measurements of the hooklets, which are of value in the diagnosis of the parasites from other hooklet-bearing species. Cysticercosis is not very common, since the careful inspection of pork has gradually rendered the tænia solium a rare parasite. There is a steady increase, however, in the tænia saginata. [D.R.]

Berliner klinische Wochenschrift.

April 10, 1899. [36. Jahrg., No. 15]

1. Concerning Operations in Advanced Uterine Carcinoma. J. Veit.
2. A Case of Incipient Tabes Dorsalis with Gummatous Disease of the Brain-substance. Nonne.
3. A Case of Hourglass Contraction of the Stomach. R. Sievers.
4. Concerning the Fixed Falsetto Voice, with Remarks Upon the Medical Use of the Phonograph. Flatau.

1.—Veit thinks that an increased percentage of cures of carcinoma may be obtained: (1) by early diagnosis of the disease; (2) by diminishing the number of recurrences through an improved technic; (3) by operating on many cases usually considered inoperable. He emphasizes the importance of early diagnosis, and makes the following classification of carcinoma: (1) cancroid of the portio; (2) cancer of the mucous membrane of the cervical canal; (3) nodules in its column; (4) cancer of the mucous membrane of the corpus uteri. The first and fourth are most easily recognized, but the second and third are more frequent, and in an advanced stage. The latter embrace three-fifths of all carcinoma, or the three-fifths that are recognized too late for operation. Veit does not have much confidence in the theory of inoculation, and mentions several cases to substantiate his view. In his experience, 1 in 8 of the cases usually considered inoperable did not recur after operation. He prefers Freund's operation ordinarily, but in cancroid of the portio he operated by the vagina with Schichardt's incision. [W.K.]

4.—In connection with the report of a case of **persistent falsetto-voice** in a male, Flatau demonstrated some of **the uses of the phonograph** in medicine. The instrument is useful in investigating the pathologic disturbances of the voice, for purposes of demonstration, and for controling treatment, and for clinic and physiologic instruction. Flatau classifies the vocal distnrbances connected with the period of puberty as follows: First, **simple mutismus prolongatus,** when the usual physiologic phenomena appear, but continue for an abnormal length of time, 2 or 3 years; secondly, **persistent child-voice,** with but slight development of those changes in the larynx that attend puberty, and often with hypoplasia of the genital organs; thirdly, the development of a **persistent falsetto-voice**; fourthly, **mutismus perversus,** a condition in which, in women, for example, there is an unusual development of the larynx, and a masculine voice. There are two forms of falsetto-voice, the pure and the impure; the latter represents the acme of disagreeableness for esthetically trained ears. The treatment of falsetto-voice may be very easy, but only when tone and interval-audition is well developed. The difficult feature is to prevent relapses. [D.R.]

April 17, 1899. [36. Jahrg., No. 16.]

1. Extensive Intestinal Resection. Dreesmann.
2. Upon Clinical Observations of the Action of Oxycamphor (Oxaphor) as Antidyspneic. R. Jacobson.
3. A Case of Congenital Myxedema—Improvement following the Use of Thyroid Tablets. F. Sklarek.
4. Concerning a New and Simple Method of Closing up Persistent Perforations of the Eardrum. F. Peltesohn.
5. A Case of Incipient Tabes Dorsalis with Gummatous Disease of the Brain-Substance. Nonne.

1.—The case of a woman, 37 years old, is reported in which it was found necessary to resect 2.15 meters of the ileum because of gangrene following femoral hernia. The patient made a good recovery. Dreesmann has collected from German sources, 26 cases in which **resection of** over 1 meter of **the intestine** has been performed, with 17 recoveries. In 4 cases over 2 meters of the intestine was resected. Resection of over 2 meters of the intestine gives rise to subsequent disturbances of digestion, except in young persons; less extensive resection produces no intestinal disturbances. [M.B.T.]

2.—**Oxycamphor** is camphor in which one atom of H has been replaced by the group OH. At first it was used in powder-form in doses of 0.5 g. (7½ grains), but is now offered in a 50% alcoholic solution under the name of **oxaphor.** Jacobson employed it in pulmonary, cardiac, and renal diseases accompanied by **dyspnea,** 18 cases in all, and found it **useful in lessening the respiratory distress.** In two cases only was this effect wanting. In two of the patients oxycamphor produced nausea and vomiting, and in two the remedy failed after a time, apparently because the patients had become accustomed to it. [D.R.]

3.—Sklarek reports a case of **congenital myxedema** in a girl of 17, in which marked improvement was achieved with **thyroid gland** tablets. On one occasion the thyroid was intermitted, and the symptoms of cretinism began to return. It was evident that the thyroid treatment would have to be permanently continued. [D.R.]

Sundry French Journals.

1. Changes in the Leukocytes in Chlorosis. Gilbert and Weil. (*Sem. Méd.*, Feb. 8, 1899. 19me Année, No. 6.)
2. Studies of the Passage of Soluble Substances from the Fetus to the Mother. Henri Hochwelker. (*Lyons Thesis*, 1898–99.) (*Gaz. Heb. de Méd. et de Chirur.*, Feb. 19, 1899. 46me Année, No. 15.)

1.—In 5 cases of **chlorosis** and in one case of anemia of the chlorotic type accompanying tuberculosis, Gilbert and Weil have shown more or less marked changes in the **leukocytes.** Examination of stained specimens frequently showed the presence of hemoglobin in the protoplasm of the mononuclear and polynuclear leukocytes. The former cells were not altered, but the latter cells presented nuclei that were frequently abnormal, both in appearance and in their color-reactions. The transition-forms between the mononuclear and polynuclear cells that are exceptional in normal blood were present in these cases in large numbers. The eosinophile cells, particularly, presented modifications that were very frequent and easy to demonstrate; the nucleus was abnormal, irregular, resembled that of the polynuclear cells and presented granulations of unequal size, and irregularly distributed throughout the protoplasm. Sometimes cells are found in the blood in these cases, that normally are seen only in the bone-marrow. [J.M.S.]

2.—Well-known experiments have shown that certain **soluble substances,** such as saline solutions and solutions of coloring matters **injected** directly **into the fetus,** are carried by the circulation to the placenta, across that organ, and **may be recovered in the tissues or in the urine of the mother.** Hochwelker gives in a very interesting paper the experimental results of intrafetal injections of sodium rosanilin-trisulfonal. This substance has been recovered very rapidly after injection; 25 minutes in one experiment, in the blood or in the urine of the mother. On account of abundant diuresis produced by this substance the different stages of its elimination have been easily followed. In order that the substances injected into the fetus may pass to the mother, it is necessary that the product of conception shall be living. The death of the fetus stops the passage of these substances across the placenta suddenly. From these experimental facts the explanation of certain clinical phenomena may be found. During the life of the fetus, if the latter possesses soluble toxic substances they may be transmitted to the mother. In case of the insufficiency of the ordinary paths of elimination, the waste products from the fetus may contribute toward the production of maternal auto-intoxication, and later may play a part in the production of eclampsia, and the other accidents of the albuminuria of pregnancy. The diminution and the complete disappearance of the accidents of pregnancy after the death of the fetus are probably due to the cessation of the changes between the fetus and the mother. [J.M.S.]

Original Articles.

THE CARE OF DELICATE CHILDREN.

By HENRY JONES MULFORD, M.D.,
of Buffalo, N. Y.

I.

It is not my purpose here to discuss all manner of delicate children, the application of the word "delicate" being limited to but a certain kind of case. Children become delicate from many causes. They may have inherited a weak constitution, or a delicate frame, from diseased or weak parents; they may be delicate as a result of disease in themselves, or they may have an actual disease. It is not to any of these that the present use of the word applies. The child here considered is delicate because of a condition, actual disease having no place whatever in the etiology. The child is always "ailing," suffers often from acute attacks along respiratory tract, and when not sick has the appearance of one under some insidious disease. He presents this picture: skin pale, often "muddy," with dark sunken areas under eyes; eyes dull; is very irritable; there is often marked stupidity; and there is much discharge from nose and throat. He is one in whom during health a serious condition is always suspected but never found. The mother is constantly worried over him. She gives him especial care, wrapping him warmly from the weather, and feeding him very carefully. He is being constantly dosed with codliver-oil, syrup of the hypophosphites, and various nostrums. He seems to have every possible care, but without avail. The reason is that the care is uneven and ill-directed, given without an idea as to the cause of the condition.

In the cases that we are to consider in this paper the cause of this condition lies in two directions. In first, an autointoxication; in second, the condition commonly known as "adenoid vegetations." In most of these cases the autotoxis is the main cause. In cases in which adenoids are present an autotoxis will almost always be found to underlie them. But there are certain cases having adenoids in which nothing else can be found, and in which the obstruction to respiration seems to be the sole cause of the child's delicate condition. There are, too, cases presenting a marked condition of autointoxication in which no adenoids can be found. So we have really four condition to discuss here, or rather one condition with four causes. I shall present cases illustrating each of the four. These cases are from a group of cases that I undertook to study some years ago. At first sight the different members of this group seemed all to be the same, each case presenting the same general signs. Careful study of the cases showed a variance at certain points. Carrying each to a conclusion, and employing certain clinical tests, I found conditions of great interest. These cases, and the conduct of each, will be given in the proper place in this paper.

II.

What will help to make the nineteenth century great will be its recognition of the value of the child. Its recognition of the value of the child's mind and body as individual parts; each part separate one from the other, and yet, each dependent upon the other. The two halves that make the whole: the whole being not a whole with a part imperfect. And the century has taught, is teaching now, that the development of the child into a proper man depends upon the proper care of both mind and body. Not one alone, nor yet one after the fashion of the other, but each according to its own way and destination. For the mind and body differ greatly—each has a different origin; each a different use; each a different destination.

Through the passing ages the child has been a mere thing, a thing to maltreat and to destroy. It has been the victim of harshness and of neglect. In an atmosphere filled and overflowing with vile things it has lived and has grown to manhood; and in such growing how little of *the man* has it become! If it is true that "the child is father to the man" can we wonder that the man with such a "father" is a wretched thing? The child, the father, and the man, all alike! Yes, all alike. How can it be otherwise? Like begets like; and if the child is poor, unhealthy, and unwise, how may the result be other than a man equally poor, unhealthy and unwise?

But we are learning the limitations of the child when left to itself; and we are learning its possibilities when given proper care and direction. We are learning what the child is, and what it may become. The child is the sum of existence. Combined in its person is the evil of the Past and the hope of the Future. It is the privilege of the Present to eradicate the evil that the Future may develop without blemish. This is the duty of the Present. It is *our* duty, for we are of the Present. The child, the germ in which the Future sleeps, is in our charge. Whose the blame then if that germ develops a rank and evil thing?

Our duty to the child contains a double privilege. We not only must care for his body, but we must direct the current of his mind. First the body, for the mind waits upon the flesh. The promise of the mind is fullfilled only when the body is become full-grown. The mind is a weight, and an immature or undeveloped body cannot properly support such a weight. It would imperil a weak body, and during a time of unusual strain upon the mind, the result would be fatal to the individual. And again, if the body be imperfect; if there be not harmony in the workings of its different parts, this lack of harmony does harm to the mind. It drags upon and warps its activity; and this in its turn reacts upon the body. We may readily see how a vicious circle may be established that slowly but certainly ruins the individual.

Life is a hard experience, and to support it properly the mind and body must work in full accord and with equal vigor. We have seen that unless each is in proper order there can be no proper use of each. So our duty to the individual is to keep him in the right way; and this duty applies first to the child. The body must be watched from the time of birth.. Any errors of form or function must be discovered at their inception, and corrected. The child must not be allowed to commit any error that will harm him or that will retard his manhood. The parents, especially the mother, must be directed to care for the child in a proper way. Mothers have many things to learn. If they only *would* learn them the doctor's task would be less hard. To-day the doctor comes *before* the parents in all things concerning the child. He is the director of the child during health as well as during illness. For it is during health that the foundation of sickness is laid. The child violates the laws of health every day of its life, if left to itself. This is done ignorantly to be sure, but the result is none the less certain. Ignorance begets disease. In order to prevent disease, then, ignorance must be overcome. But the task is a very hard one, for not only is this ignorance very general, but it is also very persistent; and the task becomes doubly hard.

I shall be pleased if the facts set forth in this paper may help to enlighten this ignorance. I shall be pleased if this will add something to our knowledge of the care of delicate children. I shall be doubly pleased, for then not only has the child of to-day been helped, but a portion of that duty to the future, that duty which belongs to you and to me, has been done.

III.

The following 4 cases, each selected as typical of its class, illustrate the points to be made:

Case I.—A girl aged 11 years. The mother has noticed she seems to be growing stupid; she has been pale and weak for some months; has no appetite and has choking spells when she takes solid food; the last time the choking was nearly fatal; she sleeps with her mouth open.

Examination: The child is a mouth-breather with the usual stupid, passive face; the skin is very pale and dull, with dark areas under eyes, and the eyes are dull. There is some discharge from the anterior nares and rhinopharynx. The intranasal tissues are relaxed, and there is marked hypertrophy of both tonsils. The rhinopharynx is filled with a mass of adenoid vegetations.

In accordance with my usual custom in these cases I made an examination of the urine. Its purpose was, in this case, twofold. An operation had been advised. The urinanalysis was made beforehand, as should be done before every such operation. In some urinanalyses made before this case came under observation I had found interesting conditions. In this urine I expected to find similar conditions. The result was a surprise, the urine being only slightly abnormal. The analysis showed amount for 24 hours normal; specific gravity 1015; acidity slightly reduced; all solids slightly reduced. In these cases it is not common to find such urine. Usually it contains much more than it should. In this case nothing of interest presented beyond the lymphoid hypertrophy within the pharynx. Close inspection of the child revealed no disease of any kind. Her parents were strong, healthy Germans. It was quite evident then that surgical treatment was the only treatment needed. She was given chloroform, both tonsils amputated, the adenoids removed, and the pharyngeal vault scraped. Bleeding was very free for some minutes, but ceased shortly without attention. A month after operation both throat and nose had returned to normal, and the girl was beginning to appear much improved. She became less stupid, had no more choking spells, and began to gain in weight and color.

Case II, was in a boy, aged 4 years, with a history of attacks of asthma during several years, the attacks lately becoming more frequent, and marked by difficult, wheezing respiration, and a general feverish condition. At these times the urine is very dark. Between the attacks the patient seems to be in fair condition, except that he breathes through his mouth. He has a good appetite, eats too much in fact. He is kept within doors for fear exposure will bring on an attack; has marked constipation. When a baby, he had cough, wheezing respiration and diarrhea up to time of teething.

Examination showed the child small and well-formed; the skin was dry and drawn over face, with dark areas under eyes; secretion was present in the anterior nares and rhinopharynx; the vault was filled with a mass of adenoid vegetations, and the mucous membrane of the entire pharynx was reddened. Urine analysis showed a small amount for 24 hours; strongly acid; specific gravity 1030; cloudy and thick; urates, uric acid, and calcium oxalate very much in excess.

As in the first case this child was operated upon under chloroform. The adenoids were removed and the vault scraped thoroughly; and afterward the boy improved for awhile. He was free from asthma for a month, but then attacks began to recur. Constipation persisted, and urine kept about as shown above.

It was then thought that his condition showed something beyond the adenoids, and a line of general treatment was begun as seemed to be indicated by the urine. He was put upon a course of treatment for regulating the stools, and for correcting the over-acidity of the stomach-secretion; and he was given general massage. After a month of this treatment mother reports that the boy's general condition had improved, the skin was less harsh, the eyes were clearer, there was less constipation. He had had one attack of asthma, but very slight; the urine was improved. This was in March. I lost sight of the case until August, when the mother reported again that the attacks were recurring with the old violence and frequency, and that the constipation was again marked and the urine dark. Examination of the pharynx showed the adenoid tissue recurring in small amount.

Closely questioned, the mother admitted that the treatment had been very irregular all summer. It is very probable that the child had had little attention since March. In this case I had considered the condition of the urine as depending upon the adenoids. The substances found in it are due, probably, to faulty oxidation. It would be reasonable, therefore, to look for them in any case in which there was interference with a proper respiration. But the interesting point here is, that the condition of the urine persisted after the respiratory tract was cleared of all obstruction. General treatment cleared the urine, but the moment treatment ceased the condition recurred. The asthma, too, ceased as the urine cleared and recurred during remission of treatment, when the urine became worse again.

A large number of the cases presenting adenoids will be found to have the condition shown. It may not be so marked, but it will be present in greater or lesser extent. It is a condition of autointoxication, of the diathetic variety. The child is surcharged with irritating matters continually, and his tissues suffer accordingly. The condition is found behind many acute attacks; behind, especially, acute conditions along the respiratory apparatus. In this case there is asthma, in others there may be recurring tonsillitis, frequent croup, or an annoying hay-fever. It is, too, frequently behind obstinate coughs, coughs that persist in spite of the classic "cough-mixture," or other remedy. I recall one child, in especial, in whom a cough persisted after the adenoids were removed; after all the usual remedies had been tried; and in whom finally the cough was controlled by enforced rest and alkalies.

Case III, was in a girl aged 7 years with this history: Since birth she has been subject to digestive and respiratory troubles. There is constant tendency to diarrhea. When 1 year old she had grip followed by pneumonia. She is very susceptible to "colds," and has bronchitis regularly each spring. The mother watches the child very closely, being particular as to her food. In spite of this care the digestive tract is easily upset, diarrhea recurs, and the child remains delicate. There has been of late much discharge from nose, throat, and vagina; that from vagina is of foul odor. On examination the child appeared well-formed but slight; fair with pale skin with dark areas under eyes. She is very nervous. There is much secretion in the nares and pharynx, and the lining of the rhinopharynx is much thickened. There is marked pallor of mucous membrane of upper respiratory tract.

The amount of adenoid tissue in this case was small. As I saw her the mass did not occlude the posterior nares, although it probably did when she was sleeping. In her case there was no immediate need for an operation; and after examining her urine I thought to try another line of treatment.

The urinanalysis showed the amount for 24 hours to be normal clear amber in color, and strongly acid. The specific gravity was 1024, and there was *very marked* indican reaction; the solids were normal.

This urine was another surprise, it being the first case of its kind in which indican had been found. In other respects the urine was normal, except in the increased acidity. After looking the case over carefully again, and comparing the history with the urinanalysis, I thought this might be a case of intestinal autotoxis. The recurring diarrhea showed something wrong with the digestion; and the indican in the urine showed that something abnormal was being absorbed from the almost fluid contents of the intestine. Then why not treat the child by removing the offending matters from the intestinal tract; and prevent their further formation and absorption? The child's treatment was directed to that end. She was given, a laxative each night, a corrective for the overacidity, and intestinal lavage just before retiring each night.

After two weeks the mother reported that the child had had a "cold" during past week, seated only in nose this time and not so severe as former "colds." Treatment, as above, had been carried out very carefully for a week before the "cold" came on, but for the past week treatment had not been so regular. She is quite over the "cold" now. Nasal and pharyngeal mucous membranes appear cleaner than clear, when first seen. Urinanalysis—amount for 24 hours normal, slightly over-acid specific gravity 1016, indican reaction less marked. To continue treatment as first given.

Ten days later a report was made that she was better generally; all discharge from mucous membranes had lessened, and there was no odor from the vagina. To continue treatment as at first.

Ten days later still another report showed great improvement; the discharge from mucous membranes had about ceased, and the pharyngeal membrane was resuming its normal color; the eyes were brighter, and the dark areas under the eyes had almost disappeared, There was no diarrhea. The patient has passed through March without her usual bronchitis. Urinanalysis shows absence of indican.

The girl was under treatment during the next three months. The number of rectal injections were reduced to one or two each week; and there were intervals in the other procedures. At the end of 3 months (making 4 months of treatment), the mother reported that the general improvement remains; the face is more full and less delicate in appearance; the eyes and skin more clear. She is less nervous; the appetite is improved, and the digestion is in good order. Stools are regular and there is no excessive secretion from nose, throat, or vagina. She does not take "cold."

In this case we have a child delicate from birth. Her life was a fight, a fight won only through a mother's constant vigilance. The girl was surrounded by every care. Her food was carefully selected and prepared, and her daily life was guided by many rules. In spite of this she continued delicate and susceptible to the slightest influence for bad. There was a constant condition of autotoxis. The intestinal decomposition was persistent, as was shown by the recurring diarrhea; and because of this diarrhea the products of the decomposition were the more readily absorbed. The irritant (whatever it was) showed its activity through the child's whole body, but most appreciably through the skin and the membranes most exposed to the atmosphere.

Case IV, occurred in a girl aged 11 years, with a history of being always "ailing"; with very frequent frontal headache, much persistent constipation, extreme nervousness. Since a baby, she has been subject to "colds" in head; there is much discharge from the nose and throat, with constant hacking; she is an occasional mouth-breather. Her appetite is good, too good, in fact, as she is eating most of the time.

Examination showed her to be well formed; fair, with pale skin, dark under the eyes. The intranasal tissues were relaxed, and there was some secretion in anterior nares. The tongue was large and "flabby," and the pharynx relaxed with much secretion from vault. Urinanalysis: Amount for 24 hours normal; specific gravity 1032; strongly acid; uric acid and indican reactions *very* marked.

In this case there was no adenoid tissue present, the mouth-breathing being caused by relaxed intranasal erectile tissue. There was, simply, a condition of general weakness. She was annoyed by frequent "colds," a constant catarrh, irregular headaches, and constipation. Treatment in her case consisted in keeping the bowels open, in correcting acidity of intestinal contents, in advising regular daily exercise, and in stimulating the membranes of nose and pharynx by local applications. After a month of this treatment the girl was much improved. She appeared less delicate, there was less catarrh and headache; and she was having a regular stool each day. The urine became normal.

IV.

In these 4 cases no ultrascientific methods were employed to determine the relationship between cause and effect. Only simple clinical tests were made, yet I think the results obtained give some value to the idea. The procedures described have been used in private practice during several years with gratifying results.

Now, are we able to point out what it is that does the harm in these cases? If it lies in an autotoxis, in what does that autotoxis consist? Let us run over the chief points of each case again.

In the first case the child has been pale, weak and stupid for a long time. She gives no sign of real disease, nor does careful examination reveal any; her parents were normal. She was simply very delicate, with respiratory obstruction. What shall be said then, of the case? Simply, that the adenoids in the rhinopharynx must be accepted as the cause of her condition. Their presence will account for her weakness and for her stupidity. Their mass is large, and crowded into a narrow chamber. At times the mass dilates, then there is greater crowding. The resulting constant pressure affects very markedly the mental activity of the child. It makes her slow, and dull and fairly stupid. In different cases it gives rise to various remote, reflex phenomena. The child's weakness and paleness are the result of an improper respiration. The mouth not being for respiratory purposes, when the child is forced to use it for such purpose she suffers accordingly. In these cases the respirations are hurried and unsatisfactory. The air enters the chest without the necessary preliminary preparation that it obtains when passing through the nose.

The child then suffers from pressure and from faulty respiration. Consequently she is not a normal individual; but we cannot say that she has any disease. She is subnormal, nothing more; but being subnormal she presents a splendid field for actual disease. Her resistance being reduced, microorganisms find a lodging place, and quickly breed active disease. Such cases may acquire, therefore, any disease that is due to germ-activity.

The second case presents a true condition of diathetic autointoxication. In this the adenoids have no place in the etiology; on the contrary, it is probable that the autotoxis is the cause of the adenoids. The urinanalysis shows an interesting and common condition; high acidity with uric acid and calcium oxalate in abundance.

What is it that does the harm here? We may not answer from the facts presented. The effect may be due to mere reduction of the alkalinity of the blood; or it may be due to the presence of chemical irritants in the circulation; or, both conditions may prevail.

We have in this case an abnormal child; but I would not say that he was subnormal. It seems to me rather that he is a little more than normal. He is not thin; his mucous membranes have not the pallor present in those of the other cases; and the acute attacks to which he is subject are different. The pharyngeal tissues are full and red, and the acute attack comes from within; it is not due to germs. Instead of a sluggish, dull individual he is active and full-blooded. It is in these cases that we find the acute attacks are due, entirely, to the condition of the circulation. The circulation being constantly saturated with irritating matters keeps the tissue-cells always under the lash. Sooner or later an explosion occurs and the individual suffers his characteristic attack.

The third case presents an intestinal autotoxis, without doubt. The diarrhea, the indican, and the result, prove that. But what causes the autotoxis? We cannot narrow the matter down to a positive identification of substances. We can only say that something absorbed from the digestive tract does the harm. That something may be a chemic irritant, or, it may be a poison; or it may act, simply, by reducing the normal reaction of the blood. It may be the result of decomposition of the intestinal contents; or it may be due to the presence, in the intestine, of abnormally large amounts of the normal secretions there found, these being absorbed directly into the circulation. In these cases the possibilities are many. Different cases present slightly different characteristics. It is probable then that each case has its own peculiar condition. The cause, in one case, may be one thing, a ptomain; in another case it may be something else, an excessive acidity; or in another, it may be a combination of several things.

This child was subnormal; she was slow and dull. Her mucous membranes showed a peculiar paleness and were very sensitive to external conditions. The adenoid tissue in her rhinopharynx ought to be removed. So long as the intestinal tract remains normal this tissue will not increase; but the tendency will be to grow, and occasional congestions of its mass will keep the pharynx more or less irritated. This, too, will threaten the ears, and may occasion deafness or serious trouble of the middle ear.

The last case was a combination of the two varieties. It showed both uric acid and indican. (In some cases I have found, associated with these two, calcium oxalate.) There were no adenoids present, but the secretion from the rhinopharynx was copious and constant; and we might expect, if it were long-continued, to have some adenoid tissue form. The girl was large and well-formed, but was somewhat dull and very nervous.

V.

We have then two varieties of abnormal children; the one below, the other above, normal. Each condition will repay careful study, for each gives its own peculiar effect upon the child, although the final result is the same in the two—an impaired individual. In these conditions the effects are more marked in the child than they would be in the adult. In the adult we have an organism formed and ready for life. The frame is finished, and is therefore able to throw off the everyday things that irritate the child. In the child the organism is extremely sensitive; the tissues being in the double process of growing and forming. They are, consequently, doubly susceptible to irritation, and are the more readily upset by abnormal conditions.

In the child below normal there is a lessened cellular activity, an inhibition of function and lack of growth. Consequently the individual is retarded, and does not assume his full powers, and he never will until his condition is relieved.

In the other, the child above normal, there is, on the contrary, too much activity. The cell is being constantly whipped to increased action, and the individual, being always at high tension, is easily thrown out of balance. It is in this class of case that the nervous system suffers, and the child grows into the nervous, irritable man.

VI.

Treatment of these conditions may be put under three heads: surgical, internal and common sense.

Surgical: When obstruction to nasal respiration exists it must be removed. If the obstruction be a growth, such as adenoids, hypertrophy of the tonsils, or a tumor, the knife is the only thing to give complete satisfaction. The growth once removed, the child begins *immediately* to improve, and the result is not only brilliant, but it is gratifying to all concerned. If the obstruction be merely a relaxation of the intranasal erectile tissue, it may be reduced with the galvanocautery; or, if very marked, it may be removed entirely with the snare.

Internal: Drugs in a limited way. Their need is not great; an occasional cathartic, and at times an alkali. The greatest benefit will be had from intestinal lavage. It is a simple thing, easily done. It clears the bowel completely, when used properly, thus preventing further absorption of obnoxious substances.

Common Sense: Under this head are included all measures aimed at correcting everyday faults of living. In making these corrections we often have to change entirely the daily habits of the child. Most children are early left to themselves. They form their own habits, and having no guide but their own rough wills, their habits become anything but good. The child is not to blame for this, of course; for how can he be expected to know anything at such an early age? The parents are the ones to blame; they often show as little common sense as does the child. The "treatment" here then must commence with the parents. They must be taught to care for the child, and then they must teach the child to *properly* care for himself.

The main things to be taught here are: to eat properly, to play properly, to rest properly, and to give proper attention to the action of the bladder and bowels.

Eating: Enjoin regular hours for meals, and proper food. The kind of food depends upon the child's age. At any age it must be nourishing. Don't fill the child up with stuff that will only ferment and irritate him. Let there be regular hours for meals; do not allow the child to lunch at all hours. Give him 4 or 5 meals each day, if necessary, but make them regular. Most of the bad habits of the body-functions in the adult, may be traced to improper eating in the child. And in the child improper eating causes diarrhea, constipation, and various autotoxes, these in turn giving rise to the overgrowth of the lymphoid structures in the child's pharynx, and relaxation of the intranasal tissues.

Play and Rest: It is the nature of the child to play, but the play must be done properly. If he be a dull, sluggish child let him have plenty of play out-of-doors, with rest at frequent intervals. He needs the stimulation of fresh air and sunshine, but he cannot stand too much stimulation at one time. His cells are weak, so must be handled carefully. We must not whip a tired horse! The rest and play should be divided according to the strength of the child. If the child be active and nervous his play needs to be restrained. He carries everything to an extreme. He puts added work upon cells already at the limit of their activity. His resting-time must overbalance his play-time, for he needs the rest more than he does the play.

Bladder and Bowels: It must be seen to that the kidneys act freely, and that the bowels act regularly and well. With proper diet, regular eating, and proper exercise, these functions almost regulate themselves.

VII.

It is written: "Man is his own worst enemy." How true this is! And how much the more may we appreciate its truth after the perusal of these cases. But it is only to the ignorant man that this applies with force, and the ignorant man is an outgrowth from the ignorant child. The child beginning as a soft, formless thing, is capable of being moulded into anything. Left to himself he moulds himself; he congeals to the consistency of his own ignorant, careless will. But how great the change under proper guidance! As he is impressed by bad things, so also is he impressed by good. The capability to be impressed is the same in both cases. We have, therefore, only to substitute the one for the other to get the desired result. And in doing this we have only to substitute a will educated and stronger than the child's will. We have simply to stand between the child and himself; to stand between the child and the man. The child is the man's worst enemy to-day. It is our duty to so guide the child that in the future the child and the man will be the best of friends.

SCIENTIFIC CHARITY.[1]

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We have nearly reached the point at which the qualifying adjective may be dropped. There is no charity in which anybody of standing and a moderate degree of brains believes except scientific charity. Unscientific charity is clearly as absurd and indefensible as unscientific medicine. Most people already recognize this and every one can see that it has a much more clearly defined recognition in practice than for example scientific agriculture, notwithstanding the experimental stations, the national department and the agricultural schools.

I do not mean that modern, organized, scientific charity is accepted and practised of all men—far from it. But charity of the medieval, unorganized, unscientific sort, although practised slyly, has become shamefaced, has few or no open defenders, is but a survival, and leaves the giver disposed to say with Emerson, "One day I shall be braver and shall refuse my dollar."

Franklin once told his friend Jefferson the story of a discussion in a certain English medical league over a hundred years ago, on the very elementary and fundamental question as to whether physicians on the whole had done more good than harm. There were several young and consequently radical members, and opinions seemed evenly divided. An eminent and experienced physician sat in the chair, and on the conclusion of the debate he was asked his own opinion. "Well, gentlemen," said he, "I think it depends on whether you include old women among the physicians. If you do, I think they have done more good than harm—otherwise more harm than good." If I may judge from the discussion of midwifery here a month ago, I imagine there are few who would now accept that physician's opinion seriously, while the long indictment of the actual harm done by the unscientific practitioners has been drawn in the narration of such experiences as those to which Dr. Harrison, Mr. Gerry and others referred.

It is a closely analogous position that scientific charity occupies in its relation to indiscriminate almsgiving. There are still those who appear to believe that gifts of money, clothing, fuel and food are the natural and sufficient remedy for destitution, just as there are those who would inflate the lungs of a newborn child by blowing through the umbilical cord, and those who are unable to see the connection between septic poisoning and dirt. There are those who think that the severity of scientific methods are cruel when they relate to material needs, just as there are ignorant negroes who are sure that the doctors want patients in the hospitals for purposes of dissection only, and ignorant white persons in this city who are in deadly terror of a mythical black bottle in Bellevue Hospital.

What I desire to point out is that there is no longer a formal struggle between the adherents and the opponents of organized charity. The battle, if there ever was one that deserves the name when the issue is so plain as soon as it is stated, has long since been decided. It is now only a question of allowing the universal acceptance of scientific charity in practice to come in as rapidly as possible.

What then do I include under the head of scientific charity—that is to say charity which stands the test of our best scientific standards?

First and most important; the unmeasured, but enormous amount of neighborly assistance—given in our tenement-houses, precisely as in a New England village, or in a frontier settlement. The proverbial kindness of the poor to the poor needs no new encomium, but I doubt whether all realize how much it means even here where physical proximity counts least in creating a feeling of responsibility for our neighbors. "All classes in London give largely in charity. It is probable that the poorest people give the most in proportion to what they have." (Booth.) What the housekeeper and the fellow tenants do for the temporary relief of those whose income is cut off must be given a large place in any accurate statement of our relief-system. It may be very unwise in specific instances, very impulsive, very harmful. It is, of course, not organized and probably cannot be. So far as it is given to beggars it is as harmful there and is surely productive of beggary as elsewhere, but so far as it is temporary provision for the needs of neighbors it is a legitimate and important part of our charitable system. There is room here undoubtedly for educational work which would have to be done mainly by school-teachers, physicians and clergymen, to make this "first aid to the injured," as it might be called, more effective and more intelligent. But at the same time it is not likely to be very harmful. There is not much probability of imposition, of excessive relief or relief absurdly ill adapted to its purpose. There is still a good deal of personal acquaintance among the servants who range up and down dumbwaiter-shafts of flat-houses, and still more among the families who live in different tenements of a single house. Dr. Chalmers's plan of throwing all relief upon the private resources of immediate neighbors may not be adequate under our condition, but so far as it goes it is scientific and sound and sensible. It is open to little abuse. It is likely to do just what is needed—so the need may be not too great, —and to stop, this is an important point, when that has been done.

Next to this I should put the professional services of physicians in their charity work, and of lawyers, who untangle many a snarl and protect from many a villainy without compensation; church assistance given by pastors, visitors and members to their own poor; credit extended without hope of payment by retail dealers who may be nearly as poor as their customers; forbearance of landlords in the matter of rents, the advance of wages by employers and the various other kinds of assistance analogous to these. This is but one step removed from that neighborly charity which gives because of personal acquaintance. It rests on slightly different grounds. It is a professional or a business relation rather than a personal relation. Yet its motive is similar, and if it be said that it is a professional spirit rather than a charitable impulse that prompts it, I reply that it is a magnanimous, altruistic professional spirit, that it rests upon charitable foundations, and is diametrically opposed to any narrow or selfish professional or business interest. Like the first kind of charity of which I spoke, it is wholly unmeasured and immeasurable in amount. It is capable of better organization here and there, and is not to be defended blindly at all points just as it is. But it is in its basis sound and sensible and scientific. It will survive into a period of a completely organized social system if there ever exists such a scheme. It is one of those elastic, and in part elusive, but necessary social arrangements which insure needed assistance at crucial points and give scope for the development of man's most creditable faculties.

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[1] Read before the Medical League, January 20, 1899.

I do not discuss, because I do not regard them as a part of the charity system, those means of self-protection from the evil results of sickness, accident and death, which rest upon a business basis, such as benefit societies, benefit features of labor organizations, fraternal associations, insurance societies and clubs of various kinds. They are of the greatest possible service in making charity in its lower forms unnecessary. I should welcome the time when because of such preventive organization, and the development of personal thrift it would be impossible to find any one in need of food, clothing or shelter. There would still be room for both of the kinds of charity to which I have referred, but it would be exercised in higher spheres. Such plans of insurance and self help are not charity, and are therefore not a part of the scheme of scientific charity, but they are not to be overlooked as welcome alternatives.

The third group of agencies which does belong in our present survey are the hospitals, dispensaries, convalescent homes, homes for incurables, for cripples, for the aged, asylums for the defective, homes for children, and the general relief-societies which give temporary aid to families in their own homes. It is to this great group of charitable agencies that the name organized charity as a collective term is sometimes applied. In their present form, with their present means of support, in their complexity and their extent, these institutions are a comparatively recent phenomenon; and as parts of a charitable system they are in a very chaotic state. We have not so much as reached a conclusion as to whether they should be public or private, whether if private they should be subsidized from the public treasury, and whether so long as they are private the public authority should to any extent control their work on the ground that their beneficiaries are to some extent public wards.

The problems involved in the distribution of responsibility between the State and the managers of organized charities are serious and are new. They differ from the issues that have been discussed for centuries in England and elsewhere in connection with endowed charities. It may be said to be established as reasonable, whether the constitutions and courts have incorporated the principle fully or not, that the terms of an endowment may be changed by the legislature if it is clearly in the public interest that modification is necessary. A very liberal giver in England was asked recently whether when he saw the readiness of Parliament to undo the work of former donors, and authorize practically an entirely new use of funds left for a specific purpose, it did not make him hesitate to leave so much money as he had proposed for a certain purpose. He replied that on the contrary it made him much the more disposed to give. He knew that he could not foresee the future completely, and when he considered the pitiful results of attempts to carry out literally the antiquated terms of other bequests, he was content to know that his posterity would feel free, while observing the spirit of his intentions to modify the precise terms under which his money was to be used, in order to fit new conditions and to fit the riper wisdom and the added experience of those future years. The knowledge that this would be done gave him greater confidence in his present charitable purposes. It is in that spirit that gifts are now very generally made to educational and charitable objects, without burdensome restrictions as to the exact manner in which the work shall be done. Not only in bequests but also in current contributions the tendency is to leave a wide latitude to those who bear the immediate responsibility. And this is as it should be. Preoccupation and carelessness are responsible for it, however, in part, and it has some unfortunate consequences. Lack of personal knowledge on the part of the giver begets indifference, and in some instances tempts to dishonesty. It creates in fact precisely the situation which leads to the demand for public inspection and supervision and, eventually, where important interests are at stake—to public control.

A few principles which will at least bear discussion I ask your permission to state somewhat dogmatically, not because I prefer to dogmatize, but because there is not time to develop them with all their logical antecedents.

My propositions are:

1. Charity remains charity, though organized. It is not a new thing, different from the personal neighborliness, and the innumerable personal lifts that we give to those with whom we are in business or professional relation. It should, therefore, be free from undue restriction—spontaneous, experimental. Those who give their money to hospitals, relief-societies, asylums, are good Samaritans—no less than doctors, grocers, housekeepers, and fellow-tenants, and so long as the agencies are private it is of the utmost importance that the personal views of donors about the work for the furtherance of which they give money, if they have any views, should be made known, that their personal attention should be given to the selection of wise administrators, that there should be a democracy of personal interest in the whole undertaking.

2. The direction of such agencies should be entrusted to experts of the first rank, and the salaries, when salaries are necessary, should be sufficient to allow for the most thorough professional preparation. We are all agreed that physicians, dentists, surveyors, lawyers, architects, and even generals, should be prepared for their work. But a new profession, which, for want of a better name, may be called that of applied philanthropy, has been growing under our eyes and will shortly require the more general recognition of the fact that it is not a rendezvous for the failures of other fields, and that scientific and technical preparation for it is essential.

3. There must be discovered some more definite dividing line between public and private agencies. I am inclined to think that this line will be found far from its present unstable position, with many functions which are now private transferred to the State. Hospitals, homes for aged and incurables and for children—so far as their expenses are met by payment of fees, either by or in behalf of inmates, are not charities and may remain private agencies, useful, as the whole body of the medical profession is useful, but resting upon the ordinary business basis of exchange of equivalents. But so far as they are free the tendencies of the times will carry them, as I believe, irresistibly over into the class of public agencies which citizens pay for from taxes. There will still be persons whose maintenance in private institutions is met from charitable sources, but it will be because of personal interest in those persons, and will therefore be charitable in a stricter sense than at present.

Public support will then be withdrawn from such agencies as remain private, and in this class will be found chiefly those agencies which deal with families in their own homes, or which undertake the entire support for a limited or an unlimited time of those persons who have lived self-respecting and decent lives but have been overwhelmed by unforeseen and unpreventable misfortune. This distinction between those for whom, in spite of the absence of sufficient income, it is proposed to secure a continuance of family life, and those on the other hand who are to be treated as individuals and so gathered with others whose defect or misfortune is similar in a public institution, may prove to be the normal line between public and private support. Such a shifting would involve many changes and will not be made at once. I put it forth not as a prophecy but rather as a statement of the apparent trend of opinion.

4. Medical charities are on a slightly different basis from material forms of relief. There is an unquestionable danger of pauperization here or elsewhere among those who are not, as Kipling's unique Friendly Visitor says, "bloomin' well-pauped already." But the check to a spread of contagion which results from ready access to free treatment, the well-known hesitation to incur expense for medical or surgical treatment, especially for those kinds of disorders for which it can be put off, and the vital importance of ready means of relief in emergency and serious cases, are all to be duly weighed. They lead to the conclusion that endowed medical charities or hospitals and dispensaries that are supported by public funds cannot well be too plentiful or too liberal, provided there is discrimination and no inducements are offered to those in charge to countenance deception. Close questioning of applicants, investigation of doubtful cases, and restriction of service to those who are destitute are clearly advisable. For those able to pay something but not the equivalent of the service required at regular rates, it may be that there should be provided dispensaries of the kind that have reached their highest development thus far in Manchester, England.

5. Personal service is the keynote of scientific charity. Before any other audience I should have to develop that and explain it. Here its very statement is almost superfluous. You are perfectly aware when called from your bed at night by critical illness that it will not answer to toss a bundle of rhubarb and soda to the messenger and turn over and go to sleep. This would be the precise equivalent of the silver dime or dollar thrown to the forlorn beggar. You ask for money—but in Heaven's name who has prescribed it? What is the matter with you? Where are your friends? Why have you none? What are you intending to do to-morrow? What is the cause of your difficulty? Let the probe reach it. Let the disease be cut away. Let some remedy fitted to your needs be discovered. If you need a hundred dollars, or an artificial leg, or a home for life, or a ticket to London, or a term in the penitentiary, or a personal friend, do not ask for a quarter, or if you do, in your ignorance, ask for a quarter, do not be surprised if when you encounter scientific charity it goes behind your petition to seek causes and to prescribe more effective remedies.

A charity-organization society working in a community which is filled with relief agencies is not a substitute for any one of them, but is an agency for getting those who are in need into the quickest and most complete relation with charitable agencies and persons who can help them if help is possible. Unfortunately destitution very often comes from personal causes which is beyond the power of any outside agencies to affect, but this is not always so, and one of the chief functions of a charity-organization society in a sound general system of charity is to discover those cases in which help is possible. Its characteristics will be:

1. Adequate and immediate provision for immediate needs.

2. Careful study of the causes that have led to the difficulty, in order that charity may be made helpful and not harmful.

3. Cooperation with all relief agencies to the end that overlapping and duplication of work may be avoided.

A charity-organization society begins with the family that is in need, or the one whose kindly interest has revealed the need, and seeks out from innumerable sources the precise relief that is required. In these days of charities, buildings, telephones, joint registration and quick interchange of information this process if necessary becomes instantaneous. Red tape has not, as some have supposed, increased, but on the contrary disappears entirely. But the differentiation between those that can be helped and those that are unhelpable becomes every day more practicable. The result of this is concentration of effort upon those who give promise of responding to efforts in their behalf, and a very considerable increase in the total amount of relief given because of the increasing assurance that it will have good results.

The contribution which charity organization in the narrower sense that belongs to a society like our own, makes to scientific charity is not merely that it insists upon sound doctrine, but that it provides a definite practicable method of embodying that doctrine in practice, and invites those who prefer scientific methods in charity as in other things, to unite in giving effect to their preference, and in promoting the permanent welfare of those who need help. It is comparatively simple to provide relief if nothing except the need and the material instrument for its remedy are considered. But if we include the charitable individual in the scope of our plan, as we must, if what we seek is to give better direction to the great volunteer army of charity, then some such plan as that which our local districts offer would seem to be indispensable. In other words, our view is that scientific charity is not merely the relief of destitution, but that it is also dealing with the more difficult and more permanent task of so training the charitable work of the individuals of the community as to accomplish through them the relief of destitution and the cessation of the supply of pauperism. In such work as this—case-work, to use our technical term—physicians play everywhere an honorable and indispensable part.

SOME INFREQUENT SEQUELS OF TYPHOID FEVER.

By E. W. PRESSLY, M.D.,

of Clovers, S. C.

There is no grave acute disease that more frequently confronts physicians of the temperate zone than typhoid fever. Like the poor, it is ever with us. In no disease has careful study and observation brought greater reward. From the frequency of its occurrence anything connected with it possesses more than ordinary degree of interest.

Attention is called to the sequels of this disease named, not because they have about them anything especially abstruse, nor because any especial diagnostic acumen was required for their recognition, but in order to illustrate the breadth and variety of the morbific influences that may either accompany, flow from, or follow an attack of typhoid fever.

Case I.—H. B., male, aged 15 years, in June, 1894, had an attack of typhoid fever of ordinary severity, in the course of which one intestinal hemorrhage occurred. His previous individual and family history was good. Defervescence occurred on the twenty-seventh day. For several days convalescence seemed to be progressing, but during the second week after defervescence he began to complain of vague uneasiness and occasional chilly sensations, but no decided temperature-rise was observed. The desire for food meanwhile completely disappeared.

After some days of these symptoms complaint was made of soreness in the muscles and stiffness of the knee and the ankle with considerable pain on motion. Coincidently those joints were found reddened and somewhat swollen, and the temperature became steadily febrile, reaching 101° to 102°. On the day following the occurrence of these symptoms there appeared a purpuric eruption on the legs and thighs. The petechiæ in all cases were discrete and small in size, but considerable in numbers. The joint-swellings were confined to the joints already spoken of, though the muscle-soreness was general. A diagnosis of rheumatic purpura was made, and he was ordered to take 10 drops of aromatic sulphuric acid every 4 hours, well diluted with water and syrup. Immediate resumption of exclusive milk-diet and continued recumbency were also enjoined. At the end of 10 days the petechiæ began to disappear, and at end of a fortnight convalescence was reestablished, no further crop of petechiæ appearing.

Case II.—J. W., male, aged 33, previous history good, in the summer of 1897 had an attack of typhoid fever followed by a relapse with recurrence of typical symptoms, the primary and secondary attack occupying 7 weeks. This case was attended by Dr. J. W. Campbell, to whom I am indebted for the foregoing facts. During the sequel now to be given he was attended by Dr. Campbell and myself. During the second week following defervescence from the relapse without prodromal symptoms petechiæ began to appear on the limbs and from thence spread rapidly over the entire trunk and face. Under the visible mucous membranes, conjunctival, nasal, buccal and pharyngeal, the petechiæ were almost as abundant as under the skin. Presently there were found more extensive ecchymoses under the skin, some of them as large as a silver dollar, and these appearances were followed within 48 hours by copious epistaxis, bleeding from the gums, hematuria, intestinal hemorrhages and hematemesis. The amount of blood lost from all these sources was very great. The skin between the petechiæ was extremely pallid. Associated with these symptoms were loss of appetite, nausea, and profound and increasing muscular weakness. Upon attempting to assume an upright posture tendency to syncope would develop.

Rapid action of the heart was early present, and to this rapidity irregularity was soon added.

Fever of an irregular type, at times below 100° and again so high as 104°, was present. Murmurs, probably anemic in origin, appeared at the base of the heart.

The mind at all times was entirely clear, and freedom from pain was always claimed.

There was no evidence of effusions into the serous sacs or meninges.

Death occurred on the fourteenth day from occurrence of the first petechiæ and was preceded for 48 hours by a most intense cadaveric odor. The diagnosis was purpura hæmorrhagica. Treatment seemed to avail nothing; the constant tendency was downward. The recumbent posture was ordered and the diet was light and nutritious. Drinks were given acidulated with aromatic sulphuric acid and sometimes citric acid. The various remedies for the medical control of hemorrhage, ergot, lead acetate, oil of turpentine, were given faithful trial.

All medicines were given by mouth after one trial of ergotin hypodermically which resulted in an enormous ecchymosis at the site of puncture. Pressure was persistently tried to control the constant oozings from the gums, but with little benefit.

Case III.—S. L., male (colored), aged 12, during the summer of 1897, had an attack of typhoid fever which the parents, densely ignorant people, described as severe. As to its real severity I know nothing. The case was attended by Dr. L. N. Glenn, while resting at home after graduation and prior to leaving for his regular place of work. Immediately after defervescence in this case he left for his permanent location, and about 10 days later the father came to me with statement of the above facts, and with the farther statement that the boy was suffering great pain in his left leg. Inquiry led me to believe that it was a phlebitis, and I dismissed the negro with instructions for its management. Two days later the father returned saying that the boy was worse rather than better. On his urgent request I went with him to see the boy, and found the leg gangrenous from the knee down, the foot and ankle shriveled dry and hard as leather, and above the ankle moist and skin slipping while a most disagreeable odor filled the room. The line of demarcation between dead and living tissue was just below the knee. The boy was wasted to a skeleton and the pulse was small, weak and 120 per minute. With assistance of Dr. J. W. Campbell I did an immediate amputation just above the condyles of the femur. After a long and tedious illness the boy recovered, but has an ugly conical stump.

Case IV.—P. D., white, aged 7, was attacked by typhoid fever in company with 4 other members of the family. The case dragged out a wearisome length, but eventually convalescence was established. Shortly afterward, while eating breakfast, the child was suddenly seized with crossed paralysis, the face being paralyzed on the right side and the arm and leg on left side, indicating "lesion in the pons above the decussation of the pyramids and below that of the facial fibers."

In course of time the paralysis partially disappeared and the child began to experience at intervals attacks of excruciating pain in the head. These at first were at considerable intervals, but gradually came to occur at much shorter intervals, and were of much longer duration, and finally were followed by separation of the coronal suture through its entire length and partial separation of the sagittal suture with increase in the circumference of the head to 23 inches. A diagnosis of chronic hydrocephalus was made and the spinal cord was punctured between the spinous processes of the third and fourth lumbar vertebræ and the excess of cerebrospinal fluid evacuated. This was followed by immediate relief of the pains in the head, and, in the course of a month by a material diminution in the circumference of the head.

Ten weeks after the lumbar puncture the child died, asphyxiated by pressure upon the trachea by a retroesophageal abscess.

Cases V and VI.—L. C. and C. T., white, aged respectively 16 and 14 years, were each afflicted with ordinary goiter of very considerable size. After each had suffered from typhoid fever during the summer of 1896, the goiter on each of them so far diminished in size as to be only noticeable on close inspection.

Since that time, 2½ years have elapsed and the thyroid gland shows no signs of increase in size in either of them.

Whatever may be the relation of the attack of typhoid to the marked diminution in the size of the growth, whether that of cause and effect or simply of coincidence, certain it is that prior to the attack these young people were subjects of an annoying disfigurement and that within 2 weeks after the close of the attack this disfigurement was practically no longer present.

THE TREATMENT OF THE STUMP IN ABDOMINAL HYSTERECTOMY FOR UTERINE MYOMATA.

By BYRON ROBINSON, B.S., M.D.,

of Chicago, Ill.

Professor in the Chicago Post-graduate School of Gynecology and Abdominal Surgery; Professor of Gynecology and Abdominal Surgery in Harvey and Illinois Medical Colleges; Surgeon to the Woman's Hospital; Consulting Surgeon to the Mary Thompson Hospital for Women and Children.

Any surgical method which is safe, avoids prolonged operation and shock, and is accompanied with good results, should be welcomed in the removal of large uterine myomata. For 15 years I have watched with interest the best-known gynecologic operators in the various methods of removing uterine myomata. Dr. Lucy Waite and myself have practised about all the methods in vogue; but in the removal of large uterine myomata, with debilitated patients, shock is generally profound. Such patients nearly all possess deficient action of the heart or kidneys, the very organs of most vital importance.

The following is the method of performing the operation: A long median incision is made to allow the tumor to be brought out of the wound. Now with catgut, beginning at the angle of the wound above the umbilicus, the peritoneum is closed down to the posterior surface of the uterus. This practically closes the peritoneal cavity. We then ligate with catgut the ovarian arteries at the uterine ends of the fallopian tube, and a large clamp is placed on the uterine side of the broad ligaments on each side of the uterus, as far down as we wished to begin to make the peritoneal cuff. The ovaries are left in situ, and as much of the uterine ends of the oviducts as possible to keep the nerves of the ovaries, broad ligament, and tubes intact, to avoid precipitate menopause. We then split the broad ligament down to the uterine arteries and ligated them with catgut. The peritoneal cuff is now stripped down, making as ample a cuff as possible. The uterus is amputated just above the internal os. No bleeding follows, only oozing, as we have ligated both ovarian and uterine arteries. We now suture the upper edge of the peritoneal cuff to the parietal peritoneal edge, which is produced by the median incision, and the peritoneum is entirely closed. We can close the peritoneum immediately after making the cuff if desired, in which case the shock is simply similar to an exploratory laparotomy. The uterine stump, closed to a cone by catgut, is drawn up in the abdominal wound and fixed there. The external layers of the abdominal wall, muscles, fascia, and skin are then closed by silkworm-gut suture. The two sutures of the wound over the extraperitoneal stump are allowed to remain united for 36 to 48 hours to allow the escape of primary wound-secretion. The patients make a recovery with little pain or discomfort.

This procedure leaves no ligature in the abdominal cavity; all are extraperitoneal. Later we have simply fixed the stump, covered by the peritoneal cuff, in the abdominal wound and closed the whole abdominal wound, and results are excellent.

The advantages of the extraperitoneal treatment of the stump in abdominal hysterectomy for uterine myomata are substantial and valuable.

The method of immediate closure of the peritoneal cavity, as soon as the tumor is rolled out, avoids shock to a wonderful degree. In several of our cases we finished the operation of removing large uterine myomata with a pulse of 85 to 90.

After drawing out the tumor and closing the peritoneal cavity with the posterior peritoneal cuff, one can proceed as leisurely as the case demands, for in reality the abdomen is closed.

The hemorrhage which might follow could be arrested without endangering the peritoneal cavity.

We can do the operation without leaving a single arterial ligature in the peritoneal cavity. I had often previously made large cuffs in uterine myoma and ligated the uterine arteries extraperitoneally, splitting the broad ligaments, and also put Kleeburg's elastic ligature around the uterine stump extraperitoneally, stripped of its peritoneum, and sewed the peritoneum to the abdominal wall to close the peritoneal cavity; but I had never followed a distinct plan of immediately closing the peritoneal cavity as soon as the tumor was rolled out, until 3 years ago. Since this time Dr. Lucy Waite and I have practised it continually.

The pelvic floor is not weakened by the removal of the cervix.

Very weak patients will be able to bear this operation, as the shock is remarkably slight. In making the posterior flap or cuff, one must be careful not to dissect below the peritoneum, or troublesome hemorrhages may arise.

The peritoneal cuff I learned from Mr. Lawson Tait and also by practising peritoneal plastic surgery on dogs. The suggestion of suturing the peritoneum from the superior angle of the abdominal wound to the posterior surface of the uterus, and thus closing off the peritoneal cavity, I learned from Professor Senn.

We now suture the extraperitoneal stump into the abdominal wound and close the latter completely. Of the methods which we have practised I can recommend the above very highly as producing the least shock.

A CASE OF DIAPHRAGMATIC HERNIA OF 14 YEARS' DURATION, RESULTING IN MARKED DISPLACEMENT OF ORGANS.

By F. W. FLAGGE, M.D.,
of Rockaway, N. J.,
AND
THOMAS P. PROUT, M.D.,
of Morris Plains, N. J.

History by Dr. Flagge: Early on the morning of February 14, 1899, I was called to see George M——, a boy of 17 years, who presented the following history:

At the age of 3 years he fell from a wagon striking his left side upon the shaft, and in consequence was seriously ill and confined to bed for a long time. His attending physician considered his condition critical. Following this the patient was sickly, suffering from petty attacks of illness, and 2 years later was again severely ill. The physician who attended him at that time states that he treated him for "stomach trouble with spinal irritation." From this attack he made a fairly good recovery, but was always delicate and suffered at longer or shorter intervals from attacks of pain, the location of which was always in the abdomen. One of these attacks occurred about a year and a half ago, accompanied by some rise of temperature and other general symptoms and physical signs which suggested the diagnosis of peritonitis and pleurisy of the left chest. An uneventful recovery followed an illness of about 2 weeks. The peculiar stooping attitude of the patient in walking, as well as a slight spinal curvature, absence of the vesicular murmur on the left side, and a slight hacking cough, were at that time noted. According to the parents the cough had existed since childhood.

The present attack began on the morning of February 14. The patient had been out on the evening before during the severe blizzard which was at that time at its height, and had experienced great difficulty in returning home. Shortly after midnight he began to suffer pain, the principal seat of which was in the left hypochondriac region. From this point it radiated to the chest on the left side and the abdomen. There was marked tenderness at the seat of pain, but the patient presented no rise of temperature and responded quickly to a small dose of morphin, which was repeated in the afternoon. The next day the pain continued and the temperature began to rise, reaching 101° in the evening. The pulse was 122 and of good quality. The patient continued to have more or less fever, and the pain was so great that he was kept constantly under the influence of morphin. Toward evening on the 18th the bowels, which up to that time had been stubborn, moved freely, following a linseed-oil enema. He seemed much relieved and the temperature and pulse fell to normal. The relief, however, was only temporary, as all the symptoms returned on the following day. Marked tympanites developed and the pain and tenderness in the left hypochondriac region were very severe.

A diagnosis of general peritonitis, probably due to perforation of the appendix and diaphragmatic pleurisy, was at this time made after consultation with Dr. Fewsmith, of Newark. During the succeeding days the tympanites increased and the pulse became more rapid and feeble. It was impossible to induce further movement of the bowels, and retching and vomiting of a dark greenish material occurred unless the patient was under the influence of morphin. Rectal feeding was resorted to, but the enemas were not well retained after the second day. For a time the pulse was sustained by the use of strychnin, but at length the heart weakened and the patient failed rapidly. There was always some fever, but it was never high. Throughout his illness he assumed a position on the left side, with knees flexed. He died on the evening of February 24, after an illness of 10 days. The existence of a slight hacking cough during the latter part of his illness directed attention to the chest, and dulness on the left side was noted. The condition of the patient, however, was not favorable to a careful examination.

Autopsy by Dr. Prout.—The autopsy was done about 24 hours after death.

On opening the abdomen it was found filled with a dark fluid, which was apparently embalming fluid mixed with blood, fecal matter, etc. The liver extended down to about one inch below the umbilicus and the colon was displaced, the ascending colon extending upward and to the left across the abdomen. The stomach was displaced to the right The diaphragm on the left side presented decided bulging downward. The entire small intestine was absent from the abdominal cavity. Following the direction of the colon upward and to the left, it was found to pass through an aperture in the diaphragm, which had been formed behind the external tendinous arch on the left side and was about 3½ inches in its longest diameter.

On opening the chest there were found in the left chest-cavity the caput coli together with the vermiform appendix, the entire small intestine except the duodenum, the left lung completely collapsed, and the spleen. The intestines had passed through the aperture abovementioned directly into the pleural cavity, were adherent to the chest-wall and occupied the chest-cavity completely. At and immediately above the opening in the diaphragm, the intestines were somewhat inflamed and showed decided discoloration. The spleen was located on the upper surface of the diaphragm and to the right of the opening, being immediately beneath and to the left of the heart. In passing through the opening it had twisted upon itself so that the anterior notched border was directed posteriorly and the convex outer surface was directed internally. The left lung was entirely collapsed and carnified. The small intestine was moderately adherent to the chest-wall, though it was easily detached. The peritoneum was dull in appearance and in some portions covered with a slight exudate. The heart was displaced to the right to the extent of about 2 inches. The right lung was normal in appearance. The other organs of the body were found in their normal positions.

The presence of embalming fluid interfered rather seriously with the examination.

The edge of the opening in the diaphragm was carefully examined and it presented the appearance of an old tear. Microscopically, the muscular fibers along the edge were well rounded off and healed. The spleen presented a condition of chronic passive congestion. It is our opinion that the rent in the diaphragm had existed since the accident in early childhood, and the periods of severe pain from which he so frequently suffered afterward were due to attacks of intestinal strangulation.

The patient suffered at the early age of 3 years from a diaphragmatic hernia which resulted in a displacement of the spleen, the entire small intestine, the caput coli and vermiform appendix into the left chest-cavity. This condition of things existed for a period of 14 years, when an attack of strangulation of the intestine gave rise to conditions which caused his death.

INTUBATION IN DIPHTHERIA.

By THOMAS W. MOORE, M.D.,
of Huntington, W. Va.

Several years ago, after having lost 2 cases of laryngeal diphtheria, I visited an eastern city for the purpose of being instructed in intubating the larynx. I was advised not to attempt it in country practice, but when necessary to perform tracheotomy. Considering how strenuously parents object to the latter operation, and, compared with intubation, the smaller percentage of recoveries, one unhesitatingly prefers intubation, thinking that the danger of obstructed tubes and other accidents incident to it are so much less than those of the disease not mechanically treated. The textbooks are not encouraging to the country practitioner, too much stress being laid upon the possibility of membrane occluding tubes, their being coughed up, etc., etc.

Herewith is appended a record of 17 cases, 12 of which were in the country, and a country, like all mountainous districts, abounding with few of the comforts and conveniences of modern civilization. While the results leave much to be desired, they certainly offer enough promise to justify intubation (and the dangers thereof), in preference to tracheotomy—although it may be necessary sometimes to do the latter—or to leaving a previously strong and healthy child to the slim chance of drugs. Even when antitoxin is used, which should always be if before the fifth day of the disease, the patient may suffocate while awaiting its action. With the convenience of hospitals the premises are perhaps slightly modified.

Case No.	Day of Disease Inserted.	Complications.	Medical Treatment.	Tube in Larynx.	Results.	Remarks.	Age.
1	5th	Pneumonia.	Antitoxin and stimulants after fourth day.	3 hours	Death in 3 hours.	Relieved stridor. Visible membrane.	3 yrs.
2	2d	None.	Antitoxin and stimulants.	3 days	Recovery.	Visible membrane.	4 yrs.
3	6th	(Exhaustion marked.)	Mercury and stimulants after fourth day.	½ hour	Death 6 hours later.	No relief from tube. Membrane.	4 yrs.
4	3d	Pneumonia.	Mercury and iron.	2 days	Death on fifth day of disease.	Membrane.	1 yr.
5	5th	None.	Antitoxin and stimulants.	2 days	Death.	No visible membrane.	2 yrs.
6	2d	"	Calomel and stimulants, and antitoxin.	5 days	Recovery.	Coughed out tube at this time.	1 yr.
7	3d	"	Calomel and whisky.	4 days	Recovery.	Membrane.	2 yrs.
8	1st	"	Antitoxin.	3 days	Recovery.	Membrane.	5 yrs.
9	2d	"	Antitoxin.	6 days	Death on tenth day.	From paralysis (?).	5 yrs.
10	4th	Pneumonia.	Strychnin and whisky.	2 days	Death 6 hours after removal of tube.	. . . .	8 yrs.
11	1st	None.	Not known.	8 days	Recovery.	Tube had been inserted backwards, was first seen when brought to me for removal.	1 yr.
12	3d	"	Antitoxin.	½ hour	"	Tube gave no relief. Parents objected to tracheotomy.	3 yrs.
13	2d	"	"	6 days	"	. . . .	1 yr.
14	3d	"	"	26 days	"	. . . .	3 yrs.
15	1st	"	"	3 days	"	No visible membrane, but had distressing croup for 16 hours.	6 yrs.
16	1st	"	"	4 days	"	Slight membrane on tonsils.	9 mos.
17	3d	"	Calomel, antitoxin, and stimulants.	10 days	"	Physician in attendance gave 22 grains of calomel during third day; no salivation and little purging.	3 yrs.

The first and third patients were moribund when seen, and while intubation relieved the difficult breathing, the children did not rally, dying a short time afterwards. Child 10 had pneumonia, but improved for 10 hours after intubation. In case 9 death was sudden on the tenth day without apparent cause. The child had been playing about the house. Child 11 had been carelessly intubated, the tube having been forced into the larynx with the flange against the epiglottis. The only annoyance it seemed to cause was in its removal, it being very difficult to introduce the extractor. In case 12 no relief was had by the tube; tracheotomy was advised, but objected to by parents. Antitoxin and stimulants were freely given and the child recovered. Child 14 did nicely from the date of the insertion of the tube. The membrane had disappeared and the temperature was 100°, on the sixth day, so it was removed. Two hours later I was hastily summoned and found the child cyanosed and unconscious. Reintroduction produced instant relief. Removal again on tenth and twentieth days produced like results but in a lesser degree, owing to less delay. The tube was finally removed on the twenty-sixth day. Pneumonia developed in this case the following week, but the patient has since recovered.

I have not been able to account satisfactorily for the laryngeal obstruction in this case after removal of the tube. The tube used was of hard rubber and not roughened in the least, as the metallic ones so often are, on the external surface.

In case 17 there was considerable stridor 2 hours after removal, and the tube was reinserted as a safeguard, since the patient was 7 miles from office. This case was in a neighboring town where "membranous croup" (sic) has been epidemic, all previous cases having died. The doctor in attendance had grown desperate and administered over 20 grains of calomel (and one thousand units of antitoxin) during 12 hours before intubating. There was no evidence of salivation and very little purging.

The recovery in a large percentage of recent cases is due to early use of antitoxin and the tube—the physician now insisting on both at once, whereas they were formerly offered as last resorts.

ACETANILID HABIT.

BY AMELIA WEED GILMORE, M.D.,

of Auburn, N. Y.

I present a clinical experience of the prolonged daily ingestion of acetanilid which, so far as I know, is without a parallel. For a period of 20 months less 4 days there was daily use of 5 to 10 grains of the drug combined with an equal amount of sodium bicarbonate.

The patient was a slender pale woman attending to light domestic work amid luxurious surroundings.

The history is brief. She was a widow, 58 years old, a quartipara, and had had rheumatism and heart-trouble from childhood. For the past 3 years she had more or less abdominal discomfort, sometimes amounting to pain. She says she feels a weight in the pelvis and an aching in the lower part of the spine, and complains of insomnia from pain, and of constipation and bleeding from the rectum.

There is a loud mitral systolic murmur, the arteries are sclerotic, the pulse intermittent and irregular. Tenderness exists in the hypogastric region, and there is distention of the superficial veins of lower abdominal region. She has a reducible right inguinal hernia and carcinoma of the neck of the womb. (Hemorrhages had occurred at intervals during past 6 years. No offensive odor perceived.)

Acetanilid and sodium bicarbonate, $2\frac{1}{2}$ grains of each in powder, was prescribed to relieve pains at night and 1 to 2 powders were found to be sufficient for the purpose. The analgesic properties of the powders were positive and the patient would not be without them, though for 6 months the number was not increased. About this time one powder was added in the latter part of the day, as she rested better at night after its use. This was continued for another half year. Gradually, with increase of discomfort, another powder was demanded daily, making the number 4 in all.

Having a care lest an untoward accident should occur from cumulative effect I attempted several times to reduce the amount taken by substituting codein or morphia, but this my patient resented and begged so piteously for the continuance of the powders that she was allowed to have her way.

She used to say that not only the effect pleased her, but she liked the taste, and even the sight of the powder-papers was a delight to her and she could not live without them. During the last 4 months $\frac{1}{4}$ grain morphia sulfate was used daily in addition.

There were no adverse symptoms directly induced by the drug in question. Cancerous cachexia was to be expected. There was no sudden or marked change, no cyanosis and no mental aberration, as is said to occur in its prolonged administration.

Finally there was edema, beginning in the extremities, which gradually became general as the heart failed to respond to stimulation.

SYPHILITIC PERICHONDRITIS OF THE AURICLE.[1]

By RFANCIS R. PACKARD, M.D.,

of Philadelphia.

T. D., colored, male, aged 25 years, a bartender, presented himself at the Ear Dispensary of the Pennsylvania Hospital, February 23, 1899, complaining of pain and swelling of the right auricle. He said he had first begun to notice any trouble with his ear about 4 weeks previous to coming to the hospital. The swelling had been progressively increasing ever since, and the pain had become almost intolerable. The latter symptom was especially marked at night.

Examination.—The upper portion of the auricle, the helix and antihelix, were greatly swollen and the gentlest handling of the part caused much pain. No discoloration could be perceived, perhaps because of the patient's natural color.

The swollen area was distinctly outlined, corresponding with the shape and size of the cartilage at that point. The swelling fluctuated on pressure, and a slight grating sensation could be elicited by the same means. The man asserted most positively that his ear had not been injured in any way, that the swelling, as he said, "had come of itself." There was no trace about the external ear of any previous injury or furuncle.

The man had a well-marked corona veneris, and his skin presented in many places a very typical syphilitic eruption. There was marked enlargement of the postcervical glands and considerable alopecia.

He admitted having had a chancre about 12 years ago, which had been followed at times by various secondary manifestations of the disease, in spite of antisyphilitic treatment, which appears, however, to have been very irregularly submitted to by the patient. The right auricle was the only portion of either ear which presented any pathologic condition.

The patient was put upon potassium iodid, 15 grains three times a day, to be increased, and was also given an ointment of yellow mercuric oxid to rub into the affected part twice daily. No other treatment, either local or general, was directed. In one week he reported that he was free from pain, except occasionally at night, and the swelling had greatly subsided. One month later the auricle had attained its normal condition except for the presence of some hardening and thickening of the cartilage.

Various causes for perichondritis auriculæ are mentioned by the authorities. C. R. Holmes[2] states that it is not frequently encountered, and ascribes as causes traumatism, metastatic infection, furuncle, and otitis externa diffusa. Kipp[3] reports a case of bilateral perichondritis auriculæ, the result of burns of the face and scalp received 2 weeks previously. J. H. Smith[4] also reports a case consecutive to burns of the head, the condition, however, being confined to but one auricle. O. D. Pomeroy[5] saw a most interesting case, apparently of neuroparalytic origin. T. R. Pooley[6] reports a case of bilateral perichondritis auriculæ following bilateral furunculosis of the external auditory canals. R. Haug[7] reports a case of perichondritis of the auricle of tubercular origin.

Perichondritis auriculæ of syphilitic origin must be quite rare, as a careful search of literature bearing upon the subject has revealed but few cases. R. Barclay[8] reports a case in which ulceration and sequestration of cartilage of the auricle occurred as the result of syphilitic infection acquired 32 years before.

H. Mendel[9] reports the case of a woman who 8 months after contracting syphilis developed an intense cellulitis of the auricle.

The Philadelphia Medical Journal of March 4, 1899, contained a paragraph stating that a case of gumma of the helix had been seen recently at the Ricord Hospital in Paris, and had excited much attention because of its rarity.

I desire to express my thanks to Dr. George C. Harlan for his kindness in permitting me to report this case.

---

[1] Read before the Section on Otology and Laryngology, College of Physicians Philadelphia, May 17, 1899.

[2] American Text-book of Diseases of the Eye and Ear.

[3] Trans. Am. Otol. Soc., 1873, p. 79.

[4] Texas *Cour. Rec. of Med.*, 1884-5, ii, 507.

[5] *N. Y. Med. Jour.*, 1885, xli, 437.

[6] *Med. Rec.*, N. Y., 1891, xli, 148.

[7] *Arch. klin. Chir.*, 1892, xliii, 235.

[8] *Jour. Cut. and Gen.-Urin. Dis.*, March, 1888, vi, 81.

[9] *Ann. d. Mal. de l'oreille et du Larynx*, etc., 1893, xix, 407.

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